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<tr>
<td>CEC</td>
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<tr>
<td>CERCLA</td>
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<td>California Endangered Species Act</td>
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<td>Code of Federal Regulations</td>
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<td>CH₄</td>
<td>methane</td>
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<td>California Highway Patrol</td>
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<tr>
<td>CMU</td>
<td>concrete masonry unit</td>
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<tr>
<td>CNEL</td>
<td>Community Noise Equivalent Level</td>
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<tr>
<td>CO</td>
<td>carbon monoxide</td>
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</tr>
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<td>Certified Unified Program Agency</td>
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<td>California Urban Water Conservation Council</td>
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<td>CWA</td>
<td>Clean Water Act</td>
<td></td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>dB</td>
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<td>dBA</td>
<td>A-weighted decibel</td>
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<td>dust control plan</td>
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<td>equivalent dwelling unit</td>
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<td>environmental impact report</td>
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<td>United States Environmental Protection Agency</td>
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<td>Endangered Species Act</td>
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<td>FMMP</td>
<td>Farmland Mapping and Monitoring Program</td>
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<tr>
<td>GHG</td>
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</tr>
<tr>
<td>gpd</td>
<td>gallons per day</td>
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<td>gpm</td>
<td>gallons per minute</td>
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<td>HFC</td>
<td>hydrofluorocarbon</td>
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<td>HOV</td>
<td>high-occupancy vehicle</td>
<td></td>
</tr>
<tr>
<td>Hz</td>
<td>hertz</td>
<td></td>
</tr>
<tr>
<td>in/sec</td>
<td>inches per second</td>
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<td>ITE</td>
<td>Institute of Transportation Engineers</td>
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<tr>
<td>$L_{eq}$</td>
<td>energy mean (average) noise level</td>
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<td>low impact development</td>
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<td>lbs/day</td>
<td>pounds per day</td>
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<td>maximum noise level</td>
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<td>$L_{min}$</td>
<td>minimum noise level</td>
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<td>LOS</td>
<td>level of service</td>
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<td>LUST</td>
<td>leaking underground storage tank</td>
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<tr>
<td>MACT</td>
<td>maximum achievable control technology</td>
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<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
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<td>Description</td>
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<tr>
<td>MCAB</td>
<td>Mountain Counties Air Basin</td>
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<td>MCL</td>
<td>Maximum Containment Level</td>
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<td>mgd</td>
<td>million gallons per day</td>
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<td>Mitigation Monitoring and Reporting Program</td>
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<td>MMT</td>
<td>million metric tons</td>
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<td>mph</td>
<td>miles per hour</td>
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<td>National Emissions Standards for Hazardous Air Pollutants</td>
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<td>National Oceanic and Atmospheric Administration</td>
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<td>Notice of Preparation</td>
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<td>NO₂</td>
<td>nitrogen dioxide</td>
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<td>NOₓ</td>
<td>nitrogen oxide</td>
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<td>National Pollutant Discharge Elimination System</td>
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<td>Northern Sierra Air Quality Management District</td>
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<td>nitrous oxide</td>
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<td>State Office of Emergency Services</td>
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<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
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<td>O₃</td>
<td>ozone</td>
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<td>PCB</td>
<td>polychlorinated biphenyl</td>
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<td>PFC</td>
<td>perfluorocarbon</td>
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<td>PG&amp;E</td>
<td>Pacific Gas and Electric</td>
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<td>Phase I ESA</td>
<td>Phase I Environmental Site Assessment</td>
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<tr>
<td>PM</td>
<td>particulate matter</td>
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<td>PM₁₀</td>
<td>coarse particulate matter (≤10 microns)</td>
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<tr>
<td>PM₂.₅</td>
<td>fine particulate matter (≤2.5 microns)</td>
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<td>Abbreviation</td>
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<tr>
<td>ppm</td>
<td>parts per million</td>
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<td>ppv</td>
<td>peak particle velocity</td>
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<td>PRC</td>
<td>Public Resources Code</td>
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<tr>
<td>PVC</td>
<td>polyvinyl chloride</td>
<td></td>
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<td>RCRA</td>
<td>Resource Conservation and Recovery Act of 1976</td>
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<tr>
<td>REC</td>
<td>recognized environmental condition</td>
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<td>REF</td>
<td>residential equivalency factor</td>
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<td>ROG</td>
<td>reactive organic gases</td>
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<td>RTIP</td>
<td>Regional Transportation Improvement Program</td>
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<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
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</tr>
<tr>
<td>SB</td>
<td>Senate Bill</td>
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<td>SEMS</td>
<td>Standardized Emergency Management System</td>
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<td>SF₆</td>
<td>sulfur hexafluoride</td>
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<td>SIP</td>
<td>State Implementation Plan</td>
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<tr>
<td>SO₂</td>
<td>sulfur dioxide</td>
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<td>SSO</td>
<td>sanitary sewer overflow</td>
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<td>SWPPP</td>
<td>stormwater pollution prevention plan</td>
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<tr>
<td>SWRCB</td>
<td>State Water Resources Control Board</td>
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<tr>
<td>TAC</td>
<td>toxic air contaminant</td>
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<tr>
<td>TBACT</td>
<td>toxics best available control technology</td>
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<tr>
<td>TDS</td>
<td>total dissolved solids</td>
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<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
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</tr>
<tr>
<td>TSS</td>
<td>total suspended solids</td>
<td></td>
</tr>
<tr>
<td>UBC</td>
<td>Uniform Building Code</td>
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<tr>
<td>UGB</td>
<td>Urban Growth Boundary</td>
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<td>United States Army Corps of Engineers</td>
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</tr>
<tr>
<td>USC</td>
<td>United States Code</td>
<td></td>
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<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
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<td>USDA-SCS</td>
<td>USDA Soil Conservation Service</td>
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<td>United States Department of Energy</td>
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<td>USFS</td>
<td>United States Forest Service</td>
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<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Service</td>
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</tr>
<tr>
<td>USGS</td>
<td>United States Geological Survey</td>
<td></td>
</tr>
<tr>
<td>UST</td>
<td>underground storage tank</td>
<td></td>
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<tr>
<td>UWMP</td>
<td>Urban Water Management Plan</td>
<td></td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td></td>
</tr>
<tr>
<td>VMT</td>
<td>vehicle miles traveled</td>
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<tr>
<td>VOC</td>
<td>volatile organic compounds</td>
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<tr>
<td>WDR</td>
<td>waste discharge requirement</td>
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<td>WSA</td>
<td>water supply assessment</td>
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<td>WTP</td>
<td>wastewater treatment plant</td>
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ES EXECUTIVE SUMMARY
This section provides an overview of the project and the environmental analysis. For detail regarding specific issues, consult the appropriate section of the environmental analysis (i.e., Section 4.0 through Section 15.0).

**ES1  PURPOSE AND SCOPE OF THE ENVIRONMENTAL IMPACT REPORT**

The County of Nevada (County), acting as the lead agency, has prepared this draft environmental impact report (Draft EIR) to provide the public and responsible and trustee agencies with information about the potential environmental effects of constructing and operating: (1) the Alta Sierra Dollar General project; (2) the Penn Valley Dollar General project; and, (3) the Rough and Ready Highway Dollar General project (collectively referred to as the proposed projects or projects). The impacts of each of the projects are considered individually in this Draft EIR. While each Dollar General store represents a separate project under CEQA, the County has determined that all three stores should be analyzed in a single EIR to ensure that the cumulative impacts associated with all three stores are adequately considered.

**ES2  PROJECT SUMMARY**

**PROJECT LOCATION**

The Alta Sierra site is located east of SR 49 and south of Grass Valley, in the community of Alta Sierra between Alta Sierra Drive and Little Valley Road. The Alta Sierra site consists of three parcels, one of which would be developed with the proposed store, and two of which would be developed with an off-site septic system. The store parcel is vacant, is covered entirely with montane hardwood-conifer forest, and is situated on a hillside that generally slopes to the south. The off-site parcels immediately north of the store parcel are developed with commercial uses. To the south is additional commercial development, and Alta Sierra Drive and Little Valley Road are located to the west and east, respectively. West of Alta Sierra Drive are two undeveloped parcels zoned Community Commercial (C1), while east of Little Valley Road are rural residential uses.

The Penn Valley site is located north of Penn Valley Drive and south of SR 20 in the community of Penn Valley. The parcel is vacant and slopes gently north towards Squirrel Creek. Vegetation on the flat site is dominated by annual grassland and a scattering of trees. There are some wetlands. The Penn Valley site is surrounded on three sides by a mix of residential and non-residential development.

The Rough and Ready Highway site is located in a rural residential neighborhood directly south of Rough and Ready Highway at the southwest corner of the highway and West Drive. The project site is a level parcel that has an existing commercial building that would be demolished as a part of the project development. The site contains mostly non-native varieties of horticultural plants, with the exception of a few pine trees.

**PROJECT CHARACTERISTICS**

Each Dollar General store would have the same building square footage and would be similar in total developed area. Table ES-1 summarizes the attributes for each project.
While the footprints of the proposed buildings are the same for each of the stores, the exterior design elements differ slightly. The exterior design of each of the buildings is based on a western motif. Proposed parking also differs at each site depending on the lot size and configuration and building layout. As allowed by Nevada County Land Use and Development Code Section L-II 4.2.9.F.12, for those sites that provide less than the required parking of 46 spaces (Alta Sierra and Rough and Ready Highway sites), the applicant has provided a parking study prepared by a registered traffic engineer that demonstrates that the proposed parking would meet demand.

Lighting for the proposed projects would be designed in accordance with the Nevada County Code. Landscaping would be provided for each of the projects. Each of the proposed projects would set aside a portion of the respective project site as permanent open space in accordance with Nevada County Code.

Potable water for all three sites would be provided by the Nevada Irrigation District (NID). Off-site construction within the existing roadway is necessary to connect the Alta Sierra site to water infrastructure. No off-site construction for connection to water infrastructure is necessary for the Penn Valley and Rough and Ready Highway sites.

Wastewater treatment and disposal would be provided through septic systems at the Alta Sierra and Rough and Ready Highway sites. The Penn Valley site would connect to the Nevada County Sanitation District-Penn Valley sewer system through existing sewer lines within Penn Valley Drive adjacent to the site.

Storm drainage for each of the sites would include on-site detention, which would ultimately flow into off-site storm drainage ditches or washes. Each project would be designed to maintain post-project surface drainage flows at pre-project levels.

PERMITS AND APPROVALS

Nevada County will use this EIR in considering approval of each of the proposed projects. In accordance with CEQA Guidelines Section 15126, the EIR will be used as the primary environmental document in consideration of all subsequent planning and permitting actions associated with each project, to the extent such actions require CEQA compliance. These County actions, both discretionary and ministerial, include but are not limited to the following:

- Development Permit
- Lot Line Adjustment (Penn Valley site)
• Aquatic Resources Management Plan (Penn Valley site)
• Oak Management Plan (Alta Sierra site)
• Certificate of Compliance (Penn Valley site)
• Building Permit
• Grading Permit

In addition to the above County actions, each of the projects may require approvals, permits, and entitlements from other public agencies for which this EIR may be used, including, without limitation, the following:

• California Department of Transportation, District 3
• California Department of Fish and Wildlife, Region 2
• Central Valley Regional Water Quality Control Board (Region 5)
• Northern Sierra Air Quality Management District
• State Water Resources Control Board
• US Army Corps of Engineers
• US Fish and Wildlife Service

**ES3 Environmental Review Process**

In accordance with Section 15082 of the CEQA Guidelines, the County prepared a Notice of Preparation (NOP) of an EIR for the project on January 6, 2016. The NOP was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project. A separate scoping meeting was held for each project and a fourth meeting was held before the Planning Commission for all of the projects on the following dates:

• January 19 (Alta Sierra)
• January 25 (Penn Valley)
• January 20 (Rough and Ready Highway)
• January 29 (all projects)

The scoping meetings were held to solicit input from the public and interested agencies. Concerns raised in response to the NOP and at the scoping meeting were considered during preparation of the Draft EIR. The 30-day comment period closed on February 4, 2016.

Upon completion of the Draft EIR, the County will file the Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code Section 21161).
Concurrent with the NOC, the County will provide public notice of the availability of the Draft EIR for public review and invite comment from the general public, agencies, organizations, and other interested parties. Public comment on the Draft EIR will be accepted in written form via common carrier or via electronic mail (e-mail). Public comment will also be accepted orally at public hearings. Notice of the time and location of the hearing will be published prior to the hearing. All comments or questions regarding the Draft EIR should be addressed to:

Tyler Barrington, Principal Planner
Planning Department
Nevada County Community Development Agency
950 Maidu Avenue, Suite 170
Nevada City, CA 95959
Phone: (530) 470-2723
E-mail: Tyler.Barrington@co.nevada.ca.us

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period and contain any revisions to the Draft EIR.

**ES4 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED**

Concerns raised in response to the NOP were considered during the preparation of the Draft EIR. Major issues addressed in the project comments are summarized below. The list does not summarize all comments received on the project but is intended to represent commonly received comments on key issues of concern. A detailed list of comments is provided in Section 1.8 in the Draft EIR.

**ALTA SIERRA PROJECT**

- Aesthetics (height, design, retaining wall, nighttime lighting) and overall visual compatibility with surroundings
- Loss of oak trees on the site and effects on wildlife
- Consistency with land use designations
- Noise and diesel fumes from delivery trucks
- Traffic hazards related to site access, size of delivery trucks, and truck turning movements on Alta Sierra Drive
- Stormwater runoff and water quality impacts on existing drainage systems
- Project alternatives
- Economic impact on community

**PENN VALLEY PROJECT**

- Potential impacts on Squirrel Creek
- Impact of noise on adjacent Creekside Mobile Home Park
ES EXECUTIVE SUMMARY

- Truck turning movements on Penn Valley Drive
- Should test for hazardous materials contamination

ROUGH AND READY HIGHWAY PROJECT

- Aesthetics (design, height, nighttime lighting) and overall visual compatibility with surroundings
- Land use compatibility with surrounding rural residential development
- Noise from delivery trucks and customer parking lot
- Water pressure and availability of water to residences in case of fire
- Effect on groundwater from septic system
- Stormwater runoff and water quality impacts on existing drainage systems
- Traffic hazards related to site access, size of delivery trucks, truck turning movements, and potential conflicts with pedestrian/bicycle traffic on Rough and Ready Highway
- Potential for trucks to use adjacent residential neighborhood roadways
- Economic and quality of life impacts

ES5 PROJECT ALTERNATIVES SUMMARY

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project that could feasibly attain the basic objectives of the project and reduce the degree of environmental impact. Section 16.0, Project Alternatives, provides a qualitative analysis of alternatives for each of the projects:

- Alternative 1a – No Project/No Build Alternative
- Alternative 1b – No Project/Other Development
- Alternative 2 – Reduced Project
- Alternative 3 – Off-Site Alternative

ES6 SUMMARY OF ENVIRONMENTAL IMPACTS

Tables ES-2, ES-3, and ES-4 present a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts for the Alta Sierra, Penn Valley, and Rough and Ready Highway projects, respectively. In the tables, the level of significance is indicated both before and after the implementation of mitigation measures.

For detailed discussions of all mitigation measures and policies that would provide mitigation for each type of environmental impact addressed in this Draft EIR, refer to the appropriate environmental topic section (i.e., Sections 4.0 through 15.0).
ES EXECUTIVE SUMMARY

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The significant and unavoidable impacts identified in the Draft EIR are:

ALTA SIERRA SITE

- Substantial changes in visual character of the site and surroundings

ROUGH AND READY HIGHWAY SITE

- Substantial changes in visual character of the site and surroundings
- Incompatibility with surrounding residential uses

There are no significant and unavoidable impacts identified for the Penn Valley site.
### Table ES-2
**Alta Sierra Project: Summary of Environmental Impacts and Mitigation Measures**

<table>
<thead>
<tr>
<th>Impact</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measure</th>
<th>Resulting Level of Significance</th>
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<tbody>
<tr>
<td><strong>Aesthetics</strong></td>
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<tr>
<td><strong>Impact 4.1.1(AS)</strong> Development of the Alta Sierra project site as proposed would convert vacant land to commercial development. Such a conversion would fundamentally alter the visual character of the site.</td>
<td></td>
<td><strong>MM AS-4.1.1a</strong> The proposed building design shall be modified to better comply with the Western Nevada County Design Guidelines to create greater visual interest and to break up the mass of building and the roofline. Design modifications could include the incorporation of structural bays, roof overhangs, awnings, and other details along the buildings eastern and southern exterior walls as well as varying the roofline so that it transitions from the height of adjacent buildings to the maximum height of the proposed building and articulating the flat roofline with cornices. No windows shall be added to the buildings eastern or southern exterior walls.</td>
<td><strong>SU</strong></td>
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NI – no impact  
LS – less than significant impact  
PS – potentially significant impact  
S – significant impact  
SU – significant and unavoidable impact  
LCC – less than cumulatively considerable impact  
CC – cumulatively considerable impact
## ES Executive Summary

<table>
<thead>
<tr>
<th>Impact 4.1.2(AS) Development of the Alta Sierra project site as proposed would introduce new sources of light and glare.</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measure</th>
<th>Resulting Level of Significance</th>
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<td>the trees to be retained have been properly marked in the field and protected during the first grading inspection. Construction personnel shall be made aware of these protected trees and the significance of the field markings and protection measures by the general contractor prior to commencing construction activities to minimize potential direct and indirect impacts.</td>
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<td></td>
<td></td>
<td>MM AS-4.1.1c To minimize potential conflicts between the commercial use of this site and existing residential uses east of Little Valley Road, the developer shall revise project plans to either (1) add a third six foot tall split block face wall designed consistently with other existing walls in the area that will fill the gap shown on the preliminary plans or (2) connect the two proposed screen walls to completely screen the parking lot area. Prior to issuance of final occupancy, the Planning Department shall verify in the field that the wall has been constructed consistent with the approved plans.</td>
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<td>MM AS-4.1.1d The developer shall revise project plans and elevations to include the use of channel letter signage. Cabinet-style signage shall be prohibited. Prior to issuance of final occupancy, the Planning Department shall verify in the field that project signage is consistent with the approved plans.</td>
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</tr>
<tr>
<td>Impact 4.1.2(AS) Development of the Alta Sierra project site as proposed would introduce new sources of light and glare.</td>
<td>PS</td>
<td>MM AS-4.1.2a Prior to building permit issuance, the developer shall submit a final Site Lighting Plan/Photometric Detail that demonstrates that all light spill will be retained on the project site. Potential methods for reducing light trespass onto neighboring roads and properties include replacing</td>
<td>LS</td>
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NI – no impact  LS less than significant impact  PS – potentially significant impact  S – significant impact  SU – significant and unavoidable impact  LCC – less than cumulatively considerable impact  CC – cumulatively considerable impact
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<td>the two 400-watt light fixtures located on the southwest and southeast corners of the building with light fixtures of lesser wattage and/or providing additional screening of those features. Additionally, for the northern parking lot lighting, similar or alternative methods, such as reducing the wattage of the lighting fixture or moving the pole farther into the interior of the site, shall be utilized to ensure all new lighting and glare is kept on site. The developer shall install and maintain all lighting consistent with the approved Final Site Lighting Plan. Prior to issuance of final occupancy, the Planning Department shall perform a site visit, during the dark hours, to verify that the installed lighting does not trespass onto neighboring roads or properties.</td>
<td>CC/S</td>
<td>None available.</td>
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</tbody>
</table>

**Impact 4.4.1 (AS)** The Alta Sierra project site is located in a largely developed rural commercial center surrounded by rural residential development and a highway. Cumulative development in the area would substantially alter the existing visual character of the area and generate substantial new light or glare.

**Air Quality**

**Impact 5.1.1 (AS)** Construction activities associated with the Alta Sierra site such as clearing, excavation and grading operations, construction vehicle traffic, and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses.

|        | MM AS-5.1.1a The Alta Sierra construction contractor shall submit to the NSAQMD for approval an Off-Road Construction Equipment Emission Reduction Plan prior to ground breaking demonstrating the following:  
• All off-road equipment (portable and mobile) meets or is cleaner than Tier 2 engine emission specifications unless prior written approval for any exceptions is obtained from the NSAQMD. Note that all off-road equipment must meet all applicable state and federal requirements. | PS | LS |

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<tr>
<td>• Emissions from on-site construction equipment shall comply with NSAQMD Regulation II, Rule 202, Visible Emissions.</td>
<td>• The primary contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained.</td>
<td>• Emissions from on-site construction equipment shall comply with NSAQMD Regulation II, Rule 202, Visible Emissions.</td>
<td>• Emissions from on-site construction equipment shall comply with NSAQMD Regulation II, Rule 202, Visible Emissions.</td>
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<tr>
<td>• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes when not in use (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.</td>
<td>• All construction equipment shall be maintained and properly tuned in accordance with manufacturers’ specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</td>
<td>• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes when not in use (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.</td>
<td>• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes when not in use (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.</td>
</tr>
<tr>
<td>• Existing power sources (e.g., power poles) or clean fuel generators shall be utilized rather than temporary power generators (i.e. diesel generators), where feasible.</td>
<td>• Deliveries of construction materials shall be scheduled to direct traffic flow to avoid the peak hours of 7:00–9:00 AM and 4:00–6:00 PM.</td>
<td>• Existing power sources (e.g., power poles) or clean fuel generators shall be utilized rather than temporary power generators (i.e. diesel generators), where feasible.</td>
<td>• Deliveries of construction materials shall be scheduled to direct traffic flow to avoid the peak hours of 7:00–9:00 AM and 4:00–6:00 PM.</td>
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<tr>
<td>• The primary contractor shall use architectural coatings for the proposed structure that have a volatile organic compound (VOC) content no greater than 50 grams per liter of VOC.</td>
<td></td>
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<td>provided below to the satisfaction of the NSAQMD. Prior to issuance of grading permits, the developer shall provide a copy of the approved DCP to the County Planning and Building Department and shall include the requirements of DCP as notes on all construction plans. The Building Department shall verify that the requirements of the DCP are being implemented during grading inspections. Alternatives to open burning of vegetation material on the project site shall be used by the project applicant unless deemed infeasible to the Air Pollution Control Officer (APCO). Among suitable alternatives is chipping, mulching, or conversion to biomass fuel. 1. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction. 2. All material excavated, stockpiled or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage. 3. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions. 4. All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph. 5. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.</td>
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## Impact Summary

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<tr>
<td>6. All inactive disturbed portions of the development site shall be covered, seeded or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying non-toxic soil stabilizers to all inactive construction areas.</td>
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<td>7. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.</td>
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<td>8. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to removed excessive accumulation of silt and/or mud which may have resulted from activities at the project site.</td>
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<td>9. If serpentine or ultramafic rock is discovered during grading or construction, the District must be notified no later than the next business day and the California Code of Regulations, Title 17, Section 9315 applies.</td>
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<tr>
<td>MM AS-5.1.1c To ensure that the project will not result in the significant generation of VOCs, all architectural coatings shall utilize low-VOC paint (no greater than 50g/L VOC). Prior to building permit issuance, the developer shall submit their list of low-VOC coatings to the NSAQMD for review and approval. The developer shall then provide written verification from NSAQMD that all architectural coatings meet NSAQMD thresholds to be considered “low-VOC.” Finally, all building plans shall include a note documenting which low-VOC architectural coatings will be used in construction.</td>
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**Impact 5.1.2(AS)** The Alta Sierra project would not result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards.

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<tr>
<td>PS</td>
<td>MM AS-5.1.2 The project applicant shall obtain an Authority to Construct Permit from NSAQMD for any source of air contaminants that exist after construction that is not exempt from District</td>
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<tr>
<td>Impact 5.1.3(AS) The Alta Sierra project would not contribute to localized concentrations of mobile-source carbon monoxide that would exceed applicable ambient air quality standards.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 5.1.4(AS) The proposed Alta Sierra project would not result in increased exposure of existing sensitive land uses to construction-source pollutant concentrations that would exceed applicable standards.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 5.1.5(AS) Operation of the Alta Sierra project would not result in increased exposure of existing or planned sensitive land uses to operational-source toxic air contaminant emissions (i.e., diesel PM).</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 5.1.6(AS) The proposed Alta Sierra project would not include sources that could create objectionable odors affecting a substantial number of people or expose new residents to existing sources of odor.</td>
<td>NI</td>
<td>None required.</td>
<td>NI</td>
</tr>
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</table>
| Impact 5.4.1 The proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in the Mountain Counties Air Basin, would contribute to cumulative increases in emissions of ozone-precursor pollutants (ROG and NOx) and PM10 that could contribute to future concentrations of ozone and PM10, for which the region is currently designated nonattainment. | CC/S | Implement mitigation as follows:  
Alta Sierra project: Implement mitigation measure MM AS-5.1.1a.  
Penn Valley project: Implement mitigation measure MM PV-5.2.1a.  
Rough and Ready Highway project: Implement mitigation measure MM RR-5.3.1a. | LCC |
| Biological Resources | | | |
| Impact 6.1.1(AS) The Alta Sierra project site does not provide suitable habitat for any special status plant species that may occur in the vicinity. | NI | None required. | NI |
| Impact 6.1.2(AS) Project-related activities could result in loss of habitat for northern goshawk, other nesting raptors, and migratory birds. | PS | MM AS-6.1.2 If construction is proposed during the breeding season (February–August), a focused | LS |

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<tr>
<td>survey for raptors and other migratory bird nests shall be conducted within 14 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests on-site. If active nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. This 500-foot construction prohibition zone may be reduced based on consultation with and approval by the California Department of Fish and Wildlife. Trees containing nests or cavities that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to January). If no active nests are found during the focused survey, no further mitigation will be required. To the extent feasible, necessary tree removal should occur outside of the typical nesting season to minimize or avoid adverse effects to all nesting birds.</td>
<td>MM AS-6.1.3a Construction activities, such as grading, shall avoid impacts to existing mature trees and other native vegetation to the maximum extent possible. Mature trees and native vegetation shall be marked as Environmentally Sensitive Areas (ESA) and the project site should be designed to avoid these areas where feasible. All ESAs shall be fenced with orange fencing and maintained until project completion. In addition, any tree and native vegetation that is to be retained shall be shown on the final landscaping plans. MM AS-6.1.3b Seventeen trees (10 oaks and 7 pines) are to be retained. The developer shall flag the trees to ensure their protection. The Building Department shall verify the trees to be retained have been properly marked and construction personnel should be made aware of these trees in</td>
<td>PS</td>
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</table>

Impact 6.1.3(AS) Project-related activities could result in loss of landmark oak groves and landmark oak trees.

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### Impact Summary

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<td>order to minimize direct and indirect impacts. In addition, a note shall be included on all plans and specifications stating that “The existing ground surface within 6 feet of the drip line of any oak tree and within 10 feet of the dripline of any landmark oak tree to be preserved shall not be cut, filled, compacted or pared.” A qualified biologist, botanist, professional forester, or certified arborist shall be consulted prior to any excavation that will occur adjacent to any oak tree that is to be retained to ensure that there will be no damage to the root system. Exceptions may be approved by the Nevada County Planning Department based on consultation with a qualified professional resulting in reasonable assurance that they tree will not be damaged. MM AS-6.1.3c For oak trees that are to be retained on any of the three parcels, the following measures shall be taken to prevent impacts during and after construction activities. 1. Plans and specifications shall clearly state protection procedures for oaks on the project site. The specification shall also require contractors to stay within designated work areas and shall include provisions for penalties if the retained oak trees are damaged; 2. Protective fencing not less than 4 feet in height shall be placed at the limits of the protective root zone of any individual oak tree or stand to remain, whether it is a Landmark oak or a small cluster of oak trees within 50 feet of the grading limits, and shall be inspected by the contractor prior to commencement of any grading activity on site, and shall remain in place until construction is completed;</td>
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<td>3. Damage to oak trees during construction shall be immediately reported to the Nevada County Planning Department. The contractor shall be responsible for correcting any damage to oak trees that will be retained on the property in a manner specified by a qualified professional.</td>
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<tr>
<td>4. Equipment damage to limbs, trunks, and roots of all retained trees shall be avoided during project construction and development. Even slight trunk injuries can result in susceptibility to long-term pathogenic maladies.</td>
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<tr>
<td>5. Grading restrictions near protective root zones shall limit grade changes near the protected root zone of any oak tree to be retained. Grade changes can lead to plant stress from oxygen deprivation or oak root fungus at the root collar of oaks. Minor grade changes further from the trunk are not as critical but can negatively affect the health of the tree if not carefully monitored by a County approved professional.</td>
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<tr>
<td>6. The root protective zone grade shall not be lowered or raised around the trunks (i.e. within the protective zone) of any oak tree to be retained. A County approved professional shall supervise all excavation or grading proposed within the protective zone of a tree, and/or the excavation, or clearance of vegetation within the protective zone of an oak tree shall be accomplished by the use of hand tools or small hand-held power tools. Any major roots encountered shall be conserved to the greatest extent possible and treated as recommended by the professional.</td>
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<td>7. Utility trenches shall not be routed within the protective zone of an oak tree unless no feasible</td>
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<td>alternative locations are available, and shall be approved by a County approved professional.</td>
<td>8. No storage of equipment, supplies, vehicles, or debris shall be permitted within the protective root zone of any retained tree.</td>
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<td>9. No dumping of construction wastewater, paint, stucco, concrete, or any other cleanup waste shall occur within the protective zone of an oak tree.</td>
<td>10. No temporary structures shall be placed within the protective zone of any retained oak tree.</td>
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<td>11. Necessary drains shall be installed according to County specifications so as to avoid harm to the oak trees due to excess watering.</td>
<td>12. Wires, signs, and other similar items shall not be attached to the oak trees.</td>
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**MM AS-6.1.3d** Prior to the start of construction activities, a qualified biologist, botanist, registered forester or certified arborist (qualified professional) shall schedule a field meeting to inform the construction personnel where all protective zones are and the importance of avoiding encroachment into the protective zones. A signed affidavit documenting the meeting shall be provided prior to the issuance of project permits. Additionally, a qualified professional shall periodically monitor on-site construction activities to ensure that damage to retained oak trees does not occur. Prior to scheduling final inspection for the grading, pipe trenching, septic placement, retaining walls, and building foundation, the developer shall provide a brief report from the qualified professional documenting the findings in the monitoring.

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<td>MM AS-6.1.3e Prior to the issuance of any grading or improvement permits for the project, the applicant shall pay $42,900 in mitigation costs to the Bear Yuba Land Trust (BYLT) for replanting, management, and restoration of black oak habitat on the Clover Valley Preserve Property located on the eastern side of the Alta Sierra subdivision 2 air miles from the project site. The BYLT shall implement the restoration plan consistent with the approach outlined in the Appendix B of the Oak Resources Management Plan (Appendix 6.0-AS), which includes but is not limited to planting approximately 220-250 black oak seedlings with a goal of a 60% survival rate; monitoring for the first 5 years following replanting; and restoration of the existing oak woodlands. Prior to issuance of grading or improvement permits, the developer and the BYLT shall also enter into a contractual agreement that must be reviewed and approved by the Nevada County Planning Department prior to finalization. Once finalized, the agreement shall be submitted to the Nevada County Planning Department and will be kept on file. The contractual agreement shall outline the specific steps of the Restoration Project that will occur, consistent with Appendix B of the Oak Tree Management Plan, including a clause to trigger the attachment of a conservation easement on the property if the BYLT should ever transfer the property to non-land trust ownership. In addition, the contractual agreement shall provide specific steps for annual monitoring of the success of the project and reporting to the County Planning Department by a qualified professional.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
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**Impact 6.1.4(AS)** The proposed Alta Sierra project would not interfere with the movement of native resident or migratory wildlife species.

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### Impact 6.1.5(AS)

Development of the project site could result in the loss of landmark oak trees and groves, which could conflict with the Nevada County General Plan.

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<tr>
<td>Impact 6.1.5(AS)</td>
<td>PS</td>
<td>MM AS-6.1.5 Prior to issuance of a tree removal or grading permit, a Habitat Management Plan for high-canopy-coverage (landmark) oak woodlands shall be submitted and approved by County staff. Specifications of the Habitat Management Plan shall not conflict with provisions of fire protection plans, but shall include the following compensatory mitigation and habitat protection actions:</td>
<td>PS</td>
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</table>

- Because the project site is not capable of supporting replacement trees on-site, restoration of oak woodland shall be completed by paying into the Nevada County Tree Preservation Fund. Fund monies received in lieu of replacement trees shall be used for the planting and maintenance of trees on publicly owned property, or for the purchase of replacement habitat at a ratio of 2:1 for all acreage of landmark oak grove that is removed from the project site. Restoration shall be implemented in areas of existing non-native grassland that are suitable for the regeneration of high-canopy-coverage oak woodland and that are selected to be appropriate to enhance the overall ecological values of the adjoining habitats. The majority of the restoration areas shall be selected with a preference for regeneration of black oak woodland.

- Implementation of habitat management actions that will minimize the likelihood that wildfire will completely destroy the protected oak stands and preclude rapid natural regeneration. The purpose of active management (fuel reduction) is to reduce ground-level, understory, and lower-canopy fuels sufficiently that the intensity of inevitable future wildfire is sufficiently reduced so that the post-fire regeneration is

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### Impact 6.1.6(AS)
The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Relatively rapid. This shall be achieved without removal of all smaller trees, which would prevent recruitment of new trees to the canopy and would ultimately eliminate the desired values for which the area is being preserved.

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Impact 6.1.6(AS)</td>
<td>NI</td>
<td>Implement mitigation as follows:</td>
<td>NI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alta Sierra project: Implement mitigation measures MM AS-6.1.3a through MM AS-6.1.3e</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Penn Valley project: Implement mitigation MM PV-6.2.4.</td>
<td>LCC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rough and Ready Highway project: None required.</td>
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</table>

### Cultural Resources

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<tr>
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</thead>
<tbody>
<tr>
<td>Impact 7.1.1 (AS)</td>
<td>NI</td>
<td>None required.</td>
<td>NI</td>
</tr>
<tr>
<td>Impact 7.1.2 (AS)</td>
<td>PS</td>
<td>MM AS-7.1.2 In the event cultural materials or human remains are discovered during project construction, the construction contractor shall halt work and contact the appropriate agencies. All equipment operators and persons involved in any form of ground disturbance at any phase of project improvements shall be advised of the possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately within 200 feet of the suspected resource and the Nevada County Planning Department shall be contacted. A professional archaeologist shall be retained by the</td>
<td>LS</td>
</tr>
</tbody>
</table>
### Impact 7.1.3 (AS)

Ground disturbing construction activities associated with the proposed project could inadvertently disturb human remains, including Native American remains. Compliance with existing regulations would ensure proper treatment of any discovered human remains.

**Level of Significance Before Mitigation**: PS

**Mitigation Measure**: Implement mitigation measure MM AS-7.1.2.

**Resulting Level of Significance**: LS

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### Impact 7.4.1

Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative cultural resource impacts.

**Level of Significance Before Mitigation**: LCC

**Mitigation Measure**: None required.

**Resulting Level of Significance**: LCC

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### Geology and Soils

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### Impact 8.1.1 (AS)

The Alta Sierra project site is located in an area that would be subject to seismic hazards.

**Level of Significance Before Mitigation**: PS

**Mitigation Measure**: MM AS-8.1.1a Prior to grading permit issuance, the project applicant shall provide a final Geotechnical Engineering Report to the Nevada County Building and Planning Departments that reflects the final site plan. The Building Department shall be responsible for reviewing the final site plan and final Geotechnical Engineering Report to ensure that they are consistent with both local and building code requirements. MM AS-8.1.1b Prior to grading or building permit issuance, the developer shall include the grading

**Resulting Level of Significance**: LS

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</thead>
<tbody>
<tr>
<td>Impact 8.1.2 (AS) Development of the Alta Sierra site could result in temporary erosion.</td>
<td>PS</td>
<td>and structural improvement design criteria recommendations of the Final Geotechnical Engineering Report as noted on improvement plans and incorporate those recommended actions into the final project design. The Nevada County Building Department shall verify that the recommendations are being implemented during the plan review and inspection stages of the permit process.</td>
<td>LS</td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>Impact 8.1.3 (AS)  The Alta Sierra site may include soils that may be subject to expansion potential.</td>
<td>PS</td>
<td>Implement mitigation measures <strong>MM AS-8.1.1a</strong> and <strong>MM AS-8.1.1b.</strong></td>
<td>LS</td>
</tr>
<tr>
<td>Impact 8.1.4 (AS)  Wastewater treatment and disposal at the Alta Sierra site would rely through a septic system.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 8.4.1  Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative geologic and soils impacts.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td><strong>Greenhouse Gas Emissions</strong></td>
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<tr>
<td>Impact 9.1.1 (AS) The Alta Sierra project would generate greenhouse gas emissions.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td><strong>Hazards and Hazardous Materials</strong></td>
<td></td>
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</tr>
<tr>
<td>Impact 10.1.1 (AS) Construction and occupancy of the Alta Sierra site would involve the use of hazardous materials.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 10.1.2 (AS) Development of the Alta Sierra site would not encounter known hazardous materials contamination.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 10.1.3 (AS) Development of the Alta Sierra site would not affect emergency response plans.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 10.1.4 (AS) Development of the Alta Sierra site would result in a new building in a high fire hazard severity zone.</td>
<td>PS</td>
<td>MM AS-10.1.4 Prior to issuance of grading and building permits for the project, the County shall ensure the following is completed: 1. The applicant shall provide written verification to the Nevada County Consolidated Fire District of 1,500-gallons-per-minute (gpm) fire flow. A fire hydrant shall be installed on-site to supplement the existing hydrant on Alta Sierra Drive. The location of the hydrant shall be shown on project plans and shall be subject to Nevada County Consolidated Fire District approval. 2. An approved fire sprinkler system shall be installed throughout the entire building to achieve the 1,500 gpm fire flow and shall be monitored by an approved fire alarm system. 3. If alternative means of providing necessary fire flow are necessary, the applicant shall submit a plan to the Nevada County Consolidated Fire District for review and approval, and the County shall ensure project design incorporates the approved features.</td>
<td>LS</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td><strong>Impact 10.4.1</strong> Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative hazards and hazardous materials impacts.</td>
<td>CC/S</td>
<td>Implement mitigation as follows: Alta Sierra project: None required. Penn Valley project: None required. Rough and Ready Highway project: Implement mitigation measures MM RR-10.3.2a and MM RR-10.3.2b.</td>
<td>LCC</td>
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</table>

### Hydrology and Water Quality

<table>
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<tbody>
<tr>
<td><strong>Impact 11.1.1 (AS)</strong> Development of the Alta Sierra site would result in an increase in the rate and amount of stormwater runoff and would contribute urban pollutants to stormwater runoff.</td>
<td>PS</td>
<td>MM AS-11.1.1a The construction and grading permits shall comply with the applicable NPDES regulations. Prior to grading permit issuance, obtain a General Permit for Storm Water Discharges Associated with the construction activity and provide a copy of the permit to the County Planning, Building and Public Works Departments. Grading plans shall include verification that an NPDES permit, issued by the State Water Resources Board, has been issued for this project. To protect water quality, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to, the following: 1. At no time shall heavy equipment operate in flowing water. 2. Disturbed areas shall be graded to minimize surface erosion and siltation; bare areas will be covered with mulch; cleared areas will be revegetated with locally native erosion control seed mix. 3. The contractor shall exercise every reasonable precaution from adding pollution to offsite</td>
<td>LS</td>
</tr>
</tbody>
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<td></td>
<td>waterways with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the offsite drainages and shall be collected and removed from the site.</td>
<td>4. Erosion control measures shall be applied to all disturbed slopes. No invasive non-native grasses shall be used for erosion control, such as velvet grass or orchard grass. A combination of rice straw wattles, a mulch of native straw or certified weed-free straw, and a planting of native plant species is recommended.</td>
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<td></td>
<td>5. Silt fencing (or filter fabric) shall be used to catch any short-term erosion or sedimentation that may inadvertently occur. Silt-fencing should be installed well above the offsite drainages and extend beyond the construction zone if necessary. The use of standard straw is prohibited to avoid introduction of noxious weeds, such as star thistle.</td>
<td>6. To minimize water quality impacts to Rattlesnake Creek or other offsite drainages after the project is complete, no direct discharge of runoff from newly constructed impervious surface will be allowed to flow directly to the drainage. Runoff from surfaces should be directed through storm water interceptors constructed at discharge points. These interceptors will remove oil, sediment, and other pollutants that might otherwise flow to downstream waterways.</td>
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MM AS-11.1.1b The following measures shall be required to reduce surface water drainage patterns, unless alternatives are approved that are

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### Impact | Level of Significance Before Mitigation | Mitigation Measure | Resulting Level of Significance
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recommended by the project’s geotechnical engineers, the California Regional Water Quality Control Board or the Department of Public Works that will provide substantially the same or better management of surface drainage:

1. Slope final grade adjacent to structural areas so that surface water drains away from building pad finish subgrades at a minimum 2 percent slope for a minimum distance of 10 feet. Where interior slabs-on-grade are proposed, the exterior subgrade must have a minimum slope of 4 percent away from the structure for a minimum distance of 10 feet. Additional drainage and slab-on-grade construction recommendations are provided in a geotechnical engineering report outlined in mitigation measure MM AS-8.1.1b.

2. Compact and slope all soil placed adjacent to building foundations such that water is not retained to pond or infiltrate. Backfill should be free of deleterious material.

3. Direct rain-gutter downspouts to a solid collector pipe which discharges flow to positive drainage and away from building foundations.

**MM AS-11.1.1c** Drainage facilities for this project shall utilize County Standard Plans and Specifications and be designed by a registered civil engineer. Onsite storm drainage facilities shall be constructed in compliance with the design and analysis provided in the project specific Drainage Report prepared by TTG Engineers dated May 2016, and Sheet C2 date stamped March 30, 2015, which is to be kept on file with the Planning Department. Additionally, measures shall be incorporated into the improvement plans that

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<tbody>
<tr>
<td>Impact 11.1.2 (AS)</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 11.4.1</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 11.4.2</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 11.4.3</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Land Use and Planning</td>
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<tr>
<td>Impact 12.1.1 (AS)</td>
<td>NI</td>
<td>None required.</td>
<td>NI</td>
</tr>
<tr>
<td>Impact 12.1.2 (AS)</td>
<td>PS</td>
<td>Implement mitigation measures MM AS-4.4.1c and MM AS-13.1.1.</td>
<td>LS</td>
</tr>
</tbody>
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<tbody>
<tr>
<td>Impact 12.4.1</td>
<td></td>
<td>To ensure project operational noise levels do not exceed the County’s Noise Standards, the project shall be conditioned to limit all truck deliveries to the Alta Sierra project site to between the daytime hours of 7:00 a.m. and 7:00 p.m. Store management shall be educated regarding these restricted delivery hours and a small non-illuminated sign not to exceed 4 square feet shall be posted in the delivery loading and unloading</td>
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</table>

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### Impact 13.1.2 (AS)

**Impact:** Project construction would result in a temporary increase in ambient noise levels in the vicinity of the Alta Sierra project site.

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<tr>
<td></td>
<td>area outlining these restrictions. Prior to issuance of final occupancy, the Planning Department shall perform a site visit to ensure this mitigation measure has been implemented.</td>
<td>MM AS-13.1.2 The project applicant shall ensure through contract specifications that construction best management practices (BMPs) are implemented by contractors to reduce construction noise levels. Contract specifications shall be included in the construction document, which shall be reviewed by the County prior to issuance of a grading or building permit (whichever is issued first). The construction BMPs shall include the following:</td>
<td>LS</td>
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<tr>
<td></td>
<td>• Construction shall be limited to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction is permitted on Saturdays, Sundays, or legal holidays.</td>
<td>• Ensure that construction equipment is properly muffled according to industry standards and is in good working condition.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.</td>
<td>• Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.</td>
<td>• Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Use electric air compressors and similar power tools rather than diesel equipment, where feasible.</td>
<td>• Use electric air compressors and similar power tools rather than diesel equipment, where feasible.</td>
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</tr>
<tr>
<td></td>
<td>• Construction-related equipment, including heavy-duty equipment, motor vehicles, and</td>
<td>• Construction-related equipment, including heavy-duty equipment, motor vehicles, and</td>
<td></td>
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<tr>
<td>portable equipment, shall be turned off when not in use for more than 5 minutes.  • Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the County or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 13.1.3 (AS) Groundborne vibration levels associated with short-term construction activities at the Alta Sierra project site could exceed the applicable groundborne vibration criterion at adjacent commercial uses.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 13.1.4 (AS) Implementation of the proposed project would not result in the exposure of sensitive receptors to excessive noise levels associated with airport operations.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 13.4.1 Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County would result in a cumulative increase in noise. However, compliance with the policies contained in the Noise Element would ensure that noise levels do not exceed applicable County noise standards.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 14.1.1 (AS) Development of the Alta Sierra project site as proposed would not substantially increase demand for public safety services and would not trigger the need for any new or expanded facilities.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 14.1.2 (AS) The Alta Sierra project would increase demand for water supplies and water treatment capacity and would require construction of on- and off-site water conveyance improvements.</td>
<td>LS</td>
<td>No additional measures required.</td>
<td>LS</td>
</tr>
</tbody>
</table>

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## Impact Summary

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</thead>
<tbody>
<tr>
<td><strong>Impact 14.1.3 (AS)</strong> The proposed Alta Sierra project includes a septic system, the construction of which could result in environmental impacts.</td>
<td>LS</td>
<td>No additional measures required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 14.1.4 (AS)</strong> The proposed Alta Sierra project includes an on-site stormwater drainage system, construction of which could result in impacts to the physical environment.</td>
<td>LS</td>
<td>No additional measures required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 14.1.5 (AS)</strong> Construction and operation of the Alta Sierra project would generate solid waste requiring collection and disposal.</td>
<td>PS</td>
<td>MM AS-14.1.5 Prior to issuance of grading or building permits, the following shall be included as a Note on those plans: Toxic waste materials (ammunition, asbestos, biohazards, compressed gas cylinders, explosives, radioactive materials, treated wood waste, and medications) are not accepted at the McCourtney Road Transfer Station and if encountered during construction, shall be properly disposed of in compliance with existing regulations and at appropriate facilities. The County Department of Public Works-Solid Waste Division (organic waste) and Environmental Health Department (industrial toxic waste) are the local agencies with oversight over the disposal of these materials. Should the developer encounter these materials during grading or construction activities, the developer shall consult with these agencies to determine the appropriate methods for disposal and the appropriate facilities where these materials can be disposed.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 14.4.1</strong> Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County could result in the need to expand or construct new public safety facilities in order to maintain adequate service levels.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td><strong>Impact 14.4.2</strong> Sufficient water supplies and water treatment facility capacity would be available to serve projected cumulative growth in western Nevada County.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
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### Impact 14.4.3
Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, could result in the need to construct new water, wastewater, storm drainage, or solid waste facilities in order to maintain adequate service levels.

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<tbody>
<tr>
<td>14.4.3</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
</tbody>
</table>

### Impact 14.4.4
Existing solid waste transfer and disposal facilities have sufficient capacity to accommodate anticipated growth in western Nevada County.

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<tbody>
<tr>
<td>14.4.4</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
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</table>

### Traffic and Transportation

#### Impact 15.1.1(AS)
Implementation of the proposed Alta Sierra project would increase vehicular traffic on the local roadway system, potentially degrading intersection operations.

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<tbody>
<tr>
<td>15.1.1</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
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#### Impact 15.1.2(AS)
Development of the Alta Sierra project site could introduce incompatible uses that could affect safety on roadways and could negatively affect emergency access in the project vicinity.

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<tr>
<td>15.1.2</td>
<td>PS</td>
<td>MM AS-15.1.2a</td>
<td>LS</td>
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</table>

   - **MM AS-15.1.2a**: No objects or vegetation along the project site’s frontage area along the north and south sides of Alta Sierra Drive shall exceed the maximum height of 18 inches to ensure a clear line of sight from the property driveway onto Alta Sierra Drive. The project’s landscape plan shall be reviewed by Nevada County Planning Department staff prior to approval of a building permit to ensure the plan conforms to this restriction. In addition, the project applicant shall perform brush clearing and trimming up or down of trees and shrubs and maintenance within this area to ensure a clear line of sight prior to project operation. The project applicant shall coordinate with the Nevada County Public Works Department regarding the extent of clearing and trimming necessary and shall obtain a standard encroachment permit from the County prior to initiating work within the public right-of-way.

   - **MM AS-15.1.2b**: Unless and until Alta Sierra Drive is designated a Surface Transportation

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<tr>
<td><strong>Impact 15.1.3(AS)</strong> Development of the Alta Sierra project site as proposed would not result in the need for private or public road maintenance or for new roads.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 15.1.4(AS)</strong> Development of the Alta Sierra project site would have no effect on existing pedestrian, bicycle, or transit circulation in the area and would not conflict with adopted plans regarding alternative transportation.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 15.1.5(AS)</strong> Construction at the Alta Sierra project site would not have substantial effects on pedestrian, bicycle, or transit circulation in the area.</td>
<td>PS</td>
<td>MM AS-15.1.5 Prior to the issuance of a grading permit for the Alta Sierra project site, a Construction Traffic Control Plan (CTCP) shall be submitted for review and approval by the Nevada County Public Works Department. The CTCP shall include a schedule of construction, the types of trucks accessing the site, and anticipated methods of handling traffic during construction activities to ensure the safe flow of traffic, pedestrian/bicycle crossing, and adequate emergency access, including maintaining an open lane for motorized and non-motorized travel at all times. All traffic</td>
<td>LS</td>
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<td></td>
<td>control measures shall conform to County and Caltrans standards, as applicable.</td>
<td>Implement mitigation measure MM AS-12.1.1.</td>
<td>LCC</td>
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**Impact 15.4.1** When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed Alta Sierra project would contribute to cumulative traffic volumes. However, this increase would not result in impacts to level of service and operations.

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### Table ES-3
**Penn Valley Project: Summary of Environmental Impacts and Mitigation Measures**

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<tr>
<td>Aesthetics</td>
<td>LS</td>
<td>None required.</td>
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**Impact 4.2.1(PV)** Development of the Penn Valley project site as proposed would convert vacant land to commercial development. Such a conversion would fundamentally alter the visual character of a portion of the site.

Prior to building permit issuance, the developer shall submit a final Site Lighting Plan/Photometric Detail that demonstrates that all light spill will be retained on the project site. Potential methods for reducing light trespass onto neighboring roads and properties include replacing the 400-watt parking lot light fixtures located on the south and east with light fixtures of lesser wattage, and/or providing additional screening of those features, and/or moving light poles farther into the interior of the site. The developer shall install and maintain all lighting consistent with the approved Final Site Lighting Plan. Prior to issuance of final occupancy, the Planning Department shall perform a site visit, during the dark hours, to verify that the installed lighting does not trespass onto neighboring roads or properties.

**Impact 4.2.2(PV)** Development of the Penn Valley project site as proposed would introduce new sources of light and glare.

All lighting for advertising must meet the County Lighting and Signage Ordinance requirements. Internally illuminated signage shall be prohibited. All lighting for exterior signage or advertising shall be top mounted light fixtures which shine light downward directly onto the sign. Said lighting shall be fully shielded consistent with International Dark Sky standards. Prior to building permit issuance, the applicant shall submit a final

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<td>signage plan that eliminates any reference to internally lighted signage and provides details for establishing top mounted lighting for both the monument and wall signs. Additionally, any proposed sign lighting shall be shown and taken into account in the photometric detail in the revised project site lighting plan as required by mitigation measure MM PV-4.2.2a. Prior to issuance of final occupancy, the Planning Department shall perform a site inspection to ensure that the sign lighting is installed consistent with this mitigation measure and the County Zoning Code standards.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
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</table>

**Impact 4.4.2(PV)** The Penn Valley project site is located in an area developed with similar commercial uses along a major corridor. Cumulative development would contribute to the ongoing transition of the area to urban uses. Compliance with existing development standards and applicable design guidelines would reduce cumulative aesthetic and lighting impacts.

**Air Quality**

**Impact 5.2.1(PV)** Construction activities associated with the Penn Valley site such as clearing, excavation and grading operations, construction vehicle traffic, and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses.

- **MM PV-5.2.1a** The construction contractor shall submit to the NSAQMD for approval an Off-Road Construction Equipment Emission Reduction Plan prior to ground breaking demonstrating the following:
  - All off-road equipment (portable and mobile) meets or is cleaner than Tier 2 engine emission specifications unless prior written approval for any exceptions is obtained from the NSAQMD. Note that all off-road equipment must meet all applicable state and federal requirements.
  - Emissions from on-site construction equipment shall comply with NSAQMD Regulation II, Rule 202, Visible Emissions.

**Table Notes:**

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<td>• The primary contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained.</td>
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<td>• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes when not in use (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.</td>
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<td>• All construction equipment shall be maintained and properly tuned in accordance with manufacturers’ specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</td>
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<td>• Existing power sources (e.g., power poles) or clean fuel generators shall be utilized rather than temporary power generators (i.e. diesel generators), where feasible.</td>
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<td>• Deliveries of construction materials shall be scheduled to direct traffic flow to avoid the peak hours of 7:00–9:00 AM and 4:00–6:00 PM.</td>
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<td>• The primary contractor shall use architectural coatings for the proposed structure that have a volatile organic compound (VOC) content no greater than 50 grams per liter of VOC.</td>
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<td></td>
<td><strong>MM PV-5.2.1b</strong> To reduce impacts of short-term construction, the applicant shall obtain NSAQMD approval of a Dust Control Plan (DCP) which shall include, but not be limited to, the standards provided below to the satisfaction of the NSAQMD. Prior to issuance of grading permits, all construction equipment shall be properly tuned and maintained.</td>
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<td>the developer shall provide a copy of the approved DCP to the County Planning and Building Department and shall include the requirements of DCP as notes on all construction plans. The Building Department shall verify that the requirements of the DCP are being implemented during grading inspections. Alternatives to open burning of vegetation material on the project site shall be used by the project applicant unless deemed infeasible to the Air Pollution Control Officer (APCO). Among suitable alternatives is chipping, mulching, or conversion to biomass fuel. 1. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction. 2. All material excavated, stockpiled or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage. 3. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions. 4. All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph. 5. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads. 6. All inactive disturbed portions of the development site shall be covered, seeded or</td>
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<td>watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying non-toxic soil stabilizers to all inactive construction areas.</td>
<td>PS</td>
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<td></td>
<td>All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.</td>
<td>MM PV-5.2.1c</td>
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<td></td>
<td>Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to removed excessive accumulation of silt and/or mud which may have resulted from activities at the project site.</td>
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<td></td>
<td>If serpentine or ultramafic rock is discovered during grading or construction the District must be notified no later than the next business day and the California Code of Regulations, Title 17, Section 9315 applies.</td>
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<td></td>
<td>To ensure that the project will not result in the significant generation of VOCs, all architectural coatings shall utilize low-VOC paint (no greater than 50g/L VOC). Prior to building permit issuance, the developer shall submit their list of low-VOC coatings to the NSAQMD for review and approval. The developer shall then provide written verification from NSAQMD that all architectural coatings meet NSAQMD thresholds to be considered “low-VOC.” Finally, all building plans shall include a note documenting which low-VOC architectural coatings will be used in construction.</td>
<td>MM PV-5.2.2</td>
<td></td>
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<tr>
<td><strong>Impact 5.2.2(PV)</strong></td>
<td>The Penn Valley project would not result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards.</td>
<td>PS</td>
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<tr>
<td><strong>Impact 5.2.3(PV)</strong> The Penn Valley project would not contribute to localized concentrations of mobile-source carbon monoxide that would exceed applicable ambient air quality standards.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 5.2.4(PV)</strong> The proposed Penn Valley project would not result in increased exposure of existing sensitive land uses to construction-source pollutant concentrations that would exceed applicable standards.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 5.2.5(PV)</strong> Operation of the Penn Valley project would not result in increased exposure of existing or planned sensitive land uses to operational-source toxic air contaminant emissions (i.e., diesel PM).</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 5.2.6(PV)</strong> The proposed Penn Valley project would not include sources that could create objectionable odors affecting a substantial number of people or expose new residents to existing sources of odor.</td>
<td>NI</td>
<td>None required.</td>
<td>NI</td>
</tr>
<tr>
<td><strong>Impact 5.4.1</strong> The proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in the Mountain Counties Air Basin, would contribute to cumulative increases in emissions of ozone-precursor pollutants (ROG and NOX) and PM10 that could contribute to future concentrations of ozone and PM10, for which the region is currently designated nonattainment.</td>
<td>CC/S</td>
<td>Implement mitigation as follows: Alta Sierra project: Implement mitigation measure MM AS-5.1.1a. Penn Valley project: Implement mitigation measure MM PV-5.2.1a. Rough and Ready Highway project: Implement mitigation measure MM RR-5.3.1a.</td>
<td>LCC</td>
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**Biological Resources**

| Impact 6.2.1(PV) The project site does not provide suitable habitat for any special status plant species that may occur in the vicinity. | NI | None required. | NI |

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<tr>
<td>Project related activities could result in loss of nesting habitat for raptors and other birds protected by the MTBA.</td>
<td>PS</td>
<td>MM PV-6.2.2 If construction is proposed during the breeding season (February–August), a focused survey for raptors and other migratory bird nests shall be conducted within 14 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests on-site. If active nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. This 500-foot construction prohibition zone may be reduced based on consultation with and approval by the California Department of Fish and Wildlife. Trees containing nests or cavities that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to January). If no active nests are found during the focused survey, no further mitigation will be required. To the extent feasible, necessary tree removal should occur outside of the typical nesting season to minimize or avoid adverse effects to all nesting birds.</td>
<td>LS</td>
</tr>
<tr>
<td>Project-related activities could impact western pond turtle.</td>
<td>PS</td>
<td>MM PV-6.2.3 Within 48 hours prior to any disturbance within suitable habitat for western pond turtle, proposed disturbance areas shall be surveyed for this presence of this species by a qualified biologist. Surveys of the area shall be repeated if a lapse in construction activity of two weeks or greater occurs. If the species is detected, individuals shall be relocated to a suitable site within the same drainage by a qualified biologist. If the species is detected during the pre-construction survey, a monitoring biologist will be onsite during initiation of construction activities to ensure that no turtles are present during the onset of disturbance activities. If a western pond turtle is encountered during construction, activities shall cease until appropriate corrective measures have been taken.</td>
<td>LS</td>
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<tr>
<td>PS</td>
<td>been implemented or it has been determined that the turtle will not be harmed. Any trapped, injured, or killed western pond turtles shall be reported immediately to the CDFW.</td>
<td>MM PV-6.2.4 The following measures shall be implemented prior to or during construction, as appropriate.</td>
<td>LS</td>
</tr>
<tr>
<td>PS</td>
<td></td>
<td>• The project applicant shall either obtain a qualified biologist to conduct a preliminary delineation or shall resubmit the expired jurisdictional determination for reverification from the USACE.</td>
<td></td>
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<tr>
<td>PS</td>
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<td>• Prior to initiation of construction activities within jurisdictional features, construction best management practices (BMPs) shall be employed on-site to prevent degradation to on-site and off-site waters of the United States. Methods shall include the use of appropriate measures to intercept and capture sediment prior to entering jurisdictional features, as well as erosion control measures along the perimeter of all work areas to prevent the displacement of fill material. All BMPs shall be in place prior to initiation of any construction activities and shall remain until construction activities are completed. All erosion control methods shall be maintained until all on-site soils are stabilized. BMPs include, but are not limited to:</td>
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<td></td>
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<td>a) Minimize the number and size of work areas for equipment and spoil storage sites in the vicinity of the stream. Place staging areas and other work areas outside of the 50-foot and 100-foot non-disturbance buffers.</td>
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<td>b) The contractor shall exercise reasonable precaution to protect this stream, wetlands, and</td>
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<tr>
<td>adjacent non-disturbance buffers from pollution with fuels,</td>
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<td>Construction byproducts and pollutant such as oil, cement, and wash water shall be</td>
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<tr>
<td>oils and other harmful materials. Construction byproducts</td>
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<td>prevented from discharging into or near these resources and shall be collected for</td>
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<tr>
<td>and pollutant such as oil, cement, and wash water shall be</td>
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<td>removal off the site. All construction debris and associated materials and litter</td>
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<td>prevented from discharging into or near these resources and</td>
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<td>shall be removed from the work site immediately upon completion.</td>
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<td>shall be collected for removal off the site. All construction</td>
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<td>c) No equipment for vehicle maintenance or refueling shall occur within the 50-foot</td>
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<td>debris and associated materials and litter shall be removed</td>
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<td>and 100-foot non-disturbance buffers. The contractor shall immediately contain and</td>
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<td>from the work site immediately upon completion.</td>
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<td>clean up any petroleum or other chemical spills with absorbent materials such as</td>
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<td>sawdust or kitty litter. For other hazardous materials, follow the cleanup</td>
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<td>instruction on the label.</td>
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<td>d) Exposed bare soil along the stream embankment and including non-disturbance</td>
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<td>buffer should be protected against loss from erosion by the seeding of an erosion</td>
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<td>control mixture and restored with native grasses and mulching. Non-native species</td>
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<td>that are known to invade with lands, such as orchard grass, velvet grass, rose</td>
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<td>clover, winter and spring vetch, and wild oats should not be used as they</td>
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<td>displace native species. The contractor shall follow the permit requirements</td>
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<td>obtained from the USACE and Central Valley Regional Water Quality Control Board</td>
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<td>before, during, and after construction.</td>
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<td>• Standard staging area practices for sediment-tracking reduction shall be</td>
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<td>implemented where necessary and may include vehicle washing and street sweeping.</td>
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| • All exposed/disturbed areas and access points left barren of vegetation as a result of construction activities shall be restored at the end of construction using locally native grass seeds, locally native grass plugs, and/or a mix of quick-growing sterile non-native grass with locally native grass seeds. Seeded areas shall be covered with broadcast straw and/or jute netted (monofilament erosion blankets are not permitted).  
• Protective silt fencing shall be installed between the adjacent wetland habitats and the construction area limits to prevent accidental disturbance during construction and to protect water quality within the aquatic habitats during construction.  
• The County shall ensure there is no net loss of wetlands or other waters of the United States through impact avoidance, impact minimization, and/or compensatory mitigation, as determined in CWA Section 404 and 401 permits and/or 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure shall be provided prior to construction.  
• The applicant shall ensure no net loss of wetlands. Impacts on any wetland permanently or temporarily affected by the proposed project shall be offset through the dedication of mitigation credit(s) within a USACE-approved mitigation bank or through the payment of in-lieu fees to an approved conservation bank.  
• Construction periods shall be limited to periods of extended dry weather and dry summer seasons. |                                                                                       |                                                                                                                                            |                                |

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<tr>
<td>Impact 6.2.5(PV) The proposed project would not interfere with the movement of native resident or migratory wildlife species.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 6.2.6(PV) Development of the project area would not result in the loss of protected trees or landscape grove or conflict with the Nevada County General Plan related to tree protection.</td>
<td>NI</td>
<td>None required.</td>
<td>NI</td>
</tr>
<tr>
<td>Impact 6.2.7(PV) The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.</td>
<td>PS</td>
<td>Implement mitigation measure MM PV-6.2.4.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 6.4.1 Cumulative development of the proposed projects could affect biological resources.</td>
<td>CC/S</td>
<td>Implement mitigation as follows: Alta Sierra project: Implement mitigation measures MM AS-6.1.3a through MM AS-6.1.3e Penn Valley project: Implement mitigation MM PV-6.2.4. Rough and Ready Highway project: None required.</td>
<td>LCC</td>
</tr>
</tbody>
</table>

### Cultural Resources

<table>
<thead>
<tr>
<th>Impact</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measure</th>
<th>Resulting Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact 7.2.1 (PV) No historic properties would be affected by development of the Penn Valley project site.</td>
<td>NI</td>
<td>None required.</td>
<td>NI</td>
</tr>
<tr>
<td>Impact 7.2.2 (PV) Ground-disturbing construction activities associated with development of the Penn Valley project site could inadvertently damage previously undiscovered archaeological and tribal resources.</td>
<td>PS</td>
<td>MM PV-7.2.2 In the event cultural materials or human remains are discovered during project construction, the construction contractor shall halt work and contact the appropriate agencies. All equipment operators and persons involved in any</td>
<td>LS</td>
</tr>
</tbody>
</table>

NI – no impact  LS less than significant impact  PS – potentially significant impact  S – significant impact  SU – significant and unavoidable impact  LCC – less than cumulatively considerable impact  CC – cumulatively considerable impact
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</thead>
<tbody>
<tr>
<td>form of ground disturbance at any phase of project</td>
<td></td>
<td>Implement mitigation measure MM PV-7.2.2.</td>
<td>LS</td>
</tr>
<tr>
<td>improvements shall be advised of the possibility of encountering</td>
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<tr>
<td>subsurface cultural resources. If such resources are encountered or</td>
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<tr>
<td>suspected, work shall be halted immediately within 200 feet of the</td>
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<tr>
<td>suspected resource and the Nevada County Planning Department shall be</td>
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<tr>
<td>contacted. A professional archaeologist shall be retained by the</td>
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<tr>
<td>developer and consulted to access any discoveries and develop</td>
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<tr>
<td>appropriate management recommendations for archaeological resource</td>
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<tr>
<td>treatment. If bones are encountered and appear to be human, California</td>
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<tr>
<td>Law requires that the Nevada County Coroner and the Native American</td>
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<tr>
<td>Heritage Commission be contacted and, if Native American resources are</td>
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<tr>
<td>involved, Native American organizations and individuals recognized by</td>
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<tr>
<td>the County shall be notified and consulted about any plans for</td>
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<tr>
<td>treatment. A note to this effect shall be included on the grading and</td>
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<tr>
<td>construction plans for the project.</td>
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<tr>
<td>Impact 7.2.3 (PV) Ground disturbing construction activities associated</td>
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<tr>
<td>with development of the Penn Valley project site could inadvertently</td>
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<tr>
<td>disturb human remains. Compliance with existing regulations would</td>
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<tr>
<td>ensure proper management of any discovered human remains.</td>
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<tr>
<td>Impact 7.4.1 Implementation of the proposed projects, in combination</td>
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<tr>
<td>with existing, approved, proposed, and reasonably foreseeable</td>
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<tr>
<td>development in nearby areas of Nevada County, would not contribute to</td>
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<tr>
<td>cumulative cultural resource impacts.</td>
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<tr>
<td>Geology and Soils</td>
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<tr>
<td>Impact 8.2.1 (PV) The Penn Valley project site is located in an area</td>
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<td>that would be subject to seismic hazards.</td>
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<tbody>
<tr>
<td>8.2.2 (PV) Development of the Penn Valley site could result in temporary erosion.</td>
<td>Final site plan and final Geotechnical Engineering Report to ensure that they are consistent with both local and building code requirements.</td>
<td>MM PV-8.2.2a Prior to issuance of grading permits, all grading and improvement plans shall include a note documenting the approved time of year for grading activities. Specifically, no grading shall occur after October 15 or before May 1 unless standard Building Department requirements are met for grading during the wet season.</td>
<td>LS</td>
</tr>
<tr>
<td>8.2.2 (PV) Development of the Penn Valley site could result in temporary erosion.</td>
<td>MM PV-8.2.2b Prior to issuance of grading permits or improvement plans for all project-related grading including road construction and drainage improvements, all plans shall incorporate, at a minimum, the following erosion and sediment control measures, which shall be implemented throughout the construction phase: 1. During construction, Best Management Practices (BMPs) for temporary erosion control shall be implemented to control any pollutants that could potentially affect the quality of storm water discharges from the site. A Storm Water Management Plan (SWMP) shall be developed and approved by the Nevada County Building Department.</td>
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Dollar General Stores  Nevada County
Draft Environmental Impact Report

ES-48 December 2016
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<tr>
<td>Pollution Prevention Plan (SWPPP) shall be prepared in accordance with California State Water Resources Control Board (SWRCB) requirements. The SWPPP shall include the implementation of BMPs for Erosion Control, Sediment Control, Tracking Control, Wind Erosion Control, Waste Management and Materials Pollution Control and shall be provided to the Nevada County Planning, Building and Public Works Departments prior to issuance of grading permits or approval of improvement plans.</td>
<td>PS</td>
<td>Implement mitigation measures MM PV-8.2.1a and MM PV-8.2.1b.</td>
<td>LS</td>
</tr>
<tr>
<td>Topsoil that will be used as fill material shall be removed and stockpiled for later reuse prior to excavation activities. Topsoil shall be identified by the soil-revegetation specialist who will identify both extent and depth of the topsoil to be removed.</td>
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<tr>
<td>Upon completion of grading, stockpiled topsoil shall be combined with wood chips, compost and other soil amendments for placement on all graded areas. Revegetation shall consist of native seed mixes only. The primary objectives of the soil amendments and revegetation is to create site conditions that keep sediment on site, produce a stable soil surface, resist erosion and are similar to the surrounding ecosystem.</td>
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<tr>
<td>Geo-fabrics, jutes or other mats may be used in conjunction with revegetation and soil stabilization.</td>
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<tr>
<td>Greenhouse Gas Emissions</td>
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<tr>
<td><strong>Impact 9.2.1(PV)</strong> The Penn Valley project would generate greenhouse gas emissions</td>
<td>LCC</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Hazards and Hazardous Materials</td>
<td></td>
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<tr>
<td><strong>Impact 10.2.1 (PV)</strong> Construction and occupancy of the Penn Valley site would involve the use of hazardous materials.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 10.2.2 (PV)</strong> Development of the Penn Valley site would not encounter known hazardous materials contamination.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 10.2.3 (PV)</strong> Development of the Penn Valley site would not affect emergency response plans.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 10.2.4 (PV)</strong> Development of the Penn Valley site would result in a new building in a moderate fire hazard severity zone.</td>
<td>PS</td>
<td><strong>MM PV-10.2.4</strong> Prior to issuance of grading and building permits for the project, the County shall ensure the following is completed: 1. The applicant shall provide 180,000 gallons of water to provide the minimum fire flow of 1,500 gallons per minute. Prior to installation, the applicant shall provide a plan to the Penn Valley Fire Protection District for review and approval that demonstrates that minimum fire flow is being met and how any onsite water supply tanks integrate with the Nevada Irrigation District (NID) system to ensure adequate fire flow. Minimum fire flow may be met through a combination of existing NID water, underground water storage tanks with a rated fire pump, hydrant, and post indicator valve for the fire sprinkler system. 2. An approved fire sprinkler system shall be installed throughout the entire building and shall be monitored by an approved fire alarm system.</td>
<td>LS</td>
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<tbody>
<tr>
<td>Impact 10.4.1 Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative hazards and hazardous materials impacts.</td>
<td>CC/S</td>
<td>Implement mitigation as follows:</td>
<td>LCC</td>
</tr>
<tr>
<td>Alta Sierra project: None required.</td>
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<tr>
<td>Penn Valley project: None required.</td>
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<tr>
<td>Rough and Ready Highway project: Implement mitigation measures MM RR-10.3.2a and MM RR-10.3.2b.</td>
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</table>

**Hydrology and Water Quality**

| Impact 11.2.1 (PV) Development of the Penn Valley site would result in an increase in the rate and amount of stormwater runoff and would contribute urban pollutants to stormwater runoff. | PS | MM PV-11.2.1a The construction and grading permits shall comply with the applicable NPDES regulations. Prior to grading permit issuance, obtain a General Permit for Storm Water Discharges Associated with the construction activity and provide a copy of the permit to the County Planning, Building and Public Works Departments. Grading plans shall include verification that an NPDES permit, issued by the State Water Resources Board, has been issued for this project. To protect water quality, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to, the following: |
| | | 1. At no time shall heavy equipment operate in flowing water. | LS |
| | | 2. Disturbed areas shall be graded to minimize surface erosion and siltation; bare areas will be covered with mulch; cleared areas will be revegetated with locally native erosion control seed mix. | |
| | | 3. The contractor shall exercise every reasonable precaution from adding pollution to offsite waterways with fuels, oils, bitumen, calcium chloride, and other harmful materials. | |

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<tr>
<td>Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the offsite drainages and shall be collected and removed from the site.</td>
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<tr>
<td>4. Erosion control measures shall be applied to all disturbed slopes. No invasive non-native grasses shall be used for erosion control, such as velvet grass or orchard grass. A combination of rice straw wattles, a mulch of native straw or certified weed-free straw, and a planting of native plant species is recommended.</td>
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<tr>
<td>5. Silt fencing (or filter fabric) shall be used to catch any short-term erosion or sedimentation that may inadvertently occur. Silt-fencing should be installed well above the offsite drainages and extend beyond the construction zone if necessary. The use of standard straw is prohibited to avoid introduction of noxious weeds, such as star thistle.</td>
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<tr>
<td>6. To minimize water quality impacts to Squirrel Creek or other offsite drainages after the project is complete, no direct discharge of runoff from newly constructed impervious surface will be allowed to flow directly to the drainage. Runoff from surfaces should be directed through storm water interceptors constructed at discharge points. These interceptors will remove oil, sediment, and other pollutants that might otherwise flow to downstream waterways.</td>
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</table>

**MM PV-11.2.1b** The following measures shall be required to reduce surface water drainage patterns, unless alternatives are approved that are recommended by the project’s geotechnical engineers, the California Regional Water Quality
<table>
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<tr>
<td></td>
<td>Control Board or the Department of Public Works that will provide substantially the same or better management of surface drainage:</td>
<td>1. Slope final grade adjacent to structural areas so that surface water drains away from building pad finish subgrades at a minimum 2 percent slope for a minimum distance of 10 feet. Where interior slabs-on-grade are proposed, the exterior subgrade must have a minimum slope of 4 percent away from the structure for a minimum distance of 10 feet. Additional drainage and slab-on-grade construction recommendations are provided in a geotechnical engineering report outlined in mitigation measure MM PV-8.2.1b.</td>
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<td></td>
<td>2. Compact and slope all soil placed adjacent to building foundations such that water is not retained to pond or infiltrate. Backfill should be free of deleterious material.</td>
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<td></td>
<td>3. Direct rain-gutter downspouts to a solid collector pipe which discharges flow to positive drainage and away from building foundations.</td>
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<td></td>
<td><strong>MM PV-11.2.1c</strong> Drainage facilities for this project shall utilize County Standard Plans and Specifications and be designed by a registered civil engineer. Onsite storm drainage facilities shall be constructed in compliance with the design and analysis provided in the project specific Drainage Report prepared by TTG Engineers dated March 2016, and Sheet C2 date stamped February 2, 2016, which is to be kept on file with the Planning Department. Additionally, measures shall be incorporated into the improvement plans that reduce the offsite drainage flows to pre-project</td>
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<tr>
<td>Impact 11.1.2 (PV)</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
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<tr>
<td>Impact 11.4.1</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
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<tr>
<td>Impact 11.4.2</td>
<td>LCC</td>
<td>None required.</td>
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<tr>
<td>Impact 11.4.3</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
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</table>

**Land Use and Planning**

| Impact 12.2.1 (PV) | NI | None required. | NI |
| Impact 12.2.2 (PV) | LS | None required. | LS |

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## Impact 12.4.1
Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative land use impacts.

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<tbody>
<tr>
<td>Impact 12.4.1</td>
<td>LCC</td>
<td>None required.</td>
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</table>

### Noise

**Impact 13.2.1 (PV)** The proposed project could expose sensitive receptors to stationary sources of noise in excess of established standards.

- **Level of Significance Before Mitigation:** PS
- **Mitigation Measure:** MM PV-13.2.1 To ensure project operational noise levels do not exceed the County’s Noise Standards, the project shall be conditioned to limit all truck deliveries to the Penn Valley project site to between the daytime hours of 7:00 a.m. and 7:00 p.m. Store management shall be educated regarding these restricted delivery hours and a small non-illuminated sign not to exceed 4 square feet shall be posted in the delivery loading and unloading area outlining these restrictions. Prior to issuance of final occupancy, the Planning Department shall perform a site visit to ensure this mitigation measure has been implemented.
- **Resulting Level of Significance:** LS

**Impact 13.2.2 (PV)** Project construction would result in a temporary increase in ambient noise levels in the vicinity of the Penn Valley project site.

- **Level of Significance Before Mitigation:** PS
- **Mitigation Measure:** MM PV-13.2.2 The project applicant shall ensure through contract specifications that construction best management practices (BMPs) are implemented by contractors to reduce construction noise levels. Contract specifications shall be included in the construction document, which shall be reviewed by the County prior to issuance of a grading or building permit (whichever is issued first). The construction BMPs shall include the following:
  - Construction shall be limited to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction is permitted on Saturdays, Sundays, or legal holidays.
  - Ensure that construction equipment is properly muffled according to industry standards and is in good working condition.
- **Resulting Level of Significance:** LS

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| • Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.  
• Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.  
• Use electric air compressors and similar power tools rather than diesel equipment, where feasible.  
• Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.  
• Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the County or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party. | LS | None required. | LS |

**Impact 13.2.3 (PV)** Groundborne vibration levels associated with short-term construction activities at the Penn Valley project site would not exceed the applicable groundborne vibration criterion at adjacent land uses.

| Impact 13.2.4 (PV) | LS | None required. | LS |

**Impact 13.4.1** Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County would result

| Impact 13.4.1 | LS | None required. | LCC |

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<td>in a cumulative increase in noise. However, compliance with the policies contained in the Noise Element would ensure that noise levels do not exceed applicable County noise standards.</td>
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<tr>
<td><strong>Public Services and Utilities</strong></td>
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<tr>
<td><strong>Impact 14.2.1 (PV)</strong> Development of the Penn Valley project site as proposed would not substantially increase demand for public safety services and would not trigger the need for any new or expanded facilities.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 14.2.2 (PV)</strong> The Penn Valley project would increase demand for water supplies and water treatment capacity and would require construction of on- and off-site water conveyance improvements.</td>
<td>LS</td>
<td>No additional measures required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 14.2.3 (PV)</strong> The proposed Penn Valley project would connect to a public sewer system, but would include an onsite effluent holding tank and associated improvements, the construction of which could result in impacts to the physical environment.</td>
<td>LS</td>
<td>No additional measures required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 14.2.4 (PV)</strong> The proposed Penn Valley project includes an onsite stormwater drainage system, construction of which could result in impacts to the physical environment.</td>
<td>LS</td>
<td>No additional measures required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 14.2.5 (PV)</strong> Construction and operation of the Penn Valley project would generate solid waste requiring collection and disposal.</td>
<td>PS</td>
<td>MM PV-14.2.5 Prior to issuance of grading or building permits the following shall be included as a Note on those plans: Toxic waste materials (ammunition, asbestos, biohazards, compressed gas cylinders, explosives, radioactive materials, treated wood waste, and medications) are accepted at the McCourtney Road Transfer Station and if encountered during construction, shall be properly disposed of in compliance with existing regulations and at appropriate facilities. The County Department of Public Works-Solid Waste Division (organic waste) and Environmental Health Department (industrial toxic waste) are the local agencies with oversight over the disposal of these materials. Should the developer encounter these materials during grading or construction activities, the developer shall consult with these local agencies.</td>
<td>LS</td>
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<tbody>
<tr>
<td>Impact 14.4.1 Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County could result in the need to expand or construct new public safety facilities in order to maintain adequate service levels.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 14.4.2 Sufficient water supplies and water treatment facility capacity would be available to serve projected cumulative growth in western Nevada County.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 14.4.3 Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, could result in the need to construct new water, wastewater, storm drainage, or solid waste facilities in order to maintain adequate service levels.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 14.4.4 Existing solid waste transfer and disposal facilities have sufficient capacity to accommodate anticipated growth in western Nevada County.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
</tbody>
</table>

### Traffic and Transportation

| Impact 15.2.1(PV) Implementation of the proposed Penn Valley project would increase vehicular traffic on the local roadway system, potentially degrading intersection operations. | LS | None required. | LS |
| Impact 15.2.2(PV) Development of the Penn Valley project site could introduce incompatible uses that could affect safety on roadways and could negatively affect emergency access in the project vicinity. | PS | MM PV-15.2.2a No objects or vegetation within the site’s frontage along the north side of the Post Office Driveway/project access at Penn Valley Drive shall exceed the maximum height of 18 inches to ensure a clear line of sight. The project applicant shall perform brush clearing and tree trimming within this area in consultation with the Nevada County Public Works and Planning Departments prior to operation. No topping of oak trees shall be permitted. The applicant shall obtain a standard encroachment permit from the County. | LS |

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<tbody>
<tr>
<td>Impact 15.2.1(PV)</td>
<td></td>
<td><strong>Prior to initiating work within the public right-of-way.</strong></td>
<td>MM PV-15.2.2b</td>
<td></td>
</tr>
<tr>
<td>Impact 15.2.3(PV)</td>
<td>Development of the Penn Valley project site as proposed would not result in the need for private or public road maintenance or for new roads.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 15.2.4(PV)</td>
<td>Development of the Penn Valley project site would have no substantial effects on pedestrian, bicycle, or transit circulation in the area and would not conflict with adopted plans regarding alternative transportation.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 15.2.5(PV)</td>
<td>Construction at the Penn Valley project site would not have substantial effects on pedestrian, bicycle, or transit circulation in the area.</td>
<td>PS</td>
<td>MM PV-15.2.5</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 15.5.1(PV)</td>
<td>When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed Penn Valley project would contribute to cumulative traffic volumes that result in impacts to level of service and operations.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
</tbody>
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## Table ES-4

**ROUGH AND READY HIGHWAY PROJECT: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

<table>
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<tbody>
<tr>
<td>Aesthetics</td>
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<tr>
<td><strong>Impact 4.3.1(RR)</strong> Development of the Rough and Ready Highway project site as proposed would maintain the existing commercial use but at a greater scale. Given the rural residential character of the surrounding area this conversion would be considered to substantially degrade the visual character of the project area.</td>
<td>S</td>
<td>None available.</td>
<td>SU</td>
</tr>
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</table>

| Impact 4.3.2(RR) Development of the Rough and Ready Highway project site as proposed would introduce new sources of light and glare. | PS | MM RR-4.3.2a Prior to building permit issuance, the developer shall submit a final Site Lighting Plan/Photometric Detail that demonstrates that all light spill will be retained on the project site. Potential methods for reducing light trespass onto neighboring roads and properties include light fixtures of lesser wattage, and/or providing additional screening of those features, and/or moving light poles farther into the interior of the site. The developer shall install and maintain all lighting consistent with the approved Final Site Lighting Plan. Prior to issuance of final occupancy, the Planning Department shall perform a site visit, during the dark hours, to verify that the installed lighting does not trespass onto neighboring roads or properties. MM RR-4.3.2b All lighting for advertising must meet the County Lighting and Signage Ordinance requirements. Internally illuminated signage shall be prohibited. All lighting for exterior signage or advertising shall be top mounted light fixtures which shine light downward directly onto the sign. Said lighting shall be fully shielded consistent with International Dark Sky standards. Prior to | LS |

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<tr>
<td>Impact 4.4.3(RR)</td>
<td></td>
<td>building permit issuance, the applicant shall submit a final signage plan that eliminates any reference to internally lighted signage and provides details for establishing top mounted lighting for both the monument and wall signs. Additionally, any proposed sign lighting shall be shown and taken into account in the photometric detail in the revised project site lighting plan as required by mitigation measure MM RR-4.3.2a. Prior to issuance of final occupancy, the Planning Department shall perform a site inspection to ensure that the sign lighting is installed consistent with this mitigation measure and the County Zoning Code standards.</td>
<td></td>
</tr>
<tr>
<td>Impact 5.3.1(RR)</td>
<td></td>
<td>The construction contractor shall submit to the NSAQMD for approval an Off-Road Construction Equipment Emission Reduction Plan prior to ground breaking demonstrating the following: • All off-road equipment (portable and mobile) meets or is cleaner than Tier 2 engine emission specifications unless prior written approval for any exceptions is obtained from the NSAQMD. Note that all off-road equipment must meet all applicable state and federal requirements.</td>
<td></td>
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<tr>
<td>• Emissions from on-site construction equipment shall comply with NSAQMD Regulation II, Rule 202, Visible Emissions.</td>
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<tr>
<td>• The primary contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained.</td>
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<tr>
<td>• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes when not in use (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.</td>
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<tr>
<td>• All construction equipment shall be maintained and properly tuned in accordance with manufacturers’ specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</td>
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<tr>
<td>• Existing power sources (e.g., power poles) or clean fuel generators shall be utilized rather than temporary power generators (i.e. diesel generators), where feasible.</td>
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<td>• Deliveries of construction materials shall be scheduled to direct traffic flow to avoid the peak hours of 7:00–9:00 AM and 4:00–6:00 PM.</td>
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<td>• The primary contractor shall use architectural coatings for the proposed structure that have a volatile organic compound (VOC) content no greater than 50 grams per liter of VOC.</td>
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<tr>
<td>MM RR-5.3.1b</td>
<td>To reduce impacts of short-term construction, the applicant shall obtain NSAQMD approval of a Dust Control Plan (DCP) which shall include, but not be limited, to, the standards provided below to the satisfaction of the NSAQMD. Prior to issuance of grading permits, the developer shall provide a copy of the approved DCP to the County Planning and Building Department and shall include the requirements of DCP as notes on all construction plans. The Building Department shall verify that the requirements of the DCP are being implemented during grading inspections. Alternatives to open burning of vegetation material on the project site shall be used by the project applicant unless deemed infeasible to the Air Pollution Control Officer (APCO). Among suitable alternatives is chipping, mulching, or conversion to biomass fuel. 1. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction. 2. All material excavated, stockpiled or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage. 3. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.</td>
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<td>4. All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.</td>
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<td>5. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.</td>
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<td>6. All inactive disturbed portions of the development site shall be covered, seeded or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying non-toxic soil stabilizers to all inactive construction areas.</td>
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<tr>
<td>7. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.</td>
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<tr>
<td>8. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to removed excessive accumulation of silt and/or mud which may have resulted from activities at the project site.</td>
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<tr>
<td>9. If serpentine or ultramafic rock is discovered during grading or construction the District must be notified no later than the next business day and the California Code of Regulations, Title 17, Section 9315 applies.</td>
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**MM RR-5.3.1c** To ensure that the project will not result in the significant generation of VOCs, all architectural coatings shall utilize low-VOC paint (no greater than 50g/L VOC). Prior to building permit issuance, the developer shall submit their list of low-VOC.

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**Dollar General Stores**  
**Nevada County**  
**Draft Environmental Impact Report**  
**December 2016**

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<td>coatings to the NSAQMD for review and approval. The developer shall then provide written verification from NSAQMD that all architectural coatings meet NSAQMD thresholds to be considered “low-VOC.” Finally, all building plans shall include a note documenting which low-VOC architectural coatings will be used in construction.</td>
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<tr>
<td>MM RR-5.3.2</td>
<td>The project applicant shall obtain an Authority to Construct Permit from NSAQMD for any source of air contaminants that exist after construction that is not exempt from District permit requirements. All requirements of this permit shall be incorporated into standard operating procedure manuals or materials for the project. Prior to issuance of final occupancy, the developer shall submit written proof (i.e. a letter from NSAQMD and a copy of the permit) to the County Planning and Building Department documenting that they have obtained said permit from NSAQMD.</td>
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<tr>
<td>LS</td>
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</tr>
<tr>
<td>Impact 5.3.2(RR)</td>
<td>The Rough and Ready project would not result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards.</td>
<td></td>
<td></td>
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<tr>
<td>PS</td>
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</tr>
<tr>
<td>Impact 5.3.3(RR)</td>
<td>The Rough and Ready project would not contribute to localized concentrations of mobile-source carbon monoxide that would exceed applicable ambient air quality standards.</td>
<td></td>
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<tr>
<td>LS</td>
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<tr>
<td>Impact 5.3.4(RR)</td>
<td>Implementation of the proposed Rough and Ready project would not result in increased exposure of existing sensitive land uses to construction-source pollutant concentrations that would exceed applicable standards.</td>
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<td>LS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact 5.3.5(RR)</td>
<td>The Rough and Ready project would not result in increased exposure of existing or planned sensitive land uses to operational-source toxic air contaminant emissions (i.e., diesel PM).</td>
<td></td>
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<tr>
<td>LS</td>
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<tr>
<td><strong>Impact 5.3.6(RR)</strong> The proposed Rough and Ready project would not include sources that could create objectionable odors affecting a substantial number of people or expose new residents to existing sources of odor.</td>
<td>NI</td>
<td>None required.</td>
<td>NI</td>
</tr>
</tbody>
</table>

**Impact 5.4.1** The proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in the Mountain Counties Air Basin, would contribute to cumulative increases in emissions of ozone-precursor pollutants (ROG and NOx) and PM10 that could contribute to future concentrations of ozone and PM10, for which the region is currently designated nonattainment.

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<tr>
<td><strong>Impact 5.4.1</strong></td>
<td>CC/S</td>
<td>Implement mitigation as follows:</td>
<td>LCC</td>
</tr>
<tr>
<td>Alta Sierra project: Implement mitigation measure MM AS-5.1.1a.</td>
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<tr>
<td>Penn Valley project: Implement mitigation measure MM PV-5.2.1a.</td>
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</tr>
<tr>
<td>Rough and Ready Highway project: Implement mitigation measure MM RR-5.3.1a.</td>
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### Biological Resources

**Impact 6.3.2(RR)** Implementation of the project-related activities could result in loss of nesting habitat for raptors and other birds protected by the MTBA.

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<tbody>
<tr>
<td><strong>Impact 6.3.2(RR)</strong></td>
<td>PS</td>
<td>MM RR-6.3.2 If construction is proposed during the breeding season (February–August), a focused survey for raptors and other migratory bird nests shall be conducted within 14 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests on-site. If active nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. This 500-foot construction prohibition zone may be reduced based on consultation with and approval by the California Department of Fish and Wildlife. Trees containing nests or cavities that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to January). If no active nests are found during the focused survey, no</td>
<td></td>
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<tbody>
<tr>
<td><strong>Impact 6.3.3(RR)</strong> There is no riparian habitat, sensitive natural community, or federally protected wetlands within the project site.</td>
<td>EI</td>
<td>Further mitigation will be required. To the extent feasible, necessary tree removal should occur outside of the typical nesting season to minimize or avoid adverse effects to all nesting birds.</td>
<td>EI</td>
</tr>
<tr>
<td><strong>Impact 6.3.4(RR)</strong> Implementation of the proposed project would not interfere with the movement of native resident or migratory wildlife species.</td>
<td>EI</td>
<td>None required.</td>
<td>EI</td>
</tr>
<tr>
<td><strong>Impact 6.3.5(RR)</strong> Development of the project area will not result in the loss of protected trees or a landmark grove, which could conflict with the Nevada County General Plan.</td>
<td>EI</td>
<td>None required.</td>
<td>EI</td>
</tr>
<tr>
<td><strong>Impact 6.3.6(RR)</strong> Implementation of the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.</td>
<td>EI</td>
<td>None required.</td>
<td>EI</td>
</tr>
<tr>
<td><strong>Impact 6.4.1</strong> Cumulative development of the proposed projects could affect biological resources.</td>
<td>CC/S</td>
<td>Implement mitigation as follows: Alta Sierra project: Implement mitigation measures <strong>MM AS-6.1.3a</strong> through <strong>MM AS-6.1.3e</strong> Penn Valley project: Implement mitigation <strong>MM PV-6.2.4</strong> Rough and Ready Highway project: None required.</td>
<td>LCC</td>
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### Cultural Resources

**Impact 7.3.1 (RR)** The existing building on the Rough and Ready Highway project site has been extensively modified and does not meet any of the criteria for listing as a significant historical resource.

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<tr>
<td><strong>Impact 7.3.1 (RR)</strong></td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
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<tr>
<td><strong>Impact 7.3.2 (RR)</strong> Ground-disturbing construction activities associated with development of the Rough and Ready Highway project site could inadvertently damage previously undiscovered archaeological and tribal resources.</td>
<td>PS</td>
<td>MM RR-7.3.2 In the event cultural materials or human remains are discovered during project construction, the construction contractor shall halt work and contact the appropriate agencies. All equipment operators and persons involved in any form of ground disturbance at any phase of project improvements shall be advised of the possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately within 200 feet of the suspected resource and the Nevada County Planning Department shall be contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for the project.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 7.3.3 (RR)</strong> Ground disturbing construction activities associated with development of the Rough and Ready Highway project site could inadvertently disturb human remains. Compliance with existing regulations would ensure proper management of any discovered human remains.</td>
<td>PS</td>
<td>Implement mitigation measure MM RR-7.3.3.</td>
<td>LS</td>
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<tr>
<td><strong>Impact 7.4.1</strong> Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative cultural resource impacts.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
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**Geology and Soils**

| Impact 8.3.1 (RR) The Rough and Ready Highway project site is located in an area that would be subject to seismic hazards. |
|---|---|---|---|
| PS | MM RR-8.3.1a Prior to grading permit issuance, the project applicant shall provide a final Geotechnical Engineering Report to the Nevada County Building and Planning Departments that reflects the final site plan. The Building Department shall be responsible for reviewing the final site plan and final Geotechnical Engineering Report to ensure that they are consistent with both local and building code requirements. | PS |
| MM RR-8.3.1b Prior to grading or building permit issuance, the developer shall include the grading and structural improvement design criteria recommendations of the Final Geotechnical Engineering Report as notes on improvement plans and incorporate those recommended actions into the final project design. The Nevada County Building Department shall verify that the recommendations are being implemented during the plan review and inspection stages of the permit process. | PS |

| Impact 8.3.2 (RR) Development of the Rough and Ready Highway site could result in temporary erosion. |
|---|---|---|---|
| PS | MM RR-8.3.2a Prior to issuance of grading permits, all grading and improvement plans shall include a note that documents the approved time of year for grading activities. Specifically, no grading shall occur after October 15 or before May 1 unless standard | PS |
| LS |

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<td>Building Department requirements are met for grading during the wet season.</td>
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<td><strong>MM RR-8.3.2b</strong> Prior to issuance of grading permits or improvement plans for all project-related grading including road construction and drainage improvements, all plans shall incorporate, at a minimum, the following erosion and sediment control measures, which shall be implemented throughout the construction phase:</td>
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<tr>
<td>1. During construction, Best Management Practices (BMPs) for temporary erosion control shall be implemented to control any pollutants that could potentially affect the quality of storm water discharges from the site. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in accordance with California State Water Resources Control Board (SWRCB) requirements. The SWPPP shall include the implementation of BMPs for Erosion Control, Sediment Control, Tracking Control, Wind Erosion Control, Waste Management and Materials Pollution Control and shall be provided to the Nevada County Planning, Building and Public Works Departments prior to issuance of grading permits or approval of improvement plans.</td>
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<tr>
<td>2. Topsoil that will be used as fill material shall be removed and stockpiled for later reuse prior to excavation activities. Topsoil shall be identified by the soil-revegetation specialist who will identify both extent and depth of the topsoil to be removed.</td>
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<tr>
<td>3. Upon completion of grading, stockpiled topsoil shall be combined with wood chips, compost and other soil amendments for placement on all graded areas. Revegetation shall consist of native seed mixes only. The primary objectives of the soil amendments and revegetation is to create site conditions that keep sediment on site, produce a stable soil surface, resist erosion and are similar to the surrounding ecosystem.</td>
<td>PS</td>
<td>Implement mitigation measures MM RR-8.3.1a and MM RR-8.3.1b.</td>
<td>LS</td>
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<tr>
<td>4. Geo-fabrics, jutes or other mats may be used in conjunction with revegetation and soil stabilization.</td>
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</table>

**Impact 8.3.3 (RR)** The Rough and Ready Highway site may include soils that may be subject to expansion potential.

- **Level of Significance Before Mitigation**: PS
- **Mitigation Measure**: Implement mitigation measures MM RR-8.3.1a and MM RR-8.3.1b.
- **Resulting Level of Significance**: LS

**Impact 8.3.4 (RR)** Wastewater treatment and disposal at the Rough and Ready Highway site would be provided through septic system.

- **Level of Significance Before Mitigation**: LS
- **Mitigation Measure**: None required.
- **Resulting Level of Significance**: LS

**Impact 8.4.1** Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative geologic and soils impacts.

- **Level of Significance Before Mitigation**: LCC
- **Mitigation Measure**: None required.
- **Resulting Level of Significance**: LCC

**Greenhouse Gas Emissions**

**Impact 9.3.1 (RR)** The Rough and Ready project would generate greenhouse gas emissions.

- **Level of Significance Before Mitigation**: LCC
- **Mitigation Measure**: None required.
- **Resulting Level of Significance**: LCC

**Hazards and Hazardous Materials**

**Impact 10.3.1 (RR)** Construction and occupancy of the Rough and Ready Highway site would involve the use of hazardous materials.

- **Level of Significance Before Mitigation**: LS
- **Mitigation Measure**: None required.
- **Resulting Level of Significance**: LS

**Impact 10.3.2 (RR)** Development of the Rough and Ready Highway site would involve activities that have the potential to encounter hazardous materials.

- **Level of Significance Before Mitigation**: PS
- **Mitigation Measure**: MM RR-10.3.2a The County shall ensure any grading or improvement plan or building permit includes a condition that if hazardous materials contamination is discovered or suspected during construction activities, all
- **Resulting Level of Significance**: LS

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<td>work shall stop immediately and the construction contractor shall notify the County for direction. Signs of potential hazardous materials contamination may include stained soils, discolored or oily, previously unknown underground storage tanks, foul odors, etc. Work shall not resume until a qualified professional has determined an appropriate course of action such as investigation, remediation, or other method to control the potential for hazardous materials contamination to pose a human health or environmental risk. The County shall be responsible for appropriate notification of regulatory agencies such as the Central Valley RWQCB and/or DTSC, as applicable.</td>
<td>LCC - less than cumulatively considerable impact</td>
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<td></td>
<td>MM RR-10.3.2b A survey for asbestos-containing building materials, lead-based paint, polychlorinated biphenyl, or other potentially hazardous building materials shall be conducted prior to initiation of demolition or reconstruction of the existing buildings. The results of the survey shall be provided to the Nevada County Building Department prior to any work on the building. If hazardous building materials are present at levels that require special handling and/or disposal, removal of the materials shall be completed by qualified professionals in accordance with applicable laws and regulations (including Northern Sierra Air Quality Management District requirements) prior to any activity that would involve demolition or renovation.</td>
<td>CC – cumulatively considerable impact</td>
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<tbody>
<tr>
<td><strong>Impact 10.3.3 (RR)</strong> Development of the Rough and Ready Highway site would not affect emergency response plans or established evacuation routes.</td>
<td>LS</td>
<td>None required.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 10.3.4 (RR)</strong> Development of the Rough and Ready Highway site would result in a new building in a very high fire hazard severity zone.</td>
<td>PS</td>
<td>MM RR-10.3.4 Prior to issuance of a grading and building permits for the project, the County shall ensure the following is completed: 1. An automatic fire sprinkler and alarm system approved by the Nevada County Consolidated Fire District shall be included in project design. 2. All improvements to achieve 1,500 gallons per minute fire flow shall be completed prior to any building materials stored on-site. Written verification of adequate fire flow, based on an actual flow test, shall be provided to the Nevada County Consolidated Fire District. 3. The applicant shall install a 48,000-gallon water storage tank. Prior to installation, the applicant shall provide a plan to the Nevada County Consolidated Fire District for review and approval that demonstrates how the tank integrates with the Nevada Irrigation District system to ensure adequate fire flow. 4. If it is determined through flow-testing that the three fire hydrants within 500 feet of the project site are insufficient to meet fire flow requirements, additional on-site hydrants will be required and shall be subject to review and approval by the Nevada County Consolidated Fire District. 5. The post-indicator valve and fire department connection for the fire sprinkler system should be installed near</td>
<td>LS</td>
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## Executive Summary

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<td>the fire hydrant located near the northwest corner of the property. Other locations may be proposed; however, they may require the addition of an on-site hydrant, subject to approval by the Nevada County Consolidated Fire District.</td>
<td>Implement mitigation as follows: Alta Sierra project: None required. Penn Valley project: None required. Rough and Ready Highway project: Implement mitigation measures MM RR-10.3.2a and MM RR-10.3.2b.</td>
<td>CC/S</td>
<td>LCC</td>
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### Impact 10.4.1

Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative hazards and hazardous materials impacts.

### Hydrology and Water Quality

#### Impact 11.3.1 (RR)

Development of the Rough and Ready Highway site would result in an increase in the rate and amount of stormwater runoff and would contribute urban pollutants to stormwater runoff.

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<tr>
<td>MM RR-11.3.1a The construction and grading permits shall comply with the applicable NPDES regulations. Prior to grading permit issuance, obtain a General Permit for Storm Water Discharges Associated with the construction activity and provide a copy of the permit to the County Planning, Building and Public Works Departments. Grading plans shall include verification that an NPDES permit, issued by the State Water Resources Board, has been issued for this project. To protect water quality, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to, the following: 1. At no time shall heavy equipment operate in flowing water.</td>
<td>PS</td>
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<td>2.</td>
<td>Disturbed areas shall be graded to minimize surface erosion and siltation; bare areas will be covered with mulch; cleared areas will be revegetated with locally native erosion control seed mix.</td>
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<td>3.</td>
<td>The contractor shall exercise every reasonable precaution from adding pollution to offsite waterways with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the offsite drainages and shall be collected and removed from the site.</td>
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<td>4.</td>
<td>Erosion control measures shall be applied to all disturbed slopes. No invasive non-native grasses shall be used for erosion control, such as velvet grass or orchard grass. A combination of rice straw wattles, a mulch of native straw or certified weed-free straw, and a planting of native plant species is recommended.</td>
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<td>5.</td>
<td>Silt fencing (or filter fabric) shall be used to catch any short-term erosion or sedimentation that may inadvertently occur. Silt-fencing should be installed well above the offsite drainages and extend beyond the construction zone if necessary. The use of standard straw is prohibited to avoid introduction of noxious weeds, such as star thistle.</td>
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<td>6.</td>
<td>To minimize water quality impacts to Upper Rough and Ready Ditch or other offsite drainages (e.g., Deer Creek) after the project is complete, no direct discharge of runoff from newly constructed impervious</td>
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<td>surface will be allowed to flow directly to the drainage. Runoff from surfaces should be directed through storm water interceptors constructed at discharge points. These interceptors will remove oil, sediment, and other pollutants that might otherwise flow to downstream waterways.</td>
<td>MM RR-11.3.1b Surface Drainage. The following measures shall be required to reduce surface water drainage patterns, unless alternatives are approved that are recommended by the project’s geotechnical engineers, the California Regional Water Quality Control Board or the Department of Public Works that will provide substantially the same or better management of surface drainage: 1. Slope final grade adjacent to structural areas so that surface water drains away from building pad finish subgrades at a minimum 2 percent slope for a minimum distance of 10 feet. Where interior slabs-on-grade are proposed, the exterior subgrade must have a minimum slope of 4 percent away from the structure for a minimum distance of 10 feet. Additional drainage and slab-on-grade construction recommendations are provided in a geotechnical engineering report outlined in mitigation measure MM RR-8.3.1b. 2. Compact and slope all soil placed adjacent to building foundations such that water is not retained to pond or infiltrate. Backfill should be free of deleterious material.</td>
<td></td>
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### Impact 11.3.2 (RR) Saturated soil and groundwater seepage may be present seasonally at the Rough and Ready Highway site and the site would be served by a new septic system, but the project would have minimal effect on groundwater amount and quality.

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<tr>
<td>LS</td>
<td>3. Direct rain-gutter downspouts to a solid collector pipe which discharges flow to positive drainage and away from building foundations.</td>
<td>None required.</td>
<td>LS</td>
</tr>
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</table>

**MM RR-11.3.1c Drainage Facilities.** Drainage facilities for this project shall utilize County Standard Plans and Specifications and be designed by a registered civil engineer. Onsite storm drainage facilities shall be constructed in compliance with the design and analysis provided in the project specific Drainage Report prepared by TTG Engineers dated March 2016, and Sheet C2 date stamped June 24, 2016, which is to be kept on file with the Planning Department. Additionally, measures shall be incorporated into the improvement plans that reduce the offsite drainage flows to pre-project conditions as any additional net increase in stormwater runoff from the project site is prohibited. Features shall also be incorporated into the plans that minimize the discharge of pollutants in conformance with General Plan Policy 11.6A, which include, but is not limited to, the use of curbs and gutters, and the use of oil, grease and silt traps. County engineering staff shall review future construction plans to verify that the final design meet the requirements of this mitigation measure.
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<tr>
<td>Impact 11.4.1</td>
<td>Cumulative development, including the proposed projects, could affect water quality as a result of stormwater runoff containing pollutants.</td>
<td>LCC</td>
<td>None required.</td>
</tr>
<tr>
<td>Impact 11.4.2</td>
<td>Cumulative development, including the proposed projects, in areas not served by a public wastewater system would result in an increase in the number of septic tanks, which can affect water quality.</td>
<td>LCC</td>
<td>None required.</td>
</tr>
<tr>
<td>Impact 11.4.3</td>
<td>Cumulative development, including the proposed projects, could increase the rate and/or amount of stormwater discharged into local drainage systems and natural waterways, which could increase flood potential.</td>
<td>LCC</td>
<td>None required.</td>
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</table>

#### Land Use and Planning

| Impact 12.3.1 (RR) | Development of the Rough and Ready Highway site would not physically divide the surrounding community. | NI | None required. | NI |
| Impact 12.3.2 (RR) | Development of the Rough and Ready Highway site as proposed would be consistent with applicable land use plans, policies and regulations, but would not be compatible with the surrounding uses. | S | Implement mitigation measures MM RR-4.3.2 and MM RR-13.3.1. | SU |
| Impact 12.4.1 | Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative land use impacts. | LCC | None required. | LCC |

#### Noise

| Impact 13.3.1 (RR) | The proposed project could expose sensitive receptors to stationary sources of noise in excess of established standards. | PS | MM RR-13.3.1a Prior to approval of improvements plans, the project design shall be revised to replace the solid privacy fence along the western and southern site boundaries with a 6-foot-high wall constructed of CMU or similar material. MM RR-13.3.1b To ensure project operational noise levels do not exceed the County’s Noise Standards, the project shall be conditioned to limit all truck deliveries to the Rough and | LS |

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<tr>
<td>Ready Highway project site to between the daytime hours of 7:00 a.m. and 7:00 p.m. Store management shall be educated regarding these restricted delivery hours and a small non-illuminated sign not to exceed 4 square feet shall be posted in the delivery loading and unloading area outlining these restrictions. Prior to issuance of final occupancy, the Planning Department shall perform a site visit to ensure this mitigation measure has been implemented.</td>
<td>PS</td>
<td>MM RR-13.3.2 The project applicant shall ensure through contract specifications that construction best management practices (BMPs) are implemented by contractors to reduce construction noise levels. Contract specifications shall be included in the construction document, which shall be reviewed by the County prior to issuance of a grading or building permit (whichever is issued first). The construction BMPs shall include the following:</td>
<td>LS</td>
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</table>

**Impact 13.3.2 (RR)** Project construction would result in a temporary increase in ambient noise levels in the vicinity of the Rough and Ready Highway project site.

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### Impact 13.3.3 (RR)
Groundborne vibration levels associated with short-term construction activities at the Rough and Ready Highway project site would not exceed the applicable groundborne vibration criterion at adjacent land uses.

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<td>LS</td>
<td>None required.</td>
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### Impact 13.3.4 (RR)
Implementation of the proposed project would not result in the exposure of sensitive receptors to excessive noise levels associated with airport operations.

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<tr>
<td>LS</td>
<td>None required.</td>
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<tr>
<td><strong>Impact 13.4.1</strong> Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County would result in a cumulative increase in noise. However, compliance with the policies contained in the Noise Element would ensure that noise levels do not exceed applicable County noise standards.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
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</table>

**Public Services and Utilities**

| Impact 14.3.1 (RR) Development of the Rough and Ready Highway project site as proposed would not substantially increase demand for public safety services and would not trigger the need for any new or expanded facilities. | LS | None required. | LS |
| Impact 14.3.2 (RR) Operation of the proposed Rough and Ready Highway project would increase demand for water supplies as well as water treatment capacity and would require construction of on-water conveyance improvements. | LS | None required. | LS |
| Impact 14.3.3 (RR) The proposed Rough and Ready Highway project includes an on-site septic system, the construction of which could result in environmental impacts. | LS | None required. | LS |
| Impact 14.3.4 (RR) The proposed Rough and Ready Highway project includes on-site storm water drainage improvements, the construction of which could result in environmental impacts. | LS | None required. | LS |

| Impact 14.3.5 (RR) Construction and operation of the proposed Rough and Ready Highway project would generate solid waste requiring collection and disposal services. | LS | MM RR-14.3.5 Prior to issuance of grading or building permits the following shall be included as a Note on those plans: Toxic waste materials (ammunition, asbestos, biohazards, compressed gas cylinders, explosives, radioactive materials, treated wood waste, and medications) are not accepted at the McCourtney Road Transfer Station and if encountered during construction, shall be properly disposed of in compliance with existing regulations and at appropriate facilities. The County Department of Public Works-Solid Waste Division (organic waste) | LS |

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<td>and Environmental Health Department (industrial toxic waste) are the local agencies with oversight over the disposal of these materials. Should the developer encounter these materials during grading or construction activities, the developer shall consult with these agencies to determine the appropriate methods for disposal and the appropriate facilities where these materials can be disposed.</td>
<td>LCC</td>
<td>None required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 14.4.1 Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County could result in the need to expand or construct new public safety facilities in order to maintain adequate service levels.</td>
<td>LCC</td>
<td>No additional measures required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 14.4.2 Sufficient water supplies and water treatment facility capacity would be available to serve projected cumulative growth in western Nevada County.</td>
<td>LCC</td>
<td>No additional measures required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 14.4.3 Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, could result in the need to construct new water, wastewater, storm drainage, or solid waste facilities in order to maintain adequate service levels.</td>
<td>LCC</td>
<td>No additional measures required.</td>
<td>LCC</td>
</tr>
<tr>
<td>Impact 14.4.4 Existing solid waste transfer and disposal facilities have sufficient capacity to accommodate anticipated growth in western Nevada County.</td>
<td>LCC</td>
<td>No additional measures required.</td>
<td>LCC</td>
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<tr>
<td>Traffic and Transportation</td>
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<tr>
<td><strong>Impact 15.3.1(RR)</strong> Implementation of the proposed Rough and Ready Highway project would increase vehicular traffic on the local roadway system, potentially degrading intersection operations.</td>
<td>S</td>
<td>MM RR-15.3.1 Occupation or operation of the Rough and Ready Highway project site shall not occur until such time that the traffic signal at the intersection of Rough and Ready Highway and Ridge Road is installed. If the improvements are constructed by the project applicant, they shall be subject to review by the Public Works Department and will be</td>
<td>LS</td>
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<tr>
<td>Impact 15.3.2(RR)</td>
<td>Development of the Rough and Ready Highway project site as proposed could introduce incompatible uses that could affect safety on roadways in the and could negatively affect emergency access in the project vicinity.</td>
<td>PS</td>
<td>LS</td>
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<tr>
<td>Impact 15.3.3(RR)</td>
<td>Development of the Rough and Ready Highway project site as proposed would not result in the need for private or public road maintenance or for new roads.</td>
<td>LS</td>
<td>None required.</td>
</tr>
<tr>
<td>Impact 15.3.4(RR)</td>
<td>Development of the Rough and Ready Highway project site would not have effects on pedestrian, bicycle, or transit circulation in the area and would not conflict with adopted plans regarding alternative transportation.</td>
<td>LS</td>
<td>None required.</td>
</tr>
<tr>
<td>Impact 15.3.5(RR)</td>
<td>Construction of the Rough and Ready Highway project site would have no substantial effects on pedestrian, bicycle, or transit circulation in the study area.</td>
<td>PS</td>
<td>MM RR-15.3.5 Prior to the issuance of a grading permit for the Rough and Ready Highway project site, a Construction Traffic Control Plan (CTCP) shall be submitted for review and approval by the Nevada County</td>
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<td>Public Works Department. The CTCP shall include a schedule of construction and anticipated methods of handling traffic during construction activities to ensure the safe flow of traffic, pedestrian/bicycle crossing, and adequate emergency access, including maintaining an open lane for motorized and non-motorized travel at all times. All traffic control measures shall conform to County and Caltrans standards, as applicable.</td>
<td>CC/S Implement mitigation measure MM RR-5.3.1.</td>
<td>LCC</td>
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**Impact 15.6.1(RR)** When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed Rough and Ready Highway project would contribute to cumulative traffic volumes that result in impacts to level of service and operations.

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_Dollar General Stores_  
_Draft Environmental Impact Report_  
_ES-84_
1.0 INTRODUCTION
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This Draft Environmental Impact Report (Draft EIR; DEIR) was prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA) and CEQA Guidelines. An environmental impact report (EIR) is described in CEQA Guidelines Section 15121(a) as a public informational document that analyzes the significant environmental effects of a project, identifies ways to minimize the significant impacts, and describes reasonable alternatives to the project. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible, and are obligated to balance a variety of public objectives including economic, environmental, and social factors. CEQA requires that an EIR be prepared by the agency with primary responsibility over the project (the lead agency).

1.1 PURPOSE OF THE EIR

CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. Therefore, pursuant to CEQA, the County of Nevada (County), acting as the lead agency, has prepared this Draft EIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed projects: (1) the Alta Sierra Dollar General project; (2) the Penn Valley Dollar General project; and, (3) the Rough and Ready Highway Dollar General project (collectively referred to as the proposed projects or projects). The impacts of each of the projects are considered individually in this EIR and, to the extent that any or all of the projects would combine to result in cumulative impacts, those impacts are disclosed.

For the purposes of CEQA, the term project refers to the whole of an action which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed projects, the County has determined that adoption and implementation of the each of the proposed projects is a separate project within the definition of CEQA.

1.2 TRUSTEE AND RESPONSIBLE AGENCIES

For the purposes of CEQA, a trustee agency has jurisdiction by law over natural resources that are held in trust for the people of California (CEQA Guidelines Section 15386). The California Department of Fish and Wildlife is a trustee agency with regard to the state’s fish and wildlife and designated rare or endangered native plants. The term responsible agency includes all public agencies other than the lead agency that have discretionary approval power over the project or an aspect of the project (CEQA Guidelines Section 15381). The following agencies are identified as potential responsible agencies:

- Northern Sierra Air Quality Management District (NSAQMD)
- Central Valley Regional Water Quality Control Board (CVRWQCB)
- State Water Resources Control Board (SWRCB)
- US Army Corps of Engineers (USACE)
- Nevada County Department of Environmental Health
- US Fish and Wildlife Service (USFWS)
- California Department of Fish and Wildlife (CDFW)
1.3 Type of Document

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a project EIR pursuant to CEQA Guidelines Section 15161. The analysis associated with a project EIR focuses primarily on the changes in the environment that would occur as a result of project implementation and examines all phases of the project (i.e., planning, construction, and operation).

Although each Dollar General store represents a separate project under CEQA, the County has determined that all three stores should be analyzed in a single EIR to ensure that the cumulative impacts associated with all three stores are adequately considered.

1.4 Intended Uses of the EIR

This Draft EIR is intended to evaluate the environmental impacts of implementation of the proposed projects. This Draft EIR, in accordance with CEQA Guidelines Section 15126, should be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the project. These actions include, but are not limited to, the following:

- Development Permits
- Management Plans

1.5 Relationship to the Nevada County General Plan

The Board of Supervisors originally adopted the Nevada County General Plan in 1996. The General Plan is the County’s overall guide for the use of the county’s resources, expresses the development goals of the community, and is the foundation upon which all land use decisions are made. The General Plan was subsequently amended in 2008 (Safety Element), in 2010 (Circulation Element and Housing Element, 4th Revision), in 2014 (Land Use Element and Housing Element, 5th Revision, and Safety and Noise Elements), and in 2016 (Land Use Element). This EIR uses the most recent version of the General Plan and policies as they relate to the analysis of environmental impacts of the proposed project.

The General Plan EIR analyzed the environmental impacts associated with buildout of the land uses and densities allowed by the General Plan. Where feasible, the County adopted mitigation measures to reduce impacts to a level of insignificance. The Nevada County Board of Supervisors adopted Findings of Fact and a Statement of Overriding Considerations (Nevada County Board of Supervisors Resolution No. 95530, November 14, 1995) addressing the significant and unavoidable impacts identified in the General Plan EIR.

In addition to the Nevada County General Plan, the Penn Valley project site is also subject to the Penn Valley Village Center Area Plan, which was adopted in 2000 for the Penn Valley Village Center.

The Nevada County Land Use and Development Code, Chapter II, Zoning Regulations (Zoning Ordinance), provides specific development and land use standards for the unincorporated areas of the county. The Zoning Ordinance was updated and revised in 2004 to reflect new standards that implement many objectives and policies set forth in the General Plan. Since that time, a number of updates to the General Plan have been adopted. The most recent updates to the Zoning Ordinance were adopted in 2016. This EIR uses the most recent version of the Zoning Ordinance as it relates to the analysis of project impacts.
The Alta Sierra project site and the Rough and Ready Highway project site have General Plan land use designations of Neighborhood Commercial, while the Penn Valley project site has a land use designation of Community Commercial. As discussed in greater detail in Section 12.0, Land Use and Planning, the proposed projects would be consistent with these existing land use designations and the associated zoning districts.

1.6 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, identification of significant irreversible environmental impacts, and growth-inducing and cumulative impacts. The environmental issues addressed in the Draft EIR were established through review of environmental documentation developed for the sites, environmental documentation for nearby projects, and responses to the Notice of Preparation. The County determined the scope for this Draft EIR based on these comments, agency consultation, and review of the project application.

This Draft EIR is organized in the following manner:

EXECUTIVE SUMMARY

This section provides a project narrative and identifies environmental impacts and mitigation measures through a summary matrix consistent with CEQA Guidelines Section 15123.

SECTION 1.0 – INTRODUCTION

Section 1.0 provides an introduction and overview of the project EIR.

SECTION 2.0 – PROJECT DESCRIPTION

This section describes each of the proposed projects in detail, including intended objectives, background information, and physical and technical characteristics.

SECTION 3.0 – INTRODUCTION TO THE ANALYSIS

This section describes the analysis assumptions used in the DEIR to evaluate the impacts of the project including the baseline environmental conditions at each of the project sites. In addition, this section summarizes the structure of the environmental impact analyses provided in Sections 4.0 through 15.0 and the approach to the cumulative analysis in Section 17.0. The effects not found to be significant, and thus not evaluated further in the DEIR, are also summarized.

SECTIONS 4.0 THROUGH 15.0 – ENVIRONMENTAL SETTINGS, IMPACTS, AND MITIGATION MEASURES

The technical analysis sections of the DEIR contain an analysis of environmental topic areas as identified below. Each section provides a description of the regional setting, regulatory environment, standards of significance, and analysis methodologies that are common to all three of the project sites. This discussion is followed by project-specific subsections which describe the local setting, identify project-related impacts, and recommend mitigation measures. Finally, each section includes a discussion of the cumulative impacts associated with the proposed projects.
SECTION 16.0 – PROJECT ALTERNATIVES

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project which could feasibly attain the basic objectives of the project and avoid and/or substantially lessen any of the significant effects of the project. This section discusses alternatives to the proposed projects, including the CEQA mandatory “No Project” alternative, that are intended to avoid or reduce significant environmental impacts of the proposed projects.

SECTION 17.0 – OTHER CEQA ANALYSIS

This section contains discussions and analysis of various topical issues mandated by CEQA. These topics include significant environmental effects that cannot be avoided if the project is implemented, as well as growth-inducing impacts.

SECTION 18.0 – REPORT PREPARATION

This section lists all authors and agencies that assisted in the preparation of the EIR by name, title, and company or agency affiliation.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as technical material prepared to support the analysis.

1.7 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR will involve the following procedural steps:

NOTICE OF PREPARATION AND INITIAL STUDY

In accordance with Section 15082 of the CEQA Guidelines, the County prepared a Notice of Preparation (NOP) of an EIR for the project on January 6, 2016. The NOP was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project. A separate scoping meeting was held for each project and a fourth meeting was held before the Planning Commission for all of the projects on the following dates:

- January 19 (Alta Sierra)
- January 25 (Penn Valley)
- January 20 (Rough and Ready Highway)
- January 29 (all projects)
The scoping meetings were held to solicit input from interested agencies and the public. Concerns raised in response to the NOP and at the scoping meeting were considered during preparation of the Draft EIR. The 30-day comment period closed on February 4, 2016. The NOP is presented in Appendix 1.0-A, and the comments received from interested parties are presented, by project, in Appendices 1.0-B through 1.0-E.

DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the projects, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the Draft EIR, the County will file the Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code Section 21161).

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the County will provide public notice of the availability of the Draft EIR for public review and invite comment from the general public, agencies, organizations, and other interested parties. Public comment on the Draft EIR will be accepted in written form via common carrier or via electronic mail (e-mail). Public comment will also be accepted orally at public hearings. Notice of the time and location of the hearing will be published prior to the hearing. All comments or questions regarding the Draft EIR should be addressed to:

Tyler Barrington, Principal Planner  
Planning Department  
Nevada County Community Development Agency  
950 Maidu Avenue, Suite 170  
Nevada City, CA 95959  
Phone: (530) 470-2723  
E-mail: Tyler.Barrington@co.nevada.ca.us

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period and contain any revisions to the Draft EIR.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The Nevada County Planning Commission will review and consider the Final EIR during the public hearing(s) for the proposed project. If the Planning Commission finds that the Final EIR is “adequate and complete,” the Commission may choose to certify the Final EIR. The rule of adequacy generally holds that the EIR can be certified if it shows a good faith effort at full disclosure of environmental information and provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences.

Upon review and consideration of the Final EIR, the Planning Commission may take action to recommend approval, revise, or reject the applications for Development Permits and Management Plans for each project. A decision to approve any or all of the projects would be accompanied by written findings in accordance with CEQA Guidelines Section 15091. If applicable, the Commission may approve the project even with significant and unavoidable
environmental impacts by making a finding of overriding considerations as outlined in Section 15093. A Mitigation Monitoring and Reporting Program (MMRP), as described below, would also be adopted for mitigation measures that have been incorporated into or imposed upon the projects to reduce or avoid significant effects on the environment. The MMRP will be designed to ensure that these measures are carried out during implementation of the projects.

MITIGATION MONITORING

CEQA Section 21081.6(a) requires lead agencies to adopt an MMRP to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The specific reporting or monitoring program required by CEQA is not required to be included in the EIR; however, it will be presented to the Planning Commission for adoption. Throughout the EIR, as applicable, mitigation measures have been clearly identified for each of the projects (measure numbers begin with a two-letter abbreviation for the project to which it applies—“AS” refers to the Alta Sierra project; “PV” refers to the Penn Valley project; and “RR” refers to the Rough and Ready Highway project) and are presented in language that will facilitate establishment of an MMRP. Each project will have its own MMRP if approved, and any mitigation measures adopted by the County as conditions for approval of the project will be included in the project MMRP to verify compliance.

1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

A copy of each comment letter on the NOP for the Dollar General Draft EIR received by the County is provided in Appendices 1.0-B through 1.0-E of this DEIR. Appendix 1.0-B contains letters received regarding the Alta Sierra project. Appendix 1.0-C contains letters received regarding the Penn Valley project. Appendix 1.0-D contains letters received regarding the Rough and Ready Highway project. Appendix 1.0-E contains letters received regarding all of the proposed projects. In addition, several commenters provided verbal comments at the scoping meeting for the project. Major issues addressed in the project comments are summarized below.

<table>
<thead>
<tr>
<th>Alta Sierra Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
</tr>
<tr>
<td>• Reliability of studies is questionable because they kept being changed.</td>
</tr>
<tr>
<td>• Sharing of project parcels for septic suggests the EIR should also address that other parcel.</td>
</tr>
<tr>
<td><strong>Aesthetics</strong></td>
</tr>
<tr>
<td>• Tree removal will affect views even more. Clearing and brush removal that has already happened makes existing commercial properties more visible to residents above on Little Valley Road.</td>
</tr>
<tr>
<td>• Rock wall and lighting concerns.</td>
</tr>
<tr>
<td>• Landscape plan isn’t adequate – doesn’t address views of back sides of commercial.</td>
</tr>
<tr>
<td>• Area will become blighted.</td>
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<tr>
<td>• Height of retaining wall and building isn’t right for location.</td>
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<tr>
<td>• Other Dollar General stores look junky outside.</td>
</tr>
<tr>
<td>• The building will look like a fortress to residents living on Little Valley Road.</td>
</tr>
<tr>
<td>• Bright lights will be intrusive.</td>
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<tr>
<td>• Even with façade it still won’t fit in architecturally with surroundings.</td>
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</tbody>
</table>
# 1.0 Introduction

- General Plan directs aesthetic design of new development to reflect existing character.

- Just because 30-foot height meets code doesn’t mean impacts are less than significant.

## Air Quality

- Construction emissions will affect residents on Little Valley Road.

- Smell of diesel fumes from delivery trucks will negatively affect outdoor uses at residences (decks).

## Biological Resources

- Loss of 100 trees will affect habitat and species.

- Impacts on landmark oak woodlands.

- EIR needs to discuss remaining heritage oaks in county and cumulative loss.

- Plant community description for previous document inaccurate and inadequate, plant surveys not done at right time, should be supplemented with commenter’s description and cited (Moran letters).

- Site has potential nesting habitat for birds, raptors – wildlife surveys need to be done.

- Loss of old growth trees is not in best interest of genetic vigor of remaining forests and woodlands.

## Cultural Resources

- Site survey needed for resources, must also include analysis of historical and cultural significance of native plants and ecosystems, especially black oaks.

## Geology and Soils

- Alta Sierra subdivision’s soils becoming more unstable and project could initiate soil erosion of catastrophic levels.

## Greenhouse Gas Emissions

- Tree removal will have an effect on climate change.

## Land Use

- Doesn’t conform to C1 zoning, should be in C2, size should be reduced to meet C1; doesn’t conform to NC either. EIR should address this. NC not intended for a project like Dollar General.

- Urban blight needs to be addressed in EIR.

- Conclusions in the previous Negative Declaration such as “won’t be a major land use incompatibility” need to define “major.” This project is incompatible with adjacent residential uses.

- Makes no sense to conclude that a big store next to residential is a compatible use just because the parcel allows the type of project proposed.

- Violates land use code and ordinances pertaining to landmark oaks.

## Noise

- Construction truck trips will be noisy, especially a problem if starting in the early morning.

- Noise from delivery trucks engines, backup warnings, will negatively affect outdoor uses at residences (decks).

## Traffic and Transportation

- Little Valley Road is narrow and hazardous – pedestrians, students/school bus stops, residents’ safety concern during construction, 700 trucks to remove soil is a lot of traffic. Analysis in previous Negative Declaration was thin, and limiting trips to non-peak and 21 days doesn’t make it less than significant given local conditions – 40–50 trucks a day through residential on narrow road. Mitigation should require trucks to use the other entrance, and if that is not feasible, then document should explain why.
## 1.0 INTRODUCTION

- Safety hazard of "S" curve not adequately evaluated, doesn't account for incline, has blind spots, sight distance problem, motorists stopping suddenly to make turns into existing driveway is already a problem.

- Cumulative traffic hazards need to be addressed.

- Studies of signal timing and traffic counts don't take into account the "S" curve, driveway impacts, and poor driver habits collectively.

- Traffic and pedestrian safety hazard on Alta Sierra already a problem, project will make it worse.

- Trucks can't make the turns the applicant says they can make; turning templates don't account for the time it will take trucks to do the minor jockeying to get into the site; turning analysis doesn't account for cars trying to enter the parking lot when delivery trucks are present at same time.

- Construction worker parking insufficient, will create problems.

- If payment of fees is used for mitigation, then document needs to explain how fee will be used and how it will mitigate.

- Negative Declaration mitigation measure MM 16A traffic fee says if there are increased accidents as a result of project, then fee spent to reduce to less than significant, but there is no discussion of how much this fee will be or how it would be spent. No performance criteria was suggested.

- EIR needs to identify enforceable mitigation and consequences if compliance is not achieved.

- Traffic study makes incorrect assumptions about line of sight and doesn't correctly account for length of trucks, will result in rear-end collisions.

- Turning trucks will block traffic, cause accidents, will cause long roadway closures, especially if there is a fuel spill.

- Will cause congestion on Alta Sierra Drive, making it harder for residents.

- What are Caltrans and County comments on the traffic study? Particularly the SR 49 turn pocket length.

- Turn pocket length at SR 49 was identified as inadequate in the Negative Declaration, but no mitigation was proposed; who pays for improvements? (needs to be identified)

- Traffic for store would not be limited to that coming off the highway, people may cut through community to get to store, roads are winding and slow.

- Should consider mitigation to develop a second driveway, should consider straightening the "S" curve instead of cutting down weeds and removing shrubs.

- EIR needs to identify enforceable mitigation and consequences if compliance is not achieved.

- Topography at top of Alta Sierra Drive at SR 49 is hazardous because cars exiting gas station can't see, aren't careful entering traffic.

- Concern with subjective conclusions in EIR.

- Traffic caused by project is a concern, especially in a fire situation.

- Pavement damage on Little Valley Road from construction trucks.

- Doesn't provide as many parking spaces as code requires; parking study doesn't consider economics/sales. Just because customers spend less per visit doesn't mean less cars, it means more cars because store would need more customers to make money; therefore, traffic study is underestimating trips.

- Commenter (Moran) provided data about number of cars in parking lots at Grass Valley and Marysville stores.

- Parking study lacks evidence to support reduced number of spaces – the study says similar stores but not whether 9,100 square feet like project or 7,300 square feet like others. No evidence that stores are in areas similar to Alta Sierra.

- Size of trucks is limited by STAA route standards. The Dollar General trucks are longer than allowed for Alta Sierra Drive. Isn't this misuse of roadways and how will that be addressed?
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- Turning analysis can’t assume Alta Sierra Drive is improved to truck route for purposes of worst case when there’s no evidence the roadway would even be improved.

- Size of trucks on roads like Alta Sierra Drive that have tight curves, etc., is dangerous, accidents waiting to happen.

- EIR needs to show how delivery trucks will be able to legally and safety negotiate the Alta Sierra Drive/SR 49 intersection (Caltrans comment).

- The EIR should show that delivery trucks will be able to legally and safety negotiate the SR 20/Penn Valley Drive, SR 20/Pleasant Valley Road intersections.

Water Supply

- Project will worsen drought conditions. Examples provided: loss of trees with deep root systems that funnel water into aquifers and fractures; impervious surfaces; project water use.

Wastewater

- Dollar General septic could limit other property owners’ ability to use septic and could cause that business problems like not being able to operate at full potential.

- The County’s OWTS policy implementation reference doesn’t allow for transporting sewage to a non-connected parcel.

- Septic needs to be reviewed by experts.

- EIR should consider potential effect on the parcel south of the building site that houses the Alta Sierra Market because that parcel is landlocked and covered with asphalt, and Dollar General will affect its ability to operate.

Storm Drainage

- Removal of vegetation will “decrease watershed” and create more water on Little Valley Road, which has a drainage flow problem.

- Drainage on Alta Sierra Drive is already a problem, flows down Alta Sierra Drive, ditches already don’t have capacity, need cleaning and maintenance which hasn’t been done.

- What is impact on drainage system and flooding and creek below (Gold Creek) and downstream property owners?

- Removing the trees will cause soil erosion and runoff problems.

- Runoff from site will degrade creek and groundwater quality.

- Creation of impervious surfaces in combination with project’s water use will reduce groundwater recharge which will affect local aquifers.

Project Alternatives

- No project requires evaluation.

- Make it smaller, reduce disturbance, improve appearance – there are 7,300-square-foot Dollar General stores.

- County should reject proposal and make it an oak preserve.

- Put it somewhere else (Cherry Creek Lane).

- Document should evaluate alternative that will reduce traffic impacts and hazards.

- Since a Management Plan was needed to address loss of heritage oaks because they are not avoidable, then there should be an alternative evaluated that shows how the impact to oaks could be avoided.

- Site should be used for something else.

Socioeconomics

- The project will reduce property values.
### 1.0 Introduction

- Evidence to support store success is lacking.
- Will cause other local stores to go out of business, resulting in bankruptcies and blight.
- Type of store isn’t needed, no demand for what it sells.
- Will degrade quality of life.
- Economic analysis doesn’t consider that local residents won’t actually shop at Dollar General but will shop elsewhere.
- Will needs of neighboring community be met, enhanced, or impoverished?
- Will project really add sales revenue to county or rob sales from neighboring businesses and negatively affect them?
- When the project goes out of business, it will result in blight, vagrants, homeless, graffiti, rodents, fire risk, and criminal activity at site.
- Who would be responsible for removing building and cleaning up property when it goes out of business? The property owner, Dollar General, County?

#### Penn Valley Project

**General**

- Suggests a different type of ground cover than what is proposed.

**Biological Resources**

- Take all reasonable and necessary steps to protect Squirrel Creek.

**Hazard and Hazardous Materials**

- The County should require the landowner to test site soils for hazardous materials contamination.

**Noise**

- There should be a sound wall between the proposed development and the Creekside Village Mobile Home Park north of the site. The sound wall should provide adequate draining and should be aesthetically pleasing.

**Traffic and Transportation**

- Concern about trucks being able to turn in and out of the site.
- The EIR should show that delivery trucks will be able to legally and safely negotiate Penn Valley.

#### Rough and Ready Highway Project

**Aesthetics**

- Building design doesn’t fit in.
- Building will max out site, obstruct views, will result in lack of privacy.
- Site size and design doesn’t allow for reasonable setbacks and screening, should be on a bigger lot.
- Size and height will dominate landscape and detract from views, it’s out of scale with surroundings.
- Blight effects, especially if it goes out of business.
- Nighttime lighting in residential neighborhood where there aren’t even any streetlights.
- How will lighting fixtures shield and prevent light from being visible from adjacent properties if building is facing east toward multiple houses 40–50 feet away?
- Will generate trash and litter.
- The "phony Gold Rush façade will be visual blight."
**1.0 INTRODUCTION**

- Lights from vehicles turning into/out of parking lot is a concern in residential neighborhood.
- Out of character with rural/historic area.
- **Biological Resources**
  - Developing the property would result in loss of wildlife habitat and species, and only starlings and pigeons would adapt.
- **Land Use and Planning**
  - The project doesn’t belong in a residential neighborhood.
  - Big box stores belong in commercial areas.
  - Would detract from rural character.
  - Project is contrary to General Plan, violates General Plan planning principles (scattered development, preserving natural/visual resources).
  - Project isn’t even in Rough and Ready center, it’s 2 miles away.
  - The zoning designation for commercial made 20–30 years ago isn’t appropriate for the residential neighborhood that’s there now.
- This is urban sprawl.
- Store in middle of residential area is unsafe.
- **Noise**
  - Truck noise not compatible with quiet residential neighborhood – engines, backup horns, etc.
  - Added traffic noise to already noisy highway will make it worse, truck noise especially.
  - Continuous traffic noise until 10 PM.
  - Noise pollution from HVAC 24 hours and will be audible to nearby residents.
  - Number of delivery trucks after 10 PM in quiet area should be addressed in EIR.
  - Car doors opening, people talking.
  - Noise from solid waste collection trucks in early morning hours will be annoying.
- **Water Supply**
  - Water pressure might not be enough to serve existing res plus Dollar General. What happens if a fire, do residents lose their water? Where is study for this?
  - NID and TTG reports show flow is 49.5% lower than what is needed.
  - Computer simulation not enough; no physical evidence or field tests show TTG proposal for pump and alarms to confirm pressures.
  - Concern about lack of connections on Rough and Ready Highway.
  - Water situation is serious, what about leaks (example provided: large farm was put out of business because of conflict with NID).
  - Water availability needs to be addressed.
- **Wastewater**
  - Dollar General septic tank would be diagonal to residential property owner. How will that affect residence septic field?
  - How will septic affect neighborhood?
### 1.0 INTRODUCTION

- Is proposed septic adequate?
- **Storm Water Drainage**
  - Four-inch pipe is too small.
  - How will storm runoff affect NID water ditch across the highway?
  - Where does polluted runoff end up because drainage system is too small?
  - What is applicant’s plan for mitigating torrential rain, snow and ice? Where does excess go and how will that impact properties down the hill?
- **Traffic and Transportation**
  - Clarify the location of delivery truck access at the site.
  - Roads aren’t suitable for access/egress.
  - Truck turning to/from Rough and Ready Highway, potential for accidents.
  - Line of sight with curve to the west already causes accidents day and night.
  - Traffic speeds already a problem, potential for accidents because of vehicles slowing/stopping to turn relative to curve in Rough and Ready Highway and speeds.
  - Customers turning in/out on Rough and Ready Highway, potential for accidents.
  - Pedestrian safety along Rough and Ready Highway where there are no sidewalks, no crosswalks, no stop signs; bicycle safety.
  - Cut-through traffic (delivery trucks and customer cars) on Sunset, it’s narrow, kids play on local streets, Dollar General will create safety hazards.
  - Traffic speed/volumes/congestion on Rough and Ready Highway already a problem; potential for accidents.
  - Cut-through traffic would further damage pavement on Sunset, which is not in good shape.
  - Number of parking spaces isn’t what is required. Where would cars park – in the residential neighborhood?
  - Traffic report is incomplete, disagreement with traffic report.
  - The EIR should consider project traffic effects on Yuba River Charter School bus stops on Rough and Ready Highway.
  - The EIR should consider project traffic effect on public transportation bus stop.
  - Would add too much traffic to Ridge Road, school approved at Adams and Rough and Ready Highway that will add cars and buses.
  - Traffic volumes not representative, timing of traffic counts skews the results; traffic study should be re-evaluated and needs to be more quantitative (see Gallus for details).
  - Truck turning template shows trucks using West Drive, which barely meets fire code access standard; doesn’t include other vehicles like bus stop, cars, other delivery trucks (Fed Ex, etc.).
  - Traffic study wasn’t done during peak hours, doesn’t take into account school bus, and doesn’t take into account how traffic will be impacted by Yuba Charter School. Safety concerns about children boarding/exiting bus.
  - Traffic study failed to consider the “LeMond loop” and risks to cyclists from increased traffic from project. Traffic lights don’t help mitigate impact on bicycle traffic unless there are dedicated bike lanes and switches to trigger lights; increased safety risks to bicyclists in general.
  - Delivery trucks will block corner of Sunset and West.
  - Seems implausible trucks can make turns as shown in the drawings. Can trucks get in and out of site without using East Drive to West Drive loop via Sunset? This should be re-checked.
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- Telephone pole hazards on roadways.
- Crosswalks are needed on Rough and Ready Highway as project will attract pedestrians on opposite side; already a problem without them.
- Widening the road (Rough and Ready Highway) would impact residences, and trucks would increase wear and tear. How far east are road improvements required/proposed?
- Difficult to turn onto Rough and Ready Highway from West Drive already.
- What are the West Drive improvements going to consist of?
- Traffic study is a year old and traffic has increased significantly.
- Dollar General delivery trucks don’t meet size requirements for Rough and Ready Highway and could not legally deliver to store. Rough and Ready Highway should not be changed to truck route to accommodate project.
- It is not clear whether delivery will supply store from SR 20/Penn Valley Drive (south)/Rough and Ready Highway (north), or from one of the interchanges on SR 20 in Grass Valley.
- STAA trucks are not legal north of the feed store on Rough and Ready Highway.

Socioeconomics

- Potential for increased crime and theft in neighborhood.
- More Dollar General stores aren’t needed, don’t need that many so close together.
- County should support local businesses.
- Enough of these kinds of stores nearby already.
- Low-quality store, cheap products.
- Other commercial in area has failed.
- What happens when store fails, end up with a lot with empty building and a chain-link fence.
- Possibility of more homeless people living near the Twin Cities Church because of Dollar General store within walking distance.
- Reduced property values.
- Neighborhood won’t feel safe.
- Should be a mom & pop business at location, fruit stand, park, diner, pub, small grocery – a local-serving business would be better.
- Won’t make money.
- Won’t provide value to the area.
- Economic report conclusions aren’t supported.
- Quality of life of residents in area will be adversely affected.
- Will increase loitering in the area, concern for kids’ safety.
- Concerned about clients at Boyle House across the street shopping at store.
- The homeless population will increase because Dollar General will be in easy walking distance, and more homeless will increase fire risk.
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2.0 PROJECT DESCRIPTION
This section is the project description for the proposed Dollar General projects (proposed projects; projects). The purpose of the project description is to describe the projects in a way that will be meaningful to the public, reviewing agencies, and decision-makers. As described in Section 15124 of the CEQA Guidelines, a complete project description must contain the following information but is not required to supply extensive details beyond that needed for evaluation and review of the environmental impact:

- The location of the proposed project
- A statement of project objectives
- A general description of the project’s technical, economic, and environmental characteristics
- A statement briefly describing the intended uses of the EIR

As discussed in Section 1.0, Introduction, each Dollar General store represents a separate project under CEQA, but the County has determined that all three stores should be analyzed in a single EIR to ensure that the cumulative impacts associated with all three stores are adequately considered. A description of each of the projects is provided below.

### 2.1 Regional Location and Vicinity

Each of the project sites is located in the western-central area of unincorporated Nevada County (see Figure 2.0-1). Nevada County is bounded by Yuba and Sierra counties to the north, Placer County to the west and south, and the state of Nevada to the east. The county covers approximately 978 square miles and contains three incorporated cities—Grass Valley, Nevada City, and Truckee. Unincorporated communities such as Alta Sierra and Penn Valley are found in the western portion of the county. The major population centers in Nevada County are connected primarily by State Route (SR) 49 and SR 20.

#### Project Sites and Immediate Vicinity

Project locations include:

- **Alta Sierra site**: 10166 Alta Sierra Drive, Grass Valley, CA 95949 (store site) and APNs 25-430-10 and 25-430-12 (off-site septic system parcels)
- **Penn Valley site**: 17652 Pen Valley Drive, Penn Valley, CA 95946
- **Rough and Ready Highway site**: 12345 Rough and Ready Highway, Grass Valley, CA 95945

Figure 2.0-1 shows the locations of the three sites relative to one another and the regional vicinity.

Table 2.0-1 shows the acreage, current use, General Plan land use designation, and zoning district for each of the sites.
2.0 Project Description

Table 2.0-1
Site Characteristics

<table>
<thead>
<tr>
<th>Site</th>
<th>Assessor’s Parcel Number</th>
<th>Parcel Acreage</th>
<th>General Plan Designation</th>
<th>Zoning District</th>
<th>Current Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alta Sierra</td>
<td>25-430-08 (store site)</td>
<td>1.00</td>
<td>Neighborhood Commercial (NC)</td>
<td>Neighborhood Commercial (C1)</td>
<td>Vacant</td>
</tr>
<tr>
<td></td>
<td>25-430-10 (septic system tight line)</td>
<td>1.00</td>
<td>Neighborhood Commercial (NC)</td>
<td>Neighborhood Commercial (C1)</td>
<td>Commercial</td>
</tr>
<tr>
<td></td>
<td>25-430-12 (septic system leach field)</td>
<td>1.75</td>
<td>Neighborhood Commercial (NC)</td>
<td>Neighborhood Commercial (C1)</td>
<td>Commercial</td>
</tr>
<tr>
<td>Penn Valley</td>
<td>51-120-06</td>
<td>1.20*</td>
<td>Community Commercial (CC)</td>
<td>Community Commercial- Site Performance Combining (C2-SP)</td>
<td>Vacant</td>
</tr>
<tr>
<td>Rough and Ready Highway</td>
<td>52-122-03</td>
<td>1.02</td>
<td>Neighborhood Commercial (NC)</td>
<td>Community Commercial (C2)</td>
<td>Single-story commercial building</td>
</tr>
</tbody>
</table>

* Portion of a 5.95-acre parcel

As shown in Table 2.0-1, two of the sites are currently undeveloped land, while the Rough and Ready Highway site has an existing commercial building. The building at the Rough and Ready Highway site would be removed as a part of site development for that project.

**Alta Sierra Site:** The Alta Sierra site is located east of SR 49 and south of Grass Valley, in the community of Alta Sierra (Figure 2.0-2). The site is located in the western Sierra Nevada foothills between Alta Sierra Drive and Little Valley Road. The project site consists of three parcels, one parcel for the construction of the retail store (APN 25-430-08) and two adjacent parcels for an off-site septic system (APNs 25-430-10 and -12). The parcel on which the store would be constructed is vacant, is covered entirely with montane hardwood-conifer forest, and is situated on a hillside that generally slopes to the south. Elevations range from approximately 1,994 feet in the north to 1,964 feet near the southeastern and southwestern property corners. The off-site parcels are developed with commercial uses.

**Penn Valley Site:** The Penn Valley site is located north of Penn Valley Drive and south of SR 20 in the community of Penn Valley (Figure 2.0-3). While the proposed project is located on an existing, vacant 5.95-acre parcel, only 1.2 acres are proposed for development. The 1.2-acre parcel would be created through a lot line adjustment proposed as part of the Penn Valley project. Vegetation on the site is dominated by annual grassland and a scattering of trees, including valley oak, Oregon ash, white alder, and arroyo willow, along the perimeter of the site. Wetlands have been identified on the site. In addition, Squirrel Creek is located on the 5.95-acre parcel but not within the proposed 1.2-acre project area. Project development would affect a portion of the identified wetlands. The site elevation is approximately 1,400 feet and generally slopes from the southeast to the northwest. The change in grade over the 1.2-acre site is approximately 7 feet.

**Rough and Ready Highway Site:** The Rough and Ready Highway site is located directly south of Rough and Ready Highway at the southwest corner of the highway and West Drive (Figure 2.0-4). The project site has an existing commercial building that would be demolished as a part of the project development. The project site lies on the west slope of the Sierra Nevada foothills at an elevation of ±2,500 feet and is a fairly level parcel. The site contains mostly non-native varieties of horticultural plants, with the exception of one ponderosa pine and three gray pines.
Figure 2.0-1
Regional Vicinity

Legend
- Proposed Dollar General Store

Source: Nevada County (2015); ESRI streetmap.
Figure 2.0-2
Regional Vicinity - Alta Sierra Site

Legend
- Project Site

Source: Nevada County (2015); ESRI.
Figure 2.0-3
Regional Vicinity - Penn Valley Site

Legend
- Project Site

Source: Nevada County (2015); ESRI.
Figure 2.0-4
Regional Vicinity - Rough and Ready Highway Site
SURROUNDING LAND USES

**Alta Sierra Site:** The Alta Sierra store site is surrounded by asphalt or pavement on all four sides, with existing commercial development to the north and south of the site and Alta Sierra Drive and Little Valley Road to the west and east, respectively. West of Alta Sierra Drive are two undeveloped parcels zoned Community Commercial (C1). Other uses to the west include commercial development, with a personal storage facility, a real estate office, and the Oak View Center, a commercial development. East of Little Valley Road is a developed residential parcel. The next closest residential parcel is approximately 180 feet from the northeastern property boundary and approximately 400 feet from the proposed building. Rural residential uses dominate the landscape east of Little Valley Road, including the Alta Sierra residential subdivision. To the south of the project site is the Alta Sierra Market. To the north of the project site is another developed property with three commercial buildings. Farther north/northwest along Alta Sierra Drive are other commercially developed properties consisting of a variety of uses, including but not limited to a gas station, a bike shop, a pizza parlor, and a specialty wine shop. See Figure 2.0-5.

**Penn Valley Site:** The Penn Valley site is surrounded on three sides by development. To the south is Penn Valley Drive, with the Penn Valley Seventh-day Adventist Church and the Penn Valley Gardens residential subdivision farther to the south. A US Post Office, a gas station, and the Penn Valley Shopping Center are located east of the site. Northeast of the site is vacant land, followed by the Creekside Village mobile home park. Directly north of the site is vacant land, with SR 20 beyond. West of the site is the Penn Valley Mini Storage facility. See Figure 2.0-6.

**Rough and Ready Highway Site:** The Rough and Ready Highway site is located in a rural residential neighborhood; however, as noted above, there is an existing commercial building on the property. Adjacent land uses include two single-family residences and other rural residential uses to the west. Directly east of the site are West Drive and single-family residential uses, followed by a small mobile home park. South of the site are single-family residential uses. Across Rough and Ready Highway are single-family residential uses and transitional housing, followed by vacant undeveloped land farther to the north. See Figure 2.0-7.

**2.2 PROJECT OBJECTIVES**

Consistent with CEQA Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the projects are to be discussed. The following is a statement of project objectives based on information provided by the project applicant.

The objectives of the proposed commercial developments are as follows:

- Expand and provide new retail options in close proximity to local consumers by providing shopping opportunities in a safe and secure environment.
- Enhance the commercial retail offerings in Nevada County.
- Develop each commercial development in a way that is compatible in design with the surrounding neighborhood.
- Provide commercial developments that serve the local market area for each development in Nevada County.
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Figure 2.0-5
Project Location - Alta Sierra Site

Legend
- Red: Project Site
- Orange: Parcel Boundaries

Source: Nevada County (2015); ESRI.
Figure 2.0-7
Project Location - Rough and Ready Highway Site

Legend

- Project Site

Source: Nevada County (2015); ESRI

0 100 200 FEET

N
2.3 Project Characteristics

As stated previously, the subject of this EIR is the development of three Dollar General stores on three different sites in Nevada County. As shown in Table 2.0-2, all of the Dollar General projects would have the same building square footage and are similar in total developed area. Site plans for the three projects are shown in Figures 2.0-8a and 2.0-8b (Alta Sierra site and off-site improvements), Figure 2.0-9 (Penn Valley site), and Figure 2.0-10 (Rough and Ready Highway site).

### Table 2.0-2

**Overview of Project Attributes**

<table>
<thead>
<tr>
<th>Site</th>
<th>Building Area</th>
<th>Surfaced Area*</th>
<th>Landscape Area</th>
<th>Open Space (percentage of total)</th>
<th>Total</th>
<th>Proposed Parking Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alta Sierra</td>
<td>9,100 sq. ft.</td>
<td>20,260 sq. ft.</td>
<td>7,481 sq. ft.</td>
<td>6,622 sq. ft. (15.2%)</td>
<td>43,463 sq. ft.</td>
<td>1.00 acre</td>
</tr>
<tr>
<td>Penn Valley</td>
<td>9,100 sq. ft.</td>
<td>24,511 sq. ft.</td>
<td>7,039 sq. ft.</td>
<td>11,823 sq. ft. (22.6%)</td>
<td>52,473 sq. ft.</td>
<td>1.20 acre</td>
</tr>
<tr>
<td>Rough and Ready Highway</td>
<td>9,100 sq. ft.</td>
<td>19,354 sq. ft.</td>
<td>8,451 sq. ft.</td>
<td>7,405 sq. ft. (16.7%)</td>
<td>44,310 sq. ft.</td>
<td>1.02 acre</td>
</tr>
</tbody>
</table>

* Surfaced area includes paved area, hardscape surrounding building, sidewalks, ramps, and curbs.

**Exterior Building Design**

While the footprints of the proposed buildings are the same for each of the stores, the exterior design elements differ slightly. The exterior design of each of the buildings is based on a western motif. The tallest part of each building is 26 to 27 feet in height, with the majority of the building approximately 18 feet in height. Figure 2.0-11 (Alta Sierra site), Figure 2.0-12 (Penn Valley site), and Figure 2.0-13 (Rough and Ready Highway site) show the exterior elevations for each project.

**Lighting**

Lighting for the proposed projects would be designed in accordance with Section L-II 4.2.8, Lighting, of the Nevada County Code. All lighting would be required to be shielded to prevent the light source from being visible from adjacent properties or roadways. A lighting plan, including a photometric overlay, has been prepared for each of the projects.¹

**Landscaping**

As shown in Table 2.0-2, landscaping would be provided for each of the projects. For commercial uses, the County requires landscaping to be installed along street frontages, within parking lot interiors, and along property lines of commercial or industrial sites abutting residential properties. A landscaping plan, based on County Code Section L-II 4.2.7, Landscaping, has been prepared for each of the projects.

¹ A photometric overlay shows the measurement of the intensity of light or of relative illuminating power at a given spot.
2.0 PROJECT DESCRIPTION

PARKING REQUIREMENTS

Section L-II 4.2.9, Parking, of the Nevada County Code identifies parking requirements for development in the county. For general retail uses, the parking requirement is 1 space per 200 square feet of gross floor area plus 1 space per 600 square feet of outdoor use area. The code allows the required number of parking stalls to be modified by the Planning Agency if a parking study, submitted by the applicant and prepared by a registered professional engineer authorized to practice as a traffic engineer, substantiates that the number of stalls needed for the proposed use is significantly different from the standard. Based on square footage, each of the projects would require 46 parking spaces. Proposed parking at each site differs depending on the lot size and configuration, and building layout, with the Alta Sierra and Rough and Ready Highway sites seeking a reduction in the required number of spaces, as shown in Table 2.0-2. The proposed reduced parking is substantiated by traffic engineer studies showing a reduced demand. The proposed parking layout for each site is shown on the respective site plans (see Figures 2.0-8a, 2.0-9, and 2.0-10).

OPEN SPACE REQUIREMENTS

Nevada County Code Section L-II 4.2.10, Permanent Open Space/Maximum Impervious Surface, establishes minimum standards for the provision of permanent open space as part of proposed development projects. The code requires projects that are one acre or more in size and below 4,000 feet elevation to maintain a minimum of 15 percent of the site as permanent open space. As shown in Table 2.0-2, each of the proposed projects would set aside a portion of the respective project site as permanent open space in accordance with this standard.

UTILITIES

Potable water for all three sites would be provided by the Nevada Irrigation District (NID). Existing water lines are located in Alta Sierra Drive, adjacent to the Alta Sierra site, and on-site for the Penn Valley site and the Rough and Ready Highway site. Off-site construction within the existing roadway is necessary to connect the Alta Sierra site to water infrastructure. No off-site construction for connection to water infrastructure is necessary for the Penn Valley and Rough and Ready Highway sites. To provide adequate water volume and flow to meet fire suppression requirements, the Rough and Ready Highway location would require the installation of an approximately 48,000-gallon underground water tank with pump to satisfy fire flow requirements. The Rough and Ready Highway project will also include a fire pump to operate an on-site fire hydrant and building sprinklers. The tank and hydrant will be located within the project site.

Wastewater treatment and disposal would be provided through septic systems at the Alta Sierra and Rough and Ready Highway sites. The Alta Sierra site septic system would include off-site tight lines and leach fields on adjacent parcels directly to the north of the project site. The septic system for the Rough and Ready Highway site would be accommodated within the project parcel, so no off-site improvements would be necessary. The Penn Valley site would connect to the Nevada County Sanitation District-Penn Valley sewer system through existing sewer lines within Penn Valley Drive adjacent to the site.

Storm drainage for each of the sites would include on-site detention, which would ultimately flow into off-site storm drainage ditches or washes. Each project would be designed to maintain post-project surface drainage flows at pre-project levels. Curb openings would direct stormwater runoff into a bioretention basin where it would pass through a water quality filter. The flow would then be conveyed via pipe to adjacent underground detention pipes. The detention pipes would drain at a rate less than the pre-development flows to a roadside ditch for the Alta Sierra and Rough and Ready Highway sites. The Penn Valley site’s runoff would flow into a wash.
FIGURE 2.0-9
Site Plan – Penn Valley Site

Source: MPA Architects, Inc.
FIGURE 2.0-10

Site Plan – Rough and Ready Site
Electrical service is provided to the three sites by Pacific Gas and Electric Company (PG&E). Electrical power poles are adjacent to each site. No off-site improvements would be required to provide electrical power to the Alta Sierra or Penn Valley sites. However, installation of a new power pole would be required adjacent the Rough and Ready Highway site.

CIRCULATION

**Alta Sierra Site:** Access to the Alta Sierra site would be via Alta Sierra Drive, which is identified as a major collector roadway by the County. According to the Nevada County Engineering Division, the average number of daily vehicle trips for this roadway at milepost 0.2 east of SR 49 was 5,213 trips in 2012 (Nevada County 2012). SR 49 is located approximately 600 feet from the project site.

**Penn Valley Site:** Access to the Penn Valley site would be via Penn Valley Drive, which is identified as a major collector roadway by the County. According to the Nevada County Engineering Division, the average number of daily vehicle trips for this roadway at milepost 2.81 west of Spenceville Road was 3,825 trips in 2011 (Nevada County 2012). SR 20 is less than 1 mile from the site.

**Rough and Ready Highway Site:** The project site is located adjacent to Rough and Ready Highway. Two access points to the site would be provided by Rough and Ready Highway and West Drive. Rough and Ready Highway is identified as a major collector and the average number of daily vehicle trips at milepost 5.68 west of Ridge Road was 5,099 in 2011 (Nevada County 2012). West Drive is not identified on the County’s traffic count list.

OPERATIONS AND DELIVERIES

The proposed Dollar General stores would operate between the hours of 7:00 a.m. and 7:00 p.m. Based on input from the project applicant, it is assumed that the proposed projects would have eight small truck/van deliveries per week and one to two semi-truck deliveries per week. Typical truck activity for the stores would consist of no more than one semi-truck delivery and one step-side van per hour during hours of operation.

CONSTRUCTION ACTIVITIES

To prepare the Alta Sierra site for improvements, the applicant is proposing 5,988 cubic yards (cy) of earthwork, with 1,212 cy used as fill material and the remaining 4,776 cy exported off-site. Excess soils would be removed off-site via a temporary access (encroachment) on Little Valley Road. According to the applicant’s construction contractor, the developer anticipates approximately 450 round trips to the site, with about 40-50 trips for a period of 8-9 days. Staging of equipment and materials would be on-site.

The Penn Valley and Rough and Ready Highway sites would involve site preparation activities such as grading and trenching. These locations are flat and would not involve extensive earthwork as would occur at the Alta Sierra site. Staging of equipment and materials would be on-site.
2.4 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS FROM OTHER PUBLIC AGENCIES

PROJECT RELATIONSHIP TO EXISTING PLANNING DOCUMENTS

General Plan

California state law requires cities and counties to prepare a general plan describing the location and types of desired land uses and other physical attributes in the city or county. General plans are required to address land use, circulation, housing, conservation, open space, noise, and safety. The Nevada County General Plan is the County’s basic planning document and provides a comprehensive, long-term plan for physical development in the county. As shown in Table 2.0-1, the General Plan designates the Alta Sierra and Rough and Ready Highway project sites as Neighborhood Commercial and the Penn Valley site as Community Commercial.

According to the General Plan, the Neighborhood Commercial designation is intended to provide for local needs of nearby neighborhoods, and limited mixed-use employment opportunities, within Community Regions or as part of the development of Rural Centers. This designation should have not more than 10 acres of land area in any single location, and development should be grouped as a clustered and contiguous center to preclude strip development. Locations with this designation are required to provide for convenient, controlled access to arterial or collector roads (Nevada County 2014, p. 1-16).

The Community Commercial designation is intended to provide a variety of commercial uses, and limited mixed-use employment opportunities, to serve large geographic areas with a wider range of goods and services than are available in Neighborhood Commercial areas. Community Commercial designations are located within Community Regions, although they may serve areas outside the Community Region. Locations with this designation must contain 10 acres or more of land area with development grouped as a contiguous center to preclude strip development, with convenient, controlled access to arterial or major collector roads (Nevada County 2014, p. 1-17).

Zoning Ordinance

The Zoning Ordinance implements the policies of the General Plan by classifying and regulating the land uses and associated development standards in the county. The Alta Sierra site is zoned Neighborhood Commercial (C1) and the Rough and Ready Highway site is zoned Community Commercial (C1). The Penn Valley site is within the Community Commercial-Site Performance Combining (C2-SP) zoning district.

PERMITS AND APPROVALS

Nevada County will use this EIR in considering approval of each of the proposed projects. In accordance with CEQA Guidelines Section 15126, the EIR will be used as the primary environmental document in consideration of all subsequent planning and permitting actions associated with each project, to the extent such actions require CEQA compliance. These County actions, both discretionary and ministerial, include but are not limited to the following:

- Development Permit
- Lot Line Adjustment (Penn Valley site)
- Aquatic Resources Management Plan (Penn Valley site)
• Oak Management Plan (Alta Sierra site)
• Certificate of Compliance (Penn Valley site)
• Building Permit
• Grading Permit
• Encroachment Permit

In addition to the above County actions, each of the projects may require approvals, permits, and entitlements from other public agencies for which this EIR may be used, including, without limitation, the following:

• California Department of Transportation, District 3
• California Department of Fish and Wildlife, Region 2
• Central Valley Regional Water Quality Control Board (Region 5)
• Northern Sierra Air Quality Management District
• State Water Resources Control Board
• US Army Corps of Engineers
• US Fish and Wildlife Service
2.0 PROJECT DESCRIPTION

REFERENCES


3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS
The following is an introduction to the environmental analysis for the proposed projects, including a discussion of general assumptions used in the environmental analysis and a discussion regarding the cumulative analysis. The reader is referred to the individual technical sections of this Draft EIR (Sections 4.0 through 15.0) for further information on the specific assumptions and methodologies used in the analysis for each particular technical subject.

**Analysis Assumptions Used to Evaluate the Impacts of the Projects**

**Baseline Environmental Conditions Assumed in the Draft EIR**

Section 15125(a) of the California Environmental Quality Act (CEQA) Guidelines requires that an EIR include a description of the physical environmental conditions in the vicinity of the projects as they exist at the time the Notice of Preparation (NOP) is published. The CEQA Guidelines also specify that this description of the physical environmental conditions will normally serve as the baseline physical conditions by which a lead agency determines whether impacts of a project are considered significant. The Notice of Preparation of the EIR for the proposed projects was published on January 6, 2016. Consistent with CEQA Guidelines Section 15125, each technical section of this EIR (Sections 4.0 through 15.0) contains a description of the physical setting at the time of NOP publication, in this case, January 6, 2016. Impacts associated with implementation of the proposed projects are measured against the existing conditions at the time the NOP was published.

**Structure of the Environmental Impact Analysis**

Sections 4.0 through 15.0 of this Draft EIR contain an evaluation of the direct and indirect environmental effects resulting from the implementation of the proposed projects. These sections also describe feasible mitigation measures and identify whether significant environmental effects of the projects would remain after application of the feasible mitigation measures. The individual technical sections of the Draft EIR include the following information:

**General Environmental Conditions and Regulations**

This subsection includes a regional description of the physical setting associated with the technical area of discussion that applies to all three project sites, consistent with CEQA Guidelines Section 15125. This subsection also identifies federal, state, regional, and local plans, policies, laws, and regulations that apply to the technical area of discussion and all three project sites.

**Impact Methodology**

This subsection lists the standards used to determine the significance of each project impact and is based on CEQA Guidelines Appendix G as well as any specific significance thresholds adopted by the County. This subsection also includes a description of the methodology used to analyze the impacts of the projects for the subject technical section.

**Project-Specific Impact Analysis**

A subsection is provided for each of the proposed projects. These subsections include additional site-specific environmental setting descriptions, if applicable, and a summary of any site-specific regulations which were not discussed in the General Environmental Conditions and Regulations subsection.
3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

This subsection then identifies direct and indirect environmental effects associated with implementation of each of the proposed projects. The previously identified standards of significance are used to determine whether the environmental effects are considered “significant” and require the application of mitigation measures. Each environmental impact is identified numerically and with an abbreviation for which project it applies (e.g., Impact 4.1.1(AS) – Adversely Affect a Scenic Vista and/or Substantially Degrade the Visual Character of the Site) and is supported by substantial evidence.

This Draft EIR uses the following terminology to describe environmental effects of the proposed projects:

- **Standards of Significance**: A set of criteria used by the lead agency to determine at what level or “threshold” an impact would be considered significant. Significance criteria used in this EIR include the CEQA Guidelines; factual or scientific information; regulatory performance standards of local, state, and federal agencies; and County goals, objectives, and policies.

- **Less Than Significant Impact**: A less than significant impact would cause no substantial change in the environment. No mitigation is required.

- **Less than Significant with Mitigation Incorporated**: An impact that can be reduced to a less than significant level with mitigation identified in the EIR.

- **Significant and Unavoidable Impact**: A significant and unavoidable impact would result in a substantial change in the environment that cannot be avoided or mitigated to a less than significant level if the individual project is implemented. A significant and unavoidable impact could occur if feasible mitigation is identified for the project, but does not reduce the impact to a less than significant level, or there is no mitigation available.

- **Cumulatively Significant Impact**: A cumulatively significant impact would result in a new substantial change in the environment from effects of the individual project when evaluated in the context of reasonably foreseeable development in the surrounding area.

Mitigation measures for the proposed projects were developed through a review of the environmental effects of the projects by consultants with technical expertise, as well as by environmental professionals. In some cases, the mitigation measures identified consist of “performance standards” that identify clear requirements that would avoid or minimize significant environmental effects (the use of performance standard mitigation is allowed under CEQA Guidelines Section 15126.4(q) and is supported by case law Rio Vista Farm Bureau Center v. City of Solano ([1st Dist. 1992] 5 Cal. App. 4th at pp. 371, 375–376 [7 Cal. Rptr. 2d 307]).

INCORPORATION BY REFERENCE

This Draft EIR uses technical information and analyses from a previously certified EIR that are relevant to the consideration of environmental effects of the proposed projects, as provided by CEQA Guidelines Section 15150 [Incorporation by Reference]). The following EIR has been utilized in this Draft EIR:

- Nevada County General Plan Final Environmental Impact Report, dated March 1995 (State Clearinghouse Number 1995102136)
By utilizing provisions of the CEQA Guidelines, the County, in preparing this Draft EIR, has been able to make maximum feasible and appropriate use of the technical information in the above-referenced EIR. This EIR and other referenced materials are available for review upon request at the County of Nevada Community Development Agency, 950 Maidu Avenue, Suite 170, Nevada City, California, and are also available on the County’s website at www.mynevadacounty.com/nc/cda/planning.

APPROACH TO THE CUMULATIVE IMPACT ANALYSIS

Definition of Cumulative Setting

CEQA Guidelines Section 15130 requires that EIRs include an analysis of the cumulative impacts of a project when the project’s effect is considered cumulatively considerable. The project sites and surrounding areas were included in the Nevada County General Plan planning area, and the development of each site was considered in the cumulative context of the General Plan EIR. Thus, this document generally uses the same cumulative context as the General Plan (i.e., the unincorporated areas of Nevada County). However, the cumulative setting varies by project site and by environmental issue area and, depending on the resources affected and any relevant boundaries, such as the Northern Sierra Air Quality Management District (NSAQMD) for air quality resources and the Nevada Irrigation District (NID) for water supply. Each technical section of the Draft EIR (Sections 4.0 through 15.0) includes a description of the geographic extent of the cumulative setting for that resource based on the characteristics of the environmental issues under consideration, as set forth in CEQA Guidelines Section 15130(b).

Consideration of Cumulative Impacts

Each technical section in the Draft EIR considers whether the projects’ effect on anticipated cumulative setting conditions would be cumulatively considerable (i.e., a significant effect). The determination of the projects’ impact on cumulative conditions is based on applicable public agency standards, consultation with public agencies, and/or expert opinion. Each technical section of the EIR summarizes the cumulative impacts associated with development of the projects for that topic area.

EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines Section 15128 requires an EIR to briefly describe any possible significant effects that were determined not to be significant and were therefore not discussed in detail in the EIR. For purposes of this Draft EIR, the following topics were eliminated from further evaluation in the scoping phase of the environmental analysis:

- Population and Housing: None of the proposed projects include residential uses, nor would they create a substantial number of new jobs which could require the construction of residential and support uses to serve new residents. Furthermore, none of the project sites currently contain any residential uses that would be removed to accommodate the proposed developments. Therefore, it was determined that none of the proposed projects would have the potential to result in substantial direct or indirect population growth or displace any housing or people. This topic is not addressed further in the EIR.

Mineral Resources: Numerous metals and other minerals have been mined in the county throughout its history, including gold, silver, copper, lead, zinc, chromite, barite, quartz, and aggregate. Areas of the county are divided into Mineral Resource Zone (MRZ) categories that reflect varying degrees of mineral potential. According to the Mineral Land Classification Map of
Western Nevada County published by the California Division of Mines and Geology (1990), none of the project sites is located in an area mapped as MRZ-2 for any mineral commodity (Loyd and Clinkenbeard 1990: Plate 2a). There are no active mineral resource extraction operations in the vicinity of any of the project sites. Therefore, it was determined that the proposed projects would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. This topic is not addressed further in the EIR.
REFERENCES

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4.0 AESTHETICS
This section addresses the existing visual resources at each of the project sites and vicinity, and discusses the potential impacts of the proposed project on aesthetics and light/glare.

4.0  **GENERAL ENVIRONMENTAL CONDITIONS AND REGULATIONS**

4.0.1  **ENVIRONMENTAL SETTING**

**Regional Scenic Resources**

Visual resources that characterize Nevada County include the rolling vistas of foothills, valleys, mountains, meadows, forests, wetlands, and habitats unique to the Sierras. Scenic views within the county include mountain peaks such as Castle Peak, vistas of Donner Lake, and the gorge of the South Fork of the Yuba River. The county is predominantly rural in character, with development concentrated in Nevada City, Grass Valley, and Truckee. The scenic values and aggregate appearance of all the cities, towns, and suburban areas define the aesthetic quality of Nevada County. Outside of these communities, residences are scattered throughout the county. In addition, land use patterns and areas preserved as open space contribute significantly to the county’s aesthetic quality. The ownership and operation of forests by the US Forest Service in the Tahoe National Forest and the open lands under the control of the Bureau of Land Management also preserve a significant portion of the county for permanent scenic quality (Nevada County 1996a, p. 18-1).

**Scenic Highways**

According to the General Plan, scenic routes in the county include Interstate 80 (I-80) and State Routes (SR) 49, 89, 174, and 267 for the entire length of the county; SR 20 from SR 49 to I-80; and Donner Pass Road from the I-80 intersection at Soda Springs to Donner State Memorial Park (Nevada County 1996b, p. 163).

According to the California Department of Transportation (Caltrans) Scenic Highway Mapping System, while I-80, SR 20, SR 49, SR 89, and SR 174 are eligible state scenic highways, the only officially designated state scenic highway in Nevada County is SR 20 from Skillman Flat Campground to a half mile east of Lowell Hill Road (Caltrans 2015).

In addition, the County has adopted a scenic corridor ordinance that applies a Scenic Corridor (SC) combining district to applicable properties along the SR 49 and SR 20 corridors. None of the project sites are identified as being within the SC combining district.

**Light and Glare**

There are two typical types of light intrusion. First, light emanates from the interior of structures and passes through windows. Second, light projects from exterior sources, such as street lighting, security lighting, and landscape lighting. “Light spill” is typically defined as the presence of unwanted and/or misdirected light on properties adjacent to the property being illuminated. Light introduction can be a nuisance to adjacent residential areas and diminish the view of the clear night sky. In addition, if the light is uncontrolled, it can disturb wildlife in natural habitat areas.

Perceived glare is the unwanted and potentially objectionable sensation as observed by a person when looking directly into the light source of a luminaire. Glare also results from sunlight reflection off flat building surfaces, with glass typically contributing the highest degree of reflectivity.
4.0 AESTHETICS

4.0.2 REGULATORY FRAMEWORK

State

California Scenic Highway Program

The California Scenic Highway Program intends to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to scenic highways. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. Cities and counties can nominate eligible scenic highways for official designation by identifying and defining the scenic corridor of the highway. The municipality must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes.

SR 49, which is located 0.1 mile west of the Alta Sierra project site, and SR 20, located 0.3 mile north of the Penn Valley site, are eligible for designation as state scenic highways (Caltrans 2015).

Local

Nevada County General Plan

The Nevada County General Plan includes policies intended to protect the visual character of the county and promote visually attractive development through appropriate site and architectural design. The Aesthetics Element includes policies that are designed to protect scenic resources and reduce light and glare impacts. General Plan Aesthetics Element project-related policies include the following:

Policy 18.6 Discretionary development in Rural Regions and in Community Regions near the Community Boundary shall, wherever possible, preserve natural landmarks and avoid ridge-line placement of structures.

Policy 18.7 Encourage protection of scenic corridors whenever feasible.

Policy 18.11 New Commercial, Industrial and Multiple Family development shall utilize fixtures and light sources that minimize nighttime light pollution.

Nevada County Land Use and Development Code

Section L-II 2.7.7 – Scenic Corridor Combining District (SC)

The Nevada County Land Use and Development Code, Chapter II, Article 2.0, Section L-II 2.7.7, includes regulations applicable in the Scenic Corridor combining district. The purpose is to protect and preserve the scenic resources of areas adjacent to highways and roads that have been identified as having high scenic quality and requiring protection for the benefit of residents and visitors.

Chapter II, Article 4.0 – Comprehensive Site Development Standards

Chapter II, Article 4.0 provides regulations to guide the design, location, and development of new land uses and the alteration of existing uses in the unincorporated county. The standards assist in furthering numerous Nevada County General Plan goals, objectives, and policies that provide for the preservation and enhancement of Nevada County’s rural quality and small-town character.
They also assist in promoting General Plan provisions for maintaining the county’s high quality natural landscape and scenic resources, as well as protecting existing historic resources.

Division L-II 4.2 – Community Design Standards

The County’s community design standards are intended as a framework to assist in understanding the County’s goals and objectives for high quality development. They provide design interpretations for commercial, industrial, and residential development. The community design standards address building height, building setbacks, height limits for fencing and hedges located within yard setbacks, landscaping requirements, parking lot design standards, requirements for permanent open space and maximum impervious surfaces, equipment screening, and signage standards.

Section L-II 4.2.8 – Lighting

Chapter II, Article 4.0, Section L-II 4.2.8 establishes standards to provide for efficient, safe, and attractive outdoor lighting while minimizing nighttime light pollution and energy waste. This section of the code requires all discretionary projects that propose to install outdoor lighting to submit a lighting plan. The code section also requires all outdoor light fixtures to be fully shielded to prevent the light source or lens from being visible from adjacent properties and roadways and requires the use of fixtures with high efficiency lamps. Light poles in the rural zoning districts, including the proposed project site, are restricted to a maximum height of 15 feet.

Section L-II 4.2.10 – Permanent Open Space/Maximum Impervious Surface

Chapter II, Article 4.0, Section L-II 4.2.10 was established to conserve and maintain the natural and historic beauty of Nevada County, to promote soil conservation, surface water quality and groundwater recharge, to enhance residential and commercial areas, and to ensure permanent open space and maximum impervious surfaces for all development. Permanent open space is required in all commercial, industrial, multiple-family, public, and recreational zoning districts. For projects that are one acre or more in size and located at less than 4,000 feet elevation, the requirement is a minimum of 15 percent of the total site acreage.

Section L-II 4.3.17 – Watercourses, Wetlands and Riparian Areas

Chapter II, Article 4.0, Section L-II 4.3.17 was established to preserve the integrity and minimize the disruption of watersheds and watercourses. The section establishes minimum non-disturbance buffers along various types of waterbodies in which development may not occur unless a Management Plan is prepared by a qualified biologist or botanist that avoids or minimizes impacts to the resource.

Section L-II 5.3 – Design Review

Chapter II, Article 5.0, Section 5.3 outlines a procedure by which new development is reviewed for compatibility with surrounding development, natural resources, and/or historic features within the project area. Design review ensures that a proposed development project reflects and retains the rural and historic, small-town character of the county; ensures each community’s unique character, identity, and distinctiveness; encourages visual relief through varied forms, patterns, and styles unified through landscaping, screening, and selected architectural features; and retains natural landforms and native landscaping, protects sensitive environmental resources, and encourages open space. Design review is required for all development permits and use permits for commercial, industrial, and multi-family projects, for structural changes to the exterior of the property.
commercial or industrial buildings, and for exterior visual changes to a project approved by a previous land use permit, unless specifically exempted in a specific section or article of Chapter II of the Land Use and Development Code.

Western Nevada County Design Guidelines

The Western Nevada County Design Guidelines include a menu of design concepts and techniques to assist project developers in enhancing the character of Nevada County by encouraging the highest level of design quality while at the same time providing the flexibility necessary to promote economic viability. The guidelines promote new development that encourages a sense of place and that adds to community identity by inviting pedestrian activity, i.e., placing buildings closer to roads, limiting building size to a human scale, clustering buildings, placing parking behind buildings, breaking up parking lots with trees and walkways, and creating clearly visible entries and public places (Nevada County 2002).

4.0.3 IMPACT METHODOLOGY

Standards of Significance

The impact analyses below are based on the following State CEQA Guidelines Appendix G thresholds of significance, which state that a project would have a significant aesthetic impact if it would:

1) Have a substantial adverse effect on a scenic vista.

2) Substantially damage or fail to protect and preserve scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

3) Substantially degrade the existing visual character of quality of the site and its surroundings, including failing to promote and provide for aesthetic design in new development which reflects existing character.

4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Methodology

The following analyses are based on field observations, aerial photography, and review of the topographic conditions from GIS maps and Google Earth for the project sites and surrounding areas. For the purposes of this analysis, proposed site plans, building elevations, and photosimulations were used to determine how the projects would alter the existing conditions on the sites. The County’s General Plan, site development standards, and applicable design guidelines were reviewed to determine what visual elements have been deemed valuable by the community. The analysis focuses on the manner in which development could alter the visual elements or features that exist in or near the project site, within the visual range or view corridor of each project.

The analysis further considers whether the anticipated alterations to the visual character of the sites would constitute a substantial adverse effect on existing views and scenic resources, which would result in a significant environmental impact. The determination of which changes to the visual environment cross a threshold of “substantial adverse effect” or degradation is based on
the criteria described in the following methodology summary. Following professionally accepted practice in visual analysis, visual impacts are defined as a consequence of three primary factors:

- The existing scenic quality of an area;
- The level of viewer exposure and concern with visual change; and
- The level of actual visual change caused by the project.

The overall visual sensitivity of each location is first established based on existing visual quality, viewer exposure, and viewer concern. These factors are then considered together with the level of expected visual change or contract, and significance. Visual change is an overall measure of contrast in basic visual attributes such as form, line, color, and texture as a result of the proposed project. Thus, a substantial adverse effect can occur when viewers with high levels of overall visual sensitivity (i.e., high viewer concern and visual exposure, in settings of high existing visual quality) encounter high levels of visual change (contrast) or scenic view obstruction as a result of the proposed project.

Thresholds Not Evaluated

There are no state-designated scenic highways in any of the project areas and none of the sites can be seen from a county-designated scenic highway. The sites are not located in the SC combining district. Therefore, the proposed projects would have no effect on scenic resources within a state scenic highway. There would be no impact relative to Standard of Significance 2, and this impact is not further evaluated for any of the project sites.

4.1 ALTA SIERRA SITE

4.1.1 PROJECT-SPECIFIC SETTING

Visual Character of the Site

The Alta Sierra project site is located in the western Sierra Nevada foothills between Alta Sierra Drive and Little Valley Road and consists of three parcels. The 1-acre parcel on which the store would be constructed is vacant, is covered entirely with hardwood and conifer trees, and is situated on a hillside that generally slopes to the south. The septic system, tight line and leach field would be constructed on two parcels immediately north of the store site which are developed with commercial uses. Elevations on the store parcel range from approximately 1,994 feet in the north to 1,964 feet near the southeastern and southwestern property corners. The site can be seen from Alta Sierra Drive and Little Valley Road, as well as from surrounding properties.

A Management Plan for Oak Resources was prepared for the project site (Costella 2015). According to this plan, the canopy cover within the proposed store site includes approximately 74 oak trees, of which 71 are black oaks and 3 are small valley oaks (Costella 2015, p. 4). The County does not identify the site as being within a scenic corridor or a scenic viewshed, nor is the site located along a state scenic highway.

Photographs of the Alta Sierra project site from a series of key viewpoints in the vicinity, as well as a map showing the location of these viewpoints, are provided in Figures 4.0-1 through 4.0-5.
Visual Character of Surrounding Uses

The area surrounding the Alta Sierra site is characterized by commercial developments, a scattering of single-family homes, and areas of vacant undeveloped land. The store site is surrounded by asphalt or pavement on all four sides, with existing commercial development to the north and south of the site and Alta Sierra Drive and Little Valley Road to the west and east, respectively. West of Alta Sierra Drive are two undeveloped parcels. Other uses to the west include single-story commercial development, with a personal storage facility, a real estate office, and the Oak View Center. Directly east of Little Valley Road is a developed residential parcel. The next closest residential dwelling is approximately 100 feet from the northeastern property boundary and approximately 400 feet from the proposed building. Rural residential uses dominate the landscape east of Little Valley Road, including the Alta Sierra residential subdivision. To the south of the project site is the Alta Sierra Market. To the north of the project site is another developed property with three commercial buildings. Farther north/northwest along Alta Sierra Drive are other commercially developed properties consisting of a variety of uses, including but not limited to a gas station, a bike shop, a pizza parlor, and a specialty wine shop.

Light and Glare

Given the rural character of the Alta Sierra site and the surrounding area, it is expected that only minimal nighttime lighting is visible on or near the site associated with existing residences and vehicles traveling on area roadways. Similarly, there is minimal daytime glare visible in the area associated with glass and other reflective building materials and vehicle windows.

4.1.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Subsection 4.0.2, above.

4.1.3 IMPACTS AND MITIGATION MEASURES

Adversely Affect a Scenic Vista and/or Substantially Degrade the Visual Character of the Site (Standards of Significance 1 and 3)

Impact 4.1.1(AS) Development of the Alta Sierra project site as proposed would convert vacant land to commercial development. Such a conversion would fundamentally alter the visual character of the site. (Significant and Unavoidable)

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. While the General Plan does not establish specific scenic vistas in the county, it does identify visual resources that characterize Nevada County. These include the rolling vistas of foothills, valleys, mountains, meadows, forests, wetlands, and habitats unique to the Sierras. Additionally, scenic views within the county are identified as mountain peaks such as Castle Peak, vistas of Donner Lake, and the gorge of the South Fork of the Yuba River (Nevada County 1996a, p. 18-1).

Implementation of the proposed project would convert the approximately 1-acre store site from a wooded, undeveloped state to a commercial development. New uses would include a 9,100-square-foot, 27-foot-high commercial building; 20,260 square feet of surfaced area with 34
parking spaces;¹ two concrete block screening/retaining walls along the eastern and southern sides of proposed building and parking lot that would vary in height with the natural topography from 6 to 12 feet high; and 7,481 square feet of landscaped area. Proposed building elevations are shown in Figure 2.0-11. Further, development of the project would impact 85 oak trees, including four landmark oak trees on the site and the site of the proposed off-site sewer improvements on two adjacent parcels. The specifics on the oak tree impact and mitigation are discussed in Section 6.0, Biological Resources. All of these activities would affect the visual character of the site and adjacent parcels.

As shown on Figure 2.0-5, the project site is located between Alta Sierra Drive and Little Valley Road, with Alta Sierra Drive a main thoroughfare, resulting in high visibility from both approaches. The project site is set within a cluster of small-scale commercial retail operations surrounded by rural, wooded properties. Immediately north of site is a single-story, multi-tenant commercial center. These structures are set back from Alta Sierra Drive and appear as low-rise, single-story buildings set among trees. From Little Valley Road, views of these buildings are largely blocked by existing trees and vegetation. Farther north are heavily wooded rural residential properties. Immediately east of the site is Little Valley Road and a developed residential property located at the bottom of a small hill below the grade of the project site on the east side of the roadway. Rural residential uses dominate the landscape east of Little Valley Road, including the Alta Sierra residential subdivision. Immediately south of the project site is the Alta Sierra Market, with scattered rural residential properties located farther south. Alta Sierra Market is readily visible from the Alta Sierra Drive/Little Valley Road intersection. However, the building is single-story with a low roof and is not visually prominent. Immediately west of the project site is Alta Sierra Drive and an undeveloped, wooded parcel. Farther north/northwest along Alta Sierra Drive are other commercially developed properties consisting of a variety of uses. The project site is located within an established commercial center, and its development with a commercial use would be a logical expansion of the center and would be visually compatible with existing uses as viewed from Alta Sierra Drive. However, the project would be visually inconsistent with the scale and style of the existing structures and the nearby residential uses as viewed from Little Valley Road.

Figure 4.0-1 shows the location of a series of key viewpoints of the project site from the surrounding area. Photographs of the site in its existing condition, along with a visual simulation of the proposed development at each of these viewpoints, are provided in Figures 4.0-2 through 4.0-5. As shown, the proposed development would be clearly visible from viewpoints A and B but would be visually compatible with the adjacent commercial development and would not result in a substantial change in views. Viewpoint C represents views from the existing residential property located immediately east of the site as well as for motorists traveling northbound on Little Valley Road, which provides access to residential properties to the north and east. As shown in the figure, views at this viewpoint would change dramatically due to the scale of the proposed building and screening/retaining walls and the site’s elevation above the roadway. This viewpoint shows an 18.5-foot building façade atop a retaining wall that is up to 12 feet in height, representing up to 30 feet of solid wall that would be visible along Little Valley Road. From viewpoint D, the proposed development would be almost entirely obscured by the existing trees and vegetation on the northeastern corner of the site and the adjacent parcel.

Per Section L-I 5.3, Design Review, of the Nevada County Zoning Regulations, the proposed project must be reviewed for consistency with applicable, adopted design standards, including the Western Nevada County Design Guidelines (WNCDG), prior to issuance of development permits. The WNCDG encourages environmentally sensitive site design that is consistent with the

¹ Surfaced area includes parking lot and driveway paved areas, hardscape surrounding building, sidewalks, ramps, and curbs.
4.0 AESTHETICS

overall architectural character of the project and community. Consistent with the WNCDG, the Alta Sierra project includes building materials and colors that would blend with the surrounding environment and landscape and help to screen the urban nature of the proposed building. The project features some architectural details along the side and rear exterior walls and screening/retaining wall including low stone veneer columns and an awning. However, the project does not incorporate sufficient architectural features such as windows, structural bays, roof overhangs, and other details to visually break up the appearance of the proposed exterior walls on some of the façades, particularly the walls of the proposed building facing Little Valley Road. The project also fails to comply with the WNCDG by proposing a building with a flat roofline, failing to use a height and scale that is compatible with that of surrounding development, and by failing to design the building as a group of simple forms to reduce its overall bulk.

**MM AS-4.1.1a** requires the addition of architectural features on the eastern and southern exterior walls and along the roofline to further break up the mass of the 30-foot-high structure. To provide further screening of the project site from the adjacent uses, particularly the residential uses to the east, the project proponent would be required to provide a 10-foot-wide landscape buffer in accordance with the Nevada County Code. The proposed landscaping plan shows the retention of eight oak trees and two pine trees along the east edge of the site and extensive landscaping along its entire perimeter with the exception of the access point on Alta Sierra Drive. **MM AS-4.1.1b** would require the project contractor to protect these and other trees on the site to ensure they are successfully retained after construction. In addition, as described previously, the project applicant has proposed two screening/retaining walls just inside of the landscape buffer. However, as proposed, a 30-foot-wide gap would occur between the two walls, which would not provide adequate screening of the site from the residential uses east of Little Valley Road. To further screen the project, mitigation measure **MM AS-4.1.1c** requires the addition of a third wall or extension of the currently proposed walls to close the gap.

The project would also include open space per County requirements and landscaping throughout the site that would serve as an additional buffer for adjacent uses. Implementation of mitigation measures **MM AS-4.1.1a** through **AS-4.1.1d** would reduce the project’s anticipated visual impacts by requiring the addition of architectural features to further break up exterior walls and screening/retaining walls, requiring existing mature trees to be preserved, requiring a continuous wall to better screen the site from the adjacent roadway and residential uses, and requiring more aesthetically-pleasing signage.

Even with these measures, however, development of the Alta Sierra site as proposed would substantially change the existing visual character of the site particularly when viewed from the residential area to the east. As shown in the visual simulations in Figures 4.0-2 through 4.0-5, the combined retaining wall and rear façade of the building would still result in a substantial degradation of public views from Little Valley Road. The site is considered to be visually sensitive, as neighbors and community members consider the existing wooded character of the site to be of high visual quality, numerous public comments have been received on the project expressing concern with the change in visual character, and there is a substantial level of visual change caused by the project from a wooded, undeveloped condition to a developed state. Given the substantial degradation and change of public views of a visually sensitive site, this would be a significant impact. A reduced-size project would likely be able to reduce the severity of this impact. However, the design of such a change to the project would be subject to design and fiscal constraints that are beyond the scope of this Draft EIR. Therefore, a reduced project alternative is addressed in Chapter 16.0, Alternatives of this Draft EIR, for consideration by the Planning Commission. Given the area available for landscaping and size of the facades, additional landscaping would likely not reduce the perceived scale of the building from Little...
Valley Road. No other mitigation measures are available to eliminate or substantially reduce this impact; therefore, this impact would be significant and unavoidable.

Mitigation Measures

**MM AS-4.1.1a** The proposed building design shall be modified to better comply with the Western Nevada County Design Guidelines to create greater visual interest and to break up the mass of building and the roofline. Design modifications could include the incorporation of structural bays, roof overhangs, awnings, and other details along the buildings eastern and southern exterior walls as well as varying the roofline so that it transitions from the height of adjacent buildings to the maximum height of the proposed building and articulating the flat roofline with cornices. No windows shall be added to the buildings eastern or southern exterior walls.

*Timing/Implementation:* Prior to approval of improvement plans

*Enforcement/Monitoring:* Nevada County Planning Department

**MM AS-4.1.1b** The 17 existing mature trees on the project site and off-site improvement area that will be retained after construction shall be identified on all grading and improvement plans as “trees to be retained.” Prior to grading permit issuance, the Planning Department shall verify that this requirement has been met. Additionally, the developer shall flag the trees in the field that will be retained following construction and shall provide and maintain adequate protection measures for the trees for the duration of all site construction activities. These measures shall include providing highly visible protective barriers around the trees such plastic construction fencing and prohibiting vehicle access and storage of materials, equipment or waste within the protective barriers. The Building Department shall verify that the trees to be retained have been properly marked in the field and protected during the first grading inspection. Construction personnel shall be made aware of these protected trees and the significance of the field markings and protection measures by the general contractor prior to commencing construction activities to minimize potential direct and indirect impacts.

*Timing/Implementation:* Prior to grading permit issuance and throughout construction

*Enforcement/Monitoring:* Nevada County Building Department and Planning Department

**MM AS-4.1.1c** To minimize potential conflicts between the commercial use of this site and existing residential uses east of Little Valley Road, the developer shall revise project plans to either (1) add a third six foot tall split block face wall designed consistently with other existing walls in the area that will fill the gap shown on the preliminary plans or (2) connect the two proposed screen walls to completely screen the parking lot area. Prior to issuance of final occupancy, the Planning Department shall verify in the field that the wall has been constructed consistent with the approved plans.
4.0 AESTHETICS

Timing/Implementation: Prior to grading permit issuance and throughout construction

Enforcement/Monitoring: Nevada County Building Department and Planning Department

MM AS-4.1.1d The developer shall revise project plans and elevations to include the use of channel letter signage. Cabinet-style signage shall be prohibited. Prior to issuance of final occupancy, the Planning Department shall verify in the field that project signage is consistent with the approved plans.

Timing/Implementation: Prior to approval of final occupancy

Enforcement/Monitoring: Nevada County Planning Department

Create New Sources of Light and Glare (Standard of Significance 4)

Impact 4.1.2(AS) Development of the Alta Sierra project site as proposed would introduce new sources of light and glare. (Less than Significant with Mitigation Incorporated)

The Alta Sierra project would introduce a variety of building materials to the site. Glass, roofing, and car windshields, among others, have the potential to reflect light and create glare visible for some distance from the site. However, as discussed under Impact 4.1.1(AS) above, the proposed project would be reviewed for consistency with the Western Nevada County Design Guidelines prior to issuance of a development permit. The guidelines require that new projects avoid bare metal, highly reflective surfaces (glass, metallic paint, etc.), illuminated roofing, and high contrast or brightly colored glazed tile. Compliance with the design guidelines would substantially reduce the potential for glare from the proposed project. Impacts from glare would be less than significant.

The Alta Sierra project would also introduce new sources of light that currently do not exist on the project site. The nearest residential uses sensitive to light and glare in the project area are located on lots to the east and southeast. The closest home is located approximately 100 feet from the subject property line to the east. Other homes are within 180 to 600 feet of the project site. The plans for the proposed project identify multiple downward-facing wall light fixtures mounted along the parapets of the building, as well as two pole-mounted lights in the parking lot. The proposed signage would be externally illuminated. The Nevada County Zoning Ordinance’s standards for exterior lighting require such lighting to be shielded and directed downward to prevent the light source or lens from being visible from adjacent properties and roadways. The project developer has submitted a site lighting plan (Figure 4.0-6). This plan includes a photometric detail showing the amount of light spill from each individual light. Based on a review of this plan, the majority of the lighting from the project site will be kept within the property boundaries, but there are three areas where light is shown to spill off-site. Therefore, this impact would be potentially significant.

The County’s Land Use and Development Code Section L-II 4.2.8(D)(2) states that “all outdoor lighting fixtures shall be fully shielded to prevent the light source or lens from being visible from adjacent properties and roadways…” According to the site lighting plan submitted by the applicant, all light fixtures are designed to meet International Dark Sky requirements, including being fully shielded. With shielded lighting, the Alta Sierra project would be consistent with the County Lighting Ordinance and would not be anticipated to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. However, implementation of mitigation measures MM AS-4.1.2a and MM AS-4.1.2b would be necessary to ensure that project lighting would not expose adjacent properties and roadways to substantial...
light or glare, consistent with the Nevada County Land Use and Development Code. With mitigation, this impact would be less than significant.

Mitigation Measures

**MM AS-4.1.2a**

Prior to building permit issuance, the developer shall submit a final Site Lighting Plan/Photometric Detail that demonstrates that all light spill will be retained on the project site. Potential methods for reducing light trespass onto neighboring roads and properties include replacing the two 400-watt light fixtures located on the southwest and southeast corners of the building with light fixtures of lesser wattage and/or providing additional screening of those features. Additionally, for the northern parking lot lighting, similar or alternative methods, such as reducing the wattage of the lighting fixture or moving the pole farther into the interior of the site, shall be utilized to ensure all new lighting and glare is kept on site. The developer shall install and maintain all lighting consistent with the approved Final Site Lighting Plan. Prior to issuance of final occupancy, the Planning Department shall perform a site visit, during the dark hours, to verify that the installed lighting does not trespass onto neighboring roads or properties.

*Timing/Implementation:* Prior to issuance of building permit and prior to issuance of final occupancy

*Enforcement/Monitoring:* Nevada County Planning Department

**MM AS-4.1.2b**

All lighting for advertising must meet the County Lighting and Signage Ordinance requirements. Internally illuminated signage shall be prohibited. All lighting for exterior signage or advertising shall be top mounted light fixtures which shine light downward directly onto the sign. Said lighting shall be fully shielded consistent with International Dark Sky standards. Prior to building permit issuance, the applicant shall submit a final signage plan that eliminates any reference to internally lighted signage and provides details for establishing top mounted lighting for both the monument and wall signs. Additionally, any proposed sign lighting shall be shown and taken into account in the photometric detail in the revised project site lighting plan as required by mitigation measure MM AS-4.1.2a. Prior to issuance of final occupancy, the Planning Department shall perform a site inspection to ensure that the sign lighting is installed consistent with this mitigation measure and the County Zoning Code standards.

*Timing/Implementation:* Prior to issuance of building permit and prior to issuance of final occupancy

*Enforcement/Monitoring:* Nevada County Planning Department
4.0 AESTHETICS

4.2 PENN VALLEY SITE

4.2.1 PROJECT-SPECIFIC SETTING

Visual Character of the Site

The Penn Valley site is in the Sierra Nevada foothills approximately 6 miles west of Grass Valley on a 1.2-acre portion of a 5.95-acre parcel. The general topography of the property is characterized by slightly rolling and flat terrain. Average elevation in the project area is approximately 1,400 feet above mean sea level. The change in grade over the project site is approximately 7 feet.

Vegetation on the site is dominated by annual grassland and a scattering of trees, including valley oak, Oregon ash, white alder, and arroyo willow along the perimeter of the site. In addition, Squirrel Creek is located on the 5.95-acre parcel, but not within the proposed 1.2-acre project area. The area between the stream and proposed development includes flat terrain that is vegetated primarily with non-native grass species. An unnamed drainage on the northern border of the project site flows into Squirrel Creek.

The Penn Valley site is located in an area with commercial development, some small-lot single-family homes, and areas of vacant land. The County does not identify the site as being within a scenic corridor or a scenic viewshed, nor is the site located along a state scenic highway.

Photographs of the Penn Valley site from two key viewpoints in the vicinity, as well as a map showing the location of these viewpoints, are provided in Figures 4.0-7 through 4.0-9.
FIGURE 4.0-1
Alta Sierra Site Key Viewpoints Location Map

Source: MPA Architects, Inc., 2016

Not To Scale
For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

FIGURE 4.0-2
Alta Sierra Site Viewpoint A

Source: MPA Architects, Inc., 2016
For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

Source: MPA Architects, Inc., 2016

FIGURE 4.0-3
Alta Sierra Site Viewpoint B
For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

Source: MPA Architects, Inc., 2016

FIGURE 4.0-4
Alta Sierra Site Viewpoint C
For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

Source: MPA Architects, Inc., 2016

FIGURE 4.0-5
Alta Sierra Site Viewpoint D
The comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

Source: MPA Architects, Inc., 2016

FIGURE 4.0-8
Penn Valley Site Viewpoint A
For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

FIGURE 4.0-9
Penn Valley Site Viewpoint B

Source: MPA Architects, Inc., 2016
Visual Character of Surrounding Uses

As shown in Figure 2.0-6, the project site is located in an area with existing development. To the south is Penn Valley Drive, with the Penn Valley Seventh-day Adventist Church and the Penn Valley Gardens residential subdivision farther to the south. A US Post Office, a gas station, and the Penn Valley Shopping Center are located east of the site. Northeast of the site is vacant land, followed by the Creekside Village mobile home park. Directly north of the site is vacant land and SR 20. Penn Valley Mini Storage is located west of the site.

Light and Glare

The Penn Valley site is located adjacent to a US Post Office and the Penn Valley Mini Storage. Farther east of the site are a gas station and the Penn Valley Shopping Center. All of these uses may generate daytime glare and nighttime lighting levels in the area. However, the County has standards to provide for efficient, safe, and attractive outdoor lighting while minimizing nighttime light pollution and energy waste, as well as design standards which require that projects avoid bare metal, highly reflective surfaces (glass, metallic paint, etc.), illuminated roofing, and high contrast or brightly colored glazed tile. These requirements assist in the reduction of daytime glare and nighttime lighting in the Penn Valley area.

4.2.2 Regulatory Framework

Penn Valley Village Center Area Plan

Chapter III of the Penn Valley Village Center Area Plan includes design guidelines for commercial, industrial, multi-family, and public use development. The guidelines pertain to site planning, building design, signage, lighting design, landscape design, pedestrian and bicycle access, and multi-family residential development (Nevada County 2000).

4.2.3 Impacts and Mitigation Measures

Adversely Affect a Scenic Vista and/or Substantially Degrade the Visual Character of the Site (Standards of Significance 1 and 3)

Impact 4.2.1(PV) Development of the Penn Valley project site as proposed would convert vacant land to commercial development. Such a conversion would fundamentally alter the visual character of a portion of the site. (Less than Significant)

There are no officially designated scenic vistas in the project area. However, the project is located in Penn Valley and as stated previously, views of valleys are considered an important factor in Nevada County’s scenic quality.

The Penn Valley project would convert approximately 1.2 acres of the project site from undeveloped land to a commercial development. New uses would include a 9,100-square-foot, 18- to 27-foot-high commercial building; 24,511 square feet of surfaced area with 46 parking spaces; and 7,039 square feet of landscaped area. All of these components would affect the visual character of the site. Elevations of the proposed building are shown in Figure 2.0-12.

Figure 4.0-7 shows the location of two key viewpoints of the project site from the surrounding area. Photographs of the site in its existing condition, along with a visual simulation of the proposed development at each of these viewpoints, are provided in Figures 4.0-8 and 4.0-9. As shown, the
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The proposed development would be clearly visible to motorists and pedestrians traveling along Penn Valley Drive in both directions. However, given the commercially developed nature of the area, the proposed development would be visually compatible and would not represent a substantial negative change to views in the area.

Per Section L-II 5.3, Design Review, of the Nevada County Zoning Ordinance, the Penn Valley project would be reviewed for consistency with applicable, adopted design standards, including the Western Nevada County Design Guidelines and the design guidelines in the Penn Valley Village Center Area Plan, prior to issuance of development permits. Both the Western Nevada County Design Guidelines and the Penn Valley Village Center Area plan encourage environmentally sensitive site design that is consistent with the overall architectural character of the project and community. Consistent with the design guidelines, the Penn Valley project was designed using building materials and colors that would blend with the surrounding environment and landscape and help to screen the urban nature of the proposed building. As shown in Figure 2.0-12, the building’s exterior walls would incorporate architectural features to increase visual interest. These features include varying rooflines, building materials and colors, awnings, and decorative building-mounted lighting fixtures and door hardware.

In addition, the project would include open space per County requirements and would include landscaping throughout the site that would serve as a buffer for adjacent uses.

The project would add to a change in the existing scenic quality of Penn Valley. However, this change would be consistent with existing adjacent uses and the existing aesthetic qualities of the area. The site is not considered visually sensitive given the surrounding context of development in the area. Further, compliance with the applicable design guidelines and incorporation of open space and landscaping would reduce the project’s visual intrusion by blending the proposed improvements with the surrounding environment. Therefore, development of the Penn Valley site as proposed would result in a less than significant impact to scenic vistas and visual character.

Mitigation Measures

None required.

Create New Sources of Light and Glare (Standard of Significance 4)

**Impact 4.2.2**(PV) Development of the Penn Valley project site as proposed would introduce new sources of light and glare. (Less than Significant with Mitigation Incorporated)

Development of the Penn Valley project site as proposed would introduce a variety of building materials to the site that may create glare. However, the proposed project would be reviewed for consistency with the Western Nevada County Design Guidelines, as well as the design guidelines contained in the Penn Valley Village Center Area Plan, prior to issuance of development permits. Compliance with the design guidelines would substantially reduce the potential for glare from the proposed project. Impacts from glare would be less than significant.

The proposed project would introduce new sources of light that currently do not exist on the Penn Valley site. The nearest residential uses sensitive to light and glare in the project area are located on lots to the southwest. The closest homes are located approximately 150 feet from the subject property line to the southwest. The plans for the proposed project identify 15 downward-facing wall light fixtures mounted along the parapets of the building, as well as 5 pole-mounted parking lot lights. The Nevada County Zoning Ordinance’s standards for exterior lighting require such lighting to be shielded and directed downward to prevent the light source or lens from being
visible from adjacent properties and roadways. The lighting plan for the Penn Valley site submitted by the project applicant is shown in Figure 4.0-10. Based on a review of this plan, the majority of the lighting from the project site will be kept within the property boundaries, but there are areas identified where light is shown to spill off-site. Therefore, this impact would be potentially significant.

The County’s Land Use and Development Code Section L-II 4.2.8(D)(2) states that “all outdoor lighting fixtures shall be fully shielded to prevent the light source or lens from being visible from adjacent properties and roadways...” According to the site lighting plan prepared by the applicant, all light fixtures are designed to meet International Dark Sky requirements, including being fully shielded. With shielded lighting, the Penn Valley project would be consistent with the County Lighting Ordinance and would not be anticipated to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. However, implementation of mitigation measures MM PV-4.2.2a and PV-4.2.2b would be necessary to ensure that project lighting would not expose adjacent properties and roadways to of substantial light or glare, consistent with the Nevada County Land Use and Development Code. With mitigation, this impact would be less than significant.

Mitigation Measures

**MM PV-4.2.2a**
Prior to building permit issuance, the developer shall submit a final Site Lighting Plan/Photometric Detail that demonstrates that all light spill will be retained on the project site. Potential methods for reducing light trespass onto neighboring roads and properties include replacing the 400-watt parking lot light fixtures located on the south and east with light fixtures of lesser wattage, and/or providing additional screening of those features, and/or moving light poles farther into the interior of the site. The developer shall install and maintain all lighting consistent with the approved Final Site Lighting Plan. Prior to issuance of final occupancy, the Planning Department shall perform a site visit, during the dark hours, to verify that the installed lighting does not trespass onto neighboring roads or properties.

*Timing/Implementation:* Prior to issuance of building permit and prior to issuance of final occupancy

*Enforcement/Monitoring:* Nevada County Planning Department

**MM PV-4.2.2b**
All lighting for advertising must meet the County Lighting and Signage Ordinance requirements. Internally illuminated signage shall be prohibited. All lighting for exterior signage or advertising shall be top mounted light fixtures which shine light downward directly onto the sign. Said lighting shall be fully shielded consistent with International Dark Sky standards. Prior to building permit issuance, the applicant shall submit a final signage plan that eliminates any reference to internally lighted signage and provides details for establishing top mounted lighting for both the monument and wall signs. Additionally, any proposed sign lighting shall be shown and taken into account in the photometric detail in the revised project site lighting plan as required by mitigation measure MM PV-4.2.2a. Prior to issuance of final occupancy, the Planning Department shall perform a site inspection to ensure that the sign lighting is installed consistent with this mitigation measure and the County Zoning Code standards.
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Timing/Implementation: Prior to issuance of building permit and prior to issuance of final occupancy

Enforcement/Monitoring: Nevada County Planning Department

4.3 ROUGH AND READY HIGHWAY SITE

4.3.1 PROJECT-SPECIFIC SETTING

Visual Character of Site

The Rough and Ready Highway project site has an existing commercial building that would be demolished as a part of project development. The project site lies on the west slope of the Sierra Nevada foothills at an elevation of ±2,500 feet and is a fairly level parcel. The site contains mostly non-native varieties of horticultural plants, with the exception of one ponderosa pine and three gray pines.

The site is located in an area developed with rural residential single-family homes, higher-density residential uses including a transitional housing facility and mobile home parks, and areas of vacant undeveloped land. The County does not identify the site as being within a scenic corridor or a scenic viewshed, nor is the site located along a state scenic highway.

Photographs of the Rough and Ready Highway project site from a series of key viewpoints in the vicinity, as well as a map showing the location of these viewpoints, are provided in Figures 4.0-11 through 4.0-14.

Visual Character of Surrounding Uses

The project site is located in a rural residential neighborhood; however, as noted above, there is an existing commercial building on the property. Adjacent land uses include two single-family residences and other rural residential uses to the west. Directly east of the site is West Drive and single-family residential uses, followed by a small mobile home park. South of the site are single-family residential uses. Across Rough and Ready Highway are single-family residential uses and transitional housing, followed by vacant undeveloped land farther to the north. In general, the project area and lands further east and southeast are largely built out with residential uses on relatively small parcels. Land further north and west of the project area is more rural with lower densities and large areas of undeveloped land.

Light and Glare

Given the rural character of the Rough and Ready Highway site and the surrounding area, it is expected that only minimal nighttime lighting is visible on or near the site associated with existing residences and vehicles traveling on area roadways. Similarly, there is daytime glare visible in the area associated with glass and other reflective building materials and vehicle windows.

4.3.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Subsection 4.0.2, above.
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4.3.3 IMPACTS AND MITIGATION MEASURES

Adversely Affect a Scenic Vista and/or Substantially Degrade the Visual Character of the Site (Standards of Significance 1 and 3)

Impact 4.3.1(RR) Development of the Rough and Ready Highway project site as proposed would maintain the existing commercial use but at a greater scale. Given the rural residential character of the surrounding area, this conversion would be considered to substantially degrade the visual character of the project area. (Significant and Unavoidable)

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. While the General Plan does not establish specific scenic vistas in the county, it does identify visual resources that characterize Nevada County. These include the rolling vistas of foothills, valleys, mountains, meadows, forests, wetlands, and habitats unique to the Sierras. Additionally, scenic views within the county are identified as mountain peaks such as Castle Peak, vistas of Donner Lake, and the gorge of the South Fork of the Yuba River (Nevada County 1996a, p. 18-1).

There are no officially designated scenic vistas in the area of the Rough and Ready Highway site. However, the site is located in the foothills of the Sierra Nevada, views of which are considered an important factor in the county’s scenic quality.

Currently, an existing single-story commercial building and associated parking lot are on the project site. The proposed Rough and Ready Highway project would maintain the existing type of use on the 1.02-acre project site as a commercial development. The proposed development includes construction of a 9,100-square-foot, 18- to 27-foot-high commercial building, along with 19,354 square feet of surfaced area, 29 parking spaces, and 8,451 square feet of landscaped area. The proposed project’s building elevations are shown in Figure 2.0-13. The proposed development would be of substantially greater height, size, and scale compared to the existing single-story building and immediately adjacent development, which consists of one-story, single-family detached homes in a rural residential setting. It would also be substantially taller than development on the north side of Rough and Ready Highway, which consists of a combination of one-story, single-family homes and higher-density residential uses including a transitional housing facility and mobile home parks (see Figure 2.0-7). Surrounding the area are rural residential properties and large expanses of wooded vacant land as well as some vineyards directly to the south.

Figure 4.0-11 shows the location of three key viewpoints of the project site from the surrounding area. Photographs of the site in its existing condition, along with a visual simulation of the proposed development at each of these viewpoints are provided in Figures 4.0-11 through 4.0-14. As shown, given the rural nature of the surrounding area, the proposed development would substantially change the visual character and quality of the site and would degrade views of the site from the immediately surrounding residential uses.

The proposed development would be reviewed for consistency with applicable, adopted design standards, including the Western Nevada County Design Guidelines, prior to issuance of development permits. The design guidelines encourage environmentally sensitive site design that is consistent with the overall architectural character of the project and community. The Rough and Ready Highway project includes building materials and colors that would blend with the surrounding environment and landscape and help to screen the urban nature of the proposed building. As shown in Figure 2.0-13, the building’s exterior walls would incorporate architectural...
features to increase visual interest. These features include varying rooflines, building materials and colors, awnings, and decorative building-mounted lighting fixtures and door hardware. In addition, the project would preserve a portion of the site as open space per County requirements and would include landscaping throughout the site that would serve as a buffer for adjacent uses. However, the proposed reduction in parking standards allows a larger building design, and the proposed structure would be substantially larger than any other building in the immediate vicinity. Development of the Rough and Ready Highway site as proposed would result in a building that is out of scale with the development in the area and would substantially change views. Given the rural residential nature of the area, such a change would be considered to degrade the visual character and quality of the site and its surroundings.

The existing scenic quality of the project area is largely defined by small-scale rural residential development, which comprises the neighborhood. The level of viewer exposure from public roadways and concern about changes in the viewshed from Rough and Ready Highway and West Drive is high, resulting in visual sensitivity of the site to larger forms that are out of scale with the existing neighborhood. A reduced-size project would likely be able to reduce the severity of this impact. However, the design of such a change to the project would be subject to design and fiscal constraints that are beyond the scope of this Draft EIR. Therefore, a reduced building alternative is addressed in Chapter 16.0, Alternatives of this Draft EIR for consideration by the Planning Commission. Increasing the size of the property to result in less coverage is not possible due to adjacent land ownership. Blocking views of the building from the roadway would not meet with the commercial nature of the project and the need for visibility to the travelling public. The design of the structure meets County standards; however, the impact is substantially adverse in terms of the proportional size and scale of the structure relative to other smaller structures in the vicinity and the visual sensitivity of the site. Given that there are no feasible mitigation measures available to reduce this impact, this impact would be **significant and unavoidable**.

**Mitigation Measures**

None available.

**Create New Sources of Light and Glare (Standard of Significance 4)**

**Impact 4.3.2(RR)** Development of the Rough and Ready Highway project site as proposed would introduce new sources of light and glare. *(Less Than Significant with Mitigation Incorporated)*

Development of the Rough and Ready Highway site as proposed would introduce a variety of building materials to the site that may create glare. However, the proposed project would be reviewed for consistency with the Western Nevada County Design Guidelines prior to issuance of development permits. Compliance with the design guidelines would substantially reduce the potential for glare from the proposed project by discouraging the use of reflective materials and requiring materials to be painted using a neutral color palette. Impacts from glare would be **less than significant**.

As stated previously, there is an existing commercial building on the site. The existing use does not have parking lot pole-mounted lights. The only outdoor lighting appears to be spot lights mounted on the building exterior. All of this lighting would be removed with demolition of the existing building.

Implementation of the proposed project would introduce new sources of light that currently do not exist on the project site. The nearest residential uses sensitive to light and glare in the project area are single-family homes located immediately south and west of the site. The plans for the
proposed project identify 11 downward-facing wall light fixtures mounted along the parapets of the building, as well as 2 pole-mounted parking lot lights. The Nevada County Zoning Ordinance includes standards for exterior lighting that require such lighting to be shielded and directed downward to prevent the light source or lens from being visible from adjacent properties and roadways. The lighting plan for the Rough and Ready Highway site provided by the project applicant is shown in Figure 4.0-15. Based on a review of this plan, the majority of the lighting from the project site will be kept within the property boundaries, but there are areas identified where light is shown to spill off-site. Therefore, this impact would be potentially significant.

The County’s Land Use and Development Code Section L-II 4.2.8(D)(2) states that “all outdoor lighting fixtures shall be fully shielded to prevent the light source or lens from being visible from adjacent properties and roadways...” According to the site lighting plan prepared by the applicant, all light fixtures are designed to meet International Dark Sky requirements, including being fully shielded. With shielded lighting, the Rough and Ready Highway project would be consistent with the County Lighting Ordinance and would not be anticipated to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. However, implementation of mitigation measures MM RR-4.3.2a and RR-4.3.2b would be necessary to ensure that project lighting would not expose adjacent properties and roadways to of substantial light or glare, consistent with the Nevada County Land Use and Development Code. With mitigation, this impact would be less than significant.

Mitigation Measures

**MM RR-4.3.2a**  
Prior to building permit issuance, the developer shall submit a final Site Lighting Plan/Photometric Detail that demonstrates that all light spill will be retained on the project site. Potential methods for reducing light trespass onto neighboring roads and properties include light fixtures of lesser wattage, and/or providing additional screening of those features, and/or moving light poles farther into the interior of the site. The developer shall install and maintain all lighting consistent with the approved Final Site Lighting Plan. Prior to issuance of final occupancy, the Planning Department shall perform a site visit, during the dark hours, to verify that the installed lighting does not trespass onto neighboring roads or properties.

**Timing/Implementation:** Prior to issuance of building permits and prior to issuance of final occupancy

**Enforcement/Monitoring:** Nevada County Planning Department and Building Department

**MM RR-4.3.2b**  
All lighting for advertising must meet the County Lighting and Signage Ordinance requirements. Internally illuminated signage shall be prohibited. All lighting for exterior signage or advertising shall be top mounted light fixtures which shine light downward directly onto the sign. Said lighting shall be fully shielded consistent with International Dark Sky standards. Prior to building permit issuance, the applicant shall submit a final signage plan that eliminates any reference to internally lighted signage and provides details for establishing top mounted lighting for both the monument and wall signs. Additionally, any proposed sign lighting shall be shown and taken into account in the photometric detail in the revised project site lighting plan as required by mitigation measure MM RR-4.3.2a. Prior to issuance of final occupancy, the Planning Department shall perform a site inspection to ensure that the sign
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lighting is installed consistent with this mitigation measure and the County Zoning Code standards.

Timing/Implementation: Prior to issuance of building permit and prior to issuance of final occupancy

Enforcement/Monitoring: Nevada County Planning Department

4.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for visual resources consists of each of the project sites, as well as all existing, approved, proposed, and reasonably foreseeable development in the visible range of each project site.

Alta Sierra Site: The cumulative setting for the Alta Sierra site is characterized by rural commercial development, hillside residential development, and open space. To guide the future uses in the area, the Nevada County General Plan designates the immediate area as a Rural Center with commercially designated land uses (Highway Commercial [HC] and Neighborhood Commercial [NC]) to the immediate north, south, and west of the site. Surrounding the Rural Center are properties identified with the General Plan land use designation of Planned Residential Community (PRC) to the east, Estate (EST) to the south and west, and Urban Medium Density (UMD) to the north. As shown in Table 17.0-1 in Section 17.0, Other CEQA Considerations, the closest approved project in the surrounding area is Forest Springs Mobile Home Park, which is located approximately 1,800 feet north of the Alta Sierra Rural Center and approximately 1.0 mile from the project site. Hundreds of trees were recently removed from this site as the project began construction, and the tree removal is highly visible from SR 49. However, the Dollar General site is not readily visible to travelers along SR 49 as the project site is approximately 0.10 of a mile from and approximately 50 feet lower in elevation than SR 49, which is the major public view corridor of the Forest Springs Mobile Home Park. Due to these factors and the intervening development on SR 49, these projects lack any substantive visual connection.

Penn Valley Site: The cumulative setting for the Penn Valley site is characterized by commercial development, medium-density residential development, and open space. The Nevada County General Plan identifies the immediate area as a part of the Penn Valley Village Center with Community Commercial (CC) land uses adjacent to the site. Surrounding General Plan land uses include Urban Medium Density to the southwest and northeast. There are three Penn Valley projects included in Table 17.0-1 in Section 17.0, Other CEQA Considerations, which is a list of approved and proposed projects in the surrounding area. None of these three projects is on Penn Valley Drive or in the Penn Valley Village Center. Because none of these projects has visual connection to the proposed Penn Valley Dollar General project, they are not included in the cumulative visual setting and analysis.
FIGURE 4.0-10

Proposed Lighting Plan – Penn Valley
FIGURE 4.0-11
Rough and Ready Highway Site Key Viewpoints Location Map

Source: MPA Architects, Inc., 2016

Not To Scale
For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

Source: MPA Architects, Inc., 2016

FIGURE 4.0-12
Rough and Ready Highway Site Viewpoint A
For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

Source: MPA Architects, Inc., 2016

FIGURE 4.0-13
Rough and Ready Highway Site Viewpoint B
For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader with information on the form, size, and scale of the proposed improvements within the project area.

Source: MPA Architects, Inc., 2016

FIGURE 4.0-14
Rough and Ready Highway Site Viewpoint C
NEVADA COUNTY LIGHTING REQUIREMENTS

1. All outdoor light fixtures shall be fully shielded to prevent the light source or lens from being visible from adjacent properties and roadways.

2. Externally illuminated signs and building identification shall use top-mounted light fixtures which shine light downward.

3. Light fixtures mounted on the canopies of convenience stores, restaurants, or other similar businesses, shall be recessed so that the lens cover is recessed or flush with the bottom surface (ceiling) of the canopy, and/or shielded by the fixture or the edge of the canopy so that light is restrained to no more than 85 degrees from vertical. As an alternative or supplement to recessed ceiling lights, indirect lighting may be used where light is beamed upward and then reflected down from the underside of the canopy. In this case fixtures must be shielded so that direct illumination is focused exclusively on the underside of the canopy. Lights shall not be mounted on the top or sides (fascia) of the canopy, and the sides (fascia) of the canopy shall not be illuminated.

4. Use fixtures with high efficiency lamps. High pressure sodium, and mercury vapor light fixtures are prohibited.

5. Light poles shall be restricted to a maximum of 20 feet in height except that on parcels adjacent to residential or rural zoning districts, the maximum height shall be restricted to 15 feet.

6. All exterior lighting shall be maintained as installed.

7. Lighting shall be turned off between 11 p.m. and sunrise, except for those businesses operating during these hours or where a safety or security need is clearly demonstrated.

8. Lighting systems, other than signs, shall include dimmers, occupancy sensors, time controls or separate circuits, to allow sections of the lighting to be turned off as needed.

9. Security lighting fixtures shall be shielded and aimed so that illumination is directed only to the designated area and not cast on other areas. The use of motion or heat sensors may provide greater security than continuous nighttime lighting and are the preferred alternative to continuous nighttime lighting.

10. The standard for canopy lighting is that the lighting must be recessed so that the lens cover is recessed or flush with the bottom surface of the canopy ceiling so that light is restrained to no more than 85 degrees from vertical.
Rough and Ready Highway Site: The cumulative setting for the Rough and Ready Highway site is characterized by rural commercial development, single-family residential development, and open space. A large community church is also located approximately one-half mile east of the site, although it is not within the same Sunset neighborhood and cannot be seen from the site. The Nevada County General Plan designates the adjacent lands as Neighborhood Commercial land uses. Surrounding General Plan land uses include Urban High Density, Estate, and Residential. As shown in the list of approved and proposed projects in the surrounding area in Table 17.0-1 in Section 17.0, Other CEQA Considerations, of the approved and proposed projects known at this time, Yuba River Charter School is the nearest approved project. It is located on the Rough and Ready Highway corridor nearly 1 mile east of the proposed Dollar General project. Between the two projects is a large tract of open space and the Sunset neighborhood. Although the Yuba River Charter School project is on the same public road corridor as the proposed Rough and Ready Highway Dollar General, the distance between the two projects precludes its inclusion in the cumulative visual setting of the proposed Dollar General store.

Cumulative Impacts and Mitigation Measures

Cumulative Aesthetic and Lighting Impacts – Alta Sierra

Impact 4.4.1(AS) The Alta Sierra project site is located in a largely developed rural commercial center surrounded by rural residential development and a highway. Cumulative development in the area would substantially alter the existing visual character of the area and generate substantial new light or glare. (Cumulatively Considerable and Significant and Unavoidable)

Cumulative development in the vicinity of the Alta Sierra project site, as guided by the Nevada County General Plan, would result in the ongoing conversion of vacant and underutilized properties to more urbanized uses. This ongoing conversion will result in a gradual transition from a rural environment dominated by natural features and scattered development to a more urban environment dominated by development. Future development projects would be subject to the County’s development standards and adopted design guidelines, which are intended to protect existing uses, minimize light spillage, and design new development to blend with the character of the surrounding area. Development consistent with these standards and guidelines would ensure cumulative lighting would not result in a significant impact. However, a general conversion from rural to urban uses would result in substantial changes to the visual character of the area that cannot be fully mitigated. Therefore, this would be a significant cumulative impact.

As described in Impact 4.1.1(AS) above, development of the Alta Sierra project site would have a significant and unavoidable impact on the visual character and quality of the site and surrounding area. There are no mitigation measures available that could reduce this impacts to a level of insignificance. Therefore, the proposed project’s contribution to this cumulative impact would be cumulatively considerable and significant and unavoidable.

Mitigation Measures

None available.

Cumulative Aesthetic and Lighting Impacts – Penn Valley

Impact 4.4.2(PV) The Penn Valley project site is located in an area developed with similar commercial uses along a developed corridor. Cumulative development would contribute to the ongoing transition of the area to urban uses. Compliance with
existing development standards and applicable design guidelines would reduce cumulative aesthetic and lighting impacts. (Less than Cumulatively Considerable)

Development in the vicinity of the Penn Valley project site includes commercial uses consistent with the Nevada County General Plan and the Penn Valley Center Area Plan. Future development in the area would represent a logical expansion of the existing commercial center that serves the surrounding community. Each development project would be subject to the County’s development standards and adopted design guidelines, which are intended to protect existing uses, prevent light spillage, and ensure that new development blends with the character of the surrounding area. Therefore, the cumulative impact would be less than cumulatively considerable and development of the proposed project would not alter the significance of the overall change.

Mitigation Measures
None required.

Cumulative Aesthetic and Lighting Impacts – Rough and Ready Highway

Impact 4.4.3(RR) The Rough and Ready Highway project site is located in an area dominated by rural residential development and open space. Cumulative development in the area would substantially alter the existing visual character of the area and generate substantial new light or glare. (Cumulatively Considerable and Significant and Unavoidable)

Based on existing zoning and General Plan designations, cumulative development in the vicinity of the Rough and Ready Highway project site would result in the conversion of vacant and underutilized properties to residential and commercial uses in the Sunset neighborhood viewshed. A general conversion from the existing rural residential area to a more developed area would result in a change to the existing visual environment that would be subject to the County’s development standards and adopted design guidelines, which are intended to protect existing uses, minimize light spillage, and ensure that new development blends with the character of the surrounding area.

As described in Impact 4.3.1 (RR) above, the proposed project is larger in scale and size than other commercial uses in the vicinity. The church which is located 0.5 mile to the east on Rough and Ready Highway is an institutional use, which differs in nature from a commercial use. Due to the size and scale of the Rough and Ready Highway project relative to the existing residential development in the immediate vicinity, and the sensitivity of the site which is based on the high level of viewer exposure from Rough and Ready Highway and West Drive, and concern of residential viewers, the project would have significant and unavoidable impacts on the visual character of the site and surrounding area. The larger scale of the proposed project would in turn contribute to the likelihood of the proposal of additional commercial development that, in order to relate aesthetically and economically to the Dollar General store, would also be out of scale with the existing neighborhood. There are no mitigation measures available that could reduce this impact to less than significant. Because of the project’s prominence along Rough and Ready Highway and its scale relative to the surrounding uses, the proposed project’s contribution to this cumulative impact would be cumulatively considerable and significant and unavoidable.

Mitigation Measures
None available.
REFERENCES


Costella (Costella Environmental Consulting). 2015. Management Plan for Oak Resources Dollar General - Alta Sierra and Addendum to the Biological Inventory.


——. 2000. Penn Valley Village Center Area Plan Nevada County, California.

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5.0 Air Quality
This section examines the air quality in the project area, includes a summary of applicable air quality regulations, and analyzes potential air quality impacts associated with the proposed Dollar General stores. All technical analyses related to this section are contained in Appendix 5.0.

5.0 General Environmental Conditions and Regulations

5.0.1 Environmental Setting

Air Basin Characteristics

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The project sites are located in the western-central portion of unincorporated Nevada County, which is encompassed by the Mountain Counties Air Basin (MCAB). The MCAB consists of nine counties or portions of counties stretching from Plumas County on the north to Mariposa County on the south. The MCAB exhibits large variations in terrain and consequently exhibits large variations in climate, both of which affect air quality. The western portions of the basin slope relatively gradually, with deep river canyons running from southwest to northeast toward the crest of the Sierra Nevada range. East of the divide, the slope of the Sierra is steeper, but river canyons are relatively shallow.

Because of the region’s topographical features and meteorological conditions, the MCAB is more sensitive to negative impacts on air quality than most other areas of California. The prevailing wind direction over the county is westerly. However, the terrain has a great influence on local winds, so that wide variability in wind direction can be expected. Afternoon winds are generally channeled up-canyon, while nighttime winds generally flow down-canyon. Winds are, in general, stronger in spring and summer and weaker in fall and winter. Periods of calm winds and clear skies in fall and winter often result in strong, ground-based inversions forming in mountain valleys. These layers of very stable air restrict the dispersal of pollutants, trapping these pollutants near the ground, representing the worst conditions for local air pollution occurring in the county.

Cold temperatures and mild winds often result in temperature inversions in which upper layers of warmer air trap colder air near the surface. Local pollutant sources in the MCAB are trapped by frequent inversions, which limit the volume of air into which they can be mixed and in turn result in elevated pollutant concentrations. The most frequent episodes of high pollution occur during local basin inversions, when emissions from local sources such as motor vehicles, chimney smoke, and forest burning are trapped in the basin. This is the most common meteorological condition contributing to air quality degradation in the area.

The second-most common meteorological condition contributing to air quality degradation is transport from the Sacramento Valley and the Bay Area into the region. This meteorological condition is strongest during the warmer summer months and contributes approximately 30 percent of the ozone and airborne particulate matter pollution in the region. The lowest pollution regimes are associated with the fall and winter months and contribute approximately 10 percent of the pollution to the region. Similar to other areas, when winds are strong enough to break up basin inversion layers, pollution is generally blown outside of the region and the air quality is typically good. However, when fall and winter winds are weak, this regime is associated with persistent local inversions and the associated buildup of local pollutants.

Air Pollutants of Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as criteria air pollutants and are...
categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO\textsubscript{x}), sulfur dioxide (SO\textsubscript{2}), coarse particulate matter (PM\textsubscript{10}) and fine particulate matter (PM\textsubscript{2.5}), lead, and fugitive dust are primary air pollutants. Of these, CO, SO\textsubscript{2}, PM\textsubscript{10}, and PM\textsubscript{2.5} are criteria pollutants. ROG and NO\textsubscript{x} are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O\textsubscript{3}) and nitrogen dioxide (NO\textsubscript{2}) are the principal secondary pollutants. Presented in Table 5.0-1 is a description of each of the primary and secondary criteria air pollutants and their known health effects.

### Table 5.0-1

**Criteria Air Pollutants Summary of Common Sources and Effects**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Major Man-Made Sources</th>
<th>Human Health Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.</td>
<td>Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO\textsubscript{2})</td>
<td>A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.</td>
<td>Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. Contributes to global warming and nutrient overload in which deteriorates water quality. Causes brown discoloration of the atmosphere.</td>
</tr>
<tr>
<td>Ozone (O\textsubscript{3})</td>
<td>Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.</td>
<td>Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.</td>
</tr>
<tr>
<td>Particulate Matter (PM\textsubscript{10} &amp; PM\textsubscript{2.5})</td>
<td>Produced by power plants, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.</td>
<td>Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO\textsubscript{2})</td>
<td>A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.</td>
<td>Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.</td>
</tr>
</tbody>
</table>

Source: CAPCOA 2011

### Ambient Air Quality

Ambient air quality in west-central Nevada County can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are documented by measurements made by the Northern Sierra Air Quality Management District (NSAQMD), the air pollution regulatory agency in Nevada County that maintains air quality monitoring stations which process ambient air quality measurements.
The Grass Valley-Litton Building air quality monitoring station is the closest station to the three project sites, at approximately 4.5 miles north of the Alta Sierra site, 6.5 miles east of the Penn Valley site, and 2 miles southeast of the Rough and Ready Highway site. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered generally representative of ambient concentrations at the project sites. Table 5.0-2 summarizes the published data since 2013 for each year that the monitoring data is provided.

### Table 5.0-2
**Summary of Ambient Air Quality Data**

<table>
<thead>
<tr>
<th>Pollutant Standards</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max 1-hour concentration (ppm)</td>
<td>0.089</td>
<td>0.089</td>
<td>0.101</td>
</tr>
<tr>
<td>Max 8-hour concentration (ppm) (state/federal)</td>
<td>0.082 / 0.082</td>
<td>0.086 / 0.085</td>
<td>0.093/0.092</td>
</tr>
<tr>
<td>Number of days above state 1-hour standard</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Number of days above state/federal 8-hour standard</td>
<td>24 / 4</td>
<td>36 / 10</td>
<td>30/11</td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM$_{10}$)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max 24-hour concentration (µg/m$^3$) (state/federal)</td>
<td>* / *</td>
<td>* / *</td>
<td>* / *</td>
</tr>
<tr>
<td>Number of days above state/federal standard</td>
<td>* / *</td>
<td>* / *</td>
<td>* / *</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM$_{2.5}$)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max 24-hour concentration (µg/m$^3$) (state/federal)</td>
<td>38.1 / 28.5</td>
<td>239.0 / 61.3</td>
<td>130.0/11.5</td>
</tr>
<tr>
<td>Number of days above federal standard</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: CARB 2016a

Notes:

* $\mu$g/m$^3$ = micrograms per cubic meter; ppm = parts per million

* = No data is currently available from CARB to determine the value.

Areas with air quality exceeding adopted air quality standards are designated as nonattainment areas for the relevant air pollutants, while areas that comply with air quality standards are designated as attainment areas for the relevant air pollutants. The attainment status for west-central Nevada County is included in Table 5.0-3. The region is nonattainment for state ozone and PM$_{10}$ standards in addition to federal ozone standards (CARB 2015).

### Table 5.0-3
**Federal and State Ambient Air Quality Attainment Status for Western Nevada County**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Federal</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone (O$_3$)</td>
<td>Nonattainment</td>
<td>Nonattainment</td>
</tr>
<tr>
<td>Coarse Particulate Matter (PM$_{10}$)</td>
<td>Unclassified</td>
<td>Nonattainment</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM$_{2.5}$)</td>
<td>Unclassified/Attainment</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>Unclassified/Attainment</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO$_2$)</td>
<td>Unclassified/Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO$_2$)</td>
<td>Unclassified</td>
<td>Attainment</td>
</tr>
</tbody>
</table>

Source: CARB 2015
Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and generally are assessed locally rather than regionally.

To date, CARB has designated nearly 200 compounds as toxic air contaminants. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds.

CARB has also identified diesel particulate matter (diesel PM) as a toxic air contaminant. Diesel PM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled engines contribute approximately 24 percent of the statewide total, with an additional 71 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources contribute about 5 percent of total diesel PM. It should be noted that CARB has developed several plans and programs to reduce diesel emissions such as the Diesel Risk Reduction Plan (DRRRP), the Statewide Portable Equipment Registration Program (PERP), and the Diesel Off-Road Reporting System (DOORS). The PERP and DOORS allow owners or operators of portable engines and certain other types of equipment to register their units in order to operate their equipment throughout California without having to obtain individual permits from local air districts.

Diesel exhaust and many individual substances contained in it (including arsenic, benzene, formaldehyde, and nickel) have the potential to contribute to mutations in cells that can lead to cancer. Long-term exposure to diesel exhaust particles poses the highest cancer risk of any TAC evaluated by the Office of Environmental Health Hazard Assessment (OEHHA). CARB estimates that about 70 percent of the cancer risk that the average Californian faces from breathing toxic air pollutants stems from diesel exhaust particles.

In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Using information from OEHHA’s assessment, CARB estimates that diesel particle levels measured in California’s air in 2000 could cause 540 “excess” cancers in a population of 1 million people over a 70-year lifetime. Other researchers and scientific organizations, including the National Institute for Occupational Safety and Health, have calculated cancer risks from diesel exhaust similar to those developed by OEHHA and CARB.
Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks.

Diesel engines are a major source of fine particulate pollution. The elderly and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to fine-particle pollution. Numerous studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Because children’s lungs and respiratory systems are still developing, children are also more susceptible than healthy adults to fine particles. Exposure to fine particles is associated with increased frequency of childhood illnesses and can also reduce lung function in children. In California, diesel exhaust particles have been identified as a carcinogen.

Existing diesel PM sources in Nevada County include diesel trucks, backup diesel generators, and diesel snow removal equipment.

**Naturally Occurring Asbestos**

CARB has identified naturally occurring asbestos (NOA) as a toxic air contaminant. NOA occurs in rocks and soil as a result of natural geological processes. Natural weathering and human activities, such as construction, may disturb NOA-bearing rock or soil and release mineral fibers into the air, which pose a greater potential for human exposure by inhalation. NOA-bearing rock/soil has been identified in Nevada County.

**Sensitive Receptors**

Some land uses are considered more sensitive to air pollution than others because of the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Children are considered more susceptible to the health effects of air pollution due to their immature immune systems and developing organs (OEHHA 2007). As such, schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities.

**5.0.2 REGULATORY FRAMEWORK**

**Ambient Air Quality Standards**

The federal Clean Air Act (CAA) established national ambient air quality standards (NAAQS), with states retaining the option to adopt more stringent standards or to include other pollution species. These standards are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those sensitive receptors most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.
5.0 AIR QUALITY

Both the State of California and the federal government have established health-based ambient air quality standards for six air pollutants. As shown in Table 5.0-4, these pollutants include O₃, CO, NO₂, SO₂, PM₁₀, PM₂.₅, and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 5.0-4
AIR QUALITY STANDARDS

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California Standards</th>
<th>National Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone (O₃)</td>
<td>8 Hour</td>
<td>0.070 ppm (137 µg/m³)</td>
<td>0.075 ppm</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>0.09 ppm (180 µg/m³)</td>
<td>—</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>8 Hour</td>
<td>9.0 ppm (10 mg/m³)</td>
<td>9 ppm (10 mg/m³)</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>20 ppm (23 mg/m³)</td>
<td>35 ppm (40 mg/m³)</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td>1 Hour</td>
<td>0.18 ppm (339 µg/m³)</td>
<td>100 ppb</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean</td>
<td>0.030 ppm (57 µg/m³)</td>
<td>53 ppb (100 µg/m³)</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>24 Hour</td>
<td>0.04 ppm (105 µg/m³)</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>3 Hour</td>
<td>—</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>0.25 ppm (665 µg/m³)</td>
<td>75 ppb</td>
</tr>
<tr>
<td>Particulate Matter (PM₁₀)</td>
<td>Annual Arithmetic Mean</td>
<td>20 µg/m³</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>50 µg/m³</td>
<td>150 µg/m³</td>
</tr>
<tr>
<td>Particulate Matter – Fine (PM₂.₅)</td>
<td>Annual Arithmetic Mean</td>
<td>12 µg/m³</td>
<td>15 µg/m³</td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>N/A</td>
<td>35 µg/m³</td>
</tr>
<tr>
<td>Sulfates</td>
<td>24 Hour</td>
<td>25 µg/m³</td>
<td>N/A</td>
</tr>
<tr>
<td>Lead</td>
<td>Calendar Quarter</td>
<td>N/A</td>
<td>1.5 µg/m³</td>
</tr>
<tr>
<td></td>
<td>30 Day Average</td>
<td>1.5 µg/m³</td>
<td>N/A</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>1 Hour</td>
<td>0.03 ppm (42 µg/m³)</td>
<td>N/A</td>
</tr>
<tr>
<td>Vinyl Chloride (chloroethene)</td>
<td>24 Hour</td>
<td>0.01 ppm (26 µg/m³)</td>
<td>N/A</td>
</tr>
<tr>
<td>Visibility-Reducing Particles</td>
<td>8 Hour (10:00 to 18:00 PST)</td>
<td>—</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: CARB 2016b
Notes: mg/m³ = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter

Northern Sierra Air Quality Management District

The NSAQMD is the agency primarily responsible for ensuring that federal and state ambient air quality standards are not exceeded and that air quality conditions are maintained for the project sites. NSAQMD responsibilities include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the federal Clean Air Act and the California Clean Air Act. NSAQMD rules and regulations applicable to the proposed project include, but are not necessarily limited to, the following:
• **Rule 205, Nuisance.** This rule prohibits the discharge of air contaminants or other material from any source which cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or which endangers the comfort, repose, health, or safety of any such persons, or the public or which cause to have a natural tendency to cause injury or damage to business or property.

• **Rule 226, Dust Control.** This rule requires the submittal of a Dust Control Plan to the NSAQMD for approval prior to any surface disturbance, including clearing of vegetation.

• **Rule 302, Prohibited Open Burning.** In accordance with this rule, no person (except as otherwise authorized in Sections 41801–41805.6, 41807–41809, and 41811–41815 of the Health and Safety Code) shall use open outdoor fires for the purpose of disposal, processing, or burning of any flammable or combustible material as defined in Section 39020 of the Health and Safety Code; or unless issued a permit by the NSAQMD and in accordance with other applicable NSAQMD rules and regulations, including, but not limited to, Rule 308, Land Development Clearing, and Rule 312, Burning Permits.

• **Rule 308, Land Development Clearing.** The NSAQMD finds it more economically desirable to dispose of wood waste from trees, vines, and bushes on property being developed for commercial or residential purposes by burning instead of burial at a sanitary landfill. In such instances, disposal by burning shall comply with NSAQMD rules, including, but not limited to, Rule 312, Burning Permit Requirements; Rule 313, Burn Days; Rule 314, Minimum Drying Times; Rule 315, Burning Management; and Rule 316, Burn Plan Preparation.

• **Rule 501, Permit Required.** Before any source may be operated, a Permit to Operate must be obtained from the Air Pollution Control Officer. No Permit to Operate shall be granted either by the Air Pollution Control Officer or the Hearing Board for any source constructed or modified without authorization or not in compliance with other NSAQMD rules and regulations, including those specified in NSAQMD Regulation IV.

### California Green Building Standards

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect July 1, 2014.

### 5.0.3 Impact Methodology

#### Standards of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance, which state that a project would have a significant air quality impact if it would:

1) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
5.0 **AIR QUALITY**

2) Expose sensitive receptors to substantial pollutant concentrations.

3) Create objectionable odors affecting a substantial number of people.

4) Conflict with or obstruct implementation of any applicable air quality plan.

5) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

NSAQMD thresholds have also been used to determine air quality impacts in this analysis. To assist local jurisdictions in the evaluation of air quality impacts, the NsAQMD has published a guidance document for the preparation of the air quality portions of environmental documents that includes thresholds of significance to be used in evaluating land use proposals. Thresholds of significance are based on a source’s projected impacts and are a basis from which to apply mitigation measures (NSAQMD 2016). The NsAQMD has developed a tiered approach to significance levels: a project with emissions meeting Level A thresholds will require the most basic mitigations; projects with projected emissions in the Level B range will require more extensive mitigations; and those projects which exceed Level C thresholds will require the most extensive mitigations. The NsAQMD-recommended thresholds are identified in **Table 5.0-5**.

**TABLE 5.0-5**

<table>
<thead>
<tr>
<th>Significance Level</th>
<th>Project-Generated Emissions (lbs/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NOx</td>
</tr>
<tr>
<td>Level A</td>
<td>&lt;24</td>
</tr>
<tr>
<td>Level B</td>
<td>24–136</td>
</tr>
<tr>
<td>Level C</td>
<td>≥136</td>
</tr>
</tbody>
</table>

Source: NsAQMD 2016

According to the NsAQMD (2016), these thresholds are recommended for use by lead agencies when preparing initial studies. If, during the preparation of the initial study, the lead agency finds that any of these thresholds may be exceeded and cannot be mitigated to Level B, then a determination of significant air quality impact must be made and an EIR is required.

For evaluation of project-related air quality impacts and considering that this EIR has been prepared to analyze the project, implementation of the proposed projects would be considered significant if they would:

- Exceed NsAQMD-recommended significance thresholds, as identified in **Table 5.0-5**. In accordance with NsAQMD-recommended thresholds of significance, project-generated short- or long-term increases in emissions in excess of Level C thresholds for NOx, ROG, or PM_{10} would be considered significant. The NsAQMD has not adopted thresholds of significance for PM_{2.5}. However, because PM_{2.5} is a subset of PM_{10}, significant increases in PM_{10} would be considered to also result in significant increases in PM_{2.5}.

It is important to note that in cases when predicted emissions are projected to be below the Level C thresholds but exceeding the Level A thresholds (thereby placing project-related air quality impacts at Level B), a project would be considered potentially
significant, subject to the recommended measures of the NSAQMD’s (2016) Mitigation for Use During Design and Construction Phases for Classifications as Level B Threshold. Implementation of the appropriate NSAQMD mitigation from this collection of measures would reduce Level B air quality impacts to a less than significant level.

- Exceed the NSAQMD health risk public notification thresholds set at 10 excess cancer cases in a million for cancer risk, or a Hazard Index of greater than one (1.0) for non-cancer risk.

- Contribute to localized concentrations of air pollutants at nearby receptors that would exceed applicable ambient air quality standards.

- Result in the frequent exposure of sensitive land uses to odorous emissions.

Methodology

Air quality impacts were assessed in accordance with methodologies recommended by CARB and the NSAQMD. Where criteria air pollutant quantification was required, emissions were modeled by Kunzman Associates (2015a, 2015b, 2016) using the California Emissions Estimator Model (CalEEMod) (see Appendix 5.0). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

5.1 Alta Sierra Site

5.1.1 Project-Specific Setting

The Alta Sierra site is located in the Nevada County portion of the MCAB, as described above. There are no aspects of the Alta Sierra site or surrounding area that result in air quality effects other than those described in Subsection 5.0.1 above.

The closest sensitive receptor to the Alta Sierra site is a residence approximately 100 feet from the boundary of the site.

5.1.2 Regulatory Framework

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Subsection 5.0.2 above.

5.1.3 Project Impacts and Mitigation Measures

Short-Term Construction-Generated Pollutant Emissions Resulting in Violation of Air Quality Standards or Contributing to Existing Violations (Standard of Significance 1)

Impact 5.1.1(AS) Construction activities associated with the Alta Sierra site such as clearing, excavation and grading operations, construction vehicle traffic, and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses. (Less than Significant with Mitigation Incorporated)

Construction associated with the development of the Alta Sierra project site would generate short-term emissions from activities such as site grading, asphalt paving, building construction, and
architectural coatings (e.g., painting). Construction would require the removal of approximately 5,988 cubic yards of soil from the Alta Sierra site. Common construction emissions include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM$_{10}$ and PM$_{2.5}$ emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NO$_x$ emissions, in addition to PM$_{10}$ and PM$_{2.5}$ emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions.

Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. As previously stated, the NSAQMD considers emissions in excess of Level C thresholds to have a significant air quality impact. Emissions below Level C thresholds are considered potentially significant and subject to the recommended mitigation of the NSAQMD’s (2016) Mitigation for Use During Design and Construction Phases for Classifications as Level B Threshold. Accordingly, implementation of NSAQMD-recommended mitigation measures sufficient to reduce emissions to levels below 137 pounds per day is considered adequate to reduce air quality impacts to a less than significant level. NSAQMD-recommended significance thresholds are defined in Table 5.0-5.

In addition, NSAQMD Rule 226, Dust Control, requires the submittal of a Dust Suppression Control Plan to the air district for approval prior to any surface disturbance associated with a construction project. In accordance with NSAQMD Rule 226, Dust Control, a Dust Suppression Control Plan (DSCP) for the Alta Sierra project site must be submitted for approval by the Nevada County Community Development Agency and the NSAQMD. The DSCP must identify project phases and construction schedules to be implemented in order to ensure that mitigated construction-generated emissions would not exceed NSAQMD-recommended significance thresholds. The DSCP is required to include, but is not limited to, the following NSAQMD-recommended measures for the control of fugitive dust emissions:

- The project applicant shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.

- All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

- All areas with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

- All on-site vehicle traffic shall be limited to a speed of 15 miles per hour (mph) on unpaved roads.

- All land clearing, grading, earth moving, or excavation activities on the project site shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

- All inactive portions of the development site shall be covered, seeded, or watered until a suitable cover is established. Alternatively, the applicant may apply County-approved nontoxic soil stabilizers (according to manufacturers’ specifications) to all inactive
construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the local grading ordinance.

- All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance, and there must be a minimum of 6 inches of freeboard in the bed of the transport vehicle.

- Paved streets adjacent to the project shall be swept or washed at the end of each day, or more frequently if necessary, to remove excessive or visibly raised accumulations of dirt and/or mud which may have resulted from activities at the project site.

- Prior to final occupancy, the applicant shall re-establish ground cover on the site through seeding and watering in accordance with the local grading ordinance.

Predicted maximum daily construction-generated emissions for the Alta Sierra site are summarized in Table 5.0-6.

<table>
<thead>
<tr>
<th>Construction Activities</th>
<th>ROG</th>
<th>NOx</th>
<th>CO</th>
<th>SO2</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Preparation</td>
<td>1.52</td>
<td>16.08</td>
<td>12.61</td>
<td>0.01</td>
<td>3.07</td>
<td>1.95</td>
</tr>
<tr>
<td>Grading</td>
<td>8.72</td>
<td>39.24</td>
<td>95.67</td>
<td>0.05</td>
<td>4.18</td>
<td>2.54</td>
</tr>
<tr>
<td>Building Construction, Paving &amp; Painting</td>
<td>11.30</td>
<td>39.90</td>
<td>31.95</td>
<td>0.04</td>
<td>3.08</td>
<td>2.62</td>
</tr>
</tbody>
</table>

| NSAQMD Level A Threshold                        | <24 pounds/day | <24 pounds/day | None | None | <79 pounds/day | None |
| Exceed NSAQMD Level A Threshold?                | No             | Yes            | No   | No   | No             | No   |

| NSAQMD Level B Threshold                        | 24–136 pounds/day | 24–136 pounds/day | None | None | 79–136 pounds/day | None |
| Exceed NSAQMD Level B Threshold?                | No             | No             | No   | No   | No             | No   |

Source: Kunzman Associates 2015a. See Appendix 5.0 for emission model outputs.

Notes: Emission projections account for the removal of 7,728 cubic yards of material from the Alta Sierra site and subsequent hauling of this material 4.2 miles to Hansen Brothers Enterprises located at 1172 La Barr Meadows Road in Grass Valley. Subsequent to the air quality modeling prepared by Kunzman Associates for the Alta Sierra project, the amount of material to be removed and transported was reduced by the project applicant to approximately 5,988 cubic yards. Thus, the emission estimates attributed to grading are overstated, but the project would still exceed the applicable threshold for NOx.

As shown in Table 5.0-6, short-term daily construction emissions associated with the Alta Sierra site would not exceed the Level B significance thresholds; however, the Level A significance threshold would be surpassed for NOx emissions. As previously described, development projects estimated to exceed Level A significance thresholds must apply the emission-appropriate measures of the NSAQMD’s (2016) Mitigation for Use During Design and Construction Phases for Classifications as Level B Threshold. According to the air district, implementation of the appropriate NSAQMD mitigation from this collection of measures would reduce Level B air quality impacts to a less than significant level.
Since the Level A significance threshold would be surpassed for NOx emissions during construction of the Alta Sierra site, this would be a potentially significant impact, and mitigation measure MM AS-5.1.1a is required. Mitigation measure MM AS-5.1.1a is derived from the NSAQMD’s recommended mitigations in order to address generated NOx emissions. Mitigation measures MM AS-5.1.1b and MM AS-5.1.1c would further reduce the project’s construction-phase emissions by requiring dust suppression measures to reduce particulate emissions and the use of low-VOC architectural coatings to reduce the generation of VOCs. With implementation of mitigation measures MM AS-5.1.1a through MM AS-5.1.1c, this impact would be less than significant.

Mitigation Measures

**MM AS-5.1.1a** The construction contractor shall submit to the NSAQMD for approval an Off-Road Construction Equipment Emission Reduction Plan prior to ground breaking demonstrating the following:

- All off-road equipment (portable and mobile) meets or is cleaner than Tier 2 engine emission specifications unless prior written approval for any exceptions is obtained from the NSAQMD. Note that all off-road equipment must meet all applicable state and federal requirements.

- Emissions from on-site construction equipment shall comply with NSAQMD Regulation II, Rule 202. Visible Emissions.

- The primary contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes when not in use (as required by California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturers’ specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Existing power sources (e.g., power poles) or clean fuel generators shall be utilized rather than temporary power generators (i.e. diesel generators), where feasible.

- Deliveries of construction materials shall be scheduled to direct traffic flow to avoid the peak hours of 7:00–9:00 AM and 4:00–6:00 PM.

- The primary contractor shall use architectural coatings for the proposed structure that have a volatile organic compound (VOC) content no greater than 50 grams per liter of VOC.

**Timing/Implementation:** The Off-Road Construction Equipment Emission Reduction Plan shall be submitted and approved prior to issuance of grading permits for the first phase of construction. The plan shall be implemented during all phases of construction.
Enforcement/Monitoring: Nevada County Building Department; Northern Sierra Air Quality Management District

MM AS-5.1.1b To reduce impacts of short-term construction, the applicant shall obtain NSAAQMD approval of a Dust Control Plan (DCP) which shall include, but not be limited to, the standards provided below to the satisfaction of the NSAAQMD. Prior to issuance of grading permits, the developer shall provide a copy of the approved DCP to the County Planning and Building Department and shall include the requirements of DCP as notes on all construction plans. The Building Department shall verify that the requirements of the DCP are being implemented during grading inspections.

Alternatives to open burning of vegetation material on the project site shall be used by the project applicant unless deemed infeasible to the Air Pollution Control Officer (APCO). Among suitable alternatives is chipping, mulching, or conversion to biomass fuel.

1. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction.

2. All material excavated, stockpiled or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

3. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

4. All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

5. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.

6. All inactive disturbed portions of the development site shall be covered, seeded or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying non-toxic soil stabilizers to all inactive construction areas.

7. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.

8. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to removed excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

9. If serpentine or ultramafic rock is discovered during grading or construction, the District must be notified no later than the next business day and the California Code of Regulations, Title 17, Section 9315 applies.
5.0 AIR QUALITY

Timing/Implementation: Prior to grading permit issuance and throughout construction phase

Enforcement/Monitoring: Nevada County Building Department; Northern Sierra Air Quality Management District

**MM AS-5.1.1c** To ensure that the project will not result in the significant generation of VOCs, all architectural coatings shall utilize low-VOC paint (no greater than 50g/L VOC). Prior to building permit issuance, the developer shall submit their list of low-VOC coatings to the NSAQMD for review and approval. The developer shall then provide written verification from NSAQMD that all architectural coatings meet NSAQMD thresholds to be considered “low-VOC.” Finally, all building plans shall include a note documenting which low-VOC architectural coatings will be used in construction.

Timing/Implementation: Prior to building permit issuance and throughout construction phase

Enforcement/Monitoring: Nevada County Building Department; Northern Sierra Air Quality Management District

**Long-Term Operational Emissions of Air Pollutants Resulting in Violation of Air Quality Standards or Contributing to Existing Violations (Standard of Significance 1)**

**Impact 5.1.2(AS)** The Alta Sierra project would not result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards. *(Less than Significant with Mitigation Incorporated)*

The project would result in the generation of long-term operational emissions of criteria air pollutants and ozone precursors. Project-generated increases in emissions would be predominantly associated with motor vehicle use. To a lesser extent, area sources, such as the use of natural-gas-fired appliances, landscape maintenance equipment, and architectural coatings, would also contribute to overall increases in emissions. Emissions attributed to energy use would be reduced through compliance with the California Green Building Code described previously.

Long-term operational emissions attributable to the Alta Sierra site are summarized in Table 5.0-7.

### Table 5.0-7

**LONG-TERM OPERATIONAL EMISSIONS – ALTA SIERRA SITE (POUNDS PER DAY)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROG</td>
</tr>
<tr>
<td>Summer Emissions</td>
<td></td>
</tr>
<tr>
<td>Area Source</td>
<td>1.13</td>
</tr>
<tr>
<td>Energy Use</td>
<td>0.00</td>
</tr>
<tr>
<td>Mobile Source</td>
<td>4.38</td>
</tr>
<tr>
<td>Total</td>
<td>5.51</td>
</tr>
<tr>
<td>NSAQMD Level A Threshold</td>
<td>&lt;24 pounds/day</td>
</tr>
</tbody>
</table>

*Dollar General Stores* Nevada County  
*Draft Environmental Impact Report* December 2016
Based on the modeling conducted, daily operational emissions associated with the Alta Sierra site would not exceed Level A or Level B significance thresholds, and with implementation of mitigation measure MM AS-5.1.2, which would ensure compliance with NSAQMD permitting requirements, operational air quality impacts would be less than significant.

Mitigation Measures

**MM AS-5.1.2** The project applicant shall obtain an Authority to Construct Permit from NSAQMD for any source of air contaminants that exist after construction that is not exempt from District permit requirements. All requirements of this permit shall be incorporated into standard operating procedure manuals or materials for the project. Prior to issuance of final occupancy, the developer shall submit written proof (i.e. a letter from NSAQMD and a copy of the permit) to the County Planning and Building Department documenting that they have obtained said permit from NSAQMD.

*Timing/Implementation:* Prior to issuance of final occupancy and throughout project operation

*Enforcement/Monitoring:* Nevada County Building Department; Northern Sierra Air Quality Management District

**Expose Sensitive Receptors to Substantial Carbon Monoxide Pollutant Concentrations (Standard of Significance 2)**

**Impact 5.1.3(AS)** The Alta Sierra project would not contribute to localized concentrations of mobile-source carbon monoxide that would exceed applicable ambient air quality standards. (Less than Significant)

It has long been recognized that carbon monoxide exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or “hot spots,” are typically associated with intersections that are projected to operate at
unacceptable levels of service during the peak commute hours.\(^1\) However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the carbon monoxide standard. An analysis prepared for CO attainment in Southern California by the South Coast Air Quality Management District determined that even with approximately 100,000 vehicles per day and an intersection level of service LOS E at peak morning traffic and LOS F at peak afternoon traffic, there was no violation of CO standards.

As described in the traffic analysis prepared for the Alta Sierra site (see Appendix 15.0-A), the proposed Alta Sierra store is projected to generate approximately 583 daily vehicle trips, 35 of which would occur during the morning peak hour and 62 during the evening peak hour. Therefore, the proposed Alta Sierra store would not increase traffic volumes at any intersection to more than 100,000 vehicles per day, the value used in the Southern California study. In addition, for Existing plus Project traffic conditions and Year 2035 with Project traffic conditions, all of the study area intersections are projected to operate at an acceptable level of service during the peak hours. As a result, the project would not increase traffic such that there would be CO exceedances and this impact would be less than significant.

**Mitigation Measures**

None required.

**Exposure of Sensitive Receptors to Substantial Air Pollutant Concentrations During Construction Activities (Standard of Significance 2)**

**Impact 5.1.4(AS)** The proposed Alta Sierra project would not result in increased exposure of existing sensitive land uses to construction-source pollutant concentrations that would exceed applicable standards. (Less than Significant)

Sensitive land uses are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-related activities would result in temporary, short-term project-generated emissions of diesel particulate matter (diesel PM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., demolition, clearing, grading); paving; application of architectural coatings; on-road truck travel; and other miscellaneous activities. For construction activity, diesel PM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling

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\(^1\) Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. LOS is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.
to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations.

CARB identified particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) as a toxic air contaminant in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003), so diesel PM is the focus of this discussion.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazards Assessment, assessments of health risks posed by air toxics should be based on a 70- or 30-year exposure period (OEHHA 2012, p. 11-3); however, such assessments would be limited to the period/duration of activities associated with the proposed project.

The closest sensitive receptor to the Alta Sierra site is a residence approximately 100 feet from the northeastern property boundary of the site. As described, health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment during the construction of the Alta Sierra site would be temporary and episodic. As described in Section 2.0, Project Description, construction activities would primarily occur within a 1-acre area. According to CARB (2004), construction projects in rural areas encompassing less than 2.4 acres are considered to pose less than significant health risk impacts. Construction projects contained in a site of less than 2.4 acres are generally considered to represent less than significant health risk impacts due to (1) limitations on the off-road diesel equipment able to operate and thus a reduced amount of generated diesel PM, (2) the reduced amount of dust-generating ground disturbance possible compared to larger construction sites, and (3) the reduced duration of construction activities compared to the development of larger sites. Additionally, construction activities would be subject to California regulations limiting idling to no more than 5 minutes, which would further reduce nearby sensitive receptors’ exposure to temporary and variable diesel PM emissions. For these reasons and because diesel fumes disperse rapidly over relatively short distances, diesel PM generated by construction activities would not expose sensitive receptors to substantial amounts of air toxics.

Another potential source of air toxics associated with construction-related activities is the airborne entainment of asbestos due to the disturbance of naturally occurring asbestos-containing soils. Naturally occurring asbestos (NOA) is contained in serpentine and ultramafic rock and has been identified as potentially occurring in several areas throughout the county. As previously stated, CARB has identified NOA as a toxic air contaminant, and human activities, such as construction, may disturb NOA-bearing rock or soil and release mineral fibers into the air, which pose a greater potential for human exposure by inhalation. The Alta Sierra site is not located in an area designated by the State of California as likely to contain naturally occurring asbestos (DOC 2000). As a result, construction-related activities would not be anticipated to result in increased exposure of sensitive land uses to asbestos.

For the reasons described, construction-generated TAC impacts associated with the Alta Sierra development site would be less than significant.
5.0 AIR QUALITY

Mitigation Measures

None required.

Exposure of Sensitive Receptors to Substantial Air Pollutant Concentrations During Operations (Standard of Significance 2)

Impact 5.1.5(AS) Operation of the Alta Sierra project would not result in increased exposure of existing or planned sensitive land uses to operational-source toxic air contaminant emissions (i.e., diesel PM). (Less than Significant)

As stated above, sensitive land uses are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The proposed Alta Sierra store is not considered a sensitive land use.

However, for the purpose of deliveries, the proposed Alta Sierra store could involve daily heavy-duty truck trips on-site and thus diesel PM emissions that could negatively affect nearby sensitive receptors. Development projects that involve numerous heavy-duty truck trips on-site create substantial quantities of diesel PM emissions, described as a TAC above, and therefore can negatively affect sensitive land uses. According to the California Air Pollution Control Officers Association’s (CAPCOA) Health Risk Assessments for Proposed Land Use Projects (2016), operations that require fewer than 100 delivery trucks daily are not considered a potential health risk.

As noted in Section 2.0, Project Description, it is assumed that the proposed project would have eight small truck/van deliveries per week and one to two semi-truck deliveries per week. Daily deliveries to the proposed commercial building would not require 100 trucks, as a 9,100-square-foot discount retail store does not need such large quantities of deliveries in order to operate. The only other heavy-duty trucks visiting the project would be solid waste hauling trucks, and such solid waste service would not result in more than 100 heavy-duty truck trips daily. Since the operations of the proposed Alta Sierra store would not generate 100 delivery trucks on a daily basis, sensitive receptors would not be exposed to substantial amounts of air toxics and this impact is less than significant.

Mitigation Measures

None required.

Exposure of Sensitive Receptors to Odorous Emissions (Standard of Significance 3)

Impact 5.1.6(AS) The proposed Alta Sierra project would not include sources that could create objectionable odors affecting a substantial number of people or expose new residents to existing sources of odor. (No Impact)

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source, wind speed and direction, and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Land uses commonly considered to be potential
sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and agricultural feedlots and dairies.

Heavy-duty construction equipment used for the construction of the Alta Sierra project would emit odors. However, construction activity would be short term and finite in nature. Furthermore, equipment exhaust odors would dissipate quickly and are common in a suburban environment. For these reasons, the development of the Alta Sierra store is not anticipated to create objectionable odors affecting a substantial number of people and thus effects are considered insubstantial.

With respect to permanent odor sources, the proposed project does not include a land use considered to be a source of odors. Therefore, there would be no impacts from the proposed Alta Sierra project.

Mitigation Measures

None required.

5.2 PENN VALLEY SITE

5.2.1 PROJECT-SPECIFIC SETTING

The Penn Valley site is located in the Nevada County portion of the MCAB, as described above. There are no aspects of the Penn Valley site or surrounding area that result in air quality effects other than those described in Subsection 5.0.1 above.

The closest sensitive receptor to the Penn Valley site is a residence approximately 150 feet to the southwest.

5.2.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Penn Valley site other than those described in Subsection 5.0.2 above.

5.2.3 PROJECT IMPACTS AND MITIGATION MEASURES

Short-Term Construction-Generated Pollutant Emissions Resulting in Violation of Air Quality Standards or Contributing to Existing Violations (Standard of Significance 1)

Impact 5.2.1(PV) Construction activities associated with the Penn Valley site such as clearing, excavation and grading operations, construction vehicle traffic, and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses. (Less than Significant with Mitigation Incorporated)

Construction associated with the development of the Penn Valley project site would generate short-term emissions from activities such as site grading, asphalt paving, building construction, and architectural coatings (e.g., painting). Common construction emissions include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM\(_{10}\) and PM\(_{2.5}\) emissions, is generated when wheels or blades disturb
5.0 **Air Quality**

Surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NO\textsubscript{X} emissions, in addition to PM\textsubscript{10} and PM\textsubscript{2.5} emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions.

Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. As previously stated, the NSAQMD considers emissions in excess of Level C thresholds to have a significant air quality impact. Emissions below Level C thresholds are considered potentially significant and subject to the recommended mitigation of the NSAQMD’s (2016) Mitigation for Use During Design and Construction Phases for Classifications as Level B Threshold. Accordingly, implementation of NSAQMD-recommended mitigation measures sufficient to reduce emissions to levels below 137 pounds per day is considered adequate to reduce air quality impacts to a less than significant level. NSAQMD-recommended significance thresholds are defined in Table 5.0-5.

In addition, NSAQMD Rule 226, Dust Control, requires the submittal of a Dust Suppression Control Plan to the air district for approval prior to any surface disturbance associated with a construction project. In accordance with NSAQMD Rule 226, Dust Control, a Dust Suppression Control Plan (DSCP) for the Penn Valley project site must be submitted for approval by the Nevada County Community Development Agency and the NSAQMD. The DSCP must identify project phases and construction schedules to be implemented in order to ensure that mitigated construction-generated emissions would not exceed NSAQMD-recommended significance thresholds. The DSCP is required to include, but is not limited to, the following NSAQMD-recommended measures for the control of fugitive dust emissions:

- The project applicant shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.

- All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

- All areas with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

- All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.

- All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

- All inactive portions of the development site shall be covered, seeded, or watered until a suitable cover is established. Alternatively, the applicant may apply County-approved nontoxic soil stabilizers (according to manufacturers’ specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the local grading ordinance.

- All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance, and there must be a minimum of 6 inches of freeboard in the bed of the transport vehicle.
• Paved streets adjacent to the project shall be swept or washed at the end of each day, or more frequently if necessary, to remove excessive or visibly raised accumulations of dirt and/or mud which may have resulted from activities at the project site.

• Prior to final occupancy, the applicant shall re-establish ground cover on the site through seeding and watering in accordance with the local grading ordinance.

Predicted maximum daily construction-generated emissions for the Penn Valley site are summarized in Table 5.0-8.

**Table 5.0-8**

**Construction-Related Criteria Pollutant and Precursor Emissions – Penn Valley Site**

(MAXIMUM POUNDS PER DAY)

<table>
<thead>
<tr>
<th>Construction Activities</th>
<th>ROG</th>
<th>NOx</th>
<th>CO</th>
<th>SO2</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading</td>
<td>5.57</td>
<td>50.59</td>
<td>55.63</td>
<td>0.09</td>
<td>5.40</td>
<td>2.97</td>
</tr>
<tr>
<td>Building Construction, Paving &amp; Painting</td>
<td>8.05</td>
<td>37.39</td>
<td>31.93</td>
<td>0.05</td>
<td>2.93</td>
<td>2.42</td>
</tr>
<tr>
<td>NSAQMD Level A Threshold</td>
<td>&lt;24</td>
<td>&lt;24</td>
<td>None</td>
<td>None</td>
<td>&lt;79</td>
<td>None</td>
</tr>
<tr>
<td>Exceed NSAQMD Level A Threshold?</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>NSAQMD Level B Threshold</td>
<td>24–136</td>
<td>24–136</td>
<td>None</td>
<td>None</td>
<td>79–136</td>
<td>None</td>
</tr>
<tr>
<td>Exceed NSAQMD Level B Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates. See Appendix 5.0 for emission model outputs.

As shown in Table 5.0-8, short-term daily construction emissions associated with the Penn Valley site would not exceed the Level B significance thresholds; however, the Level A significance threshold would be surpassed for NOx emissions. As previously described, development projects estimated to exceed Level A significance thresholds must apply the emission-appropriate measures of the NSAQMD’s (2016) Mitigation for Use During Design and Construction Phases for Classifications as Level B Threshold. According to the air district, implementation of the appropriate NSAQMD mitigation from this collection of measures would reduce Level B air quality impacts to a less than significant level.

Since the Level A significance threshold would be surpassed for NOx emissions during construction of the Penn Valley site, this would be a potentially significant impact, and mitigation measure MM PV-5.2.1a is required. Mitigation measure MM PV-5.2.1a is derived from the NSAQMD’s recommended mitigations in order to address generated NOx emissions. Mitigation measures MM PV-5.2.1b and MM PV-5.2.1c would further reduce the project’s construction-phase emissions by requiring dust suppression measures to reduce particulate emissions and the use of low-VOC architectural coatings to reduce the generation of VOCs. With implementation of mitigation measures MM PV-5.2.1a through MM PV-5.2.1c, this impact would be less than significant.

**MM PV-5.2.1a** The construction contractor shall submit to the NSAQMD for approval an Off-Road Construction Equipment Emission Reduction Plan prior to ground breaking demonstrating the following:
• All off-road equipment (portable and mobile) meets or is cleaner than Tier 2 engine emission specifications unless prior written approval for any exceptions is obtained from the NSAQMD. Note that all off-road equipment must meet all applicable state and federal requirements.

• Emissions from on-site construction equipment shall comply with NSAQMD Regulation II, Rule 202, Visible Emissions.

• The primary contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained.

• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes when not in use (as required by California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.

• All construction equipment shall be maintained and properly tuned in accordance with manufacturers’ specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

• Existing power sources (e.g., power poles) or clean fuel generators shall be utilized rather than temporary power generators (i.e. diesel generators), where feasible.

• Deliveries of construction materials shall be scheduled to direct traffic flow to avoid the peak hours of 7:00–9:00 AM and 4:00–6:00 PM.

• The primary contractor shall use architectural coatings for the proposed structure that have a volatile organic compound (VOC) content no greater than 50 grams/liter of VOC.

**Timing/Implementation:** The Off-Road Construction Equipment Emission Reduction Plan shall be submitted and approved prior to issuance of grading permits for the first phase of construction. The plan shall be implemented during all phases of construction.

**Enforcement/Monitoring:** Nevada County Building Department; Northern Sierra Air Quality Management District

**MM PV-5.2.1b** To reduce impacts of short-term construction, the applicant shall obtain NSAQMD approval of a Dust Control Plan (DCP) which shall include, but not be limited to, the standards provided below to the satisfaction of the NSAQMD. Prior to issuance of grading permits, the developer shall provide a copy of the approved DCP to the County Planning and Building Department and shall include the requirements of DCP as notes on all construction plans. The Building Department shall verify that the requirements of the DCP are being implemented during grading inspections.

Alternatives to open burning of vegetation material on the project site shall be used by the project applicant unless deemed infeasible to the Air Pollution...
Control Officer (APCO). Among suitable alternatives is chipping, mulching, or conversion to biomass fuel.

1. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction.

2. All material excavated, stockpiled or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

3. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

4. All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

5. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.

6. All inactive disturbed portions of the development site shall be covered, seeded or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying non-toxic soil stabilizers to all inactive construction areas.

7. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.

8. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to removed excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

9. If serpentine or ultramafic rock is discovered during grading or construction the District must be notified no later than the next business day and the California Code of Regulations, Title 17, Section 9315 applies.

Timing/Implementation: Prior to grading permit issuance and throughout construction phase

Enforcement/Monitoring: Nevada County Building Department; Northern Sierra Air Quality Management District

MM PV-5.2.1c To ensure that the project will not result in the significant generation of VOCs, all architectural coatings shall utilize low-VOC paint (no greater than 50g/L VOC). Prior to building permit issuance, the developer shall submit their list of low-VOC coatings to the NSAQMD for review and approval. The developer shall then provide written verification from NSAQMD that all architectural coatings meet NSAQMD thresholds to be considered “low-VOC.” Finally, all building plans shall include a note documenting which low-VOC architectural coatings will be used in construction.
5.0 AIR QUALITY

Timing/Implementation: Prior to building permit issuance and throughout construction phase

Enforcement/Monitoring: Nevada County Building Department; Northern Sierra Air Quality Management District

Long-Term Operational Emissions of Air Pollutants Resulting in Violation of Air Quality Standards or Contributing to Existing Violations (Standard of Significance 1)

Impact 5.2.2(PV) The Penn Valley project would not result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards. (Less than Significant with Mitigation Incorporated)

The project would result in the generation of long-term operational emissions of criteria air pollutants and ozone precursors. Project-generated increases in emissions would be predominantly associated with motor vehicle use. To a lesser extent, area sources, such as the use of natural-gas-fired appliances, landscape maintenance equipment, and architectural coatings, would also contribute to overall increases in emissions. Emissions attributed to energy use would be reduced through compliance with the California Green Building Code described previously.

Long-term operational emissions attributable to the Penn Valley site are summarized in Table 5.0-9.

<table>
<thead>
<tr>
<th>Source</th>
<th>Emissions</th>
<th>ROG</th>
<th>NOX</th>
<th>CO</th>
<th>SO2</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Emissions</td>
<td></td>
<td>1.19</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>Area Source</td>
<td></td>
<td>0.00</td>
<td>0.02</td>
<td>0.02</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Energy Use</td>
<td></td>
<td>3.60</td>
<td>6.75</td>
<td>35.85</td>
<td>0.03</td>
<td>2.02</td>
<td>0.59</td>
</tr>
<tr>
<td>Mobile Source</td>
<td></td>
<td>4.79</td>
<td>6.77</td>
<td>35.87</td>
<td>0.03</td>
<td>2.02</td>
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<tr>
<td>NSAQMD Level A Threshold</td>
<td></td>
<td>&lt;24 pounds/day</td>
<td>&lt;24 pounds/day</td>
<td>None</td>
<td>None</td>
<td>&lt;79 pounds/day</td>
<td>None</td>
</tr>
<tr>
<td>Exceed NSAQMD Level A Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>NSAQMD Level B Threshold</td>
<td>24–136 pounds/day</td>
<td>24–136 pounds/day</td>
<td>None</td>
<td>None</td>
<td>79–136 pounds/day</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Exceed NSAQMD Level B Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2016. See Appendix 5.0 for emission model outputs.

Based on the modeling conducted, daily operational emissions associated with the Penn Valley site would not exceed Level A or Level B significance thresholds, and with implementation of mitigation measure MM PV-5.2.2, which would ensure compliance with NSAQMD permitting requirements, operational air quality impacts would be less than significant.
Mitigation Measures

**MM PV-5.2.2** The project applicant shall obtain an Authority to Construct Permit from NSAQMD for any source of air contaminants that exist after construction that is not exempt from District permit requirements. All requirements of this permit shall be incorporated into standard operating procedure manuals or materials for the project. Prior to issuance of final occupancy, the developer shall submit written proof (i.e. a letter from NSAQMD and a copy of the permit) to the County Planning and Building Department documenting that they have obtained said permit from NSAQMD.

**Timing/Implementation:** Prior to issuance of final occupancy and throughout project operation

**Enforcement/Monitoring:** Nevada County Building Department; Northern Sierra Air Quality Management District

Expose Sensitive Receptors to Substantial Carbon Monoxide Pollutant Concentrations (Standard of Significance 2)

**Impact 5.2.3(PV)** The Penn Valley project would not contribute to localized concentrations of mobile-source carbon monoxide that would exceed applicable ambient air quality standards. (Less than Significant)

It has long been recognized that carbon monoxide exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or “hot spots,” are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the carbon monoxide standard. An analysis prepared for CO attainment in Southern California determined that even with approximately 100,000 vehicles per day and an intersection level of service LOS E at peak morning traffic and LOS F at peak afternoon traffic, there was no violation of CO standards.

As described in the traffic analysis prepared for the Penn Valley site (see Appendix 15.0-B), the proposed Penn Valley store is projected to generate approximately 583 daily vehicle trips, 35 of which would occur during the morning peak hour and 62 during the evening peak hour. Therefore,

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2 Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. LOS is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.
the proposed Penn Valley store would not increase traffic volumes at any intersection to more than 100,000 vehicles per day. In addition, all of the study area intersections are projected to operate at an acceptable level of service during Existing plus Project traffic conditions and Year 2035 with Project traffic conditions. This impact would be less than significant.

Mitigation Measures

None required.

Exposure of Sensitive Receptors to Substantial Air Pollutant Concentrations During Construction Activities (Standard of Significance 2)

Impact 5.2.4(PV) The proposed Penn Valley project would not result in increased exposure of existing sensitive land uses to construction-source pollutant concentrations that would exceed applicable standards. (Less than Significant)

Sensitive land uses are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-related activities would result in temporary, short-term project-generated emissions of diesel particulate matter (diesel PM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., demolition, clearing, grading); paving; application of architectural coatings; on-road truck travel; and other miscellaneous activities. For construction activity, diesel PM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations.

CARB identified particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) as a toxic air contaminant in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003), so diesel PM is the focus of this discussion.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazards Assessment, assessments of health risks posed by air toxics should be based on a 70- or 30-year exposure period (OEHHA 2012, p. 11-3); however, such assessments would be limited to the period/duration of activities associated with the proposed project.

The closest sensitive receptor to the Penn Valley development site is a residence approximately 150 feet to the southwest. As described, health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment during the construction of the Penn Valley site would be temporary and episodic. As described in Section 2.0, Project Description, construction...
activities would primarily occur within a 1.2-acre area. As previously described, according to CARB (2004), construction projects in rural areas encompassing less than 2.4 acres are considered to pose less than significant health risk impacts. Construction projects contained in a site of less than 2.4 acres are generally considered to represent less than significant health risk impacts due to (1) limitations on the off-road diesel equipment able to operate and thus a reduced amount of generated diesel PM, (2) the reduced amount of dust-generating ground disturbance possible compared to larger construction sites, and (3) the reduced duration of construction activities compared to the development of larger sites. Additionally, construction activities would be subject to California regulations limiting idling to no more than 5 minutes, which would further reduce nearby sensitive receptors’ exposure to temporary and variable diesel PM emissions. For these reasons and because diesel fumes disperse rapidly over relatively short distances, diesel PM generated by construction activities would not expose sensitive receptors to substantial amounts of air toxics.

Another potential source of air toxics associated with construction-related activities includes the airborne entrainment of asbestos due to the disturbance of naturally occurring asbestos-containing soils. Naturally occurring asbestos (NOA) is contained in serpentine and ultramafic rock and has been identified as potentially occurring in several areas throughout the county. As previously stated, CARB has identified NOA as a toxic air contaminant, and human activities, such as construction, may disturb NOA-bearing rock or soil and release mineral fibers into the air, which pose a greater potential for human exposure by inhalation. The Penn Valley site is not located in an area designated by the State of California as likely to contain naturally occurring asbestos (DOC 2000). As a result, construction-related activities would not be anticipated to result in increased exposure of sensitive land uses to asbestos.

For the reasons described, construction-generated TAC impacts associated with the Penn Valley development site would be less than significant.

Mitigation Measures

None required.

Exposure of Sensitive Receptors to Substantial Air Pollutant Concentrations During Operations (Standard of Significance 2)

Impact 5.2.5(PV) Operation of the Penn Valley project would not result in increased exposure of existing or planned sensitive land uses to operational-source toxic air contaminant emissions (i.e., diesel PM). (Less than Significant)

As stated above, sensitive land uses are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The proposed Penn Valley store is not considered a sensitive land use.

However, for the purpose of deliveries, the proposed Penn Valley store could involve daily heavy-duty truck trips on-site and thus diesel PM emissions. Development projects that involve numerous heavy-duty truck trips on-site create substantial quantities of diesel PM emissions, described as a TAC above, and therefore can negatively affect sensitive land uses. As previously stated,
operations that require fewer than 100 delivery trucks daily are not considered a potential health risk.

As noted in Section 2.0, Project Description, it is assumed that the proposed project would have eight small truck/van deliveries per week and one to two semi-truck deliveries per week. Daily deliveries to the proposed commercial building would not require 100 trucks, as a 9,100-square foot discount retail store does not need such large quantities of deliveries in order to operate. The only other heavy-duty trucks visiting the project would be solid waste hauling trucks, and such solid waste service would not result in more than 100 heavy-duty truck trips daily. Since the operations of the proposed Penn Valley store would not generate 100 delivery trucks on a daily basis, sensitive receptors would not be exposed to substantial amounts of air toxics and this impact is less than significant.

Mitigation Measures

None required.

Exposure of Sensitive Receptors to Odorous Emissions (Standard of Significance 3)

Impact 5.2.6(PV) The proposed Penn Valley project would not include sources that could create objectionable odors affecting a substantial number of people or expose new residents to existing sources of odor. (No Impact)

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source, wind speed and direction, and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and agricultural feedlots and dairies.

Heavy-duty construction equipment used for the construction of the Penn Valley project would emit odors. However, construction activity would be short term and finite in nature. Furthermore, equipment exhaust odors would dissipate quickly and are common in a suburban environment. For these reasons, the development of the Penn Valley store is not anticipated to create objectionable odors affecting a substantial number of people and thus effects are considered insubstantial.

With respect to permanent odor sources, the proposed project does not include a land use considered to be a source of odors. Therefore, there would be no impacts from the proposed Penn Valley project.

Mitigation Measures

None required.
5.3 ROUGH AND READY HIGHWAY SITE

5.3.1 PROJECT-SPECIFIC SETTING

The Rough and Ready Highway site is located in the Nevada County portion of the MCAB, as described above. There are no aspects of the Rough and Ready Highway site or surrounding area that result in air quality effects other than those described in Subsection 5.0.1 above.

The closest sensitive receptor to the Rough and Ready Highway site is a residence directly adjacent to the site to the west.

5.3.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Subsection 5.0.2 above.

5.3.3 PROJECT IMPACTS AND MITIGATION MEASURES

Short-Term Construction-Generated Pollutant Emissions Resulting in Violation of Air Quality Standards or Contributing to Existing Violations (Standard of Significance 1)

Impact 5.3.1(RR) Construction activities associated with the Rough and Ready Highway site such as clearing, excavation and grading operations, construction vehicle traffic, and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses. (Less than Significant with Mitigation Incorporated)

Construction associated with the development of the Rough and Ready Highway project site would generate short-term emissions from activities such as site grading, asphalt paving, building construction, and architectural coatings (e.g., painting). Common construction emissions include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM$_{10}$ and PM$_{2.5}$ emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NO$_X$ emissions, in addition to PM$_{10}$ and PM$_{2.5}$ emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions.

Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. As previously stated, the NSAQMD considers emissions in excess of Level C thresholds to have a significant air quality impact. Emissions below Level C thresholds are considered potentially significant and subject to the recommended mitigation of the NSAQMD’s (2016) Mitigation for Use During Design and Construction Phases for Classifications as Level B Threshold. Accordingly, implementation of NSAQMD-recommended mitigation measures sufficient to reduce emissions to levels below 137 pounds per day is considered adequate to reduce air quality impacts to a less than significant level. NSAQMD-recommended significance thresholds are defined in Table 5.0-5.

In addition, NSAQMD Rule 226, Dust Control, requires the submittal of a Dust Suppression Control Plan to the air district for approval prior to any surface disturbance associated with a construction
5.0 Air Quality

project. In accordance with NSAQMD Rule 226, Dust Control, a Dust Suppression Control Plan (DSCP) for the Rough and Ready Highway project site must be submitted for approval by the Nevada County Community Development Agency and the NSAQMD. The DSCP must identify project phases and construction schedules to be implemented in order to ensure that mitigated construction-generated emissions would not exceed NSAQMD-recommended significance thresholds. The DSCP is required to include, but is not limited to, the following NSAQMD-recommended measures for the control of fugitive dust emissions:

- The project applicant shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.

- All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

- All areas with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

- All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.

- All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

- All inactive portions of the development site shall be covered, seeded, or watered until a suitable cover is established. Alternatively, the applicant may apply County-approved nontoxic soil stabilizers (according to manufacturers’ specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the local grading ordinance.

- All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance, and there must be a minimum of 6 inches of freeboard in the bed of the transport vehicle.

- Paved streets adjacent to the project shall be swept or washed at the end of each day, or more frequently if necessary, to remove excessive or visibly raised accumulations of dirt and/or mud which may have resulted from activities at the project site.

- Prior to final occupancy, the applicant shall re-establish ground cover on the site through seeding and watering in accordance with the local grading ordinance.

Predicted maximum daily construction-generated emissions for the Rough and Ready Highway site are summarized in Table 5.0-10.
As shown in Table 5.0-10, short-term daily construction emissions associated with the Rough and Ready Highway site would not exceed the Level B significance thresholds; however, the Level A significance threshold would be surpassed for NO\textsubscript{x} emissions. As previously described, development projects estimated to exceed Level A significance thresholds must apply the emission-appropriate measures of the NSAQMD’s (2016) Mitigation for Use During Design and Construction Phases for Classifications as Level B Threshold. Accordingly, implementation of the appropriate NSAQMD mitigation from this collection of measures would reduce Level B air quality impacts to a less than significant level.

Since the Level A significance threshold would be surpassed for NO\textsubscript{x} emissions during construction of the Rough and Ready Highway site, this would be a potentially significant impact, and mitigation measures MM RR-5.3.1a is required. Mitigation measure MM RR-5.3.1a is derived from the NSAQMD’s recommended mitigations in order to address generated NO\textsubscript{x} emissions. Mitigation measures MM RR-5.3.1b and MM RR-5.3.1c would further reduce the project’s construction-phase emissions by requiring dust suppression measures to reduce particulate emissions and the use of low-VOC architectural coatings to reduce the generation of VOCs. With implementation of mitigation measures MM RR-5.3.1a through MM RR-5.3.1c, this impact would be less than significant.

**Mitigation Measures**

**MM RR-5.3.1a**  The construction contractor shall submit to the NSAQMD for approval an Off-Road Construction Equipment Emission Reduction Plan prior to ground breaking demonstrating the following:

- All off-road equipment (portable and mobile) meets or is cleaner than Tier 2 engine emission specifications unless prior written approval for any
exceptions is obtained from the NSAQMD. Note that all off-road equipment must meet all applicable state and federal requirements.

- Emissions from on-site construction equipment shall comply with NSAQMD Regulation II, Rule 202, Visible Emissions.

- The primary contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes when not in use (as required by California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturers’ specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Existing power sources (e.g., power poles) or clean fuel generators shall be utilized rather than temporary power generators (i.e. diesel generators), where feasible.

- Deliveries of construction materials shall be scheduled to direct traffic flow to avoid the peak hours of 7:00–9:00 AM and 4:00–6:00 PM.

- The primary contractor shall use architectural coatings for the proposed structure that have a volatile organic compound (VOC) content no greater than 50 grams/liter of VOC.

**Timing/Implementation:** The Off-Road Construction Equipment Emission Reduction Plan shall be submitted and approved prior to issuance of grading permits for the first phase of construction. The plan shall be implemented during all phases of construction.

**Enforcement/Monitoring:** Nevada County Building Department; Northern Sierra Air Quality Management District

**MM RR-5.3.1b**

To reduce impacts of short-term construction, the applicant shall obtain NSAQMD approval of a Dust Control Plan (DCP) which shall include, but not be limited to, the standards provided below to the satisfaction of the NSAQMD. Prior to issuance of grading permits, the developer shall provide a copy of the approved DCP to the County Planning and Building Department and shall include the requirements of DCP as notes on all construction plans. The Building Department shall verify that the requirements of the DCP are being implemented during grading inspections.

Alternatives to open burning of vegetation material on the project site shall be used by the project applicant unless deemed infeasible to the Air Pollution Control Officer (APCO). Among suitable alternatives is chipping, mulching, or conversion to biomass fuel.
1. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction.

2. All material excavated, stockpiled or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

3. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

4. All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

5. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.

6. All inactive disturbed portions of the development site shall be covered, seeded or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying non-toxic soil stabilizers to all inactive construction areas.

7. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.

8. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to removed excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

9. If serpentine or ultramafic rock is discovered during grading or construction the District must be notified no later than the next business day and the California Code of Regulations, Title 17, Section 9315 applies.

Timing/Implementation: Prior to grading permit issuance and throughout construction phase

Enforcement/Monitoring: Nevada County Building Department; Northern Sierra Air Quality Management District

MM RR-5.3.1c

To ensure that the project will not result in the significant generation of VOCs, all architectural coatings shall utilize low-VOC paint (no greater than 50g/L VOC). Prior to building permit issuance, the developer shall submit their list of low-VOC coatings to the NSAQMD for review and approval. The developer shall then provide written verification from NSAQMD that all architectural coatings meet NSAQMD thresholds to be considered “low-VOC.” Finally, all building plans shall include a note documenting which low-VOC architectural coatings will be used in construction.

Timing/Implementation: Prior to building permit issuance and throughout construction phase
Long-Term Operational Emissions of Air Pollutants Resulting in Violation of Air Quality Standards or Contributing to Existing Violations (Standard of Significance 1)

**Impact 5.3.2(RR)** The Rough and Ready Highway project would not result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards. *(Less than Significant with Mitigation Incorporated)*

The project would result in the generation of long-term operational emissions of criteria air pollutants and ozone precursors. Project-generated increases in emissions would be predominantly associated with motor vehicle use. To a lesser extent, area sources, such as the use of natural-gas-fired appliances, landscape maintenance equipment, and architectural coatings, would also contribute to overall increases in emissions. Emissions attributed to energy use would be reduced through compliance with the California Green Building Code described previously.

Long-term operational emissions attributable to the Rough and Ready Highway site are summarized in Table 5.0-11.

<table>
<thead>
<tr>
<th>Source</th>
<th>ROG</th>
<th>NOx</th>
<th>CO</th>
<th>SO2</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summer Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area Source</td>
<td>1.12</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Energy Use</td>
<td>0.00</td>
<td>0.03</td>
<td>0.02</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Mobile Source</td>
<td>3.93</td>
<td>7.28</td>
<td>38.33</td>
<td>0.03</td>
<td>2.03</td>
<td>0.60</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5.05</td>
<td>7.31</td>
<td>38.36</td>
<td>0.03</td>
<td>2.03</td>
<td>0.60</td>
</tr>
<tr>
<td><strong>NSAQMD Level A Threshold</strong></td>
<td>&lt;24 pounds/day</td>
<td>&lt;24 pounds/day</td>
<td>None</td>
<td>None</td>
<td>&lt;79 pounds/day</td>
<td>None</td>
</tr>
<tr>
<td>Exceed NSAQMD Level A Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>NSAQMD Level B Threshold</strong></td>
<td>24–136 pounds/day</td>
<td>24–136 pounds/day</td>
<td>None</td>
<td>None</td>
<td>79–136 pounds/day</td>
<td>None</td>
</tr>
<tr>
<td>Exceed NSAQMD Level B Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Source: Kunzman Associates 2015b. See Appendix 5.0 for emission model outputs.*

Based on the modeling conducted, daily operational emissions associated with the Rough and Ready Highway site would not exceed Level A or Level B significance thresholds, and with implementation of mitigation measure **MM RR-5.3.2**, which would ensure compliance with NSAQMD permitting requirements, operational air quality impacts would be *less than significant*. 
Mitigation Measures

MM RR-5.3.2

The project applicant shall obtain an Authority to Construct Permit from NSAQMD for any source of air contaminants that exist after construction that is not exempt from District permit requirements. All requirements of this permit shall be incorporated into standard operating procedure manuals or materials for the project. Prior to issuance of final occupancy, the developer shall submit written proof (i.e. a letter from NSAQMD and a copy of the permit) to the County Planning and Building Department documenting that they have obtained said permit from NSAQMD.

Timing/Implementation: Prior to issuance of final occupancy and throughout project operation

Enforcement/Monitoring: Nevada County Building Department; Northern Sierra Air Quality Management District

Exposure Sensitive Receptors to Substantial Carbon Monoxide Pollutant Concentrations (Standard of Significance 2)

Impact 5.3.3(RR) The Rough and Ready Highway project would not contribute to localized concentrations of mobile-source carbon monoxide that would exceed applicable ambient air quality standards. (Less than Significant)

It has long been recognized that carbon monoxide exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or “hot spots,” are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the carbon monoxide standard. An analysis prepared for CO attainment in Southern California determined that even with approximately 100,000 vehicles per day and an intersection level of service LOS E at peak morning traffic and LOS F at peak afternoon traffic, there was no violation of CO standards.

As described in the traffic analysis prepared for the Rough and Ready Highway site (see Appendix 15.0-C), the proposed Rough and Ready Highway store is projected to generate approximately 583 daily vehicle trips, 35 of which would occur during the morning peak hour and 62 during the

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3 Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. LOS A is considered the most efficient level of service and LOS F the least efficient.
5.0 Air Quality

evening peak hour. Therefore, the proposed Rough and Ready Highway store would not increase traffic volumes at any intersection to more than 100,000 vehicles per day. In addition, all of the study area intersections are projected to operate at an acceptable level of service during Existing plus Project traffic conditions and Year 2035 with Project traffic conditions with improvements identified in the traffic study. This impact would be less than significant.

Mitigation Measures

None required.

Exposure of Sensitive Receptors to Substantial Air Pollutant Concentrations During Construction Activities (Standard of Significance 2)

**Impact 5.3.4(RR)** The proposed Rough and Ready Highway project would not result in increased exposure of existing sensitive land uses to construction-source pollutant concentrations that would exceed applicable standards. (Less than Significant)

Sensitive land uses are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-related activities would result in temporary, short-term project-generated emissions of diesel particulate matter (diesel PM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., demolition, clearing, grading); paving; application of architectural coatings; on-road truck travel; and other miscellaneous activities. For construction activity, diesel PM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations.

CARB identified particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) as a toxic air contaminant in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003), so diesel PM is the focus of this discussion.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazards Assessment, assessments of health risks posed by air toxics should be based on a 70- or 30-year exposure period (OEHHA 2012, p. 11-3); however, such assessments would be limited to the period/duration of activities associated with the proposed project.

The closest sensitive receptor to the Rough and Ready Highway site is a residence directly adjacent to the site to the west. As described in Section 2.0, Project Description, construction activities would primarily occur within a 1.02-acre area. As previously described, according to
CARB (2004), construction projects in rural areas encompassing less than 2.4 acres are considered to pose less than significant health risk impacts. For these reasons and because diesel fumes disperse rapidly over relatively short distances, diesel PM generated by construction activities would not be expected to expose sensitive receptors to substantial amounts of air toxics.

Another potential source of air toxics associated with construction-related activities includes the airborne entrainment of asbestos due to the disturbance of naturally occurring asbestos-containing soils. Naturally occurring asbestos (NOA) is contained in serpentine and ultramafic rock and has been identified as potentially occurring in several areas throughout the county. As previously stated, CARB has identified NOA as a toxic air contaminant, and human activities, such as construction, may disturb NOA-bearing rock or soil and release mineral fibers into the air, which pose a greater potential for human exposure by inhalation. The Rough and Ready Highway site is not located in an area designated by the State of California as likely to contain naturally occurring asbestos (DOC 2000). As a result, construction-related activities would not be anticipated to result in increased exposure of sensitive land uses to asbestos.

For the reasons described, construction-generated TAC impacts associated with the Rough and Ready Highway site would be less than significant.

Mitigation Measures

None required.

Exposure of Sensitive Receptors to Substantial Air Pollutant Concentrations During Operations (Standard of Significance 2)

Impact 5.3.5(RR) The Rough and Ready Highway project would not result in increased exposure of existing or planned sensitive land uses to operational-source toxic air contaminant emissions (i.e., diesel PM). (Less than Significant)

As stated above, sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The proposed Rough and Ready Highway store is not considered a sensitive land use.

However, for the purpose of deliveries, the proposed Rough and Ready Highway store could involve numerous heavy-duty truck trips on-site daily and thus diesel PM emissions. As previously stated, operations that require fewer than 100 delivery trucks daily are not considered a potential health risk.

As noted in Section 2.0, Project Description, it is assumed that the proposed project would have eight small truck/van deliveries per week and one to two semi-truck deliveries per week. Daily deliveries to the proposed commercial building would not require 100 trucks as a 9,100-square-foot discount retail store does not need such large quantities of deliveries in order to operate. The only other heavy-duty trucks visiting the project would be solid waste hauling trucks, and such solid waste service would not result in more than 100 heavy-duty truck trips daily. Since the operations of the proposed Rough and Ready Highway store would not generate 100 delivery trucks on a daily basis, sensitive receptors would not be exposed to substantial amounts of air toxics and this impact is less than significant.
Mitigation Measures

None required.

Exposure of Sensitive Receptors to Odorous Emissions (Standard of Significance 3)

**Impact 5.3.6(RR)** The proposed Rough and Ready Highway project would not include sources that could create objectionable odors affecting a substantial number of people or expose new residents to existing sources of odor. *(No Impact)*

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source, wind speed and direction, and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and agricultural feedlots and dairies.

Heavy-duty construction equipment used for the construction of the Rough and Ready Highway project site would emit odors. However, construction activity would be short term and finite in nature. Furthermore, equipment exhaust odors would dissipate quickly and are common in a suburban environment. For these reasons, the development of the Rough and Ready Highway store is not anticipated to create objectionable odors affecting a substantial number of people and thus effects are considered insubstantial.

With respect to permanent odor sources, the proposed project does not include a land use considered to be a source of odors. Therefore, there would be *no impacts* from the proposed Rough and Ready Highway store.

Mitigation Measures

None required.

5.4 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

The cumulative setting for air quality includes Nevada County in its entirety and the Mountain Counties Air Basin. Nevada County is currently designated nonattainment for ozone and PM$_{10}$ standards. Cumulative growth in population, vehicle use, and industrial activity could inhibit efforts to improve regional air quality and attain the ambient air quality standards. The proposed projects would not individually generate substantial odors, and the sites are not located such that they could combine with one another or other odor sources to generate increases in cumulative odors, so this impact is not further addressed.

Cumulative Impacts and Mitigation Measures

Contribution to Cumulative Regional Air Quality Conditions (Standards of Significance 4 and 5)

**Impact 5.4.1** The proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in the Mountain Counties Air Basin, would contribute to cumulative increases in emissions of ozone-precursor...
pollutants (ROG and NO\textsubscript{x}) and PM\textsubscript{10} that could contribute to future concentrations of ozone and PM\textsubscript{10}, for which the region is currently designated nonattainment. **(Less than Cumulatively Considerable with Mitigation Incorporated)**

The county is designated nonattainment status for ozone and PM\textsubscript{10}. As a nonattainment area, the NSAQMD is required to prepare a federally enforceable State Implementation Plan (SIP) for western Nevada County in accordance with the Clean Air Act. The SIP is an air quality attainment plan designed to reduce emissions of ozone precursors enough to re-attain the federal ozone standard by the earliest practicable date. The air quality attainment plan (titled Reasonably Available Control Technology State Implementation Plan Revision for Western Nevada County 8-Hour Ozone Non-Attainment Area) includes various pollution control strategies. Overall emissions of ozone precursors must be reduced in western Nevada County (consistent with Reasonable Further Progress requirements specified in the Clean Air Act) until attainment is reached. Because the county is designated nonattainment status for ozone and PM\textsubscript{10}, the cumulative impact is considered significant if no mitigation is applied.

Due to the county’s nonattainment status for ozone and PM\textsubscript{10}, if project-generated emissions of either of the ozone-precursor pollutants (i.e., ROG and NO\textsubscript{x}) or PM\textsubscript{10} would exceed NSAQMD-recommended significance thresholds, a proposed project’s cumulative impacts would be considered significant, and the project would be inconsistent with the SIP. As discussed above, predicted short-term construction-generated emissions associated with each of the three development sites would surpass the NSAQMD Level A significance threshold for NO\textsubscript{x} emissions; however, the air district considers emissions that exceed the Level A threshold to be potentially significant, subject to mitigation in order to be considered less than significant. Mitigation measures MM AS-5.1.1a, MM PV-5.2.1a, and MM RR-5.3.1a were derived from the NSAQMD’s recommended mitigations in order to address generated NO\textsubscript{x} emissions. With implementation of this mitigation, construction-related air quality impacts would not conflict with the SIP and would also be considered **less than cumulatively considerable with mitigation incorporated**.

In addition, operational emissions associated with each of the project sites would not surpass NSAQMD significance thresholds and therefore do not conflict with the goals of the SIP or contribute to cumulative air quality impacts on an individual basis. However, each of the three project sites would be operational simultaneously. Nonetheless, as shown in Table 5.0-12, the combined operations of the three proposed stores would still not surpass NSAQMD significance thresholds, and therefore would also not conflict with the goals of the SIP, and would also be considered less than cumulatively considerable, collectively. For these reasons, the proposed projects’ contribution to this impact would be considered **less than cumulatively considerable**.
### Table 5.0-12
**Long-Term Operational Emissions – All Sites Combined (Pounds per Day)**

<table>
<thead>
<tr>
<th>Source</th>
<th>ROG</th>
<th>NO\textsubscript{x}</th>
<th>CO</th>
<th>SO\textsubscript{2}</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summer Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area Source</td>
<td>3.44</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Energy Use</td>
<td>0.00</td>
<td>0.08</td>
<td>0.06</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Mobile Source</td>
<td>8.91</td>
<td>15.31</td>
<td>79.77</td>
<td>0.06</td>
<td>4.07</td>
<td>1.21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15.35</td>
<td>22.14</td>
<td>115.69</td>
<td>0.09</td>
<td>6.10</td>
<td>2.41</td>
</tr>
<tr>
<td><strong>NSAQMD Level A Threshold</strong></td>
<td>&lt;24 pounds/day</td>
<td>&lt;24 pounds/day</td>
<td>None</td>
<td>None</td>
<td>&lt;79 pounds/day</td>
<td>None</td>
</tr>
<tr>
<td><strong>Exceed NSAQMD Level A Threshold?</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>NSAQMD Level B Threshold</strong></td>
<td>24–136 pounds/day</td>
<td>24–136 pounds/day</td>
<td>None</td>
<td>None</td>
<td>79–136 pounds/day</td>
<td>None</td>
</tr>
<tr>
<td><strong>Exceed NSAQMD Level B Threshold?</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Source: Kunzman Associates 2015a, 2015b, 2016. See Appendix 5.0 for emission model outputs.*

**Mitigation Measures**

Implement mitigation as follows:

**Alta Sierra project:** Implement mitigation measure **MM AS-5.1.1a**.

**Penn Valley project:** Implement mitigation measure **MM PV-5.2.1a**.

**Rough and Ready Highway project:** Implement mitigation measure **MM RR-5.3.1a**.
REFERENCES


https://www.arb.ca.gov/msprog/or/diesel/documents/VU_5024_E.pdf.


———. 2016a. Air Quality Data Statistics.


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6.0 BIOLOGICAL RESOURCES
6.0 BIOLOGICAL RESOURCES

This section described the biological resources present at the Dollar General project sites, including a discussion of the special-status species and sensitive habitats occurring in the vicinity of the sites. This section analyzes impacts that could occur to biological resources due to project implementation and includes appropriate mitigation measures to reduce or avoid these impacts. Information in this section is based on a review of documents pertaining to the natural resources of the project areas; examination of aerial photography, biological resources, and vegetation maps; and field investigations (Appendix 6.0).

6.0 GENERAL ENVIRONMENTAL CONDITIONS AND REGULATIONS

6.0.1 REGIONAL ENVIRONMENTAL SETTING

The proposed project sites are located in the Sierra Nevada foothills. This area is dominated by oak woodlands and low elevation montane forest. The shrub layer generally comprises Manzanita chaparral. In general, the shrubs form a very dense layer of thickets along the hillslopes.

The region has a Mediterranean climate with warm to hot summers and wet, cool, and rainy winters. Average high temperatures are around 70 degrees Fahrenheit and average lows are approximately 46 degrees Fahrenheit. The elevation of the sites vary from approximately 1,400 feet to 2,500 feet above mean sea level (amsl).

6.0.2 REGULATORY FRAMEWORK

This section identifies environmental review and consultation requirements, as well as permits and approvals that must be obtained from local, state, and federal agencies prior to implementation of the projects.

Federal

Endangered Species Act

The Endangered Species Act of 1973 (ESA), as amended, includes protective measures for federally listed threatened and endangered species, including their habitats, from unlawful take (16 United States Code [USC] Sections 1531–1544). The ESA defines “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Title 50, Part 222 of the Code of Federal Regulations (50 CFR Section 222) further defines “harm” to include “an act which actually kills or injures fish or wildlife. Such an act may include significantly impairing essential behavioral patterns including feeding, spawning, rearing, migrating, feeding, or sheltering.”

ESA Section 7(a)(1) requires federal agencies to use their authority to further the conservation of listed species. ESA Section 7(a)(2) requires consultation with the US Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) if a federal agency undertakes, funds, permits, or authorizes (termed the federal nexus) any action that may affect endangered or threatened species, or designated critical habitat. For projects that may result in the incidental take of threatened or endangered species, or critical habitat, and that lack a federal nexus; a Section 10(a)(1)(b) incidental take permit can be obtained from the USFWS and/or the NMFS.
Clean Water Act

The basis of the Clean Water Act (CWA) was established in 1948; however, it was referred to as the Federal Water Pollution Control Act. The act was reorganized and expanded in 1972 (33 USC Section 1251), and at this time the Clean Water Act became the act’s commonly used name. The basis of the CWA is the regulation of pollutant discharges into waters of the United States, as well as the establishment of surface water quality standards.

Section 404

The Section 404(b)(1) Guidelines (40 CFR Part 230) are mandatory criteria used for evaluating discharges of dredged or fill material into waters of the United States. The guidelines prohibit discharges to waters of the United States where a practicable alternative exists that would have less adverse effects on the environment, so long as the alternative does not have other significant adverse environmental effects. Project applicants must demonstrate that impacts to waters of the United States have been avoided to the extent possible. Compensatory mitigation is not considered during the evaluation of potentially practicable alternatives, but is typically required for unavoidable impacts to waters of the United States.

The primary objective of this program is to ensure that the discharge of dredged or fill material is not permitted if a practicable alternative to the proposed activities exists that results in less impact to waters of the United States or the proposed activity would result in significant adverse impacts to these waters. To comply with these objectives, a permittee must document the measures taken to avoid and minimize impacts to waters of the United States and provide compensatory mitigation for any unavoidable impacts.

The US Environmental Protection Agency (EPA) and the USFWS are assigned roles and responsibilities in the administration of this program; however, the US Army Corps of Engineers (USACE) is the lead agency in the administration of day-to-day activities, including issuance of permits. The agencies will typically assert jurisdiction over the following waters: (1) traditional navigable waters (TNW); (2) wetlands adjacent to TNWs; (3) relatively permanent waters (RPW) that are non-navigable tributaries to TNWs and have relatively permanent flow or seasonally continuous flow (typically three months); and (4) wetlands that directly abut RPWs. Case-by-case investigations are usually conducted by the agencies to ascertain their jurisdiction over waters that are non-navigable tributaries and do not contain relatively permanent or seasonal flow, wetlands adjacent to the aforementioned features, and wetlands adjacent to but not directly abutting RPWs (USACE 2007). Jurisdiction is not generally asserted over swales or erosional features (e.g., gullies or small washes characterized by low-volume/short-duration flow events) or ditches constructed wholly within and draining only uplands that do not have relatively permanent flows.

The extent of jurisdiction within waters of the United States which lack adjacent wetlands is determined by the ordinary high water mark, which is defined in 33 CFR Section 328.3(e) as the “line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.” Wetlands are further defined under 33 CFR Section 328.3 and 40 CFR Section 230.3 as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” and typically include “swamps, marshes, bogs, and similar areas.” The USACE (1987) Wetland Delineation Manual (1987 Manual) sets forth a standardized methodology for delineating the extent of wetlands under federal jurisdiction.
The 1987 Manual outlines three parameters that all wetlands, under normal circumstances, must contain positive indicators for to be considered jurisdictional. These parameters include (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils (USACE 1987). In 2006, the USACE issued a series of regional supplements to address regional differences that are important to the functioning and identification of wetlands. The supplements present “wetland indicators, delineation guidance, and other information” that is specific to the region. The USACE requires that wetland delineations submitted after June 5, 2007, be conducted in accordance with both the 1987 Manual and the applicable supplement.

Section 401

Under CWA Section 401 (33 USC Section 1341), federal agencies are not authorized to issue a permit and/or license for any activity that may result in discharges to waters of the United States, unless a state or tribe where the discharge originates either grants or waives CWA Section 401 certification. CWA Section 401 provides states or tribes with the ability to grant, grant with conditions, deny, or waive certification. Granting certification, with or without conditions, allows the federal permit/license to be issued and remain consistent with any conditions set forth in the CWA Section 401 certification. Denial of the certification prohibits the issuance of the federal license or permit, and waiver allows the permit/license to be issued without state or tribal comment. Decisions made by states or tribes are based on the proposed project’s compliance with EPA water quality standards as well as applicable effluent limitations guidelines, new source performance standards, toxic pollutant restrictions, and any other appropriate requirements of state or tribal law. In California, the State Water Resources Control Board is the primary regulatory authority for CWA Section 401 requirements (additional details below).

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC Sections 703–711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Section 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR Section 21). The majority of birds found in the vicinity of the project sites would be protected under the MBTA.

Bald and Golden Eagle Protection Act

The bald eagle and golden eagle are federally protected under the Bald and Golden Eagle Protection Act (16 USC Sections 668–668c). Under the act, it is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export, or import at any time or in any manner a bald or golden eagle, alive or dead, or any part, nest, or egg of these eagles, unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

Executive Order 13112 – Invasive Species

This executive order directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. The order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species. As part of the proposed action, the USFWS and the USACE would issue permits and therefore would be responsible for ensuring that the proposed action complies with Executive Order 13112 and does not contribute to the spread of invasive species.
Fish and Wildlife Coordination Act of 1958 (16 USC 661 et seq.)

The Fish and Wildlife Coordination Act requires that whenever any body of water is proposed or authorized to be impounded, diverted, or otherwise controlled or modified, the lead federal agency must consult with the USFWS, the state agency responsible for fish and wildlife management, and the National Marine Fisheries Service. Section 662(b) of the act requires the lead federal agency to consider the recommendations of the USFWS and other agencies. The recommendations may include proposed measures to mitigate or compensate for potential damages to wildlife and fisheries associated with a modification of a waterway.

Executive Order 11990 Protection of Wetlands (42 FR 26961, May 25, 1977)

Executive Order 11990 requires federal agencies to provide leadership and take action to minimize destruction, loss, or degradation of wetlands and to preserve and enhance the natural qualities of these lands. Federal agencies are required to avoid undertaking or providing support for new construction located in wetlands unless (1) no practicable alternative exists and (2) all practical measures have been taken to minimize harm to wetlands.

State

Public Resources Code Section 21083.4:

Oak Woodland Mitigation. Counties determine if a project could result in significant conversion of oak woodlands. Mitigation options include, but are not limited to:

1) Conserving oaks through conservation easements

2) Planting and maintaining an appropriate number of trees (either on-site or by restoring former oak woodlands); tree planting limited to half the mitigation requirement

3) Contribute funds to Oak Woodland Conservation Fund for the purpose of purchasing conservation easements.

California Endangered Species Act

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of endangered and threatened species (Fish and Game Code [FGC] Section 2070). The CDFW also maintains a list of “candidate species,” which are species formally noticed as being under review for potential addition to the list of endangered or threatened species, and a list of “species of special concern,” which serve as species “watch lists.”

Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of the CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under FGC Section 206.591. Authorization from the CDFW would be in the form of an incidental take permit.
6.0 BIOLOGICAL RESOURCES

California Fish and Game Code

Native Plant Protection Act

The Native Plant Protection Act (FGC Sections 1900–1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by the CDFW). An exception in the Act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give that state agency at least 10 days to retrieve the plants before they are plowed under or otherwise destroyed (FGC Section 1913). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of a proposed project.

Birds of Prey

Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

Fully Protected Species

California statutes also afford “fully protected” status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be taken, even with an incidental take permit. FGC Sections 3505, 3511, 4700, 5050, and 5515 protect from take a number of fully protected birds, mammals, reptiles, amphibians, and fish.

California Wetlands and Other Waters Policies

The California Resources Agency and its various departments do not authorize or approve projects that fill or otherwise harm or destroy coastal, estuarine, or inland wetlands. Exceptions may be granted if all of the following conditions are met:

- The project is water-dependent.
- No other feasible alternative is available.
- The public trust is not adversely affected.
- Adequate compensation is proposed as part of the project.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1966 (California Water Code Section 13000 et seq.; California Code of Regulations [CCR] Title 23, Chapter 3, Subchapter 15) is the primary state regulation that addresses water quality. The requirements of the act are implemented by the State Water Resources Control Board at the state level and by the Regional Water Quality Control Board (RWQCB) at the local level. The RWQCB carries out planning, permitting, and enforcement activities related to water quality. The act provides for waste discharge requirements and a permitting system for discharges to land or water. Certification is required by the RWQCB for activities that can affect water quality.
6.0 BIOLOGICAL RESOURCES

Clean Water Act, Section 401 Water Quality Certification

CWA Section 401 (33 USC Section 1341) requires that any applicant for a federal license or permit which may result in a pollutant discharge to waters of the United States obtain a certification that the discharge will comply with EPA water quality standards. The state or tribal agency responsible for issuance of the Section 401 certification may also require compliance with additional effluent limitations and water quality standards set forth in state/tribal laws. In California, the RWQCB is the primary regulatory authority for CWA Section 401 requirements.

The Central Valley RWQCB is responsible for enforcing water quality criteria and protecting water resources in Nevada County. In addition, the RWQCB is responsible for controlling discharges to surface waters of the State by issuing waste discharge requirements (WDR) or commonly by issuing conditional waivers to WDRs. The RWQCB requires that a project proponent obtain a CWA Section 401 water quality certification for CWA Section 404 permits issued by the US Army Corps of Engineers. A request for water quality certification (including WDRs) by the RWQCB and an application for a General Permit for Storm Water Discharges Associated with Construction Activities are prepared and submitted following completion of the CEQA environmental document and submittal of the wetland delineation to the USACE.

Delegated Permit Authority

California has been delegated permit authority for the National Pollutant Discharge Elimination System (NPDES) permit program, including stormwater permits for all areas except tribal lands. Issuance of CWA Section 404 dredge and fill permits remains the responsibility of the USACE; however, the State actively uses its CWA Section 401 certification authority to ensure CWA Section 404 permits are in compliance with state water quality standards.

State Definition of Covered Waters

California Water Code Section 13050(e) defines waters of the State as “any surface water or groundwater, including saline waters, within the boundaries of the state.” Therefore, water quality laws apply to both surface water and groundwater. After the US Supreme Court decision in Solid Waste Agency of Northern Cook County v. US Army Corps of Engineers, the Office of Chief Counsel of the State Water Resources Control Board released a legal memorandum confirming the State’s jurisdiction over isolated wetlands. The memorandum stated that under the California Porter-Cologne Water Quality Control Act (Porter-Cologne), discharges to wetlands and other waters of the State are subject to state regulation, and this includes isolated wetlands. In general, the Board regulates discharges to isolated waters in much the same way as it does for waters of the United States, using Porter-Cologne rather than Clean Water Act authority.

Local

Nevada County General Plan

The Wildlife and Vegetation Element of the General Plan contains the following policy that would pertain to the project.

Policy 13.9 Development in the vicinity of significant oak groves of all oak species shall be designed and sited to maximize the long-term preservation of the trees and the integrity of their natural setting. The County shall adopt a regulation to protect native heritage oak trees and significant oak groves. All native oak tree species with a trunk diameter of 36” or greater shall be protected.
Nevada County Land Use and Development Code

Section L-II 4.3.7 – Deer Habitat, Major

Section L-II 4.3.7 includes regulations intended to avoid the impact of development on major deer migration corridors, critical winter and summer ranges, and critical fawning areas as defined by the State Department of Fish and Wildlife or migratory deer range maps. The regulations indicate that a project may only be approved when it is determined by the County Planning Agency that the project is not within a defined deer habitat area. When it is determined that a project will adversely affect a defined species or their habitat, the regulations require that a site-specific habitat management plan be prepared.

Section L-II 4.3.12 – Rare, Threatened and Endangered Species and Their Habitat

Section L-II 4.3.12 includes regulations intended to avoid the impact of development on rare, threatened, endangered, and special-status species and their habitat, or where avoidance is not possible, to minimize or compensate for such impacts and to retain their habitat as non-disturbance open space. The regulations indicate that a project may only be approved when it is determined by the County Planning Agency that the project will not adversely affect rare, threatened, or endangered species or their habitat and that it will result in no net loss of habitat function or value for the defined species. When it is determined that a project will adversely affect a defined species or their habitat, the regulations require that a site-specific habitat management plan be prepared.

Section L-II 4.3.15 – Trees

Section L-II 4.3.15 includes regulations intended, among other things, to preserve and minimize the disturbance of landmark and heritage trees and groves from development projects through on-site vegetation inventories, mandatory clustering, and other measures necessary to protect such habitat. The regulations indicate that a project may only be approved when they do not remove or disturb defined trees or groves, unless a management plan is prepared consistent with the regulations.

Section L-II 4.3.17 – Watercourses, Wetlands and Riparian Areas

Section L-II 4.3.17 includes regulations intended to preserve the integrity and minimize the disruption of watersheds and watercourses; to preserve stream corridors and riparian habitat, ensure adequate protection of stream values, and protect stream corridors for wildlife movement and foraging; and to avoid the impact of development on wetlands, or where avoidance is not possible, to minimize or compensate for such impacts, to provide for minimum setbacks to protect resources values, and to retain wetlands as non-disturbance open space. The regulations identify non-disturbance buffers, generally 100 feet, around water, wetland, and riparian resources unless a management plan is prepared.

Other

California Native Plant Society

The California Native Plant Society (CNPS) is a nongovernmental agency that classifies native plant species according to current population distribution and threat level in regard to extinction. The CNPS uses the data to create/maintain a list of native California plants that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the

Nevada County Dollar General Stores
December 2016 Draft Environmental Impact Report

6.0–7
6.0 Biological Resources

Inventory of Rare and Endangered Vascular Plants of California (CNPS 2016). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

The following identifies the definitions of the CNPS listings:

List 1A: Plants believed to be extinct
List 1B: Plants that are rare, threatened, or endangered in California and elsewhere
List 2: Plants that are rare, threatened, or endangered in California, but are more numerous elsewhere

All of the plant species on List 1 and 2 meet the requirements of the Native Plant Protection Act Section 1901, Chapter 10, or FGC Section 2062 and Section 2067 and are eligible for state listing. Plants appearing on List 1 or 2 are considered to meet the criteria of CEQA Section 15380, and effects on these species are considered “significant.” Classifications for plants on List 3 (plants about which more information is needed) and/or List 4 (plants of limited distribution), as defined by the CNPS, are not currently protected under state or federal law. Therefore, no detailed descriptions or impact analysis was performed on species with these classifications.

6.0.3 Impact Methodology

Standards of Significance

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant.

Impacts to biological resources are considered significant if a project would:

1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service, including those special-status species protected by the MBTA and California Fish and Game Code Section 3503.5.

2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

3) Have a substantial adverse effect on federally protected wetlands as protected by Nevada County Land Use and Development Code Section L-II 4.3.17 and as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, including those corridors and sites identified as major deer habitat pursuant to Nevada County Land Use and Development Code Section L-II
4.3.7 and migratory bird nesting sites pursuant to the MBTA and California Fish and Game Code Section 3503.5.

5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, including landmark trees and groves as protected by Nevada County Land Use and Development Code Section L-II 4.3.15.

6) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Methodology

Available information pertaining to the natural resources of the region was reviewed including biological resource documentation from other recent projects in the vicinity. Literature review included:

- CDFW (2016) California Natural Diversity Database (CNDDB)
- USFWS (2016) Information for Planning and Conservation (IPaC)
- CNPS (2016) Inventory of Rare and Endangered Plants of California
- CDFW BIOS Viewer Essential Connectivity Areas [ds623] layer and Missing Linkages in California [ds420] layer
- Nevada County General Plan (1996)

A site-specific biological resource assessment was conducted for each of the project sites and the results are incorporated into the description of the existing setting and impacts for each site. A search of the CNDDB and CNPS database was conducted using the French Corral, Nevada City, North Bloomfield, Rough and Ready, Grass Valley, Chicago Park, Wolf, Lake Combie, and Colfax 7.5-minute US Geological Survey (USGS) quadrangles. A search of the USFWS IPaC database was also conducted for the project sites. Special-status species were considered for this analysis based on field survey results and a review of the database searches.

6.1 ALTASIER SITE

6.1.1 PROJECT-SPECIFIC LOCATION AND SETTING

The Alta Sierra project site is located in the Sierra Nevada foothills, in the community of Alta Sierra. Specifically, the project site is located in Township 15 North, Range 8 East, and Section 22 of the Grass Valley 7.5-minute USGS quadrangle.

Salix Consulting prepared a biological resources report in June 2014 (Appendix 6.0-AS), which provides a description of the existing site conditions and potential biological resources present on the site. An Oak Management Plan was drafted as an Addendum to the Biological Resources Report in 2015 (Appendix 6.0-AS).

The Alta Sierra project site consists of three parcels, one (APN 25-430-08) for the construction of the retail store and two (APNs 25-430-10 and -12) for an off-site septic system. The store site is currently undeveloped, dry, and has evidence of previous disturbance. Steep-cut slopes occur along the western, southern, and eastern boundaries with elevation ranging from 1,964 to 1,994 feet amsl.
This site is covered entirely with montane hardwood-conifer forest and is dominated by California black oak (*Quercus kelloggii*) and ponderosa pine (*Pinus ponderosa*) with a few valley oaks (*Quercus lobata*) and gray pines (*Pinus sabiniana*) interspersed. The understory consists of native and non-native grasses and weedy forbs. Dominant species include soap plant (*Chlorogalum pomeridianum*), field hedge parsley (*Torilis arvensis*), hedgehog dogtail (*Cynosurus echinatus*), narrowleaf mule’s-ears (*Wyethia angustifolia*), wild oat (*Avena sp.*), California mugwort (*Artemisia douglasiana*), Himalayan blackberry (*Rubus armeniacus*), prickly lettuce (*Lactuca serriola*), Italian ryegrass (*Festuca perennis*), and Italian thistle (*Carduus pycnocephalus*). APNs 25-430-10 and -12 are developed with commercial and office uses, but also contain some areas of montane hardwood-conifer forest.

One soil unit has been mapped on the project site: Secca-Rock outcrop complex, 2 to 5 percent slopes. This soil type occurs on mountains and hillsides. It is moderately well drained and made up of igneous and metamorphic rock.

A tree survey identified the presence of 85 oak trees on the project site, including 71 California black oaks and 3 small valley oaks. There are four landmark oak trees on the project site, three located on the store site (APN 25-430-08) and the fourth on APN 25-430-12, all of which are California black oaks. Because the canopy cover is greater than 33 percent, the site has been determined to be a landmark grove according to the Nevada County General Plan. All impacts to oak trees, whether permanent or temporary, must be mitigated. An Oak Management Plan was developed by Costella Environmental Consulting in November 2014 and amended in March 2015. This plan outlines the oak protection and mitigation required for the project (*Appendix 6.0-AS*).

There are no aquatic features within the project site.

6.1.2 Special-Status Species

The results of the database searches for this project site are found in *Appendix 6.0-AS*.

**Plants**

Several special-status plants are known to occur in the vicinity of the project site; four of the species are known to occur within 5 miles of the site. Many of the special-status plant species that occur in the region require either gabbro or serpentine soils, which are not present on the Alta Sierra project site. Other plant species were eliminated due to lack of suitable habitat (i.e., rock outcrops or wetland habitat). As a result, no special-status plant species are expected to occur on the project site.

**Animals**

Based on database search results, 13 special-status animals were identified as occurring in the vicinity of the project site. Three species were documented as occurring within a 5-mile radius of the site. Most of the 13 species were determined to have minimal to no potential for occurring within the study area due to the absence of suitable habitat and because the site is outside the current range for the species. Those species with potential to occur based on previous observations in the project vicinity and the presence of suitable habitat are discussed below.
6.0 BIOLOGICAL RESOURCES

Amphibians and Reptiles

One federally listed species, California red-legged frog (*Rana draytonii*), and two California species of concern, western pond turtle (*Emys marmorata*) and foothill yellow-legged frog (*Rana boylii*), are documented as occurring in the project region. However, the project site lacks aquatic features that are required for these species. There are no CNDDB occurrences for any of these species within a 5-mile radius.

The coast horned lizard (*Phrynosoma blainvillii*), a California species of concern, has been documented as occurring within a 5-mile radius of the project site. However, this species requires sandy soils with low vegetation cover. The project site has dense vegetation and rocky soils and does not provide suitable habitat for this species.

Mammals

The CNDDB lists potential for two special-status mammals to occur in the project vicinity, the state threatened Sierra Nevada red fox (*Vulpes vulpes necator*) and the fisher (*Martes pennanti*), a state and federal candidate species. Both of these species are generally found in old growth coniferous forest at high elevation. These species are associated with undisturbed areas in high elevation away from human disturbance. The project vicinity is developed with relatively high levels of human disturbance; therefore, it is unlikely that these species will occur in the vicinity of the project site.

Signs of mule deer were observed on the site, which is located within the territory of the resident Motherlode Deer Herd. However, per Figure 5.4 in the Nevada County Master Environmental Inventory of the General Plan, the project site does not occur in the vicinity of the areas identified as crucial deer winter range, major deer migration corridor, or known critical fawning habitats (Harland Bartholomew and Associates 1991).

Birds

It is expected that a variety of common wildlife and bird species could be present on the project site. Species observed on the site include American robin (*Turdus migratorius*), white-breasted nuthatch (*Sitta carolensis*), spotted towhee (*Pipilo maculatus*), western scrub jay (*Aphelocoma californica*), Anna’s hummingbird (*Calypte anna*), acorn woodpecker (*Melanerpes formicivorus*), oak titmouse (*Baeolophus inornatus*), and American crow (*Corvus brachyrhynchos*). The project site provides suitable habitat for these species and other birds protected under the MBTA.

The northern goshawk (*Accipiter gentilis*), a state species of concern, is documented as occurring in vicinity of the project site. This species prefers old growth stands of conifers and deciduous forests near water. Although the project site does not contain highly suitable habitat, there is potential for the northern goshawk and other raptors to nest in or adjacent to the project site.

The California black rail (*Laterallus jamaicensis coturniculus*), a state threatened and fully protected species, has been documented multiple times as occurring within 5 miles of the project site. This species feed and nests in marsh and wetland habitat with dense vegetation. Because of the lack of aquatic habitat, this species is not expected to occur on the project site.
6.0 BIOLOGICAL RESOURCES

IMPACTS AND MITIGATION MEASURES

Impacts to Candidate, Sensitive, or Special-Status Plant Species (Standards of Significance 1 and 7)

Impact 6.1.1(AS) The Alta Sierra project site does not provide suitable habitat for any special-status plant species that may occur in the vicinity. Therefore, there would be no impact.

Several special-status plant species are known to occur in the vicinity of the project site, with four species documented as occurring within a 5-mile radius. However, the project site does not provide suitable habitat for any of these plant species due to lack of aquatic habitat or lack of suitable soils. Because suitable habitat is not present on the site, no special-status plants are expected to occur on the project site, and there would be no impact.

Mitigation Measures
None required.

Impacts to Listed Special-Status Wildlife Species (Standards of Significance 1 and 7)

Impact 6.1.2(AS) Project-related activities could result in loss of habitat for northern goshawk, other nesting raptors, and migratory birds. (Less than Significant with Mitigation Incorporated)

Implementation of the proposed project could result in impacts to northern goshawk, a state species of concern, and birds protected under the MBTA. The project site is covered with montane hardwood-conifer forest. This habitat provides marginally suitable habitat for northern goshawk, raptors, and other migratory bird species protected under the MTBA.

Construction activities could cause direct impacts to nesting raptors and migratory birds, if birds are actively nesting during construction. Nests may be located in trees, shrubs, or emergent vegetation, on the ground, and in burrows. The Alta Sierra project may cause direct mortality to raptors or migratory birds through removal of vegetation that contains active nests. Construction could also result in noise, dust, increased human activity, and other indirect impacts to nesting raptor or migratory bird species in the project vicinity. Excessive noise, disturbance, and vibrations can cause nest abandonment and mortality to eggs and chicks, as well as stress from loss of foraging areas. This is a potentially significant impact. If construction occurs during the non-nesting season, no impacts are expected.

The loss or disturbance of active nests or direct mortality is prohibited by the MBTA and California Fish and Game Code Section 3503.5. With the implementation of mitigation measure MM AS-6.1.2, impacts would be reduced to less than significant.

Mitigation Measures

MM AS-6.1.2 If construction is proposed during the breeding season (February–August), a focused survey for raptors and other migratory bird nests shall be conducted within 14 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests on-site. If active nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. This 500-foot construction prohibition zone may be reduced based on consultation with and approval by the California Department of Fish
and Wildlife. Trees containing nests or cavities that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to January). If no active nests are found during the focused survey, no further mitigation will be required. To the extent feasible, necessary tree removal should occur outside of the typical nesting season to minimize or avoid adverse effects to all nesting birds.

**Timing/Implementation:** Prior to construction activities

**Enforcement/Monitoring:** Nevada County Planning Department

**Impacts to Riparian Habitat, Sensitive Natural Communities, or Federally Protected Wetlands (Standards of Significance 2 and 3)**

**Impact 6.1.3(AS) Project-related activities could result in loss of landmark oak groves and landmark oak trees. (Less than Significant with Mitigation Incorporated)**

The project would result in direct and indirect impacts on 1.40 acres of landmark oak groves as well as four landmark oak trees. Three of these oak trees are located on the store site (APN 25-430-08) and would be directly impacted by the construction of the retail store. The fourth tree is located on APN 25-430-12 and would be indirectly impacted by the septic leach field. The Nevada County Land Use and Development Code Section L-II 4.3.15 has established landmark oak groves and landmark oak trees as environmentally sensitive areas. Under Section L-II 4.3.15, projects may only be approved when they do not disturb landmark oaks or groves. When avoidance is not feasible, a Management Plan must be prepared by a qualified biologist. A Biological Management Plan (management plan) was prepared in November 2014 and amended in March 2015. The management plan determined that on-site replacement of the landmark trees is not feasible; therefore, off-site mitigation is required. Nevada County has not established a tree preservation fund, so mitigation measures are required in order to mitigate for the loss of landmark oaks. These mitigation measures will mitigate this impact to a level that is less than significant.

As described in the Biological Resources and Wetland Constraints Analysis (Appendix 6.0-AS), there are no wetlands, riparian habitat, or other sensitive communities on the project site or in the vicinity.

**Mitigation Measures**

**MM AS-6.1.3a** Construction activities, such as grading, shall avoid impacts to existing mature trees and other native vegetation to the maximum extent possible. Mature trees and native vegetation shall be marked as Environmentally Sensitive Areas (ESA) and the project site should be designed to avoid these areas where feasible. All ESAs shall be fenced with orange fencing and maintained until project completion. In addition, any tree and native vegetation that is to be retained shall be shown on the final landscaping plans.

**Timing/Implementation:** Prior to construction activities

**Enforcement/Monitoring:** Nevada County Planning Department

**MM AS-6.1.3b** Seventeen trees (10 oaks and 7 pines) are to be retained. The developer shall flag the trees to ensure their protection. The Building Department shall verify the
trees to be retained have been properly marked and construction personnel should be made aware of these trees in order to minimize direct and indirect impacts. In addition, a note shall be included on all plans and specifications stating that “The existing ground surface within 6 feet of the drip line of any oak tree and within 10 feet of the dripline of any landmark oak tree to be preserved shall not be cut, filled, compacted or pared.” A qualified biologist, botanist, professional forester, or certified arborist shall be consulted prior to any excavation that will occur adjacent to any oak tree that is to be retained to ensure that there will be no damage to the root system. Exceptions may be approved by the Nevada County Planning Department based on consultation with a qualified professional resulting in reasonable assurance that they tree will not be damaged.

**Timing/Implementation:** Prior to construction activities

**Enforcement/Monitoring:** Nevada County Planning Department

**MM AS-6.1.3c**

For oak trees that are to be retained on any of the three parcels, the following measures shall be taken to prevent impacts during and after construction activities.

1. Plans and specifications shall clearly state protection procedures for oaks on the project site. The specification shall also require contractors to stay within designated work areas and shall include provisions for penalties if the retained oak trees are damaged;

2. Protective fencing not less than 4 feet in height shall be placed at the limits of the protective root zone of any individual oak tree or stand to remain, whether it is a Landmark oak or a small cluster of oak trees within 50 feet of the grading limits, and shall be inspected by the contractor prior to commencement of any grading activity on site, and shall remain in place until construction is completed;

3. Damage to oak trees during construction shall be immediately reported to the Nevada County Planning Department. The contractor shall be responsible for correcting any damage to oak trees that will be retained on the property in a manner specified by a qualified professional.

4. Equipment damage to limbs, trunks, and roots of all retained trees shall be avoided during project construction and development. Even slight trunk injuries can result in susceptibility to long-term pathogenic maladies.

5. Grading restrictions near protective root zones shall limit grade changes near the protected root zone of any oak tree to be retained. Grade changes can lead to plant stress from oxygen deprivation or oak root fungus at the root collar of oaks. Minor grade changes further from the trunk are not as critical but can negatively affect the health of the tree if not carefully monitored by a County approved professional.

6. The root protective zone grade shall not be lowered or raised around the trunks (i.e. within the protective zone) of any oak tree to be retained. A County approved professional shall supervise all excavation or grading
proposed within the protective zone of a tree, and/or the excavation, or clearance of vegetation within the protective zone of an oak tree shall be accomplished by the use of hand tools or small hand-held power tools. Any major roots encountered shall be conserved to the greatest extent possible and treated as recommended by the professional.

7. Utility trenches shall not be routed within the protective zone of an oak tree unless no feasible alternative locations are available, and shall be approved by a County approved professional.

8. No storage of equipment, supplies, vehicles, or debris shall be permitted within the protective root zone of any retained tree.

9. No dumping of construction wastewater, paint, stucco, concrete, or any other cleanup waste shall occur within the protective zone of an oak tree.

10. No temporary structures shall be placed within the protective zone of any retained oak tree.

11. Necessary drains shall be installed according to County specifications so as to avoid harm to the oak trees due to excess watering.

12. Wires, signs, and other similar items shall not be attached to the oak trees.

Timing/Implementation: Prior to construction activities
Enforcement/Monitoring: Nevada County Planning Department

**MM AS-6.1.3d** Prior to the start of construction activities, a qualified biologist, botanist, registered forester or certified arborist (qualified professional) shall schedule a field meeting to inform the construction personnel where all protective zones are and the importance of avoiding encroachment into the protective zones. A signed affidavit documenting the meeting shall be provided prior to the issuance of project permits. Additionally, a qualified professional shall periodically monitor on-site construction activities to ensure that damage to retained oak trees does not occur. Prior to scheduling final inspection for the grading, pipe trenching, septic placement, retaining walls, and building foundation, the developer shall provide a brief report from the qualified professional documenting the findings in the monitoring.

Timing/Implementation: Prior to issuance of permits
Enforcement/Monitoring: Nevada County Planning Department

**MM AS-6.1.3e** Prior to the issuance of any grading or improvement permits for the project, the applicant shall pay $42,900 in mitigation costs to the Bear Yuba Land Trust (BYLT) for replanting, management, and restoration of black oak habitat on the Clover Valley Preserve Property located on the eastern side of the Alta Sierra subdivision 2 air miles from the project site. The BYLT shall implement the restoration plan consistent with the approach outlined in the Appendix B of the Oak Resources Management Plan (Appendix 6.0-AS), which includes but is not limited to planting approximately 220-250 black oak seedlings with a goal of a
6.0 BIOLOGICAL RESOURCES

60% survival rate; monitoring for the first 5 years following replanting; and restoration of the existing oak woodlands. Prior to issuance of grading or improvement permits, the developer and the BYLT shall also enter into a contractual agreement that must be reviewed and approved by the Nevada County Planning Department prior to finalization. Once finalized, the agreement shall be submitted to the Nevada County Planning Department and will be kept on file. The contractual agreement shall outline the specific steps of the Restoration Project that will occur, consistent with Appendix B of the Oak Tree Management Plan, including a clause to trigger the attachment of a conservation easement on the property if the BYLT should ever transfer the property to non-land trust ownership. In addition, the contractual agreement shall provide specific steps for annual monitoring of the success of the project and reporting to the County Planning Department by a qualified professional.

Timing/Implementation: Prior to issuance of permits
Enforcement/Monitoring: Nevada County Planning Department

Impacts to Wildlife Movement (Standard of Significance 4)

Impact 6.1.4 (AS) The proposed Alta Sierra project would not interfere with the movement of native resident or migratory wildlife species. (Less than Significant)

Based on available data on movement corridors and linkages accessed via the CDFW BIOS Viewer, the project site is not located within an identified wildlife migratory corridor. In addition, the Nevada County Master Environmental Inventory of the General Plan indicates that the project site is not located within a deer migration corridor. Therefore, impacts to the movement of native resident or migratory wildlife species would be less than significant.

Mitigation Measures
None required.

Conflict with Local Policies and Ordinances (Standard of Significance 5)

Impact 6.1.5 (AS) Development of the project site could result in the loss of landmark oak trees and groves, which could conflict with the Nevada County General Plan. (Less than Significant with Mitigation Incorporated)

Nevada County General Plan Policy 13.9 specifies that development in the vicinity of significant oak groves of all oak species be designed and sited to maximize the long-term preservation of the trees and integrity of their natural setting.

The proposed project would result in direct and indirect impacts on approximately 1.40 acres of landmark oak groves and four landmark black oak trees. The implementation of mitigation measures MM AS-6.1.3a through MM AS-6.1.3e would reduce the impacts to landmark oak trees and groves to less than significant.

The proposed project would not conflict with other local policies and ordinances.
Mitigation Measures

Implement mitigation measures MM AS-6.1.3a through MM AS-6.1.3e.

Conflict with Conservation Plans (Standard of Significance 6)

Impact 6.1.6(AS) The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. (No Impact)

There are no adopted habitat conservation plans (HCP) or natural community conservation plans (NCCP) in Nevada County, and the project site is not subject to any such plans. Therefore, the proposed project would not conflict with an HCP or NCCP and there will be no impact.

Mitigation Measures

None required.

6.2 Penn Valley Site

6.2.1 Project-Specific Location and Setting

The Penn Valley project site is located in the Sierra Nevada foothills in the community of Penn Valley, approximately 7 miles southwest of Grass Valley. Specifically, the project site is located in Section 2, Township 16 North, and Range 7 East of the Rough and Ready USGS 7.5-minute quadrangle.

Greg Matuzak prepared an Environmental Setting, Plant Community, and Special-Status Species Evaluation and a Management Plan for Encroachment within the Non-disturbance 50-foot Buffer of a Seasonal Stream and Non-disturbance 100-foot Buffer of Wetlands for the project site was in August 2015 (Appendix 6.0-PV), and a Wetland Delineation Report was prepared by Heal Environmental Consulting in 2010 (Appendix 6.0-PV). These reports provided the description of the existing site conditions and potential biological resources present on the project site.

The approximately 1.2-acre project site is currently undeveloped and is generally flat with a slight elevation variance. The project site consists mostly of annual grasslands with a small wetland and scattered valley oak (Quercus lobata) trees. Native and non-native grasses on the site include wild oats (Avena fatua), wild rye (Elymus glaucus) and soft chess (Bromus hordeaceus). A full list of species observed on the project site is in Appendix 6.0-PV.

Jurisdictional features on the project site were identified and outlined in a wetland delineation conducted on May 3, 2000, and February 22, 2010 (Appendix 6.0-PV). Both of these delineations were previously verified by the USACE; however, the verifications have expired. The delineations identified approximately 0.42 acre of palustrine emergent seasonal marshes and 0.60 acre of jurisdictional water associated with Squirrel Creek and an unnamed tributary. An additional wetland was observed on-site; however, this feature is considered isolated and not subject to jurisdiction under the Clean Water Act. The USACE concurred with the findings of the wetland delineations. Based on the review of recent aerials of the project site, the current conditions of the project site are consistent with the previous wetland delineations.

The palustrine emergent marsh is dominated by sedges (Carex sp.), rushes (Juncus sp.), and other hydrophytic grasses and forbs. Soils are mapped as Alluvial Land, Loamy. The soils contain bright
mottles and sulfidic odor, which are both primary hydric indicators. Water-stained leaves and oxidized root channels show sufficient hydrology indicators. Squirrel Creek is tributary to Deer Creek, which flows into the Yuba River. Riparian habitat around the creek consists of valley oak, Oregon ash (Fraxinus latifolia), white alder (Alnus rhombifolia), and arroyo willow (Salix lasiolepsis). The delineation report and data sheets are shown in Appendix 6.0-PV.

6.2.2 SPECIAL-STATUS SPECIES

The results of the database search for this project can be found in Appendix 6.0-PV.

Plants

The database search identified two special-status plant species that have been documented within 3 miles of the project site: Scadden flat checkerbloom (Sidalcea stipularis) and Brandegee’s clarkia (Clarkia bilboa ssp. brandegeeae).

Scadden flat checkerbloom is state listed as endangered, has no federal status, and is a CNPS List 1B plant. This plant is a rhizomatous herb and is a Nevada County endemic. Scadden flat checkerbloom typically grows in montane freshwater marshes and swamps. This species typically blooms from July through August and grows at elevations between 2,297 and 2,395 feet amsl. Suitable habitat is not present and this species was not observed during the site visit that occurred during the blooming period; therefore, this species is not expected to occur on the project site.

Brandegee’s clarkia is a CNPS List 4.2 plant; it has no state or federal status. This species inhabits chaparral, cismontane woodland, and lower montane forests; most likely on north-facing slopes. This species blooms May through July and is found at elevations of 275 to 3,000 feet amsl. Suitable habitat is not present and this species was not observed during the site visit that occurred during the blooming period; therefore, this species is not expected to occur on the project site.

Animals

Based on the database searches, four special-status wildlife species were evaluated to determine the potential to occur on-site. These species are further discussed below.

Amphibians and Reptiles

The federally listed California red-legged frog and two California species of concern, foothill yellow-legged frog and western pond turtle, are documented as occurring in the vicinity of the project site.

The California red-legged frog is known in Nevada County; however, suitable breeding habitat was not observed on the project site. If suitable breeding locations are present within 1.25 miles of the project site, suitable dispersal habitat could be present. However, this species has not been observed in the Rough and Ready quadrangle or the watershed associated with the project site. This species is not expected to occur on the project site.

Foothill yellow-legged frog occurs in the Coast Ranges from the Oregon border south to the Transverse Mountains of Los Angeles County, as well as in the majority of Northern California west of the Cascade crest, and along the western flank of the Sierra Nevada south to Kern County. This species requires shallow streams with cobble-sized substrate; it is rarely found far from a permanent water source. Squirrel Creek and its associated tributary are perennial and therefore do not
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provide suitable habitat for this species. In addition, this species has not been observed within 3 miles of the project site. This species is not expected to occur on the project site or in the vicinity.

Western pond turtle is commonly associated with lakes, ponds, streams, and other water features. This species requires basking sites, such as partially submerged logs, floating vegetation, or open mud banks. Western pond turtle estivates in the mud bottom or banks during the summer months. The project site provides marginally suitable habitat for this species. Although this species was not observed during the site visit, it may potentially occur on the project site.

Mammals

According to the Nevada County General Plan, the project site is not located within any migratory deer corridors, holding areas, or critical fawning areas. However, the General Plan mapped the project site as being located within an area of a potential Resident Deer Herd. No signs of deer or deer trails were observed on the project site.

Birds

The California black rail, a state threatened and fully protected species, has been documented as occurring within 3 miles of the project site. California black rail requires constant standing water and dense vegetation for nesting. The aquatic features on the project site do not hold water throughout the year and the associated vegetation is not dense enough to support this species. Therefore, although wetlands are present on the project site, this species is not expected to occur.

The project site provides suitable nesting habitat for raptors and other birds protected under the MBTA. Suitable habitat for cavity-nesting birds, ground-nesting birds, and tree-nesting birds was observed on the project site. Northern flicker (Colaptes auratus), black-headed grosbeak (Pheucticus melanocephalus), and spotted towhee are some of the birds that could potentially nest on the project site.

6.2.3 IMPACTS AND MITIGATION MEASURES

Impacts to Candidate, Sensitive, or Special-Status Plant Species (Standards of Significance 1 and 7)

Impact 6.2.1(PV) The project site does not provide suitable habitat for any special-status plant species that may occur in the vicinity. (No Impact)

Two special-status plant species are known to occur in the project region, with four species documented as occurring within a 3-mile radius. However, the project site does not provide suitable habitat for these species. In addition, the species were not observed during the site visit that occurred during the blooming period for Scadden flat checkerbloom and Brandegee’s clarkia. No special-status plants are expected to occur on the project site; therefore, there will be no impact.

Mitigation Measures

None required.
Impacts to Listed Special-Status Wildlife Species (Standards of Significance 1 and 7)

Impact 6.2.2(PV)  Project-related activities could result in loss of nesting habitat for raptors and other birds protected by the MTBA. (Less than Significant with Mitigation Incorporated)

The project site provides suitable habitat for a variety of tree-nesting, cavity-nesting, and ground-nesting bird species. Nesting birds are protected under the MBTA; it is unlawful for the project to result in the take of nesting raptors or birds. Implementation of the proposed project could result in impacts to birds protected under the MBTA.

Construction activities could cause direct impacts to nesting raptors and migratory birds, if birds are actively nesting during construction. Nests may be located in trees, shrubs, or emergent vegetation, on the ground, and in burrows. The Penn Valley project may cause direct mortality to raptors or migratory birds through removal of vegetation that contains active nests. Construction could also result in noise, dust, increased human activity, and other indirect impacts to nesting raptor or migratory bird species in the project vicinity. Excessive noise, disturbance, and vibrations can cause nest abandonment and mortality to eggs and chicks, as well as stress from loss of foraging areas. This is a potentially significant impact. If construction occurs during the non-nesting season, no impacts are expected.

The loss or disturbance of active nests or direct mortality is prohibited by the MBTA and California Fish and Game Code Section 3503.5. With the implementation of mitigation measure MM PV-6.2.2 below, impacts would be reduced to less than significant.

Mitigation Measures

M.M PV-6.2.2  If construction is proposed during the breeding season (February–August), a focused survey for raptors and other migratory bird nests shall be conducted within 14 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests on-site. If active nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. This 500-foot construction prohibition zone may be reduced based on consultation with and approval by the California Department of Fish and Wildlife. Trees containing nests or cavities that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to January). If no active nests are found during the focused survey, no further mitigation will be required. To the extent feasible, necessary tree removal should occur outside of the typical nesting season to minimize or avoid adverse effects to all nesting birds.

Timing/Implementation:  Prior to construction activities

Enforcement/Monitoring:  Nevada County Planning Department

Impact 6.2.3(PV)  Project-related activities could impact western pond turtle (Less than Significant with Mitigation Incorporated)

Squirrel Creek provides marginally suitable habitat for western pond turtle. Construction activities could impact western pond turtles if one were to be present during construction. This impact could be considered potentially significant.
Implementation of **MM PV 6.2.3** requires pre-construction surveys for western pond turtle. If turtles are found, measures would be implemented to protect it. This would reduce the impact to less than significant.

**Mitigation Measure**

**MM PV-6.2.3**

Within 48 hours prior to any disturbance within suitable habitat for western pond turtle, proposed disturbance areas shall be surveyed for this presence of this species by a qualified biologist. Surveys of the area shall be repeated if a lapse in construction activity of two weeks or greater occurs. If the species is detected, individuals shall be relocated to a suitable site within the same drainage by a qualified biologist. If the species is detected during the pre-construction survey, a monitoring biologist will be onsite during initiation of construction activities to ensure that no turtles are present during the onset of disturbance activities. If a western pond turtle is encountered during construction, activities shall cease until appropriate corrective measures have been implemented or it has been determined that the turtle will not be harmed. Any trapped, injured, or killed western pond turtles shall be reported immediately to the CDFW.

**Timing/Implementation:** Prior to construction activities

**Enforcement/Monitoring:** Nevada County Planning Department

**Impacts to Riparian Habitat, Sensitive Natural Communities, or Federally Protected Wetlands (Standards of Significance 2 and 3)**

**Impact 6.2.4(PV)**

One stream and associated wetlands that are considered waters of the United States are present on-site. A portion of these features will be impacted by the project. *(Less than Significant with Mitigation Incorporated)*

Sensitive habitats include those that are of special concern to resource agencies and those that are protected under CEQA, Section 1600 of the Fish and Game Code, and Section 404 of the Clean Water Act. Two wetland delineations of the site were previously conducted and verified by the USACE. The USACE concurred that 1.02 acres of waters of the United States are present on the project site. These water features consist of 0.42 acre of palustrine emergent wetland and 0.60 acre associated with Squirrel Creek.

The proposed project would result in permanent impacts to the palustrine emergent wetlands, totaling 0.16 acre. The Nevada County Land Use and Development Code, Chapter II; Zoning Regulations, Section L-II 4.3 17C.3 requires a Management Plan be prepared for projects in non-disturbance buffers, including areas that are within 100 feet of wetlands and riparian areas. The Management Plan was completed by Greg Matuzak in August 2015 *(Appendix 6.0-PV).*

The project applicant will coordinate with the USACE to determine the appropriate mitigation to ensure no net loss of wetlands. Impacts to wetlands could result in a significant impact; however, with implementation of mitigation measure **MM PV-6.2.4**, these impacts will be reduced to less than significant.
Mitigation Measures

**MM PV-6.2.4**  
The following measures shall be implemented prior to or during construction, as appropriate.

- The project applicant shall either obtain a qualified biologist to conduct a preliminary delineation or shall resubmit the expired jurisdictional determination for reverification from the USACE.

- Prior to initiation of construction activities within jurisdictional features, construction best management practices (BMPs) shall be employed on-site to prevent degradation to on-site and off-site waters of the United States. Methods shall include the use of appropriate measures to intercept and capture sediment prior to entering jurisdictional features, as well as erosion control measures along the perimeter of all work areas to prevent the displacement of fill material. All BMPs shall be in place prior to initiation of any construction activities and shall remain until construction activities are completed. All erosion control methods shall be maintained until all on-site soils are stabilized. BMPs include, but are not limited to:

  a) Minimize the number and size of work areas for equipment and spoil storage sites in the vicinity of the stream. Place staging areas and other work areas outside of the 50-foot and 100-foot non-disturbance buffers.

  b) The contractor shall exercise reasonable precaution to protect this stream, wetlands, and adjacent non-disturbance buffers from pollution with fuels, oils and other harmful materials. Construction byproducts and pollutant such as oil, cement, and wash water shall be prevented from discharging into or near these resources and shall be collected for removal off the site. All construction debris and associated materials and litter shall be removed from the work site immediately upon completion.

  c) No equipment for vehicle maintenance or refueling shall occur within the 50-foot and 100-foot non-disturbance buffers. The contractor shall immediately contain and clean up any petroleum or other chemical spills with absorbent materials such as sawdust or kitty litter. For other hazardous materials, follow the cleanup instruction on the label.

  d) Exposed bare soil along the stream embankment and including non-disturbance buffer should be protected against loss from erosion by the seeding of an erosion control mixture and restored with native grasses and mulching. Non-native species that are known to invade with lands, such as orchard grass, velvet grass, rose clover, winter and spring vetch, and wild oats should not be used as they displace native species. The contractor shall follow the permit requirements obtained from the USACE and Central Valley Regional Water Quality Control Board before, during, and after construction.

- Standard staging area practices for sediment-tracking reduction shall be implemented where necessary and may include vehicle washing and street sweeping.
• All exposed/disturbed areas and access points left barren of vegetation as a result of construction activities shall be restored at the end of construction using locally native grass seeds, locally native grass plugs, and/or a mix of quick-growing sterile non-native grass with locally native grass seeds. Seeded areas shall be covered with broadcast straw and/or jute netted (monofilament erosion blankets are not permitted).

• Protective silt fencing shall be installed between the adjacent wetland habitats and the construction area limits to prevent accidental disturbance during construction and to protect water quality within the aquatic habitats during construction.

• The County shall ensure there is no net loss of wetlands or other waters of the United States through impact avoidance, impact minimization, and/or compensatory mitigation, as determined in CWA Section 404 and 401 permits and/or 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure shall be provided prior to construction.

• The applicant shall ensure no net loss of wetlands. Impacts on any wetland permanently or temporarily affected by the proposed project shall be offset through the dedication of mitigation credit(s) within a USACE-approved mitigation bank or through the payment of in-lieu fees to an approved conservation bank.

• Construction periods shall be limited to periods of extended dry weather and dry summer seasons.

• No fill or dredge material will enter or be removed from the stream channel during construction or thereafter.

• Use appropriate machinery and equipment to limit disturbance in the area.

• No dewatering of the stream will occur during construction or thereafter.

Timing/Implementation: Prior to and during construction activities

Enforcement/Monitoring: Nevada County Planning Department

Impacts to Wildlife Movement (Standard of Significance 4)

Impact 6.2.5(PV) The proposed project would not interfere with the movement of native resident or migratory wildlife species. (Less than Significant)

Based upon available data on movement corridors and linkages from the CDFW BIOS Viewer, the project site is not located within an identified migratory corridor. In addition, the Nevada County Master Environmental Inventory of the General Plan indicates that the project site is not located within a deer migration corridor. Therefore, impacts to the movement of native resident or migratory wildlife species as a result of the project would be less than significant.
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Mitigation Measures

None required.

Conflict with Local Policies and Ordinances (Standard of Significance 5)

Impact 6.2.6(PV) Development of the project area would not result in conflict with local policies or ordinances. (Less Than Significant with Mitigation Incorporated)

Nevada County General Plan and Nevada County Land Use and Development Code has several ordinances that protect biological resources, specifically native oaks, rare, threatened and endangered species, and watercourses. There are several oak trees on the project site that would be considered landmark oak trees per the definition in the Nevada County Ordinance Section L-11 4.3.15. In addition, the project site is considered to be oak woodland due to a canopy cover greater than 33 percent. However, the project has been designed to avoid the landmark oak trees, and the 33 percent canopy cover will remain intact.

Nevada County Ordinance Section L-11 4.3.17 protects wetlands and other watercourses in the County. The proposed project would permanently impact wetlands on the project site. However, the project would comply with measures within the Ordinance, including the completion of a Management Plan. With implementation of mitigation measure MM PV-6.2.4 to offset the impacts to wetlands, the impact would be less than significant.

Mitigation Measures

Implement mitigation measure MM PV-6.2.4.

Conflict with Conservation Plans (Standard of Significance 6)

Impact 6.2.7(PV) The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. (No Impact)

There are no adopted HCPs or NCCPs in Nevada County and the project site is not subject to any such plans. Therefore, the proposed project would not conflict with an HCP or NCCP and there would be no impact.

Mitigation Measures

None required.

6.3 ROUGH AND READY HIGHWAY SITE

6.3.1 PROJECT-SPECIFIC LOCATION AND SETTING

The Rough and Ready Highway project site is located in Grass Valley, California. Specifically, the site is located at 12345 Rough and Ready Highway in Section 20, Township 16 North, and Range 8 East of the Grass Valley 7.5-minute quadrangle. A Biological Inventory Report was prepared by Costella Environmental Consulting in January 2015 (Appendix 6.0-RR).

The project site is a highly disturbed infill site that is dominated by non-native horticultural and ruderal plants. The only native plants within the project site are gray pines and ponderosa pines.
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The Nevada County General Plan’s Wildlife and Vegetation Element indicates that there are no gabbro or serpentine rock soils on the project site. There is one small building located on the northwest corner of the property. No wetlands or other waters of the United States are present on the project site. Site photos are shown in Appendix 6.0-RR.

6.3.2 Special-Status Species

A search of the CNDDB and CNPS database was conducted using the Grass Valley, French Corral, and Nevada County 7.5-minute USGS quadrangles. A USFWS IPaC database search was also conducted for the project site (Appendix 6.0-RR). Special-status species were considered for this analysis based on field survey results and a review of the database searches.

Plants

The database search resulted in multiple special-status plant species that may occur in the quadrangle search. However, plant species require either wet meadows, rocky outcrops, or specific soil types (gabbro or serpentine rock), none of which are not present on the project site. The project site is highly disturbed and does not support habitat for special-status plant species.

Animals

Based on database search results, eight special-status animals were identified as occurring within the quadrangle search. All of the species were determined to have minimal to no potential for occurring within the study area due to absence of suitable habitat or due to the site being outside the current range for the species.

Invertebrate

The valley elderberry longhorn beetle (Democerus californicus dimorphus) is a federally listed species. This species is completely dependent on its host plant, blue elderberry shrub (Sambucus mexicana). Elderberry shrubs are generally found in riparian woodlands and grasslands. There are no elderberry shrubs on the project site; therefore, this species is not expected to be present. In addition, there are no occurrences for this species within 5 miles of the project site.

Amphibians and Reptiles

The California red-legged frog, western pond turtle, and foothill yellow-legged frog are documented as occurring within the project region. However, the project site and vicinity lack aquatic features that are required for these species. There are no CNDDB occurrences for any of these species within a 5-mile radius.

The coast horned lizard has been documented as occurring within a 5-mile radius of the project site. However, this species requires sandy soils with low vegetation cover. There are no sandy soils present and the ground cover vegetation is too dense to support this species.

These species are not expected to occur on the project site.

Birds

The California black rail, a state threatened and fully protected species, has been documented multiple times as occurring within 5 miles of the project site. This species feeds and nests in marsh...
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and wetland habitat with dense vegetation. Because of the lack of aquatic habitat, this species is not expected to occur on the project site.

Mammals

The fisher is a state and federal candidate species. This species is generally found in old growth coniferous forests at high elevation and is associated with undisturbed areas in high elevation away from human disturbance. The project vicinity is highly disturbed and developed; therefore, it is unlikely that this species will occur in the vicinity of the project site.

Fish

Three federally listed fish species, Central Valley steelhead (Oncorhynchus mykiss), Central Valley spring run chinook salmon (Oncorhynchus tshawytscha), and winter run chinook salmon (Oncorhynchus tshawytscha) are shown as occurring in the Rough and Ready quadrangle. There are no aquatic features on the project site; therefore, these species will not be present.

6.3.3. IMPACTS AND MITIGATION MEASURES

Impacts to Candidate, Sensitive, or Special-Status Plant Species (Standards of Significance 1 and 7)

Impact 6.3.1(RR) The project site does not provide suitable habitat for any special-status plant species that may occur in the vicinity. (No Impact)

The project site is highly disturbed and does not provide suitable habitat for special-status plant species. Therefore, no special-status plants are expected to occur on the project site. There will be no impact.

Mitigation Measures

None required.

Impacts to Listed Special-Status Wildlife Species (Standards of Significance 1 and 7)

Impact 6.3.2(RR) Implementation of the project-related activities could result in loss of nesting habitat for raptors and other birds protected by the MTBA. (Less than Significant with Mitigation Incorporated)

The project site provides suitable habitat for a variety of tree-nesting, cavity-nesting, and ground-nesting bird species. Nesting birds are protected under the MBTA; it is unlawful for the project to result in the take of nesting raptors or birds. Implementation of the proposed project could result in impacts to birds protected under the MBTA.

Construction activities could cause direct impacts to nesting raptors and migratory birds, if birds are actively nesting during construction. Nests may be located in trees, shrubs, or emergent vegetation, on the ground, and in burrows. The Rough and Ready Highway project may cause direct mortality to raptors or migratory birds through removal of vegetation that contains active nests. Construction could also result in noise, dust, increased human activity, and other indirect impacts to nesting raptor or migratory bird species in the project vicinity. Excessive noise, disturbance, and vibrations can cause nest abandonment and mortality to eggs and chicks, as well as stress from loss of foraging areas. This is a potentially significant impact. If construction occurs during the non-nesting season, no impacts are expected.
The loss or disturbance of active nests or direct mortality is prohibited by the MBTA and California Fish and Game Code Section 3503.5. With the implementation of mitigation measure MM RR-6.3.2, impacts would be reduced to less than significant.

Mitigation Measures

**MM RR-6.3.2** If construction is proposed during the breeding season (February–August), a focused survey for raptors and other migratory bird nests shall be conducted within 14 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests on-site. If active nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. This 500-foot construction prohibition zone may be reduced based on consultation with and approval by the California Department of Fish and Wildlife. Trees containing nests or cavities that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to January). If no active nests are found during the focused survey, no further mitigation will be required. To the extent feasible, necessary tree removal should occur outside of the typical nesting season to minimize or avoid adverse effects to all nesting birds.

**Timing/Implementation:** Prior to construction activities

**Enforcement/Monitoring:** Nevada County Planning Department

**Impacts to Riparian Habitat, Sensitive Natural Communities, or Federally Protected Wetlands (Standards of Significance 2 and 3)**

**Impact 6.3.3(RR)** There is no riparian habitat, sensitive natural community, or federally protected wetlands within the project site. (No Impact)

There are no wetlands, riparian habitat, or sensitive communities on the project site or in the immediate vicinity of the project site. Therefore, there would be no impact on these resources.

**Mitigation Measures**
None required.

**Impacts to Wildlife Movement (Standard of Significance 4)**

**Impact 6.3.4(RR)** Implementation of the proposed project would not interfere with the movement of native resident or migratory wildlife species. (No Impact)

Available data on movement corridors and linkages was accessed via the CDFW BIOS Viewer. Data reviewed included the Essential Connectivity Areas [ds623] layer and the Missing Linkages in California [ds420] layer. It was determined that the project site is not located within an essential connectivity area or known migration corridor. In addition, the Nevada County Master Environmental Inventory of the General Plan indicates that the project site is not located within a deer migration corridor. Therefore, there will be no impact to wildlife movement as a result of the project.
Mitigation Measures

None required.

Conflict with Local Policies and Ordinances (Standard of Significance 5)

**Impact 6.3.5(RR)** Development of the project area will not result in conflict with and local policies or ordinances. *(No Impact)*

Nevada County General Plan and Nevada County Land Use and Development Code has several ordinances that protect biological resources, specifically native oaks, rare, threatened and endangered species, and watercourses. There are no oak trees, landmark oak groves, watercourse or rare, threatened, or endangered species on the project site. Therefore, there would be no impact.

Mitigation Measures

None required.

Conflict with Conservation Plans (Standard of Significance 6)

**Impact 6.3.6(RR)** Implementation of the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. *(No Impact)*

There are no adopted HCPs or NCCPs in Nevada County and the project site is not subject to any such plans. Therefore, the proposed project would not conflict with an HCP or NCCP. There will be no impact.

Mitigation Measures

None required.

6.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

**Cumulative Setting**

The cumulative context for biological resources is the development assumed to occur in Nevada County. Development in the county is dominated by rural residential and businesses, with some areas that are more densely developed. The habitat generally consists of oak woodlands and low elevation montane forest. The woodlands and forest provide nesting and foraging habitat for several special-status species including northern goshawk and other raptors and nesting birds protected by the MBTA.

**Cumulative Impacts And Mitigation Measures**

Cumulative Impacts on Biological Resources

**Impact 6.4.1** Cumulative development of the proposed projects could affect biological resources *(Less than Cumulatively Considerable with Mitigation Incorporated)*
Anticipated development and urban expansion in the county is expected to contribute to disturbance to special-status species, their habitat, and other sensitive biological habitats. This is considered a significant cumulative impact on biological resources. As discussed in Impact 6.1.5(AS), the Alta Sierra project site would result in the loss of 1.40 acres of landmark groves as well as four landmark oak trees. Implementation of mitigation measures **MM AS-6.1.3a through MM AS-6.1.3e**, which would include funding the BYLT for the Clover Valley Preserve black oak restoration project, would provide compensation for the project’s impacts to landmark oaks and oak groves. Given this compensation and the fact that the removal of 1.40 acres of landmark groves and four landmark trees would represent a loss of only approximately 0.004 percent of Nevada County’s montane hardwood habitat, this project would not result in a significant loss of oak woodland habitat. Neither of the other project sites would impact landmark oak trees or landmark groves, so the projects would not combine to result in a significant cumulative impact on trees. Therefore, the projects’ contributions to cumulative impacts on landmark oaks and oak groves, individually and in combination, would be **less than cumulatively considerable with mitigation**.

As discussed in Impact 6.2.3(PV), the implementation of the Penn Valley project would result in the fill of 0.16 acre of palustrine emergent wetlands. The County will ensure there is no net loss to wetlands or other waters of the United States as a result of the project with the implementation of mitigation measure **MM PV-6.2.4**. Neither of the other project sites contain wetlands or other waters of the United States and the projects would not combine to result in a significant cumulative impact on wetlands. With implementation of mitigation measure MM PV-6.2.4, the projects’ contributions to cumulative impacts on wetlands, individually and in combination, would be **less than cumulatively considerable with mitigation**.

Because each project site would not result in significant impacts on special-status species, their habitat, and other sensitive biological habitats, they would not individually contribute to cumulative impacts in the county. Further, because the habitat types on each site differs from the habitat on the other sites, the projects would not combine to increase the impact on any particular resource. Therefore, the projects’ contributions to cumulative biological resources impacts related to special-status species and sensitive biological habitats, individually and in combination, would be **less than cumulatively considerable**.

**Mitigation Measures**

Implement mitigation as follows:

**Alta Sierra project:** Implement mitigation measures **MM AS-6.1.3a through MM AS-6.1.3e**

**Penn Valley project:** Implement mitigation **MM PV-6.2.4**.

**Rough and Ready Highway project:** None required.
REFERENCES


Salix Consulting, Inc. 2014. Biological Resources and Wetlands Constraints Analysis for the ±0.9-Acre Alta Sierra Drive Study Area.


7.0 CULTURAL RESOURCES
This section evaluates the potential impacts of the proposed projects on cultural resources, which are defined as prehistoric and historic properties, structures, and districts or any other physical evidence associated with human activity considered important to a culture, subculture, or community for scientific, traditional, or religious reasons.

7.0 GENERAL ENVIRONMENTAL CONDITIONS AND REGULATIONS

7.0.1 ENVIRONMENTAL SETTING

The following description of environmental conditions common to each site and applicable regulations, policies, and standards applies to each of the project sites.

Regional Archaeology

Publications on the prehistory of the northern Sierra Nevada region tend to agree that the northern Sierra Nevada has been occupied for the past 11,000 to 12,000 years. This prehistory has been divided by various researchers into separate cultural periods. The (cultural) divisions are based upon perceived changes in adaptive strategies in a response to both cultural and natural forces. These conditions result from the combination of local population pressure, possible migration/intrusion of other peoples, and environmental changes during the Holocene. This change is especially apparent when archaeological assemblage comparisons are made between pre-Archaic and Archaic cultural components.

Pre-Archaic sites are typically surface manifestations and consist of diffuse lithic scatters. Larger sites are located on high ground near water sources. Upland sites exist but are smaller. The regional manifestation of the Pre-Archaic in the eastern Sierra Nevada is the Tahoe Reach phase.

The Archaic has been divided into three periods: the Early (6,000 to 3,000 BC), the Middle (7,000 to 3,300 BC), and the Late (3,300 BC to Euroamerican contact). The Early Archaic cultural component is known as the Spooner phase associated with large sites in the valley bottoms near perennial streams or near permanent water. Besides the big game hunting strategies, the intensive use of seeds is indicated by the appearance of manos and metates in archaeological context. This suggests an adaptive strategy that focused on diverse environmental settings. Some scholars suggest this may have been influenced by a climatic change during the middle Holocene.

Two distinct cultural complexes of the northern Sierra Nevada were defined by archaeological investigations during the 1950s. These were based upon findings at Kings Beach (Lake Tahoe Basin) and CA-PLA-5, the primary type-site of Martis Valley, near Truckee. The earlier of these two complexes are identified as Martis. The Martis complex (Middle Archaic) is associated with a cooler and wetter period of the Holocene and the archaeological manifestations suggest a more intensive procurement strategy of resources, changes in settlement patterns, apparent population densities, and stylistic elaboration of artifact types. Base camps are located on valley margins to exploit the surrounding and/or neighboring environmental zones with smaller task-specific field camps and sites for hunting/gathering and processing resources in the uplands.

The Late Archaic is identified with the Kings Beach phases in the northern Sierra Nevada and western Great Basin region. Adaptive strategies from Middle Archaic times have been viewed by scholars as from either cultural or environmental conditions or from both. One of the recognized scholars of northern Sierra Nevada archaeology suggests that the exploitation of a more diverse subsistence resource base was primarily the result of increasing population stress rather than the environmental warming and drying trend that began around AD 1 and peaked at AD 500.
7.0 CULTURAL RESOURCES

Scholars appear to agree on the period of time when a hypothesized cultural intrusion occurred in Northern California from southern Oregon and the Columbia and Modoc Plateau regions. Sometime between AD 200 and 1800, Penutian-speaking peoples moved down the major river valleys including the Feather, Yuba, and American Rivers and this expansion continued until the arrival of Euro-American populations.

The cultural traits and known archaeological record correlate with the ethnographic territory of the Washo and Maidu; however, some scholars suggest that Martis may represent ancestral Maidu, including Nisenan prehistory (NCR Consulting 2015).

Ethnography

The project sites are located within territory occupied by the Nisenan at the time of initial contact with European Americans. The Nisenan are Native American peoples, also referred to as “Southern Maidu,” who occupied the drainages of the southern Feather River and Honcut Creek in the north, through the Bear River and the Yuba and American River drainages in the south. Villages were frequently located on flats adjoining streams, and were inhabited mainly in the winter as it was usually necessary to go out into the hills and higher elevation zones to establish temporary camps during food gathering seasons (i.e., spring, summer and fall). As with all Northern Californian Indian groups, life for the Nisenan revolved around hunting, fishing, and the collecting of plant foods. These people were very sophisticated in terms of their knowledge of the uses of local animals and plants, and of the availability of raw material sources that could be used in manufacturing an immense array of primary and secondary tools and implements. Unfortunately, only fragmentary evidence of the material culture of these people remains, due in part to perishability and in part to the impacts to archaeological sites resulting from later (historic) land uses (mining, ranching and timber harvest).

Based on the results of previous survey work within the southwestern portion of Nevada County, the potential range of prehistoric site types included the following:

- Surface scatters of lithic artifacts and debitage associated with midden accumulations (sometimes including other surface features such as housepit depressions, mortar holes, petroglyphs), resulting from protracted occupation along stream channels, particularly where streams merge with one another.

- Surface scatters of lithic artifacts and debitage without midden accumulations, resulting from short-term occupation and/or specialized economic activities.

- Bedrock milling stations, including especially mortar holes, where suitable bedrock outcrops are exposed.

- Petroglyphs.

- Isolated finds of aboriginal artifacts and flakes.

Clearly, it was not expected that all of these site types would be encountered within the project area, but rather that these would be the most likely types to be encountered if any sites or features were identified at all.

Antecedent cultures in the area span several thousands of years and document use and occupation centered along water courses and elsewhere throughout the area (Jensen 2014).
7.0 CULTURAL RESOURCES

Historical Context

Recorded history in the region begins with the attempts of Spanish colonists to explore parts of California beyond the coastal zone. Gabriel Moraga’s expedition was undertaken in 1806, with additional incursions occurring through the 1840s. European Americans began arriving in more substantial numbers in the mid-1820s, most notably with the trapping expeditions of Jedediah Smith. However, the European American incursion with the greatest impact on Native American population and culture occurred immediately following the discovery of gold at Coloma in 1848, which initiated the Gold Rush of 1849.

Mining along virtually every stream in the Nevada City and Grass Valley areas was under way by 1850. Placer mining continued to yield large quantities of gold through the next several years, and by 1855 supporting industries in the mine fields of Nevada County and along what is now State Route 49 and other early transportation corridors included stores, transportation companies, saloons, toll roads and stage lines, foundries, lumber mills, and water companies. Isolated features related to historic mining activities and associated transportation are ubiquitous throughout portions of Nevada County. They include sluiced areas, ditches, “glory holes,” collapsed shafts and adits, debris scatters, tailings piles, and occasionally structural remains.

Logging, ranching, and wood mill operations represent additional historic themes for this area of the county. As with the earlier mining emphasis, associated activities have also adversely affected the local cultural resources base.

Historic overviews for the region document the presence of a range of historic site and feature types and complexes throughout the area generally. Relevant historic site types potentially present in this area include:

- Historic narrow gauge railroad
- Two-track trails/wagon roads, most of which are now paved roadways or no longer exist
- Water distribution systems, including small and large ditch, canal, and channel systems, and levees dating to historic time periods
- Occupation sites and homesteads with associated features such as refuse disposal areas, privy pits, barns, and sheds
- Ranch features, including structures, structural remnants, corrals, other feature types
- Bridges associated with historic road corridors
- Landscape modifications associated with both historic mining and wood mill operations, including also shafts, glory holes, tailings piles, and additional feature types.

As with prehistoric sites, not all of these were expected to be present within the project areas, with the list above representing the range of types considered most likely to be present based on background information available (Jensen 2014).
7.0 CULTURAL RESOURCES

7.0.2 REGULATORY FRAMEWORK

FEDERAL

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 established guidelines to “preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice.” One of the provisions of the NHPA was the development of the National Register of Historic Places (NRHP; National Register), which is administered by the National Park Service. The National Register Bulletin also provides guidance in the evaluation of archaeological site significance.

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects are to be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

STATE

California Native American Historical, Cultural and Sacred Sites Act

The California Native American Historical, Cultural and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity cease and that the county coroner be notified. If the remains are of a Native American, the coroner must notify the Native American Heritage Commission (NAHC). The NAHC then notifies those persons mostly likely to be descended from the Native American remains. The act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

California Register of Historical Resources

California Code of Regulations (CCR) Title 14, Section 4852 addresses the types of historical resources and criteria for listing in the California Register of Historical Resources (CRHR; California Register). The criteria for listing historical resources in the CRHR are consistent with those developed by the National Park Service for listing historical resources in the NRHP, but have been modified for state use to include a range of historical resources which better reflect the history of California. Only resources that meet the criteria may be listed in or formally determined eligible for listing in the CRHR.

California Environmental Quality Act

Under the California Environmental Quality Act (CEQA), public agencies must consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Pursuant to Public Resources Code (PRC) Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.
Historical resource is a term with a defined statutory meaning (PRC Section 21084.1; determining significant impacts to historical and archaeological resources is described in CEQA Guidelines Section 15064.5(a), (b)). Under CEQA Guidelines Section 15064.5(a), historical resources include the following:

1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (PRC Section 5024.1).

2) A resource included in a local register of historical resources, as defined in Section 5021.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5021.1(g) of the Public Resources Code, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1), including the following:

   a) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;

   b) Is associated with the lives of persons important in our past;

   c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

   d) Has yielded, or may be likely to yield, information important in prehistory or history.

4) The fact that a resource is not listed in, determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5021.1(k)), or identified in a historical resources survey (meeting the criteria in PRC Section 5021.1(g)) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Section 5021.1(j) or 5024.1.

Historic resources are usually 45 years old or older and must meet at least one of the criteria for listing in the CRHR described above (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be historical resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and CCR, Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not
eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

For historic structures, CEQA Guidelines Section 15064.5, subdivision (b)(3), indicates that a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) is considered as mitigating impacts to a less than significant level.

As noted above, CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. PRC Section 21083.2, subdivision (g), states:

“Unique archaeological resource” means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

- Has a special and particular quality such as being the oldest of its type or the best available example of its type.

- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Treatment options under Section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation include excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a unique archaeological resource).

**California Health and Safety Code Sections 7050.5**

California Health and Safety Code Section 7050.5(b) specifies protocol when human remains are discovered, as follows:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

CEQA Guidelines Section 15064.5, subdivision (e), requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the NAHC. Section 15064.5 directs
the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. Pursuant to Section 15064.5, subdivision (f), these provisions should include “an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.”

California Public Resources Code Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. PRC Section 5097.5 states the following:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Assembly Bill 52

AB 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts (PRC Section 21084.2). AB 52 defines a California Native American tribe as a Native American tribe located in California that is on the contact list maintained by the NAHC. AB 52 requires formal consultation with California Native American tribes prior to determining the level of environmental document if a tribe has requested to be informed of proposed projects by the lead agency. AB 52 also requires that consultation address project alternatives and mitigation measures for significant effects, if requested by the California Native American tribe, and that consultation be considered concluded when either party agrees to measures to mitigate or avoid a significant effect, or the agency concludes that mutual agreement cannot be reached. Under AB 52, such measures must be recommended for inclusion in the environmental document and adopted mitigation monitoring program if determined to avoid or lessen a significant impact on a tribal cultural resource. At the time of the Notice of Preparation for the EIR, the County had received one request from a tribe requesting consultation: the United Auburn Indian Community of the Auburn Rancheria (UAIC). The County sent a letter to the UAIC on December 31, 2015, requesting consultation. The UAIC responded to the County on February 8, 2016, requesting copies of any cultural reports prepared for the projects, but did not request formal consultation on any of the projects.

Local

Nevada County General Plan

The Cultural Resources Element of the General Plan contains policies considering prehistoric sites and historic sites and buildings. The following policies are those that apply to the proposed project.
Policy 19.6 Require all applications for discretionary project permits, and all applications for ministerial project permits except single family residences on individual lots shall be accompanied by a Site Sensitivity Literature Review, prepared by a qualified archaeologist or entity such as the North Central Information Center, Department of Anthropology, California State University at Sacramento. Where review indicates significant archaeological or historical sites or artifacts are, or are likely, present, on-site field review shall be required. If a site or artifacts are discovered, the find shall be evaluated and potential significance determined. If significant cultural resources may be directly or indirectly impacted by proposed development, appropriate mitigation shall be developed and implemented in accordance with California Environmental Quality Act standards, including Appendix K, prior to onset of ground disturbance. Avoidance of significant cultural resources shall be considered the mitigation priority. Excavation of such resources shall be considered only as a last resort when sufficient planning flexibility does not permit avoidance. On-site field review, evaluation of site significance, and development of mitigation measures, as identified above, shall be performed by a qualified professional archaeologist.

Policy 19.7 Cooperate with local historical societies and the Native American Indian community to protect significant historical, cultural and archaeological artifacts, improve access to and interpretation of unrestricted resources and archaeological history by involving them in the development review process.

Nevada County Land Use and Development Code

Section L-II 4.3.6 (Cultural Resources, Significant) requires certain development projects to initiate a North Central Information Center (NCIC) records search to determine the sensitivity of the site to contain cultural resources. If recommended by the NCIC, the applicant must retain a qualified professional to conduct a cultural resources study. If significant cultural resources are determined to be present or highly likely to be present the applicant must prepare a management plan consistent with this section outlining the proposed methods to manage on-site resources with preservation and avoidance considered first priority. If there is a high likelihood that Native American resources are present, a qualified Native American consultant shall be consulted on the preparation of the study.

Section L-II 4.3.6(C)(5) requires that project approval be conditioned to include a provision for cultural resources discovered during development construction. Any person who, in the process of project activities, discovers any cultural resources and/or human remains within the project area shall cease from all project activities within at least 200 feet of the discovery. A qualified professional shall be notified to assess any discoveries and develop appropriate management recommendations for cultural resource treatment. In the event that human remains are encountered, the sheriff-coroner shall be notified immediately upon discovery. In the event that Native American human remains are encountered, the NAHC or the most likely descendants of the buried individual(s) who are qualified to represent Native American interests shall be contacted. Specific treatment of Native American human remains shall occur consistent with state law.
7.0 CULTURAL RESOURCES

7.0.3 IMPACT METHODOLOGY

Standards of Significance

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance, which state that a project would have a significant cultural resources impact if it would:

1) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

3) Disturb any human remains, including those interred outside of formal cemeteries.

4) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

Methodology

The following impact analysis is based on the cultural resources reports prepared for each project site, which are in Appendix 7.0. The cultural resource investigations included a cultural resources records search of the NCIC; consultation with the NAHC; and a pedestrian survey of the study areas and areas proposed for off-site infrastructure.

7.1 ALTA SIERRA SITE

7.1.1 PROJECT-SPECIFIC SETTING

An Archaeological Inventory Survey dated June 23, 2014, was conducted for the Alta Sierra project site by Sean Michael Jensen (Jensen 2014; Appendix 7.0-A). Jensen also conducted a supplementary Archaeological Inventory Survey (dated May 1, 2016) for the off-site sewer improvements proposed as part of the Alta Sierra project (Jensen 2016; Appendix 7.0-B). The results of these surveys are summarized in the following discussion.

Records Search

The records of the NCIC were examined for existing recorded prehistoric and historic sites and previous archaeological surveys within or near the project site as well as the sewer improvement site. According to NCIC records, neither the project site nor the sewer improvement site have been subjected to past archaeological surveys. Likewise, no archaeological investigations have been conducted immediately adjacent to either site. Furthermore, no prehistoric or historic-era resources have been identified or recorded within or immediately adjacent to either site (Jensen 2014, 2016).

Native American Consultation

The NAHC was contacted and asked to supply information concerning sacred lands and to provide a list of interested Native American individuals/groups/tribes that could be contacted for information concerning traditional use areas and/or known archaeological sites. A letter was sent...
7.0 CULTURAL RESOURCES

to the NAHC on June 17, 2014. The NAHC responded on June 18, 2014, indicating that its search had “failed to indicate the presence of Native American cultural resources in the immediate project area.” As no prehistoric cultural resources were identified within the area of the project site and sewer improvement site, no additional consultation was conducted (Jensen 2014, 2016).

The County sent a request for consultation pursuant to AB 52 for all three Dollar General store projects to the UAIC on December 31, 2015, and received a response on March 30, 2016. The response requested copies of any archaeological reports and environmental documents. The County has received no further request for consultation from the UAIC.

On April 12, 2016, the County received a general request for consultation from the Washoe Tribe of Nevada and California. The Washoe Tribe’s ancestral land boundaries encompass the Alta Sierra site. The County sent a request for consultation pursuant to AB 52 for all three Dollar General store projects to the Washoe Tribe on June 21, 2016. To date, the Washoe Tribe has not responded.

Field Survey

Both the Alta Sierra project site and the associated septic site were subjected to intensive pedestrian survey by means of walking systematic, parallel transects across each parcel. Field work was undertaken at the Alta Sierra project site on June 21, 2014, and at the septic site on May 1, 2016. Fieldwork was conducted by a professional archaeologist who meets the Secretary of Interior’s Standards for Professional Qualification.

No evidence of prehistoric occupation or utilization was observed within either the project area or the septic site during the pedestrian surveys. The absence of such resources may best be explained by the absence of a suitable source of surface water within proximity and to the presence of more suitable habitation settings located along stream courses elsewhere in the vicinity. Similarly, no evidence of historic-era use or activity was observed on either site (Jensen 2014, 2016).

7.1.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Section 7.0.2, above.

7.1.3 IMPACTS AND MITIGATION MEASURES

Historical Resources (Standard of Significance 1)

Impact 7.1.1(AS) No historic properties would be affected by development of the Alta Sierra project site or septic site. (No Impact)

Based on the findings of the pedestrian-level surveys conducted for the project site and sewer improvement site, no historic properties are present within or adjacent to either site and no historic properties would be affected by implementation of the proposed project. No impact to historical resources would occur.

Mitigation Measures

None required.
Archaeological and Tribal Resources (Standards of Significance 2 and 4)

**Impact 7.1.2(AS)**  Ground-disturbing construction activities associated with development of the Alta Sierra project site or the associated septic site could inadvertently damage previously undiscovered archaeological or tribal cultural resources. *(Less than Significant with Mitigation Incorporated)*

The pedestrian surveys found no evidence of prehistoric occupation or utilization of the project site or the associated sewer improvement site. However, there is always the possibility that previously unidentified cultural materials could be encountered on or below the surface during construction activities. Therefore, this impact would be potentially significant.

Implementation of mitigation measure **MM AS-7.1.2** would reduce this impact to a less than significant level by ensuring that any previously unknown cultural resources discovered on the site during ground-disturbing activities are properly managed in accordance with local policy and state law.

**Mitigation Measures**

**MM AS-7.1.2**  In the event cultural materials or human remains are discovered during project construction, the construction contractor shall halt work and contact the appropriate agencies. All equipment operators and persons involved in any form of ground disturbance at any phase of project improvements shall be advised of the possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately within 200 feet of the suspected resource and the Nevada County Planning Department shall be contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for the project.

*Timing/Implementation:*  During construction activities

*Enforcement/Monitoring:*  Nevada County Planning Department

**Human Remains (Standard of Significance 3)**

**Impact 7.1.3(AS)**  Ground-disturbing construction activities associated with the proposed project could inadvertently disturb human remains, including Native American remains. Compliance with existing regulations would ensure proper treatment of any discovered human remains. *(Less than Significant with Mitigation Incorporated)*

The proposed project would include ground-disturbing construction activities that could result in the inadvertent disturbance of undiscovered human remains. Therefore, this impact would be potentially significant.
7.0 CULTURAL RESOURCES

Implementation of mitigation measure MM AS-7.1.2 would reduce this impact to a less than significant level by requiring proper management of any human remains discovered on the project site during construction in accordance with state law.

Mitigation Measures

Implement mitigation measure MM AS-7.1.2.

7.2 PENN VALLEY SITE

7.2.1 PROJECT-SPECIFIC SETTING

A Cultural Resources Inventory Report dated May 2016 was prepared for the Penn Valley project site by Dudek (Dudek 2016; Appendix 7.0-C). The results of the inventory are summarized in the following discussion.

Records Search

A records search was completed for the Penn Valley project site and a 1-mile radius around the site by staff at the NCIC at California State University, Sacramento on April 27, 2016. The records search identified 31 previous studies that have been performed within the records search area, two of which covered at least a portion of the project site. In total, approximately 90 percent of the project area has been previously surveyed. The records search also identified six cultural resources within the search area: a multi-component site consisting of a prehistoric artifact scatter with associated midden soil and the Pleasant Valley Cemetery; a prehistoric milling station; two prehistoric habitation sites; a prehistoric isolate; and an abandoned segment of an historic water conveyance system. None of these resources are located on or adjacent to the project site. Detailed information regarding these previous studies and the six identified cultural resources are provided in Appendix 7.0-C.


Field Survey

An intensive pedestrian survey was conducted over the entire project site on April 27, 2016, using standard archaeological procedures and techniques. No cultural resources or materials were identified during the survey. All natural and erosional subsurface exposures along the creek and rodent burrows were inspected. No indication of midden-like sediments was observed to be present. No bedrock is present within the site or surrounding vicinity, and the area was likely subject to reoccurring historic flooding, indicating that the site would have been a less desirable location for prehistoric use than nearby surrounding locations. Based on these negative findings and the natural setting relative to the surrounding terrain, Dudek concluded that yet-unidentified archaeological material or deposits are relatively unlikely to be encountered within the site.

Native American Consultation

The NAHC was contacted by Dudek on March 31, 2016, to request a search of the sacred lands file. The NAHC responded on April 1, 2016, indicating that the search failed to identify any Native American resources in the vicinity of the project and provided a list of individuals and organizations to contact that may have additional information. Letters were sent on April 29, 2016, to each of these contacts to request information on resources in the area; however, no responses were
received. Follow-up phone calls were made on May 4, 2016. No responses had been received as of the date of this writing (Dudek 2016).

The County sent a request for consultation pursuant to AB 52 for all three Dollar General store projects to the UAIC on December 31, 2015, and received a response on March 30, 2016. The response requested copies of any archaeological reports and environmental documents. The County has received no further request for consultation from the UAIC.

On April 12, 2016, the County received a general request for consultation from the Washoe Tribe of Nevada and California. The Washoe Tribe’s ancestral land boundaries do not encompass the Penn Valley site. The County sent a request for consultation pursuant to AB 52 for all three Dollar General store projects to the Washoe Tribe on June 21, 2016. To date, the Washoe Tribe has not responded.

7.2.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Penn Valley site other than those described in Section 7.0.2, above. The Penn Valley Area Plan does not contain any policies related to cultural resources.

7.2.3 IMPACTS AND MITIGATION MEASURES

Historical Resources (Standard of Significance 1)

Impact 7.2.1(PV) No historic properties would be affected by development of the Penn Valley project site. (No Impact)

As described previously, the project has remained undeveloped throughout its history and does not contain any structures or remnants of previous structures that could be considered historically significant. Based on the records search and cultural pedestrian survey performed for the project, Dudek (2016) concluded that implementation of the proposed project would not affect any historic properties. Therefore, there would be no impact.

Mitigation Measures

None required.

Archaeological and Tribal Resources (Standards of Significance 2 and 4)

Impact 7.2.2(PV) Ground-disturbing construction activities associated with development of the Penn Valley project site could inadvertently damage previously undiscovered archaeological and tribal resources. (Less than Significant with Mitigation Incorporated)

As described previously, the NCIC records search, NAHC sacred lands file searches, and cultural pedestrian survey conducted by Dudek (2016) did not indicate that cultural resources are present on the project site. Dudek thus concluded that there is a very low potential for the inadvertent discovery of intact cultural deposits during earthmoving activities. Nonetheless, there is always the possibility that previously unidentified cultural materials could be encountered on or below the surface during construction activities. Therefore, this impact would be potentially significant.
Implementation of mitigation measure **MM PV-7.2.2** would reduce this impact to a **less than significant** level by ensuring that any previously unknown cultural resources discovered on the site during ground-disturbing activities are properly managed in accordance with local policy and state law.

**Mitigation Measures**

**MM PV-7.2.2** In the event cultural materials or human remains are discovered during project construction, the construction contractor shall halt work and contact the appropriate agencies. All equipment operators and persons involved in any form of ground disturbance at any phase of project improvements shall be advised of the possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately within 200 feet of the suspected resource and the Nevada County Planning Department shall be contacted. A professional archaeologist shall be retained by the developer and consulted to assess any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for the project.

**Timing/Implementation:** During project construction

**Enforcement/Monitoring:** Nevada County Planning Department

**Human Remains (Standard of Significance 3)**

**Impact 7.2.3**(PV) Ground-disturbing construction activities associated with development of the Penn Valley project site could inadvertently disturb human remains. Compliance with existing regulations would ensure proper management of any discovered human remains. **(Less than Significant with Mitigation Incorporated)**

The proposed project would include ground-disturbing construction activities that could result in the inadvertent disturbance of undiscovered human remains. Therefore, this impact would be **potentially significant**.

Implementation of mitigation measure **MM PV-7.2.2** would reduce this impact to a **less than significant** level by requiring proper management of any human remains discovered on the project site during construction in accordance with state law.

**Mitigation Measures**

Implement mitigation measure **MM PV-7.2.2**.
7.3 ROUGH AND READY HIGHWAY SITE

7.3.1 PROJECT-SPECIFIC SETTING

An Archaeological Survey Report dated April 2015 was conducted for the Rough and Ready Highway project site by NCR Consulting. In addition, the existing building on the site was evaluated for potential historical significance by J & R Environmental Services (dated May 2016). These reports are provided as Appendix 7.0-D and Appendix 7.0-E, respectively, to this document and are summarized in the following discussion.

Site Conditions

The project site contains one existing commercial building constructed in 1944. Based on County Assessor Records, in 1960, significant improvements were made to the building. In 1963, one side of the building was being used as a cafe with the other side being used either for storage or a mechanic shop. In 1988, it appears that the building was converted into a bar. The building is currently used for jewelry sales and repair.

The building has a rectangular footprint resting on a concrete slab. The shed-type shaped roof has a parapet roofline and is covered with sheets of galvanized sheet metal which appears to be a recent addition. A short pent-type porch cover extends the length of the façade. It is covered with heavy shakes. The exterior walls are clad in rough-textured stucco over wood framing. The exterior wall of the façade is covered with sheets of TDX wood siding. The window piecings, only on the façade, are filled with both vertical and horizontal vinyl sliding windows. Pedestrian entryways are located on the asymmetrical façade behind security screen doors. A third pedestrian entryway is located on the east elevation of the building. There appears to be a shed-type addition located on the west end of the rear elevation. The roof of this addition is covered with rolled-asphalt paper. Modifications to this building include replacement of original windows on the façade with vinyl windows, re-roofing the roof with galvanized sheet metal, security screens, and the addition of the shed-type addition on the rear elevation of the building. Finally, a floor-mounted central air conditioner is located at the rear of the building.

Records Search

A search of the sacred lands file by the staff of the NAHC (dated February 5, 2015) did not indicate the presence of Native American cultural resources in the immediate study area.

Field Survey

NCR Consulting performed an intensive-level investigation of the Rough and Ready Highway project site on January 23, 2015. The survey consisted of examining areas of distinct landform characteristics, exposed soils, soil and vegetation pattern variation, non-native plants and unique features or remnants of features.

No distinct historic or prehistoric archaeological objects, features, or sites that warrant recordation or further research were observed during the field investigation (NCR Consulting 2015).

Native American Consultation

The NAHC provided a list of local Native American individuals and groups which may have interest in the project site and the proposed development. NCR Consulting initiated consultation efforts
by letter (dated January 27, 2015, and February 5, 2015) with the individuals provided. As of April 2015, there had been no responses.

The County sent a request for consultation pursuant to AB 52 for all three Dollar General store projects to the UAIC on December 31, 2015, and received a response on March 30, 2016. The response requested copies of any archaeological reports and environmental documents. The County received no further request for consultation from the UAIC.

On April 12, 2016, the County received a general request for consultation from the Washoe Tribe of Nevada and California. The Washoe Tribe’s ancestral land boundaries encompass the Rough and Ready Highway site. The County sent a request for consultation pursuant to AB 52 for all three Dollar General store projects to the Washoe Tribe on June 21, 2016. To date, the Washoe Tribe has not responded.

7.3.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Section 7.0.2, above.

7.3.3 IMPACTS AND MITIGATION MEASURES

Historical Resources (Standard of Significance 1)

Impact 7.3.1(RR) The existing building on the Rough and Ready Highway project site has been extensively modified and does not meet any of the criteria for listing as a significant historical resource. (Less than Significant)

The historical evaluation of the existing building on the Rough and Ready Highway site (J & R Environmental Services 2016) determined that, based on the modifications that have been made to the building, it appears to have poor historical integrity. It also appears to lack integrity of materials, workmanship, association, and design. Although there are no known photographs of the original building, in all likelihood the exterior walls were clad in wood. Today, the walls are clad in stucco on three sides with the façade being covered with TDX wood siding. Furthermore, all of the original windows have been replaced with vinyl vertical and horizontal sliders. The original functions of the two-unit building were completely altered in 1988 when the building was converted into a bar.

Based on the preceding discussion, the building is not unlike a number of businesses that were constructed along Rough and Ready Highway during the mid-twentieth century. Consequently, the building does not appear to be associated with important events at the local, regional, or state levels. Thus, J & R Environmental Services concluded that this building does not appear to be eligible for either the National Register or the California Register under Criterion A.1 (association with significant events). Furthermore, archival research performed as part of the historical evaluation failed to identify any important individual associated with the commercial building dating to its period of significance. Therefore, this building is not eligible for the National Register or the California Register under Criterion B.2 (association with significant persons).

J & R Environmental Services further concluded that the building does not embody those characteristics associated with a type, period, or method of construction related to a particular master craftsman, nor does the property reflect high style architecture. Thus, the building does not appear to be eligible for the National Register or the California Register under Criterion C.3 (architectural form or style). Finally, the building does not appear to be eligible under Criterion D.4
(information potential), because any research potential can be gleaned from archival research (J & R Environmental Services 2016).

Given the conclusions of the historical evaluation completed by J & R Environmental Services, the existing building on the Rough and Ready Highway project site does not meet any of the criteria for eligibility for the National Register or the California Register. Therefore, demolition of this building as proposed by the project would be considered a less than significant impact.

Mitigation Measures

None required.

Archaeological and Tribal Resources (Standards of Significance 2 and 4)

Impact 7.3.2(RR)  Ground-disturbing construction activities associated with development of the Rough and Ready Highway project site could inadvertently damage previously undiscovered archaeological and tribal resources. (Less than Significant)

NCR Consulting determined that no cultural resources are present on the surface of the Rough and Ready Highway project site. However, there is always the possibility that previously unidentified cultural materials could be encountered on or below the surface during the course of future construction activities. Therefore, this impact would be potentially significant.

Implementation of mitigation measure MM RR-7.3.2 would reduce this impact to a less than significant level by ensuring that any previously unknown cultural resources discovered on the site during ground-disturbing activities are properly managed in accordance with local policy and state law.

Mitigation Measures

MM RR-7.3.2  In the event cultural materials or human remains are discovered during project construction, the construction contractor shall halt work and contact the appropriate agencies. All equipment operators and persons involved in any form of ground disturbance at any phase of project improvements shall be advised of the possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately within 200 feet of the suspected resource e and the Nevada County Planning Department shall be contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for the project.

Timing/Implementation:  During project construction

Enforcement/Monitoring:  Nevada County Planning Department
7.0 CULTURAL RESOURCES

Human Remains (Standard of Significance 3)

Impact 7.3.3(RR) Ground-disturbing construction activities associated with development of the Rough and Ready Highway project site could inadvertently disturb human remains. Compliance with existing regulations would ensure proper management of any discovered human remains. (Less than Significant with Mitigation Incorporated)

Implementation of the proposed project would include ground-disturbing construction activities that could result in the inadvertent disturbance of currently undiscovered human remains. Therefore, this impact would be potentially significant.

Implementation of mitigation measure MM RR-7.3.2 would reduce this impact to a less than significant level by requiring proper management of any human remains discovered on the project site during construction in accordance with state law.

Mitigation Measures

Implementation mitigation measure MM RR-7.3.2.

7.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative analysis for impacts to cultural resources considers a broad cultural and regional system of which the resources are a part. The cumulative context for the cultural resources analysis for the proposed project includes Nevada County.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Cultural Resource Impacts

Impact 7.4.1 Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative cultural resource impacts. The proposed projects’ incremental contribution would be less than cumulatively considerable.

As described previously in this section, the region is thought to have been occupied for the past 11,000 to 12,000 years and contains numerous known and unknown significant historic and archaeological resources. Cumulative development in the region would have the potential to disturb these resources as existing structures are demolished and sites are graded in preparation for new development. Compliance with existing state and local regulations would reduce this impact by requiring pre-development evaluations and standard discovery mitigation. However, these regulations cannot ensure preservation of all resources in the region. Therefore, this cumulative impact would be potentially significant.

As described above, the proposed projects would not result in any significant impacts to significant historical resources. Both the Alta Sierra and the Penn Valley project sites are vacant, and the existing building on the Rough and Ready Highway site has been determined not to be historically significant. Furthermore, compliance with existing state and local regulations would
ensure that any resources discovered during ground-disturbing construction activities would be managed properly and in coordination with the County, the NAHC, and local tribes, as appropriate. Therefore, the proposed project's contribution to this potentially significant cumulative impact would be less than cumulatively considerable.

Mitigation Measures

None required.
7.0 CULTURAL RESOURCES

REFERENCES

Dudek. 2016. Cultural Resources Inventory Report for the Penn Valley Drive Project, Nevada County, California.


Jensen, Sean Michael, MA. 2014. Archaeological Inventory Survey Alta Sierra Development Project, One-acre, Nevada County, California.

———. 2016. Archaeological Inventory Survey Dollar General Septic Extension Project, One-acre, Nevada County, California.

8.0 Geology and Soils
This section describes the current geologic and soil conditions at each of the Dollar General project sites and analyzes issues related to geology and soils. Geotechnical studies have been prepared for each site, which include direct observation, soil borings, and laboratory testing of soil samples (Holdrege and Kull 2014b, 2015b, 2015c; see Appendices 8.0-A through 8.0-C). The information and recommendations from each report have been incorporated into the setting and impact analysis for each site. This section also addresses mineral resources and paleontological resources.

8.0 General Environmental Conditions and Regulations

The following description of regional environmental conditions and applicable regulations, policies, and standards applies to each of the project sites.

8.0.1 Regional Environmental Setting

Geology

The project sites are located in the Sierra Nevada foothills, along the western edge of the Sierra Nevada geomorphic province. High elevations in this area are predominantly granitic and metamorphic rocks which transition into the low foothills, terraces, and alluvial-filled valleys in the Central Valley geomorphic province. Bedrock units that dip west toward the Central Valley characterize the area. Cenozoic era (up to 65 million years old) sedimentary rocks, volcanic mudflow deposits, and young sediments comprise the uppermost 4,000 feet of Central Valley fill.

The Sierra Nevada region, like most of California, is a seismically active region. Seismicity is due to complex regional tectonic processes that include movement along major crustal plates and uplift and volcanism in the Sierra Nevada rock. The Foothills fault system, a major zone faulting in basement rock in the western Sierra Nevada, is the major regional geologic feature in the area. It was formed during the Mesozoic era (225 to 65 million years ago) in response to the deformation in the Sierra Nevada.

The Alquist-Priolo Earthquake Fault Zone Map prepared by the California Geological Survey indicates that the project sites are not located within any designated Alquist-Priolo Earthquake Fault Zones. Each project site is within the Foothills fault system, which is designated as a Type C fault zone, with low seismicity and a low rate of recurrence. The risk of seismically induced hazards such as slope instability, liquefaction, and surface rupture at the three sites is remote (Holdrege and Kull 2014b, 2015b, 2015c).

The Foothills fault system is capable of producing an earthquake with a maximum magnitude 6.5. The closest known active fault that has surface displacement within Holocene time (about the last 11,000 years) is the Cleveland Hill fault, which is part of the Foothills fault system. The fault is over 20 miles northwest of the project sites.

Several historic earthquakes have produced noticeable ground shaking in the Sierra Nevada foothills region. In 1975, a magnitude 6.2 earthquake occurred on the Cleveland Hill fault. The event was strongly felt in the Grass Valley/Penn Valley area; however, no major damage or injuries were reported (Holdrege and Kull 2015b, 2015c).

Mineral Resources

The State Geologist has classified aggregate resources in Nevada County into mineral resource zones (MRZs) in accordance with the State Mining and Reclamation Act. The MRZ-2 classification is defined as an area where adequate information indicates significant mineral deposits are
8.0 GEOLGY AND SOILS

present, or where it is judged that a high likelihood for their presence exists. None of the project sites is located in an area mapped as MRZ-2 for any mineral commodity (Loyd and Clinkenbeard 1990: Plate 2a).

Paleontological Resources

Paleontological resources are fossilized remains of vertebrate and invertebrate organisms, fossil tracks and trackways, and plant fossils. Rock formations that yield significant vertebrate or invertebrate fossil remains are considered to have paleontological sensitivity. The project sites are generally underlain by igneous and metamorphic bedrock, which have low potential to contain fossils.

8.0.2 REGULATORY FRAMEWORK

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 (originally enacted as the Alquist-Priolo Special Studies Zones Act and renamed in 1994) and is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. There are no earthquake fault zones subject to the Alquist-Priolo Earthquake Fault Zoning Act in the area of the project sites (Holdrege and Kull 2014b, 2015b, 2015c).

California Building Standards Code

The state of California provides minimum standards for building design through the California Building Standards Code (CBSC [California Code of Regulations, Title 24]). The CBSC is based on the Uniform Building Code (UBC), which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and was modified for conditions in California. State regulations and engineering standards related to geology, soils, and seismic activity are reflected in the CBSC requirements. Through the CBSC, the state of California provides a minimum standard for building design and construction. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control.

Geotechnical investigation is required by Chapter 18, Section 1803.2 of the CBSC, which would apply to the proposed project. Per Section 1803.3, the geotechnical investigations are required to be based on observation and any necessary tests of the materials disclosed by borings, test pits, or other subsurface exploration. The geotechnical investigations are also required to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on soil-bearing capacity, compressibility, liquefaction, and expansiveness. Section 1803.6(5) requires that the geotechnical investigations include recommendations for foundation type and design criteria, including but not limited to: bearing capacity of natural or compacted soil; provisions to mitigate the effects of expansive soils; mitigation of the effects of liquefaction, differential settlement, and varying soil strength; and the effects of adjacent loads.

The County enforces the CBSC through the County Building Code (Nevada County Land Use and Development Code, Chapter V).
General Construction Activity Stormwater Permit

The State Water Resources Control Board (SWRCB) has adopted a General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) (CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order 2012-0006-DWQ). The General Permit applies to any construction activity affecting 1 acre or more. While the focus of the permit is to minimize the potential effects of construction runoff on receiving water quality, erosion control is a key element of permit requirements. The permit requires preparation of a stormwater pollution prevention plan (SWPPP) that identifies best management practices (BMPs) describing erosion control measures. Examples of typical construction BMPs to address erosion include using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils. Section 11.0, Hydrology and Water Quality, describes the permit in greater detail.

Local

Nevada County General Plan

The Safety and Soils elements of the General Plan contain the following policies (or relevant excerpts thereof) concerning geologic/soil hazards and erosion:

- **Policy GH-10.2.1** Ensure that new construction meets current structural and safety standards.

- **Policy GH-10.2.2** The project review shall consider the need to mitigate development in such areas in accordance with federal, state and local standards. As part of the project site review process, require sufficient soils and geologic investigations to identify and evaluate the various geologic and seismic hazards that may exist for all proposed development, including subdivisions. Such investigations shall be required within an area determined to be seismically active by the State Department of Conservation – California Geological Survey, or within an area having potential geologic hazards, including slope instability and excessive erosion.

- **Policy GH-10.2.1.3** Carry out the requirements of the California Building Code, particularly with regard to seismic design.

- **Policy GH-10.2.1.4** Require that underground utility lines, particularly water and natural gas mains, be designed to withstand seismic forces.

- **Policy 12.1** Enforce Grading Ordinance provisions for erosion control on all new development projects by adopting provisions for ongoing monitoring of project grading. Project site inspection shall be required prior to initial site disturbance and grading to ensure all necessary control measures, including proper staking and tree protection measures, are in place. The installation, maintenance, and performance of erosion and sedimentation control measures shall be monitored by County or District staff (or their designee) and completely funded by a project applicant. All County projects shall comply with this policy.

- **Policy 12.4** Require erosion control measures as an element of all County contracts, discretionary projects, and ministerial projects.
Nevada County Land Use and Development Code

Chapter V, Article 19 – Grading

The Nevada County Land Use and Development Code, Chapter V, Article 19, sets forth rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments; establishes standards of required performance in preventing or minimizing water quality impacts from stormwater runoff; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction, drainage, and erosion and sediment controls at construction sites.

Chapter II, Article 4 – Steep Slopes/High Erosion Potential

The Nevada County Land Use and Development Code, Chapter II, Article 4.0, Section L-II 4.3.13 includes standards to preserve the natural, topographic, and aesthetic characteristics of steep slopes. Standards are also included to minimize soil erosion, water quality impacts, earth movement and disturbance, and the adverse impact of grading activities, while providing for reasonable use of private property. The standards include requirements for grading permits, limited development on steep slopes, and an erosion and sediment control plan.

Chapter VI, Article I – Sewage Disposal

The Nevada County Land Use and Development Code, Chapter VI, Article I, Sections L-VI 1.1 et seq. regulate the installation and operation of septic systems in the county. On-site septic systems require a county permit. Soil testing is required, and a site approval report must be submitted to the county before a sewage disposal system permit application for a new installation can be submitted. Property owners are required to monitor and maintain the system.

8.0.3 Impact Methodology

Standards of Significance

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance, which state that a project would have a significant impact on geology and soils if it would:

1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:

   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to California Geological Survey (formerly Division of Mines and Geology) Special Publication 42.

   ii) Strong seismic ground shaking.

   iii) Seismic-related ground failure, including liquefaction.

   iv) Landslides.

2) Result in substantial soil erosion or the loss of topsoil.
3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

4) Be located on expansive soil, as defined in Section 1803.5.3 of the 2013 California Building Code, creating substantial risks to life or property.

5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

6) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

7) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Methodology

Geotechnical studies have been prepared for each of the sites, which include direct observation, soil borings, and laboratory testing of soil samples. The information and recommendations from each report has been incorporated into the setting and impact analysis for each site.

Thresholds Not Evaluated

There are no Alquist-Priolo Earthquake Fault Zones at any of the sites, and the geotechnical studies did not find any evidence of other conditions that would result in fault rupture. There would be no impact relative to Standard of Significance 1-i, and this impact is not further evaluated for any of the project sites.

The Penn Valley site would connect to the existing force main within Penn Valley Drive adjacent to the site, which is operated by the Nevada County Sanitation District 1, and conveyed to the Lake Wildwood Wastewater Treatment Plant for further treatment and disposal. There would be no impact related to septic systems for the Penn Valley site relative to Standard of Significance 5, and this impact is not further evaluated for this site.

The project sites are not located in areas that are known to contain significant mineral deposits (i.e., MRZ-2). The potential for paleontological resources is low because of the presence of bedrock. There would be no impact on mineral resources or paleontological resources relative to Standards of Significance 6 and 7, respectively, and these impacts are not further evaluated for any of the project sites.

8.1 Alta Sierra Site

8.1.1 Project-Specific Setting

The Alta Sierra site consists of three parcels, one of which would be the location of the proposed Dollar General store and associated parking, drainage, lighting, and landscaping improvements (APN 25-430-08), and two of which would be the location of an off-site septic system (APNs 25-430-10 and -12). The store parcel is undeveloped, and the two off-site parcels are developed with commercial and office uses. All parcels slope to the southwest and southeast, with slopes ranging
from 10 to 25 percent. Drainage is to the southwest and southeast and occurs via channels and swales that indicate seasonal flow of water. Groundwater was not observed in borings or trenches, but saturated soil conditions and groundwater could be encountered in areas of soil/rock transition, and groundwater seepage may be encountered in areas proposed for deeper excavation.

The project site is generally underlain by Paleozoic-age metavolcanic rocks. Surface soils consist of sandy silt, which overlies gravel and highly weathered metavolcanic rock composed of 8- to 10-inch cobbles and boulders up to 35 inches in diameter. Soils at the project site are the Secca-Rock outcrop complex, which is characterized by medium to rapid runoff with slow permeability. These soils generally have a high shrink-swell potential because of their clay content (USDA 1993). The native soil conditions have a mild to moderate corrosion potential for uncoated steel and concrete. Fill and disturbed soil that varied in depth is present on-site.

The primary geotechnical issue for this site is the presence of weathered, fractured metavolcanic rock, which could require splitting, hammering, or blasting to increase the rate of excavation. Fill and disturbed soil is present in some locations. The fill could contain significant rock fragments. However, none of the geologic and soils conditions at the site pose substantial constraints to development, provided the recommendations in the geotechnical report are implemented (Holdrege and Kull 2014b).

8.1.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Alta Vista site other than those described in Section 8.0.2, above.

8.1.3 IMPACTS AND MITIGATION MEASURES

Ground Shaking and Related Hazards (Standard of Significance 1)

Impact 8.1.1(AS) The Alta Sierra project site is located in an area that would be subject to seismic hazards. (Less than Significant with Mitigation Incorporated)

The Alta Sierra site is within the Foothills fault system, which is designated as a Type C fault zone, with low seismicity and a low rate of recurrence. It is not expected the site would be subject to strong ground shaking, but there is the potential that the site could be exposed to some amount of ground shaking from earthquakes on distant faults (Holdrege and Kull 2014b). If not properly designed and constructed in accordance with local and state standards and the recommendations of a site-specific geotechnical study, the site could be affected by seismic ground shaking and seismic-induced ground failure, including liquefaction and landslides. This is a potentially significant impact.

Compliance with existing regulations and implementation of mitigation measures MM AS-8.1.1a and MM AS-8.1.1b would reduce this impact to less than significant by ensuring project plans comply with existing standards and the recommendations of a site-specific geotechnical engineering report.

Mitigation Measures

MM AS-8.1.1a Prior to grading permit issuance, the project applicant shall provide a final Geotechnical Engineering Report to the Nevada County Building and Planning Departments that reflects the final site plan. The Building Department shall be
responsible for reviewing the final site plan and final Geotechnical Engineering Report to ensure that they are consistent with both local and building code requirements.

**Timing/Implementation:** Prior to grading permit issuance

**Enforcement/Monitoring:** Nevada County Building Department and Planning Department

**MM AS-8.1.1b**

Prior to grading or building permit issuance, the developer shall include the grading and structural improvement design criteria recommendations of the Final Geotechnical Engineering Report as noted on improvement plans and incorporate those recommended actions into the final project design. The Nevada County Building Department shall verify that the recommendations are being implemented during the plan review and inspection stages of the permit process.

**Timing/Implementation:** Prior to improvement plan approval

**Enforcement/Monitoring:** Nevada County Building Department and Planning Department

**Soil Erosion and Slope Stability (Standards of Significance 2 and 3)**

**Impact 8.1.2(AS)** Development of the Alta Sierra site could result in temporary erosion. *(Less than Significant with Mitigation Incorporated)*

The Alta Sierra site slopes southwest and southeast at approximately 10 to 25 percent. Surface soils are primarily silty sand, with gravel and rock at shallow depths. Grading, excavation, removal of vegetation cover, and loading activities associated with construction at the Alta Sierra site could temporarily increase soil erosion by water or wind. This is a potentially significant impact.

However, in accordance with existing regulations and as required by mitigation measure MM AS-8.1.2b, a SWPPP would be developed by a qualified engineer or erosion control specialist before construction and BMPs would be implemented throughout and following construction, as appropriate. The SWPPP would include details of how the sediment and erosion control practices (i.e., BMPs) would be implemented. In addition to the SWPPP, the applicant would be required to comply with Chapter V, Article 19 (Grading) and Chapter 11, Article 4 (Steep Slopes/High Erosion Potential) of the County’s Land Use and Development Code.

Recommendations in the geotechnical report (Holdrege and Kull 2014b) pertaining to general site preparation would also be implemented (see mitigation measure MM AS-8.1.1b). This would include recommendations concerning clearing and grubbing, soil preparation, fill placement, fill slope grading, and erosion control, further reducing impacts. For example, permanent cut slopes up to 17 feet in height with 13 feet of fill are proposed at this site. The cut slopes would be retained by a series of retaining walls. The geotechnical report recommended that permanent cut slopes should not be steeper than 1.5:1, horizontal to vertical (H:V). The upper 2 feet of all cut slopes should be graded to an approximate 2:1, H:V, slope to reduce sloughing and erosion of looser surface soil. Section 5.1.9 of the geotechnical report describes erosion control measures that should be implemented.
After construction, the site would be covered by a building, parking lot, and hardscaping and landscaping, which would minimize the potential for long-term or permanent erosion. Cut slopes would be stabilized in accordance with the geotechnical report, which would reduce the potential for the slopes to be subject to erosion. However, compliance with existing regulations and recommendations from the project-specific geotechnical report as well as implementation of mitigation measures MM AS-8.1.2a and MM AS-8.1.2b would ensure impacts related to erosion would be reduced to less than significant.

**Mitigation Measures**

**MM AS-8.1.2a**  
Prior to issuance of grading permits, all grading and improvement plans shall include a note documenting the approved time of year for grading activities. Specifically, no grading shall occur after October 15 or before May 1 unless standard Building Department requirements are met for grading during the wet season.

*Timing/Implementation: Prior to grading permit issuance*

*Enforcement/Monitoring: Nevada County Building Department*

**MM AS-8.1.2b**  
Prior to issuance of grading permits or improvement plans for all project-related grading including road construction and drainage improvements, all plans shall incorporate, at a minimum, the following erosion and sediment control measures, which shall be implemented throughout the construction phase:

1. During construction, Best Management Practices (BMPs) for temporary erosion control shall be implemented to control any pollutants that could potentially affect the quality of storm water discharges from the site. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in accordance with California State Water Resources Control Board (SWRCB) requirements. The SWPPP shall include the implementation of BMPs for Erosion Control, Sediment Control, Tracking Control, Wind Erosion Control, Waste Management and Materials Pollution Control and shall be provided to the Nevada County Planning, Building and Public Works Departments prior to issuance of grading permits or approval of improvement plans.

2. Topsoil that will be used as fill material shall be removed and stockpiled for later reuse prior to excavation activities. Topsoil shall be identified by the soil-revegetation specialist who will identify both extent and depth of the topsoil to be removed.

3. Upon completion of grading, stockpiled topsoil shall be combined with wood chips, compost and other soil amendments for placement on all graded areas. Revegetation shall consist of native seed mixes only. The primary objectives of the soil amendments and revegetation is to create site conditions that keep sediment on site, produce a stable soil surface, resist erosion and are similar to the surrounding native ecosystem.

4. Geo-fabrics, jutes or other mats may be used in conjunction with revegetation and soil stabilization.

*Timing/Implementation: Prior to grading permit issuance*

*Enforcement/Monitoring: Nevada County Building Department*
Expansive or Unstable Soils (Standards of Significance 3 and 4)

**Impact 8.1.3(AS)** The Alta Sierra site may include soils that may be subject to expansion potential. *(Less than Significant with Mitigation Incorporated)*

Expansive soils are those soils that shrink or swell depending on the level of moisture they absorb. Expansive soils typically contain clay minerals that determine the ability of the soil to absorb and retain moisture. When structures are located on expansive soils, foundations have the tendency to rise during the wet season and sink during the dry season. This movement can create new stresses on various sections of the foundation and connected utilities and can lead to structural failure and damage to infrastructure. The Secca Rock outcrop complex soils are generally considered expansive, which could pose a hazard. The geotechnical report includes soil management recommendations such as mixing expansive soil with granular soil, and/or using excavated expansive soil only in landscape areas. The presence of fill and disturbed soils at variable depths could result in differential settlement-induced structural distress beneath structures. Section 5.1.6 of the geotechnical report includes several recommendations for mitigating the potential hazards associated with fill materials, such as overexcavation, compaction, and recompaction, and additional testing to confirm soil stability for footings and structures. With implementation of the recommendations in the geotechnical report (Holdrege and Kull 2015), as required by mitigation measures MM AS-8.1.1a and MM AS-8.1.1b, potential soil hazards would not result in substantial hazards at the site due to soil expansion. Impacts would be less than significant.

**Mitigation Measures**

Implement mitigation measures MM AS-8.1.1a and MM AS-8.1.1b.

Septic Systems (Standard of Significance 5)

**Impact 8.1.4(AS)** The Alta Sierra site may have soils incapable of supporting a septic system. *(Less than Significant)*

Wastewater treatment and disposal would be provided through a septic system located on-site and on two off-site parcels to the north. The septic tank and pump/dosing tank would be located on the store parcel (APN 25-430-08); the septic tight line would run from the tanks through APN 25-430-10 immediately north; the tight line would then run north to the leach field located on APN 25-430-12. Septic testing (perc and mantle) has been completed. Soils have been tested for off-site sewage disposal and found to be adequate for a Minimum Useable Sewage Disposal Area (MUSDA), which has been established exclusive of the existing systems on APNs 25-430-10 and -12, which serve the commercial uses on those properties (Holdrege and Kull 2014a, 2015a). If the project is approved, the current owner of the three Alta Sierra project parcels would be required to record a declaration that he would provide an easement across the off-site parcels for the benefit of the store site. This requirement would be a condition of project approval. A letter of intent to record said easement has been provided (CJS Development 2015). Impacts would be less than significant.

**Mitigation Measures**

None required.
8.2 Penn Valley Site

8.2.1 Project-Specific Setting

The Penn Valley site is undeveloped and slopes gently toward the south central portion of the property, where there is a small wetland. Potentially shallow, seasonal groundwater and saturated soil conditions are present. Groundwater was not observed but saturated soil conditions and groundwater could be encountered in areas of soil/rock transition, particularly during or after the rainy season.

The project site is generally underlain by Jurassic-age gabbroic rocks associated with the Smartville complex. Surface soils consist of alluvial land, loamy, which is characterized by moderate runoff and variable shrink-swell potential (USDA 1993). Subsurface soils are dense silty sand with high organic content. Weathered granitic rock is approximately 40 to 80 inches below the ground surface.

The primary geotechnical issue for the Penn Valley site is the potential for near-surface seasonal groundwater and saturated soil conditions. However, this condition does not pose a substantial constraint to development, provided the recommendations in the geotechnical report are implemented (Holdrege and Kull 2015b).

8.2.2 Regulatory Framework

There are no additional regulations, policies, or standards that pertain to the Penn Valley site other than those described in Section 8.0.2, above.

8.2.3 Impacts and Mitigation Measures

Ground Shaking and Related Hazards (Standard of Significance 1)

Impact 8.2.1(PV) The Penn Valley project site is located in an area that would be subject to seismic hazards. (Less than Significant with Mitigation Incorporated)

The Penn Valley site is within the Foothills fault system, which is designated as a Type C fault zone, with low seismicity and a low rate of recurrence. It is not expected the site would be subject to strong ground shaking, but there is the potential that the site could be exposed to some amount of ground shaking from earthquakes on distant faults (Holdrege and Kull 2015b). If not properly designed and constructed in accordance with local and state standards and the recommendations of a site-specific geotechnical study, the site could be affected by seismic ground shaking and seismic-induced ground failure including liquefaction. This is a potentially significant impact.

Compliance with existing regulations and implementation of mitigation measures MM PV-8.2.1a and MM PV-8.2.1b would reduce this impact to less than significant by ensuring project plans comply with existing standards and the recommendations of a site-specific geotechnical engineering report.

Mitigation Measures

MM PV-8.2.1a Prior to grading permit issuance, the project applicant shall provide a final Geotechnical Engineering Report to the Nevada County Building and Planning
Departments that reflects the final site plan. The Building Department shall be responsible for reviewing the final site plan and final Geotechnical Engineering Report to ensure that they are consistent with both local and building code requirements.

Timing/Implementation: Prior to grading permit issuance

Enforcement/Monitoring: Nevada County Building Department and Planning Department

MM PV-8.2.1b

Prior to grading or building permit issuance, the developer shall include the grading and structural improvement design criteria recommendations of the Final Geotechnical Engineering Report as notes on improvement plans and incorporate those recommended actions into the final project design. The Nevada County Building Department shall verify that the recommendations are being implemented during the plan review and inspection stages of the permit process.

Timing/Implementation: Prior to improvement plan approval

Enforcement/Monitoring: Nevada County Building Department and Planning Department

Soil Erosion and Slope Stability (Standards of Significance 2 and 3)

Impact 8.2.2(PV) Development of the Penn Valley site could result in temporary erosion. (Less than Significant with Mitigation Incorporated)

The Penn Valley site is undeveloped and gently slopes toward the south central portion of the property. Soils are primarily sand and silty sand. Grading, excavation, removal of vegetation cover, and loading activities associated with construction at the Penn Valley site could temporarily increase soil erosion by water or wind. This is a potentially significant impact.

However, in accordance with existing regulations and as required by mitigation measure MM PV-8.2.2b, a SWPPP would be developed by a qualified engineer or erosion control specialist before construction and BMPs would be implemented throughout and following construction, as appropriate. The SWPPP would include details of how the sediment and erosion control practices (i.e., BMPs) would be implemented. In addition to the SWPPP, the applicant would be required to comply with Chapter V, Article 19 (Grading) of the County’s Land Use and Development Code.

Recommendations in the geotechnical report (Holdrege and Kull 2015b) pertaining to general site preparation would also be implemented (see mitigation measure MM PV-8.2.1b). This would include recommendations concerning clearing and grubbing, soil preparation, fill placement, fill slope grading, and erosion control, further reducing impacts. Significant cut slopes are not proposed at this site. The geotechnical report recommended the upper 2 feet of all cut slopes be graded to an approximate 2:1, H:V, slope to reduce sloughing and erosion of looser surface soil; to reduce the likelihood of sloughing or failure, temporary cut slopes should not remain over the winter. Section 5.1.6 of the geotechnical report describes erosion control measures that should be implemented (Holdrege and Kull 2015b).

After construction, the site would be covered by a building, parking lot, and hardscaping and landscaping, which would minimize the potential for long-term or permanent erosion.
Compliance with existing regulations and recommendations from the project-specific geotechnical report as well as implementation of mitigation measures MM PV-8.2.2a and MM PV-8.2.2b would ensure impacts related to erosion would be reduced to less than significant.

Mitigation Measures

**MM PV-8.2.2a**  
Prior to issuance of grading permits, all grading and improvement plans shall include a note documenting the approved time of year for grading activities. Specifically, no grading shall occur after October 15 or before May 1 unless standard Building Department requirements are met for grading during the wet season.

*Timing/Implementation:* Prior to grading permit issuance  
*Enforcement/Monitoring:* Nevada County Building Department

**MM PV-8.2.2b**  
Prior to issuance of grading permits or improvement plans for all project-related grading including road construction and drainage improvements, all plans shall incorporate, at a minimum, the following erosion and sediment control measures, which shall be implemented throughout the construction phase:

1. During construction, Best Management Practices (BMPs) for temporary erosion control shall be implemented to control any pollutants that could potentially affect the quality of storm water discharges from the site. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in accordance with California State Water Resources Control Board (SWRCB) requirements. The SWPPP shall include the implementation of BMPs for Erosion Control, Sediment Control, Tracking Control, Wind Erosion Control, Waste Management and Materials Pollution Control and shall be provided to the Nevada County Planning, Building and Public Works Departments prior to issuance of grading permits or approval of improvement plans.

2. Topsoil that will be used as fill material shall be removed and stockpiled for later reuse prior to excavation activities. Topsoil shall be identified by the soil-revegetation specialist who will identify both extent and depth of the topsoil to be removed.

3. Upon completion of grading, stockpiled topsoil shall be combined with wood chips, compost and other soil amendments for placement on all graded areas. Revegetation shall consist of native seed mixes only. The primary objectives of the soil amendments and revegetation is to create site conditions that keep sediment on site, produce a stable soil surface, resist erosion and are similar to the surrounding native ecosystem.

4. Geo-fabrics, jutes or other mats may be used in conjunction with revegetation and soil stabilization.

*Timing/Implementation:* Prior to grading permit issuance  
*Enforcement/Monitoring:* Nevada County Building Department
Expansive or Unstable Soils (Standards of Significance 3 and 4)

Impact 8.2.3(PV) The Penn Valley site may include soils that may be subject to expansion potential. *Less than Significant with Mitigation Incorporated*

Expansive soils are those soils that shrink or swell depending on the level of moisture they absorb. Expansive soils typically contain clay minerals that determine the ability of the soil to absorb and retain moisture. When structures are located on expansive soils, foundations have the tendency to rise during the wet season and sink during the dry season. This movement can create new stresses on various sections of the foundation and connected utilities and can lead to structural failure and damage to infrastructure. The alluvial land, loamy soils have variable expansion potential, which could pose a hazard. Section 5.1.5 of the geotechnical report (Holdrege and Kull 2015b) includes soil management recommendations such as mixing expansive soil with granular soil, and/or using excavated expansive soil only in landscape areas. The presence of fill and disturbed soils at variable depths could result in differential settlement-induced structural distress beneath structures. Section 5.1.5 of the geotechnical report also includes several recommendations for mitigating the potential hazards associated with fill materials, such as overexcavation, compaction and recompaction, and additional testing to confirm soil stability for footings and structures. With implementation of the recommendations in the geotechnical report (Holdrege and Kull 2015b), as required by mitigation measures MM PV-8.2.1a and MM PV-8.2.1b, expansive soil on-site would not result in substantial hazards at the site. Impacts would be less than significant.

Mitigation Measures

Implement mitigation measures MM PV-8.2.1a and MM PV-8.2.1b.

8.3 ROUGH AND READY HIGHWAY SITE

8.3.1 PROJECT-SPECIFIC SETTING

The Rough and Ready Highway site is relatively level and has been previously developed with a commercial building and a parking area. Groundwater was not observed but saturated soil conditions and groundwater could be encountered in areas of soil/rock transition, particularly during or after the rainy season.

The project site is generally underlain by Miocene- to Pliocene-age volcanic rocks composed of volcanic mudflow, tuff, sediments, and conglomerate. Surface soils consist of Aiken loam, which is characterized by slow to medium runoff, moderate erosion hazard, and moderate shrink-swell potential (USDA 1993). Subsurface soils are loam and heavy clay loam and clay. There may be loose fill in portions of the site from previous development that could contribute to future differential settlement. Weathered andesitic tuff and conglomerate is typically encountered at a depth of approximately 64 inches.

The geotechnical report did not identify any notable geotechnical hazards with the exception of the potential for near-surface seasonal groundwater and saturated soil conditions. However, this condition does not pose a substantial constraint to development, provided the recommendations in the geotechnical report are implemented (Holdrege and Kull 2015c).
8.3.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Section 8.0.2, above.

8.3.3 IMPACTS AND MITIGATION MEASURES

Ground Shaking and Related Hazards (Standard of Significance 1)

Impact 8.3.1(RR) The Rough and Ready Highway project site is located in an area that would be subject to seismic hazards. (Less than Significant with Mitigation Incorporated)

The Rough and Ready Highway site is within the Foothills fault system, which is designated as a Type C fault zone, with low seismicity and a low rate of recurrence. It is not expected that the site would be subject to strong ground shaking, but there is the potential that the site could be exposed to some amount of ground shaking from earthquakes on distant faults (Holdrege and Kull 2015c). If not properly designed and constructed in accordance with local and state standards and the recommendations of a site-specific geotechnical study, the site could be affected by seismic ground shaking and seismic-induced ground failure including liquefaction. This is a potentially significant impact.

Compliance with existing regulations and implementation of mitigation measures MM RR-8.3.1a and MM RR-8.3.1b would reduce this impact to less than significant by ensuring project plans comply with existing standards and the recommendations of a site-specific geotechnical engineering report.

Mitigation Measures

MM RR-8.3.1a Prior to grading permit issuance, the project applicant shall provide a final Geotechnical Engineering Report to the Nevada County Building and Planning Departments that reflects the final site plan. The Building Department shall be responsible for reviewing the final site plan and final Geotechnical Engineering Report to ensure that they are consistent with both local and building code requirements.

Timing/Implementation: Prior to grading permit issuance

Enforcement/Monitoring: Nevada County Building Department and Planning Department

MM RR-8.3.1b Prior to grading or building permit issuance, the developer shall include the grading and structural improvement design criteria recommendations of the Final Geotechnical Engineering Report as notes on improvement plans and incorporate those recommended actions into the final project design. The Nevada County Building Department shall verify that the recommendations are being implemented during the plan review and inspection stages of the permit process.

Timing/Implementation: Prior to improvement plan approval

Enforcement/Monitoring: Nevada County Building Department and Planning Department
Soil Erosion and Slope Stability (Standards of Significance 2 and 3)

**Impact 8.3.2(RR)** Development of the Rough and Ready Highway site could result in temporary erosion. *(Less than Significant with Mitigation Incorporated)*

The Rough and Ready Highway site is flat and has been partially developed with a building and a parking lot. Soils are primarily loam and clay loam with moderate erosion hazard. Grading, excavation, removal of vegetation cover, and loading activities associated with construction at the site could temporarily increase soil erosion by water or wind. This is a potentially significant impact.

However, in accordance with existing regulations and as required by mitigation measure **MM RR-8.3.2b**, a SWPPP would be developed by a qualified engineer or erosion control specialist before construction and BMPs would be implemented throughout and following construction, as appropriate. The SWPPP would include details of how the sediment and erosion control practices (i.e., BMPs) would be implemented. In addition to the SWPPP, the applicant would be required to comply with Chapter V, Article 19 (Grading) of the County’s Land Use and Development Code.

Recommendations in the geotechnical report (Holdrege and Kull 2015c) pertaining to general site preparation would also be implemented (see mitigation measure **MM RR-8.3.1b**). This would include recommendations concerning clearing and grubbing, soil preparation, fill placement, fill slope grading, and erosion control, further reducing impacts. Permanent cut slopes up to 6 feet high are anticipated. The geotechnical report recommended that permanent cut slopes should not be steeper than 1.5:1, H:V. The geotechnical report also recommended the upper 2 feet of all cut slopes be graded to an approximate 2:1, H:V slope to reduce sloughing and erosion of looser surface soil; to reduce the likelihood of sloughing or failure, temporary cut slopes should not remain over the winter. Sections 5.1.3 and 5.1.6 of the geotechnical report describe cut slope and grading erosion control measures that should be implemented.

After construction, the site would be covered by a building, parking lot, and hardscaping and landscaping, which would minimize the potential for long-term or permanent erosion. Compliance with existing regulations and recommendations from the project-specific geotechnical report as well as implementation of mitigation measures **MM RR-8.3.2a** and **MM RR-8.3.2b** would ensure impacts related to erosion would be reduced to less than significant.

**Mitigation Measures**

**MM RR-8.3.2a** Prior to issuance of grading permits, all grading and improvement plans shall include a note that documents the approved time of year for grading activities. Specifically, no grading shall occur after October 15 or before May 1 unless standard Building Department requirements are met for grading during the wet season.

*Timing/Implementation:* Prior to grading permit issuance

*Enforcement/Monitoring:* Nevada County Building Department

**MM RR-8.3.2b** Prior to issuance of grading permits or improvement plans for all project-related grading including road construction and drainage improvements, all plans shall incorporate, at a minimum, the following erosion and sediment control measures, which shall be implemented throughout the construction phase:
1. During construction, Best Management Practices (BMPs) for temporary erosion control shall be implemented to control any pollutants that could potentially affect the quality of storm water discharges from the site. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in accordance with California State Water Resources Control Board (SWRCB) requirements. The SWPPP shall include the implementation of BMPs for Erosion Control, Sediment Control, Tracking Control, Wind Erosion Control, Waste Management and Materials Pollution Control and shall be provided to the Nevada County Planning, Building and Public Works Departments prior to issuance of grading permits or approval of improvement plans.

2. Topsoil that will be used as fill material shall be removed and stockpiled for later reuse prior to excavation activities. Topsoil shall be identified by the soil-revegetation specialist who will identify both extent and depth of the topsoil to be removed.

3. Upon completion of grading, stockpiled topsoil shall be combined with wood chips, compost and other soil amendments for placement on all graded areas. Revegetation shall consist of native seed mixes only. The primary objectives of the soil amendments and revegetation is to create site conditions that keep sediment on site, produce a stable soil surface, resist erosion and are similar to the surrounding native ecosystem.

4. Geo-fabrics, jutes or other mats may be used in conjunction with revegetation and soil stabilization.

Timing/Implementation: Prior to grading permit issuance
Enforcement/Monitoring: Nevada County Building Department

Expansive or Unstable Soils (Standards of Significance 3 and 4)

Impact 8.3.3(RR) The Rough and Ready Highway site may include soils that may be subject to expansion potential. (Less than Significant with Mitigation Incorporated)

Expansive soils are those soils that shrink or swell depending on the level of moisture they absorb. Expansive soils typically contain clay minerals that determine the ability of the soil to absorb and retain moisture. When structures are located on expansive soils, foundations have the tendency to rise during the wet season and sink during the dry season. This movement can create new stresses on various sections of the foundation and connected utilities and can lead to structural failure and damage to infrastructure. The Aiken loam soils have moderate expansion potential, which could pose a hazard. Section 5.1.5 of the geotechnical report (Holdrege and Kull 2015c) includes soil management recommendations such as mixing expansive soil with granular soil and/or using excavated expansive soil only in landscape areas. The presence of fill and disturbed soils at variable depths could result in differential settlement-induced structural distress beneath structures. Section 5.1.5 of the geotechnical report also includes several recommendations for mitigating the potential hazards associated with fill materials, such as overexcavation, compaction and recompaction, and additional testing to confirm soil stability for footings and structures. With implementation of the recommendations in the geotechnical report (Holdrege and Kull 2015c), as required by mitigation measures MM RR-8.3.1a and MM RR-8.3.1b, potential soil hazards would not result in substantial hazards at the site. Impacts would be less than significant.
Mitigation Measures

Implement mitigation measures MM RR-8.3.1a and MM RR-8.3.1b.

Septic Systems (Standard of Significance 5)

Impact 8.3.4(RR) Wastewater treatment and disposal at the Rough and Ready Highway site would be provided septic system. (Less than Significant)

There is an existing permitted and built, but unused, on-site sewage disposal system (disposal/absorption bed) on the Rough and Ready Highway site parcel. The County Environmental Health Department has determined use of this disposal/absorption bed to be feasible under certain conditions, with independent service provider demonstration and documentation of the absorption bed functionality, and consistency with the project plan and setback requirements. In June 2016, testing required by the County was performed; the system accepted water properly, there was no evidence of saturation, and setbacks were confirmed (Navo 2016). The results of this flow/stress test indicate that the septic system can perform under expected normal waste flow conditions. Impacts would be less than significant.

Mitigation Measures

None required.

8.4 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

The cumulative setting for geology and soils are the three Dollar General Store sites combined and cumulative development in the western portion of Nevada County in the Sierra Nevada foothills.

Cumulative Impacts and Mitigation Measures

Cumulative Geology and Soils Impacts

Impact 8.4.1 Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative geologic and soils impacts. The proposed project’s incremental contribution would be less than cumulatively considerable.

Geotechnical impacts tend to be site-specific rather than cumulative in nature. For example, seismic events or underlying geologic and soil conditions may damage or destroy a building on the project site, but the construction of a development project on one site would not cause any adjacent parcels to become more susceptible to geotechnical hazards, nor can a project affect local geology in such a manner as to increase risks regionally. Impacts such as erosion and sediment deposition, however, can be cumulative in nature within a watershed. See Section 11, Hydrology and Water Quality, of this Draft EIR for a discussion of cumulative water quality impacts from soil erosion.

The three Dollar General Store proposed sites are not connected geographically. Impacts associated with seismic ground shaking, fill materials, expansive soils, and septic systems are based
on site-specific conditions. With proper evaluation of these conditions and compliance with existing codes and standards, as described in the impact analysis above, the proposed project’s contribution to geology and soils impacts would be less than cumulatively considerable.

Mitigation Measures

None required.
REFERENCES

CJS Development and Serge Barttome Family Trust. 2015. Septic Easements, APN: 25-430-08, -10, -12. Memorandum to Nevada County Planning and Environmental Health Departments.

Holdrege and Kull. 2014a. Reference: 10166 Alta Sierra Drive, APN 25-430-08, Nevada County, California; Subject: Response to County Comments Regarding Sewage Disposal. Letter from Chuck Kull, C.E.G. to Dan Biswas, CJS Development II, LLC.

——. 2014b. Geotechnical Engineering Report for 10166 Alta Sierra Drive, APN 25-430-08, Nevada County, California

——. 2015a. Reference: 10166 Alta Sierra Drive, APN 25-430-08, Nevada County, California. Subject: Continued Use of Geotechnical Engineering Report.

——. 2015b. Geotechnical Engineering Report for 17652 Penn Valley Drive, APN 51-120-06, Nevada County, California

——. 2015c. Geotechnical Engineering Report for 12345 Rough and Ready Highway, APN 52-122-03, Nevada County, California


Navo & Sons, Inc., 2016. Load Test Results June 20, 2016.


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9.0 GREENHOUSE GAS EMISSIONS
9.0 GREENHOUSE GAS EMISSIONS

This section discusses the effect of each Dollar General project on greenhouse gas (GHG) emissions and the associated effects of climate change. The reader is referred to Section 5.0, Air Quality, for a discussion of project impacts associated with air quality. All technical analyses related to this section are contained in Appendices 5.0-A through 5.0-C.

9.0 GENERAL ENVIRONMENTAL CONDITIONS AND REGULATIONS

9.0.1 ENVIRONMENTAL SETTING

Climate Change and Greenhouse Gases

Certain gases in the earth’s atmosphere, classified as GHGs, play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space. A portion of the radiation is absorbed by the earth’s surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO$_2$), methane (CH$_4$), and nitrous oxide (N$_2$O). Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming. It is “extremely likely” that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014).

Table 9.0-1 provides descriptions of the primary GHGs attributed to global climate change, including a description of their physical properties, primary sources, and contribution to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH$_4$ traps over 25 times more heat per molecule than CO$_2$, and N$_2$O absorbs 298 times more heat per molecule than CO$_2$. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO$_2$e), which weigh each gas by its global warming potential (GWP). Expressing GHG emissions in CO$_2$e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO$_2$ were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long-enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO$_2$ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO$_2$ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged
over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere (IPCC 2013).

### Table 9.0-1

**Greenhouse Gases**

<table>
<thead>
<tr>
<th>Greenhouse Gas</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO₂)</td>
<td>Carbon dioxide is a colorless, odorless gas. CO₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO₂ emissions. The atmospheric lifetime of CO₂ is variable because it is so readily exchanged in the atmosphere.¹</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH₄ to the atmosphere. Natural sources of CH₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH₄ is about 12 years.²</td>
</tr>
<tr>
<td>Nitrous Oxide (N₂O)</td>
<td>Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N₂O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. Nitrous oxide is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N₂O is approximately 120 years.³</td>
</tr>
</tbody>
</table>

Sources: ¹ EPA 2016a, ² EPA 2016b, ³ EPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice it to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of the California Environmental Quality Act (CEQA), GHG impacts to global climate change are inherently cumulative.

### Greenhouse Gas Emission Sources

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors (CARB 2015). California is a significant emitter of CO₂e in the world and produced 459 million gross metric tons of CO₂e in 2013; in the state, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction (CARB 2015). Emissions of CO₂ are byproducts of fossil fuel combustion. CH₄, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N₂O is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water), respectively, two of the most common processes for removing carbon dioxide from the atmosphere.
9.0 GREENHOUSE GAS EMISSIONS

Effects of Climate Change on the Environment

The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to provide the world with a scientific view on climate change and its potential effects. According to the IPCC, global average temperature is expected to increase relative to the 1986–2005 period by 0.3 to 4.8 degrees Celsius (°C) (0.5–8.6 degrees Fahrenheit [°F]) by the end of the twenty-first century (2081–2100), depending on future GHG emission scenarios (IPCC 2014). According to the California Natural Resources Agency (2012), temperatures in California are projected to increase 2.7°F above 2000 averages by 2050 and, depending on emission levels, 4.1–8.6°F by 2100.

Physical conditions beyond average temperatures could be indirectly affected by the accumulation of GHG emissions. For example, changes in weather patterns resulting from increases in global average temperature are expected to result in a decreased volume of precipitation falling as snow in California and an overall reduction in snowpack in the Sierra Nevada. Based on historical data and modeling, the California Department of Water Resources projects that the Sierra snowpack will experience a 25 to 40 percent reduction from its historic average by 2050 (DWR 2008). An increase in precipitation falling as rain rather than snow also could lead to increased potential for floods because water that would normally be held in the Sierra Nevada until spring could flow into the Central Valley concurrently with winter storm events (CNRA 2012). This scenario would place more pressure on California’s levee/flood control system.

Another outcome of global climate change is sea level rise. The sea level rose approximately 7 inches during the last century and, assuming that sea level changes along the California coast continue to track global trends, the sea level along the state’s coastline in 2050 could be 10–18 inches higher than in 2000 and 31–55 inches higher by the end of this century (CNRA 2012).

As the existing climate throughout California changes over time, the ranges of various plant and wildlife species could shift or be reduced, depending on the favored temperature and moisture regimes of each species. In the worst cases, some species would become extinct or be extirpated from the state if suitable conditions are no longer available (CNRA 2012).

Changes in precipitation patterns and increased temperatures are expected to alter the distribution and character of natural vegetation and the associated moisture content of plants and soils. An increase in the frequency of extreme heat events and drought is also expected. These changes are expected to lead to increased frequency and intensity of large wildfires (CNRA 2012).

Cal-Adapt is a climate change scenario planning tool developed by the California Energy Commission which downscales global climate model data to local and regional resolution under two emissions scenarios: the A-2 scenario represents a business-as-usual future emissions scenario, and the B-1 scenario represents a lower GHG emissions future. According to Cal-Adapt, annual average temperatures in the project area are projected to rise by 4.0–6.8°F by 2100, with the range based on low and high emissions scenarios (California Energy Commission 2016).

9.0.2 REGULATORY FRAMEWORK

California has adopted various administrative initiatives and pieces of legislation relating to climate change, much of which has set aggressive goals for GHG emissions reductions in the state. Although lead agencies must evaluate climate change and GHG emissions of projects subject to CEQA, the CEQA Guidelines do not require or suggest specific methodologies for performing an assessment or specific thresholds of significance and do not specify GHG reduction mitigation.
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measures. Instead, the guidelines allow lead agencies to choose methodologies and make significance determinations based on substantial evidence, as discussed in further detail below. No state agency has promulgated binding regulations for analyzing GHG emissions, determining their significance, or mitigating significant effects in CEQA documents. Thus, lead agencies exercise their discretion in determining how to analyze greenhouse gases.

California Global Warming Solutions Act (Assembly Bill 32)

The primary act that has driven GHG regulation and analysis in California is the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599), which instructs the California Air Resources Board (CARB) to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. The act directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020.

Assembly Bill 32 Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California’s GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as “business as usual”). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates early actions and additional GHG reduction measures from CARB and the state’s Climate Action Team, identifies additional measures to be pursued as regulations, and outlines the adopted role of a cap-and-trade program. Additional development of these measures and adoption of the appropriate regulations occurred through the end of year 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy-efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California’s GHG emissions.
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing state laws and policies, including California’s clean car standards, heavy-duty truck measures, and the Low Carbon Fuel Standard.

1 The Climate Action Team, led by the Secretary of the California Environmental Protection Agency (CalEPA), is a group of state agency secretaries and heads of agency, boards, and departments. The team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the state’s Climate Adaptation Strategy.
• Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state of California’s long-term commitment to AB 32 implementation. (CARB 2008)

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated in light of economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This reduced the projected 2020 emissions from 596 million metric tons (MMT) CO₂e to 545 MMTCO₂e. The reduction in projected 2020 emissions means that the revised business-as-usual (BAU) reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent. CARB also provided a lower 2020 inventory forecast that incorporated state-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from BAU needed to achieve the goals of AB 32 is approximately 16 percent.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014 (CARB 2014). The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal established in Executive Order S-3-05, though not yet adopted as state law, and observes that “a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal.” The Scoping Plan update does not establish or propose any specific post-2020 goals, but identifies such goals adopted by other governments or recommended by various scientific and policy organizations. Executive Order B-30-15 (signed April 29, 2015) endorses the effort to set interim GHG reduction targets for year 2030 (40 percent below 1990 levels).

Amendments to California Global Warming Solutions Act of 2006: Emission Limit (Senate Bill 32)

Signed into law on September 2016, SB 32 codifies the 2030 target in the recent Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes the state board to adopt an interim GHG emissions level target to be achieved by 2030. SB 32 states the intent is for the Legislature and appropriate agencies to adopt complementary policies that ensure the long-term emissions reductions advance specified criteria. At the time of writing this Draft EIR, however, no specific policies or emissions reduction mechanisms have been established.

Table 9.0-2 provides a brief overview of the other California legislation relating to climate change that may affect emissions associated with the proposed project.
### 9.0 Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assembly Bill 1493 and Advanced Clean Cars Program</strong></td>
<td>Assembly Bill 1493 (the Pavley Standard) (Health and Safety Code Sections 42823 and 43018.5) aims to reduce GHG emissions from noncommercial passenger vehicles and light-duty trucks of model years 2009–2016. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO(_2)e emissions and 75 percent fewer smog-forming emissions.</td>
</tr>
<tr>
<td><strong>Low Carbon Fuel Standard (LCFS)</strong></td>
<td>Executive Order S-01-07 (2007) requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California. The regulation took effect in 2010 and is codified at Title 17, California Code of Regulations, Sections 95480–95490. The LCFS will reduce greenhouse gas emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020.</td>
</tr>
<tr>
<td><strong>Renewables Portfolio Standard (Senate Bill X1-2 &amp; Senate Bill 350)</strong></td>
<td>California’s Renewables Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. The 33 percent standard is consistent with the RPS goal established in the Scoping Plan. The passage of Senate Bill (SB) 350 in 2015 updates the RPS to require the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. The bill will make other revisions to the RPS program and to certain other requirements on public utilities and publicly owned electric utilities.</td>
</tr>
<tr>
<td><strong>Senate Bill 375</strong></td>
<td>SB 375 (codified in the Government Code and the Public Resources Code) took effect in 2008 and provides a new planning process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established in AB 32. SB 375 requires metropolitan planning organizations to incorporate sustainable communities strategies in their regional transportation plans that will achieve GHG emissions reduction targets by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.</td>
</tr>
<tr>
<td><strong>California Building Energy Efficiency Standards</strong></td>
<td>In general, the California Building Energy Efficiency Standards require the design of building shells and building components to conserve energy. The California Energy Commission adopted changes to the 2013 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 1. The amended standards took effect in the summer of 2014. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The standards offer builders better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. Energy-efficient buildings require less electricity, and increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.</td>
</tr>
<tr>
<td><strong>California Green Building Standards</strong></td>
<td>The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect July 1, 2014.</td>
</tr>
</tbody>
</table>

*Senate Bill 375 is codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01, as well as at Public Resources Code Sections 21061.3 and 21159.28 and Chapter 4.2.*
California Executive Orders

In addition to the legislation identified in Table 9.0-2, two executive orders—California Executive Order S-03-05 (2005) and California Executive Order B-30-15 (2015)—highlight GHG emissions reduction targets, though such targets have not been adopted by the state and remain only a goal of the executive orders. Specifically, Executive Order S-03-05 seeks to achieve a reduction of GHG emissions of 80 percent below 1990 levels by 2050 and Executive Order B-30-15 seeks to achieve a reduction of GHG emissions of 40 percent below 1990 levels by 2030. Technically, a governor’s executive order does not have the effect of new law but can only reinforce existing laws. For instance, as a result of the AB 32 legislation, the state’s 2020 reduction target is backed by the adopted AB 32 Scoping Plan, which provides a specific regulatory framework of requirements for achieving the 2020 reduction target. The state-led GHG reduction measures identified in Table 9.0-2, such as the Low Carbon Fuel Standard and the Renewables Portfolio Standard, are largely driven by the AB 32 Scoping Plan. Executive Orders S-03-05 and B-30-15 do not have any such framework and provide no specific emissions reduction mechanisms.

Northern Sierra Air Quality Management District

The project is under the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD), which regulates air quality according to the standards established in the federal and California Clean Air Acts and amendments to those acts. The NSAQMD comprises three contiguous, mountainous, rural counties in northeastern California—Nevada, Sierra, and Plumas counties—and regulates air quality through its permitting authority and through air quality-related planning and review activities over most types of stationary emission sources. The NSAQMD has not yet established significance thresholds for GHG emissions from project operations.

9.0.3 Impact Methodology

Standards of Significance

The impact analysis below is based on the application of the following CEQA Guidelines Appendix G thresholds of significance. Climate change impacts are considered significant if implementation of a project would:

1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Addressing GHG generation impacts requires an agency to make a determination as to what constitutes a significant impact. The CEQA Guidelines give authority to lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This means that each agency is left to determine whether a project’s GHG emissions will have a significant impact on the environment. The guidelines direct that agencies are to use “careful judgment” and “make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate” the project’s GHG emissions (14 California Code of Regulations Section 15064.4(a)).

As noted earlier, AB 32 is a legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020. In adopting AB 32, the legislature determined the necessary GHG reductions for the state to make in order to sufficiently offset California’s contribution to the cumulative
9.0 GREENHOUSE GAS EMISSIONS

climate change problem to reach 1990 levels. AB 32 is the only legally mandated requirement for the reduction of GHGs. As such, compliance with AB 32 is the only adopted basis on which to base a significance threshold for evaluating GHG impacts. However, it is also acknowledged that Executive Orders S-03-05 and B-30-15, SB 375, and proposed legislation will ultimately result in GHG emission reduction targets for 2030, 2040, and 2050.

A number of expert agencies throughout the state have drafted or adopted varying threshold approaches and guidelines for analyzing 2020 operational GHG emissions in CEQA documents. The different thresholds include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric “bright-line" thresholds, and (4) efficiency-based thresholds. The California Supreme Court decision in the Center for Biological Diversity et al. v. California Department of Fish and Wildlife, the Newhall Land and Farming Company (November 30, 2015, Case No. S217763) confirmed that when an “agency chooses to rely completely on a single quantitative method to justify a no-significance finding, CEQA demands the agency research and document the quantitative parameters essential to that method.”

As previously stated, the NSAQMD has not yet established significance thresholds for GHG emissions from project operations. Therefore, for the purposes of this analysis, Nevada County in its discretion is using the Placer County Air Pollution Control District’s (PCAPCD) CEQA Guidelines to determine the level of impact from the projects’ contribution of GHG emissions. The PCAPCD, in association with a committee of air districts, has developed GHG thresholds in order to provide a uniform scale to measure the significance of land use development projects. These thresholds are intended to evaluate a project for consistency with GHG targets established in AB 32, particularly for emissions occurring by 2020. Therefore, for the purposes of this analysis, the three proposed Dollar General projects will be individually compared to the following construction-related and operational thresholds:

- For the evaluation of construction-related emissions, a mass emission threshold of 1,100 metric tons of CO₂e/year (metric tons of carbon dioxide-equivalent per year) is used.

- For the evaluation of operational emissions, Tier I of the PCAPCD’s operational emissions threshold is used, which states a project would not have a significant impact on the environment if projected GHG emissions are less than 1,100 metric tons of CO₂e per year.

Compliance with such thresholds will be part of the solution to the cumulative GHG emissions problem, rather than hinder the state’s ability to meet its goals of reduced statewide GHG emissions under AB 32.

The California Natural Resources Agency has noted that impacts of GHG emissions should focus on the cumulative impact on climate change, and similarly the CEQA amendments continue to make clear that the significance of GHG emissions is most appropriately considered on a cumulative level. Each project’s contribution to the cumulative impact on climate change is considered. In addition, even though each Dollar General store represents a separate project under CEQA, the collective GHG emissions associated with all three stores are added together and compared to the PCAPCD construction-level significance threshold of 1,100 metric tons of CO₂e per year and Tier I of the PCAPCD operational-level significance threshold of 1,100 metric tons of CO₂e per year. In addition to comparing cumulative emissions to these thresholds, the cumulative GHG emissions associated with all three stores are evaluated for compliance with post-2020 GHG reduction goals promulgated by the state. Post-2020 GHG reduction goals in California are identified in Governor’s Executive Order B-30-15, which seeks to achieve a reduction of GHG emissions of 40 percent below 1990 levels by 2030, and Executive Order S-03-05, which seeks to achieve a reduction of GHG emissions of 80 percent below 1990 levels by 2050.
9.0 GREENHOUSE GAS EMISSIONS

Methodology

GHG emissions were calculated by Kunzman Associates (2015a, 2015b, 2016) using the California Emissions Estimator Model (CalEEMod) (see Appendices 5.0-A through 5.0-C). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with construction and operations from a variety of land use projects. Because the impacts of GHG emissions are not experienced locally, the focus of the climate change analysis is on the projects' potential contributions to the cumulative impact.

The project would be required to implement energy efficiency design requirements consistent with the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, described above. CALGreen Code standards are 30 percent more efficient than 2008 Title 24 standards. Therefore, mitigated emission totals for the projects reflect compliance with CALGreen Code standards.

9.1 ALTA SIERRA SITE

9.1.1 PROJECT-SPECIFIC SETTING

The Alta Sierra site is located in Nevada County. There are no aspects of the Alta Sierra site or surrounding area that result in GHG emission effects other than those described in Section 9.0.1 above.

9.1.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Section 9.0.2, above.

9.1.3 PROJECT IMPACTS AND MITIGATION MEASURES

Generate Greenhouse Gas Emissions at Levels Conflicting with AB 32 That May Have a Significant Impact on the Environment (Standards of Significance 1 & 2)

Impact 9.1.1(AS) The Alta Sierra project would generate greenhouse gas emissions. (Less than Cumulatively Considerable)

The Alta Sierra project’s GHG emissions would be generated over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with new vehicular trips and indirect source emissions, such as electricity usage for lighting.

Construction GHG Emissions

The approximate quantity of annual GHG emissions generated by construction equipment is shown in Table 9.0-3.
9.0 GREENHOUSE GAS EMISSIONS

TABLE 9.0-3
CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS – ALTA SIERRA SITE (METRIC TONS PER YEAR)

<table>
<thead>
<tr>
<th>Construction Activities</th>
<th>Metric Tons of CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alta Sierra Store</td>
<td>133</td>
</tr>
<tr>
<td>Potentially Significant Impact Threshold</td>
<td>1,100</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015a; see Appendix 5.0-A for emission model outputs.

As shown, construction of the Alta Sierra store would generate approximately 133 metric tons of CO₂e. These projected emissions would not exceed the construction-related significance thresholds for construction-generated GHG emissions.

Operational GHG Emissions

Long-term operational emissions associated with the Alta Sierra store are summarized in Table 9.0-4.

TABLE 9.0-4
OPERATIONAL GREENHOUSE GAS EMISSIONS – ALTA SIERRA SITE (METRIC TONS PER YEAR)

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Alta Sierra Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Source (landscaping, hearth)</td>
<td>0</td>
</tr>
<tr>
<td>Energy(^1)</td>
<td>30</td>
</tr>
<tr>
<td>Mobile</td>
<td>481</td>
</tr>
<tr>
<td>Solid Waste Hauling &amp; Decomposition</td>
<td>18</td>
</tr>
<tr>
<td>Water Conveyance</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>531</strong></td>
</tr>
<tr>
<td>Potentially Significant Impact Threshold</td>
<td>1,100</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:
\(^1\) Mitigated emission total reflects compliance with Title 24 green building and energy efficiency standards.
Source: Kunzman Associates 2015a; see Appendix 5.0-A for emission model outputs.

As shown, the majority of the Alta Sierra project’s 531 annual metric tons of GHG emissions would be generated by vehicle trips. Emissions would not exceed significance thresholds for operational GHG emissions and the Alta Sierra project’s contribution to the cumulative impact on climate change is less than cumulatively considerable.

Mitigation Measures

None required.
9.2 PENN VALLEY SITE

9.2.1 PROJECT-SPECIFIC SETTING

The Penn Valley site is located in Nevada County. There are no aspects of the Penn Valley site or surrounding area that result in GHG emission effects other than those described in Section 9.0.1 above.

9.2.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Penn Valley site other than those described in Section 9.0.2, above.

9.2.3 PROJECT IMPACTS AND MITIGATION MEASURES

Generate Greenhouse Gas Emissions at Levels Conflicting with AB 32 That May Have a Significant Impact on the Environment (Standards of Significance 1 & 2)

Impact 9.2.1(PV) The Penn Valley project would generate greenhouse gas emissions. (Less than Cumulatively Considerable)

The Penn Valley project’s GHG emissions would be generated over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with new vehicular trips and indirect source emissions, such as electricity usage for lighting.

Construction GHG Emissions

The approximate quantity of annual GHG emissions generated by construction equipment is shown in Table 9.0-5.

<table>
<thead>
<tr>
<th>Construction Activities</th>
<th>Metric Tons of CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penn Valley Store</td>
<td>146</td>
</tr>
<tr>
<td>Potentially Significant Impact Threshold</td>
<td>1,100</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2016; see Appendix 5.0-8 for emission model outputs.

The Penn Valley store would generate approximately 146 metric tons of CO₂e. These projected emissions would not exceed the construction-related significance thresholds for construction-generated GHG emissions.

Operational GHG Emissions

Long-term operational emissions associated with the Penn Valley store are summarized in Table 9.0-6.
9.0 GREENHOUSE GAS EMISSIONS

### Table 9.0-6
**Operational Greenhouse Gas Emissions – Penn Valley Site**
(Metric Tons per Year)

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Penn Valley Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Source (landscaping, hearth)</td>
<td>0</td>
</tr>
<tr>
<td>Energy[^1^]</td>
<td>43</td>
</tr>
<tr>
<td>Mobile</td>
<td>461</td>
</tr>
<tr>
<td>Solid Waste Hauling &amp; Decomposition</td>
<td>18</td>
</tr>
<tr>
<td>Water Conveyance</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>525</strong></td>
</tr>
<tr>
<td>Potentially Significant Impact Threshold</td>
<td>1,100</td>
</tr>
<tr>
<td><strong>Exceed Threshold?</strong></td>
<td><strong>No</strong></td>
</tr>
</tbody>
</table>

**Notes:**
[^1^] – Mitigated emission total reflects compliance with Title 24 green building and energy efficiency standards.
Source: Kunzman Associates 2016; see Appendix 5.0-B for emission model outputs.

As shown, the majority of the Penn Valley project’s 525 annual metric tons of GHG emissions would be generated by vehicular trips. Emissions would not exceed significance thresholds for operational GHG emissions and the Penn Valley project’s contribution to the cumulative impact on climate change would be less than cumulatively considerable.

**Mitigation Measures**
None required.

9.3 **ROUGH AND READY HIGHWAY SITE**

9.3.1 **PROJECT-SPECIFIC SETTING**

The Rough and Ready Highway site is located in Nevada County. There are no aspects of the project site or surrounding area that result in GHG emission effects other than those described in Section 9.0.1 above.

9.3.2 **REGULATORY FRAMEWORK**

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Section 9.0.2, above.

9.3.3 **PROJECT IMPACTS AND MITIGATION MEASURES**

**Generate Greenhouse Gas Emissions at Levels Conflicting with AB 32 That May Have a Significant Impact on the Environment (Standards of Significance 1 & 2)**

**Impact 9.3.1(RR)** The Rough and Ready Highway project would generate greenhouse gas emissions. *(Less than Cumulatively Considerable)*
The Rough and Ready Highway project’s GHG emissions would be generated over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with new vehicular trips and indirect source emissions, such as electricity usage for lighting.

**Construction GHG Emissions**

The approximate quantity of annual GHG emissions generated by construction equipment is shown in Table 9.0-7.

**Table 9.0-7**

*Construction-Related Greenhouse Gas Emissions – Rough and Ready Highway Site (Metric Tons per Year)*

<table>
<thead>
<tr>
<th>Construction Activities</th>
<th>Metric Tons of CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough and Ready Highway Store</td>
<td>86</td>
</tr>
<tr>
<td>Potentially Significant Impact Threshold</td>
<td>1,100</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015b; see Appendix 5.0-C for emission model outputs.

The Rough and Ready Highway store would generate approximately 86 metric tons of CO₂e. These projected emissions would not exceed the construction-related significance thresholds for construction-generated GHG emissions.

**Operational GHG Emissions**

Long-term operational emissions associated with the Rough and Ready Highway store are summarized in Table 9.0-8.

**Table 9.0-8**

*Operational Greenhouse Gas Emissions – Rough and Ready Highway Site (Metric Tons per Year)*

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Rough and Ready Highway Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Source (landscaping, hearth)</td>
<td>0</td>
</tr>
<tr>
<td>Energy¹</td>
<td>29</td>
</tr>
<tr>
<td>Mobile</td>
<td>472</td>
</tr>
<tr>
<td>Solid Waste Hauling &amp; Decomposition</td>
<td>18</td>
</tr>
<tr>
<td>Water Conveyance</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>522</td>
</tr>
<tr>
<td>Potentially Significant Impact Threshold</td>
<td>1,100</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:

¹ Mitigated emission total reflects compliance with Title 24 green building and energy efficiency standards.

Source: Kunzman Associates 2015b; see Appendix 5.0-C for emission model outputs.
9.0 GREENHOUSE GAS EMISSIONS

As shown, the majority of the Rough and Ready Highway project’s 522 annual metric tons of GHG emissions would be generated by vehicular trips. Emissions would not exceed significance thresholds for operational GHG emissions and the Rough and Ready Highway project’s contribution to the cumulative impact on climate change is less than cumulatively considerable.

Mitigation Measures

None required.

9.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

Greenhouse gases are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice it to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of analyzing negative impacts, GHG impacts to global climate change are inherently cumulative.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

As described previously, GHG emission impacts are inherently cumulative, as no individual project could measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimate. Thus, the project-specific impacts discussed above (Impact 9.1.1(AS), Impact 9.2.1(PV), and Impact 9.3.1(RR)) present a cumulative analysis for each project.
REFERENCES


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10.0 HAZARDS AND HAZARDOUS MATERIALS
This section evaluates potential impacts of the proposed project related to hazardous materials, fire hazard, emergency response, and airport hazards. The reader is referred to Chapter 8.0, Geology and Soils, for information regarding impacts associated with geologic and seismic hazards; to Chapter 11.0, Hydrology and Water Quality, for information regarding impacts associated with flooding; and to Chapter 5.0, Air Quality, regarding toxic air contaminant hazards.

10.0 GENERAL ENVIRONMENTAL CONDITIONS AND REGULATIONS

10.0.1 ENVIRONMENTAL SETTING

The following description of environmental conditions common to each site and applicable regulations, policies, and standards applies to each of the project sites.

HAZARDOUS MATERIALS

There are no active land uses at the three project sites where hazardous materials are used, stored, or transported to or from, and no hazardous waste is generated. The parcel on which the Alta Sierra store would be constructed is undeveloped, and the off-site sewage disposal parcels are developed with commercial uses. The Penn Valley site is undeveloped. The Rough and Ready Highway site has an existing building used for jewelry sales and repair and a parking lot.

Each site was evaluated for the potential for hazardous materials contamination to be present or likely to be as a result of historic uses of the site or because of its proximity to known or potential sources of contamination that may pose an environmental hazard to the site. The investigation for each site consisted of a Phase I Environmental Site Assessment (Phase I ESA; see Appendices 10.0-A through 10.0-C), which was prepared in accordance with American Society for Testing and Materials (ASTM) standards. The objective of the Phase I ESA is to identify “recognized environmental conditions” (RECs), which are defined in ASTM Practice E 1527-13 as the presence or likely presence of any hazardous substances or petroleum products that indicate an existing release, a past release, or a material threat of a release. The Phase I ESA includes the following:

- Physical characteristics of the site through a review of referenced sources for topographic, geologic, soils and hydrologic data.
- Site history through a review of referenced sources such as land deeds, fire insurance maps, city directories, aerial photographs, prior reports, and interviews.
- Current site conditions, including observations and interviews regarding the following:
  - the presence or absence of hazardous substances or petroleum products;
  - generation, treatment, storage, or disposal of hazardous, regulated, or biomedical waste; equipment that utilizes oils which potentially contain PCBs; and
  - storage tanks (aboveground and underground).
- Usage of surrounding area properties and the likelihood for releases of hazardous substances and petroleum products (if known and/or suspected) to migrate onto the site.
- Information in referenced environmental agency databases and local environmental records, within specified minimum search distances.
- Past ownership through a review of available prior reports and local municipal file review.
Results of the Phase I ESA for each site are presented under each site’s project-specific setting.

AIRPORTS

There are no public airports within 2 miles of any of the project sites. There is one private airport: Alta Sierra Airport, a private facility in Alta Sierra Estates approximately 2 nautical miles southeast of the Alta Sierra site; and one private airstrip, Limberlost Ranch Airport, approximately 2.5 nautical miles northwest of the Penn Valley site and approximately 5 nautical miles west-southwest of the Rough and Ready Highway site.

WILDLAND FIRE HAZARDS

As noted in the County’s General Plan, the single largest risk for human life and financial loss is fire. The California Department of Forestry and Fire Protection (Cal Fire) is responsible for mapping areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones are referred to as Fire Hazard Severity Zones (FHSZ). A State Responsibility Area (SRA) is the area of the state where the state of California is financially responsible for the prevention and suppression of wildfires. All three project sites are in an SRA.

EVACUATION ROUTES

Routes designated on the Nevada County General Plan Land Use Maps as interstates, freeways, highways, and other principal arterial routes are considered primary evacuation routes. Such routes provide the highest levels of capacity and contiguity and serve as the primary means of egress during an evacuation from the county. Routes designated on the General Plan Land Use Maps as minor arterial and major collector routes are considered secondary evacuation routes. These routes supplement the primary evacuation routes, and provide egress from local neighborhood and communities. State Route (SR) 49 at Alta Sierra is a primary evacuation route. Rough and Ready Highway and Penn Valley Drive are major collectors, which are secondary evacuation routes.

EMERGENCY RESPONSE PLAN

The Nevada County Office of Emergency Services (OES), in coordination with the Nevada County Operational Area Emergency Services Council, has developed a Local Hazard Mitigation Plan (LHMP) for Nevada County. The LHMP recognizes the threat that natural disasters and hazards pose to people and property in Nevada County, and that undertaking hazard mitigation actions delineated in the LHMP reduces the potential for harm to people and property from future disaster and hazardous incidents. The LHMP identified a list of potential hazards; each were evaluated for severity of hazard, vulnerability, and exposure, and then listed in order of perceived likely impact. The top five hazards listed in the LHMP are urban and wildland fire, severe weather, flood, drought, and dam failure.

10.0.2 REGULATORY FRAMEWORK

Several federal agencies regulate hazardous substances. These include the US Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), and the US Department of Transportation (DOT). Applicable federal regulations and guidelines are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR).

The key federal EPA laws governing the use, storage, and disposal of hazardous materials that are relevant to the proposed project are the Resources Conservation and Recovery Act, Hazardous
and Solid Waste Amendments Act, Toxic Substances Control Act, which address hazardous materials and wastes, and the Comprehensive Environmental Response, Compensation, and Liability Act and Superfund Amendments and Reauthorization Act, which address cleanup of contamination. Specific regulations for implementation of these statutes are codified in Title 40 of the CFR.

CFR Title 29, Part 1910 describes the federal Hazard Communication Standard, which requires that workers, including workers at construction sites, be informed of the hazards associated with the materials they handle. Training in chemical work practices must include methods in the safe handling of hazardous substances, use of emergency response equipment, and an explanation of the building emergency response plan and procedures.

The transportation of hazardous materials on roadways and by rail and air is regulated by the DOT and the EPA. The DOT and the EPA coordinate their efforts, especially at the regional level, to obtain compliance with both the Resources Conservation and Recovery Act and Hazardous Materials Transportation Act. Under the authority of the Resources Conservation and Recovery Act, the EPA regulates the transportation of hazardous materials. The EPA coordinates its transportation ordinances with the requirements of the Hazardous Materials Transportation Act and any statutes promulgated by the DOT pursuant to this act.

State

Hazardous Materials Management

The primary state laws pertaining to hazardous materials and wastes that may be applicable to the proposed project, depending on the activity, include the Hazardous Waste Control Law, Hazardous Substances Information and Training Act, Air Toxics Hot Spots and Emissions Inventory Law, Underground Storage of Hazardous Substances Act, and Porter-Cologne Water Quality Control Act.

At the state level, the California Environmental Protection Agency (CalEPA) is the “umbrella” agency under which a number of the state’s environmental agencies operate. These subordinate agencies include the California Air Resources Board, the Department of Pesticide Regulation, the Department of Toxic Substances Control (DTSC), the California Department of Resources Recycling and Recovery (CalRecycle), the Office of Environmental Health Hazard Assessment, and the State Water Resources Control Board.

Within CalEPA, the DTSC has primary regulatory responsibility for hazardous waste management. CalEPA has adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program is implemented at the local level by a local agency—the Certified Unified Program Agency (CUPA). The Nevada County Department of Environmental Health is the CUPA for the county.

The California Highway Patrol, the California Department of Transportation (Caltrans), and the DTSC implement and enforce state and federal laws regarding hazardous materials transportation.

General Construction Permit Stormwater Pollution and Prevention Plan

Construction projects affecting 1 acre or more are required to comply with the National Pollutant Discharge Elimination System (NPDES) general construction permit to manage stormwater runoff. This permit requires a stormwater pollution prevention plan (SWPPP) that identifies best
management practices (BMPs) for the handling of fuels and oils, including measures to minimize
the potential for spills and procedures for spill cleanup if it were to occur. Implementation of these
BMPs is intended to minimize the potential for accidental spills on construction sites by requiring
the designation of safe, covered storage areas for such materials as well as safe handling
practices. Additional information on these regulations is provided in Section 11.0, Hydrology and
Water Quality.

Contaminated Sites Investigation and Remediation

The DTSC and the Regional Water Quality Control Board (RWQCB) are the two primary agencies
for issues pertaining to sites where hazardous materials have resulted in environmental
contamination (e.g., soil and groundwater). The Central Valley RWQCB is the regional authority
for water quality. Local jurisdictions, such as Nevada County, may also be involved in site
remediation projects, such as leaking underground storage tanks. These agencies implement a
regulatory process to address the release of hazardous materials that could be harmful to public
health and the environment.

Asbestos-Containing Materials and Lead-Based Paint

Federal and state asbestos regulations prohibit emissions of asbestos from demolition or
construction activities; specify precautions and safe work practices that must be followed to
minimize the potential for release of asbestos fibers; and require notice to federal and local
government agencies prior to beginning renovation or demolition that could disturb asbestos-
containing building materials. The Northern Sierra Air Quality Management District and Cal/OSHA
are the agencies with primary responsibility for enforcement of asbestos regulations.

Cal/OSHA standards establish a maximum safe exposure level for types of construction work
where lead exposure may occur, including demolition of structures where lead-based paint is
present; removal or encapsulation of materials containing lead; and new construction, alteration,
repair, or renovation of structures with materials containing lead. Inspection, testing, and removing
lead-containing building materials must be performed by state-certified contractors who are
required to comply with applicable health and safety and hazardous waste regulations.

California Environmental Quality Act (CEQA)

CEQA (Public Resources Code Section 21151.4) requires the lead agency to notify school districts
of projects within one-quarter mile of a school regarding certain types of hazardous emissions. The
types of emissions that must be considered are extremely hazardous substances as defined in the
California Health and Safety Code (which references federal regulations) and hazardous air
emissions, which are those identified as toxic air contaminants by the California Air Resources
Board or the local air quality management district. There are no schools within one-quarter mile of
the Alta Sierra or Rough and Ready Highway sites, but the requirement applies to the Penn Valley site,
which is less than one-quarter mile from Williams Ranch Elementary School.

CEQA (Public Resources Code Section 21092.6) requires that the lead agency consult a list of
hazardous waste and substances sites compiled by certain state agencies pursuant to
Government Code Section 65962.5 to determine whether the project and any alternatives are
located on a site that is included on the list. This list is referred to as the Cortese List, which is
intended to be used as a planning document by state and local agencies and developers to
comply with the CEQA requirements in providing information about the location of hazardous
materials release sites. The databases that comprise this list were searched as part of the Phase I
ESAs for each site. None of the project sites is on the Cortese List.
Local

Nevada County General Plan

The Safety Element of the General Plan contains policies concerning hazardous materials. However, none of the policies are directly applicable to the construction and operation of the proposed retail project.

Nevada County Land Use and Development Code

The Land Use and Development Code does not contain any hazardous materials regulations specifically pertaining to the proposed retail projects. Chapter II, Article 4, Section L-II 4.3.18, Wildland Fire Hazard Areas, sets forth requirements for development in wildland fire zones.

According to Section L-II 4.3.18, all discretionary development projects within a high or very high fire hazard zone must comply with minimum defensible space and access requirements. In addition, discretionary projects within the very high fire hazard zone must prepare a Fire Protection Plan (FPP) that includes the following information:

- Identification of the proximity to emergency responders and estimated emergency response times;
- Description of the primary and, if applicable, secondary, access road conditions;
- Identification of the project’s emergency water supply or emergency water storage facilities consistent with Article 4 of Chapter XVI of the Land Use and Development Code;
- Identification of any proposed or required fire sprinkler system;
- Identification of a feasible evacuation plan and/or safe evacuation routes for use by future occupants of the project;
- Identification and use of clustered buildings and/or building sites and where feasible, the use of common driveways and access roads; and
- A Fuels Management Plan that includes:
  - Identification of the project’s defensible space design, consistent with Public Resources Code 4291;
  - Identification of high fuel load areas;
  - Provisions to ensure that adequate defensible space is provide including, but no limited to, the use of increased property line setbacks or fuel modification zones or easements around newly created lots;
  - Identification of the mechanism proposed for maintaining defensible space; and
  - Use of fire-resistant plantings for all landscaping required by County Ordinance using the most current Fire-Wise Plant Book prepared by the Fire Safe Council of Nevada County, or similar publication.
10. HAZARDS AND HAZARDOUS MATERIALS

IMPACT METHODOLOGY

Standards of Significance

The impact analysis below is based on the following State CEQA Guidelines Appendix G thresholds of significance, which state that a project would have a significant impact if it would:

1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

4) Be located on a site that is included on a list of hazardous materials sites compiled by Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

5) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.

6) For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

8) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas where residences are intermixed with wildlands.

Methodology

Phase 1 ESAs have been prepared for each site, and a Phase II ESA has also been prepared for the Rough and Ready Highway site (see Appendix 10.0-D). The information and recommendations from each report have been incorporated into the setting and impact analysis for each site regarding the potential for hazardous materials contamination.

The analysis of hazardous materials use is a qualitative assessment of the types of hazardous materials that would be expected to be used during construction and building occupancy.

Potential impacts on emergency response/evacuation routes is based on a review of the traffic impact analysis prepared for each site.

The potential for increased fire risk is based on a review of the Cal Fire SFHZ mapping, project design, and relevant county policies and regulations.
Thresholds Not Evaluated

There are no public airports within 2 miles of the project sites. There would be no impact relative to Standards of Significance 5 and 6, and this impact is not further evaluated for any of the project sites.

There are no schools within one-quarter mile of the Alta Sierra and Rough and Ready Highway sites. There would be no impact relative to Standard of Significance 3 for these two sites, and this impact is not further evaluated for these two sites.

10.1 Alta Sierra Site

10.1.1 Project-Specific Setting

The Alta Sierra site consists of three parcels, one of which is an approximately 1-acre wooded, undeveloped parcel with no buildings, structures, or improvements, on which the store, parking, lighting, and landscaping would be located. Immediately north of the store site are two commercially developed parcels on which the sewage line and leach field would be located. These parcels include a chiropractic office, a pet groomers, and a restaurant. The site is surrounded by developed uses on the north and south and by roadways on the west and east. A review of available historic maps and aerial photographs indicate there has not been any previous development or improvements on the site (EBI 2014).

There are no hazardous materials used or stored on the site, and the Phase I ESA determined there are no recognized environmental conditions on the project site or conditions in the vicinity of the project site that indicate the potential for environmental contamination from hazardous materials or warrant additional investigation (EBI 2014).

The site is in a high FHSZ. According to the Nevada County Local Hazard Mitigation Plan, the site is within a wildland-urban interface. However, Alta Sierra is an established community, and there is substantial development in the immediate vicinity of the project site, including additional commercial and retail uses, residences, and roadways. The Nevada County Consolidated Fire Station 88 is located on SR 49 approximately 1.6 road miles north of the project site, and Station 89 is located on Tammy Way, approximately 2.3 road miles southeast of the site. Additional information about fire protection services is provided in Section 14.1.1 in Section 14.0, Public Services and Utilities.

Alta Sierra Drive is not a county-designed evacuation route, but the Alta Sierra Drive/SR 49 intersection is approximately 0.1 mile to the west. SR 49 is a primary evacuation route.

10.1.2 Regulatory Framework

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Section 10.0.2, above.

10.1.3 Impacts and Mitigation Measures

Hazardous Materials Use (Standards of Significance 1, 2, and 3)

Impact 10.1.1(AS) Construction and occupancy of the Alta Sierra site would involve the use of hazardous materials. (Less than Significant)

Nevada County Dollar General Stores
December 2016 Draft Environmental Impact Report 10.0-7
During construction of the proposed project, hazardous materials would be used during all phases of construction. Heavy machinery used during site preparation would use fuel and would contain oils and lubricants. Various materials such as adhesives, solvents, and paints would also be used, and paving machines would contain asphalt. The amount and types of hazardous materials would be limited and would be on-site only for the duration of construction activities (approximately 5 months for all phases of construction). The types of hazardous materials that would be used are not acutely hazardous materials as defined in federal regulations. When used properly, the types and amounts of hazardous materials that would be used for project construction would not pose a substantial health risk to construction workers and the public. The use, storage, transportation, and disposal of hazardous materials is highly regulated, and the County requires project construction contractors to comply with all applicable laws and regulations.

The potential for hazardous materials used during construction to be conveyed to the roadside ditches along Alta Sierra Drive and Little Valley Road would be minimized through implementation of an SWPPP and BMPs, which are required by the state as part of the Construction General Permit and compliance monitored by the County. BMPs that would reduce the potential for hazardous materials to be discharged to ditches, and which would be implemented by the applicant’s construction contractor, would include a hazardous materials control and spill response plan to regulate the use of hazardous materials and/or the use of straw wattles, berms, or similar barriers to reduce the potential for contaminated runoff.

The types of hazardous materials that would be used for building and site maintenance during occupancy (e.g., cleaning agents and pesticides and herbicides) and retail items delivered to and sold at the store such as household cleaning products are not acutely hazardous materials nor would they be a source of hazardous air emissions.

With implementation of existing laws and regulations pertaining to hazardous materials use, which would be monitored and enforced by the County during construction activities, the proposed project would not result in or create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and it would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts would be less than significant, and no mitigation measures are required.

Mitigation Measures

None required.

Hazardous Materials Contamination (Standard of Significance 4)

Impact 10.1.2(AS) Development of the Alta Sierra site would not encounter known hazardous materials contamination. (Less than Significant)

The Alta Sierra site is not included on the Cortese List, and the Phase I ESA did not identify any recognized environmental conditions.

Mitigation Measures

None required.
Emergency Response Plans and Evacuation Routes (Standard of Significance 7)

**Impact 10.1.3(AS)** Development of the Alta Sierra site would not affect emergency response plans. *(Less than Significant)*

Emergency access impacts are evaluated in Impact 15.1.2(AS) in Section 15.0, Traffic and Transportation. As indicated in that analysis, the distances from Alta Sierra Drive to the entrance of the building and property boundary are less than 1,000 feet, indicating that adequate emergency access is provided because emergency personnel can park along Alta Sierra Drive and provide emergency services in the event that the project access is blocked or otherwise inaccessible.

The proposed project would provide a driveway that meets County standards, which would be a new connection to Alta Sierra Drive. Alta Sierra Drive is not a county-designated evacuation route, but it does provide local access to SR 49. The proposed project would not require any improvements or modification to SR 49 that would impair or limit its use for emergency response vehicles or as a primary evacuation route.

Because development of the Alta Sierra site would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, impacts would be less than significant. Refer to Impact 15.1.2(AS) for a discussion of the potential for truck deliveries to obstruct traffic flow in the project area.

**Mitigation Measures**

None required.

Wildland Fire Hazard (Standard of Significance 8)

**Impact 10.1.4(AS)** Development of the Alta Sierra site would result in a new building in a high fire hazard severity zone. *(Less than Significant with Mitigation Incorporated)*

The project would result in the removal of trees and understory on the site and the development of a building, parking lot, and landscaping. The grading plan must identify how vegetation removal will be performed to minimize the risk of fire during site preparation activities. Prior to issuance of a building permit, the applicant is required to demonstrate to the satisfaction of the County that the site design meets all fire safety regulations for the type of occupancy, fire flows, setbacks, defensible space, and ingress/egress.

Although the site is in a high FHSZ and a wildland-urban interface, it would not increase the risk of wildland fire because it is not proposing development in an undeveloped area, nor would it expose structures to any greater fire risk than currently exists in the community of Alta Sierra. It would continue to be surrounded by developed uses.

The proposed project would not increase wildland fire hazard risk, but there is the potential for a fire. The project applicant would be required to meet the Nevada County Consolidated Fire Districted-required fire flow requirements, previously identified for the project (Nevada County 2015), which are identified in mitigation measure MM AS-10.1.4. With these on-site project components, there would be adequate water volume and flow to meet fire suppression requirements, which would reduce the impact to less than significant. Impacts associated with construction of these improvements are within the project footprint and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0).
10. HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measures

**MM AS-10.1.4** Prior to issuance of grading and building permits for the project, the County shall ensure the following is completed:

1. The applicant shall provide written verification to the Nevada County Consolidated Fire District of 1,500-gallons-per-minute (gpm) fire flow. A fire hydrant shall be installed on-site to supplement the existing hydrant on Alta Sierra Drive. The location of the hydrant shall be shown on project plans and shall be subject to Nevada County Consolidated Fire District approval.

2. An approved fire sprinkler system shall be installed throughout the entire building to achieve the 1,500-gpm fire flow and shall be monitored by an approved fire alarm system.

3. If alternative means of providing necessary fire flow are necessary, the applicant shall submit a plan to the Nevada County Consolidated Fire District for review and approval, and the County shall ensure project design incorporates the approved features.

**Timing/Implementation:** Prior to issuance of grading and building permit

**Enforcement/Monitoring:** Nevada County Building Department and Nevada County Consolidated Fire District

10.2 PENN VALLEY SITE

10.2.1 PROJECT-SPECIFIC SETTING

The Penn Valley project site is a vacant parcel covered with grass; only 1.2 acres adjoining Penn Valley Drive are proposed for development. The site is surrounded on the west and east by development, by Penn Valley Drive on the south, and the remaining undeveloped portion of the parcel on the north, extending north to Squirrel Creek, a portion of which contains the wastewater system for the adjacent Creekside Village Mobile Home Park to the east. A review of available historic maps and aerial photographs indicates there has not been any previous development or improvements on the site since at least 1888 (Partner 2016).

There are no hazardous materials used or stored on the site, and the Phase I ESA determined there are no recognized environmental conditions on the project site or conditions in the vicinity of the project site that indicate the potential for environmental contamination from hazardous materials that warrant additional investigation (Partner 2016).

The site is in a moderate FHSZ. According to the Nevada County Local Hazard Mitigation Plan, the site is within a wildland-urban interface. However, Penn Valley is an established community, and there is substantial development in the immediate vicinity of the project site, including additional commercial and retail uses, residences, and roadways. Fire protection in the Penn Valley area is provided by the Penn Valley Fire Protection District, in coordination with Cal Fire. Station #43 is located on Spenceville Drive near the intersection with Penn Valley Drive. Fire flow (pressurized water available for fire protection purposes) is currently provided in the plan area via hydrants connected to either the public or community water supply. Additional information about fire protection services is provided in Subsection 14.2.1 in Section 14.0, Public Services and Utilities.
Penn Valley Drive and Pleasant Valley Road are County-designated secondary evacuation routes.

10.2.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Penn Valley site other than those described in Section 10.0.2, above. The Penn Valley Area Plan contains one landscape design guideline (LD3), which encourages use of drought-tolerant and fire-resistant plants.

10.2.3 IMPACTS AND MITIGATION MEASURES

Hazardous Materials Use (Standards of Significance 1, 2, and 3)

Impact 10.2.1(PV) Construction and occupancy of the Penn Valley site would involve the use of hazardous materials. (Less than Significant)

During construction of the proposed project, hazardous materials would be used during all phases of construction. Heavy machinery used during site preparation would use fuel and would contain oils and lubricants. Various materials such as adhesives, solvents, and paints would also be used, and paving machines would contain asphalt. The amount and types of hazardous materials would be limited and would be on-site only for the duration of construction activities (approximately 5 months for all phases of construction). The types of hazardous materials that would be used are not acutely hazardous materials as defined in federal regulations. When used properly, the types and amounts of hazardous materials that would be used for project construction would not pose a substantial health risk to construction workers and the public. The use, storage, transportation, and disposal of hazardous materials is highly regulated, and the County requires project construction contractors to comply with all applicable laws and regulations.

The potential for hazardous materials used during construction to be conveyed to Penn Valley Drive and/or Squirrel Creek via the on-site wash would be minimized through implementation of an SWPPP and BMPs, which are required by the state as part of the Construction General Permit and compliance monitored by the County. BMPs that would reduce the potential for hazardous materials to be discharged to ditches, and which would be implemented by the applicant’s construction contractor, would include a hazardous materials control and spill response plan to regulate the use of hazardous materials and/or the use of straw wattles, berms, or similar barriers to reduce the potential for contaminated runoff.

The types of hazardous materials that would be used for building and site maintenance during occupancy (e.g., cleaning agents and pesticides and herbicides) and retail items delivered to and sold at the store such as household cleaning products are not acutely hazardous materials nor would they be a source of hazardous air emissions.

With implementation of existing laws and regulations pertaining to hazardous materials use, which would be monitored and enforced by the County during construction activities, the proposed project would not result in or create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and it would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts would be less than significant, and no mitigation measures are required.
10. Hazards and Hazardous Materials

Mitigation Measures

None required.

Hazardous Materials Contamination (Standard of Significance 4)

Impact 10.2.2(PV) Development of the Penn Valley site would not encounter known hazardous materials contamination. (Less than Significant)

The Penn Valley site is not included on the Cortese List, and the Phase I ESA did not identify any recognized environmental conditions.

Mitigation Measures

None required.

Emergency Response Plans and Evacuation Routes (Standard of Significance 7)

Impact 10.2.3(PV) Development of the Penn Valley site would not affect emergency response plans. (Less than Significant)

Emergency access impacts are evaluated in Impact 15.2.2(PV) in Section 15.0, Traffic and Transportation. As indicated in that analysis, the distances from Penn Valley Drive to the entrance of the building and property boundary are less than 1,000 feet, indicating that adequate emergency access is provided because emergency personnel can park along the street frontage at the project driveway and provide emergency services in the event that the project access is blocked or otherwise inaccessible.

The proposed project would provide a driveway that meets County standards, which would be a new connection to Penn Valley Drive. However, this would not require any improvements or modification to Penn Valley Drive that would impair or limit its use for emergency response vehicles or as a secondary evacuation route.

Because development of the Penn Valley site would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, impacts would be less than significant. Refer to Impact 15.2.2(PV) for a discussion of the potential for truck deliveries to obstruct traffic flow in the project area.

Mitigation Measures

None required.

Wildland Fire Hazard (Standard of Significance 8)

Impact 10.2.4(PV) Development of the Penn Valley site would result in a new building in a moderate fire hazard severity zone. (Less than Significant with Mitigation Incorporated)

The project would result in the removal of grass on the site and the development of a building, parking lot, and landscaping. The grading plan must identify how grass removal will be performed to minimize the risk of fire during site preparation activities. Prior to issuance of a building permit, the applicant is required to demonstrate to the satisfaction of the County that the site design
meets all fire safety regulations for the type of occupancy, fire flows, setbacks, defensible space, and ingress/egress.

Although the site is in a moderate FHSZ and a wildland-urban interface, it would not increase the risk of wildland fire because it is not proposing development in an undeveloped area, nor would it expose structures to any greater fire risk than currently exists in the community of Penn Valley. It would continue to be surrounded by developed uses and would expand the wildland-urban interface.

The proposed project would not increase wildland fire hazard risk, but there is the potential for a fire. The project applicant intends to meet its required fire flow requirement through the use of existing NID water and the installation of water storage tanks on-site with a fire-rated fire pump, hydrant, and post indicator valve for the fire sprinkler system. The Penn Valley Fire Protection District has determined the required fire flow is 1,500 gallons per minute (gpm) and water supply needed is 180,000 gallons (PVFPD 2016), which is specified in mitigation measure MM PV-10.2.4. With these on-site project components, there would be adequate water volume and flow to meet fire suppression requirements, which would reduce the impact to less than significant. Impacts associated with construction of these improvements are within the project footprint and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0).

Mitigation Measures

**MM PV-10.2.4** Prior to issuance of a grading and building permits for the project, the County shall ensure the following is completed:

1. The applicant shall provide 180,000 gallons of water to provide the minimum fire flow of 1,500 gallons per minute. Prior to installation, the applicant shall provide a plan to the Penn Valley Fire Protection District for review and approval that demonstrates that minimum fire flow is being met and how any on-site water supply tanks integrate with the Nevada Irrigation District (NID) system to ensure adequate fire flow. Minimum fire flow may be met through a combination of existing NID water, underground water storage tanks with a rated fire pump, hydrant, and post indicator valve for the fire sprinkler system.

2. An approved fire sprinkler system shall be installed throughout the entire building and shall be monitored by an approved fire alarm system.

**Timing/Implementation:** Prior to issuance of grading and building permit

**Enforcement/Monitoring:** Nevada County Planning Department and Penn Valley Fire Protection District

### 10.3 ROUGH AND READY HIGHWAY SITE

#### 10.3.1 PROJECT-SPECIFIC SETTING

The Rough and Ready Highway is site is partially developed with a building, parking lot, and driveway. Adjacent land uses include two single-family residences and other rural residential uses to the west. Directly east of the site are West Drive and single-family residential uses, and a small mobile home park is farther east. South of the site are single-family residential uses and transitional housing to the north, across Rough and Ready Highway, and vacant undeveloped land farther north.
A portion of the existing building appears to have been present as early as 1947, and reportedly there was a gas station that operated during the 1940s and 1950s. In 1978, the building was remodeled. A variety of commercial/retail businesses have occupied the site. There is a septic tank system and leach field on the south side of the property. The Phase I ESA stated there may be underground storage tanks (USTs) and identified this as an REC requiring further evaluation in a Phase II ESA. A Phase II ESA was performed in April 2015, which consisted of a geophysical survey in an attempt to locate any USTs, soil borings, soil vapor measurements, and soil testing. No USTs were found, but the geophysical survey identified a location of a probable former UST pit. Total petroleum hydrocarbons and lead were found in soil samples above laboratory detection limits, but the levels were below RWQCB screening levels for both residential and commercial/industrial soil. Based on these results, the Phase II ESA preparers had no further recommendations for additional investigation (EBI 2015a, 2015b).

The potential for asbestos-containing materials (ACM) and lead-based paint (LBP) due to the age of the building was also noted. While these are not considered RECs, the Phase I ESA recommended that ACM and LBP surveys be prepared to determine whether these materials may be present (EBI 2015a).

The site is in a very high FHSZ. According to the Nevada County Local Hazard Mitigation Plan, the site is within a wildland-urban interface. However, Rough and Ready is an established community, including the project site which is east of the community itself, and there is development in the immediate vicinity of the project site. The nearest fire station to the site is NCCFD Station #1, located at 472 Brighton Street, approximately 2.7 miles west of the project site. Station #2 is approximately 3.2 miles away, at 213 Sierra College Drive. The Nevada Irrigation District (NID) operates a water delivery system that serves the project site. Additional information about fire protection services is provided in Subsection 14.2.1 in Section 14.0, Public Services and Utilities.

Rough and Ready Highway is a county-designated secondary evacuation route.

10.3.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Section 10.0.2, above. However, because the site is in a very high FHSZ, the project applicant will be required to submit a fire protection plan to be approved by the Nevada County Fire Marshal and/or his/her designee and comply with other requirements in accordance with Nevada County Code Section L-II 4.3.18 Wildland Fire Hazard Areas.

10.3.3 IMPACTS AND MITIGATION MEASURES

Hazardous Materials Use (Standards of Significance 1, 2, and 3)

Impact 10.3.1(RR) Construction and occupancy of the Rough and Ready Highway site would involve the use of hazardous materials. (Less than Significant)

During construction of the proposed project, hazardous materials would be used during all phases of construction. Heavy machinery used during site preparation would use fuel, oils, and lubricants. Various materials such as adhesives, solvents, and paints would also be used, and paving machines would contain asphalt. The amount and types of hazardous materials would be limited and would be on-site only for the duration of construction activities (approximately 5 months for all phases of construction). The types of hazardous materials that would be used are not acutely hazardous materials as defined in federal regulations. When used properly, the types and amounts
of hazardous materials that would be used for project construction would not pose a substantial
health risk to construction workers and the public. The use, storage, transportation, and disposal
of hazardous materials is highly regulated, and the County requires project construction
contractors to comply with all applicable laws and regulations.

The potential for hazardous materials used during construction to be conveyed to ditches along
Rough and Ready Highway would be minimized through implementation of an SWPPP and BMPs,
which are required by the state as part of the Construction General Permit and compliance
monitored by the County. BMPs that would reduce the potential for hazardous materials to be
discharged to ditches, and which would be implemented by the applicant’s construction
contractor, would include a hazardous materials control and spill response plan to regulate
the use of hazardous materials and/or the use of straw wattles, berms, or similar barriers to reduce the
potential for contaminated runoff.

The types of hazardous materials that would be used for building and site maintenance during
occupancy (e.g., cleaning agents and pesticides and herbicides) and retail items delivered to
and sold at the store such as household cleaning products are not acutely hazardous materials
nor would they be a source of hazardous air emissions.

With implementation of existing laws and regulations pertaining to hazardous materials use, which
would be monitored and enforced by the County during construction activities, the proposed
project would not result in or create a significant hazard to the public or the environment through
the routine transport, use, or disposal of hazardous materials or create a significant hazard to the
public or the environment through reasonably foreseeable upset and accident conditions
involving the release of hazardous materials into the environment, and it would not emit hazardous
emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-
quarter mile of an existing or proposed school. Impacts would be less than significant, and no
mitigation measures are required.

Mitigation Measures

None required.

Hazardous Materials Contamination (Standard of Significance 4)

Impact 10.3.2(RR) Development of the Rough and Ready Highway site would involve activities
that have the potential to encounter hazardous materials. (Less than Significant
with Mitigation Incorporated)

The Rough and Ready Highway site is not included on the Cortese List. The Phase I ESA identified
one REC associated with the potential for USTs, but a Phase II ESA did not locate any USTs, and soil
testing did not indicate evidence of contamination. The ESA preparers did not recommend further
testing. Although reasonable due diligence was performed to identify the potential for hazardous
materials contamination from historic uses, it is possible a UST or contamination not previously
found could be encountered during ground-disturbing activities.

If a UST, stained soils, or other obvious evidence of contamination are discovered and controls are
not in place to safely manage their removal, this could pose a hazard to human health and the
environment because of the potential for inadvertent release of materials. ACM and LBP in the
existing building, if present, could also pose a hazard during demolition. Workers could be exposed
to the materials, or debris containing these materials could be improperly transported and
disposed. This is a potentially significant impact.
10. Hazards and Hazardous Materials

As described in the Regulatory Setting subsection, numerous existing regulations at the federal, state, and local levels are intended to minimize potential hazards to the public and the environment from the improper handling or accidental release of hazardous materials. There is an established regulatory process for remediating environmental hazards, and the County would require documentation that hazards, if any, have been managed in accordance with federal, state, and local laws and regulations. Testing and removal (if required) of ACM and LBP is regulated at the state and local level.

Implementation of mitigation measure MM RR-10.3.2a will ensure that if hazardous materials are found or suspected during earthwork, they are evaluated and managed in accordance with applicable laws and regulations. Implementation of MM RR-10.3.2b will ensure that ACM and LBP are removed and disposed of in accordance with applicable regulations. This would reduce impacts to less than significant.

Mitigation Measures

MM RR-10.3.2a

The County shall ensure any grading or improvement plan or building permit includes a condition that if hazardous materials contamination is discovered or suspected during construction activities, all work shall stop immediately and the construction contractor shall notify the County for direction. Signs of potential hazardous materials contamination may include stained soils, discolored or oily water, previously unknown underground storage tanks, foul odors, etc. Work shall not resume until a qualified professional has determined an appropriate course of action such as investigation, remediation, or other method to control the potential for hazardous materials contamination to pose a human health or environmental risk and this course is evaluated and approved by the appropriate regulatory agency (e.g., Nevada County Building Department and Environmental Health Department). The County shall be responsible for appropriate notification of regulatory agencies such as the Central Valley RWQCB and/or DTSC, as applicable.

Timing/Implementation: Prior to issuance of a grading permit and during construction

Enforcement/Monitoring: Nevada County Building Department and Department of Environmental Health

MM RR-10.3.2b

A survey for asbestos-containing building materials, lead-based paint, polychlorinated biphenyl, or other potentially hazardous building materials shall be conducted prior to initiation of demolition or reconstruction of the existing buildings. The results of the survey shall be provided to the Nevada County Building Department prior to any work on the building. If hazardous building materials are present at levels that require special handling and/or disposal, removal of the materials shall be completed by qualified professionals in accordance with applicable laws and regulations (including Northern Sierra Air Quality Management District requirements) prior to any activity that would involve demolition or renovation.

Timing/Implementation: Prior to issuance of a building permit

Enforcement/Monitoring: Nevada County Building Department
Emergency Response Plans and Evacuation Routes (Standard of Significance 7)

**Impact 10.3.3(RR)** Development of the Rough and Ready Highway site would not affect emergency response plans or established evacuation routes. (Less than Significant)

Emergency access impacts are evaluated in Impact 15.3.2(RR) in Section 15.0, Traffic and Transportation. The proposed project would provide driveways connecting to Rough and Ready Highway and West Drive that meet County standards. This would not require any improvements or modification to Rough and Ready Highway that would impair or limit its use for emergency response vehicles or as a secondary evacuation route.

Because development of the Rough and Ready Highway site would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, impacts would be less than significant. Refer to Impact 15.3.2(RR) in Section 15.0, Traffic and Transportation, for a discussion of the potential for truck deliveries to obstruct traffic flow in the project area.

**Mitigation Measures**

None required.

Wildland Fire Hazard (Standard of Significance 8)

**Impact 10.3.4 (RR)** Development of the Rough and Ready Highway site would result in a new building in a very high fire hazard severity zone. (Less than Significant with Mitigation Incorporated)

The project would result in the removal of an existing building, parking lot, and vegetation. The grading plan must identify how vegetation removal will be performed to minimize the risk of fire during site preparation activities. Prior to issuance of a building permit, the applicant is required to demonstrate to the satisfaction of the County that the site design meets all fire safety regulations for the type of occupancy, setbacks, defensible space, and ingress/egress. Because the site is in a very high FHSZ, this would include preparation of a Fire Prevention Plan (FPP) in accordance with Nevada County Code Section L-II 4.3.18 that would reduce the risk of fire and maximize safety and fire suppression efforts.

Although the site is in a very high FHSZ and a wildland-urban interface, it would not increase the risk of wildland fire because it is not proposing development in an undeveloped area, nor would it expose structures to any greater fire risk than currently exists in the community of Rough and Ready. It would continue to be surrounded by developed uses and would not expand the wildland-urban interface.

The proposed project would not increase wildland fire hazard risk, but there is the potential for a fire. The Nevada County Consolidated Fire District has determined the project would need to provide a fire flow of 1,500 gpm and a water storage tank with a minimum size of 48,000 gallons and a pump to ensure that adequate volume and pressure is available in the event of a fire (NCCFD 2016). The Nevada County Consolidated Fire District has identified specific fire protection requirements for the project, which are listed in mitigation measure MM RR-10.3.4. With these on-site project components, there would be adequate water volume and flow to meet fire suppression requirements, which would reduce the impact to less than significant. Impacts
associated with construction of these improvements are within the project footprint and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0).

Mitigation Measures

**MM RR-10.3.4**

Prior to issuance of a grading and building permits for the project, the County shall ensure the following is completed:

1. An automatic fire sprinkler and alarm system approved by the Nevada County Consolidated Fire District shall be included in project design.

2. All improvements to achieve 1,500 gallons per minute fire flow shall be completed prior to any building materials stored on-site. Written verification of adequate fire flow, based on an actual flow test, shall be provided to the Nevada County Consolidated Fire District.

3. The applicant shall install a 48,000-gallon water storage tank. Prior to installation, the applicant shall provide a plan to the Nevada County Consolidated Fire District for review and approval that demonstrates how the tank integrates with the Nevada Irrigation District system to ensure adequate fire flow.

4. If it is determined through flow-testing that the three fire hydrants within 500 feet of the project site are insufficient to meet fire flow requirements, additional on-site hydrants will be required and shall be subject to review and approval by the Nevada County Consolidated Fire District.

5. The post-indicator valve and fire department connection for the fire sprinkler system should be installed near the fire hydrant located near the northwest corner of the property. Other locations may be proposed; however, they may require the addition of an on-site hydrant, subject to approval by the Nevada County Consolidated Fire District.

**Timing/Implementation:** Prior to issuance of grading and building permit

**Enforcement/Monitoring:** Nevada County Building Department and Nevada County Consolidated Fire District

### 10.4 Cumulative Setting, Impacts, and Mitigation Measures

**Cumulative Setting**

The cumulative setting for hazards and hazardous materials impacts are the three Dollar General Store sites combined and cumulative development in the western portion of Nevada County in the Sierra Nevada foothills.
10. Hazards and Hazardous Materials

Cumulative Impacts and Mitigation Measures

Cumulative Hazards and Hazardous Materials Impacts

Impact 10.4.1 Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative hazards and hazardous materials impacts. (Less than Cumulatively Considerable with Mitigation)

The predominant land uses in the vicinity of each site are and will continue to be a mix of residential, commercial, and retail uses, which would not involve extensive use of hazardous materials. The General Plan notes that the significance of hazardous materials to the environment, property, and human health depends on the type, location, and quantity of the material released. The majority of the hazardous waste stream in Nevada County is generated by small quantity generators, with the major contributor to the hazardous waste stream being waste oil. Certain areas of the county are at higher risk of encountering a hazardous material incident. Roadways, railways, waterways, and airways are frequently used for transporting hazardous materials. Areas with industrial facilities that use, store, or dispose of such materials all have an increased potential to exposure (Nevada County 2014). The proposed project sites are not in industrial areas and would not involve the use of large quantities of hazardous materials or result in increased transport along the county’s transportation facilities.

Hazardous materials are transported on virtually all public roads, particularly since all motor vehicles contain hazardous materials (e.g., fuel) in addition to any hazardous cargo that may be on board. In addition, cumulative development in Nevada County would increase the amount of development, which would result in increased use of household and other potentially hazardous chemicals associated with nonresidential uses.

As discussed above, the transport, use, storage, and disposal of hazardous materials are governed by a substantial body of existing regulations intended to reduce the potential for exposure by controlling the pathways by which persons could be exposed to hazardous substances. Compliance with these regulations is required by all projects, including the proposed projects.

In addition, potentially adverse environmental effects associated with the use, storage, transport, and disposal of hazardous materials are usually site-specific in nature, although their long-term impacts may be regional in extent. Individual incidents generally do not combine with similar effects that could occur with other projects in the county. The proposed projects’ contribution would be less than cumulatively considerable.

Of the approximately 50 contaminated sites identified by the DTSC in Nevada County, the most common contaminants are arsenic, lead, and mercury from past mining activities (Nevada County 2014). There are no mines in the vicinity of any of the project sites. According to agency records, there are no non-mining-related contaminated sites in the immediate vicinity of any of the three sites, and none of the sites are included on the Cortese List. Hazardous materials contamination impacts are site-specific and do not combine with other similar projects to result in a cumulative effect. Demolition activities at the Rough and Ready Highway site could disturb ACM or LBP. Potential impacts would be limited to this site only, which minimizes the potential for a cumulative effect, and mitigation measures MM RR-10.3.2a and MM RR-10.3.2b would ensure hazardous materials are not released to the environment. The proposed project’s contribution would be less than cumulatively considerable.
10. Hazards and Hazardous Materials

Wildland fire hazard impacts would be less than cumulatively considerable. The three Dollar General Store proposed sites are on different roadways in areas that are already developed and are not connected geographically. Therefore, the three projects would not combine to result in a cumulative effect. Each site must adhere to the County’s safety regulations, which would be verified by County staff prior to issuance of permits.

Mitigation Measures

Implement mitigation as follows:

Alta Sierra project: None required.

Penn Valley project: None required.

Rough and Ready Highway project: Implement mitigation measures MM RR-10.3.2a and MM RR-10.3.2b.
REFERENCES


———. 2015a. Phase I Environmental Site Assessment, 12345 Rough and Ready Highway.

———. 2015b. Phase II Environmental Site Assessment, 12345 Rough and Ready Highway.


———. 2015. Conditions and Mitigation Measures Dollar General (DP 14-001, MGT 14-010, EIS 14-005)


10. HAZARDS AND HAZARDOUS MATERIALS

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11.0 HYDROLOGY AND WATER QUALITY
This section describes and analyzes surface hydrology and water quality characteristics associated with the proposed projects. Information in this section is based on site-specific drainage and geotechnical studies and other published information.

11.0 General Environmental Conditions and Regulations

11.0.1 Regional Hydrology and Water Quality

The project sites are situated in the central/western portion of Nevada County, at the point where the western Sierra Nevada foothills separate the low-lying Sacramento Valley from the Sierra Nevada range. The region’s geography is characterized by rolling forested hills incised by steep canyons, and the climate is characterized by cool, wet winters with warm, dry summers.

The Alta Sierra site is in the Bear River watershed, and the Penn Valley and Rough and Ready Highway sites are in the Yuba River watershed. Both rivers flow to the Feather River, which discharges to the Sacramento River north of Sacramento. Bear and Yuba river flows are regulated almost entirely by several storage reservoirs and numerous diversions. Water quality in both rivers has been affected by mercury as a result of past hydraulic mining and sediment from development, logging, and recreation, and both are included on the Clean Water Act Section 303(d) list of impaired water bodies.

Wolf Creek and Deer Creek are major tributaries to the Bear and Yuba rivers, respectively, and are the closest tributaries in the vicinity of the three sites. Wolf Creek runs through Grass Valley in a northeast to southwest direction, where it has undergone considerable channelization and augmentation. Prior to entering and upon leaving Grass Valley, the creek remains in its natural course. Wolf Creek flows south approximately 14 miles to Bear River. Wolf Creek is an impaired water body due to pathogens (fecal coliform). Deer Creek flows through Nevada City to Lake Wildwood and ends as it enters the Yuba River below Englebright Lake. Squirrel Creek is tributary to Deer Creek. Deer Creek from Deer Creek Reservoir to Lake Wildwood is listed as impaired for mercury (SWRCB 2011).

Groundwater resources in western Nevada County are characterized as poorly defined and variable.

Flood Hazards

100-Year Flood Hazard Areas

The Federal Emergency Management Agency (FEMA) has published Flood Rate Insurance Maps (FIRMs) for many waterways in western Nevada County. None of the project sites is within a mapped 100-year floodplain, but the Penn Valley site is approximately 730 feet from the mapped Zone AE floodplain for Squirrel Creek.

Dam Failure Inundation

Dam failure flooding can occur as the result of partial or complete collapse of an impoundment. Dam failures often result from prolonged rainfall and flooding but can also result from improper siting, structural design flaws, erosion of the face of foundation, earthquakes, and massive landslides. The primary danger associated with any potential dam failure is the high velocity flooding of those properties downstream of such a dam. None of the project sites are in locations at risk of flooding from dam failure inundation.
11. Hydrology and Water Quality

Seiche, Tsunami, and Mudflow

A seiche is a rhythmic motion of water in a partially or completely landlocked water body caused by landslides, earthquake-induced ground accelerations, or ground offset. There are no water bodies in the vicinity of the project sites of sufficient size to pose a risk by seiche waves. None of the project sites are in an area prone to mudflow hazards. Due to their inland location, the project sites would not be affected by tsunami and climate change-induced sea level rise.

11.0.2 Regulatory Framework

Federal

Clean Water Act

The Clean Water Act (CWA) regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program.

Sections 401 and 404

Sections 401 and 404 of the CWA are administered through the regulatory program of the US Army Corps of Engineers (USACE) and regulate the water quality of all discharges of fill or dredged material into waters of the United States, including wetlands and intermittent stream channels. Additional information on Sections 401 and 404 of the CWA is provided in Section 6.0, Biological Resources.

Section 402 – National Pollutant Discharge Elimination System

As authorized by Section 402(p) of the CWA, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The State Water Resources Control Board (SWRCB) issues NPDES permits to cities and counties through the Regional Water Quality Control Boards (RWQCB), and it is the responsibility of the RWQCBs to preserve and enhance the quality of the state’s waters through the development of water quality control plans and the issuance of waste discharge requirements. Waste discharge requirements for discharges to surface waters also serve as NPDES permits.

Section 303 – List of Impaired Water Bodies

CWA Section 303(d) requires that all states in the United States identify water bodies that do not meet specified water quality standards and that do not support intended beneficial uses. Identified waters are placed on the Section 303(d) List of Impaired Water Bodies. Once waters are placed on this list, states are required to develop a water quality control plan—called a total maximum daily load—for each water body and each associated pollutant/stressor.

State

Porter-Cologne Water Quality Control Act

In 1969, the California legislature enacted the Porter-Cologne Water Quality Control Act to preserve, enhance, and restore the quality of the state’s water resources. The act established the SWRCB and nine RWQCBs as the principal state agencies with the responsibility for controlling...
water quality in California. Under the act, water quality policy is established, water quality standards are enforced for both surface water and groundwater, and the discharges of pollutants from point and nonpoint sources are regulated. The SWRCB is responsible for implementing the CWA and issues NPDES permits to cities and counties through the RWQCBs. The project site is located in a portion of the state that is regulated by the Central Valley RWQCB.

Under CWA Section 303(d) and the Porter-Cologne Water Quality Control Act, the state of California is required to establish beneficial uses of state waters and to adopt water quality standards to protect those beneficial uses. The Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin (Basin Plan) prepared by the Central Valley RWQCB establishes water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Sacramento-San Joaquin River Basin. The Basin Plan requirements apply to the Bear and Yuba rivers and their tributaries.

NPDES General Permit for Stormwater Discharges Associated with Construction

The SWRCB has adopted a General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order 2012-0006-DWQ). The Construction General Permit applies to any construction activity affecting 1 acre or more. The focus of the permit is to minimize the potential effects of construction runoff on receiving water quality. The permit requires preparation of a stormwater pollution prevention plan (SWPPP) that identifies best management practices (BMPs) describing erosion control measures.

Project proponents are required to submit a Notice of Intent, a site map, a signed certification statement, an annual fee, and an SWPPP. The permit program is risk-based, wherein a project’s risk is based on the project’s potential to cause sedimentation and the risk of such sedimentation on the receiving waters. A project’s risk determines its water quality control requirements, ranging from Risk Level 1, which consists of only narrative effluent standards, implementation of BMPs, and visual monitoring, to Risk Level 3, which consists of numeric effluent limitations, additional sediment control measures, and receiving water monitoring. Additional requirements include compliance with post-construction standards focusing on low-impact development, preparation of rain event action plans, increased reporting requirements, and specific certification requirements for certain project personnel.

The SWPPP must include BMPs to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges. Examples of typical construction BMPs include but are not limited to using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters.

General Order for Dewatering and Other Low Threat Discharges to Surface Waters

Certain activities during construction may also need to conform to the Waste Discharge Requirements included in the General Order for Dewatering and Other Low Threat Discharges to Surface Waters (Water Quality Order No. 5-00-175). The Dewatering General Order requires that a permit be acquired for dewatering and other low threat discharges to surface waters, provided
that they do not contain significant quantities of pollutants and either (1) are four months or less in duration, or (2) the average dry weather discharge does not exceed 0.25 million gallons per day (mgd). Activities that may require the acquisition of such a permit include well development, construction dewatering, pump/well testing, pipeline/tank pressure testing, pipeline/tank flushing or dewatering, condensate discharges, water supply system discharges, and other miscellaneous dewatering/low threat discharges. However, the actions applicable to site development may already be covered under the Construction General Permit, and therefore a separate permit may not be required.

Local

Nevada County General Plan

The Nevada County General Plan includes policies intended to protect water quality in the county. General Plan policies related to water quality include the following:

Policy 3.19A For all discretionary development, increases in stormwater runoff due to new development, which could result in flood damage to downstream residences, commercial, industrial, active natural resource management uses (i.e., farming, ranching, mining, timber harvest, etc.), public facilities, roads, bridges, and utilities shall not be permitted. Required retention/detention facilities, where necessary, shall be designed such that the water surface returns to its base elevation within 24 hours after the applicable storm event. The sizing of such facilities, when needed, shall be based upon the protection of downstream facilities.

Policy FH-10.3.2 Avoid potential increases in downstream flooding potential by protecting natural drainage and vegetative patterns through project site plan review, application of Comprehensive Site Development Standards, use of clustered development, and project subdivision design. The Comprehensive Site Development Standards shall include measures applicable to all discretionary and ministerial projects to avoid downstream flooding resulting from new development. Such measures, shall include, but not be limited to:

- avoidance of stream channel modifications;
- avoidance of excessive areas of impervious surfaces; and
- use of on-site retention or detention of storm water.

Policy 11.6 The County shall continue to enforce its regulations concerning the installation and operation of private sanitary waste disposal systems in order to protect the quality of surface and groundwater. The location of septic tanks and leachfields and their appropriate setbacks from water courses shall be in accordance with the guidelines of the Lahontan Regional Water Quality Control Board (eastern County) and the Central Valley Regional Water Quality Control Board (western County).

Policy 11.6A New development shall minimize the discharge of pollutants into surface water drainages by providing the following improvements or similar methods which provide equal or greater runoff control: (a) include curbs...
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and gutters on arterials, collectors, and local roads consistent with adopted urban street designs; and (b) oil, grease, and silt traps for subdivisions creating five or more parcels and commercial and industrial development of one acre or greater size. Maintenance of such facilities shall be assured through a legally-enforceable mechanism.

Policy 12.1 Enforce Grading Ordinance provisions for erosion control on new development projects by adopting provisions for ongoing monitoring of project grading. Project site inspection shall be required prior to initial site disturbance and grading to ensure all necessary control measures, are in place. The installation, maintenance, and performance of erosion and sediment control measures shall be monitored by County or District staff (or their designee) and completely funded by a project applicant. All County projects shall comply with this policy.

Policy 12.4 Require erosion control measures as an element of all County contracts, discretionary projects, and ministerial projects.

Nevada County Land Use and Development Code

Chapter V, Article 19 – Grading

This section of the code outlines the requirements for obtaining a grading permit, including specific requirements for grading plans, soils engineering reports, engineering geology reports, and geotechnical investigations as well as restrictions on grading performed in the winter. This section also contains standards for cuts and fills, drainage, and terracing. In addition, this section contains standards for erosion and sediment control, including the preparation of erosion and sediment control plans and related inspection requirements.

Chapter II, Article 4, Section L-II 4.3.10 – Floodplains

Section L-II 4.3.10 includes regulations to mitigate the impact of development on floodplains and to protect development and downstream users from the potential for hazards associated with flooding. Nevada County zoning regulations require a minimum 100-foot setback from floodplains and prohibit the placement of fill within floodplains. None of the project sites is within a floodplain. A floodplain has been mapped for Squirrel Creek north of the proposed footprint; however, the project would not encroach within the 100-foot setback area.

Chapter II, Article 4, Section L-II 4.3.17 – Watercourses, Wetlands and Riparian Areas

Section L-II 4.3.17 is intended to preserve the integrity and minimize the disruption of watersheds and watercourses; preserve stream corridors and riparian habitats; ensure adequate protection of stream values; and protect stream corridors for wildlife movement and foraging; avoid the impact of development on wetlands, or where avoidance is not possible, to minimize or compensate for such impacts; and to provide for minimum setbacks to protect resources values; and to retain wetlands as non-disturbance open space.
11. HYDROLOGY AND WATER QUALITY

11.0.3 IMPACT METHODOLOGY

Standards of Significance

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance, which state that a project would have a significant impact related to hydrology and water quality if it would:

1) Violate any water quality standards or waste discharge requirements.

2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.

4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

5) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

6) Otherwise substantially degrade water quality.

7) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

8) Place within a 100-year flood hazard area structures that would impede or redirect flood flows.

9) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam.

10) Expose people or structures to inundation by seiche, tsunami, or mudflow.

Methodology

A site-specific drainage study was prepared for each project site, and the results incorporated into the description of existing conditions and impacts for each site.

The Alta Sierra and Rough and Ready Highway sites would use septic systems. Information developed by the project applicant was incorporated into the analysis.
Thresholds Not Evaluated

The project sites do not propose development within a 100-year flood hazard area, and the sites are not subject to dam failure inundation, seiche, tsunami, mudflow, or sea level rise. There would be no impact relative to Standards of Significance 7 through 10, and these impacts are not further evaluated for any of the project sites.

11.1 Alta Sierra Site

11.1.1 Project-Specific Setting

The Alta Sierra site consists of three parcels, one for the construction of the store, parking, and other associated improvements (APN 25-430-08), and two for the off-site septic system (APNs 25-430-10 and -12). The store parcel is undeveloped, and all three parcels generally slope from the northwest to the southeast. The steepest natural slope is located along the northern boundary of the store parcel, but the majority of the site has an average slope of 20 percent. A subtle ridge bisects the site, allowing runoff generated on-site to flow toward both Alta Sierra Drive and Little Valley Road. Both roadways have roadside ditches to convey runoff parallel to the road. The runoff currently generated on-site flows to the two roadside ditches and is conveyed downstream. There is a 12-inch corrugated metal pipe culvert under an existing driveway on Alta Sierra Drive north of the project site, which is intended to convey stormwater flows in the roadside ditch northward. The culvert appears to be clogged, however, which results in stormwater flows overtopping the driveway. As a result, stormwater runoff flows west across Alta Sierra Drive to a ditch on the west side of the road (ITG 2016a).

There are no natural surface water bodies on the site. The nearest downgradient surface water body is Rattlesnake Creek, located approximately 500 feet southwest of the site (EBI 2014). Rattlesnake Creek drains to Wolf Creek.

Groundwater was not observed in borings or trenches, but saturated soil conditions and groundwater could be encountered in areas of soil/rock transition, and groundwater seepage may be encountered in areas proposed for deeper excavation (Holdrege and Kull 2015a).

Surface soils consists of sandy silt, which overlies gravel and highly weathered metavolcanic rock composed of 8- to 10-inch cobbles and boulders up to 35 inches in diameter. Soils at the project site are the Secca-Rock outcrop complex, which is characterized by medium to rapid runoff with slow permeability (Holdrege and Kull 2015a).

11.1.2 Regulatory Framework

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Section 11.0.2, above.

11.1.3 Impacts and Mitigation Measures

Stormwater Runoff and Water Quality (Standards of Significance 1, 3, 4, 5, and 6)

Impact 11.1.1(AS) Development of the Alta Sierra site would result in an increase in the rate and amount of stormwater runoff and would contribute urban pollutants to stormwater runoff. (Less than Significant With Mitigation Incorporated)
Development of the proposed project at the Alta Sierra site would involve the removal of vegetation, grading, excavation and trenching, and cut and fill. These activities would alter drainage patterns and could expose soil to erosion during construction. There would be heavy equipment and materials use, which could be a source of pollutants that could adversely affect water quality, which would be a potentially significant construction-period impact. Because the area of disturbance would be over 1 acre, the construction contractor would be required to implement an SWPPP and BMPs in accordance with the NPDES Construction General Permit (Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order 2012-0006-DWQ). In addition to the SWPPP, the applicant would be required to comply with Chapter V, Article 19 (Grading) and Chapter 11, Article 4, Section L-11 4.3.13 (Steep Slopes/High Erosion Potential) of the County’s Land Use and Development Code.

After construction, most of the store parcel would be covered with impervious surfaces associated with the building rooftop, parking lot, sidewalks, and hardscape. This would increase the rate and amount of stormwater runoff from the site compared to existing conditions, which could affect local drainage conditions. Runoff could contain additional urban pollutant loads from the rooftop and parking lot and would differ in terms of the types and levels of pollutants compared to existing conditions. Typical pollutants would include oil and grease, metals, and sediment from the parking lot and potentially landscape maintenance products. Pollutants in stormwater runoff could adversely affect water quality. Operational impacts would be potentially significant.

A drainage plan has been prepared that identifies how stormwater runoff and water would be managed to ensure compliance with County drainage and stormwater treatment standards and state water quality regulations (ITG 2016a). The pavement on the store parcel would be designed with a slope to avoid localized ponding on-site. The project’s drainage system would consist of several features to control runoff and remove pollutants on-site before stormwater is discharged to the off-site roadside ditches (west ditch along Alta Sierra Drive and east ditch along Little Valley Road). On-site rainfall on the store parcel would be routed along concrete gutters or asphalt pavement to catch basins and curb openings. Stormwater on the off-site sewage disposal is not expected to be impacted during project operation because those areas would be continue to have natural, pervious surface coverage to allow for proper percolation.

Flows from the west side of the store parcel (between the store and Alta Sierra Drive) would be directed toward the southwest corner of the site (low point), where they would pass through a stormwater filter prior to discharge into a catch basin that would be connected to underground detention pipes. An 18-inch culvert would be installed under the driveway on Alta Sierra Drive. This would ensure existing flows to the north in the roadside ditch would continue unimpeded (i.e., the proposed project would not create a barrier to flow that could increase flood potential in the ditch south of the site). As noted above, there is a localized drainage problem at the culvert under an off-site driveway just north of the project site, which results in stormwater overtopping Alta Sierra Drive. However, the drainage network piping on the west side has been sized so that post-development runoff rate for the 10-year and 100-year storm events would be less than pre-development conditions when flows are discharged to the ditch along Alta Sierra Drive. Table 11.0-1 summarizes the pre-development and post-development peak flow rates. Because the project would not increase flow rates to the ditch on Alta Sierra Drive, it would not exacerbate the existing roadway overtopping problem.

The remainder of the store site’s runoff would be conveyed to a surface bio-retention basin. Runoff would pass through the engineered subsurface layers of the bio-retention basin to an underground perforated pipe system. The percolated runoff would then be conveyed to an underground detention system before discharging to the roadside ditch along Little Valley Road. This portion of the site’s drainage system has been sized so that post-development runoff rates for
the 10-year and 100-year storm events would be less than pre-development conditions when flows are discharged to the ditch along Little Valley Road (Table 11.0-1).

**TABLE 11.0-1**

**ALTA SIERRA SITE STORMWATER RUNOFF PEAK FLOW RATES**

<table>
<thead>
<tr>
<th></th>
<th>West Side (Flows to Alta Sierra Drive)</th>
<th>East Side (Flows to Little Valley Road)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10-Year (cfs)</td>
<td>100-Year (cfs)</td>
</tr>
<tr>
<td>Pre-Development</td>
<td>0.066</td>
<td>0.104</td>
</tr>
<tr>
<td>Post-Development</td>
<td>0.062</td>
<td>0.078</td>
</tr>
<tr>
<td>Difference</td>
<td>-0.004</td>
<td>-0.026</td>
</tr>
</tbody>
</table>

*Source: TTG 2016a*  

With implementation of mitigation measures **MM AS-11.1.1a** through **MM AS-11.1.1c**, the drainage system and stormwater runoff water quality treatment features described above would be included in the project, which would ensure the proposed project would not increase the potential for off-site flooding as a result of stormwater runoff, even though the amount of runoff would increase. Construction site runoff and the stormwater runoff from the site after it is developed would be treated in the on-site drainage and water quality treatment system in accordance with County and state requirements. Therefore, development at the Alta Sierra site would not violate water quality standards, result in substantial erosion or siltation, increase the rate or amount of surface runoff that would result in flooding on- or off-site, or exceed storm drainage system capacity. Impacts would be reduced to **less than significant**.

**Mitigation Measures**

**MM AS-11.1.1a** The construction and grading permits shall comply with the applicable NPDES regulations. Prior to grading permit issuance, obtain a General Permit for Storm Water Discharges Associated with the construction activity and provide a copy of the permit to the County Planning, Building and Public Works Departments. Grading plans shall include verification that an NPDES permit, issued by the State Water Resources Board, has been issued for this project. To protect water quality, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to, the following:

1. At no time shall heavy equipment operate in flowing water.

2. Disturbed areas shall be graded to minimize surface erosion and siltation; bare areas will be covered with mulch; cleared areas will be revegetated with locally native erosion control seed mix.

3. The contractor shall exercise every reasonable precaution from adding pollution to offsite waterways with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the offsite drainages and shall be collected and removed from the site.
4. Erosion control measures shall be applied to all disturbed slopes. No invasive non-native grasses shall be used for erosion control, such as velvet grass or orchard grass. A combination of rice straw wattles, a mulch of native straw or certified weed-free straw, and a planting of native plant species is recommended.

5. Silt fencing (or filter fabric) shall be used to catch any short-term erosion or sedimentation that may inadvertently occur. Silt-fencing should be installed well above the offsite drainages and extend beyond the construction zone if necessary. The use of standard straw is prohibited to avoid introduction of noxious weeds, such as star thistle.

6. To minimize water quality impacts to Rattlesnake Creek or other offsite drainages after the project is complete, no direct discharge of runoff from newly constructed impervious surface will be allowed to flow directly to the drainage. Runoff from surfaces should be directed through storm water interceptors constructed at discharge points. These interceptors will remove oil, sediment, and other pollutants that might otherwise flow to downstream waterways.

**MM AS-11.1.1b**

The following measures shall be required to reduce surface water drainage patterns, unless alternatives are approved that are recommended by the project’s geotechnical engineers, the California Regional Water Quality Control Board or the Department of Public Works that will provide substantially the same or better management of surface drainage:

1. Slope final grade adjacent to structural areas so that surface water drains away from building pad finish subgrades at a minimum 2 percent slope for a minimum distance of 10 feet. Where interior slabs-on-grade are proposed, the exterior subgrade must have a minimum slope of 4 percent away from the structure for a minimum distance of 10 feet. Additional drainage and slab-on-grade construction recommendations are provided in a geotechnical engineering report outlined in mitigation measure MM AS-8.1.1b.

2. Compact and slope all soil placed adjacent to building foundations such that water is not retained to pond or infiltrate. Backfill should be free of deleterious material.

3. Direct rain-gutter downspouts to a solid collector pipe which discharges flow to positive drainage and away from building foundations.

**MM AS-11.1.1c**

Drainage facilities for this project shall utilize County Standard Plans and Specifications and be designed by a registered civil engineer. Onsite storm drainage facilities shall be constructed in compliance with the design and analysis provided in the project specific Drainage Report prepared by TTG Engineers dated May 2016, and Sheet C2 date stamped March 30, 2015, which is to be kept on file with the Planning Department. Additionally, measures shall be incorporated into the improvement plans that reduce the offsite drainage flows to pre-project conditions as any additional net increase in stormwater runoff from the project site is prohibited. Features shall also be incorporated into the plans that minimize the discharge of pollutants in conformance with General Plan Policy 11.6A, which include, but not limited to, the use of curbs and gutters, and the use of oil, grease and silt traps. County engineering staff
shall review future construction plans to verify that the final design meet the
requirements of this mitigation measure.

**Timing/Implementation:** Prior to issuance of Grading Permit and approval
of improvement plan; during construction activities

**Enforcement/monitoring:** Nevada County Planning Department

### Groundwater Supply and Quality (Standards of Significance 1, 2, and 6)

**Impact 11.1.2(AS)** Saturated soil and groundwater seepage may be present seasonally at the
Alta Sierra site and the site would be served by an existing septic system, but
the project would have minimal effect on groundwater amount and quality.

*(Less than Significant)*

The Alta Sierra site would be served by the Nevada Irrigation District (NID), which has existing lines
available for project connection. Groundwater wells would not be used for the project’s water
supply. The project site’s small size and underlying clay soils and weathered bedrock conditions
limit opportunities for groundwater recharge, so there would be no impacts on regional supply or
recharge conditions.

Groundwater was not observed in borings or trenches, but saturated soil conditions and groundwater
could be encountered in areas of soil/rock transition, and groundwater seepage may be
encountered in areas proposed for deeper excavation. This could result in the need for dewatering.
Given the small development footprint, underlying bedrock, and depth to groundwater, the amount
of groundwater that may be removed during construction would not be substantial. The potential for
saturated soil conditions and seepage to affect structures would be mitigated through subsurface
design, as recommended in the project’s geotechnical engineering report (Holdrege and Kull
2015a). Potential water quality impacts related to groundwater dewatering would be managed
through implementation of the General Order for Dewatering and Other Low Threat Discharges to
Surface Waters (Water Quality Order No. 5-00-175).

The proposed drainage system would consist of underground features to control and treat runoff.
Depending on the depth of these features, there is the possibility that pollutants could interact
with saturated soils. However, the pollutants would typically attach to the surface soil particles and
would not likely travel deep into subsurface soil and water layers. Subsurface soils are clay-rich
and underlain by weathered bedrock, which would reduce the potential for vertical and lateral
migration of pollutants in groundwater.

A new sewage disposal system is necessary for the Alta Sierra site and would rely on two off-site
parcels (APNs 25-430-10 and -12). As described in Impact 8.1.4 (AS) in Section 8.10, Geology and
Soils, septic testing (perc and mantle) has been completed, a Minimum Useable Sewage Disposal
Area has been established that is exclusive of the existing system, and tests have shown the system
would function properly.

Therefore, development of the Alta Sierra site would not substantially deplete groundwater
supplies or interfere substantially with groundwater recharge, or otherwise degrade groundwater
quality. Impacts would be **less than significant**.

**Mitigation Measures**

None required.
11. HYDROLOGY AND WATER QUALITY

11.2 PENN VALLEY SITE

11.2.1 PROJECT-SPECIFIC SETTING

The Penn Valley site is undeveloped and generally slopes from the southeast to the northwest, and the change in grade over the entire site is approximately 7 feet. Existing drainage structures in the vicinity of the site include three 42-inch by 36-inch arch culverts crossing Penn Valley Drive, a 30-inch by 24-inch arch culvert crossing the existing drive near the southeast property corner, and an 18-inch storm drain pipe located at the southwest property corner. On-site and off-site flows are ultimately conveyed by an existing wash with an upstream end located at the three 42-inch by 36-inch arch culvert discharge points. The wash continues along the southern and western property boundaries and exits the site near the northwest property corner and discharges into Squirrel Creek. An existing berm along the eastern property boundary prevents off-site flows from entering the site (ITG 2016b).

There are no permanent natural surface water bodies on the site. The nearest downgradient surface water body is Squirrel Creek, north of the site (ITG 2016b). Squirrel Creek drains to Deer Creek. There is a small wetland on the site consisting of approximately 0.42 acre of palustrine emergent seasonal marshes and 0.60 acre of jurisdictional water associated with Squirrel Creek and an unnamed tributary.

Potentially shallow, seasonal groundwater and saturated soil conditions are present. Groundwater was not observed but saturated soil conditions and groundwater could be encountered in areas of soil/rock transition, particularly during or after the rainy season (Holdrege and Kull 2015b).

Surface soils consist of alluvial land, loamy, which is characterized by moderate runoff (USDA 1993). Subsurface soils are dense silty sand with high organic content. Weathered granitic rock is approximately 40 to 80 inches below the ground surface (Holdrege and Kull 2015b).

11.2.2 REGULATORY FRAMEWORK

In addition to the regulations, policies, and standards described in Section 11.0.2, the project site is within the Penn Valley Village Center Area Plan, which has the following guidelines pertaining to drainage.

SP4 Site design should not change natural drainage patterns.

SP6 Riparian corridors should be maintained in their natural state as much as possible.

11.2.3 IMPACTS AND MITIGATION MEASURES

Stormwater Runoff and Water Quality (Standards of Significance 1, 3, 4, 5, and 6)

Impact 11.2.1(PV) Development of the Penn Valley site would result in an increase in the rate and amount of stormwater runoff and would contribute urban pollutants to stormwater runoff. (Less than Significant With Mitigation Incorporated)

Development of the proposed project at the Penn Valley site would involve the removal of vegetation, grading, excavation, and trenching. These activities would temporarily alter drainage patterns and could expose soil to erosion during construction. There would be heavy equipment and materials use, which could be a source of pollutants that could adversely affect water quality.
and the on-site wetland, which would be a potentially significant construction-period impact.\footnote{For further evaluation of wetland impacts, the reader is referred to Impact PV-6.2.3 in Section 6, Biological Resources.}

Because the site is greater than 1 acre, the project applicant’s construction contractor would be required to implement an SWPPP and BMPs in accordance with the NPDES Construction General Permit (Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order 2012-0006-DWQ). In addition to the SWPPP, the applicant would be required to comply with Chapter V, Article 19 (Grading) of the County’s Land Use and Development Code.

After construction, most of the site would be covered with impervious surfaces associated with the building rooftop, parking lot, sidewalks, and hardscape. This would increase the rate and amount of stormwater runoff from the site compared to existing conditions, which could affect storm drain capacity. Runoff could contain additional urban pollutant loads from the rooftop and parking lot and would differ in terms of the types and levels of pollutants compared to existing conditions. Typical pollutants would include oil and grease, metals, and sediment from the parking lot and potentially landscape maintenance products. Pollutants in stormwater runoff could adversely affect water quality. Operational impacts would be potentially significant.

A drainage plan has been prepared that identifies how stormwater runoff and water would be managed to ensure compliance with County drainage and stormwater runoff water quality standards and state water quality regulations (TTG 2016b). The project’s on-site drainage system would consist of features to control runoff and remove pollutants before stormwater is discharged to the on-site wash. On-site runoff would be routed along concrete gutters or asphalt pavement to catch basins and curb openings. The on-site pavement would be designed with a slope to avoid localized ponding on-site.

Flows in the southern part of the site would be directed southwest to a catch basin connected to a stormwater detention system. In the northern part of the site, flows would be directed to a catch basin located at a low point near the northeast corner. Both catch basins would connect to a 24-inch storm drain detention system that would discharge flow to the on-site wash in the northwest corner of the site. The detention basin system would be equipped with a stormwater treatment device to remove pollutants.

The drainage network piping has been sized so that post-development runoff for the 10-year and 100-year storm events would be less than pre-development conditions (Table 11.0-2). This would ensure the proposed project would not increase discharges into the wash that could result in overtopping the wash and flooding off-site property to the west, or increase flows in Squirrel Creek that would result in off-site flooding along the creek. There would be no stormwater discharges toward the roadway.

\begin{table}
\centering
\caption{Penn Valley Site Stormwater Runoff Peak Flow Rates}
\begin{tabular}{|l|c|c|}
\hline
 & Flows to On-Site Wash & \\
 & 10-Year (cfs) & 100-Year (cfs) \\
\hline
Pre-Development & 0.507 & 0.826 \\
Post-Development & 0.399 & 0.531 \\
\hline
\text{Difference} & -0.108 & -0.295 \\
\hline
\end{tabular}
\end{table}

\textit{cfs (cubic feet per second)}
\textit{Source: TTG 2016b}
Penn Valley Village Center Area Plan guideline SP4 directs that new buildings should minimize alterations to the perceived slope of the area and that site grading should be sensitive to natural landforms and topography. Although there would be ground disturbance at the site, the site is relatively flat, and there would be little topographic change with the addition of pavement. There would be no abrupt grade changes at the property lines. While natural drainage patterns on-site would be modified, the project has been designed to ensure that discharge runoff flow rates entering the on-site wash would not exceed pre-development flow rates. This would ensure the natural conditions in Squirrel Creek are maintained.

With implementation of mitigation measures MM PV-11.2.1a through MM PV-11.2.1c, the drainage system and stormwater runoff water quality treatment features described above would be included in the project, which would ensure the proposed project would not increase the potential for off-site flooding as a result of stormwater runoff, even though the amount of runoff would increase. Construction site runoff and the stormwater runoff from the site after it is developed would be treated in the on-site system in accordance with County and state requirements. Therefore, development at the Penn Valley site would not violate water quality standards, result in substantial erosion or siltation, increase the rate or amount of surface runoff that would result in flooding on- or off-site, or exceed storm drainage system capacity. Impacts would be reduced to less than significant. In addition, implementation of these mitigation measures, in combination with MM PV-6.2.3, would ensure the on-site wetland is protected from water quality degradation.

Mitigation Measures

**MM PV-11.2.1a** The construction and grading permits shall comply with the applicable NPDES regulations. Prior to grading permit issuance, obtain a General Permit for Storm Water Discharges Associated with the construction activity and provide a copy of the permit to the County Planning, Building and Public Works Departments. Grading plans shall include verification that an NPDES permit, issued by the State Water Resources Board, has been issued for this project. To protect water quality, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to, the following:

1. At no time shall heavy equipment operate in flowing water.

2. Disturbed areas shall be graded to minimize surface erosion and siltation; bare areas will be covered with mulch; cleared areas will be revegetated with locally native erosion control seed mix.

3. The contractor shall exercise every reasonable precaution from adding pollution to offsite waterways with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the offsite drainages and shall be collected and removed from the site.

4. Erosion control measures shall be applied to all disturbed slopes. No invasive non-native grasses shall be used for erosion control, such as velvet grass or orchard grass. A combination of rice straw wattles, a mulch of native straw or certified weed-free straw, and a planting of native plant species is recommended.
5. Silt fencing (or filter fabric) shall be used to catch any short-term erosion or sedimentation that may inadvertently occur. Silt-fencing should be installed well above the offsite drainages and extend beyond the construction zone if necessary. The use of standard straw is prohibited to avoid introduction of noxious weeds, such as star thistle.

6. To minimize water quality impacts to Squirrel Creek or other offsite drainages after the project is complete, no direct discharge of runoff from newly constructed impervious surface will be allowed to flow directly to the drainage. Runoff from surfaces should be directed through storm water interceptors constructed at discharge points. These interceptors will remove oil, sediment, and other pollutants that might otherwise flow to downstream waterways.

**MM PV-11.2.1b**

The following measures shall be required to reduce surface water drainage patterns, unless alternatives are approved that are recommended by the project’s geotechnical engineers, the California Regional Water Quality Control Board or the Department of Public Works that will provide substantially the same or better management of surface drainage:

1. Slope final grade adjacent to structural areas so that surface water drains away from building pad finish subgrades at a minimum 2 percent slope for a minimum distance of 10 feet. Where interior slabs-on-grade are proposed, the exterior subgrade must have a minimum slope of 4 percent away from the structure for a minimum distance of 10 feet. Additional drainage and slab-on-grade construction recommendations are provided in a geotechnical engineering report outlined in mitigation measure MM PV-8.2.1b.

2. Compact and slope all soil placed adjacent to building foundations such that water is not retained to pond or infiltrate. Backfill should be free of deleterious material.

3. Direct rain-gutter downspouts to a solid collector pipe which discharges flow to positive drainage and away from building foundations.

**MM PV-11.2.1c**

Drainage facilities for this project shall utilize County Standard Plans and Specifications and be designed by a registered civil engineer. Onsite storm drainage facilities shall be constructed in compliance with the design and analysis provided in the project specific Drainage Report prepared by TTG Engineers dated March 2016, and Sheet C2 date stamped February 2, 2016, which is to be kept on file with the Planning Department. Additionally, measures shall be incorporated into the improvement plans that reduce the offsite drainage flows to pre-project conditions as any additional net increase in stormwater runoff from the project site is prohibited. Features shall also be incorporated into the plans that minimize the discharge of pollutants in conformance with General Plan Policy 11.6A, which include, but is not limited to, the use of curbs and gutters, and the use of oil, grease and silt traps. County engineering staff shall review future construction plans to verify that the final design meet the requirements of this mitigation measure.

**Timing/Implementation:** Prior to issuance of Grading Permit and approval of improvement plan; during construction activities
Groundwater Supply and Quality (Standards of Significance 2 and 6)

Impact 11.1.2(PV) Saturated soil and groundwater seepage may be present seasonally at the Penn Valley site, but the project would have minimal effect on groundwater amount and quality. **(Less than Significant)**

The Penn Valley site would be served by NID, which has existing lines available for project connection. Groundwater wells would not be used for the project’s water supply. The project site’s small size and shallow depth to granitic bedrock conditions limit opportunities for groundwater recharge. There would be no impacts on regional supply or recharge conditions.

Groundwater was not observed in borings or trenches, but saturated soil conditions and groundwater could be encountered in areas of soil/rock transition, and groundwater seepage may be encountered in areas proposed for deeper excavation. This could result in the need for dewatering. Given the small development footprint, underlying bedrock, and depth to groundwater, the amount of groundwater that may be removed during construction would not be substantial. The potential for saturated soil conditions and seepage to affect structures would be mitigated through subsurface design, as recommended in the project’s geotechnical engineering report (Holdrege and Kull 2015b). Potential water quality impacts related to groundwater dewatering would be managed through implementation of the General Order for Dewatering and Other Low Threat Discharges to Surface Waters (Water Quality Order No. 5-00-175).

The proposed drainage system would consist of underground features to control and treat runoff. Depending on the depth of these features, there is the possibility that pollutants could interact with saturated soils. However, the pollutants would typically attach to the surface soil particles and would not likely travel deep into subsurface soil and water layers. Subsurface soils are underlain by weathered bedrock, which would reduce the potential for vertical and lateral migration in groundwater.

Therefore, development of the Penn Valley site would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, or otherwise degrade groundwater quality. Impacts would be **less than significant**.

Mitigation Measures

None required.

11.3 ROUGH AND READY HIGHWAY SITE

11.3.1 PROJECT-SPECIFIC SETTING

The Rough and Ready Highway site is partially developed with a building, parking lot, and driveway. The site generally slopes from the southeast to the northwest, and the change in grade over the entire site is approximately 9 feet. Stormwater runoff on the site flows northwest toward an existing roadside drainage ditch on the south side of Rough and Ready Highway (TTG 2016c).
There are no natural surface water bodies on the site. The nearest downgradient surface water body is Upper Rough and Ready Ditch, approximately 0.2 mile north of the site. Deer Creek is approximately 0.8 mile north of the site (EBI 2015).

Groundwater was not observed in borings or trenches, but saturated soil conditions and groundwater could be encountered in areas of soil/rock transition, and groundwater seepage may be encountered in areas proposed for deeper excavation (Holdrege and Kull 2015c).

Surface soils consist of Aiken loam, which is characterized by slow to medium runoff and moderate erosion hazard (USDA 1993). Subsurface soils are loam and heavy clay loam and clay that overlie weathered volcanic tuff and conglomerate (Holdrege and Kull 2015c).

11.3.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Section 11.0.2, above.

11.3.3 IMPACTS AND MITIGATION MEASURES

Stormwater Runoff and Water Quality (Standards of Significance 1, 3, 4, 5, and 6)

**Impact 11.3.1(RR)** Development of the Rough and Ready Highway site would result in an increase in the rate and amount of stormwater runoff and would contribute urban pollutants to stormwater runoff. *(Less than Significant with Mitigation Incorporated)*

Development of the proposed project at the Rough and Ready Highway site would involve the removal of vegetation, grading, excavation and trenching, and cut and fill. These activities would alter drainage patterns and could expose soil to erosion during construction. There would be heavy equipment and materials use, which could be a source of pollutants that could adversely affect water quality, which would be a potentially significant construction-period impact. Because the site is greater than 1 acre, the project applicant’s construction contractor would be required to implement an SWPPP and BMPs in accordance with the NPDES Construction General Permit (Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order 2012-0006-DWQ). In addition to the SWPPP, the applicant would be required to comply with Chapter V, Article 19 (Grading) of the County’s Land Use and Development Code.

After construction, most of the site would be covered with impervious surfaces associated with the building rooftop, parking lot, sidewalks, and hardscape. This would increase the rate and amount of stormwater runoff from the site compared to existing conditions, which could affect local drainage conditions. Runoff could contain additional urban pollutant loads from the rooftop and parking lot and would differ in terms of the types and levels of pollutants compared to existing conditions. Typical pollutants would include oil and grease, metals, and sediment from the parking lot and potentially landscape maintenance products. Pollutants in stormwater runoff could adversely affect water quality. Operational impacts would be potentially significant.

A drainage plan has been prepared that identifies how stormwater runoff and water would be managed to ensure compliance with County standards and state regulations (TTG 2016c). The project’s on-site drainage system would consist of several features to control runoff and remove pollutants before stormwater is discharged to the existing roadside ditch along Rough and Ready Highway. The on-site pavement would be designed to have a minimum slope to avoid localized
ponding on-site, with the exception of one location where a concrete valley gutter would be used because the slope is less than 1 percent. On-site runoff would be routed via sheet flow along concrete gutters or asphalt pavement toward a series of curb openings located near the northern property line and two trench drains crossing the drive aisles.

The curb openings would allow runoff to enter a bio-retention basin. Runoff would pass through engineered subsurface layers to an underground system of perforated pipe. The percolated runoff would then be conveyed to an underground detention system. A “beehive” grated area drain would route flows in excess of the treatment volume to the underground detention system. Treated flows would be discharged to the roadside ditch.

No off-site flows are expected to enter the site, but a 12-inch pipe culvert is proposed under the driveway entrance off the Rough and Ready Highway to allow uninterrupted flow across the driveway (i.e., the proposed project would not create a barrier to flow that could increase flood potential in the ditch).

The drainage network piping has been sized so that post-development runoff for the 10-year and 100-year storm events would be less than pre-development conditions when flows are discharged to the roadside ditch (Table 11.0-3). This would ensure the proposed project would not increase the potential for off-site flooding as a result of stormwater runoff, and it would ensure pollutants in runoff would not increase compared to existing conditions.

<table>
<thead>
<tr>
<th></th>
<th>Flows to On-Site Wash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10-Year (cfs)</td>
</tr>
<tr>
<td>Pre-Development</td>
<td>0.703</td>
</tr>
<tr>
<td>Post-Development</td>
<td>0.420</td>
</tr>
<tr>
<td>Difference</td>
<td>-0.283</td>
</tr>
</tbody>
</table>

With implementation of mitigation measures MM RR-11.3.1a through MM RR-11.3.1c, the drainage system and stormwater runoff water quality treatment features described above would be included in the project, which would ensure the proposed project would not increase the potential for off-site flooding as a result of stormwater runoff, even though the amount of runoff would increase. Construction site runoff and the stormwater runoff from the site after it is developed would be treated in the on-site system in accordance with County and state requirements. Therefore, development at the Rough and Ready Highway site would not violate water quality standards, result in substantial erosion or siltation, increase the rate or amount of surface runoff that would result in flooding on- or off-site, or exceed storm drainage system capacity. Impacts would be reduced to less than significant.

**Mitigation Measures**

**MM RR-11.3.1a  Construction General Permit for Stormwater Runoff.** The construction and grading permits shall comply with the applicable NPDES regulations. Prior to grading permit issuance, obtain a General Permit for Storm Water Discharges Associated with the construction activity and provide a copy of the permit to
the County Planning, Building and Public Works Departments. Grading plans shall include verification that an NPDES permit, issued by the State Water Resources Board, has been issued for this project. To protect water quality, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to, the following:

1. At no time shall heavy equipment operate in flowing water.

2. Disturbed areas shall be graded to minimize surface erosion and siltation; bare areas will be covered with mulch; cleared areas will be revegetated with locally native erosion control seed mix.

3. The contractor shall exercise every reasonable precaution from adding pollution to offsite waterways with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the offsite drainages and shall be collected and removed from the site.

4. Erosion control measures shall be applied to all disturbed slopes. No invasive non-native grasses shall be used for erosion control, such as velvet grass or orchard grass. A combination of rice straw wattles, a mulch of native straw or certified weed-free straw, and a planting of native plant species is recommended.

5. Silt fencing (or filter fabric) shall be used to catch any short-term erosion or sedimentation that may inadvertently occur. Silt-fencing should be installed well above the offsite drainages and extend beyond the construction zone if necessary. The use of standard straw is prohibited to avoid introduction of noxious weeds, such as star thistle.

6. To minimize water quality impacts to Upper Rough and Ready Ditch or other offsite drainages (e.g., Deer Creek) after the project is complete, no direct discharge of runoff from newly constructed impervious surface will be allowed to flow directly to the drainage. Runoff from surfaces should be directed through storm water interceptors constructed at discharge points. These interceptors will remove oil, sediment, and other pollutants that might otherwise flow to downstream waterways.

**MM RR-11.3.1b**

**Surface Drainage.** The following measures shall be required to reduce surface water drainage patterns, unless alternatives are approved that are recommended by the project’s geotechnical engineers, the California Regional Water Quality Control Board or the Department of Public Works that will provide substantially the same or better management of surface drainage:

1. Slope final grade adjacent to structural areas so that surface water drains away from building pad finish subgrades at a minimum 2 percent slope for a minimum distance of 10 feet. Where interior slabs-on-grade are proposed, the exterior subgrade must have a minimum slope of 4 percent away from the structure for a minimum distance of 10 feet. Additional drainage and slab-on-grade construction recommendations are provided in a geotechnical engineering report outlined in mitigation measure MM RR-8.3.1b.
11. HYDROLOGY AND WATER QUALITY

2. Compact and slope all soil placed adjacent to building foundations such that water is not retained to pond or infiltrate. Backfill should be free of deleterious material.

3. Direct rain-gutter downspouts to a solid collector pipe which discharges flow to positive drainage and away from building foundations.

**MM RR-11.3.1c** Drainage Facilities. Drainage facilities for this project shall utilize County Standard Plans and Specifications and be designed by a registered civil engineer. Onsite storm drainage facilities shall be constructed in compliance with the design and analysis provided in the project specific Drainage Report prepared by TTG Engineers dated March 2016, and Sheet C2 date stamped June 24, 2016, which is to be kept on file with the Planning Department. Additionally, measures shall be incorporated into the improvement plans that reduce the offsite drainage flows to pre-project conditions as any additional net increase in stormwater runoff from the project site is prohibited. Features shall also be incorporated into the plans that minimize the discharge of pollutants in conformance with General Plan Policy 11.6A, which include, but is not limited to, the use of curbs and gutters, and the use of oil, grease and silt traps. County engineering staff shall review future construction plans to verify that the final design meet the requirements of this mitigation measure.

**Timing/Implementation:** Prior to issuance of Grading Permit and approval of improvement plan; during construction activities

**Enforcement/Monitoring:** Nevada County Planning Department

**Groundwater Supply and Quality (Standards of Significance 1, 2, and 6)**

**Impact 11.3.2(RR)** Saturated soil and groundwater seepage may be present seasonally at the Rough and Ready Highway site and the site would be served by a new septic system, but the project would have minimal effect on groundwater amount and quality. *(Less than Significant)*

The Rough and Ready Highway site would be served by NID, which has existing lines available for project connection. The project would not install groundwater wells. The project site’s small size and underlying clay soils and weathered bedrock conditions limit opportunities for groundwater recharge. There would be no impacts on regional supply or recharge conditions.

Groundwater was not observed in borings or trenches, but saturated soil conditions and groundwater could be encountered in areas of soil/rock transition, and groundwater seepage may be encountered in areas proposed for deeper excavation. This could result in the need for dewatering. Given the small development footprint, underlying bedrock, and depth to groundwater, the amount of groundwater that may be removed during construction would not be substantial. The potential for saturated soil conditions and seepage to affect structures would be mitigated through subsurface design, as recommended in the project’s geotechnical engineering report (Holdrege and Kull 2015c). Potential water quality impacts related to groundwater dewatering would be managed through implementation of the General Order for Dewatering and Other Low Threat Discharges to Surface Waters (Water Quality Order No. 5-00-175).
The proposed drainage system would consist of underground features to control and treat runoff. Depending on the depth of these features, there is the possibility that pollutants could interact with saturated soils. However, the pollutants would typically attach to the surface soil particles and would not likely travel deep into subsurface soil and water layers. Subsurface soils are clay-rich and underlain by weathered bedrock, which would reduce the potential for vertical and lateral migration in groundwater.

There is an existing permitted and built, but unused, on-site sewage disposal system (disposal/absorption bed) on the Rough and Ready Highway site parcel. The County Environmental Health Department has determined use of this system to be feasible under certain conditions, with independent service provider demonstration and documentation of the absorption bed functionality, and consistency with the project plan and setback requirements. In June 2016, testing required by the County was performed: the system accepted water properly, there was no evidence of saturation, and setbacks were confirmed (Navo 2016). The results of this flow/stress test indicate that the septic system can perform under expected normal waste flow conditions. Proposed project flows would consist of domestic wastewater flows, which the existing system was designed to accommodate. The proposed project would not introduce other kinds of wastewater that would have the potential to degrade groundwater quality.

Development of the Rough and Ready Highway site would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, or otherwise degrade groundwater quality. Impacts would be less than significant.

Mitigation Measures
None required.

11.4 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

The cumulative environmental setting for hydrology and water quality impacts comprises the Bear and Yuba river watersheds and the Wolf and Deer creek tributaries in Nevada County, which would ultimately receive project-generated stormwater runoff.

Cumulative Impacts Not Requiring Evaluation

None of the projects would result in impacts on groundwater resources or recharge, and therefore would not combine with each other or with cumulative development to result in a cumulative impact.

Cumulative development, excluding the proposed projects, could occur in 100-year flood hazard areas, areas subject to dam failure inundation, or mudflow. None of the proposed project sites are in locations subject to these hazards, and therefore there would be no contribution to a cumulative impact.
11. HYDROLOGY AND WATER QUALITY

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Water Quality Impacts Related to Stormwater Runoff (Standards of Significance 1, 3, 5, and 6)

Impact 11.4.1 Cumulative development, including the proposed projects, could affect water quality as a result of stormwater runoff containing pollutants. (Less than Cumulatively Considerable)

Water quality in the Bear and Yuba rivers has been affected by historic land uses, as have major tributaries such as Wolf and Deer creeks in which the three project sites are situated. Potential water quality impacts from construction of cumulative projects, including the three proposed projects, are minimized through compliance with the state’s General Construction Permit, General Plan Policies 12.1 and 12.4, and the Grading Code, which are enforced at the local level by the County.

Cumulative development such as development projects, agriculture and forestry operations, and mining could increase the amount of pollutants into the major drainages, which could adversely affect water quality. General Plan Policy 11.6A requires that new development minimize the discharge of pollutants into surface water drainages, and projects are reviewed to ensure they include the applicable measures.

Each of the proposed project sites individually, and cumulatively, would not contribute to potential water quality impacts in the watersheds. Each project’s drainage plan has been designed to ensure no net increase in stormwater flows discharged off-site, and each includes stormwater treatment features to remove pollutants. Therefore, the projects’ contributions to water quality from stormwater runoff individually and in combination would be less than cumulatively considerable.

Mitigation Measures

None required.

Cumulative Water Quality Impacts Related to Septic Tanks (Standards of Significance 1 and 6)

Impact 11.4.2 Cumulative development, including the proposed projects, in areas not served by a public wastewater system would result in an increase in the number of septic tanks, which can affect water quality. (Less than Cumulatively Considerable)

Cumulative development in some areas in the watersheds could involve the use of septic tanks. Areas where several septic tanks operate in close proximity have the potential to affect groundwater and/or surface water quality, depending on their location. The design and installation of septic tanks are required to comply with County standards as provided under General Plan Policy 11.6 in order to protect the quality of surface and groundwater. In addition, the location of septic tanks and leach fields and their appropriate setbacks from water courses must be in accordance with the Central Valley RWQCB. The Penn Valley project would not include a septic system, so it would have no contribution to water quality due to septic tanks. For the Alta Sierra and Rough and Ready Highway sites, septic tanks may not be installed and operated until the County has reviewed the systems to ensure they comply with applicable standards and issues permits. Therefore, the Alta Sierra and Rough and Ready Highway projects’ contributions to water quality...
quality impacts due to septic tanks, individually and in combination, would be less than cumulatively considerable.

Mitigation Measures

None required.

Cumulative Stormwater Runoff Impacts (Standards of Significance 2, 3, and 4)

Impact 11.4.3 Cumulative development, including the proposed projects, could increase the rate and/or amount of stormwater discharged into local drainage systems and natural waterways, which could increase flood potential. (Less than Cumulatively Considerable)

Cumulative development in the watersheds has the potential to increase the rate and amount of stormwater runoff as undeveloped areas are converted to development with impervious surfaces such as structures and pavement. For all discretionary development, General Plan Policy 3.19A prohibits increases in stormwater runoff due to new development that could result in flood damage to downstream residences, commercial, industrial, active natural resource management uses (e.g., farming, ranching, mining, timber harvest), public facilities, roads, bridges, and utilities. Drainage studies are required to demonstrate how projects would comply with this policy. Each of the proposed projects has been designed to reduce project-generated stormwater runoff such that post-development flows are less than pre-development flows. As a result, there would be no net increase in stormwater runoff from any site that would combine with the other two sites, or with cumulative development, that would increase local or regional flooding due to stormwater runoff. The projects’ contributions to flood impacts due to increased stormwater discharges individually and cumulatively would be less than cumulatively considerable.

Mitigation Measures

None required.
REFERENCES


Holdrege and Kull. 2015a. Geotechnical Engineering Report for 10166 Alta Sierra Drive, APN 25-430-08, Nevada County, California.
———. 2015b. Geotechnical Engineering Report for 17652 Penn Valley Drive, APN 51-120-06, Nevada County, California.

Navo & Sons, Inc., 2016. Load Test Results June 20, 2016.


12.0 LAND USE AND PLANNING
This section describes the existing and proposed land uses and land use designations on each of the project sites and surrounding properties, and analyzes the potential for the project to conflict with existing land use policies or result in incompatible land uses.

12.0 GENERAL ENVIRONMENTAL CONDITIONS AND REGULATIONS

The following description of regional environmental conditions and applicable regulations, policies, and standards applies to each project site.

12.0.1 REGIONAL ENVIRONMENTAL SETTING

Nevada County encompasses 958 square miles, of which approximately 70 percent is privately owned and 30 percent is public land. There are three incorporated cities: Grass Valley, Nevada City, and Truckee. The major population centers in the county are connected primarily by State Route (SR) 49 and SR 20. Each of the project sites is located within the western-central area of unincorporated Nevada County and has regional access available from these two major roadways. See Figure 2.0-1.

The county is composed of a mix of residential, commercial, industrial, agricultural, and public land use patterns. While Grass Valley, Nevada City, and Truckee are focal points for the development of multiple land uses, there has also been considerable growth in unincorporated areas of the county since the 1970s (Nevada County 2014).

The predominant type of residential development in western Nevada County has been single-family dwelling units, with multiple-family development occurring mainly in the Grass Valley and Nevada City areas. In the unincorporated area of the county, the greatest residential density occurs in the Alta Sierra area to the south of Grass Valley/Nevada City, Lake Wildwood to the west of Grass Valley/Nevada City, and Lake of the Pines to the south of Alta Sierra along the most southerly County boundary (Nevada County 2014).

Most of the commercial and industrial development in western Nevada County is located in or around Grass Valley and Nevada City. Commercial uses are concentrated in the downtown areas of each city, the Brunswick/Glenbrook Basin area, and the Pine Creek Shopping Center on SR 49 south of Grass Valley (Nevada County 2014).

The county also includes agricultural land, dominated by cattle ranching and to a lesser extent, vineyards and wineries. Public land comprises a significant amount of the county’s total land area. About 169,045 acres or 265 square miles of land in Nevada County is owned by the federal government for the Tahoe National Forest, operated by the US Forest Service. The Bureau of Land Management is responsible for approximately 20,000 acres of land in the county. The Spenceville Wildlife and Recreation Area contains 11,000 acres or 17.19 square miles, with half the tract in western Nevada County and the other half in Yuba County. These three areas cover a total of 314 square miles of Nevada County’s 958 square miles (Nevada County 2014).

Land use in the county (exclusive of land under federal jurisdiction) is guided by the Nevada County General Plan and Title 3 of the Nevada County Code (Land Use and Development Code).

12.0.2 REGULATORY FRAMEWORK

Federal

There are no applicable federal laws or regulations.
12.0 LAND USE AND PLANNING

State

California state law requires cities and counties to prepare a general plan describing the location and types of desired land uses and other physical attributes in the city or county. General plans are required to address land use, circulation, housing, conservation, open space, noise, and safety.

Local

Nevada County General Plan

The Nevada County General Plan is the county’s basic planning document and provides a comprehensive, long-term plan for physical development in the county. Area plans are supporting land use policy documents that complement and assist in the further implementation of the goals, policies, and programs of the General Plan (e.g., Penn Valley Village Center Area Plan).

The General Plan (Policy 1.1.2) establishes boundaries and general land use direction for Community Regions and Rural Regions, and for Rural Centers, Village Centers, and Rural Places within those regions. In the Community Regions, balanced growth is encouraged to provide managed housing and community located for convenience, efficiency, and affordability. In the Rural Regions, growth is limited to those types and densities of development which are consistent with the open, rural lifestyle, pastoral character, and natural setting and surrounding land use patterns in these areas. The Penn Valley and Rough and Ready Highway project sites are in a Community Region. Penn Valley is a Village Center, and the Rough and Ready Highway site is within the Grass Valley Community Region. The Alta Sierra site is in a Rural Region and is a Rural Center.

The Land Use Element of the Community Development section of the General Plan contains the following policies (or relevant excerpts thereof) concerning land use and planning that are relevant to the proposed project:

Policy 1.3.8 Future development within the following land use designations shall be considered to be appropriate within Rural Centers.

a. Neighborhood Commercial
b. Office-Professional
c. Business Park
d. Urban Medium Density Residential
e. Urban Single Family Residential
f. Residential
g. Public

These uses provide the opportunity for mutually supporting development in a focused center to provide goods, services and employment for residents of Rural Places and the surrounding Rural Regions. The grouping of such uses in

1 The Rough and Ready Highway site is at the westernmost edge of the Grass Valley Community Region and approximately 2 miles east of the Rough and Ready Rural Center.
compact, defined centers also provides the opportunity for more efficient provision of public services than would be possible in a more dispersed pattern.

The Land Use Element establishes the following general site development standards:

**Policy 1.7.4** The General Plan shall provide for the following building intensities in the respective land use designations [Table 1.4]. Impervious surface shall include all land covered by structures or paved surfaces (excluding gravel surfaces). [Per Table 1.4, for Neighborhood Commercial, the maximum impervious surface is 85 percent, and the maximum building height is three stories or 45 feet.]

The Economic Development Element includes the following policy concerning the types of businesses that are encouraged in commercial-designated land:

**Policy 2.11** Within areas designated in the General Plan Land Use maps for commercial development, the County shall encourage the location of a broad range of retail, service and support businesses providing additional goods and services that are not now available in the County.

**Land Use Designation Definitions**

According to Nevada County General Plan Policy 1.2.4.g, the Neighborhood Commercial (NC) land use designation is intended to provide for local needs of nearby neighborhoods and should be grouped as a clustered and contiguous center to preclude strip development with convenient, controlled access to arterial or collector roads. Under General Plan Policy 1.2.4.h, the Community Commercial (CC) land use designation is intended to provide a wide variety of commercial uses, and limited mixed-use employment opportunities, to serve large geographic areas with a wider range of goods and services than are available in Neighborhood Commercial areas.

**Nevada County Land Use and Development Code**

According to the Nevada County Zoning Ordinance (Section L-II 2.4.B), the Neighborhood Commercial (C1) zoning district is intended to provide for the retail and service needs of nearby neighborhoods, and to provide limited mixed-use employment opportunities. Development is intended to be grouped as a clustered and contiguous center to preclude strip development. Retail sales conducted indoors, such as with the proposed project, are permitted within this zone with issuance of a development permit. The Community Commercial (C2) District is intended to provide a wide range of retail and service uses that serve the varied needs of large geographic areas. The Site Performance Combining District (SP) (Section L-II 2.7), which is specific to the Penn Valley site only and requires adherence to the Penn Valley Village Center Area Plan, provides for refinements in the site development standards and/or the permitted uses in the base zone district with which the SP District regulations are combined. Such refinements must ensure consistency with, and further the intent of, all General Plan policies.

**Open Space Requirements**

The County requires a portion of a site to be set aside for permanent open space. Nevada County Code Section L-II 4.2.10 defines open space “as any parcel or area of land or water which is essentially unimproved and devoted to an open space use for the purposes of (1) the preservation of natural resources, (2) the managed production of resources, (3) outdoor recreation, or (4) public health and safety.” The code identifies the standard to be defined by the project location...
12.0 LAND USE AND PLANNING

Elevation, greater or less than 4,000 feet, and size of the project, greater than or equal to/less than 1 acre. For the proposed projects, all of which have a site elevation of less than 4,000 feet, the standard is 15 percent for projects over 1 acre and 10 percent for projects 1 acre or less in size.

Western Nevada County Non-Motorized Recreational Trails Master Plan

The Nevada County Planning Department developed the Western Nevada County Non-Motorized Recreational Trails Master Plan (2010) to guide the review of discretionary projects for new development proposals in western Nevada County. The primary components of the plan include: (1) a map depicting existing trails and identifying gaps in the regional trail system; (2) goals and policies developed through collaboration and public involvement; (3) design guidelines for trail development; and (4) programs to implement the regional trail system.

Airport Land Use Compatibility Plan

The project sites are not located within the influence area of the Nevada County Airport and are not subject to any airport land use compatibility plans.

12.0.3 IMPACT METHODOLOGY

Standards of Significance

The impact analyses provided below are based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance, which state that a project would have a significant impact pertaining to land use and planning if it would:

1) Physically divide an established community.

2) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

3) Conflict with any applicable habitat conservation plan or natural community conservation plan.

In addition, the County also evaluates land use impacts to determine whether proposed uses would:

4) Result in structures and/or land uses incompatible with existing land uses.

Methodology

Evaluation of the proposed projects’ potential impacts related to land use and planning was based on a review of the Nevada County General Plan, the Nevada County Land Use and Development Code, and other applicable land use plans. Additional considerations specific to the standards of significance are presented below.

Standard of Significance 1

Division of an established community is generally recognized as the result of development and construction of features that result in a physical barrier to easy and frequent travel between two
or more constituent parts of a community. A large linear feature, such as a new freeway or rail line with few crossings through an established community, is an example of a feature that could divide an existing community.

Standards of Significance 2 and 4

Section 15125(d) of the CEQA Guidelines requires that EIRs discuss any inconsistencies between the proposed project and applicable general plans in the environmental setting section of the document. The type of commercial development proposed at each site is allowed under the General Plan land use designation and zoning for each site.

Conflicts with a general plan do not inherently result in a significant effect on the environment within the context of CEQA. Determination of consistency of the project with the County General Plan as a whole would be made by the County during the approval process. No single policy can stand alone in the review and evaluation of a development project. It is the task of the County Board of Supervisors, consistent with state law, to weigh project benefits and consequences against the County General Plan as a whole.

As stated in CEQA Guidelines Section 15358(b), “effects analyzed under CEQA must be related to a physical change.” Thus, the focus of the impact analysis is whether project implementation would result in significant physical environmental impacts associated with land use. Specific impacts and issues associated with aesthetics, air quality, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, noise, and traffic/circulation are addressed in each technical section. These types of impacts may have the potential to result in land use incompatibilities. The reader is referred to these other sections of the Draft EIR for detailed analyses of other potential environmental effects.

Thresholds Not Evaluated

There are no adopted habitat conservation plans or natural community conservation plans in Nevada County. There would be no potential for the project to conflict with such a plan; therefore, there would be no impact relative to Standard of Significance 3 and this impact is not further evaluated for any of the project sites. Biological impacts are discussed in Section 6.0 of this EIR.

Urban Decay

The County received several comments in response to the NOP regarding the potential for the proposed project to negatively affect existing businesses economically, and concerns that the project could lead to urban decay. Subsection 1.8, in Section 1.0, Introduction, summarizes the range of comments received about these potential effects for each site under the “Socioeconomics” subheading, and the comment letters are included in Appendix 1.0.

The current CEQA Guidelines Appendix G does not include a checklist item for assessing urban decay. Urban decay is a socioeconomic consideration, which generally does not require analysis under CEQA unless there is a chain of cause and effect that significant adverse physical impacts related to economic and social changes and/or effects would occur (CEQA Guidelines Section 15131). The term urban decay is not defined in CEQA or by state statute or judicial decision. Generally, urban decay is associated with extended long-term business vacancies that directly or indirectly result in physical deterioration to properties or structures that is so prevalent, substantial, and lasting such a significant period of time that it impairs the proper utilization of the properties and structures, and affects the health, safety, and welfare of the surrounding community.
Economic studies have been prepared for the proposed projects (ALH 2015a, 2015b). These studies are included in Appendix 12.0-A and Appendix 12.0-B. The County has considered the information contained in these studies and has concluded the proposed project would not cause either negative economic impacts or urban decay. Based on the economic data and analyses presented in these studies, there is no substantial evidence significant adverse physical impacts would occur as a result of the proposed project based on economic considerations, and no further analysis is required.

12.1 ALTA SIERRA SITE

12.1.1 PROJECT-SPECIFIC SETTING

The Alta Sierra site is located east of SR 49 and south of Grass Valley, at the entrance to the unincorporated community of Alta Sierra.

Alta Sierra Community

Alta Sierra is an existing planned residential community that consists primarily of residential uses and limited community support facilities. The Alta Sierra community has the greatest residential density in unincorporated Nevada County. The Nevada County General Plan recognizes Alta Sierra as a likely candidate for preparation of an area plan; however, such a plan has not yet been developed (Nevada County 2014).

Alta Sierra Project Site

The Alta Sierra project site consists of three parcels, one parcel for the construction of the retail store (APN 25-430-08), and two parcels for an off-site septic system located immediately north of the store parcel (APNs 25-430-10 and -12). APN 25-430-10 would contain the septic system tight line, which would run to the leach field on APN 25-430-12. The parcel on which the store would be constructed is undeveloped, and the off-site parcels are developed with multi-tenant commercial structures (APN 25-430-10) and a restaurant (APN 25-430-12), respectively. Farther north/northwest along Alta Sierra Drive are other commercially developed properties consisting of a variety of uses, including but not limited to a gas station, a bike shop, a pizza parlor, and a specialty wine shop. The Alta Sierra Market, an existing commercial development, is located to the south, and Alta Sierra Drive and Little Valley Road bound the store parcel to the west and east, respectively. West of Alta Sierra Drive are two undeveloped parcels zoned Neighborhood Commercial (C1). Other uses to the west include commercial development, with a personal storage facility, a real estate office, and the Oak View Center, a commercial development. East of Little Valley Road is a developed residential parcel. The next closest residential dwelling is approximately 180 feet from the northeastern property boundary and approximately 400 feet from the proposed building. Rural residential uses dominate the landscape east of Little Valley Road, including the Alta Sierra residential subdivision (see Figure 2.0-5).

General Plan Land Use Designation and Zoning

The Alta Sierra project site is designated Neighborhood Commercial (NC) and zoned Neighborhood Commercial (C1).
12.1.2 Regulatory Framework

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Subsection 12.0.2, above.

12.1.3 Impacts and Mitigation Measures

Physical Division of Established Community (Standard of Significance 1)

Impact 12.1.1(AS) Development of the Alta Sierra site would not physically divide the surrounding community. (No Impact)

The parcel on which the store would be constructed at the Alta Sierra site is currently vacant with existing commercial development to the north and south and Alta Sierra Drive and Little Valley Road to the west and east, respectively. Development of the site would introduce a new building and septic system in an area already developed with buildings, structures, and roadways. Development on the on-site and off-site parcels would not preclude or limit access to adjoining parcels or travel along Alta Sierra Drive and Little Valley Road. There would be no impact related to community division.

Mitigation Measures

None required.

Conflict with Land Use Policies (Standards of Significance 2 and 4)

Impact 12.1.2(AS) Development of the Alta Sierra site as proposed would be consistent with applicable land use plans, policies, and regulations and would be compatible with the surrounding uses. (Less than Significant with Mitigation Incorporated)

The Alta Sierra project site is located within a cluster of commercial uses which includes a small market, auto repair center, retail shops, restaurants, and other similar commercial and retail uses. The site is designated and zoned for commercial development. The project would be similar to existing commercial development to the north and south of the site. Therefore, development of the site with a retail use and associated sewage disposal infrastructure would be physically compatible with these adjacent uses and no conflicts would be anticipated. However, there could be incompatibilities with one developed residential property east of the site and Little Valley Road if the project is not properly designed and mitigated to minimize potential nuisances.

The project applicant has proposed two 6-foot-high screening walls just inside of the landscape buffer, with cultured stone veneer columns every 15 feet at the east side of each parking finger to block noise and vehicle headlights from impacting surrounding residential uses. The gap between the two walls is approximately 30 feet wide and may not provide adequate screening of the site from the residential uses east of Little Valley Road. To further screen the project with the intention of reducing potential land use compatibility impacts, mitigation measure MM AS-4.1.1c (see Subsection 4.1.1 Aesthetics) requires the addition of a third wall or extension of the currently proposed walls to close the gap.

The project site would be accessed from the west; thus no project traffic would enter or leave the site onto Little Valley Road near the existing residential use. As shown on Figure 2.0-8a, 6-foot-high concrete masonry unit (CMU) walls would be constructed along the eastern boundary of the site, which would provide visual screening of the proposed parking areas and reduce noise to the east.
The eastern wall of the proposed building would be solid with no lighting or signage, and no operations (e.g., loading/unloading, trash enclosures, storage) would occur along the eastern site boundary. As discussed in Impact 4.1.2(AS), the lighting plan for the project indicates that no light would spill onto the adjacent residential parcel. Furthermore, as discussed in Subsection 13.1, with mitigation (MM AS-13.1.1) the proposed project would not exceed the applicable County noise standards at the adjacent residential property line. Given that the project would be similar to the existing commercial development to the north and south of the site, the types of activities associated with commercial development would not be new to the area. Further, with site design features incorporated into the project and the mitigation measures provided in this EIR, the proposed development would not substantially interfere with occupancy of the adjacent residential property or result in significant nuisances. Therefore, operation of the Alta Sierra project would not be considered incompatible with surrounding uses.

The applicant is proposing to create a temporary encroachment onto Little Valley Road to be used during grading activities for the exportation of soils. While this activity would be short-term, it would create a temporary inconvenience to the residents who live on Little Valley Road as well as persons traveling on Alta Sierra Drive, which would result in a temporary land use incompatibility impact that would be potentially significant.

Nevada County General Plan

The Alta Sierra project site has a General Plan land use designation of Neighborhood Commercial (NC). According to Nevada County General Plan Policy 1.2.4, the NC land use designation is intended to provide for local needs of nearby neighborhoods and should be grouped as a clustered and contiguous center to preclude strip development with convenient, controlled access to arterial or collector roads.

The proposed retail store would serve the surrounding community of Alta Sierra and would be developed as part of an established, clustered commercial center with access to an arterial roadway (Alta Sierra Drive). Therefore, the proposed project would be consistent with the Nevada County General Plan.

Nevada County Land Use and Development Code

Nevada County Zoning Ordinance

The Alta Sierra project site is zoned Neighborhood Commercial (C1). The proposed project includes a request for a development permit. Therefore, with project approval, the proposed development would be consistent with the Nevada County Zoning Ordinance.

Open Space Requirements

Nevada County Code Section L-II 4.2.10 provides minimum requirements for the provisions of permanent open space in all commercial, industrial, multiple-family, public, and recreational zoning districts. Given that the proposed Alta Sierra project site is not located above 4,000 feet elevation and is 1 acre in size, the minimum amount of open space to be provided is 15 percent of the overall site acreage. The Alta Sierra project proposes to set aside 6,622 square feet or 15.2 percent of the 1-acre project site. Therefore, the Alta Sierra project would comply with the County’s open space requirements.
**Parking Requirements**

Section L-II 4.2.9 of the Nevada County Code identifies parking requirements for development in the county. For general retail uses, the parking requirement is 1 space per 200 square feet of gross floor area plus 1 space per 600 square feet of outdoor use area. However, the required number of parking stalls may be modified by the Planning Agency if the project applicant submits a parking study indicating that the proposed development would require fewer parking stalls.

Based on the County’s parking requirement, the Alta Sierra project would require 46 parking spaces but would provide only 34. Thus, a parking study was prepared for the project (Kunzman Associates 2014; see Appendix 12.0-C). Kunzman Associates determined that, based on parking surveys conducted at similar Dollar General stores, the project’s peak parking demand would be 15 parking spaces, and the proposed Alta Sierra project would provide adequate parking spaces. Therefore, the proposed project would comply with the County’s parking requirements.

**Western Nevada County Non-Motorized Recreational Trails Master Plan**

There are no existing or planned recreational trails on or in the vicinity of the Alta Sierra project site, and the site is not within a planning corridor (Nevada County 2010). Therefore, the project would not conflict with the Western Nevada County Non-Motorized Recreational Trails Master Plan.

**Summary**

Mitigation measure **MM AS-12.1.2** restricts trips associated with the export of soils to non-peak traffic hours and limits the number of days from the commencement of site preparation to completion of soil exports to a period not to exceed 21 days from the issuance of the project grading permit. The 21-days limitation is meant to limit this activity but still provide enough flexibility to the contractor in the event of inclement weather or equipment failure. It also requires that the temporary encroachment onto Little Valley Road be permanently closed off following soil exporting activities. Implementation of this mitigation measure would reduce the impact to a **less than significant** level by minimizing the temporary land use incompatibility.

**Mitigation Measures**

Implement mitigation measures **MM AS-4.1.1c** and **MM AS-13.1.1**.

**MM AS-12.1.2** To minimize potential conflicts with existing traffic flow and the general peace and welfare of surrounding residents and commercial businesses, soil export activities are limited to non-peak traffic hours (9 a.m. to 4 p.m.), Monday through Friday only. Additionally, soil export activities must be completed within 21-day of issuance of the grading permits, unless justifiable unforeseen circumstances occur (e.g., long periods of inclement weather or equipment failure) where an extension to this time frame may be allowed by the Building Department. Following soil export activities, the temporary access on Little Valley Road shall be permanently closed off. Future grading plans shall include a note that reflects the restricted duration, hours and days for soil export activities as well as the requirement to discontinue the use of the temporary access to Little Valley Road at the completion of soil export activities. Following the completion of the soil export activities, the developer shall notify the Planning Department to conduct a field visit to verify that the access to Little Valley Road has been permanently closed off.
12.0 LAND USE AND PLANNING

Timing/Implementation: Prior to Grading Permit issuance/during and after soil export activities

Enforcement/Monitoring: Nevada County Planning Department

12.2 PENN VALLEY SITE

12.2.1 PROJECT-SPECIFIC SETTING

Penn Valley Community

Penn Valley is an unincorporated community in western Nevada County approximately 1 mile south of SR 20, 6 miles west of Grass Valley, and 5 miles east of the Nevada/Yuba County line. The Penn Valley Community Region includes the Penn Valley Village Center, where the project site is situated. The Village Center is slightly greater than one-half square mile in size and encompasses 81 parcels.

Penn Valley Project Site

The Penn Valley project site is located north of Penn Valley Drive and south of SR 20. The project parcel is 5.95 acres and vacant; however, only 1.2 acres adjoining Penn Valley Drive are proposed for development. Squirrel Creek flows across the northern part of the parcel, but it is not within the proposed development area. There is also a seasonal drainage (or wash) on the west side of the parcel, which drains to Squirrel Creek.

The Penn Valley project site is surrounded on three sides by development. To the south is Penn Valley Drive, with the Penn Valley Seventh Day Adventist Church and the Penn Valley Gardens residential subdivision farther to the south. A US post office, a gas station, and the Penn Valley Shopping Center are located east of the site. Northeast of the site, there is vacant land, and the Creekside Village mobile home park farther north. The Penn Valley Mini Storage facility is west of the site. SR 20 is approximately 0.5 mile north and is separated from the site by Squirrel Creek and vacant land (see Figure 2.0-6).

There is a Class I bicycle/pedestrian trail along the south side of Penn Valley Drive (Penn Valley Bike Trail), which begins at Spenceville Road. The trail crosses Penn Valley Drive approximately 900 feet west of the project site and then runs along the north side, connecting to Western Gateway Regional Park. The project site is within the Spenceville Corridor rural recreation trail corridor study area (Nevada County 2010).

General Plan Land Use Designation and Zoning

The Penn Valley project site is designated as Community Commercial (CC) and zoned Community Commercial-Site Performance Combining (C2-SP).

12.2.2 REGULATORY FRAMEWORK

Nevada County General Plan

The General Plan includes the following policies specific to Village Centers:
Policy 6.5 Within all Village and Rural Centers, as well as multi-family, commercial, business park and industrial development, the County shall require that appropriate areas be provided for urban open space in accordance with applicable zoning regulations and the Comprehensive Site Development Standards. Recreational use of urban open space shall be designed to minimize impact on sensitive environmental and/or biological values.

Policy 6.6 Provide for, where feasible, continued access to open space and public resources by ensuring that all discretionary projects are consistent with development of the Nevada County Non-Motorized Trails Master Plan.

Penn Valley Village Center Area Plan

In addition to the regulations, policies, and standards described in Subsection 12.0.2, the site is in the Penn Valley Village Center Area Plan, which was adopted in 2000 for the Penn Valley Village Center. Land use designations present in the Village Center are Community Commercial, Office-Professional, Urban High Density Residential, Urban Medium Density Residential, Public, and Planned Development (Nevada County 2014).

The Penn Valley Village Area Plan contains the following guidelines pertaining to land use planning.

SP1 Development of a new site should be considered as part of the cohesive whole of the Village Center.

SP2 Pedestrian and auto access to neighboring sites should occur easily without the need to reenter the street.

Other guidelines are directed toward design (aesthetic) and traffic/circulation considerations. Those guidelines are identified in the appropriate technical chapters in this Draft EIR.

12.2.3 IMPACTS AND MITIGATION MEASURES

Physical Division of Established Community (Standard of Significance 1)

Impact 12.2.1(PV) Development of the Penn Valley site as proposed would not physically divide the surrounding community. (No Impact)

The project site is currently vacant and is surrounded by development along both sides of Penn Valley Drive. Squirrel Creek runs through the northern part of the parcel, which would not be developed. Development of the site would introduce a new building in an area already developed with buildings, structures, and roadways. Development on the parcel would not preclude or limit access to adjoining parcels or travel along Penn Valley Drive. There would be no impact related to community division.

Mitigation Measures

None required.
Conflict with Land Use Policies (Standards of Significance 2 and 4)

Impact 12.2.2(PV) Development of the Penn Valley site as proposed would be consistent with applicable land use plans, policies, and regulations and would be compatible with the surrounding uses. (Less than Significant)

The Penn Valley project site is located in a developed area of the community with existing commercial/retail uses located to the south, east, and west and vacant land located to the north. Development of the project would be consistent with the General Plan and zoning designations for the site. Therefore, development of the site with a retail use would be generally compatible with adjacent uses and no conflicts would be anticipated. Compliance with the comprehensive site development standards provided in the County’s Land Use and Development Code would further minimize conflicts by requiring screening to mitigate adverse effects of development. Therefore, this impact would be less than significant.

Nevada County General Plan

The Penn Valley project site has a General Plan land use designation of Community Commercial (CC). According to Nevada County General Plan Policy 1.2.4, the CC land use designation is intended to provide a wide variety of commercial uses to serve large geographic areas, including areas outside of Community Regions. Within this designation, development would be grouped as a contiguous center to preclude strip development with convenient, controlled access to arterial or major collector roads.

The proposed retail store would serve the surrounding community of Penn Valley and would be constructed within a developed portion of the community with access to a major collector roadway (Penn Valley Drive). Therefore, the proposed project would be consistent with the Nevada County General Plan.

Nevada County Land Use and Development Code

Nevada County Zoning Ordinance

The Penn Valley project site is zoned Community Commercial – Site Performance Combining (C2-SP). Retail sales uses, such as with the proposed project, are permitted within this zone with issuance of a development permit. The proposed project includes a request for a development permit. Therefore, with project approval, the proposed development would be consistent with the Nevada County Zoning Ordinance.

The Site Performance Combining District (SP) (Section L-II 2.7) provides for refinements in the site development standards and/or the permitted uses in the base zone district with which the SP District regulations are combined. Such refinements must ensure consistency with, and further the intent of, all General Plan policies and the Penn Valley Area Plan.

Open Space Requirements

Nevada County Code Section L-II 4.2.10 provides minimum requirements for the provisions of permanent open space in all commercial, industrial, multiple-family, public, and recreational zoning districts. Given that the proposed Penn Valley project site is not located above 4,000 feet elevation and is over 1 acre in size, the minimum amount of open space to be provided is 15 percent of the overall site acreage. The Penn Valley project proposes to set aside 11,823 square
feet or 22.6 percent of the 1.2-acre project site. Therefore, the Penn Valley project would comply with the County’s open space requirements.

Parking Requirements

Section L-II 4.2.9 of the Nevada County Code identifies parking requirements for development in the county. For general retail uses, the parking requirement is 1 space per 200 square feet of gross floor area plus 1 space per 600 square feet of outdoor use area. Based on this standard, the Penn Valley project would require 46 parking spaces. The project proposes to provide 46 parking spaces on-site. Therefore, the proposed project would comply with the County’s parking requirements.

Western Nevada County Non-Motorized Recreational Trails Master Plan

There is a Class I bicycle/pedestrian trail along the south side of Penn Valley Drive (Penn Valley Bike Trail), and the site is within the Spenceville Corridor rural recreation trail corridor study area. Because the area is already developed, the conversion of a portion of the vacant parcel to developed uses along the north side of Penn Valley Road would not preclude use of the bicycle/pedestrian trail on the south side, or the use of the Spenceville Corridor under future planning efforts. The proposed project would include a crosswalk that would connect to the trail on the south side of Penn Valley Road. No development would occur in or near undeveloped areas along Squirrel Creek to the north of the site. Therefore, the project would not conflict with the Western Nevada County Non-Motorized Recreational Trails Master Plan.

Based on the preceding analysis, the proposed Penn Valley project would be compatible with the surrounding development and would not result in any conflicts with applicable land use plans, policies, or regulations. This impact would be less than significant.

Mitigation Measures

None required.

12.3 Rough and Ready Highway Site

12.3.1 Project-Specific Setting

Rough and Ready Community

Rough and Ready is within the Grass Valley Community Region, approximately 3 miles west of Grass Valley and approximately 1.5 miles north of SR 20 in western Nevada County. The Rough and Ready Rural Center is approximately 2 miles west of the project site. The Rough and Ready area is primarily rural residential, with limited commercial uses.

Rough and Ready Highway Site

The project site is located along Rough and Ready Highway in a rural residential neighborhood. There is an existing commercial building on the property that is currently used as a jewelry repair and sales shop. Adjacent land uses include two single-family residences and other rural residential uses to the west. Directly east of the site are West Drive and single-family residential uses, and a small mobile home park farther east. South of the site are single-family residential uses. There are single-family residential uses and transitional housing to the north, across Rough and Ready Highway, and vacant undeveloped land farther north.
General Plan Land Use Designation and Zoning

The Rough and Ready Highway project site has a general plan land use designation of Neighborhood Commercial (NC) and is zoned Neighborhood Commercial (C1). The adjoining parcel to the southeast, parcels on the east side of West Drive, and parcels on the west side and northwest across Rough and Ready Highway are also designated NC/C1. However, they are developed with residential uses. The parcels immediately south of the site and on the north side of Rough and Ready Highway are designated Residential with RA 1.5 zoning.

12.3.2 Regulatory Framework

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Subsection 12.0.2, above.

12.3.3 Impacts and Mitigation Measures

Physical Division of Established Community (Standard of Significance 1)

Impact 12.3.1(RR) Development of the Rough and Ready Highway site would not physically divide the surrounding community. (No Impact)

The project site contains a building, which would be demolished as part of the project. Adjoining land uses to the west are residential. There is also residential development on the east side of West Avenue and north of Rough and Ready Highway. Development of the site would introduce a new building feature in an area already developed with buildings, structures, and roadways. Development on the parcel would not preclude or limit access to adjoining parcels or travel along Rough and Ready Highway or West Drive. There would be no impact related to community division.

Mitigation Measures

None required.

Conflict with Land Use Policies or Adjacent Uses (Standards of Significance 2 and 4)

Impact 12.3.2(RR) Development of the Rough and Ready Highway site as proposed would be consistent with applicable land use plans, policies, and regulations, but would not be compatible with the surrounding residential uses. (Significant and Unavoidable)

Although the Rough and Ready Highway site is designated for commercial use and is developed with a commercial building, the site is surrounded by rural residential uses. Existing residences are located immediately adjacent the site’s western and southern boundaries. In addition, there are residential properties located north and east of the site across the adjacent roadways. Construction and operation of the proposed project, which would include a building of a greater scale than the existing commercial building on the site, could be incompatible with these residential properties if not properly designed and mitigated to minimize potential nuisances.

The project site would be accessed from the north and east and would generally maintain the site’s existing points of access. As shown on Figure 2.0-10, the project proposes to construct a 6-foot-high solid privacy fence along the entire western and southern site boundaries where it abuts residential uses. The proposed wall would visually screen on-site operations and would provide
noise attenuation. As discussed in Impact 13.3.1 (RR), with mitigation (MM RR-13.3.1), operation of the proposed development would not exceed applicable County noise standards at any of the adjacent residential property lines. As discussed in Impact 4.3.2 (RR), with mitigation (MM RR-4.3.2), the proposed development would not result in light spilling onto adjacent residential parcels.

While noise and light from the project site can be minimized to ensure neighboring properties would not be impacted, the size of the building is substantially out of character for the area. The building footprint would be substantially larger than the neighboring residential structures (70 feet by 130 feet) and would be within 11.5 feet of the property line on the west. With respect to building height, the shortest component on any façade of the building would be 18.5 feet with some building components as tall as 26.5 feet. As noted above, the project site and some nearby parcels are designated in the General Plan for commercial use; however, the other commercial properties are developed with residential uses and the neighborhood has a residential character. Given the scale of the building, its proximity to adjacent residential uses, and the building’s prominence in a predominantly residential neighborhood, even with mitigation to reduce effects of noise and lighting, the proposed development would be considered incompatible with the surrounding uses.

Nevada County General Plan

The Rough and Ready Highway project site has a General Plan land use designation of Neighborhood Commercial (NC). According to Nevada County General Plan Policy 1.2.4, the NC land use designation is intended to provide for the local needs of nearby neighborhoods and should be grouped as a clustered and contiguous center to preclude strip development with convenient, controlled access to arterial or collector roads.

The proposed retail store would serve the surrounding communities of Grass Valley and Rough and Ready. The project area is rural with limited commercial development occurring sporadically along Rough and Ready Highway. Although the proposed retail use would not be clustered with other existing uses, the surrounding parcels are designated for future commercial development. Furthermore, the site would provide controlled access to Rough and Ready Highway, a major roadway in the area. Therefore, the proposed project would be consistent with the Nevada County General Plan.

Nevada County Land Use and Development Code

Nevada County Zoning Ordinance

The Rough and Ready Highway project site is zoned Neighborhood Commercial (C1). According to the Nevada County Zoning Ordinance, this zoning district is intended to provide a wide range of retail and service uses that serve the varied needs of large geographic areas. Retail sales uses, such as with the proposed project, are permitted in this zone with issuance of a development permit. The proposed project includes a request for a development permit. Therefore, with project approval, the proposed development would be consistent with the Nevada County Zoning Ordinance.

Open Space Requirements

Nevada County Code Section L-II 4.2.10 provides minimum requirements for the provisions of permanent open space in all commercial, industrial, multiple-family, public, and recreational zoning districts. Given that the proposed Rough and Ready Highway project site is located above 4,000 feet elevation and is over 1 acre in size, the minimum amount of open space to be provided
is 15 percent of the overall site acreage. The Rough and Ready Highway project proposes to set aside 7,405 square feet or 16.7 percent of the 1.02-acre project site, which would comply with the County’s open space requirements.

Parking Requirements

Section L-II 4.2.9 of the Nevada County Code identifies parking requirements for development in the county. For general retail uses, the parking requirement is 1 space per 200 square feet of gross floor area plus 1 space per 600 square feet of outdoor use area. However, the required number of parking stalls may be modified by the Planning Agency if the project applicant submits a parking study indicating that the proposed development would require fewer parking stalls.

Based on the County’s parking requirements, the Rough and Ready Highway project would require 46 parking spaces but would provide only 29. Thus, a parking study was prepared for the project (Kunzman Associates 2015; see Appendix 12.0-D). Kunzman Associates determined that, based on parking surveys conducted at similar Dollar General stores, the project’s peak parking demand would be 15 parking spaces and the proposed Rough and Ready Highway project would provide adequate parking spaces. Therefore, the proposed project would comply with the County’s parking requirements.

Western Nevada County Non-Motorized Recreational Trails Master Plan

There are no existing trails at the project site. There is a non-County, non-motorized trail along Rough and Ready Highway that ends east of the site. The site is within the Rough and Ready Corridor-East rural recreation trail corridor study area (Nevada County 2010). The project site is currently developed and located in a developed area. Further, no features of the proposed project would preclude the use of this trail. Therefore, the project would not conflict with the Western Nevada County Non-Motorized Recreational Trails Master Plan.

Based on the preceding analysis, the proposed Rough and Ready Highway project would not result in any conflicts with applicable land use plans, policies, or regulations. However, due to the size and scale of the development, it would not be compatible with the surrounding residential uses. Mitigation measure MM RR-4.3.2 would reduce effects of project lighting on adjacent users, and mitigation measure MM RR-13.3.1 would limit the effects of noise due to deliveries, but the proposed building in this location cannot be reduced or screened in such a way as to reduce the building’s prominence in a predominantly residential neighborhood. This impact would be significant and unavoidable.

Mitigation Measures

Implement mitigation measures MM RR-4.3.2 and MM RR-13.3.1.

12.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for land use impacts is western Nevada County.
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CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Land Use Impacts

Impact 12.4.1 Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would not contribute to cumulative land use impacts. The proposed project’s incremental contribution would be less than cumulatively considerable.

Land use impacts are inherently site-specific as they depend on the existing land use designations and zoning of the subject site as well as the existing and planned uses that surround the site. As the region continues to develop in accordance with the Nevada County General Plan, land use conflicts are likely to increase as urban uses are developed adjacent to parcels that have not yet been developed from the existing rural uses to those urban uses envisioned by the General Plan. However, all development would be subject to the comprehensive site development standards provided in the County’s Land Use and Development Code, which requires screening to mitigate adverse effects of development on adjacent parcels. In addition, such development would be subject to CEQA review, which would identify potential incompatibilities and provide mitigation to reduce conflicts as feasible. Therefore, this cumulative impact would be considered less than cumulatively considerable. The proposed projects would not combine to result in any change to the cumulative land use impacts.

Mitigation Measures

None required.
REFERENCES

ALH (ALH Urban & Regional Economics). 2015a. Dollar General Economic Analysis in Alta Sierra, CA.
https://www.mynevadacounty.com/nc/cda/planning/docs/DOLLAR%20GENERAL/Alta%20Sierra/AS%20-%20Economic%20Analysis%202015-03-27%20ALH.pdf


Nevada County. 2010. Western Nevada County Non-Motorized Recreational Trails Master Plan. Appendix A (Rural Recreation Trails Study Corridor Map) and Appendix B (Western Nevada County Existing Trails System).
https://www.mynevadacounty.com/nc/cda/planning/Pages/Western-Nevada-County-Non-motorized-Recreational-Trails-Master-Plan.aspx.

———. 2014. Nevada County General Plan Volume 1: Goals, Objectives, Policies, and Implementation Measures Section 2: Community Development, Land Use Element
13.0 Noise
This section includes a description of existing noise conditions at each of the project sites, a summary of applicable regulations, and an evaluation of the potential impacts of the proposed project on noise.

13.0 GENERAL ENVIRONMENTAL CONDITIONS AND REGULATIONS

13.0.1 ENVIRONMENTAL SETTING

The following description of environmental conditions common to each site and applicable regulations, policies, and standards apply to each of the project sites.

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second of hertz (Hz).

Noise is derived from a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected, or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level \(L_{eq}\), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The \(L_{eq}\) is the foundation of the composite noise descriptor, \(L_{dn}\), and shows very good correlation with community response to noise.
13.0 Noise

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment (J.C. Brennan & Associates 2016a).

Table 13.0-1 lists several examples of the noise levels associated with common situations.

<table>
<thead>
<tr>
<th>Common Outdoor Activities</th>
<th>Noise Level (dBA)</th>
<th>Common Indoor Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jet Fly-over at 300 m (1,000 ft)</td>
<td>--100--</td>
<td>Rock Band</td>
</tr>
<tr>
<td>Gas Lawn Mower at 1 m (3 ft)</td>
<td>--90--</td>
<td></td>
</tr>
<tr>
<td>Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)</td>
<td>--80--</td>
<td>Food Blender at 1 m (3 ft)</td>
</tr>
<tr>
<td>Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)</td>
<td>--70--</td>
<td>Vacuum Cleaner at 3 m (10 ft)</td>
</tr>
<tr>
<td>Commercial Area Heavy Traffic at 90 m (300 ft)</td>
<td>--60--</td>
<td>Normal Speech at 1 m (3ft)</td>
</tr>
<tr>
<td>Quiet Urban Daytime</td>
<td>--50--</td>
<td>Large Business Office Dishwasher in Next Room</td>
</tr>
<tr>
<td>Quiet Urban Nighttime</td>
<td>--40--</td>
<td>Theater, Large Conference Room (Background)</td>
</tr>
<tr>
<td>Quiet Suburban Nighttime</td>
<td>--30--</td>
<td>Library</td>
</tr>
<tr>
<td>Quiet Rural Nighttime</td>
<td>--20--</td>
<td>Bedroom at Night, Concert Hall (Background)</td>
</tr>
<tr>
<td>Lowest Threshold of Human Hearing</td>
<td>--10--</td>
<td>Broadcast/Recording Studio</td>
</tr>
<tr>
<td></td>
<td>--0--</td>
<td>Lowest Threshold of Human Hearing</td>
</tr>
</tbody>
</table>

Source: J.C. Brennan & Associates 2016a

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual’s past experiences with noise.
Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected.
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise—including stationary mobile sources such as idling vehicles—attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (e.g., atmospheric conditions, vegetative or manufactured noise barriers). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate (J.C. Brennan & Associates 2016a).

### 13.0.2 Regulatory Framework

**Federal**

**Federal Highway Administration**

Proposed federal or federal-aid highway construction projects at a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes, requires an assessment of noise and consideration of noise abatement per 23 Code of Federal Regulations Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise. The Federal Highway Administration has adopted noise abatement criteria (NAC) for sensitive receivers such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals when “worst-hour” noise levels approach or exceed 67 dBA $L_{eq}$. The California Department of Transportation (2011) has further defined approaching the NAC to be 1 dBA below the NAC for noise-sensitive receivers identified as Category B activity areas (e.g., 66 dBA $L_{eq}$ is considered approaching the NAC).

**Federal Transit Administration**

The Federal Transit Administration (FTA) has identified vibration impact criteria for sensitive buildings, residences, and institutional land uses near rail transit and railroads. The thresholds for residences and buildings where people normally sleep (e.g., nearby residences) are 72 velocity decibels (VdB) for frequent events (more than 70 events of the same source per day); 75 VdB for occasional events (30 to 70 vibration events of the same source per day); and 85 VdB for infrequent events (less than 30 vibration events of the same source per day).
13.0 Noise

State

California Noise Insulation Standards

The state of California establishes minimum noise insulation performance standards for hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings as set forth in the 2010 California Building Code (Chapter 12, Appendix Section 1207.11). The noise limit is a maximum interior noise level of 45 dBA \(L_{dn}\). Where exterior noise levels exceed 60 dBA \(L_{dn}\), a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

Local

Nevada County General Plan

The Nevada County General Plan Noise Element has standards that are identical to the Zoning Code shown below. However, the Noise Element also has policies for determining a significant impact. The following policies from the Noise Element apply to the proposed project:

Policy 9.1.2d If the measured ambient level exceeds that permitted, then the allowable noise exposure standard shall be set at 5 dBA above the ambient.

Policy 9.1.2e Because of the unique nature of sound, the County reserves the right to provide for a more restrictive standard than shown in the Exterior Noise Limits table contained in this policy. The maximum adjustment shall be limited to be not less than the current ambient noise levels and shall not exceed the standards of this policy or as they may be further adjusted by Policy 9.1.2b. Imposition of a noise level adjustment shall only be considered if one or more of the following conditions are found to exist.

1. Unique characteristics of the noise source:
   
   (a) The noise contains a very high or low frequency, is of a pure tone (a steady, audible tone such as a whine, screech, or hum), or contains a wide divergence in frequency spectra between the noise source and ambient level.
    
   (b) The noise is impulsive in nature (such as hammering, riveting, or explosion), contains music or speech.
    
   (c) The noise source is of a long duration.

2. Unique characteristics of the noise receptor when the ambient noise level is determined to be 5 dBA or more below the Policy 9.1.2 standard for those projects requiring a general Plan amendment, rezoning, and/or conditional use permit. In such instances, the new standard shall not exceed 10 dBA above the ambient or the Policy 9.1.2 standard, whichever is more restrictive.

The proposed projects would operate during the daytime hours of 7:00 a.m. to 7:00 p.m. The County would apply noise standards of 55 dB \(L_{eq}\) and 75 dB \(L_{max}\) to the proposed projects for activities occurring during the daytime hours of 7:00 a.m. to 7:00 p.m.
Policy 9.1.3 The Nevada County Planning Department shall be the lead agency responsible for coordination of all local noise control activities and intergovernmental group activities and subsequent enforcement efforts.

Policy 9.1.12 Limit future noise generating land use to those location of the County where their impacts on noise sensitive land uses will be minimized, consistent with the standards found in Program 9.1.

Policy 9.1.13 Require the preparation of a comprehensive noise study for all land use projects determined to have a potential to create noise levels inconsistent with those standards found in Program 9.1, and in accordance with the methodology identified in the Noise Element Manual contained in General Plan Volume 2, Section 3 - Noise Analysis Appendix A.

Policy 9.1.14 Provide for adequate design controls to assist in mitigating on-site the significant adverse impacts of future noise generating land uses through increased setbacks, landscaping, earthen berms, and solid fencing.

Nevada County Zoning Ordinance

Table L-II 4.1.7 (see Table 13.0-2) of the Nevada County Zoning Ordinance establishes the following noise standards that would apply to the proposed projects.

### TABLE 13.0-2
**EXTERIOR NOISE LIMITS NEVADA COUNTY ZONING REGULATIONS**

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Time Period</th>
<th>Noise Level, dBA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>L_{eq}</td>
</tr>
<tr>
<td>Rural (AG, TPZ, AE, OS, FR, IDR Zoning Districts)</td>
<td>7am–7pm</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>7pm–10pm</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>10pm–7am</td>
<td>40</td>
</tr>
<tr>
<td>Residential and Public (RA, R1, R2, R3, P Zoning Districts)</td>
<td>7am–7pm</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>7pm–10pm</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>10pm–7am</td>
<td>45</td>
</tr>
<tr>
<td>Commercial and Recreation (C1, CH, CS, C2, C3, OP, REC Zoning Districts)</td>
<td>7am–7pm</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>7pm–7am</td>
<td>65</td>
</tr>
<tr>
<td>Business Park (BP Zoning Districts)</td>
<td>7am–7pm</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>7pm–7am</td>
<td>60</td>
</tr>
<tr>
<td>Industrial (M1, M2 Zoning Districts)</td>
<td>Anytime</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: Nevada County 2012

The Nevada County Zoning Code Section L-II 4.1.7.D.4 states that “where 2 different zoning districts abut, the standard applicable to the lower, or more restrictive, district plus 5 dBA shall apply.” Construction activities are exempt from the County’s noise standards (Nevada County Land Use Development Code, Chapter 11, Zoning Regulations, Section L-II 4.1.7, Noise).
13.0 NOISE

13.0.3 IMPACT METHODOLOGY

Standards of Significance

The impact analyses below are based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance, which state that a project would have a significant noise impact if it would:

1) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2) Expose persons to or generate excessive groundborne vibration or groundborne noise levels.

3) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

4) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

5) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

6) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

As noted above, construction activities are exempt from the County’s noise standards. In the absence of applicable County noise standards, construction noise impacts would be considered significant if the proposed project results in increased levels of nuisance during the more noise-sensitive evening and nighttime hours. Noise-generating construction activities that would result in an increase in ambient noise levels between the hours of 7:00 p.m. and 7:00 a.m. would be considered to result in a potentially significant impact on sensitive receivers such as residential land uses. In addition, sustained construction-generated noise levels that would exceed the commonly applied interior noise threshold for speech communication (i.e., 60 dBA Leq) within nearby existing residential dwellings would also be considered to have a potentially significant impact.

Methodology

The following impact analyses are based on the environmental noise assessments prepared for the proposed development of each of the project sites (see Appendix 13.0-A), as well as a review of the Nevada County General Plan, General Plan Draft EIR, and Zoning Ordinance.

13.1 ALTA SIERRA SITE

An environmental noise assessment was prepared for the proposed development of the Alta Sierra project site by J.C. Brennan & Associates dated March 15, 2016. This report is provided as Appendix 13.0-A of this document and serves as the basis for the following discussion.
13.0 NOISE

13.1.1 PROJECT-SPECIFIC SETTING

The existing noise environment in the project area is defined primarily by traffic on Alta Sierra Drive and Little Valley Road. In addition, some activities associated with the commercial development adjacent to the site contribute to the noise environment (J.C. Brennan & Associates 2016a).

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the project vicinity, short-term noise level measurements were conducted on March 18 and 19, 2015, at a location on the southeast portion of the project site (see Figure 1 of Appendix 13.0-A). The noise level measurement survey results are shown in Table 13.0-3.

The sound level meter was programmed to record the maximum and average noise levels at each site during the survey. The maximum value, denoted $L_{\text{max}}$, represents the highest noise level measured. The average value, denoted $L_{\text{eq}}$, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period.

<table>
<thead>
<tr>
<th>Site</th>
<th>Measured $L_{\text{dn}}$</th>
<th>Average Hourly Daytime (7:00 a.m. – 10:00 p.m.)</th>
<th>Average Hourly Nighttime (10:00 p.m. – 7:00 a.m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>57.1 dB</td>
<td>$L_{\text{eq}}$ 55.2  $L_{50}$ 50  $L_{\text{max}}$ 72.5</td>
<td>$L_{\text{eq}}$ 49.1  $L_{50}$ 45  $L_{\text{max}}$ 64.5</td>
</tr>
</tbody>
</table>

Source: J.C. Brennan & Associates 2016a

13.1.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Section 13.0.2, above.

13.1.3 IMPACTS AND MITIGATION MEASURES

Expose Sensitive Receptors to New or Increased Operational Noise Sources (Standards of Significance 1 and 3)

Impact 13.1.1(AS) Development of the Alta Sierra project site as proposed could expose sensitive receptors to stationary source noise levels in excess of established standards. (Less Than Significant With Mitigation Incorporated)

Operation of the proposed project would generate new noise sources on the Alta Sierra project site resulting from truck deliveries, mechanical equipment, and parking lot traffic and activities.

Truck Delivery Noise

Based on the project application, it is assumed that the proposed project would have eight small truck/van deliveries per week, and one to two semi-truck deliveries per week. Typical truck activity for the store would consist of no more than one semi-truck delivery, and one step-side van per hour during the daytime hours (7 a.m. to 7 p.m.). Based on noise level data collected by J.C. Brennan & Associates (2016a) at a similar store, the predicted delivery truck hourly noise levels...
13.0 NOISE

would be 48 dB $L_{eq}$ and 74 dB $L_{max}$ at the nearest residential use located approximately 100 feet east of the site. As shown on the proposed site plan (see Figure 2.0-8a), the project proposes to construct concrete block screen walls at a height of 6-feet along the eastern portion of the site between the project and Little Valley Road in order to shield truck and parking lot operations. A barrier analysis conducted to determine the shielding effects of the screen wall indicate that the screen wall would provide an approximately 5 dB reduction in truck loading noise levels (J.C. Brennan & Associates 2016a). Therefore, overall hourly truck noise levels are expected to be no more than 43 dB $L_{eq}$ and less than 70 dB $L_{max}$ at the nearest residence.

Therefore, the project’s predicted truck delivery noise levels would comply with the County’s daytime (7:00 a.m. to 7:00 p.m.) noise level standards of 55 dB $L_{eq}$ and 75 dB $L_{max}$ for the Residential and Public land use category (see Table 13.0-2). However, evening and nighttime deliveries are predicted to exceed the County’s evening and nighttime noise level standards of 65 dB $L_{max}$ (evening) and 45 dB $L_{eq}$ and 60 dB $L_{max}$ (nighttime). This impact would be potentially significant.

Implementation of mitigation measure MM AS-13.1.1 would reduce this impact to a less than significant level by restricting truck deliveries at the site to daytime hours, thus ensuring compliance with the County’s noise standards.

Mechanical Equipment Noise

The project proposes to install four rooftop 7.5-ton heating, ventilation, and air conditioning (HVAC) systems. The proposed units have an outdoor sound power level (PWL) of 83 dBA. Assuming all four units have a PWL of 83 dBA, the overall PWL would be 89 dBA. This does not account for shielding from the pitched roof or parapet. Based upon the design, the roof line and pitched roof would block line-of-sight to each of the units from adjacent areas.

Based upon the proposed site plan, the nearest residential property lines are located approximately 125 feet from the location of the nearest HVAC unit. Table 13.0-4 shows the calculated noise level from the HVAC units with and without shielding from the roof parapets and the roof lines, assuming noise sources would attenuate at a rate of 6 dB per doubling of distance.

**TABLE 13.0-4**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Distance to Residential Property Line to the East</th>
<th>Calculated Individual HVAC Unit Noise Level</th>
<th>Calculated Cumulative Noise Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–4</td>
<td>125 feet</td>
<td>41 dBA</td>
<td>Without Shielding from the Roofline and Parapet (47 dBA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>With Shielding from the Roofline and Parapet (&lt; 42 dBA)</td>
</tr>
</tbody>
</table>

Source: J.C. Brennan & Associates 2016a

Therefore, predicted HVAC noise levels would comply with the Nevada County Zoning Ordinance hourly daytime and evening noise level standards of 55 dB $L_{eq}$ and 75 dB $L_{max}$ (daytime) and 50 dB $L_{eq}$ and 65 dB $L_{max}$ (evenings). However, the HVAC noise would not comply with the nighttime 45 dB $L_{eq}$ noise level standard, assuming no noise attenuation due to the roofline and parapet. A barrier analysis to determine the minimum shielding expected at the nearest residence indicates a minimum shielding of 5 dBA due to the roofline and parapet. Therefore, the building as proposed would ensure HVAC noise levels are within the Nevada County Zoning Ordinance criteria and this impact would be less than significant.
Parking Lot Noise

Parking lot noise typically includes periods of conversation, doors slamming, engines starting and stopping, and vehicle passage. The parking lot noise environment for the Alta Sierra project site was modeled based on available data for similar parking lot activities. An average sound exposure level (SEL) of 71 dB at a distance of 50 feet was used to represent parking lot arrivals and departures.

The proposed project would create a 34-space parking lot. The project is estimated to generate 31 arrivals and departures in a busy hour of use. Assuming a total of 62 vehicle movements could occur in a busy hour, the project’s predicted parking lot noise level is 53 dB Leq at a reference distance of 50 feet.

Parking lot circulation is predicted to occur within an average distance of 130 feet from the residential uses to the east. The parking lot noise level at the nearest property line to the east is predicted to be 45 dB Leq. Therefore, predicted parking lot noise levels would comply with the Nevada County General Plan Noise Element hourly daytime and evening standards of 55 dB Leq and 75 dB Lmax (daytime), and 50 dB Leq and 65 dB Lmax (evening). Since the project would not be open during the nighttime period, it is not expected to exceed the nighttime standards. In addition, the project proposes to construct a 6-foot-tall concrete masonry unit (CMU) wall along the east property line, which would provide a minimum noise level reduction of 5 dB at the nearest residences to the east. Therefore, this impact would be less than significant.

Mitigation Measures

**MM AS-13.1.1** To ensure project operational noise levels do not exceed the County’s Noise Standards, the project shall be conditioned to limit all truck deliveries to the Alta Sierra project site to between the daytime hours of 7:00 a.m. and 7:00 p.m. Store management shall be educated regarding these restricted delivery hours and a small non-illuminated sign not to exceed 4 square feet shall be posted in the delivery loading and unloading area outlining these restrictions. Prior to issuance of final occupancy, the Planning Department shall perform a site visit to ensure this mitigation measure has been implemented.

*Timing/Implementation:* Throughout project operation

*Enforcement/Monitoring:* Nevada County Planning Department and Code Compliance Division

Exposure to Short-Term Construction Noise (Standard of Significance 4)

**Impact 13.1.2(AS)** Project construction would result in a temporary increase in ambient noise levels in the vicinity of the Alta Sierra project site. *(Less Than Significant with Mitigation Incorporated)*

Construction noise impacts primarily result when: (1) construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours); (2) construction occurs in areas immediately adjoining noise-sensitive land uses; or (3) construction lasts over extended periods of time.

Activities involved in construction are estimated to generate noise levels ranging from 76 to 89 dB at a distance of 50 feet, as shown in Table 13.0-5. These noise levels would generally occur during
13.0 Noise

Site clearing, grading, paving, and building and utility construction. Noise would also be generated during the construction phase by increased truck traffic on area roadways. This noise increase would be temporary, of short duration, and occur primarily during daytime hours.

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Predicted Noise Levels, L_{max} dB</th>
<th>Distances to Noise Contours (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Noise Level at 50'</td>
<td>Noise Level at 100'</td>
</tr>
<tr>
<td>Backhoe</td>
<td>78</td>
<td>72</td>
</tr>
<tr>
<td>Compactor</td>
<td>83</td>
<td>77</td>
</tr>
<tr>
<td>Compressor (air)</td>
<td>78</td>
<td>72</td>
</tr>
<tr>
<td>Dozer</td>
<td>82</td>
<td>76</td>
</tr>
<tr>
<td>Dump Truck</td>
<td>76</td>
<td>70</td>
</tr>
<tr>
<td>Excavator</td>
<td>81</td>
<td>75</td>
</tr>
<tr>
<td>Generator</td>
<td>81</td>
<td>75</td>
</tr>
<tr>
<td>Jackhammer</td>
<td>89</td>
<td>83</td>
</tr>
<tr>
<td>Pneumatic Tools</td>
<td>85</td>
<td>79</td>
</tr>
</tbody>
</table>

Source: J.C. Brennan & Associates 2016a

According to Nevada County Zoning Ordinance Section L-II 4.1.7 (Noise), construction activities are not subject to the noise standards shown in Table 13.0-2. Nonetheless, construction activities could result in a temporary increase in ambient noise levels in the vicinity and this impact would be potentially significant.

Implementation of mitigation measure MM AS-13.1.2 would reduce this impact to a less than significant level by limiting construction activities to daytime hours and by requiring implementation of best management practices (BMPs) to reduce construction noise levels.

Mitigation Measures

**MM AS-13.1.2** The project applicant shall ensure through contract specifications that construction best management practices (BMPs) are implemented by contractors to reduce construction noise levels. Contract specifications shall be included in the construction document, which shall be reviewed by the County prior to issuance of a grading or building permit (whichever is issued first). The construction BMPs shall include the following:

- Construction shall be limited to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction is permitted on Saturdays, Sundays, or legal holidays.
- Ensure that construction equipment is properly muffled according to industry standards and is in good working condition.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.

- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.

- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.

- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the County or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.

**Timing/Implementation:** Prior to approval of improvement plans

**Enforcement/Monitoring:** Nevada County Planning Department

**Expose Sensitive Receptors to Groundborne Vibration (Standard of Significance 2)**

**Impact 13.1.3(AS)** Groundborne vibration levels associated with short-term construction activities at the Alta Sierra project site could exceed the applicable groundborne vibration criterion at adjacent commercial uses. *(Less than Significant)*

Groundborne vibrations and noise can result from both grading and construction activities through the use of equipment such as tractors, jackhammers, drills, and haul trucks. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. The FTA standard vibration velocities for construction equipment operations are shown in **Table 13.0-6**.

**Table 13.0-6**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Reference Peak Particle Velocity at 25 Feet (inches/second)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large bulldozer</td>
<td>0.089</td>
</tr>
<tr>
<td>Loaded trucks</td>
<td>0.076</td>
</tr>
<tr>
<td>Small bulldozer</td>
<td>0.003</td>
</tr>
<tr>
<td>Jackhammer</td>
<td>0.035</td>
</tr>
<tr>
<td>Vibratory compactor/roller</td>
<td>0.210</td>
</tr>
</tbody>
</table>

Source: FTA 2006
13.0 Noise

A vibratory compactor is the only piece of equipment likely to be used during project construction that would be expected to exceed 0.1 inch per second peak particle velocity (ppv), which is the threshold for annoyance, and is well below the 1.0 inch per second ppv that is the threshold for structural damage. These levels are based on a reference distance of 25 feet.

The nearest residential structure to the project site is approximately 100 feet east of the project site and, therefore, would not be expected to experience any vibration impacts during project construction. The commercial uses north and south of the site are not considered sensitive receptors, so this would not be considered a significant effect. In addition, mitigation measure MM AS-13.1.2 would further reduce potential annoyance caused by groundborne vibration and noise by requiring implementation of BMPs to reduce construction noise and vibration. Therefore, this impact would be less than significant.

Mitigation Measures

None required.

Exposure to Excessive Aircraft Noise (Standards of Significance 5 and 6)

Impact 13.1.4(AS) Implementation of the proposed project would not result in the exposure of sensitive receptors to excessive noise levels associated with airport operations. (Less than Significant)

There are no public airports within 2 miles of the Alta Sierra project site. Alta Sierra Airport, a private facility in Alta Sierra Estates, is located approximately 2 nautical miles southeast of the Alta Sierra site. As a small private airport with restricted access, the airport generates minimal air traffic and would not expose project employees or visitors to excessive noise levels. This impact would be less than significant.

Mitigation Measures

None required.

13.2 Penn Valley Site

An environmental noise assessment was prepared for the proposed development of the Penn Valley project site by J.C. Brennan & Associates dated March 21, 2016. This report is provided as Appendix 13.0-B of this document and serves as the basis for the following discussion.

13.2.1 Project-Specific Setting

The existing noise environment in the project area is defined primarily by traffic on Penn Valley Drive, and some commercial activities associated with the self-storage and commercial uses to the east (J.C. Brennan & Associates 2016b).

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the project vicinity, short-term noise level measurements were conducted on March 16 and March 17, 2016. The noise measurements were taken immediately east of the site at the driveway to the post office (see Figure 1 of Appendix 13.0-A). The noise level measurement survey results are provided in Table 13.0-7.
The sound level meter was programmed to record the maximum and average noise levels at the site during the survey. The maximum value, denoted $L_{\text{max}}$, represents the highest noise level measured. The average value, denoted $L_{\text{eq}}$, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period.

### Table 13.0-7
**SUMMARY OF MEASURED AMBIENT NOISE LEVELS – PENN VALLEY PROJECT SITE**

<table>
<thead>
<tr>
<th>Site</th>
<th>Date</th>
<th>Time</th>
<th>Measured Noise Levels, dBA</th>
<th>$L_{\text{eq}}$</th>
<th>$L_{50}$</th>
<th>$L_{\text{max}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>March 16, 2016</td>
<td>6:15 p.m.</td>
<td>54.6</td>
<td>50</td>
<td>67.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>March 17, 2016</td>
<td>8:05 a.m.</td>
<td>57.9</td>
<td>54</td>
<td>69.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>March 17, 2016</td>
<td>12:20 p.m.</td>
<td>54.0</td>
<td>52</td>
<td>63.5</td>
<td></td>
</tr>
</tbody>
</table>

Source: J.C. Brennan & Associates 2016b

13.2.2 **REGULATORY FRAMEWORK**

There are no additional regulations, policies, or standards that pertain to the Penn Valley site other than those described in Section 13.0.2, above.

13.2.3 **IMPACTS AND MITIGATION MEASURES**

**Expose Sensitive Receptors to New or Increased Operational Noise Sources (Standards of Significance 1 and 3)**

**Impact 13.2.1(PV)** The proposed project could expose sensitive receptors to stationary sources of noise in excess of established standards. *(Less Than Significant With Mitigation Incorporated)*

Operation of the proposed project would generate new noise sources on the Penn Valley project site resulting from truck deliveries, mechanical equipment, and parking lot traffic and activities.

**Truck Delivery Noise**

Based upon input from the project applicant, it is assumed that the proposed project would have eight small truck/van deliveries per week, and one to two semi-truck deliveries per week. Typical truck activity for the store would consist of no more than one semi-truck delivery, and one step-side van per hour during the daytime hours (7 a.m. to 7 p.m.). Based on noise level data collected by J.C. Brennan & Associates (2016b) at a similar store, the predicted delivery truck hourly noise levels would be 44 dB $L_{\text{eq}}$ and 70 dB $L_{\text{max}}$ at the nearest residence located approximately 150 feet southwest of the project site. Therefore, the project would comply with the daytime (7:00 a.m. to 7:00 p.m.) noise level standards of 55 dB $L_{\text{eq}}$ and 75 dB $L_{\text{max}}$ for the Residential and Public land use category (see Table 13.0-2). However, evening and nighttime deliveries are predicted to exceed the County’s evening and nighttime noise level standards of 65 dB $L_{\text{max}}$ (evening) and 45 dB $L_{\text{eq}}$ and 60 dB $L_{\text{max}}$ (nighttime). This impact would be potentially significant.

Implementation of mitigation measure MM PV-13.2.1 would reduce this impact to a less than significant level by restricting truck deliveries at the site to daytime hours, thus ensuring compliance with the County’s noise standards.
Mechanical Equipment Noise

The project proposes to install four rooftop 7.5-ton HVAC systems. The proposed units have an outdoor PWL of 83 dBA. Assuming all four units have a PWL of 83 dBA, the overall PWL would be 89 dBA. This does not account for shielding from the pitched roof or parapet.

Based upon the proposed site plan, the nearest residential property lines are approximately 200 feet from the location of the nearest HVAC unit. Hemispherical stationary noise sources would attenuate at a rate of 6 dB per doubling of distance. This is a 20 log attenuation rate.

Based upon the attenuation over distance, the noise levels associated with each unit and the cumulative noise from four HVAC units can be calculated at the nearest property line. Table 13.0-8 shows the calculated noise level from the HVAC units. This does not account for shielding from the roof parapets and the roof lines.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Distance to Residential Property Line to the Northwest</th>
<th>Calculated Individual HVAC Unit Noise Level</th>
<th>Calculated Cumulative Noise Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–4</td>
<td>200 feet</td>
<td>37 dBA</td>
<td>43 dBA</td>
</tr>
</tbody>
</table>

Without Shielding from the Roofline and Parapet

Source: J.C. Brennan & Associates 2016b

Therefore, predicted HVAC noise levels would comply with the Nevada County Zoning Ordinance hourly noise level standards of 55 dB Leq and 75 dB Lmax (daytime), 50 dB Leq and 65 dB Lmax (evening), and 45 dB Leq (nighttime) and this impact would be less than significant.

Parking Lot Noise

Parking lot noise typically includes periods of conversation, doors slamming, engines starting and stopping, and vehicle passage. The parking lot noise environment for the Penn Valley project site was modeled based on available data for similar parking lot activities. An average SEL of 71 dB at a distance of 50 feet was used to represent parking lot arrivals and departures.

The proposed project would create a 46-space parking lot. The project is estimated to generate 31 arrivals and departures in a busy hour of use. Therefore, a total of 62 vehicle movements could occur in a busy hour. The project’s predicted noise level due to parking lot activities is 53 dB Leq at a reference distance of 50 feet.

Parking lot circulation is predicted to occur within an average distance of 260 feet from the residential uses to the southwest. The parking lot noise level at the nearest property line to the east is predicted to be 39 dB Leq. Therefore, predicted parking lot noise levels would comply with the Nevada County General Plan Noise Element hourly daytime and evening standards of 55 dB Leq and 75 dB Lmax (daytime), and 50 dB Leq and 65 dB Lmax (evening). Since the project would not be open during the nighttime period, it is not expected to exceed the nighttime standards. Therefore, this impact would be less than significant.
Mitigation Measures

**MM PV-13.2.1** To ensure project operational noise levels do not exceed the County’s Noise Standards, the project shall be conditioned to limit all truck deliveries to the Penn Valley project site to between the daytime hours of 7:00 a.m. and 7:00 p.m. Store management shall be educated regarding these restricted delivery hours and a small non-illuminated sign not to exceed 4 square feet shall be posted in the delivery loading and unloading area outlining these restrictions. Prior to issuance of final occupancy, the Planning Department shall perform a site visit to ensure this mitigation measure has been implemented.

*Timing/Implementation:* Throughout project operation

*Enforcement/Monitoring:* Nevada County Planning Department and Code Compliance Division

**Exposure to Short-Term Construction Noise (Standard of Significance 4)**

**Impact 13.2.2(PV)** Project construction would result in a temporary increase in ambient noise levels in the vicinity of the Penn Valley project site. *(Less Than Significant with Mitigation Incorporated)*

Construction noise impacts primarily result when: 1) construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours); 2) the construction occurs in areas immediately adjoining noise-sensitive land uses; or 3) when construction lasts over extended periods of time.

Activities involved in construction are estimated to generate noise levels ranging from 76 to 89 dB at a distance of 50 feet as shown in Table 13.0-5. These noise levels would generally occur during site clearing, grading, paving, and building and utility construction. Noise would also be generated during the construction phase by increased truck traffic on area roadways. This noise increase would be temporary, of short duration, and would occur primarily during daytime hours.

According to Nevada County Zoning Ordinance Section L-II 4.1.7 (Noise), construction activities are not subject to the noise standards shown in Table 13.0-2. Construction activities would, however, result in a temporary increase in ambient noise levels in the vicinity and this impact would be potentially significant.

Implementation of mitigation measure **MM PV-13.2.2** would reduce this impact to a less than significant level by limiting construction activities to daytime hours and by requiring implementation of BMPs to reduce construction noise levels.

**Mitigation Measures**

**MM PV-13.2.2** The project applicant shall ensure through contract specifications that construction best management practices (BMPs) are implemented by contractors to reduce construction noise levels. Contract specifications shall be included in the construction document, which shall be reviewed by the County prior to issuance of a grading or building permit (whichever is issued first). The construction BMPs shall include the following:
13.0 NOISE

- Construction shall be limited to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction is permitted on Saturdays, Sundays, or legal holidays.

- Ensure that construction equipment is properly muffled according to industry standards and is in good working condition.

- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.

- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.

- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.

- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the County or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.

Timing/Implementation: Prior to approval of improvement plans

Enforcement/Monitoring: Nevada County Planning Department

Expos...Sensitive Receptors to Groundborne Vibration (Standard of Significance 2)

Impact 13.2.3(PV) Groundborne vibration levels associated with short-term construction activities at the Penn Valley project site would not exceed the applicable groundborne vibration criterion at adjacent land uses. (Less than Significant)

Groundborne vibrations and noise can result from both grading and construction activities through the use of equipment such as tractors, jackhammers, drills, and haul trucks. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. The FTA standard vibration velocities for construction equipment operations are shown in Table 13.0-5.

A vibratory compactor is the only piece of equipment likely to be used during project construction that would be expected to exceed 0.1 inch per second ppv, which is the threshold for annoyance, and is well below the 1.0 inch per second ppv which is the threshold for structural damage. These levels are based on a reference distance of 25 feet.
The nearest residential structure to the project site is approximately 150 feet southwest of the project site and would not experience any groundborne noise or vibration during project construction. Similarly, the commercial uses west and east of the project site are 60 or more feet from the project site and would not be expected to experience excessive groundborne noise or vibration. This impact would be less than significant.

**Mitigation Measures**

None required.

**Expose Sensitive Receptors to Excessive Aircraft Noise (Standards of Significance 5 and 6)**

**Impact 13.2.4(PV)** Implementation of the proposed project would not result in the exposure of sensitive receptors to excessive noise levels associated with airport operations.

**(Less than Significant)**

There are no public airports within 2 miles of the Penn Valley project site. Limberlost Ranch Airport, a private facility, is located approximately 2.5 nautical miles northwest of the Penn Valley site. As a small private airport with restricted access, the airport generates minimal air traffic and would not expose project employees or visitors to excessive noise levels. This impact would be less than significant.

**Mitigation Measures**

None required.

### 13.3 Rough and Ready Highway Site

An environmental noise assessment was prepared for the proposed development of the Rough and Ready Highway project site by J.C. Brennan & Associates dated March 16, 2016. This report is provided as Appendix 13.0-C of this document and serves as the basis for the following discussion.

#### 13.3.1 Project-Specific Setting

The existing noise environment in the project area is defined primarily by traffic on the Rough and Ready Highway, and to a lesser extent on West Drive.

**Existing Ambient Noise Levels**

To quantify the existing ambient noise environment in the project vicinity, short-term noise level measurements were conducted on April 22 and 23, 2015. The noise measurements were taken on the west side of West Drive, approximately 70 feet from Rough and Ready Highway (see Figure 1 of Appendix 13.0-C). The noise level measurement survey results are shown in Table 13.0-9.

The sound level meter was programmed to record the maximum and average noise levels at each site during the survey. The maximum value, denoted $L_{\text{max}}$, represents the highest noise level measured. The average value, denoted $L_{\text{eq}}$, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period.
13.0 NOISE

Table 13.0-9
SUMMARY OF MEASURED AMBIENT NOISE LEVELS – ROUGH AND READY HIGHWAY PROJECT SITE

<table>
<thead>
<tr>
<th>Site</th>
<th>Date</th>
<th>Time</th>
<th>Measured Noise Levels, dBA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>L_{eq}</td>
<td>L_{50}</td>
</tr>
<tr>
<td>A</td>
<td>April 22, 2015</td>
<td>7:35 a.m.</td>
<td>56.5</td>
</tr>
<tr>
<td></td>
<td>April 22, 2015</td>
<td>3:30 p.m.</td>
<td>54.3</td>
</tr>
<tr>
<td></td>
<td>April 23, 2015</td>
<td>10:00 a.m.</td>
<td>55.0</td>
</tr>
</tbody>
</table>

Source: J.C. Brennan & Associates 2016c

13.3.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Rough and Ready Highway site other than those described in Section 13.0.2, above.

13.3.3 IMPACTS AND MITIGATION MEASURES

Expose Sensitive Receptors to New or Increased Operational Noise Sources (Standards of Significance 1 and 3)

Impact 13.3.1(RR) The proposed project could expose sensitive receptors to stationary sources of noise in excess of established standards. (Less Than Significant With Mitigation Incorporated)

Operation of the proposed project would generate new noise sources on the Rough and Ready Highway project site resulting from truck deliveries, mechanical equipment, and parking lot traffic and activities.

Truck Delivery Noise

Based upon input from the project applicant, it is assumed that the proposed project would have eight small truck/van deliveries per week, and one to two semi-truck deliveries per week. Typical truck activity for the store would consist of no more than one semi-truck delivery, and one step-side van per hour during the daytime hours (7 a.m. to 7 p.m.). Based on noise level data collected by J.C. Brennan & Associates (2016c) at a similar store, the predicted delivery truck hourly noise levels would be 59 dB L_{eq} and 85 dB L_{max} at the nearest residence located 30 feet west of the site. Therefore, the project would require construction of a wall to shield truck operations and ensure compliance with the County’s noise standards. As shown on the proposed site plan (see Figure 2.0-10) the project proposes to construct a “solid privacy fence” along the western and southern site boundaries. A privacy fence would not be adequate to shield truck noise. According to J.C. Brennan & Associates, a 6-foot-tall CMU wall would reduce delivery truck hourly noise levels to 54 dB L_{eq} and 75 dB L_{max}, which would comply with the Nevada County daytime noise level standards. Mitigation measure MM RR-13.3.1a would reduce this impact by requiring the proposed privacy fence to be a minimum of 6 feet in height and be constructed of CMU or similar material.

Evening delivery noise is predicted to exceed the County’s evening (7 p.m. to 10 p.m.) noise level standard of 65 dB L_{max} and the County’s nighttime (10 p.m. to 7 a.m.) noise level standard of 45 dB L_{eq} and 60 dB L_{max}. This impact would be potentially significant.
Implementation of mitigation measure MM RR-13.3.1b would further reduce this impact to a less than significant level by restricting truck deliveries at the site to daytime hours, thus ensuring compliance with the County’s noise standards.

**Mechanical Equipment Noise**

The project proposes to install four rooftop 7.5-ton HVAC systems. The proposed units have an outdoor PWL of 83 dBA. Assuming all four units have a PWL of 83 dBA, the overall PWL would be 89 dBA. This does not account for shielding from the roof parapets and the roof lines.

Based upon the proposed site plan (Figure 2.0-10), the nearest residential property lines are approximately 60 feet from the location of the nearest HVAC unit. Hemispherical stationary noise sources would attenuate at a rate of 6 dB per doubling of distance. This is a 20 log attenuation rate.

Based upon the attenuation over distance, the noise levels associated with each unit and the cumulative noise from four HVAC units can be calculated at the nearest property line. Table 13.0-10 shows the calculated noise level from the HVAC units both without and with shielding from the roof parapets and the roof lines.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Distance to Residential Property Line to the Northwest</th>
<th>Calculated Individual HVAC Unit Noise Level</th>
<th>Calculated Cumulative Noise Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>60 feet</td>
<td>47 dBA</td>
<td>53 dB</td>
</tr>
<tr>
<td></td>
<td>Without Shielding from the Roofline and Parapet</td>
<td></td>
<td>40 dB</td>
</tr>
<tr>
<td></td>
<td>With Shielding from the Roofline and Parapet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: J.C. Brennan & Associates 2016c

As shown in the table, predicted HVAC noise levels would comply with the Nevada County Zoning Ordinance hourly daytime noise level standards of 55 dB $L_{eq}$ and 75 dB $L_{max}$. However, the HVAC noise would not comply with either the evening (50 dB $L_{eq}$ and 65 dB $L_{max}$) or nighttime (45 dB $L_{eq}$) hourly noise level standards, assuming no noise attenuation due to the roofline and parapet. A barrier analysis indicated that the parapet and roofline would reduce the HVAC noise levels to 40 dBA. Therefore, the building design would reduce HVAC noise levels to within the Nevada County Zoning Ordinance criteria and this impact would be less than significant.

**Parking Lot Noise**

Parking lot noise typically includes periods of conversation, doors slamming, engines starting and stopping, and vehicle passage. The parking lot noise environment for the Rough and Ready project site was modeled based on available data for similar parking lot activities. An average SEL of 71 dB at a distance of 50 feet was used to represent parking lot arrivals and departures.

The proposed project would create a 28-space parking lot. The project is estimated to generate 31 arrivals and departures in a busy hour of use. Therefore, a total of 62 vehicle movements could occur in a busy hour. The project’s parking lot noise level at the nearest property line to the east is predicted to be 47 dB $L_{eq}$. Therefore, predicted parking lot noise levels would comply with the Nevada County General Plan Noise Element hourly noise level standards of 55 dB $L_{eq}$ and 75 dB $L_{max}$ (daytime) and 50 dB $L_{eq}$ and 65 dB $L_{max}$ (evening). Since the project would not be open during
the nighttime period, it is not expected to exceed the nighttime standards. Therefore, this impact would be **less than significant**.

**Mitigation Measures**

**MM RR-13.3.1a**  
Prior to approval of improvement plans, the project design shall be revised to replace the solid privacy fence along the western and southern site boundaries with a 6-foot-high wall constructed of CMU or similar material.

*Timing/Implementation:* Prior to improvement plans approval  
*Enforcement/Monitoring:* Nevada County Planning Department and Code Compliance Division

**MM RR-13.3.1b**  
To ensure project operational noise levels do not exceed the County’s Noise Standards, the project shall be conditioned to limit all truck deliveries to the Rough and Ready Highway project site to between the daytime hours of 7:00 a.m. and 7:00 p.m. Store management shall be educated regarding these restricted delivery hours and a small non-illuminated sign not to exceed 4 square feet shall be posted in the delivery loading and unloading area outlining these restrictions. Prior to issuance of final occupancy, the Planning Department shall perform a site visit to ensure this mitigation measure has been implemented.

*Timing/Implementation:* Throughout project operation  
*Enforcement/Monitoring:* Nevada County Planning Department and Code Compliance Division

**Exposure to Short-Term Construction Noise (Standard of Significance 4)**

**Impact 13.3.2(RR)**  
Project construction would result in a temporary increase in ambient noise levels in the vicinity of the Rough and Ready Highway project site. **(Less Than Significant with Mitigation Incorporated)**

Construction noise impacts primarily result when: 1) construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours); 2) the construction occurs in areas immediately adjoining noise-sensitive land uses; or 3) when construction lasts over extended periods of time.

Activities involved in construction are estimated to generate noise levels ranging from 76 to 89 dB at a distance of 50 feet as shown in **Table 13.0-5**. These noise levels would generally occur during site clearing, grading, paving, and building and utility construction. Noise would also be generated during the construction phase by increased truck traffic on area roadways. This noise increase would be temporary, of short duration, and would occur primarily during daytime hours.

According to Nevada County Zoning Ordinance Section L-II 4.1.7 (Noise), construction activities are not subject to the noise standards shown in **Table 13.0-2**. Construction activities would, however, result in a temporary increase in ambient noise levels in the vicinity and this impact would be **potentially significant**.
Implementation of mitigation measure MM RR-13.2.2 would reduce this impact to a less than significant level by limiting construction activities to the less sensitive daytime hours and by requiring all equipment to be fitted with proper mufflers and in good working order.

Mitigation Measures

MM RR-13.3.2 The project applicant shall ensure through contract specifications that construction best management practices (BMPs) are implemented by contractors to reduce construction noise levels. Contract specifications shall be included in the construction document, which shall be reviewed by the County prior to issuance of a grading or building permit (whichever is issued first). The construction BMPs shall include the following:

- Construction shall be limited to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction is permitted on Saturdays, Sundays, or legal holidays.

- Ensure that construction equipment is properly muffled according to industry standards and is in good working condition.

- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.

- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.

- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.

- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the County or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.

  Timing/Implementation: Prior to approval of improvement plans

  Enforcement/Monitoring: Nevada County Planning Department

Expose Sensitive Receptors to Groundborne Vibration (Standard of Significance 2)

Impact 13.3.3(RR) Groundborne vibration levels associated with short-term construction activities at the Rough and Ready Highway project site would not exceed the applicable groundborne vibration criterion at adjacent land uses. (Less than Significant)
Groundborne vibrations and noise can result from both grading and construction activities through the use of equipment such as tractors, jackhammers, drills, and haul trucks. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. The FTA standard vibration velocities for construction equipment operations are shown in Table 13.0.5.

A vibratory compactor is the only piece of equipment likely to be used during project construction that would be expected to exceed 0.1 inch per second ppv, which is the threshold for annoyance, and is well below the 1.0 inch per second ppv, which is the threshold for structural damage. These levels are based on a reference distance of 25 feet.

The nearest residential structures to the project site are fewer than 25 feet west and south of the project site and could be exposed to excessive groundborne noise and vibration, potentially resulting in annoyance to occupants. Therefore, this impact would be potentially significant.

Implementation of mitigation measure MM RR-13.3.2 would reduce vibration impacts to neighboring residents by limiting construction activities to daytime hours and by requiring implementation of BMPs which would reduce construction noise and vibration levels. Therefore, with mitigation, this impact would be less than significant.

Mitigation Measures

None required.

Expose Sensitive Receptors to Excessive Aircraft Noise (Standards of Significance 5 and 6)

Impact 13.3.4(RR) Implementation of the proposed project would not result in the exposure of sensitive receptors to excessive noise levels associated with airport operations. (Less than Significant)

There are no public airports within 2 miles of the Rough and Ready Highway project site. Limberlost Ranch Airport, a private facility, is located approximately 5 nautical miles west-southwest of the Rough and Ready Highway site. Given its distance from the project site and low level of air traffic, operation of this airport would not expose project employees or visitors to excessive noise levels. This impact would be less than significant.

Mitigation Measures

None required.

13.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The geographic extent of the cumulative setting for noise consists of the project sites and surrounding areas. Based on the noise measurement surveys conducted, ambient noise levels in the cumulative setting area are primarily affected by vehicle traffic on nearby area roadways and, to a lesser extent, operation of nearby commercial businesses. No major stationary sources of noise were identified in the vicinity of the project sites. As a result, the primary factor for
Cumulative noise impact analysis is the consideration of future traffic noise levels along area roadways from reasonably foreseeable development in nearby areas of Nevada County.

**Cumulative Impacts and Mitigation Measures**

**Cumulative Noise Impacts**

**Impact 13.4.1** Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, would result in a cumulative increase in noise. However, compliance with the policies contained in the Noise Element would ensure that noise levels do not exceed applicable County noise standards. *(Less than Cumulatively Considerable)*

Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to the proposed project and other projects in the vicinity. The Nevada County General Plan EIR (Impact #38) concluded that with implementation of the policies provided in the Noise Element (as revised in the EIR), noise increases along roadways resulting from General Plan buildout would not exceed applicable County noise standards and would result in a less than significant cumulative impact. The proposed developments would be consistent with the existing General Plan land use designations for each respective project site. Thus, construction and operation of the proposed developments on the project sites would not increase traffic or associated noise levels beyond that previously considered in the General Plan EIR. This cumulative impact would be less than cumulatively considerable. Given the distance between the project sites, they would not combine to change any noise levels in the vicinity of the sites or elsewhere in the county.

**Mitigation Measures**

None required.
REFERENCES


14.0 Public Services and Utilities
This section describes the public services and utilities that would be required to serve the proposed projects, including public safety (fire protection, emergency medical, and law enforcement services), schools, parks, water, wastewater, storm drainage, and solid waste. The reader is referred to Section 10.0, Hazards and Hazardous Materials, for a discussion of wildland fire hazards, which includes an analysis of fire flow requirements, and to Section 11.0, Hydrology and Water Quality, for a discussion on groundwater resources. Energy use and conservation are evaluated in Subsection 17.5, Energy Conservation, in Section 17.0, Other CEQA Considerations.

14.0 General Environmental Conditions and Regulations

The following description of regional environmental conditions and applicable regulations, policies, and standards applies to each of the project sites.

14.0.1 Regional Environmental Setting

Public Safety

Fire Protection

The Alta Sierra and Rough and Ready Highway project sites are served by the Nevada County Consolidated Fire District (NCCFD), and the Penn Valley project site is served by the Penn Valley Fire Protection District (PVFPD). These fire districts are discussed in detail in the project-specific settings in the following subsections.

Law Enforcement

The Nevada County Sheriff’s Office (NCSO) provides law enforcement services in all the unincorporated areas of Nevada County, with a service area in excess of 900 square miles. Services include patrol, dispatch, investigations, search and rescue, boat patrol, correctional facilities, coroner, and court security services. The NCSO’s main office is located at 950 Maidu Avenue (Eric Rood Administration Center) in Nevada City. A substation is located in Truckee, which contains a small jail facility. The NCSO also has a satellite jail located on the campus of the main governmental/administrative complex, along with a satellite court-holding facility in downtown Nevada City. Sheriff’s deputies are dispatched and patrols initiated from these locations (NCSO 2016).

NCSO facilities also include two satellite volunteer service centers: one in the business center across from the main gate to Lake Wildwood and the other in a business complex near Lake of the Pines in the southern part of Nevada County. Both centers are staffed during certain days and hours by citizen volunteers and are used by patrol staff to meet with citizens and to complete their law enforcement reports.

The NCSO has approximately 175 employees, including sworn and civilian personnel. During 2014, the NCSO Patrol Division received 37,575 calls for service, which resulted in 3,720 incident reports and 1,184 arrests (NCSO 2014).

The NCSO patrol areas align with the boundaries of the county’s five supervisorial districts. The Alta Sierra project site is located in District 2 and the patrol area known as Beat 2, which extends from the Alta Sierra community south to the county border. The Penn Valley project site is located in District 4 and the patrol area known as Beat 4, which includes the area west of Grass Valley and north of Nevada City. The Rough and Ready Highway project site is located in District 3 and the patrol area known as Beat 3, which includes Grass Valley and the immediately surrounding area.
The NCSO has mutual assistance agreements with the California Highway Patrol (CHP), which provides police protection on all state and county roadways in Nevada County. The CHP and the NCSO have reciprocal backup agreements.

**Schools**

The Alta Sierra project site is located in the Pleasant Ridge Union School District, the Penn Valley project site is located in the Penn Valley Union Elementary School District, the Rough and Ready Highway project site is located in the Grass Valley School District, and all three sites are located in the Nevada County Joint Union High School District (Nevada County 2014).

**Parks and Recreation**

Nevada County does not directly provide parks or recreational facilities. Instead, the County coordinates with other government and nongovernmental entities that own, plan, build, and manage recreation resources in the county. In the vicinity of the Alta Sierra project site, recreation resources are managed by the Bear River Recreation and Park District. In the vicinity of the Penn Valley project site, recreation resources are managed by the Western Gateway Recreation and Park District. Developed parks and recreational opportunities in the vicinity of the Rough and Ready Highway project site are located east of the site in Grass Valley.

In addition, regional recreational facilities located throughout the county are provided by the Nevada Irrigation District, California Department of Parks and Recreation, California Department of Fish and Wildlife, US Bureau of Land Management, US Forest Service, and numerous nonprofit organizations (Nevada County 2016a).

**Water Supply**

Potable water for all three project sites would be supplied by the Nevada Irrigation District (NID). NID is an independent special district providing water to approximately 24,500 customers in a 287,000-acre service area that covers portions of Nevada, Placer, and Yuba counties. NID operates and maintains an extensive system of canals, reservoirs, and pipelines throughout the county including ten reservoirs, seven water treatment plants, over 300 miles of pipeline, and over 450 miles of canals (NID 2016).

**Water Supply**

NID’s water supply is primarily derived from mountain snowpack from Northern California’s Sierra Nevada range. The water is stored in the district’s system of reservoirs, which currently has a total storage capacity of 279,985 acre-feet. In addition, contract water purchases are available each year through NID’s 1963 agreement with the Pacific Gas and Electric Company (PG&E). During normal water years, the maximum amount available is 54,361 acre-feet, with reductions during dry years (NID 2016). NID is also supplied recycled water blended with surface water from four municipal wastewater treatment plants; however, this water is used exclusively for agricultural irrigation. NID’s actual and projected water supply volumes through 2035 are shown in Table 14.0-1.
**Public Services and Utilities**

**Table 14.0-1**

**Historical and Projected Normal Year Water Supplies (acre-feet per year)**

<table>
<thead>
<tr>
<th>Water Supply Source</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesaler – Contract Purchase (PG&amp;E)</td>
<td>54,361</td>
<td>54,361</td>
<td>54,361</td>
<td>54,361</td>
<td>54,361</td>
<td>54,361</td>
</tr>
<tr>
<td>Supplier-produced Surface Water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watershed Runoff</td>
<td>221,500</td>
<td>221,500</td>
<td>221,500</td>
<td>221,500</td>
<td>221,500</td>
<td>221,500</td>
</tr>
<tr>
<td>Carryover Storage</td>
<td>201,985</td>
<td>201,985</td>
<td>201,985</td>
<td>201,985</td>
<td>201,985</td>
<td>201,985</td>
</tr>
<tr>
<td>Recycled Water</td>
<td>2,500</td>
<td>1,900</td>
<td>1,900</td>
<td>1,900</td>
<td>1,900</td>
<td>1,900</td>
</tr>
<tr>
<td>Total Water Supplies</td>
<td>480,346</td>
<td>479,746</td>
<td>479,746</td>
<td>479,746</td>
<td>479,746</td>
<td>479,746</td>
</tr>
</tbody>
</table>

Source: NID 2016, Tables 5-8 and 5-9

**Water Demand**

Agricultural water uses accounts for approximately 92 percent of NID’s total water use, with the remaining portion supplied to urbanized land uses (NID 2016, Table 3-1). NID’s service area population grew at a rate of approximately 1.3 percent per year between 2000 and 2010 and is projected to grow at a rate of approximately 2.4 percent through 2035. NID’s actual and projected water use volumes through 2035 are shown in Table 14.0-2.

**Table 14.0-2**

**Actual and Projected Total Water Use (acre-feet per year)**

<table>
<thead>
<tr>
<th>Water Distributed</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Water Deliveries</td>
<td>122,831</td>
<td>179,128</td>
<td>186,536</td>
<td>190,568</td>
<td>196,724</td>
<td>203,038</td>
</tr>
<tr>
<td>Sales to Other Water Agencies</td>
<td>2,752</td>
<td>4,310</td>
<td>5,126</td>
<td>5,992</td>
<td>6,808</td>
<td>6,808</td>
</tr>
<tr>
<td>Additional Water Uses and Losses</td>
<td>1,070</td>
<td>1,267</td>
<td>1,444</td>
<td>1,640</td>
<td>1,860</td>
<td>2,085</td>
</tr>
<tr>
<td>Total Water Use</td>
<td>126,653</td>
<td>184,704</td>
<td>193,106</td>
<td>198,200</td>
<td>205,392</td>
<td>211,931</td>
</tr>
</tbody>
</table>

Source: NID 2016, Tables 3-1 and 3-2

**Supply and Demand Comparison**

**Normal Water Year**

As shown in Table 14.0-3, under normal water year conditions, projected water supplies would exceed projected demands each year through 2035.

**Table 14.0-3**

**Projected Normal Water Year Supply and Demand Comparison (acre-feet per year)**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Totals</td>
<td>360,800</td>
<td>360,800</td>
<td>360,800</td>
<td>360,800</td>
<td>360,800</td>
</tr>
<tr>
<td>Demand Totals</td>
<td>184,704</td>
<td>193,106</td>
<td>198,199</td>
<td>205,391</td>
<td>211,930</td>
</tr>
<tr>
<td>Difference (supply minus demand)</td>
<td>176,096</td>
<td>167,694</td>
<td>162,601</td>
<td>155,409</td>
<td>148,870</td>
</tr>
</tbody>
</table>

Source: NID 2016, Table 6-4
Single Dry Year

As shown in Table 14.0-4, during a single dry year, projected water demand would exceed projected supplies, resulting in a water supply deficit beginning in 2035. However, implementation of the district’s adopted water supply contingency plan would temporarily reduce demands in response to drought conditions. Furthermore, NID is planning to construct the new 110,000 acre-foot Centennial Reservoir by 2023, which would increase total supplies and eliminate the projected deficit (NID 2016).

<table>
<thead>
<tr>
<th>TABLE 14.0-4</th>
<th>SINGLE DRY YEAR WATER SUPPLY AND DEMAND COMPARISON (ACRE-FEET PER YEAR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2020</td>
</tr>
<tr>
<td>Supply Totals</td>
<td>202,611</td>
</tr>
<tr>
<td>Demand Totals</td>
<td>184,704</td>
</tr>
<tr>
<td>Difference (supply minus demand)</td>
<td>17,907</td>
</tr>
</tbody>
</table>

Source: NID 2016, Table 6-5

1. With the completion of Centennial Reservoir in the future, surface water supply in both the watershed runoff and carryover storage will be increased to eliminate this projected deficit. The district is in the early stage of evaluating the Centennial water supply, and the quantified capacity will be included in a future update of the Urban Water Management Plan.

Multiple Dry Years

As shown in Table 14.0-5, under multiple-year dry conditions, projected water demands would exceed projected supplies, resulting in a water supply deficit during the fourth dry year by 2035. However, as previously noted, implementation of the district’s adopted water supply contingency plan would temporarily reduce demands in response to drought conditions and the new 110,000 acre-foot Centennial Reservoir would increase total supplies and eliminate the projected deficit (NID 2016).

<table>
<thead>
<tr>
<th>TABLE 14.0-5</th>
<th>MULTIPLE DRY YEAR WATER SUPPLY AND DEMAND COMPARISON (ACRE-FEET PER YEAR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2020</td>
</tr>
<tr>
<td>First Year</td>
<td></td>
</tr>
<tr>
<td>Supply Totals</td>
<td>368,161</td>
</tr>
<tr>
<td>Demand Totals</td>
<td>184,704</td>
</tr>
<tr>
<td>Difference (supply minus demand)</td>
<td>183,457</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
</tr>
<tr>
<td>Supply Totals</td>
<td>233,225</td>
</tr>
<tr>
<td>Demand Totals</td>
<td>184,704</td>
</tr>
<tr>
<td>Difference (supply minus demand)</td>
<td>48,521</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
</tr>
<tr>
<td>Supply Totals</td>
<td>253,185</td>
</tr>
<tr>
<td>Demand Totals</td>
<td>184,704</td>
</tr>
<tr>
<td>Difference (supply minus demand)</td>
<td>68,481</td>
</tr>
</tbody>
</table>
Water Conservation

NID conducts an ongoing water conservation program including managing water supplies to improve the overall system efficiency and reduce waste and by encouraging water conservation by consumers. In addition, NID adopted a water shortage contingency plan in December 1992 that would be implemented when there is a need to reduce demands significantly on a short-term basis (NID 2016).

Water Treatment

NID operates seven water treatment plants with a combined capacity of 33.4 million gallons. The reader is referred to the project-specific setting discussions in the following subsections for further discussion of water treatment.

Wastewater

Wastewater treatment and disposal for the Alta Sierra project site would occur via an on-site septic tank on the store parcel and off-site tight line and leach field on the two parcels north of the store site (APNs 25-430-10 and -12). Wastewater treatment and disposal would be via on-site septic systems at the Rough and Ready Highway site, and the Penn Valley site would connect to the Nevada County Sanitation District #1–Penn Valley public sewer system. The reader is referred to the project-specific setting discussions in the following subsections for further discussion of wastewater.

Stormwater Drainage

The project sites are not currently served by a public stormwater drainage system and do not contain any existing drainage infrastructure. The reader is referred to the project-specific setting discussions in the following subsections for descriptions of the existing drainage patterns at each of the project sites.

Solid Waste

The Nevada County Department of Public Works manages the County’s solid waste and recycling programs. The project sites are located in the department’s western Nevada County service area. Waste Management, Inc., contracts with the County to provide solid waste and recyclable materials collection, transfer, and disposal services to its customers, including residential, commercial, and industrial. In accordance with County standards, Waste Management provides recycling services and collects the recycling materials via its curbside collection operations (Nevada County 2016b).

Residents also have the option to self-haul their refuse to the McCourtney Road, North San Juan, or Washington transfer stations (Nevada County 2016b; Waste Management 2016). Nevada
County does not have an active landfill. All refuse collected at the transfer stations is transported via trailer trucks to the Ostrom Road Landfill in Yuba County, California.

**Ostrom Road Landfill**

The Ostrom Road Landfill is projected to have a remaining life of 50 years at maximum daily throughput of 3,000 tons. Of its 43.5 million cubic yard capacity, an estimated 90 percent was available as of 2007 (CalRecycle 2016).

**14.0.2 Regulatory Framework**

**Public Safety**

**State**

*California Health and Safety Code*

Additional fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which include regulations for building standards, fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and child-care facility standards, and fire suppression training.

*California Occupational Safety and Health Administration*

In accordance with the California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Fighting Equipment, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

*California Fire Code*

The 2013 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California (CBSC 2011). The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.
Local

Nevada County General Plan

The Public Facilities and Services Element and the Safety Element of the General Plan contain the following policies (or relevant excerpts thereof) concerning public safety services:

Public Facilities and Services Element

Policy 3.1 The levels of service and provision of public facilities in Community Regions shall be based upon improving the capacity of public facilities to serve higher levels of development directed to Community Regions. The levels of service and provision of public facilities in Rural Regions shall be based upon limiting the amount of development to ensure that adequate facilities are available. Planning for future public facilities and services in Community and Rural Regions shall be based upon the following criteria:

COMMUNITY REGION

a. public water and sewer
b. retention of existing emergency response time
c. intercommunity-transit

RURAL REGION

Rural Centers

a. public or on-site community water and sewer systems
b. decreased emergency response times

Rural Areas

a. individual septic and wells or on-site community water and sewer systems
b. decreased emergency response time
c. limited transit

Policy 3.10 The following specific level of service standards shall be applicable to Community Regions and Rural Regions for public facilities which the County has responsibility for providing:

Overall County Services and Human Services

a. For Community and Rural Regions: 2,500 square feet for each increase of 1,000 persons in county-wide population County Jail
b. For Community and Rural Regions: 1 inmate bed per 1,000 of the county-wide population
Policy 3.14 In order to ensure that capacity of public facilities is coordinated with the timing of development, the County shall require for any development requiring a discretionary permit, and for any General Plan amendment, a determination of the adequacy of public facilities, or an impact fee program, to serve the proposed development.

The adequacy of public facilities shall be determined upon the available capacity in existing facilities, plus the net additional capacity to support new development resulting from construction of the improvements in the Five-Year CIP of the County and other affected local agencies, the County 5-Year Road Improvement Program, and the State Transportation Improvement Program.

Additional capacity provided by such improvements to resolve existing deficiencies shall not be counted in the basis for determining capacity available to serve new development. Where adequate public facilities are planned, but not yet available to serve a proposed development, the County may require that mitigating measures be undertaken by the proponent of the development. Such measures shall not be in lieu of development impact fees; such measures may include, but are not limited to, alteration in the timing or phasing of the proposed development, construction of temporary improvements, or construction of off-site improvements necessary to serve that development.

Safety Element

Policy SF-10.6.2 County public safety facilities shall be included in the County's development impact fee program, as provided in Policy 3.8 to provide for new facilities or upgrading of existing facilities necessary to serve new development.

Policy SF-10.6.3 The following shall be included in the adopted Comprehensive Site Development Standards as the basis for site plan review:

a. Standards to enhance the ability of the County law enforcement personnel to protect multi-family, commercial, industrial, and business park uses, including but not limited to:

(1) exterior building and parking area lighting; and

(2) trimming and maintenance of on-site vegetation to provide adequate view of parking areas, building entrances, and other areas accessible to the public.

b. Standards to ensure adequate site and building access for fire and emergency medical access.

Nevada County Land Use and Development Code

Chapter XVI – Fire Safety Regulations

The regulations establish the necessary minimum wildfire protection standards to minimize public safety effects with the establishment of land uses and buildings in State Responsibility Area (SRA)
lands in Nevada County. The regulations are intended to mitigate effects of wildland fire exposure to such land uses in the State Responsibility Areas, and they are further adopted to equal, exceed, or provide the same practical effect contained in the California State Board of Forestry’s Fire Safe Regulations adopted on November 7, 1990. The fire safety regulations include measures for emergency access, street name and building address signage, water reserves for emergency fire use, and vegetation modification.

Section L-II 4.3.18 – Wildland Fire Hazard Areas

Section L-II 4.3.18 includes defensible space regulations that require vegetation clearance around structures to meet the minimum requirements of Public Resources Code Section 4291 prior to any occupancy of the project site. Structures are required to maintain a firebreak by removing and clearing away all brush, flammable vegetation, or combustible growth no less than 100 feet from structures or to the property line, whichever is closer. Additional information is presented in Section 10.0.2, Regulatory Framework, in Section 10.0, Hazards and Hazardous Materials.

Schools

State

Leroy Green School Facilities Act

The Leroy F. Greene School Facilities Act of 1998, also known as Senate Bill 50 (Stats. 1998, Ch. 407), governs a school district’s authority to levy school impact fees.

Senate Bill (SB) 50 and Proposition 1A provide a comprehensive school facilities financing and reform program by primarily authorizing a $9.2 billion school facilities bond issue, school construction cost containment provisions, and an eight-year suspension of the Mira, Hart, and Murrieta court cases. Specifically, the bond funds are to provide $2.9 billion for new construction and $2.1 billion for reconstruction/modernization needs. The provisions of SB 50 prohibit local agencies from denying either legislative or adjudicative land use approvals on the basis that school facilities are inadequate and reinstate the school facility fee cap for legislative actions (e.g., general plan amendments, specific plan adoption, zoning plan amendments). According to Government Code Section 65996, the development fees authorized by SB 50 are deemed to be full and complete school facilities mitigation. These provisions were written to be in effect until 2006 and will remain in place as long as subsequent state bonds are approved and available.

SB 50 establishes three levels of developer fees:

1. Level One fees are the base statutory fees of $2.05 per square foot of assessable space for residential development and $0.31 per square foot of chargeable, covered and enclosed commercial/industrial development.

2. Level Two fees allow the school district to impose developer fees above the statutory levels, up to 50 percent of certain costs under designated circumstances. The State would match the 50 percent funding if funds are available.

3. Level Three fees apply if the State runs out of bond funds after 2006, allowing the school district to impose 100 percent of the cost of the school facility or mitigation minus any local dedicated school moneys.
In order to levy the alternate (Level Two) fee and qualify for 50 percent state-matching funds, a school district must prepare and adopt a School Facilities Needs Analysis, apply and be eligible for state funding, and satisfy two of the four specified criteria after January 1, 2000: (1) 40 percent of pupils are enrolled on multitrack year-round schedule; (2) a general obligation bond to finance new school facilities has been placed on the ballot in the past four years and passed with 50 percent plus 1 vote; (3) at least 20 percent of teaching stations are portable classrooms; or (4) the school district has issued debt or incurred obligations for capital outlay in an amount equal to 15 percent of school district’s local bonding capacity including property taxes, parcel taxes, the district’s general fund, redevelopment agency funds, and special taxes from community facilities districts approved prior to November 1998 (or 30 percent if post-November 1998 landowner-approved Mello-Roos bonds are counted). The ability of a city or county to impose fees is limited to the statutory and potential additional charges allowed by the act, as described above.

Local

Nevada County General Plan

The Education Element of the General Plan contains the following policy concerning schools:

Policy 7.5 The County will cooperate with the school districts and municipalities in the County, to the extent feasible, to explore methods for securing adequate funding of new school facilities. This may include the development of local funding mechanisms, as well as the utilization of state funds when available. Local resources to be considered may include the reservation or dedication of school sites, developer fees, development agreements, Mello-Roos CFDs, assessment districts, redevelopment funds, general obligation bond proceeds, special taxes, and other legal funding mechanisms.

Parks and Recreation

State

Quimby Act

The goal of the 1975 Quimby Act (California Government Code Section 66477) was to require developers to help mitigate the impacts of property improvements by requiring them to set aside land, donate conservation easements, or pay fees for park improvements. The act gave authority for passage of land dedication ordinances only to cities and counties, thus requiring special districts to work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid and land conveyed directly to the local public agencies that provide parks and recreation services communitywide. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities.

Originally, the Quimby Act was designed to ensure “adequate” open space acreage in jurisdictions adopting Quimby Act standards (e.g., 3–5 acres per 1,000 residents). In some California communities, the acreage fee was very high where property values were high, and many local governments did not differentiate on their Quimby fees between infill projects and greenbelt developments.

In 1982, the act was substantially amended via Assembly Bill (AB) 1600. The amendments further defined acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be
closely tied (nexus) to a project’s impacts as identified through traffic studies required by CEQA. In other words, AB 1600 requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or park land and the type of development project upon which the fee is imposed.

Cities or counties with a high ratio of parkland to inhabitants can set a standard of 5 acres per 1,000 residents for new development. Cities or counties with a lower ratio can require only the provision of up to 3 acres of parkland per 1,000 residents. The calculation of a city’s or county’s parkland-to-population ratio is based on a comparison of the population count of the last federal census to the amount of city- or county-owned parkland.

Local

**Nevada County General Plan**

The Public Services and Facilities Element and the Recreation Element of the General Plan contain the following policies (or relevant excerpt thereof) concerning parks and recreation:

**Public Facilities and Services Element**

Policy 3.10 The following specific level of service standards shall be applicable to Community Regions and Rural Regions for public facilities which the County has responsibility for providing:

   d. For Community and Rural Regions: 3.0 acres of land for each increase of 1,000 persons in county-wide population (Local parks to be provided by municipalities or local districts; Regional parks may be separate from local parks or an expansion of such facilities)

**Recreation Element**

Policy 5.9 Park and recreation facilities shall be included in the County’s comprehensive impact fee program. The comprehensive development fees shall be in amounts sufficient to offset the costs identified as the appropriate share of the park and recreation facility improvements necessary to serve future development. The comprehensive development fee structure shall ensure that future growth fully mitigates its direct and cumulative impacts upon the County.

**Water Supply**

**Federal**

**Environmental Protection Agency**

The US Environmental Protection Agency (EPA) is the federal agency assigned to maintain safe air and water throughout the United States. Nevada County is in EPA Region 9, which includes Arizona, California, Hawaii, Nevada, the Pacific Islands, and over 140 Tribal Nations. The State Water Resources Control Board (SWRCB) works with the EPA to control and reduce pollutants from entering drinking water sources.
State

*Urban Water Management Planning Act*

The Urban Water Management Planning Act (Water Code Sections 10608–10656) requires every urban water supplier that either provides over 3,000 acre-feet of water annually or serves more than 3,000 connections to assess the reliability of its water sources over a 20-year planning horizon, and report its progress on 20 percent reduction in per-capita urban water consumption by the year 2020, as required in the Water Conservation Bill of 2009 SBX7-7. These plans must be prepared every five years and submitted to the Department of Water Resources (DWR) for review to ensure compliance with the Water Code (DWR 2016).

Local

*Nevada Irrigation District Urban Water Management Plan*

NID’s 2015 Urban Water Management Plan (UWMP) was adopted in 2016. The UWMP allows the District to compare its water supplies with existing and anticipated water demands, identify and implement urban water conservation practices, analyze the possibility of drought-induced urban water shortages, and plan various management procedures for implementation during normal and emergency conditions.

NID also produces several brochures to assist its customers in voluntary water conservation to protect and preserve the district’s water supply. The brochures include tips for personal activities such as showering and bathing, as well as household hints for washing dishes, laundry, and gardening and landscaping care. Properties outside the NID boundaries are served by private well systems.

*Nevada County General Plan*

The Public Services and Facilities Element and the Water Element of the General Plan contain the following policies concerning water supply:

*Public Facilities and Services Element*

**Policy 3.5** Within Community Regions with existing public sewer and water systems, all new residential land divisions shall be required to connect to public sanitary sewer and water systems. Temporary use of private on-site systems may be allowed where public systems are not yet available but where a specific improvement plan and funding mechanisms are in place. A legally binding mechanism shall be required to insure that the development will connect to the public systems when available, and that the private systems will be discontinued.

*Water Element*

**Policy 11.1** Adopt water conservation standards, consistent with State guidelines, for multi-family, commercial and industrial development encouraging installation and use of low-flow plumbing fixtures, drip irrigation systems, and drought-tolerant landscape plantings.
Wastewater

Federal

Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the act, the EPA has implemented pollution control programs such as setting wastewater standards for industry and water quality standards for all contaminants in surface waters.

The CWA made it unlawful to discharge any pollutant from a point source (direct discharge) into navigable waters. The EPA’s National Pollutant Discharge Elimination System permit program controls direct and non-point discharges through the applicable Regional Water Quality Control Board (EPA 2016a).

State

Porter-Cologne Water Quality Control Act

In 1969, the California Legislature enacted the Porter-Cologne Water Quality Control Act to preserve, enhance, and restore the quality of the state’s water resources. The act established the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) as the principal state agencies with the responsibility for controlling water quality in California. Under the act, water quality policy is established, water quality standards are enforced for both surface water and groundwater, and the discharges of pollutants from point and nonpoint sources are regulated. The act authorizes the Central Valley RWQCB to establish water quality principles and guidelines and permits for long-range resource planning including groundwater and surface water management programs and control and use of recycled water (USDOE 2016).

State Water Resources Control Board

The SWRCB was created by the legislature in 1967 and is responsible for implementing the Clean Water Act and the Porter-Cologne Water Quality Control Act. The SWRCB allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine Regional Water Quality Control Boards located in the major watersheds of the state. The SWRCB also issues National Pollutant Discharge Elimination System (NPDES) permits to cities and counties through the RWQCBs.

Waste Discharge Requirements Program

State regulations pertaining to the treatment, storage, processing, or disposal of solid waste are found in Title 27, California Code of Regulations Section 20005 et seq. In general, the waste discharge requirements (sometimes referred to as the Non Chapter 15 [Non 15] Program) regulate point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the federal Clean Water Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the waste discharge requirement (WDR) program also includes the discharge of wastes classified as inert, pursuant to Section 20230 of Title 27. Several SWRCB programs are administered under the WDR program, including the Sanitary Sewer Order and recycled water programs.
If the operation or discharges from a property or business affect California’s surface water, coastal waters, or groundwater, the discharger is required to obtain a permit from the appropriate RWQCB to discharge waste. For those discharging pollutants (or proposing to) into surface waters, a federal NPDES permit must be obtained. For other types of discharges, such as those affecting groundwater or in a diffused manner (e.g., erosion from soil disturbance or waste discharges to land), a Report of Waste Discharge must be filed with the appropriate Regional Water Quality Control Board.

**Sanitary Sewer Overflow Reduction Program**

A sanitary sewer overflow (SSO) is any overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system. Sanitary sewer overflows often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oil, and grease and can pollute surface waters and groundwater, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters. To provide a consistent, statewide regulatory approach to address SSOs, the SWRCB adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003 (Sanitary Sewer Order) on May 2, 2006. The Sanitary Sewer Order requires public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all sanitary sewer overflows to the SWRCB’s online SSO database. All public agencies that own or operate a sanitary sewer system that comprises more than 1 mile of pipes or sewer lines which convey wastewater to a publicly owned treatment facility must apply for coverage under the Sanitary Sewer Order.

**Local**

**Central Valley Regional Water Quality Control Board**

The Central Valley Regional Water Quality Control Board (Central Valley RWQCB) is the regional governing agency for water quality. The board’s primary duty is to protect the quality of the waters in the region for all beneficial uses. This duty is implemented by formulating and adopting water quality plans for specific groundwater or surface water basins and by prescribing and enforcing requirements on all agricultural, domestic and industrial waste discharges. The Central Valley RWQCB also issues National Pollutant Discharge Elimination System permits.

**Nevada County General Plan**

The Public Facilities and Services Element and the Water Element of the General Plan contain the following policies concerning wastewater:

**Public Facilities and Services Element**

**Policy 3.5**

Within Community Regions with existing public sewer and water systems, all new residential land divisions shall be required to connect to public sanitary sewer and water systems. Temporary use of private on-site systems may be allowed where public systems are not yet available but where a specific improvement plan and funding mechanisms are in place. A legally binding mechanism shall be required to insure that the development will connect to the public systems when available, and that the private systems will be discontinued.
Policy 3.17  The use of community sewer and/or water systems are encouraged where such systems are economically feasible for the intended service area.

Water Element

Policy 11.6  The County shall continue to enforce its regulations concerning the installation and operation of private sanitary waste disposal systems in order to protect the quality of surface and groundwater. The location of septic tanks and leach fields and their appropriate setbacks from water courses shall be in accordance with the guidelines of the Lahontan Regional Water Quality Control Board (eastern County) and the Central Valley Regional Water Quality Control Board (western County).

Nevada County Land Use and Development Code

Chapter XVII Article 5 of the Nevada County Land Use and Development Code provides detailed methodologies for preparing drainage analyses for development projects. The Article also provides minimum standards for culverts, open ditches, and closed conduit storm sewers.

Stormwater Drainage

Local

Nevada County General Plan

The Public Services and Facilities Element of the General Plan contains the following policies concerning stormwater drainage:

Policy 3.19A  For all discretionary development, increases in stormwater runoff due to new development, which could result in flood damage to downstream residences, commercial, industrial, active natural resource management uses (i.e., farming, ranching, mining, timber harvesting, etc.), public facilities, roads, bridges, and utilities shall not be permitted. Required retention/detention facilities, where necessary, shall be designed such that the water surface returns to its base elevation within 24 hours after the applicable storm event. The sizing of such facilities, when needed, shall be based upon the protection of downstream facilities.

Policy 3.19B  The County shall strongly encourage the use of geographically limited independent or dependent entities (Community Service Area, County Service Area, special district or equivalent entities) for the purpose of maintaining drainage facilities to handle stormwater runoff.

Policy 3.19C  For all discretionary projects, the County shall require that maintenance of all onsite drainage facilities and all offsite facilities constructed as part of the project is assured through a permanent, legally-enforceable mechanism such as, but not limited to, a CSA or CSD.
Solid Waste

State

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989, or AB 939 (Public Resources Code Sections 42900–42927), required all California cities and counties to reduce the volume of waste deposited in landfills by 50 percent by the year 2000 and continue to remain at 50 percent or higher for each subsequent year. The purpose of this act is to reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible.

AB 939 requires each California city and county to prepare, adopt, and submit to the California Department of Resources Recycling and Recovery (CalRecycle) a source reduction and recycling element that demonstrates how the jurisdiction will meet the Integrated Waste Management Act’s mandated diversion goals. Each jurisdiction’s source reduction and recycling element must include specific components, as defined in Public Resources Code Sections 41003 and 41303. In addition, the source reduction and recycling element must include a program for management of solid waste generated in the jurisdiction that is consistent with the following hierarchy: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal. Included in this hierarchy is the requirement to emphasize and maximize the use of all feasible source reduction, recycling, and composting options in order to reduce the amount of solid waste that must be disposed of by transformation and land disposal (Public Resources Code Sections 40051, 41002, and 41302) (CalRecycle 1997).

California Solid Waste Reuse and Recycling Access Act of 1991

AB 1327 was signed into law on October 11, 1991. This bill added Chapter 18 (commencing with Section 42900) to Part 3 of Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991. Chapter 18 required CalRecycle to develop a model ordinance for adoption of recyclable materials in development projects by March 1, 1993. Local agencies were then required to adopt the model, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects by September 1, 1993. If by that date a local agency had not adopted its own ordinance, the model ordinance adopted by CalRecycle took effect and was to be enforced by the local agency (CalRecycle 2012).

Local

Nevada County General Plan

The Public Services and Facilities Element of the General Plan contains the following policy concerning solid waste:

Policy 3.24 The County, in cooperation with other affected agencies, shall continue to implement the County Integrated Waste Management Plan. Preparation of a comprehensive long-range facilities plan for the County shall consider the need for transfer stations, composting sites, hazardous waste collection facilities, and other solid waste disposal facilities.
IMPACT METHODOLOGY

Standards of Significance

The impact analysis below is based on the following State CEQA Guidelines Appendix G thresholds of significance, which state that a project would have a significant impact if it would:

Public Safety

1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection or law enforcement services.

Schools

2) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools.

Parks and Recreation

3) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks.

4) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

5) Not include recreational facilities, or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Water Supply

6) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

7) Have insufficient water supplies available to serve the project from existing entitlements and resources, or necessitate new or expanded entitlements.

Wastewater

8) Exceed wastewater treatment requirements of the Central Valley Regional Water Quality Control Board.

9) Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
14.0 Public Services and Utilities

10) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.

Stormwater Drainage

11) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Solid Waste

12) Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs.

13) Not be in compliance with federal, state, and local statutes and regulations related to solid waste.

Methodology

Public Safety

The public safety analyses are based primarily on information obtained from the public safety agencies that serve the project sites and a review of project plans.

Water Supply

The water supply analyses are based primarily on the data provided in NID’s 2015 Urban Water Management Plan (UWMP) as well as water use estimates for similar projects in the area.

Wastewater

The Alta Sierra site and the Rough and Ready Highway site would be served by septic systems constructed for the projects and therefore would not generate wastewater that would contribute demand for new or expanded wastewater conveyance or treatment. Consequently, Standards of Significance 8 through 10 are not addressed for the Alta Sierra or Rough and Ready Highway sites. The Penn Valley wastewater analysis is based on a review of project plans and information obtained from the Nevada County Public Works Department related to the Penn Valley and Lake Wildwood wastewater treatment plants.

Stormwater Drainage

The stormwater drainage analyses are based primarily on proposed infrastructure plans submitted by the project applicant.

Solid Waste

The solid waste analyses are based on information obtained from CalRecycle and Nevada County regarding the solid waste facilities that would serve the proposed projects and solid waste generation rates for similar projects.
Thresholds Not Evaluated

Schools

As commercial uses, the proposed developments would not generate a substantial number of new students or otherwise affect local area schools. The Alta Sierra project site is located in the Pleasant Ridge Union School District, the Penn Valley project site is located in the Penn Valley Union Elementary School District, the Rough and Ready Highway project site is located in the Grass Valley School District; and all three sites are located in the Nevada County Joint Union High School District (Nevada County 2014). Each project would be required to pay current developer impact fees for commercial uses in effect at the time of building permit application. The respective districts would use these fees to pay for facility expansion and upgrades needed to serve new students. Pursuant to California Government Code Section 65996, payment of these fees is considered full mitigation for potential impacts to the districts. Therefore, there would be no impact relative to Standard of Significance 2, and this impact is not further evaluated for any of the project sites.

Parks and Recreation

As commercial uses, the proposed developments would not generate a substantial number of new residents and would not adversely affect local area parks or recreational facilities. Furthermore, the proposed projects would not include the construction of any new parks or recreational facilities. Therefore, there would be no impact relative to Standards of Significance 3 through 5, and these impacts are not further evaluated for any of the project sites.

14.1 Alta Sierra Site

14.1.1 Project-Specific Setting

Public Safety

Fire Protection and Emergency Medical Services

The Alta Sierra project site is served by the Nevada County Consolidated Fire District, which has four staffed fire stations located throughout western Nevada County. In addition, the district has one joint-staffed station with the Grass Valley Fire Department (GVFD). The NCCFD, the GVFD, and the Nevada City Fire Department have entered into a joint operational agreement to provide a higher level of service in the region (NCCFD 2016).

The NCCFD stations located nearest to the Alta Sierra project site are Station 88, located on SR 49 approximately 1.6 road miles north of the site, and Station 89, located on Tammy Way approximately 2.3 road miles southeast of the site, near the Alta Sierra Country Club and Golf Course. Station 88 has full time staffing 24 hours per day, seven days per week, and is equipped with one Type I engine and a 650-gallon water tank. Station 89 has full-time staffing 24 hours per day, seven days per week, and is equipped with one Type I engine, one Type III engine used for vegetation fires and areas with limited access, one OES water tender used at the request of the California Office of Emergency Services, and one golf cart used for emergencies at the golf course and for special events (NCCFD 2016).
**14.0 PUBLIC SERVICES AND UTILITIES**

**Law Enforcement Services**

No additional law enforcement services setting information pertains to the Alta Sierra site other than as described in Subsection 14.0.1, above.

**Water Supply**

There is an existing 6-inch water line in Alta Sierra Drive, adjacent to the Alta Sierra project site.

**Wastewater**

The Alta Sierra project site is currently undeveloped and is not served by a public wastewater system.

**Stormwater Drainage**

The Alta Sierra project site generally slopes from the northwest to the southeast; the change in grade over the entire site is approximately 30 feet. A subtle ridge bisects the site, allowing runoff generated on-site to flow overland toward both Alta Sierra Drive and Little Valley Road. Both roads have roadside ditches to convey runoff parallel to the roadway (TTG Engineers 2014).

**Solid Waste**

No additional solid waste setting information pertains to the Alta Sierra site other than as described in Subsection 14.0.1, above.

14.1.2 REGULATORY FRAMEWORK

There are no additional regulations, policies, or standards that pertain to the Alta Sierra site other than those described in Subsection 14.0.2, above.

14.1.3 IMPACTS AND MITIGATION MEASURES

**Increase Demand for Public Safety Services (Standard of Significance 1)**

**Impact 14.1.1(AS)** Development of the Alta Sierra project site as proposed would not substantially increase demand for public safety services and would not trigger the need for any new or expanded facilities. **(Less than Significant)**

Development of the Alta Sierra project site as proposed could result in increased demand for law enforcement, fire protection, and emergency medical services. However, as a small retail store, the proposed use is not anticipated to generate a substantial number of new calls for service and would not by itself trigger the need to construct new or expanded facilities. Furthermore, the proposed project would be conditioned by the Nevada County Consolidated Fire District to provide adequate design and provisions for structural fire prevention needs, such as a fire sprinkler system, a smoke detection system, fire protection fees, and fire flow requirements and hydrants. These project conditions would minimize the potential for fire, reducing the project’s demand for fire protection services. Therefore, this impact would be **less than significant**.
The reader is referred to Section 10.0, Hazards and Hazardous Materials, for a discussion of emergency response and evacuation plans, as well as to Section 15.0, Traffic and Transportation, for a discussion of emergency access to the site.

Mitigation Measures

None required.

Increased Water Demand and Construction of Water Conveyance Improvements (Standards of Significance 6 and 7)

Impact 14.1.2(AS) The Alta Sierra project would increase demand for water supplies and water treatment capacity and would require construction of on- and off-site water conveyance improvements. (Less than Significant)

Based on a water consumption rate of 130 gallons per day (gpd) per 1,000 square feet of building space (Nevada County 2007), the proposed 9,100-square-foot Alta Sierra project would have a water demand of 1,183 gpd, or 1.3 acre-feet per year (afy). NID issued a will-serve letter for the proposed Alta Sierra project stating that the project is within the NID service area and that treated water service would be available to the site from the Loma Rica Water Treatment Plant (NID 2014; see Appendix 14.0-A).

In 2015, NID had water supply rights totaling 480,346 acre-feet. The proposed project’s water demand of 1.3 afy represents 0.0003 percent of NID’s total water supplies. During normal water years, NID would have sufficient available capacity to serve the proposed project through 2035 (see Table 14.0-3). Currently, under single dry year conditions, NID projects a water supply deficit in 2035 and subsequent years. Under multiple dry year conditions, a water supply deficit is projected in the fourth year in 2035 (see Tables 14.0-4 and 14.0-5). However, NID is planning to construct a new 110,000-acre-foot reservoir on the Bear River by 2023, which would increase total supplies and eliminate these projected deficits (NID 2016). In addition, the district’s adopted water shortage contingency plan would temporarily reduce water demands to address drought conditions. Therefore, NID would have sufficient water supplies to serve the proposed project and no new or expanded entitlements would be needed.

The Loma Rica Water Treatment Plant has a current capacity of 8.3 million gallons per day (mgd), which is sufficient to accommodate anticipated growth through 2020, at which time the plant is planned for expansion to 12.3 mgd (NID 2016). The proposed project would result in a negligible increase in demand for treated water from this plant (0.014 percent of current capacity) and would not accelerate expansion plans. Therefore, no new or expanded water treatment facilities would be required to serve the project.

The County has determined that the existing water supply infrastructure that would serve the proposed Alta Sierra project may have insufficient water volume and pressure for fire suppression purposes. However, as required under mitigation measure MM AS-10.1.4 (see Impact 10.1.4(AS) in Section 10.0, Hazards and Hazardous Materials, the project would be required to include installation of on-site features to ensure adequate fire protection water supply and pressure at the site. No off-site facilities or infrastructure or any other improvements by NID would be required to

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1 1,183 gallons per day project demand/8,300,000 gallons per day plant capacity = 0.00014%
ensure adequate fire suppression flows. There would be no impact with regard to water supply utilities, and no additional mitigation would be required.

There is an existing 6-inch water line in Alta Sierra Drive adjacent to the project site. The project would include connection to this line, requiring minimal off-site construction within the existing roadway. Impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce construction-related impacts to less than significant levels. No additional mitigation measures would be required to reduce effects related to water supply or treatment. Therefore, this impact would be less than significant.

Mitigation Measures

No additional measures required.

Construction of On-Site Wastewater System (Standards of Significance 8, 9, and 10)

Impact 14.1.3(AS) The proposed Alta Sierra project includes a septic system, the construction of which could result in environmental impacts. (Less than Significant)

Wastewater treatment and disposal on the Alta Sierra site would be via a new septic system that would consist of an on-site septic tank and pump/dosing tank on APN 25-430-08, an off-site tight line through APN 25-430-10 to the north, and a leach field continuing north to APN 25-430-12. Soils testing has been conducted and an adequate area for system and repair area identified. The Nevada County Environmental Health Department has indicated that a sewage disposal permit would be required for the installation of the septic system. The type of system required would be determined by the Environmental Health Department after the sewage disposal permit is applied for in compliance with a condition of approval on the project. Additionally, a septic line easement through the off-site parcels must be finalized prior to issuance of the septic disposal permit. The applicant has provided a “letter of intent” to record this easement from the property owner of all three properties included in the Alta Sierra project, including a draft “Declaration of Easement” to be recorded should the project be approved. The project’s conditions of approval would require the finalization and recordation of the easement prior to issuance of any grading or building permits.

Impacts associated with construction of the Alta Sierra site sewage disposal improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures have been identified in this Draft EIR to reduce these impacts to less than significant levels. Therefore, this impact would be less than significant. The reader is also referred to Impact 8.1.4(AS) for further discussion of the project’s proposed wastewater system.

Mitigation Measures

No additional measures required.
14.0 Public Services and Utilities

Construction of On-Site Stormwater Drainage Improvements (Standard of Significance 11)

Impact 14.1.4(AS) The proposed Alta Sierra project includes an on-site stormwater drainage system, construction of which could result in impacts to the physical environment. (Less than Significant)

As discussed in Impact 11.1.1(AS) (see Section 11.0, Hydrology and Water Quality), the project would include construction of an on-site drainage system that would manage stormwater runoff and ensure compliance with applicable state and local water quality standards. This system would generally include routing runoff along concrete gutters or asphalt pavement to catch basins and curb openings. Flows from the west side of the site (between the store and Alta Sierra Drive) would be directed toward the southwest corner of the site (low point), where they would pass through a stormwater filter prior to discharge into a catch basin that would be connected to underground detention pipes. An 18-inch culvert would be installed under the driveway on Alta Sierra Drive. The remainder of the site’s runoff would be conveyed to a surface bioretention basin. Runoff would pass through the engineered subsurface layers of the basin to an underground perforated pipe system. The percolated runoff would then be conveyed to an underground detention system before discharging to the roadside ditch along Little Valley Road.

Impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce these impacts to less than significant levels. No additional mitigation measures would be required to reduce effects related to stormwater drainage. Therefore, this impact would be less than significant.

Mitigation Measures

No additional measures required.

Increased Demand for Solid Waste Collection and Disposal Services (Standards of Significance 12 and 13)

Impact 14.1.5(AS) Construction and operation of the Alta Sierra project would generate solid waste requiring collection and disposal. (Less than Significant with Mitigation Incorporated)

The proposed project includes construction and operation of a 9,100-square-foot commercial retail store. Using a solid waste generation rate of approximately 3.12 pounds of solid waste per 100 square feet per day (CalRecycle 2013), the proposed 9,100-square-foot building would generate a total of 284 pounds of solid waste per day, or 52 tons per year, during operation. The project would also generate solid waste during the construction phase. However, the majority of construction waste generated nationwide is attributed to demolition and renovation (EPA 2016b). The Alta Sierra project site is currently undeveloped, requiring no demolition. Thus, the project is not expected to generate substantial volumes of construction waste.

Solid waste generated at the Alta Sierra site would be transported to the McCourtney Road Transfer Station and Recycling Center for processing where a portion of the materials would be diverted for recycling. The remaining materials would be transferred to the Ostrom Road Landfill in Yuba County. Household hazardous waste materials are processed at the onsite Household
Hazardous Waste facility, where certain materials are made available for reuse by the public and the remainder is disposed of properly off-site. According to CalRecycle (2016), the Ostrom Road Landfill is projected to have a remaining life of 50 years and an estimated remaining capacity of 39.2 million cubic yards. Thus, the landfill would have adequate permitted capacity to accept solid waste generated during both construction and operation of the proposed Alta Sierra project. Implementation of mitigation measure MM AS-14.1.5 would ensure that toxic materials, which are not accepted at the McCourtney Road facility, are disposed of properly.

The Nevada County Department of Transportation and Sanitation would condition the project to comply with the following waste collection and recycling services requirements: participate in the recycling program offered through the County’s franchised waste collection company; divert all “green waste” material generated at the project area to the County’s franchised waste collection company’s green waste collection program, or an equivalent method; provide adequate space for waste and recycling containers; undertake a program of reuse of waste materials generated at the project; and during construction of the project, divert and recycle all recyclable materials (Nevada County 2012). Implementation of these measures would maximize diversion of recyclable materials generated at the Alta Sierra site. With implementation of mitigation measure MM AS-14.1.5, this impact would be less than significant.

Mitigation Measures

**MM AS-14.1.5** Prior to issuance of grading or building permits, the following shall be included as a Note on those plans: Toxic waste materials (ammunition, asbestos, biohazards, compressed gas cylinders, explosives, radioactive materials, treated wood waste, and medications) are not accepted at the McCourtney Road Transfer Station and if encountered during construction, shall be properly disposed of in compliance with existing regulations and at appropriate facilities. The County Department of Public Works-Solid Waste Division (organic waste) and Environmental Health Department (industrial toxic waste) are the local agencies with oversight over the disposal of these materials. Should the developer encounter these materials during grading or construction activities, the developer shall consult with these agencies to determine the appropriate methods for disposal and the appropriate facilities where these materials can be disposed.

**Timing/Implementation:** Prior to issuance of grading or building permits

**Enforcement/Monitoring:** Nevada County Planning Department and Environmental Health Department

14.2 Penn Valley Site

14.2.1 Project-Specific Setting

Public Safety

Fire Protection and Emergency Medical Services

The Penn Valley project site is provided fire protection services by the Penn Valley Fire Protection District (PVFPD). The PVFPD has three fire stations: Station 43 located at 10513 Spenceville Road, Station 44 located at 18989 Lake Forest Drive, and Station 45 located at 12370 Bitney Springs Road.
Stations 43 and 44 are staffed 24 hours a day with a minimum of two personnel, while Station 45 relies on off-duty personnel for staffing. The PVFPD is equipped with two frontline fire engines, two reserve fire engines, two frontline ambulances, one reserve ambulance, one water tender, two staff vehicles, one rescue vehicle, and one utility vehicle (PVFPD 2016).

**Law Enforcement Services**

No additional law enforcement services setting information pertains to the Penn Valley site other than as described in Subsection 14.0.1, above.

**Water Supply**

The Penn Valley project site is connected to existing NID water supply infrastructure in the adjacent roadway.

**Wastewater**

The Penn Valley project site is located in the Nevada County Sanitation District #1 (NCSD-1). The Nevada County Public Works Department, Wastewater Division administers and maintains sewage collection systems and treatment facilities for NCSD-1, which provides sewer service to approximately 5,230 accounts in western Nevada County with a total population of 14,000. Currently, there are ten zones in NCSD-1 with facilities that collect and treat approximately 1,245,000 gallons of wastewater each day. The Penn Valley project site is located in Zone 6 (Penn Valley).

Zone 6 is currently served by the Penn Valley Wastewater Treatment Plant (Penn Valley WWTP) located south of the Penn Valley community. The Penn Valley collection system conveys septic tank effluent from individual septic tanks through a network of force mains to the Penn Valley WWTP. The plant currently serves 347 active connections and has a design capacity of 0.1256 mgd. The plant’s average flow volume is 0.0897 mgd, but peak flow in the last year was 0.1915 mgd. The plant consists of aerated lagoons, a storage reservoir, and 33 acres of pastureland for spray irrigation. The plant has multiple deficiencies, including an inadequate holding pond and surface discharge area. As a result, the plant violated its waste discharge requirements (WDRs) in 2006 and was issued a Cease and Desist Order (CDO) by the Central Valley Regional Water Quality Control Board. The CDO limits the plant’s monthly average dry weather inflow to 0.06 mgd until facility improvements are made or another means of sewer treatment is developed (Central Valley RWQCB 2009). Upon completion of a Facilities Improvement Design Report in December 2011, the construction of a pipeline from Penn Valley to the Lake Wildwood WWTP was determined to be the most cost-effective way to address the CDO. The pipeline is also planned to connect to Zone 12 (Valley Oak Court). Construction of the pipeline and an associated lift station is currently under way and is expected to be completed in 2017 (Brenner 2015). Once completed, the Penn Valley WWTP will be decommissioned and Zones 1 and 6 will be consolidated into Zone 1 (Lake Wildwood).

The Lake Wildwood WWTP is located at 12622 Pleasant Valley Road in Penn Valley and currently provides treatment services to a population of approximately 8,100. Treated wastewater from the plant is discharged to Deer Creek, a tributary to the Yuba River. The Lake Wildwood WWTP has a design capacity of 1.12 mgd during wet weather and 0.69 mgd during dry weather. Average dry weather flows are 0.38 mgd, well under the design capacity. A flow study conducted by Kennedy/Jenks Consultants in 2011 determined that the Lake Wildwood WWTP is sized to meet anticipated growth for the next 5 to 10 years in the Lake Wildwood and Penn Valley communities (Nevada LAFCO 2015). Twelve (12) equivalent dwelling units (EDUs) have been allocated to the...
project parcel to serve future development. Flow data indicate that only three EDUs would be needed to serve the proposed development. Therefore, there is sufficient capacity at the Lake Wildwood WWTP to serve the project. There is existing wastewater infrastructure in Penn Valley Drive adjacent to the project site.

**Stormwater Drainage**

The Penn Valley project site is currently undeveloped and is not served by a public stormwater drainage system. The site generally slopes from the southeast to the northwest; the change in grade over the entire site is approximately 7 feet. Existing drainage structures currently discharging off-site runoff to the site include three culverts crossing Penn Valley Drive, a culvert crossing the existing drive near the southeast property corner, and an 18-inch storm drain pipe located at the southwest property corner. On- and off-site flows are ultimately conveyed in an existing wash with an upstream end located at the existing culverts crossing the Penn Valley Drive discharge point. The wash continues along the southern and western property boundaries and exits the site near the northwest property corner. An existing berm is located along the eastern property boundary, preventing off-site flows from entering the site (ITG Engineers 2015a).

**Solid Waste**

No additional solid waste setting information pertains to the Penn Valley site other than as described in Subsection 14.0.1, above.

14.2.2 **REGULATORY FRAMEWORK**

No additional regulations, policies, or standards pertain to the Penn Valley site other than those described in Subsection 14.0.2, above.

14.2.3 **IMPACTS AND MITIGATION MEASURES**

**Increase Demand for Public Safety Services (Standard of Significance 1)**

**Impact 14.2.1 (PV)** Development of the Penn Valley project site as proposed would not substantially increase demand for public safety services and would not trigger the need for any new or expanded facilities. (Less than Significant)

Development of the Penn Valley project site as proposed could result in increased demand for law enforcement, fire protection, and emergency medical services. However, as a small retail store, the proposed use is not anticipated to generate a substantial number of new calls for service and would not by itself trigger the need to construct new or expanded facilities. Furthermore, the proposed project would be conditioned by PVFPD to provide adequate design and provisions for structural fire-prevention needs, such as a fire sprinkler system, a smoke detection system, fire protection fees, and fire flow requirements and hydrants. These improvements would reduce the potential for fire and the need for additional fire protection facilities. Therefore, this impact would be **less than significant**.

The reader is referred to Section 10.0, Hazards and Hazardous Materials, for a discussion of emergency response and evacuation plans, as well as to Section 15.0, Traffic and Transportation, for a discussion of emergency access to the site.
Mitigation Measures

None required.

Increased Water Demand and Construction of Water Conveyance Improvements (Standards of Significance 6 and 7)

**Impact 14.2.2 (PV)** The Penn Valley project would increase demand for water supplies and water treatment capacity and would require construction of on- and off-site water conveyance improvements. (Less than Significant)

Based on a water consumption rate of 130 gallons per day (gpd) per 1,000 square feet of building space (Nevada County 2007), the proposed 9,100-square-foot Penn Valley project would have a water demand of 1,183 gpd, or 1.3 acre-feet per year (afy). NID issued a will-serve letter for the proposed Penn Valley project stating that the project is within the NID service area and that adequate capacity is available to serve the proposed project (NID 2015a; see Appendix 14.0-A).

In 2015, NID had water supply rights totaling 480,346 acre-feet. The proposed project’s water demand of 1.3 afy represents 0.0003 percent of NID’s total water supplies. During normal water years, NID would have sufficient available capacity to serve the proposed project through 2035 (see Table 14.0-3). Currently, under single dry year conditions, NID projects a water supply deficit in 2035 and subsequent years. Under multiple dry year conditions, a water supply deficit is projected in the fourth year in 2035 (see Tables 14.0-4 and 14.0-5). However, NID is planning to construct a new 110,000-acre-foot reservoir on the Bear River by 2023, which would increase total supplies and eliminate these projected deficits (NID 2016). In addition, the district’s adopted water shortage contingency plan would temporarily reduce water demands to address drought conditions. Therefore, NID would have sufficient water supplies to serve the proposed project and no new or expanded entitlements would be needed.

The Lake Wildwood Water Treatment Plant has a current capacity of 4 mgd, which is sufficient to accommodate anticipated growth through 2019, at which time the plant is planned for expansion to 8 mgd (NID 2016). The proposed project would result in a negligible increase in demand for treated water (0.03 percent of current capacity2) from this plant (and would not accelerate expansion plans). Therefore, no new or expanded water treatment facilities would be required to serve the project.

The County has determined that the existing water supply infrastructure that would serve the proposed Penn Valley project may have insufficient water volume and pressure for fire suppression purposes. However, as required under mitigation measure MM PV-10.2.4 (see Impact 10.2.4 (PV) in Section 10.0, Hazards and Hazardous Materials, the project would include installation of an on-site underground water storage tank and pump system that would ensure adequate fire protection water supply and pressure at the site. No off-site facilities or infrastructure or any other improvements by NID would be required to ensure adequate fire suppression flows. There would be no impact with regard to water supply utilities, and no additional mitigation would be required.

There is existing water supply infrastructure in the roadway adjacent to the Penn Valley site. Thus, no off-site improvements would be required to provide water service to the proposed project. Minor on-site improvements would be required; however, impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical

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2 1,183 gallons per day project demand/4,000,000 gallons per day plant capacity = 0.00029%
analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce construction-related project impacts to less than significant levels. No additional mitigation measures would be required to reduce effects related to water supply or treatment. Therefore, this impact would be less than significant.

Mitigation Measures

No additional measures required.

Wastewater Impacts (Standards of Significance 8, 9, and 10)

Impact 14.2.3(PV) The proposed Penn Valley project would connect to a public sewer system, but would include an on-site effluent holding tank and associated improvements, the construction of which could result in impacts to the physical environment. (Less than Significant)

Wastewater treatment and disposal for the Penn Valley project would be provided through a combination of on-site storage and treatment and the NCSD-1 Penn Valley sewer system. Wastewater generated by the project would enter an on-site combination septic/effluent holding tank for temporary storage and initial treatment by microorganisms. Wastewater would then be pumped into the existing force main in Penn Valley Drive adjacent to the site and conveyed to the Lake Wildwood WWTP for further treatment and disposal. As discussed previously in this section, the Lake Wildwood WWTP has sufficient available capacity to serve the proposed project and no new or expanded treatment facilities would be required. The Lake Wildwood WWTP complies with all applicable wastewater treatment requirements of the Central Valley RWQCB, and the addition of project wastewater would not cause the plant to exceed these requirements.

Impacts associated with construction of the proposed on-site septic/effluent holding tank and associated improvements to connect to the public sewer system are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce construction-related project impacts to less than significant levels. No additional mitigation measures would be required to reduce effects related to construction of wastewater facilities. Therefore, this impact would be less than significant.

Mitigation Measures

No additional measures required.

Construction of On-Site Stormwater Drainage Improvements (Standard of Significance 11)

Impact 14.2.4(PV) The proposed Penn Valley project includes an on-site stormwater drainage system, construction of which could result in impacts to the physical environment. (Less than Significant)

As discussed in greater detail in Impact 11.2.1(PV) (see Section 11.0, Hydrology and Water Quality), the Penn Valley project would include construction of an on-site drainage system that would
manage stormwater runoff and ensure compliance with applicable state and local water quality standards. This system would generally include features routing runoff along concrete gutters or asphalt pavement to catch basins and curb openings. Flows in the southern part of the site would be directed southwest to a catch basin connected to a stormwater detention system. In the northern part of the site, flows would be directed to a catch basin located at a low point near the northeast corner. Both catch basins would connect to a 24-inch storm drain detention system that would discharge flows to the on-site wash in the northwest corner of the site.

Impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce these impacts to less than significant levels. No additional mitigation measures would be required to reduce effects related to stormwater drainage. Therefore, this impact would be less than significant.

Mitigation Measures

No additional measures required.

Increased Demand for Solid Waste Collection and Disposal Services (Standards of Significance 12 and 13)

**Impact 14.2.5(PV) Construction and operation of the Penn Valley project would generate solid waste requiring collection and disposal. (Less than Significant with Mitigation Incorporated)**

The proposed project includes construction and operation of a 9,100-square-foot commercial retail store. Using a solid waste generation rate of approximately 3.12 pounds of solid waste per 100 square feet per day (CalRecycle 2013), the proposed 9,100-square-foot building would generate a total of 284 pounds of solid waste per day, or 52 tons per year, during operation. The project would also generate solid waste during the construction phase. However, the majority of construction waste generated nationwide is attributed to demolition and renovation (EPA 2016B). The Penn Valley project site is currently vacant, requiring no demolition. Thus, the project is not expected to generate substantial volumes of construction waste.

Solid waste generated at the Penn Valley site would be transported to the McCourtney Road Transfer Station and Recycling Center for processing where a portion of the materials would be diverted for recycling. The remaining materials would be transferred to the Ostrom Road Landfill in Yuba County. Household hazardous waste materials are processed at the onsite Household Hazardous Waste facility, where certain materials are made available for reuse by the public and the remainder is disposed of properly off-site. According to CalRecycle (2016), the Ostrom Road Landfill is projected to have a remaining life of 50 years and an estimated remaining capacity of 39.2 million cubic yards. Thus, the landfill would have adequate permitted capacity to accept solid waste generated during both construction and operation of the proposed project. Implementation of mitigation measure MM PV-14.2.5 would ensure that toxic materials, which are not accepted materials at the McCourtney Road facility, are disposed of properly.

Furthermore, the Nevada County Department of Transportation and Sanitation would condition the project to comply with the following waste collection and recycling services requirements: participate in the recycling program offered through the County’s franchised waste collection.
company; divert all “green waste” material generated at the project area to the County’s franchised waste collection company’s green waste collection program, or an equivalent method; provide adequate space for waste and recycling containers; undertake a program of reuse of waste materials generated at the project; and during construction of the project, divert and recycle all recyclable materials (Nevada County 2012). Implementation of these measures would maximize diversion of recyclable materials generated at the site. With implementation of mitigation measures **MM PV-14.2.5**, this impact would be **less than significant**.

**Mitigation Measures**

**MM PV-14.2.5**  
Prior to issuance of grading or building permits the following shall be included as a Note on those plans: Toxic waste materials (ammunition, asbestos, biohazards, compressed gas cylinders, explosives, radioactive materials, treated wood waste, and medications) are accepted at the McCourtney Road Transfer Station and if encountered during construction, shall be properly disposed of in compliance with existing regulations and at appropriate facilities. The County Department of Public Works-Solid Waste Division (organic waste) and Environmental Health Department (industrial toxic waste) are the local agencies with oversight over the disposal of these materials. Should the developer encounter these materials during grading or construction activities, the developer shall consult with these agencies to determine the appropriate methods for disposal and the appropriate facilities where these materials can be disposed.

*Timing/Implementation:* Prior to issuance of grading or building permits  
*Enforcement/Monitoring:* Nevada County Planning Department and Environmental Health Department

### 14.3 ROUGH AND READY HIGHWAY SITE

#### 14.3.1 PROJECT-SPECIFIC SETTING

**Public Safety**

**Fire Protection and Emergency Medical Services**

As described previously, the Rough and Ready Highway project site is served by the NCCFD, which has four staffed fire stations located throughout western Nevada County. In addition, the district has one jointly staffed station with the Grass Valley Fire Department (GVFD). The NCCFD, the GVFD, and the Nevada City Fire Department have entered into a joint operational agreement to provide a higher level of service in the region (NCCFD 2016).

The nearest fire station to the site is NCCFD Station #1, located at 472 Brighton Street, approximately 2.7 miles west of the project site. Station #2 is approximately 3.2 miles away, at 213 Sierra College Drive. Station 1 has full-time staffing 24 hours per day, seven days per week, and is equipped with one Type I engine (NCCFD 2016). Station 2 has full-time staffing 24 hours per day, seven days per week, and is staffed by the Grass Valley Fire Department.

The project site is also served by the Rough and Ready Volunteer Fire Protection District (RRVFPD) and its station is located approximately 2.1 miles west of the project site. This station is staffed by
volunteer firefighters and is equipped with two fire apparatuses, a rescue truck, a water tender and two utility trucks (RRVFPD 2016).

Law Enforcement Services

No additional law enforcement services setting information pertains to the Rough and Ready Highway site other than as described in Subsection 14.0.1, above.

Water Supply

The Rough and Ready Highway site is currently provided water service by NID via existing water supply infrastructure in the adjacent roadway.

Wastewater

The Rough and Ready Highway site is currently served by an on-site septic system.

Stormwater Drainage

The Rough and Ready Highway site slopes from the southeast to the northwest with a total elevation change of approximately 9 feet. Currently, runoff sheet flows across the site to the northwest across an impervious asphalt parking lot before exiting the site at an existing roadside drainage ditch on the south side of Rough and Ready Highway (TTG Engineers 2015b).

Solid Waste

No additional solid waste setting information pertains to the Rough and Ready Highway site other than as described in Subsection 14.0.1, above.

14.3.2 REGULATORY FRAMEWORK

No additional regulations, policies, or standards pertain to the Rough and Ready Highway site other than those described in Subsection 14.0.2, above.

14.3.3 IMPACTS AND MITIGATION MEASURES

Increase Demand for Public Safety Services (Standard of Significance 1)

Impact 14.3.1(RR) Development of the Rough and Ready Highway project site as proposed would not substantially increase demand for public safety services and would not trigger the need for any new or expanded facilities. (Less than Significant)

Development of the Rough and Ready Highway project site as proposed could result in increased demand for law enforcement, fire protection, and emergency medical services. However, as a small retail store, the proposed use is not anticipated to generate a substantial number of new calls for service and would not by itself trigger the need to construct new or expanded facilities. Furthermore, the proposed project would be conditioned by NCCFD to provide adequate design and provisions for structural fire prevention needs, such as a fire sprinkler system, a smoke detection system, fire protection fees, and fire flow requirements and hydrants. These project conditions would minimize the potential for fire, reducing the project’s demand for public safety services. Therefore, this impact would be less than significant.
The reader is referred to Section 10.0, Hazards and Hazardous Materials, for a discussion of emergency response and evacuation plans, as well as to Section 15.0, Traffic and Transportation, for a discussion of emergency access to the site.

Mitigation Measures

None required.

Increased Water Demand and Construction of Water Conveyance Improvements (Standards of Significance 6 and 7)

**Impact 14.3.2(RR)** Operation of the proposed Rough and Ready Highway project would increase demand for water supplies as well as water treatment capacity and would require construction of on-site water conveyance improvements. (Less than Significant)

Based on a water consumption rate of 130 gallons per day (gpd) per 1,000 square feet of building space (Nevada County 2007), the proposed 9,100-square-foot Rough and Ready Highway project would have a water demand of 1,183 gpd, or 1.3 acre-feet per year (afy). NID issued a will-serve letter for the proposed Rough and Ready Highway project stating that the project is currently served by NID and treated water would be provided to the project from the Elizabeth George Treatment Plant (NID 2015b; see Appendix 14.0-A).

In 2015, NID had water supply rights totaling 480,346 acre-feet. The proposed project’s water demand of 1.3 afy represents 0.0003 percent of NID’s total water supplies. During normal water years, NID would have sufficient available capacity to serve the proposed project through 2035 (see Table 14.0-3). Currently, under single dry year conditions, NID projects a water supply deficit in 2035 and subsequent years. Under multiple dry year conditions, a water supply deficit is projected in the fourth year in 2035 (see Tables 14.0-4 and 14.0-5). However, NID is planning to construct a new 110,000-acre-foot reservoir on the Bear River by 2023, which would increase total supplies and eliminate these projected deficits (NID 2016). In addition, the district’s adopted water shortage contingency plan would temporarily reduce water demands to address drought conditions. Therefore, NID would have sufficient water supplies to serve the proposed project and no new or expanded entitlements would be needed.

The Elizabeth George Treatment Plant has a current capacity of 18 mgd, which is sufficient to accommodate anticipated growth through 2030, at which time the plant is planned for expansion to 24 mgd (NID 2016). The proposed project would result in a negligible increase in demand for treated water (0.007 percent of current capacity³). Therefore, no new or expanded water treatment facilities would be required to serve the project.

The County has determined that the existing water supply infrastructure that would serve the proposed Rough and Ready Highway project may have insufficient water volume and pressure for fire suppression purposes. However, as required under mitigation measure MM RR-10.3.4 (see Impact 10.3.4 (RR) in Section 10.0, Hazards and Hazardous Materials, the project would include installation of an on-site underground water storage tank and pump system that would ensure adequate fire protection water supply and pressure at the site. No off-site facilities or infrastructure or any other improvements by NID would be required to ensure adequate fire suppression flows.

³ 1,183 gallons per day project demand/18,000,000 gallons per day plant capacity = 0.000065
There would be no impact with regard to water supply utilities, and no additional mitigation would be required.

The Rough and Ready Highway site is currently connected to existing water supply infrastructure in the adjacent roadway. Thus, no off-site improvements would be required to provide water service to the proposed project. Minor on-site improvements would be required; however, impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce all construction-related project impacts to less than significant levels. Therefore, this impact would be less than significant.

Mitigation Measures

No additional measures required.

Construction of On-Site Wastewater System (Standards of Significance 8, 9, and 10)

Impact 14.3.3(RR) The proposed Rough and Ready Highway project includes an on-site septic system, the construction of which could result in environmental impacts. (Less than Significant)

Wastewater treatment and disposal on the Rough and Ready Highway site would be via a new on-site septic system. The existing septic tank and leach field would be abandoned to accommodate the project. The proposed septic system would be accommodated entirely within the site; thus, no off-site improvements are proposed. Impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce these impacts to less than significant levels. Therefore, this impact would be less than significant. The reader is also referred to Impact 8.3.4(RR) for further discussion of the project’s proposed wastewater system.

Mitigation Measures

No additional measures required.

Construction of On-Site Stormwater Drainage Improvements (Standard of Significance 11)

Impact 14.3.4(RR) The proposed Rough and Ready Highway project includes on-site stormwater drainage improvements, the construction of which could result in environmental impacts. (Less than Significant)

As discussed in greater detail in Impact 11.3.1(RR) (see Section 11.0, Hydrology and Water Quality), the project would include construction of an on-site drainage system that would manage stormwater runoff and ensure compliance with applicable state and local water quality standards. Stormwater from the site would be routed via sheet flow along concrete gutters or asphalt pavement toward a series of curb openings located near the northern property line and
two trench drains crossing the proposed drive aisles. The curb openings would allow runoff to enter a bioretention basin. Runoff would pass through engineered subsurface layers to an underground system of perforated pipe. The percolated runoff would be conveyed to an underground detention system. Treated flows would then be discharged to the existing roadside ditch along Rough and Ready Highway.

Impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce these impacts to less than significant levels. Therefore, this impact would be less than significant.

Mitigation Measures

No additional measures required.

Increased Demand for Solid Waste Collection and Disposal Services (Standards of Significance 12 and 13)

Impact 14.3.5(RR) Construction and operation of the proposed Rough and Ready Highway project would generate solid waste requiring collection and disposal services. (Less than Significant with Mitigation Incorporated)

The proposed project includes construction and operation of a 9,100-square-foot commercial retail store. Using a solid waste generation rate of approximately 3.12 pounds of solid waste per 100 square feet per day (CalRecycle 2013), the proposed 9,100-square-foot building would generate a total of 284 pounds of solid waste per day, or 52 tons per year, during operation. The project would also generate solid waste during the construction phase associated with demolition of the existing building on the site, as well as construction of the proposed building and associated improvements.

Solid waste generated at the Rough and Ready Highway site would be transported to the McCourtney Road Transfer Station and Recycling Center for processing, where a portion of the materials would be diverted for recycling. The remaining materials would be transferred to the Ostrom Road Landfill in Yuba County. Household hazardous waste materials are processed at the onsite Household Hazardous Waste facility where certain materials are made available for reuse by the public and the remainder is disposed of properly off-site. According to CalRecycle (2016), the Ostrom Road Landfill is projected to have a remaining life of 50 years and an estimated remaining capacity of 39.2 million cubic yards. Thus, the landfill would have adequate permitted capacity to accept solid waste generated during both construction and operation of the proposed project. Implementation of mitigation measure MM RR-14.3.5 would ensure that toxic materials and tree stumps, which are not accepted materials at the McCourtney Road facility, are disposed of properly.

The Nevada County Department of Transportation and Sanitation would condition the project to comply with the following waste collection and recycling services requirements: participate in the recycling program offered through the County’s franchised waste collection company; divert all “green waste” material generated at the project site to the County’s franchised waste collection company’s green waste collection program, or an equivalent method; provide adequate space for waste and recycling containers; undertake a program of reuse of waste materials generated
at the project; and during construction of the project, divert and recycle all recyclable materials (Nevada County 2012). Implementation of these measures would maximize diversion of recyclable materials generated at the site. With implementation of mitigation measure MM RR-14.3.5, this impact would be less than significant.

Mitigation Measures

**MM RR-14.3.5** Prior to issuance of grading or building permits the following shall be included as a Note on those plans: Toxic waste materials (ammunition, asbestos, biohazards, compressed gas cylinders, explosives, radioactive materials, treated wood waste, and medications) are not accepted at the McCourtney Road Transfer Station and if encountered during construction, shall be properly disposed of in compliance with existing regulations and at appropriate facilities. The County Department of Public Works-Solid Waste Division (organic waste) and Environmental Health Department (industrial toxic waste) are the local agencies with oversight over the disposal of these materials. Should the developer encounter these materials during grading or construction activities, the developer shall consult with these agencies to determine the appropriate methods for disposal and the appropriate facilities where these materials can be disposed.

- **Timing/Implementation:** Prior to issuance of grading or building permits
- **Enforcement/Monitoring:** Nevada County Planning Department and Environmental Health Department

## 14.4 Cumulative Setting, Impacts, and Mitigation Measures

### Cumulative Setting

The cumulative setting for public services and utilities consists of the service boundaries of the various public agencies that would serve the proposed projects. This area generally consists of western Nevada County.

### Cumulative Impacts and Mitigation Measures

**Cumulative Public Safety Impacts**

#### Impact 14.4.1

The proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, could result in the need to expand or construct new public safety facilities in order to maintain adequate service levels. However, the proposed projects’ contribution to this impact would be less than significant. *(Less than Cumulatively Considerable)*

The project sites would be served by the Nevada County Sheriff’s Office, the NCCFD, and the PVFPD. Each of these public agencies would expand services as necessary to accommodate future growth in western Nevada County. This may include the need for new or expanded law enforcement or fire protection facilities in order to maintain adequate service levels. The construction of such facilities would result in physical environmental impacts, which could be considered significant. However, as described in Impacts 14.1.1(AS), 14.2.1(PV), and 14.3.1(RR),
the proposed projects would not generate a significant number of calls for emergency services and would be required to incorporate adequate design and provisions for structural fire prevention needs that would further minimize demand for emergency services. The proposed projects would not trigger the need to construct any new or expanded facilities. Therefore, the proposed projects’ contribution to this cumulative impact would be less than cumulatively considerable.

Mitigation Measures

None required.

Cumulative Water Supply Impacts

Impact 14.4.2 Sufficient water supplies and water treatment facility capacity would be available to serve projected cumulative growth in western Nevada County. (Less than Cumulatively Considerable).

Each of the project sites would be provided domestic water service by the Nevada Irrigation District. NID’s (2016) Urban Water Management Plan projects the district’s water supplies and anticipated water demands through 2040 based on an annual average growth rate of 2.5 percent. NID staff developed this growth rate based on historical growth, planned development within the district’s service area, and the assumption that some existing development currently served by on-site groundwater wells will eventually become NID customers. Given these assumptions, NID projects its 2040 service population at 94,586.

As shown in Table 14.0-3, in normal water years, NID would have sufficient water supply to meet the demands of its projected service population through 2040. As shown in Tables 14.0-4 and 14.0-5, NID projects a water supply deficit in 2035 and subsequent years under single dry and multiple dry year conditions. However, implementation of the district’s adopted water shortage contingency plan would temporarily reduce water demands to address drought conditions, and a new 110,000 acre-foot reservoir on the Bear River would increase district supplies and eliminate projected deficits. In 2014, NID submitted an application to the State Water Resources Control Board for the annual appropriation of 221,400 acre-feet from the Bear River for the project. NID expects the project to be implemented by 2023. Therefore, NID would have sufficient water supplies to meet projected demands.

Wastewater from each of the project sites would be treated at a different water treatment plant. The Alta Sierra project would be served by the Loma Rica Water Treatment Plant, the Penn Valley project would be served by the Lake Wildwood Wastewater Treatment Plant, and the Rough and Ready Highway project would be served by the Elizabeth George Treatment Plant. NID has plans to expand each of these treatment plants to accommodate future growth. Expansion projects would be funded by new connection fees and would be subject to the CEQA review of project impacts.

Therefore, this cumulative impact would be less than significant and the projects would not combine to create additional effects. The projects’ contributions to cumulative effects would be less than cumulatively considerable.

Mitigation Measures

None required.
Cumulative Wastewater Treatment Impacts

Impact 14.4.3 Implementation of the proposed projects, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas of Nevada County, could result in the need to construct new water, wastewater, storm drainage, or solid waste facilities in order to maintain adequate service levels. However, the proposed project would not contribute substantially to this impact. (Less than Cumulatively Considerable)

Cumulative growth in western Nevada County would likely require construction of new and expanded wastewater treatment facilities as the region transitions from a reliance on individual on-site septic systems to the various public wastewater treatment facilities, which have limited capacity. However, as described previously in this section, the Alta Sierra and Rough and Ready Highway projects would be served by on-site septic systems requiring only minor improvements. As described in Impact 14.2.3(PV), the Penn Valley site would be served by a combination of an on-site septic tank and connection to the Lake Wildwood WWTP, which has sufficient available capacity to serve anticipated growth in the Lake Wildwood and Penn Valley communities for the next 5 to 10 years (Nevada LAFCO 2015). Thus, there would not be a significant cumulative effect related to wastewater treatment. The proposed projects’ contribution to this impact would be less than cumulatively considerable.

Mitigation Measures

None required.

Cumulative Solid Waste Impacts

Impact 14.4.4 Existing solid waste transfer and disposal facilities have sufficient capacity to accommodate anticipated growth in western Nevada County. (Less than Cumulatively Considerable)

As described previously, solid waste generated in western Nevada County is transferred to the Ostrom Road Landfill in Yuba County for disposal. The landfill has a remaining life projection of 50 years and an estimated remaining capacity of 39.2 million cubic yards. Thus, the landfill would have adequate permitted capacity to serve future development in western Nevada County. This cumulative impact would be less than cumulatively considerable.

Mitigation Measures

None required.
REFERENCES


Holdrege and Kull. 2014. Letter from Chuck Kull, C.E.G., to Dan Biswas, CJS Development II, LLC. Reference: 10166 Alta Sierra Drive, APN 25-430-08, Nevada County, California; Subject: Response to County Comments Regarding Sewage Disposal.


Nevada LAFCO (Local Agency Formation Commission). 2015. Wastewater Services, Western Nevada County, Final Second Round Municipal Services Review.


———. 2014. Letter from Shannon Matteoni, Business Services Technician to Joseph Scarbrough, Assistant Planner, Nevada County, Community Development Agency Re: File No.’s: DP14-001; EIS14-005 Nevada County APN: 25-430-08 Site Address: 10166 Alta Sierra Drive, Grass Valley, CA.


———. 2015b. Letter from Shannon Matteoni, Business Services Technician to Mr. Andrew Mizerek, TTG Engineers Re: Treated Water Service at: 12345 Rough & Ready Hwy, Grass Valley, CA Nevada County APN: 52-122-03.


TTG Engineers. 2014. Drainage Report for Dollar General, 10166 Alta Sierra Dr., Grass Valley, CA 95945.


14.0 PUBLIC SERVICES AND UTILITIES


15.0 TRANSPORTATION AND TRAFFIC
This section describes the existing roadway systems and traffic levels in the vicinity of each project site and analyzes the effect of adding project traffic. The section also evaluates the potential for the projects to create hazardous conditions for motorists and/or pedestrians and cyclists and the adequacy of planned emergency access points at each site. Transportation by walking, bicycling, and transit is also discussed.

15.0 GENERAL ENVIRONMENTAL CONDITIONS AND REGULATIONS

15.0.1 REGIONAL ENVIRONMENTAL SETTING

The reader is referred to the project-specific settings discussed in Subsections 15.1.1, 15.2.1, and 15.3.1.

15.0.2 REGULATORY FRAMEWORK

The following description of applicable regulations, policies, and standards applies to each of the project sites.

Federal

Federal Highway Administration (FHWA)

The FHWA has established standards for Surface Transportation Assistance Act (STAA) of 1982 trucks based on the Code of Federal Regulations (CFR) Title 23, Part 658. These standards designate the minimum truck sizes that all states must allow on the National Network.

State

California Department of Transportation (Caltrans)

The Caltrans Office of Commercial Vehicle Operations, Legal Truck Access Branch designates routes upon which STAA trucks may legally travel.

Regional

Western Nevada County Non-Motorized Recreational Trails Master Plan

The Nevada County Planning Department developed the Western Nevada County Non-Motorized Recreational Trails Master Plan to guide the review of discretionary projects for new development proposals in western Nevada County. The primary components of the plan include a map depicting existing trails and identifying gaps in the regional trail system, goals and policies developed through collaboration and public involvement, design guidelines for trail development, and programs to implement the regional trail system.

Local

Nevada County General Plan

The Circulation Element of the General Plan contains the following policies (or relevant excerpts thereof) concerning traffic and transportation:
Policy LU-4.1.1  The minimum level of service allowable in the Rural Regions of the County, as identified in the General Plan, shall be level of service (LOS) C, except where the existing LOS is less than C. In those situations, the LOS shall not be allowed to drop below the existing LOS. Level of service shall be based on the typical highest peak hour of weekday traffic. Special events may be permitted which temporarily exceed this minimum LOS.

Policy LU-4.1.2  The minimum acceptable level of service (LOS) for areas identified as Community Regions in the General Plan shall be LOS D, except where the existing LOS is less than D. In those situations, the LOS shall not be allowed to drop below the existing LOS. Level of service shall be based on the typical highest peak hour of weekday traffic.

Policy MV-4.2.4  The County shall maintain the function and integrity of arterial and major collector roads by limiting access wherever possible. For all new development, allow access via the lowest roadway classification, consistent with safe operation of the roadways and environmental constraints.

Policy MV-4.2.5  In the review of all discretionary permits, the County shall consider the effect of the proposed development on the area-wide transportation network and the effect of the proposed development on the road network and other transportation facilities in the immediate vicinity of the project site.

Policy RD-4.3.7  Sidewalks or walkways are encouraged as frontage improvements for all discretionary permits within Community Regions, as shown on the General Plan Land Use Maps, including all non-residential projects and all residential projects with an overall density greater than one dwelling unit per gross acre. To the extent feasible, pedestrian use shall be included within the roadway prism.

15.0.3 Impact Methodology

Standards of Significance

The impact analyses provided below are based on the following State CEQA Guidelines Appendix G thresholds of significance, which state that a project would have a significant traffic and transportation impact if it would:

1) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

2) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

5) Result in inadequate emergency access.

6) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

In addition, the County evaluates traffic and transportation impacts to determine whether proposed uses would:

1) Result in an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).

2) Result in a need for private or public road maintenance, or new roads.

3) Result in effects on existing parking facilities, or demand for new parking.

4) Result in a substantial impact upon existing transit systems (e.g., bus service) or alteration of present patterns of circulation or movement of people and/or goods.

5) Result in an alteration of waterborne, rail, or air traffic patterns or levels.

6) Result in an increase in traffic hazards to motor vehicles, bicyclists, or pedestrians, including short-term construction and long-term operational traffic.

7) Result in inadequate sight distance, ingress/egress, general road capacity, or emergency access.

8) Result in inconsistency with adopted policies supporting the provision of transit alternatives to automobile transportation on an equitable basis with roadway improvements, e.g., clustered development, commuter-oriented transit, bus turnouts, sidewalks, paths, and bicycle racks.

Thresholds Not Evaluated

The proposed projects would not result in a substantial increase in the county’s resident population and would not increase air, waterborne, or rail traffic levels. Further, the projects do not include any features that would affect the location or pattern of any such traffic. There would be no impact relative to Standards of Significance 3 or 11, so these thresholds are not further evaluated for any of the project sites.

The reader is referred to Section 12.0, Land Use and Planning, for a discussion of the projects’ proposed parking facilities. All parking would be provided on-site; the projects would not affect existing parking facilities.

Methodology

Evaluation of the proposed projects’ potential impacts related to traffic and transportation was based primarily on the traffic impact analyses prepared for each project site, as well as on a
review of the Nevada County General Plan. The reader is referred to the project-specific methodology discussions in Subsections 15.1.3, 15.2.3, and 15.3.3.

15.1 ALTA SIERRA SITE

The following discussion summarizes the focused traffic analysis report prepared for the proposed Alta Sierra project by Kunzman Associates in May 2015 (Appendix 15.0-A).

15.1.1 PROJECT-SPECIFIC SETTING

Existing Traffic Conditions

Figure 15.0-1 illustrates the circulation system in the vicinity of the Alta Sierra project site, including the number of through lanes and existing intersection controls.

Existing intersection traffic conditions were established through morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak-hour traffic counts obtained by Kunzman Associates in June 2014. Existing average daily traffic volumes for State Route (SR) 49 north and south of Alta Sierra Drive were obtained from Caltrans’ 2012 Traffic Volumes on California State Highways. These volumes were adjusted by adding 9 percent to the existing morning and evening peak hour traffic volumes to account for traditionally lower traffic volumes in June due to school closures and vacations.

The technique used to assess the capacity needs of an intersection is known as the Intersection Delay Method based on the Transportation Research Board’s 2010 Highway Capacity Manual. To calculate delay, the volume of traffic using the intersection is compared with the intersection’s capacity.

According to the Nevada County General Plan, peak-hour intersection operations of level of service (LOS) C or better are generally acceptable for Rural Regions, except where the existing LOS is less than C. In these situations, the level of service is not allowed to drop below the existing LOS. The General Plan states that peak-hour intersection operations of LOS D or better are generally acceptable for Community Regions, except where the existing LOS is less than D. In these situations, the level of service is not allowed to drop below the existing LOS. The Alta Sierra site is located in a Rural Center within a Rural Region; therefore, any intersection operating at LOS D, E or F would be considered deficient. If project traffic causes an intersection or roadway segment to worsen from an acceptable LOS to an unacceptable LOS or is distributed to an intersection or roadway segment currently operating at an unacceptable LOS, the project would be determined to cause a significant impact. The existing delay and level of service for the study area intersections are shown in Table 15.0-1. As shown in this table, the study area intersections currently operate within acceptable LOS during the peak hours for existing traffic conditions.

Existing Plus Approved Projects

The Forest Springs Mobile Home Park north of the project site has been approved for a 62 dwelling unit expansion. According to the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012 (Land Use: 240) the trip generation for the mobile home project is approximately 27 vehicles during the morning peak hour and 37 vehicles during the evening peak hour. With the majority of vehicles projected to travel north on SR 49, the mobile home project is not anticipated to generate significant traffic on the study areas intersections and is encompassed within the annual ambient growth rate (Kunzman 2015a).
### Table 15.0-1
**Existing Intersection Delay and Level of Service – Alta Sierra Site**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>SR 49 Golden Chain Highway (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little Valley Road (EW) – #1</td>
<td>CSS</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #2</td>
<td>TS</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Johnson Place (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #3</td>
<td>CSS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Little Valley Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #5</td>
<td>AWS</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015a (see Appendix 15.0-A)

Notes:
1. CSS = cross-street stop; TS = traffic signal; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
15.0 TRAFFIC AND TRANSPORTATION

15.1.2 REGULATORY FRAMEWORK

No additional regulations, policies, or standards pertain to the Alta Sierra site other than those described in Subsection 15.0.2, above.

15.1.3 METHODOLOGY

Project Trip Generation and Distribution

Kunzman Associates (2015a) determined trip generation rates for daily traffic, morning peak-hour inbound and outbound traffic, and evening peak-hour inbound and outbound traffic for the proposed land use. The resulting project-generated trip volumes are shown in Table 15.0-2. As shown in the table, the proposed project is projected to generate approximately 583 daily vehicle trips, 35 of which would occur during the morning peak hour and 62 of which would occur during the evening peak hour. Figure 4 in Appendix 15.0-A shows the directional distribution of the project trips for the proposed land use. An Existing Plus Approved Projects Plus Project analysis is not required because the one approved project is not anticipated to generate significant traffic on the study area intersections and is encompassed within the annual ambient growth rate, as described above.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Trip Generation Rates for Variety Store Use</th>
<th>Trips Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units²</td>
<td>TSF</td>
<td>9.1 TSF</td>
</tr>
</tbody>
</table>

**Table 15.0-2**

**ALTA SIERRA PROJECT TRIP GENERATION**¹

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Quantity</th>
<th>Units²</th>
<th>Peak Hour</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Morning</td>
<td>Evening</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inbound</td>
<td>Outbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inbound</td>
<td>Outbound</td>
</tr>
<tr>
<td>Trip Generation Rates for Variety Store Use</td>
<td></td>
<td></td>
<td>2.29</td>
<td>1.52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.41</td>
<td>3.41</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>583</td>
<td></td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015a (see Appendix 15.0-A)

Notes:

1. Trip generation rates were obtained from the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012, Land Use Category 814. Since morning and evening peak-hour inbound/outbound ratios are not available, the morning and evening peak-hour inbound/outbound ratio splits for specialty retail/strip commercial was obtained from the San Diego Association of Governments, Traffic Generators, April 2003.

2. TSF = thousand square feet

15.1.4 IMPACTS AND MITIGATION MEASURES

Degrade Traffic Operations (Standards of Significance 1, 2, and 7)

**Impact 15.1.1(AS)** Implementation of the proposed Alta Sierra project would increase vehicular traffic on the local roadway system, potentially degrading intersection operations. **(Less than Significant)**

As shown in Table 15.0-1, all study intersections currently operate at acceptable levels of service. With the addition of project-generated traffic, these intersections would continue to operate at acceptable levels of service, as shown in Table 15.0-3. Therefore, this impact would be **less than significant**.
To offset the traffic impacts on the roadway network from development, such as the proposed project, the County collects a Regional Transportation Mitigation Fee and a Local Traffic Mitigation Fee. The project site is located in the Western Nevada County Regional Transportation Mitigation Fee program area. Payment of these fees by the project applicant would ensure that the project contributes its fair share of the cost of necessary future improvements to the regional roadway network. The proposed project would not result in any land use changes or changes to the roadway network that would conflict with applicable congestion management programs or policies related to the performance of the circulation system.

Mitigation Measures

None required.
## 15.0 Traffic and Transportation

### Table 15.0-3
**Existing Plus Project Intersection Delay and Level of Service – Alta Sierra Site**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td>SR 49 Golden Chain Highway (NS) at:</td>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>Little Valley Road (EW) – #1</td>
<td>CSS</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #2</td>
<td>TS</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Johnson Place (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #3</td>
<td>CSS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alta Sierra Drive (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Access (EW) – #4</td>
<td>CSS</td>
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<td>0.5</td>
</tr>
<tr>
<td>Little Valley Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #5</td>
<td>AWS</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

*Source: Kunzman Associates 2015a (see Appendix 15.0-A)*  
*Notes:*  
1. CSS = cross-street stop; TS = traffic signal; AWS = all-way stop  
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right  
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
Traffic Hazards and Emergency Access (Standards of Significance 4, 5, 12, and 13)

The stopping sight distance minimum requirement is 150 feet for the intersection of Alta Sierra Drive and the project access, because the posted speed limit and the average prevailing speed along Alta Sierra Drive is 25 miles per hour. The driver’s eye for a vehicle located at the project access intending to head either northbound or southbound on Alta Sierra Drive is assumed to be situated 42 inches above the pavement and 15 feet back from the edge of the roadway. The driver must have a minimum unobstructed sight line of 150 feet looking southbound at an object 51 inches above the pavement situated in the center of the northbound traffic lane, and must have a minimum unobstructed sight line of 150 feet looking northbound at an object 51 inches above the pavement situated in the center of the southbound traffic lane (Kunzman Associates 2015a). The project access has a sight line of more than 150 feet on Alta Sierra Drive; thus, adequate stopping sight distance could be provided. However, it is necessary to restrict the height of objects in this area to ensure a clear line of sight. The restricted use area consists of the property’s frontage along the north and south sides of Alta Sierra Drive. This impact would be potentially significant.

Implementation of mitigation measure MM AS-15.1.2a would reduce this impact to a less than significant level by restricting object height and requiring management of existing vegetation within the restricted use area.

Emergency responders would be able to access the Alta Sierra site via the proposed driveway on Alta Sierra Drive. The distances from the adjacent roadways to the building entrances would be less than 1,000 feet (see Figure 9 in Appendix 15.0-A). Therefore, should this access point be blocked or otherwise inaccessible during an emergency situation, emergency responders would be able to park along the roadways and access the site by foot. However, deliveries with STAA trucks could result in hazardous conditions, including blocking emergency vehicle access beyond the project site. This would be considered a potentially significant impact. Emergency access during project construction is addressed in Impact 15.1.5(AS) below.

The application for the proposed project depicts deliveries to the project site with a WB-67, STAA truck, which has a total length of 73 feet. Currently, Alta Sierra Drive is not open to access by STAA trucks (Caltrans 2015). In order to open Alta Sierra Drive to these trucks, the County would be required to apply for a Terminal Access designation, which would include but not be limited to an application to Caltrans; evaluation by the County of the local intersections for STAA access; evaluation by Caltrans of any state ramps or intersections leading to proposed local STAA routes; adequate turnaround area at every end of the STAA route that is available 24 hours per day, 7 days per week; and verification from the County that the local roads and intersections on the proposed local Terminal Access route meet all geometric criteria for STAA trucks. Because Alta Sierra Drive has not been determined to safely accommodate trucks depicted in the proposed plans for the project, deliveries with STAA trucks could result in hazardous conditions on roadways in the project vicinity, which would be considered a potentially significant impact.

Implementation of mitigation measures MM AS-15.1.2b and MM AS-15.1.2c would reduce impacts related to truck safety to less than significant by prohibiting STAA truck access on Alta Sierra Drive and improving driveway access at the project site.

Mitigation Measures

MM AS-15.1.2a No objects or vegetation along the project site’s frontage area along the north and south sides of Alta Sierra Drive shall exceed the maximum height of 18 inches to ensure a clear line of sight from the property driveway onto Alta Sierra Drive. The project’s landscape plan shall be reviewed by Nevada County...
Planning Department staff prior to approval of a building permit to ensure the plan conforms to this restriction.

In addition, the project applicant shall perform brush clearing and trimming up or down of trees and shrubs and maintenance within this area to ensure a clear line of sight prior to project operation. The project applicant shall coordinate with the Nevada County Public Works Department regarding the extent of clearing and trimming necessary and shall obtain a standard encroachment permit from the County prior to initiating work within the public right-of-way.

**Timing/Implementation:** Prior to issuance of a building permit and throughout project operation

**Enforcement/Monitoring:** Nevada County Planning Department and Public Works Department

**MM AS-15.1.2b**

Unless and until Alta Sierra Drive is designated a Surface Transportation Assistance Act (STAA) route, STAA delivery trucks shall be prohibited from accessing the project site.

**Timing/Implementation:** Prior to issuance of a building permit and throughout project operation

**Enforcement/Monitoring:** Nevada County Planning Department and Public Works Department

**MM AS-15.1.2c**

To improve the operational safety of truck delivery and customer access to the site, the developer shall modify their north side curb by either shifting (flaring) it to the north or increasing the curb radius to improve truck turning so that an outbound truck can successfully turn onto Alta Sierra Drive without encroaching into the opposing lane. The developer shall submit final improvement plans to the Department of Public Works that reflect the revised design, subject to approval of the Department of Public Works, as a part of their encroachment permit review.

**Timing/Implementation:** Prior to issuance of encroachment permit/Inspection prior to final of encroachment permits

**Enforcement/Monitoring:** Nevada County Public Works Department

**Construct New Roadway Improvements and Increase Maintenance Needs (Standard of Significance 8)**

**Impact 15.1.3(AS)** Development of the Alta Sierra project site as proposed would not result in the need for private or public road maintenance or for new roads. (Less than Significant)

The proposed Alta Sierra project includes minor roadway improvements related to site access and required frontage improvements. Impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of
hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce all construction-related impacts to less than significant levels. These improvements would not require any additional County maintenance beyond what is currently conducted in the vicinity. This impact would be less than significant.

Mitigation Measures

None required.

Pedestrian, Bicycle, and Transit Impacts (Standards of Significance 6, 10, 12, and 14)

Impact 15.1.4(AS) Development of the Alta Sierra project site would have no effect on existing pedestrian, bicycle, or transit circulation in the area and would not conflict with adopted plans regarding alternative transportation. (Less than Significant)

The Alta Sierra project site is located in a commercial center, and the proposed development would be consistent with the site’s existing land use designation. While there are residential properties east of the site along Little Valley Road, only 5 percent of project-generated traffic would occur on Little Valley Road (see Figure 4 in Appendix 15.0-A). This is considered a negligible increase in traffic on the roadway and would not be expected to result in any hazardous conditions for motorists, bicyclists, or pedestrians.

There are no existing or planned pedestrian or bicycle facilities in the vicinity of the Alta Sierra project site. The project does not propose to construct any pedestrian or bicycle facilities along the site’s frontage but would not preclude future development of such facilities. Furthermore, the proposed project would not result in the development of uses that would substantially increase traffic or that would rely on transit services. Project implementation would not interfere with operation of the nearest bus line along Alta Sierra Drive (Gold Country Stage Route 5) or with the nearest bus stop on Alta Sierra Drive, located approximately 300 feet south of the southwestern property line. A significant increase in ridership that would necessitate new bus facilities would not occur as a result of this project. This impact would be less than significant.

Mitigation Measures

None required.

Construction Traffic (Standards of Significance 1, 2, 7, and 13)

Impact 15.1.5(AS) Construction at the Alta Sierra project site would not have substantial effects on pedestrian, bicycle, or transit circulation in the area. (Less than Significant with Mitigation Incorporated)

Construction of the proposed Alta Sierra project would involve increased truck and vehicle trips associated with construction equipment and materials deliveries as well as worker commutes. In addition, construction activities may require lane closures, periodically slow traffic as equipment is moved, or block access to adjacent sites.

In addition to general construction trips, the applicant proposes to create a temporary encroachment onto Little Valley Road to be utilized during grading activities for the export of soils. The developer anticipates approximately 450 round trips to the site, with about 40-50 trips for a period of 8-9 days. While this impact would be short-term and the anticipated trips would not be
of such a volume that they could affect intersection operations on local roadways, it could create a temporary inconvenience to the residents on Little Valley Road as well as persons traveling on Alta Sierra Drive. This is a potentially significant impact.

Implementation of mitigation measure MM AS-15.1.5 and MM AS-12.1.2 (Limits of Timing and Duration of Soil Export) would ensure that construction-related traffic does not substantially delay traffic, block pedestrian or bicycle access, interfere with emergency response, or create a nuisance for area residents, and would reduce the impact to less than significant.

Mitigation Measures

**MM AS-15.1.5**  
Prior to the issuance of a grading permit for the Alta Sierra project site, a Construction Traffic Control Plan (CTCP) shall be submitted for review and approval by the Nevada County Public Works Department. The CTCP shall include a schedule of construction, the types of trucks accessing the site, and anticipated methods of handling traffic during construction activities to ensure the safe flow of traffic, pedestrian/bicycle crossing, and adequate emergency access, including maintaining an open lane for motorized and non-motorized travel at all times. All traffic control measures shall conform to County and Caltrans standards, as applicable.

*Timing/Implementation:* Prior to issuance of a grading permit  
*Enforcement/Monitoring:* Nevada County Public Works Department

### 15.2 Penn Valley Site

The following discussion is based primarily on the focused traffic analysis report and a supplemental traffic analysis report, both prepared for the proposed Penn Valley project by Kunzman Associates in January 2016 and September 2016, respectively (Appendices 15.0-B and 15.0-D).

#### 15.2.1 Project-Specific Setting

**Existing Traffic Conditions**

*Figure 15.0-2* illustrates the circulation system in the vicinity of the Penn Valley project site, including the number of through lanes and existing intersection controls.

Existing intersection traffic conditions were established through morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak-hour traffic counts obtained by Kunzman Associates in May 2015.

The technique used to assess the capacity needs of an intersection is known as the Intersection Delay Method based on the Transportation Research Board’s 2010 Highway Capacity Manual. To calculate delay, the volume of traffic using the intersection is compared with the intersection’s capacity.
FIGURE 15.0-2
Existing Circulation System – Penn Valley Site


Legend
- Traffic Signal
- All Way Stop
- Stop Sign
- Through Travel Lanes
- Divided
- Undivided
- Free Right Turn
According to the Nevada County General Plan, peak-hour intersection operations of LOS C or better are generally acceptable for Rural Regions, except where the existing LOS is less than C. In these situations, the level of service is not allowed to drop below the existing LOS. The General Plan states that peak-hour intersection operations of LOS D or better are generally acceptable for Community Regions, except where the existing LOS is less than D. In these situations, the level of service is not allowed to drop below the existing LOS. The Penn Valley site is located in a Community Region; therefore, any intersection operating at LOS E to F would be considered deficient. If project traffic causes an intersection or roadway segment to worsen from an acceptable LOS to an unacceptable LOS or is distributed to an intersection or roadway segment currently operating at an unacceptable LOS, the project would be determined to cause a significant impact. The existing delay and level of service for the study area intersections are shown in Table 15.0-4. As shown in this table, the study area intersections currently operate within acceptable LOS during the peak hours for existing traffic conditions.

Existing Plus Approved Projects Traffic Conditions

The study area intersections were also analyzed by Kunzman Associates (2016a and 2016b) for Existing plus Approved Projects. The Dollar General at Rough and Ready Highway was also assumed. The approved projects have been identified and provided by the Nevada County Planning Department, and include the following:

- Players Pizza
- Bar at 10493 Spenceville Road
- Housing tract at 16653 Indian Springs Road
- Dollar General Rough and Ready Highway
- Wildwood Ridge Estates

The trip generation rates, peak-hour volumes, and daily traffic volumes for each of these approved projects are provided in Table 3 in Appendix 15.0-D.
### Table 15.0-4

**EXISTING INTERSECTION DELAY AND LEVEL OF SERVICE – PENN VALLEY SITE**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>Pleasant Valley Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #1</td>
<td>TS</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #2</td>
<td>CSS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Post Office Driveway (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #3</td>
<td>CSS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Penn Valley Drive/Spenceville Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #4</td>
<td>AWS</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Rough and Ready Highway/Penn Valley Drive (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #5</td>
<td>TS</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2016a (see Appendix 15.0-B)

Notes:

1. TS = traffic signal; CSS = cross-street stop; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right; >> = free right turn
3. Delay and level of service were calculated using the following analysis software: HCS + Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
### Table 15.0-5

**EXISTING PLUS APPROVED PROJECTS INTERSECTION DELAY AND LEVEL OF SERVICE – PENN VALLEY SITE**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
<td>Eastbound</td>
<td>Westbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L  T  R</td>
<td>L  T  R</td>
<td>L  T  R</td>
<td>Morning</td>
</tr>
<tr>
<td>Pleasant Valley Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #1</td>
<td>TS</td>
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<td>1  1  1</td>
<td>1  1  1</td>
<td>1  1  1</td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #2</td>
<td>CSS</td>
<td>0  0  0</td>
<td>0.5 0.5 0.5</td>
<td>0.5 0.5 0.5</td>
<td>0  0  0.5</td>
</tr>
<tr>
<td>Post Office Driveway (NS) at:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #3</td>
<td>CSS</td>
<td>0  0  0</td>
<td>0.5 0.5 0.5</td>
<td>0.5 0.5 0.5</td>
<td>0  0  0.5</td>
</tr>
<tr>
<td>Penn Valley Drive/Spenceville Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #4</td>
<td>AWS</td>
<td>0.5 0.5 0</td>
<td>0 0.5 0.5</td>
<td>0.5 0.5 0</td>
<td>0  0  0</td>
</tr>
<tr>
<td>Rough and Ready Highway/Penn Valley Drive (NS) at:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #5</td>
<td>TS</td>
<td>1  1  1</td>
<td>1  1  1</td>
<td>1  1  1</td>
<td>1  1  2</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2016b (see Appendix 15.0-D)

Notes:

1. TS = traffic signal; CSS = cross-street stop; AWS = all-way stop

2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right; >> = free right turn

3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
15.0 TRAFFIC AND TRANSPORTATION

Non-Vehicular Circulation

Figures 14 and 15 in Appendix 15.0-B illustrate the existing pedestrian access at the Penn Valley site and the Nevada County bike paths in the vicinity of the site, respectively. Pedestrian and bicycle traffic is moderate along Penn Valley Drive.

Transit service is provided in the vicinity of the Penn Valley site by the Nevada County along Route 6 from Pleasant Valley Drive south to Penn Valley Drive, continuing east on Penn Valley Drive to Spenceville Road/Penn Valley Drive, and then north on Penn Valley Drive continuing onto Rough and Ready Highway. The nearest bus stop is located along Penn Valley Drive less than 200 feet to the north of the northern project boundary at Broken Oak Street (Kunzman Associates 2016a).

15.2.2 REGULATORY FRAMEWORK

Penn Valley Village Center Area Plan

In addition to the regulations, policies, and standards described in Subsection 15.0.2, above, the site is located in the Penn Valley Village Center Area Plan, which was adopted in 2000 for the Penn Valley Village Center. The plan contains Policy 4.32, which encourages frontage improvements, including sidewalks, for nonresidential projects in Community Regions.

15.2.3 METHODOLOGY

Project Trip Generation and Distribution

Kunzman Associates (2016a) determined trip generation rates for daily traffic, morning peak-hour inbound and outbound traffic, and evening peak-hour inbound and outbound traffic for the proposed land use. The resulting project-generated trip volumes are shown in Table 15.0-6. As shown in the table, the proposed project is projected to generate approximately 583 daily vehicle trips, 35 of which would occur during the morning peak hour and 62 of which would occur during the evening peak hour. Figure 4 in Appendix 15.0-B shows the directional distribution of the project trips for the proposed land use.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Quantity</th>
<th>Units</th>
<th>Peak Hour</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Morning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inbound</td>
<td>Outbound</td>
</tr>
<tr>
<td>Trip Generation Rates for Variety Store Use</td>
<td></td>
<td>TSF</td>
<td>2.29</td>
<td>1.52</td>
</tr>
<tr>
<td>Trips Generated</td>
<td>9.1</td>
<td>TSF</td>
<td>21</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2016a (see Appendix 15.0-B)

Notes:
1. Trip generation rates were obtained from the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012, Land Use Category 814. Since morning and evening peak-hour inbound/outbound ratios are not available, the morning and evening peak-hour inbound/outbound ratio splits for specialty retail/strip commercial were obtained from the San Diego Association of Governments, Traffic Generators, April 2003.
2. TSF = thousand square feet
15.2.4 Impacts and Mitigation Measures

Degrade Traffic Operations (Standards of Significance 1, 2, and 7)

Impact 15.2.1(PV) Implementation of the proposed Penn Valley project would increase vehicular traffic on the local roadway system, potentially degrading intersection operations. (Less than Significant)

As noted in Table 15.0-5, with a planned improvement at the Pleasant Valley Road/SR 20 intersection, all study intersections currently operate at acceptable levels of service with and without traffic generated by the other approved projects in the vicinity of the Penn Valley site. With the addition of project-generated traffic, these intersections would continue to operate at acceptable levels of service as shown in Table 15.0-7. Therefore, this impact would be less than significant.

To offset the traffic impacts on the roadway network from development, such as the proposed project, the County collects a Regional Transportation Mitigation Fee and a Local Traffic Mitigation Fee. The project site is located in the Western Nevada County Regional Transportation Mitigation Fee program area. Payment of these fees by the project applicant would ensure that the project contributes its fair share of the cost of necessary future improvements to the regional roadway network. The proposed project would not result in any land use changes or changes to the roadway network that would conflict with applicable congestion management programs or policies related to performance of the circulation system.

Mitigation Measures

None required.
### Table 15.0-7
**Existing Plus Approved Projects Plus Project Intersection Delay and Level of Service – Penn Valley Site**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>Pleasant Valley Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #1</td>
<td>TS</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Penn Valley Drive (EW) – #2</td>
<td>CSS</td>
<td>0</td>
</tr>
<tr>
<td>Post Office Driveway (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #3</td>
<td>CSS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Penn Valley Drive/Spenceville Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #4</td>
<td>AWS</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Rough and Ready Highway/Penn Valley Drive (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #5</td>
<td>TS</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2016b (see Appendix 15.0-D)

Notes:
1. **TS** = traffic signal; **CSS** = cross-street stop; **AWS** = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. **L** = left; **T** = through; **R** = right; **>>** = free right turn
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
Traffic Hazards and Emergency Access (Standards of Significance 4, 5, 12, and 13)

Impact 15.2.2(PV) Development of the Penn Valley project site could introduce incompatible uses that could affect safety on roadways and could negatively affect emergency access in the project vicinity. (Less than Significant with Mitigation Incorporated)

Figure 10 in Appendix 15.0-B shows the summary for the sight distance analysis performed by Kunzman Associates (2016a) for the Penn Valley project. The posted speed limit along Penn Valley Drive near the project site is 35 miles per hour with a 25 mile per hour school zone speed limit. Per the Nevada County Department of Transportation Standard Drawings, Required Sight Line at Intersections/Driveways (A-6), the minimum required stopping sight distance for the prevailing speed on a major road of 35 miles per hour is 250 feet. These requirements are consistent with Table 201.1 in the Highway Design Manual.

The stopping sight distance minimum requirement is 250 feet for the intersection of Post Office Driveway and the project access at Penn Valley Drive, because the posted speed limit along Penn Valley Drive is 35 miles per hour. The driver’s eye for a vehicle located at the project access intending to head either westbound or eastbound on Penn Valley Drive is situated 42 inches above the pavement and 15 feet back from the edge of the travelway. The driver must have a minimum unobstructed sight line of 250 feet looking westbound at an object 51 inches above the pavement situated in the center of the eastbound traffic lane, and must have a minimum unobstructed sight line of 250 feet looking eastbound at an object 51 inches above the pavement situated in the center of the westbound traffic lane (Kunzman Associates 2016a). The intersection of the Post Office Driveway/project access at Penn Valley Drive has a sight line of more than 500 feet; thus, adequate stopping sight distance could be provided. However, it is necessary to restrict the height of objects in this area to ensure a clear line of sight. The restricted use area consists of the property’s frontage along the north side of the Post Office Driveway/Project Access at Penn Valley Drive intersection. This impact would be potentially significant.

Implementation of mitigation measure MM PV-15.2.2 would reduce this impact to a less than significant level by restricting object height and requiring management of existing vegetation within the restricted use area.

Emergency responders would be able to access the Penn Valley site via the proposed driveway on Penn Valley Drive. The distances from the adjacent roadways to the building entrances would be less than 1,000 feet (see Figure 9 in Appendix 15.0-A). Therefore, should this access point be blocked or otherwise inaccessible during an emergency situation, emergency responders would be able to park along the roadways and access the site by foot. Adequate emergency access would be provided at the Penn Valley site. Emergency access during project construction is addressed in Impact 15.2.5(PV) below.

The application for the proposed project depicts deliveries to the project site with a WB-67, STAA truck, which has a total length of 73 feet. Currently, Penn Valley Drive is not open to access by STAA trucks (Caltrans 2015). In order to open Penn Valley Drive to STAA trucks, the County would be required to apply for a Terminal Access designation, which would include but not be limited to an application to Caltrans; evaluation by the County of the local intersections for STAA access; evaluation by Caltrans of any state ramps or intersections leading to proposed local STAA routes; adequate turnaround area at every end of the STAA route that is available 24 hours per day, 7 days per week; and verification from the County that the local roads and intersections on the proposed local Terminal Access route meet all geometric criteria for STAA trucks. Because Penn Valley Drive has not been determined to safely accommodate trucks depicted in the proposed...
plans for the project, deliveries with STAA trucks could result in hazardous conditions on roadways in the project vicinity, which would considered a potentially significant impact.

Implementation of mitigation measure MM PV-15.2.2b would reduce this impact to less than significant by restricting STAA truck access on Penn Valley Drive.

Mitigation Measures

**MM PV-15.2.2a**  
No objects or vegetation within the site’s frontage along the north side of the Post Office Driveway/project access at Penn Valley Drive shall exceed the maximum height of 18 inches to ensure a clear line of sight. The project applicant shall perform brush clearing and tree trimming within this area in consultation with the Nevada County Public Works and Planning Departments prior to operation. No topping of oak trees shall be permitted. The applicant shall obtain a standard encroachment permit from the County prior to initiating work within the public right-of-way.

- **Timing/Implementation:** Prior to issuance of a building permit and throughout project operation
- **Enforcement/Monitoring:** Nevada County Planning Department and Public Works Department

**MM PV-15.2.2b**  
Unless and until Penn Valley Drive is designated a STAA Route, STAA delivery trucks shall be prohibited from accessing the project site.

- **Timing/Implementation:** Prior to issuance of a building permit and throughout project operation
- **Enforcement/Monitoring:** Nevada County Planning Department and Code Compliance Division

Construct New Roadway Improvements and Increase Maintenance Needs (Standard of Significance 8)

**Impact 15.2.3(PV)** Development of the Penn Valley project site as proposed would not result in the need for private or public road maintenance or for new roads. (Less than Significant)

The proposed Penn Valley project includes minor roadway improvements related to site access and required frontage improvements. Impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce all construction-related impacts to less than significant levels. These improvements would not require any additional County maintenance beyond what is currently conducted in the vicinity. This impact would be less than significant.

Mitigation Measures

None required.
Pedestrian, Bicycle, and Transit Impacts (Standards of Significance 6, 10, 12, and 14)

Impact 15.2.4(PV) Development of the Penn Valley project site would have no substantial effects on pedestrian, bicycle, or transit circulation in the area and would not conflict with adopted plans regarding alternative transportation. (Less than Significant)

It is not anticipated that the proposed development would generate significant pedestrian or bicycle trips on the surrounding roadway network. Pedestrian routes would be available toward the post office to the southeast and across Penn Valley Drive to the southwest. This latter pedestrian route would allow both pedestrian and bicycle connectivity to the Class I path on the south side of Penn Valley Drive. This connection is shown on the site plan (see Figure 2.0-9). The Nevada County Community Development Agency has stipulated that this connection include rectangular rapid flashing beacons to improve pedestrian and bicycle visibility. The placement of signage and striping of the existing roadway would not result in any impacts beyond those already disclosed in this EIR.

Existing transit routes and stops in the vicinity of the Penn Valley site would be adequate to serve the proposed development. Development of the site would not conflict with future transit plans in the area. Therefore, this impact would be less than significant.

Mitigation Measures

None required.

Construction Traffic (Standards of Significance 1, 2, 7, and 13)

Impact 15.2.5(PV) Construction at the Penn Valley project site would not have substantial effects on pedestrian, bicycle, or transit circulation in the area. (Less than Significant with Mitigation Incorporated)

Construction of the proposed Penn Valley project would generate truck and vehicle trips associated with construction equipment and materials deliveries as well as worker commutes. While these trips would not be of such a volume that they could affect intersection operations on the local roadway network, construction activities may require lane closures, periodically slow traffic as equipment is moved, or block access to adjacent sites. This would be a potentially significant impact.

Implementation of mitigation measure MM PV-15.2.5 would ensure that construction-related traffic does not substantially delay traffic, block pedestrian or bicycle access, or interfere with emergency response, and would reduce the impact to less than significant.

Mitigation Measures

MM PV-15.2.5 Prior to the issuance of a grading permit for the Penn Valley project site, a Construction Traffic Control Plan (CTCP) shall be submitted for review and approval by the Nevada County Public Works Department. The CTCP shall include a schedule of construction, the types of trucks accessing the site, and anticipated methods of handling traffic during construction activities to ensure the safe flow of traffic, pedestrian/bicycle crossing, and adequate emergency access, including maintaining an open lane for motorized and non-motorized travel at all times. All traffic control measures shall conform to County and Caltrans standards, as applicable.
15.0 TRAFFIC AND TRANSPORTATION

Timing/Implementation: Prior to issuance of a grading permit
Enforcement/Monitoring: Nevada County Public Works Department

15.3 ROUGH AND READY HIGHWAY SITE

The following section provides a summary of the focused traffic analysis report prepared for the proposed Rough and Ready Highway project by Kunzman Associates in July 2015 (Appendix 15.0-C).

15.3.1 PROJECT-SPECIFIC SETTING

Existing Traffic Conditions

Figure 15.0-3 illustrates the circulation system in the vicinity of the Rough and Ready Highway project site, including the number of through lanes and existing intersection controls.

Existing intersection traffic conditions were established through morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak-hour traffic counts obtained by Kunzman Associates in December 2014.

The technique used to assess the capacity needs of an intersection is known as the Intersection Delay Method based on the Transportation Research Board’s 2010 Highway Capacity Manual. To calculate delay, the volume of traffic using the intersection is compared with the intersection’s capacity.

According to the Nevada County General Plan, peak-hour intersection operations of LOS C or better are generally acceptable for Rural Regions, except where the existing LOS is less than C. In these situations, the level of service is not allowed to drop below the existing LOS. The General Plan states that peak-hour intersection operations of LOS D or better are generally acceptable for Community Regions, except where the existing LOS is less than D. In these situations, the level of service is not allowed to drop below the existing LOS. The Rough and Ready Highway site is located in the Grass Valley Community Region; therefore, any intersection operating at LOS E to F would be considered deficient. If project traffic causes an intersection or roadway segment to worsen from an acceptable LOS to an unacceptable LOS or is distributed to an intersection or roadway segment currently operating at an unacceptable LOS, the project would be determined to cause a significant impact. The existing delay and level of service for the study area intersections are shown in Table 15.0-8. As shown in this table, the study area intersections currently operate within acceptable LOS during the peak hours for existing traffic conditions.
FIGURE 15.0-3
Existing Circulation System – Rough and Ready Highway Site

Legend
- All Way Stop
- Stop Sign
- Through Travel Lanes
- Divided
- Undivided
- Free Right Turn Lane

Existing Traffic Signal Warrant Analysis

A traffic signal warrant analyses was performed as a part of the focused traffic analysis report. According to this analysis, traffic signals meet existing warrants at the following study area intersections for existing traffic conditions (Kunzman Associates 2015b):

- Bitney Springs Road (NS) at the Rough and Ready Highway intersection (EW) – #1
- Rough and Ready Highway (NS) at the Ridge Road intersection (EW) – #6

The unsignalized intersections have been evaluated for traffic signals using the Caltrans Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the California Manual of Uniform Traffic Control Devices (2014 Edition).

Existing Plus Approved Projects Traffic Conditions

The study area intersections were also analyzed by Kunzman Associates (2015b) for Existing plus Approved Projects. The approved projects have been identified from the Yuba River Charter School Traffic Impact Analysis prepared by LSC Transportation Consultants, Inc. dated February 24, 2014, and include the following:

- Yuba River Charter School
- Sierra Terrace
- Makiah Woods
- Loma Rica
- Gold Country Village
- Wolf creek Village
- Berriman Ranch
- 314 Railroad Avenue
- Ridge Meadows
- Ridge Village
- Village at South Auburn
- Milco 3
- Victoria Grove
- Twin Cities Church

The trip generation rates, peak-hour volumes, and daily traffic volumes for each of these approved projects are provided in Table 2 in Appendix 15.0-C. The projected delay and level of service for the study area intersections under this scenario are shown in Table 15.0-9.
### Table 15.0-8

**EXISTING INTERSECTION DELAY AND LEVEL OF SERVICE – ROUGH AND READY HIGHWAY SITE**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control</th>
<th>Intersection Approach Lanes</th>
<th>Peak Hour Delay and Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bitney Springs Road (NS) at: Rough and Ready Highway (EW) – #1</td>
<td>AWS</td>
<td>L T R</td>
<td>Morning 12.1 (B) Evening 9.1 (A)</td>
</tr>
<tr>
<td>West Drive (NS) at: Rough and Ready Highway (EW) – #3</td>
<td>CSS</td>
<td>L T R</td>
<td>Morning 12.2 (B) Evening 9.8 (A)</td>
</tr>
<tr>
<td>East Drive (NS) at: Rough and Ready Highway (EW) – #5</td>
<td>CSS</td>
<td>L T R</td>
<td>Morning 12.3 (B) Evening 10.0 (B)</td>
</tr>
<tr>
<td>Rough and Ready Highway (NS) at: Ridge Road (EW) – #6</td>
<td>CSS</td>
<td>L T R</td>
<td>Morning 23.6 (C) Evening 16.8 (C)</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015b (see Appendix 15.0-C)

Notes:
1. TS = traffic signal; CSS = cross-street stop; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right; >> = free right turn
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
### Table 15.0-9

**Existing Plus Approved Projects Intersection Delay and Level of Service – Rough and Ready Highway Site**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>Bitney Springs Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rough and Ready Highway (EW) - #1</td>
<td>AWS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>-Without Improvements</td>
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<td></td>
</tr>
<tr>
<td>-With Improvements</td>
<td>TS</td>
<td>0</td>
<td>0</td>
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<tr>
<td>West Drive (NS) at:</td>
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<tr>
<td>-With Improvements</td>
<td>TS</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015b (see Appendix 15.0-C)

Notes:

1. TS = traffic signal; CSS = cross-street stop; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right; >> = free right turn
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
15.0 TRAFFIC AND TRANSPORTATION

15.3.2 REGULATORY FRAMEWORK

No additional regulations, policies, or standards pertain to the Rough and Ready Highway site other than those described in Subsection 15.0.2, above.

15.3.3 METHODOLOGY

Project Trip Generation and Distribution

Kunzman Associates (2015b) determined trip generation rates for daily traffic, morning peak-hour inbound and outbound traffic, and evening peak-hour inbound and outbound traffic for the proposed land use. The resulting project-generated trip volumes are shown in Table 15.0-10. As shown in the table, the proposed project is projected to generate approximately 583 daily vehicle trips, 35 of which would occur during the morning peak hour and 62 of which would occur during the evening peak hour. Figure 4 in Appendix 15.0-C shows the directional distribution of the project trips for the proposed land use.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Quantity</th>
<th>Units²</th>
<th>Peak Hour</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Morning</td>
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</tr>
<tr>
<td></td>
<td></td>
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<td>Inbound</td>
<td>Outbound</td>
</tr>
<tr>
<td>Trip Generation Rates for Variety Store Use</td>
<td>TSF</td>
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<td>1.52</td>
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<tr>
<td>Trips Generated</td>
<td>9.1</td>
<td>TSF</td>
<td>21</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015b (see Appendix 15.0-C)

Notes:
1. Trip generation rates were obtained from the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012, Land Use Category 814. Since morning and evening peak-hour inbound/outbound ratios are not available, the morning and evening peak-hour inbound/outbound ratio splits for specialty retail/strip commercial were obtained from the San Diego Association of Governments, Traffic Generators, April 2003.
2. TSF = thousand square feet

15.3.4 IMPACTS AND MITIGATION MEASURES

Degrade Traffic Operations (Standards of Significance 1, 2, and 7)

Impact 15.3.1(RR) Implementation of the proposed Rough and Ready Highway project would increase vehicular traffic on the local roadway system, potentially degrading intersection operations. **(Less than Significant with Mitigation Incorporated)**

As shown in Table 15.0-8 and discussed above, all study intersections currently operate at acceptable levels of service with and without traffic generated by the other approved projects in the vicinity of the Rough and Ready Highway site. According to the traffic signal warrant analysis, the intersection of Rough and Ready Highway and Ridge Road is currently eligible for a traffic signal. With the addition of the proposed project and other approved projects, the Rough and Ready Highway/Ridge Road intersection would operate at an unacceptable level of service during the morning peak hour, as shown in Table 15.0-11. Installation of a traffic signal at this location would improve the LOS to an acceptable level.
To offset the traffic impacts on the roadway network from future development, such as the proposed project, the County collects a Regional Transportation Mitigation Fee and a Local Traffic Mitigation Fee. The project site is located in the Western Nevada County Regional Transportation Mitigation Fee program area. Payment of these fees by the project applicant would ensure that the project contributes its fair share of the cost of necessary future improvements to the regional roadway network. However, if the proposed project is operational prior to installation of the signal at the intersection of Rough and Ready Highway and Ridge Road, the intersection would operate at an unacceptable level. This would be a significant impact.

Implementation of mitigation measure MM RR-15.3.1 would reduce this impact by ensuring the signal would be constructed prior to project operation. This would reduce the impact to less than significant.

Mitigation Measures

**MM RR-15.3.1** Occupation or operation of the Rough and Ready Highway project site shall not occur until such time that the traffic signal at the intersection of Rough and Ready Highway and Ridge Road is installed. If the improvements are constructed by the project applicant, they shall be subject to review by the Public Works Department and will be eligible for reimbursement or fee credits for costs that exceed the project’s fair share. If the improvements at this intersection are constructed by the County or by others, payment of the fair share fees are adequate to satisfy the project’s obligation toward this improvement.

*Timing/Implementation:* Prior to occupancy or operation of the project

*Enforcement/Monitoring:* Nevada County Planning Department and Nevada County Public Works Department
### Table 15.0-11
**EXISTING PLUS APPROVED PROJECTS PLUS PROJECT INTERSECTION DELAY AND LEVEL OF SERVICE – ROUGH AND READY HIGHWAY SITE**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L  T  R</td>
<td>L  T  R</td>
</tr>
<tr>
<td>Bitney Springs (NS) at:</td>
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<td></td>
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<tr>
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</tr>
<tr>
<td>Without Improvements</td>
<td></td>
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<td>0  0  0</td>
</tr>
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<td></td>
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<tr>
<td>Project Access (NS) at:</td>
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</tr>
<tr>
<td>Rough and Ready Highway (EW) – #2</td>
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</tr>
<tr>
<td>West Drive (NS) at:</td>
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<td>Rough and Ready Highway (EW) – #3</td>
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<td>Project Access (EW) – #4</td>
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</tr>
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<td>Rough and Ready Highway (EW) – #5</td>
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<td>East Drive (NS) at:</td>
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<td>CSS</td>
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</tr>
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<td>Rough and Ready Highway (NS) at:</td>
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<tr>
<td>Without Improvements</td>
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<tr>
<td>With Improvements⁴</td>
<td></td>
<td>CSS</td>
<td>0 1 1&gt;&gt;</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015b (see Appendix 15.0-C)

Notes:
1. TS = traffic signal; CSS = cross-street stop; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right; >> = free right turn
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
4. This improvement is the installation of a traffic signal.
Traffic Hazards and Emergency Access (Standards of Significance 4, 5, 12, and 13)

Impact 15.3.2(RR) Development of the Rough and Ready Highway project site as proposed could introduce incompatible uses that could affect safety on roadways in the area and could negatively affect emergency access in the project vicinity. (Less than Significant with Mitigation Incorporated)

Figure 5 in Appendix 15.0-C shows the summary for the sight distance analysis performed by Kunzman Associates (2015b) for the Rough and Ready Highway project. The posted speed limit along Rough and Ready Highway near the project site is 35 miles per hour. According to a routine speed zone study conducted for Rough and Ready Highway, the average prevailing speed for the segment of the highway adjacent the project site is 35 miles per hour (Nevada County 2013b). Per the Nevada County Department of Transportation Standard Drawings, Required Sight Line at Intersections/Driveways (A-6), the minimum required stopping sight distance for the prevailing speed on a major road of 35 miles per hour is 250 feet. These requirements are consistent with Table 201.1 in the Highway Design Manual.

The stopping sight distance minimum requirement is 250 feet for the intersection of the project access at Rough and Ready Highway, because the posted speed limit and average prevailing speed along Rough and Ready Highway is 35 miles per hour. The driver's eye for a vehicle located at the project's Rough and Ready Highway access intending to head either westbound or eastbound on the highway would be situated approximately 42 inches above the pavement and 15 feet back from the edge of the travelway. The driver must have a minimum unobstructed sight line of 250 feet looking westbound at an object 51 inches above the pavement situated in the center of the eastbound traffic lane, and must have a minimum unobstructed sight line of 250 feet looking eastbound at an object 51 inches above the pavement situated in the center of the westbound traffic lane (Kunzman Associates 2015b).

The speed limit along Rough and Ready Highway fluctuates between 35 and 45 miles per hour west and east of the project site, although it is 35 miles per hour near the project site. The minimum stopping sight distance at 45 miles per hour is 360 feet, with 490 feet desired. As shown on Figure 6 in Appendix 15.0-C, the sight distance both west and east of the project site is greater than 500 feet. Objects in the restricted use areas that exceed the maximum height of 18 inches could block a clear line of sight for vehicles exiting the site, which is a potentially significant impact.

Implementation of mitigation measure MM RR-15.3.2a would reduce this impact to a less than significant level by restricting object height and requiring management of existing vegetation within the restricted use area.

Emergency responders would be able to access the Rough and Ready Highway site via the proposed driveways on Rough and Ready Highway and West Drive. The distances from the adjacent roadways to the building entrances would be less than 1,000 feet (see Figure 8 in Appendix 15.0-C). Therefore, should this access point be blocked or otherwise inaccessible during an emergency situation, emergency responders would be able to park along the roadways and access the site by foot. There would be adequate emergency access provided to the Rough and Ready Highway site. This impact would be less than significant. Emergency access during project construction is addressed in Impact 15.3.5(RR) below.

The application for the proposed project depicts deliveries to the project site with a WB-67, STAA truck, which has a total length of 73 feet. Currently, Rough and Ready Highway is not open to access by STAA trucks (Caltrans 2015). In order to open Rough and Ready Highway to STAA trucks, the County would be required to apply for a Terminal Access designation, which would include
but not be limited to an application to Caltrans; evaluation by the County of the local intersections for STAA access; evaluation by Caltrans of any state ramps or intersections leading to proposed local STAA routes; adequate turnaround area at every end of the STAA route that is available 24 hours per day, 7 days per week; and verification from the County that the local roads and intersections on the proposed local Terminal Access route meet all geometric criteria for STAA trucks. Because Rough and Ready Highway has not been determined to safely accommodate trucks depicted in the proposed plans for the project, deliveries with STAA trucks could result in hazardous conditions on roadways in the project vicinity, which would be a potentially significant impact.

Implementation of mitigation measure MM RR-15.3.2b would reduce this impact to less than significant by restricting STAA truck access on Rough and Ready Highway.

Mitigation Measures

**MM RR-15.3.2a**  No objects or vegetation within the site’s frontage along Rough and Ready Highway shall exceed the maximum height of 18 inches to ensure clear line of sight. The project applicant shall perform brush clearing and tree trimming within this area in consultation with the Nevada County Public Works and Planning Departments prior to project operation and shall obtain a standard encroachment permit from the County prior to initiating work within the public right-of-way.

*Timing/Implementation:* Prior to issuance of a building permit and throughout project operation

*Enforcement/ Monitoring:* Nevada County Planning Department and Public Works Department

**MM RR-15.3.2b**  Unless and until Rough and Ready Highway is designated a STAA Route, STAA delivery trucks shall be prohibited from accessing the project site.

*Timing/Implementation:* Prior to issuance of a building permit and throughout project operation

*Enforcement/ Monitoring:* Nevada County Planning Department and Code Compliance Division

Construct New Roadway Improvements and Increase Maintenance Needs (Standard of Significance 8)

**Impact 15.3.3(RR)**  Development of the Rough and Ready Highway project site as proposed would not result in the need for private or public road maintenance or for new roads. (Less than Significant)

The proposed Rough and Ready Highway project includes minor roadway improvements related to site access and required frontage improvements. Impacts associated with construction of these improvements are assumed as part of the project and are addressed in the technical analysis sections of this EIR (Sections 4.0 through 15.0). Potential impacts include disturbance of biological and/or cultural resources, temporary air emissions, soil erosion and water quality degradation, handling of hazardous materials, temporary construction noise, and temporary construction traffic. Where necessary, mitigation measures are included to reduce all construction-related impacts to less than significant levels. These improvements would not require any additional
County maintenance beyond what is currently provided in the vicinity. This impact would be less than significant.

Mitigation Measures

None required.

Pedestrian, Bicycle, and Transit Impacts (Standards of Significance 6, 10, 12, and 14)

Impact 15.3.4(RR) Development of the Rough and Ready Highway project site would not have effects on pedestrian, bicycle, or transit circulation in the area and would not conflict with adopted plans regarding alternative transportation. (Less than Significant)

According to the Nevada County Bicycle Master Plan, Rough and Ready Highway is identified as a proposed Class III Bike Route with a Multi-Use Shoulder (Nevada County 2013c, Figure 5-1B). Project construction would not interfere with the future implementation of bicycle and multi-use facilities along Rough and Ready Highway, as these uses are within the roadway right-of-way and not on the project site.

The proposed project would not result in the development of uses that would substantially increase traffic or that would rely on transit services. Project implementation would not interfere with operation of the nearest bus line along Rough and Ready Highway (Gold Country Stage Route 6) or with the nearest bus stop on West Drive, located adjacent to the project site. A significant increase in ridership that would necessitate new bus facilities would not occur as a result of this project. Impacts to public transit would be less than significant.

Mitigation Measures

None required.

Construction Traffic (Standards of Significance 1, 2, 7, and 13)

Impact 15.3.5(RR) Construction of the Rough and Ready Highway project site would have no substantial effects on pedestrian, bicycle, or transit circulation in the study area. (Less than Significant with Mitigation Incorporated)

Construction of the proposed Rough and Ready Highway project would generate truck and vehicle trips associated with construction equipment and materials deliveries as well as worker commutes. While these trips would not be of such a volume that they could affect intersection operations on the local roadway network, construction activities may require lane closures, periodically slow traffic as equipment is moved, or block access to adjacent sites. This is potentially significant impact.

Implementation of mitigation measure MM RR-15.3.5 would ensure that construction-related traffic does not substantially delay traffic, block pedestrian or bicycle access, or interfere with emergency response, and would reduce the impact to less than significant.

Mitigation Measures

MM RR-15.3.5 Prior to the issuance of a grading permit for the Rough and Ready Highway project site, a Construction Traffic Control Plan (CTCP) shall be submitted for
review and approval by the Nevada County Public Works Department. The CTCP shall include a schedule of construction and anticipated methods of handling traffic during construction activities to ensure the safe flow of traffic, pedestrian/bicycle crossing, and adequate emergency access, including maintaining an open lane for motorized and non-motorized travel at all times. All traffic control measures shall conform to County and Caltrans standards, as applicable.

**Timing/Implementation:** Prior to issuance of a grading permit

**Enforcement/Monitoring:** Nevada County Public Works Department

### 15.4 Cumulative Setting, Impacts, and Mitigation Measures – Alta Sierra

#### Cumulative Setting

For cumulative conditions at the Alta Sierra site, the study area intersections were analyzed for Year 2035 without Project and Year 2035 with Project traffic conditions. Since the Countywide Traffic Model was being updated when the Alta Sierra traffic analysis was conducted, future traffic volume forecasts were not available. In lieu of future traffic forecasts, an annual areawide growth rate of 1.0 percent, provided by Nevada County Transportation Department staff, was applied for Year 2035 traffic conditions. For Year 2035 traffic conditions, existing traffic volumes were increased by 1.0 percent annually over a 21-year (2014–2035) period, culminating in a Year 2035 growth rate of 23.24 percent over existing traffic volumes.

The delay and level of service for the study area intersections under cumulative conditions are shown in Table 15.0-12. As shown in this table, the study area intersections operate within acceptable LOS during the peak hours for cumulative traffic conditions.

#### Cumulative Impacts and Mitigation Measures

**Cumulative Traffic Impacts**

**Impact 15.4.1(AS)** When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed Alta Sierra project would contribute to cumulative traffic volumes. However, this increase would not result in impacts to level of service and operations. *(Less than Cumulatively Considerable)*

Table 15.0-13 summarizes Cumulative Year (2035) conditions AM and PM peak-hour study intersection levels of service with the proposed project. As shown, with the addition of project traffic with the proposed Alta Sierra project, the study area intersections operate within acceptable LOS during the peak hours for cumulative traffic conditions. As such, this impact would be *less than cumulatively considerable*.

**Mitigation Measures**

None required.
## Table 15.0-12
**Year 2035 without Project Intersection Delay and Level of Service—Alta Sierra Site**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control(^1)</th>
<th>Intersection Approach Lanes(^2)</th>
<th>Peak Hour Delay and Level of Service(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L T R</td>
<td>L T R</td>
</tr>
<tr>
<td>SR 49 Golden Chain Highway (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little Valley Road (EW) – #1</td>
<td>CSS</td>
<td>0 1.5 0.5</td>
<td>1 1</td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #2</td>
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<td>1 1</td>
</tr>
<tr>
<td>Johnson Place (NS) at:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #3</td>
<td>CSS</td>
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<td>0.5</td>
</tr>
<tr>
<td>Little Valley Road (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #5</td>
<td>AWS</td>
<td>0 1 0</td>
<td>0 1</td>
</tr>
</tbody>
</table>

*Source: Kunzman Associates 2015a (see Appendix 15.0-A)*

Notes:
1. CSS = cross-street stop; TS = traffic signal; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
### Table 15.0-13

**Year 2035 with Project Intersection Delay and Level of Service – Alta Sierra Site**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Northbound</td>
<td>Southbound</td>
</tr>
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<td>SR 49 Golden Chain Highway (NS) at:</td>
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<td>T</td>
</tr>
<tr>
<td>Little Valley Road (EW) – #1</td>
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<td>Johnson Place (NS) at:</td>
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<tr>
<td>Alta Sierra Drive (EW) – #3</td>
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<tr>
<td>Alta Sierra Drive at:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Project Access (EW) – #4</td>
<td>CSS</td>
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<td>0.5</td>
</tr>
<tr>
<td>Little Valley Road (NS) at:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Alta Sierra Drive (EW) – #5</td>
<td>AWS</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015a (see Appendix 15.0-A)

Notes:
1. CSS = cross-street stop; TS = traffic signal; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
4. Due to the nature of the Intersection Delay Method based on the 2010 Highway Capacity Manual and the numerous input values and variables used to determine the delay at a signalized intersection, it is not uncommon for an intersection to operate at a lower level of service (in seconds) once additional traffic volumes are added. This is due to the methodology and how the individual approach delay for each movement and total intersection delay are calculated.
15.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES – PENN VALLEY

CUMULATIVE SETTING

For cumulative conditions at the Penn Valley site, the study area intersections were analyzed for Year 2035 without Project and Year 2035 with Project traffic conditions. An annual areawide growth rate of 1.0 percent was applied for Year 2035 traffic conditions to remain consistent with the Dollar General Focused Traffic Analysis for the proposed Rough and Ready Highway Dollar General store. Nevada County Public Works Department staff stated that this Dollar General project, which is identical in size to the proposed project, is small enough not to warrant the use of the traffic model and the 1 percent annual growth rate utilized is a conservative and acceptable approach, as it is greater than the 0.6 percent annual countywide traffic growth rate produced by the traffic model. The growth rate was provided by Nevada County Transportation Department staff for the aforementioned project. For Year 2035 traffic conditions, existing traffic volumes were increased by 1.0 percent annually over a 20-year (2015–2035) period, culminating in a Year 2035 growth rate of 22.02 percent over existing traffic volumes.

The delay and level of service for the study area intersections under cumulative conditions are shown in Table 15.0-14. As shown in this table, for Year 2035 Without Project traffic conditions, the following study area intersection is projected to operate at an unacceptable level of service during the peak hours, without improvements:

- Pleasant Valley Road (NS)/SR 20 intersection (EW) – #1

As shown in Table 15.0-14, modification of the traffic signal cycle length at this intersection from 60 seconds to 100 seconds and changes in turning movement phase duration, as recommended in the traffic study (Kunzman 2016b), would improve the intersection conditions to an acceptable level of service. However, according County Public Works staff, while these recommended modifications would cause the signal to operate acceptably in terms of delay, they would not address the issue of queueing in the southbound direction where vehicles are expected to spill more than 400 feet past the end of the existing left-turn lane. Implementation of the future planned improvement to construct an additional southbound left-turn lane from Pleasant Valley Road to eastbound Highway 20 would address both delay and queueing and result in an acceptable level of service at the intersection. This improvement is identified in the County’s regional traffic mitigation fee program as a future county project. All other intersections would operate at an acceptable LOS under Year 2035 Without Project conditions.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Traffic Impacts

Impact 15.5.1(PV) When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed Penn Valley project would contribute to cumulative traffic volumes that result in impacts to level of service and operations. (Less than Cumulatively Considerable)

Table 15.0-14 summarizes Cumulative Year (2035) conditions AM and PM peak-hour study intersection levels of service without the proposed project, and Table 15.0-15 summarizes Cumulative Year (2035) conditions with the proposed project. As shown, the Pleasant Valley Road (NS)/SR 20 intersection (EW) would operate at an unacceptable level both without and with the project. In the AM peak hour the project would add less than one-second delay under cumulative conditions, which would not be considered significant. In the PM peak hour, the project would
15.0 TRAFFIC AND TRANSPORTATION

add nearly 12 seconds of delay at the intersection, which would be a significant increase. The proposed Penn Valley project would be required to pay the Western Nevada County Regional Transportation Mitigation Fee and the Local Traffic Mitigation Fee. These fees are used to offset a new project’s impacts to the county’s roadway system. As discussed previously, with the addition of a second southbound left-turn lane at the Pleasant Valley Road/SR 20 intersection, this intersection, as well as all study area intersections, would operate within acceptable LOS during the peak hours for cumulative traffic conditions. The payment of the County’s roadway mitigation fees by the Penn Valley project would ensure the project’s contribution to traffic at the Pleasant Valley Road/SR 20 intersection is less than cumulatively considerable.

Mitigation Measures

None required.
### TABLE 15.0-14
**YEAR 2035 WITHOUT PROJECT INTERSECTION DELAY AND LEVEL OF SERVICE – PENN VALLEY SITE**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Northbound</strong></td>
<td><strong>Southbound</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td><strong>Pleasant Valley Road (NS) at:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #1</td>
<td></td>
<td>TS</td>
<td>1</td>
</tr>
<tr>
<td>- Without Improvements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- With Improvements⁴</td>
<td></td>
<td>TS</td>
<td>1</td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #2</td>
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<td>CSS</td>
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</tr>
<tr>
<td><strong>Post Office Driveway (NS) at:</strong></td>
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<td></td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #3</td>
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<td>CSS</td>
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</tr>
<tr>
<td><strong>Penn Valley Drive/Penncrossville Road (NS) at:</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #4</td>
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<td>AWS</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Rough and Ready Highway/Penn Valley Drive (NS) at:</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #5</td>
<td></td>
<td>TS</td>
<td>1</td>
</tr>
</tbody>
</table>

**Source:** Kunzman Associates 2016b (see Appendix 15.0-D)

**Notes:**

1. **TS =** traffic signal; **CSS =** cross-street stop; **AWS =** all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. **L = left; T = through; R = right; >> = free right turn**
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
4. This improvement consists of traffic signal cycle length modification from 60 seconds to 100 seconds that includes changes in turning movement phase durations.
### TABLE 15.0-15

**YEAR 2035 WITH PROJECT INTERSECTION DELAY AND LEVEL OF SERVICE – PENN VALLEY SITE**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td>Pleasant Valley Road (NS) at:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SR 20 (EW) – #1</td>
<td></td>
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</tr>
<tr>
<td>- Without Improvements</td>
<td>TS</td>
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</tr>
<tr>
<td>- With Improvements⁵</td>
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<td>1</td>
</tr>
<tr>
<td>Penn Valley Drive (EW) – #2</td>
<td>CSS</td>
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<td>0</td>
</tr>
<tr>
<td>Post Office Driveway (NS) at:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Drive Drive (EW) – #3</td>
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</tr>
<tr>
<td>Penn Valley Drive/Spenceville Road (NS) at:</td>
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<td>0.5</td>
</tr>
<tr>
<td>Rough and Ready Highway/Penn Valley Drive (NS) at:</td>
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<tr>
<td>SR 20 (EW) – #5</td>
<td>TS</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2016b (see Appendix 15.0-D)

Notes:
1. TS = traffic signal; CSS = cross-street stop; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right; >> = free right turn
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
4. Due to the nature of the Intersection Delay Method based on the 2010 Highway Capacity Manual and the numerous input values and variables utilized to determine the delay at a signalized intersection, it is not uncommon for an intersection to operate at a lower Level of Service (in seconds) once additional traffic volumes are added. This is due to the methodology and how the individual approach delay for each movement and total intersection delay is calculated.
5. This improvement consists of traffic signal cycle length modification from 60 seconds to 100 seconds that includes changes in turning movement phase durations.
15.6 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES – ROUGH AND READY HIGHWAY

CUMULATIVE SETTING

For cumulative conditions at the Rough and Ready Highway site, the study area intersections were analyzed for Year 2035 without Project and Year 2035 with Project traffic conditions. Since the Countywide Traffic Model was being updated when the traffic study was being initially completed, future traffic volume forecasts were not available. In lieu of future traffic forecasts, an annual areawide growth rate of 1.0 percent, provided by Nevada County Transportation Department staff, was applied for Year 2035 traffic conditions. For Year 2035 traffic conditions, existing traffic volumes were increased by 1.0 percent annually over a 21-year (2014–2035) period, culminating in a Year 2035 growth rate of 23.24 percent over existing traffic volumes.

The delay and level of service for the study area intersections under cumulative conditions without the proposed project are shown in Table 15.0-16. As shown in this table, the following study area intersection is projected to operate at an unacceptable level of service during the peak hours, without improvements:

- Rough and Ready Highway (NS)/Ridge Road intersection (EW) – #6

As shown in Table 15.0-16, construction of a traffic signal at this intersection would improve the intersection conditions to an acceptable level of service. All other intersections would operate at an acceptable LOS under Year 2035 with Project conditions.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Traffic Impacts

Impact 15.6.1(RR) When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed Rough and Ready Highway project would contribute to cumulative traffic volumes that result in impacts to level of service and operations. (Less than Cumulatively Considerable with Mitigation)

Table 15.0-17 summarizes Cumulative Year (2035) conditions AM and PM peak-hour study intersection levels of service with the proposed project. As shown in Table 15.0-17, all study intersections would operate within acceptable LOS during the peak hours for cumulative traffic conditions, with the exception of the intersection of Rough and Ready Highway and Ridge Road, which would operate at unacceptable levels in the AM and PM peak hours. This would be a significant cumulative impact.

The addition of a traffic signal at the intersection of Rough and Ready Highway and Ridge Road would improve operations at this intersection to an acceptable LOS during the peak hours for cumulative traffic conditions. As discussed above, the proposed Rough and Ready Highway project would be required to pay the Western Nevada County Regional Transportation Mitigation Fee and the Local Traffic Mitigation Fee. These fees are used to offset a new project’s impacts to the county’s roadway system. However, mitigation measure MM RR-15.3.1 requires the project to construct the signal or pay fair share fees toward the improvement if constructed by the County or another project. With implementation of this measure, the project’s contribution to this impact would be reduced to less than cumulatively considerable.
Mitigation Measures

Implement Mitigation Measure MM RR-5.3.1.
### TABLE 15.0-16
**YEAR 2035 WITHOUT PROJECT INTERSECTION DELAY AND LEVEL OF SERVICE – ROUGH AND READY HIGHWAY SITE**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control¹</th>
<th>Intersection Approach Lanes²</th>
<th>Peak Hour Delay and Level of Service³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L T R</td>
<td>L T R</td>
</tr>
<tr>
<td>Bitney Springs (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rough and Ready Highway (EW) – #1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Without Improvements</td>
<td>AWS</td>
<td>0 0 0</td>
<td>0 0.5</td>
</tr>
<tr>
<td>- With Improvements⁴</td>
<td>TS</td>
<td>0 0 0</td>
<td>0 0.5</td>
</tr>
<tr>
<td>West Drive (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rough and Ready Highway (EW) – #3</td>
<td>CSS</td>
<td>0.5 0 0.5</td>
<td>0 0 0</td>
</tr>
<tr>
<td>East Drive (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rough and Ready Highway (EW) – #5</td>
<td>CSS</td>
<td>0.5 0 0.5</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Rough and Ready Highway (NS) at:</td>
<td>CSS</td>
<td>0.5 1 1&gt; &gt;</td>
<td>1 1 0</td>
</tr>
<tr>
<td>Ridge Road (EW) – #6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Without Improvements</td>
<td>CSS</td>
<td>0 1 1&gt; &gt;</td>
<td>1 1 0</td>
</tr>
<tr>
<td>- With Improvements⁴</td>
<td>TS</td>
<td>0 1 1&gt; &gt;</td>
<td>1 1 0</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015b (see Appendix 15.0-C)

Notes:
1. TS = traffic signal; CSS = cross-street stop; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right; > > = free right turn
3. Delay and level of service were calculated using the following analysis software: HCS + Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
4. This improvement is the installation of a traffic signal.
### TABLE 15.0-17

**YEAR 2035 WITHOUT PROJECT INTERSECTION DELAY AND LEVEL OF SERVICE – ROUGH AND READY HIGHWAY SITE**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control(^1)</th>
<th>Intersection Approach Lanes(^2)</th>
<th>Peak Hour Delay and Level of Service(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td>Southbound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>Bitney Springs (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rough and Ready Highway (EW) – #1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Without Improvements</td>
<td>AWS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- With Improvements(^4)</td>
<td>TS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Project Access (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rough and Ready Highway (EW) – #2</td>
<td>CSS</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>West Drive (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rough and Ready Highway (EW) – #3</td>
<td>CSS</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Project Access (EW) – #4</td>
<td>CSS</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>East Drive (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rough and Ready Highway (EW) – #5</td>
<td>CSS</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Rough and Ready Highway (NS) at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ridge Road (EW) – #6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Without Improvements</td>
<td>CSS</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>- With Improvements(^4)</td>
<td>TS</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Kunzman Associates 2015b (see Appendix 15.0-C)

Notes:
1. TS = traffic signal; CSS = cross-street stop; AWS = all-way stop
2. When a right-turn is designated, the lane can either be striped or unstriped. To function as a right-turn, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = left; T = through; R = right; > = free right turn
3. Delay and level of service were calculated using the following analysis software: HCS+ Version 5.6. Per the 2010 Highway Capacity Manual, overall average for intersection delay and level of service are shown for intersections with traffic signal or all-way stop control; the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
4. This improvement is the installation of a traffic signal.
REFERENCES


Nevada County. 2000. Penn Valley Village Center Area Plan Nevada County, California.

———. 2013a. Speed Zone Study Summary: Alta Sierra Drive.

———. 2013b. Speed Zone Study Summary: Rough and Ready Highway.

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16.0 PROJECT ALTERNATIVES
16.0 PROJECT ALTERNATIVES

16.1 INTRODUCTION

OVERVIEW

California Environmental Quality Act (CEQA) Guidelines Section 15126.6(a) states that an environmental impact report (EIR) shall describe and analyze a range of reasonable alternatives to a project. According to the guidelines, these alternatives should feasibly attain most of the basic objectives of the project, while avoiding or substantially lessening one or more of the project’s significant environmental impacts. An EIR need not consider every conceivable alternative to a project, nor is it required to consider alternatives that are infeasible. The discussion of alternatives is to focus on those alternatives which are capable of avoiding or substantially lessening any significant effects of the project, even if they impede the attainment of the project objectives to some degree or would be more costly (CEQA Guidelines Section 15126.6[b]).

When addressing feasibility, CEQA Guidelines Section 15126.6 states that “among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the applicant can reasonably acquire, control or otherwise have access to alternative sites.” The CEQA Guidelines also specify that the alternatives discussion should not be remote or speculative; however, the alternatives need not be presented in the same level of detail as the assessment of the proposed project.

The CEQA Guidelines indicate that several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include (1) the nature of the significant impacts of the proposed project; (2) the ability of alternatives to avoid or lessen the significant impacts associated with the project; (3) the ability of the alternatives to meet the objectives of the project; and (4) the feasibility of the alternatives. These factors would be unique for each project.

The significant environmental impacts of the projects that the alternatives will seek to eliminate or reduce were determined and based on the findings contained in each technical section evaluated in Sections 4.0 through 15.0 of this Draft EIR.

Project Objectives

The objectives of the proposed commercial developments are as follows:

- Expand and provide new retail options in close proximity to local consumers by locating shopping opportunities in a safe and secure environment.
- Enhance the commercial retail offerings in Nevada County.
- Develop each commercial development in a way that is compatible in design with the surrounding neighborhood.
- Provide commercial developments that serve the local market area for each development in Nevada County.

Impact Avoidance

Alternatives should provide a means of avoiding or reducing the significant environmental impacts that would otherwise result from implementation of the project. The technical analyses in
16.0 PROJECT ALTERNATIVES

Sections 4.0 through 15.0 identified that there would be a significant and unavoidable aesthetics impact for the Alta Sierra site and for the Rough and Ready Highway site and a significant and unavoidable land use compatibility impact for the Rough and Ready Highway site. With regard to aesthetics, in both cases, the projects would substantially alter the visual character of their respective sites. For land use, the difference in size and scale of the building would make it incompatible with surrounding residential uses. For all other impact areas for the three sites, impacts were determined to be less than significant, or potentially significant impacts could be mitigated to less than significant levels through mitigation measures identified in the technical sections.

16.2 PROJECT ALTERNATIVES

The following alternatives for each of the three sites were identified for analysis in this Draft EIR:

Alternative 1a – No Project/No Build Alternative. CEQA Guidelines Section 15126.6(e)(1) requires that a No Project Alternative be analyzed. If the No Project Alternative were implemented, the proposed project would not be constructed and the site would remain in its current condition.

Alternative 1b – No Project/Other Commercial Development Alternative. Under Alternative 1b, the analysis assumes each project site could be developed with another use consistent with each site’s existing General Plan land use designation and zoning. The County has not received an application for any other type of development, and if an application for a different project were submitted for a project site, environmental review pursuant to CEQA would be required. The impacts of any other type of project would be speculative. The purpose of considering this alternative is to illustrate the general types of potential environmental impacts that might be associated with a different type of development for disclosure and informational purposes only. This analysis is also included to be responsive to comments on the Notice of Preparation (NOP) suggesting that uses other than the proposed projects should be considered for the sites.

Alternative 2 – Reduced Project Alternative. Under Alternative 2, the size of each store would be reduced from 9,100 square feet to approximately 7,200 square feet1 and the height of the building would be less than the proposed stores. It is also assumed that the reduction in building size, and thus store inventory, would result in a corresponding reduction in daily patrons at the stores. Under this scenario, fewer parking spaces would be required, which would reduce the amount of paved parking area required.

Alternative 3 – Off-Site Alternative. CEQA Guidelines Section 15126.6(f)(2) addresses the evaluation of alternative locations for proposed projects as part of an EIR alternatives analysis. This discussion falls under the guidelines’ explanation of the “rule of reason” governing the selection of an adequate range of alternatives for evaluation in the EIR. The key question concerning the consideration of an alternative location to the proposed projects is whether any of the significant effects identified for a given project would be avoided or substantially lessened by putting the project in another location. It should be noted that the County is not proposing development at any of the alternative sites but the alternative is included to demonstrate how development on a different site could potentially reduce identified project impacts.

1 7,200 square feet is the size of a conventional or standard store: http://supermarketnews.com/retail-amp-financial/dollar-general-boosts-store-size.
For purposes of the off-site alternatives analysis, County staff identified potential alternative sites based on the following criteria: General Plan designation of Commercial (NC, RC, HC, CC), undeveloped, and 1 to 3 acres in size. Five alternative locations were identified in Alta Sierra and five in Penn Valley. There were no locations in the Rough and Ready area that met the criteria. Figure 16.0-1 and Figure 16.0-2 show the locations of the Alta Sierra and Penn Valley off-site alternative sites, respectively. Information about each off-site alternative parcel is presented in Table 16.0-1, which lists the parcel number, street address, size, and zoning. As noted above, all parcels are vacant and/or undeveloped. For all locations, the store size and associated customer trips and delivery trucks are assumed to be identical to the proposed projects. The operational traffic volume and related air and greenhouse gas (GHG) emissions would therefore be the same as the proposed projects.

**ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

CEQA requires an EIR to identify the “environmentally superior” alternative from among the range of reasonable alternatives evaluated. The alternative evaluation for each site identifies the environmentally superior alternative for each of the three sites and provides the basis for that determination. CEQA Guidelines Section 15126(e)(2) states that if the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

**16.3 ALTA SIERRA SITE – COMPARATIVE ANALYSIS OF ENVIRONMENTAL IMPACTS**

The potential environmental impacts of the Alta Sierra site alternatives compared to the proposed Alta Sierra project’s impacts are summarized in Table 16.0-2. As noted above, one significant and unavoidable impact was identified for the Alta Sierra site related to aesthetics. All other impacts would be less than significant or have no impact, and all potentially significant impacts, other than visual character, could be mitigated to less than significant levels.

**16.3.1 ALTA SIERRA SITE – NO PROJECT/NO BUILD ALTERNATIVE**

Under the No Project/No Build Alternative, the Alta Sierra store site would remain in its existing vacant and undeveloped condition. There would be no environmental impacts at the site because construction or operation would not occur. The No Project/No Build Alternative would avoid the significant and unavoidable aesthetics impacts at the Alta Sierra site. This alternative would not achieve any of the proposed project objectives.
# Project Alternatives

## Table 16.0-1
**Off-Site Alternative Parcel Descriptions**

<table>
<thead>
<tr>
<th>Site/Address/APN/Acreage/Zoning</th>
<th>Key Physical Features</th>
<th>Surrounding Land Uses</th>
<th>Surrounding Zoning</th>
</tr>
</thead>
</table>
| Alta Sierra Site 1 15156 State Route 49 APN 23-300-36 1.00 acres Zoning: C1 | - Narrow parcel (approx. 125 feet wide)  
- Grass and mature trees along western half  
- Paved pull-out and gravel along SR 49 frontage | North: vacant and heavy vegetation  
West: vacant and heavy vegetation  
South: vacant and vegetation, Pingree Road farther south  
East: SR 49; farther east Grass Valley Mobile Home Village on Little Valley Road and fire station to northeast | North: RA-10  
West: RA-10  
South: RA-10  
East: RA-3 |
| Alta Sierra Site 2 15448 Little Valley Road APN 23-300-63 1.60 acres Zoning: C1 | - L-shaped parcel with moderate to steep slope toward Little Valley Road  
- Most of parcel has been disturbed and contains limited vegetation (a few trees and shrubs)  
- Existing access is at end of Johnson Place | North: commercial (nursery) disturbed area with vegetation  
West: vegetation and ditch adjoin SR 49  
South: vacant and disturbed areas with some vegetation  
East: Little Valley Road and fenced propane tank and gravel turn-out | North: C1  
West: RA-3  
South: C1 & CH  
East: C1 |
| Alta Sierra Site 3 15484 Little Valley Road APN 25-430-01 1.10 acres Zoning: C1 | - Moderate to steep slope west to east toward Little Valley Road  
- Portions of parcel have been disturbed  
- Vegetation a mixture of trees and shrubs covering portions of the parcel  
- Existing access is at end of Johnson Place | North: Site 2  
West: Site 2  
South: commercial and disturbed area with vegetation (trees and shrubs)  
East: Little Valley Road | North: C1  
West: C1  
South: C1  
East: R2-X & RA-1.5 |
| Alta Sierra Site 4 15637 Johnson Place APN 25-430-05 2.00 acres Zoning: C1 | - Moderate to steep slope west to east toward Little Valley Road  
- Dense tree cover over most of parcel  
- Existing access is Johnson Place | North: commercial/retail  
West: commercial/retail  
South: vacant parcel with heavy vegetation and restaurant farther south  
East: Little Valley Road and single-family residence farther east downslope | North: C1  
West: CH  
South: C1  
East: RA-1.5 |
| Alta Sierra Site 5 10061 Alta Sierra Drive APN 25-220-46 1.28 acres Zoning: C1 | - Moderate slope south to north toward Alta Sierra Drive  
- Primarily grass with some scattered trees and shrubs | North: Alta Sierra Drive and commercial/retail  
West: commercial/retail  
South: commercial/retail  
East: Alta Sierra Drive, commercial/retail, including proposed Alta Sierra site | North: C1  
West: C1  
South: C1  
East: C1 |
<table>
<thead>
<tr>
<th>Site/Address/APN/Acreage/Zoning</th>
<th>Key Physical Features</th>
<th>Surrounding Land Uses</th>
<th>Surrounding Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Penn Valley (see Figure 16.0-2)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penn Valley Site 1 18829 Pine Shadows Lane APN 51-240-20 1.07 acres Zoning: C2-SP</td>
<td>• Moderate slope east to west  • Moderate mature tree cover and grass  • Directly adjoins Pleasant Valley Road and Pine Shadows Lane (cul-de-sac)  • Pleasant Valley Road two lanes with center turn lane, line of sight fairly long in both directions</td>
<td>North: vacant with dense tree cover  West: Pleasant Valley Road, roadside ditch, and vacant parcels farther west  South: Penn Shadows Lane and vacant parcel to south  East: self-storage facility</td>
<td>North: C1  West: IDR  South: C1  East: M1</td>
</tr>
<tr>
<td>Penn Valley Site 2 10146 Commercial Avenue APN 51-240-16 1.40 acres Zoning: C2-SP</td>
<td>• Flat  • Surface is combination of gravel parking areas and grass with a few shrubs  • Access from Commercial Avenue only; two concrete drive aprons lead to gravel parking  • Commercial Avenue two-way stop control at Pleasant Valley Road</td>
<td>North: vacant with dense tree cover  West: two-story office and commercial/retail  South: Commercial Avenue and commercial/retail farther south  East: Commercial Avenue and commercial/retail farther east</td>
<td>North: C1  West: C1  South: M1-PD  East: M1-PD</td>
</tr>
<tr>
<td>Penn Valley Site 3 17074 Penn Valley Drive APN 51-130-14 2.16 acres Zoning: C2-SP</td>
<td>• Flat  • Predominantly covered with grass  • A few mature trees along Penn Valley Drive  • Adjoins Penn Valley Drive</td>
<td>North: single-family residence on Ladino Avenue, views of site may be partially obscured by trees and shrubs  West: single family residence, trees and shrubs may partially obscure views  South: Penn Valley Drive; south of Penn Valley Drive vacant, single-family residence and landscape products farther west  East: Clover Road and gasoline station and fast-food restaurant</td>
<td>Northwest: OS  West: C2  South: RA-1.5 &amp; AG-5  East &amp; Northeast: AG-5</td>
</tr>
<tr>
<td>Penn Valley Site 4 17630 Penn Valley Drive APN 51-150-29 3.1 acres Zoning: C2-SP</td>
<td>• Flat  • Mostly grass with a few mature trees scattered around parcel  • Unimproved path on east side  • Paved driveway (part of parcel) on west side of post office provides access from Penn Valley Drive</td>
<td>North: Carrie Ann Lane and mobile home park  West: vacant, grass  South: US Post Office and parking lot  East: mobile home park and commercial farther east</td>
<td>North: R3-MH-Sp  West: C2-RH-SP  South: C2-RH-SP  East: R2-MH-SP &amp; C2-RH-SP</td>
</tr>
</tbody>
</table>
### Site/Address/APN/Acreage/Zoning

<table>
<thead>
<tr>
<th>Site/Address/APN/Acreage/Zoning</th>
<th>Key Physical Features</th>
<th>Surrounding Land Uses</th>
<th>Surrounding Zoning</th>
</tr>
</thead>
</table>
| Penn Valley Site 5 10601 Harper Lane APN 51-160-24 1.19 acres Zoning: C2-SP | - Flat  
- Predominantly covered with grass with one mature tree  
- Adjoins Spenceville Road | North: Spenceville Road and Penn Valley Fire Department station  
West: Spenceville Road, with vacant parcels farther north  
South: Harper Lane and single-family residences along Harper Lane with direct views of parcel  
East: large vacant parcel | North: C2-SP  
West: BP-SP  
South: RA-1.5  
East: C2-SP |
| Rough and Ready Highway | **No parcels meet the criteria.** | | |

Source: Nevada County (parcel information); Michael Baker International
### Table 16.0-2 Alta Sierra Site Alternatives – Summary of Environmental Impact Comparison

<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Project (Significance)</th>
<th>No Project/No Build (Comparison)</th>
<th>No Project/Other Development (Comparison)</th>
<th>Reduced Project (Comparison)</th>
<th>Off-Site Alternative (Comparison)</th>
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<tbody>
<tr>
<td>Aesthetics</td>
<td>SU</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Reduced impact</td>
</tr>
<tr>
<td>Air Quality</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Hazards and Hazardous Materials</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Noise</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Public Services and Utilities</td>
<td>LS</td>
<td>Reduced impact</td>
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<td>Reduced impact</td>
<td>Similar impact</td>
</tr>
<tr>
<td>Traffic and Transportation</td>
<td>LS</td>
<td>Reduced impact</td>
<td>Similar impact</td>
<td>Reduced impact</td>
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</tbody>
</table>

Notes: Significance is identified by the following: LS: less than significant, SU: significant and unavoidable

1 Indicates where one of the off-site alternatives could reduce the impact.
16.0 PROJECT ALTERNATIVES

16.3.2 ALTA SIERRA SITE – NO PROJECT/OTHER COMMERCIAL DEVELOPMENT ALTERNATIVE

Under the C1 zoning at the Alta Sierra site and based on the parcel size and site development standards (which would limit building size), the following uses could reasonably be developed upon County approval of a use permit or development permit: auto repair in an enclosed structure, bar, building supply sales and storage, car wash, fitness center, kennel (commercial), medical support services (e.g., ambulance, laboratory), retail plant nursery, offices and services, restaurants (including fast food), retail sales (this category applies to the proposed project), service station, or veterinary hospital/clinic.

If any of these other types of commercial uses were developed, they would require site preparation, including tree removal and grading. Construction activities would generate air and GHG emissions and would temporarily increase noise levels. Impacts on biological resources and cultural resources would be the same as with the proposed project because there would be ground disturbance. Hydrology and water quality (drainage) impacts would be similar to the proposed Alta Sierra project because new impervious surfaces would generate stormwater runoff. Aesthetics impacts would depend on the type of use and building. It should be noted that C1 zoning allows building heights of 45 feet or three stories. The proposed project building is proposed at approximately 27 feet high at its maximum point (roof parapet). Regardless of the type of use, there would be a permanent change in the site’s visual character.

Different land uses have different trip generation rates. Some uses could result in more trips than the proposed Alta Sierra project, while some could result in fewer trips. Trucks could also make deliveries to the site, depending on the use, and the type of trucks and frequency of delivery would also depend on the use. Any occupied use on the site would require a septic system and connection to public water service. Noise levels during operation may be more or less than with the proposed project. For example, a car wash or auto repair shop could generate periodic noise from equipment, but an office-type use likely would not.

The No Project/Other Commercial Development Alternative would not be expected to result in environmental impacts that would differ substantially from those of the proposed project. It is unknown whether the significant and unavoidable aesthetics impact of the proposed project could be avoided or reduced because there are no site plans.

16.3.3 ALTA SIERRA SITE – REDUCED PROJECT ALTERNATIVE

Environmental Impacts That Would Be Reduced Compared to the Proposed Project

Aesthetics impacts would depend on the height of the building. However, with a smaller footprint for the building itself, there would be more options for site planning that could allow the building to be situated closer to Alta Sierra Drive, which could require less grading and a smaller retaining wall along Little Valley Road. A smaller retaining wall, more room for landscaping, and a greater setback from the roadway could substantially reduce the visibility of the project from Little Valley Road. Even with a reduction in building size, there would be a permanent change in the visual character of the site and vicinity, but it may be substantially reduced under this alternative. However, because a site plan that demonstrates adequate room on the site to achieve separation from Little Valley Road has not been developed, this impact is assumed to remain significant and unavoidable under this alternative.
Figure 16.0-1
Alta Sierra Off-Site Alternative

Legend
- Alternative Site Boundary
- Alta Sierra Site 1 (APN 23-300-36)
- Alta Sierra Site 2 (APN 23-300-63)
- Alta Sierra Site 3 (APN 25-430-01)
- Alta Sierra Site 4 (APN 25-430-05)
- Alta Sierra Site 5 (APN 25-220-46)

See Table 16.0-1 for information about parcels
Figure 16.0-2
Penn Valley Off-Site Alternative

Legend
- Alternative Site Boundary
  - Penn Valley Site 1 (APN 51-240-20)
  - Penn Valley Site 2 (APN 51-240-16)
  - Penn Valley Site 3 (APN 51-130-14)
  - Penn Valley Site 4 (APN 51-150-29)
  - Penn Valley Site 5 (APN 51-160-24)

Source: Nevada County (2015); ESRI.

See Table 16.0-1 for information about parcels
Construction-related impacts, such as construction vehicle and equipment emissions and construction noise, would be less than with the proposed project because the area of construction would be smaller and the timeline for construction could likely be reduced.

With a smaller retaining wall and a greater setback, there would be less cut and fill, and potential construction-related erosion impacts could be reduced.

Impacts on biological resources and cultural resources would be less than with the proposed project because it is assumed there would be less ground disturbance needed to accommodate the building and associated improvements, such as parking.

Hydrology and water quality (drainage) impacts would be reduced compared to the proposed project because there would be less impervious surface generating stormwater runoff. Potable water demand would be less for the Reduced Project Alternative.

As noted above, it is assumed that a smaller store would carry less inventory and result in reduced patronage. Using the same trip generation rate as for the proposed project (64.03 trips per 1,000 square feet), this alternative would generate 448 daily trips compared to 583 daily trips for the proposed project. The reduction in trips would result in corresponding decreases in air quality and GHG emissions, project traffic–generated noise, and parking lot noise.

**Environmental Impacts That Would Be Similar to the Proposed Project**

Septic system improvements, and associated environmental impacts, would be similar to the proposed project.

The traffic hazards and emergency access impact identified for the proposed project (Impact 15.1.2[AS]) would be the same for the Reduced Project Alternative. Although there would be fewer trips, customers and delivery trucks would still make the same turning movements onto Alta Sierra Drive. The Reduced Project Alternative would also result in the need for a construction traffic control plan.

**Environmental Impacts That Would Be More Severe than the Proposed Project**

There would be no environmental impacts of a Reduced Project Alternative that would be greater than those of the proposed project.

**16.3.4 Alta Sierra Site – Off-Site Alternatives**

Table 16.0-1 summarizes the key environmental conditions and impact considerations for the five Alta Sierra site off-site locations. Figure 16.0-1 shows the location of the five alternative sites considered for the Alta Sierra project. Because the only significant and unavoidable impact identified for the Alta Sierra site is related to aesthetics, the analysis below discusses the extent to which the alternative sites would reduce visual impacts and discusses where other effects may differ substantially from the proposed project.

Alta Sierra Site 1, located at 15156 State Route 49, is an approximately 1-acre parcel west of the intersection of SR 49 and Little Valley Road. Development of the building as proposed for Alta Sierra may be visible from residences located east of SR 49, but given the site’s flat topography, the scale of the building from these residences would be substantially less than at the proposed site. However, as discussed in Section 4.0, Aesthetics, SR 49 is a designated scenic highway through the entire county. A large-scale commercial building with illuminated signage and other
16.0 PROJECT ALTERNATIVES

operational lighting could result in a substantial change on this portion of the scenic highway. Consequently, the impacts on visual resources, though different from those of the proposed project, would also be significant.

Given the site’s location on SR 49, access to Alta Sierra Site 1 would require changes to the local circulation to accommodate ingress and egress from northbound vehicles. Changes to the circulation on SR 49 would require approval from the California Department of Transportation (Caltrans). Other impacts associated with development of this site would be similar to the proposed project, though fewer trees would be removed, so potential biological effects would be reduced. However, for the reasons noted above, development of the project on this site would result in more severe impacts than the proposed project.

Alta Sierra Sites 2 and 3 are not within line of sight of residential areas due to existing vegetation; thus, these alternative sites could avoid the significant and unavoidable aesthetics impact of the proposed project. Alta Sierra Site 2 is closer to SR 49, but there is adequate room on the site to position the building so it is not as close to SR 49 as Site 1, and it would not substantially affect views on scenic State Route 49. Sites 2 and 3 would require tree removal, but less than required for the proposed project, and would also require less grading. Operational impacts would be the same as with the project, though to the extent that trips to the site are not pass-by trips, the traffic could increase along the residential roads and result in a corresponding increase in traffic noise in those areas. However, it is not anticipated that the traffic noise would exceed standards. Given the width of Little Valley Road, access to these sites would require improvements along Little Valley Road to ensure safe customer and delivery access.

Alta Sierra Site 4 is located between Johnson Place and Little Valley Road. It is assumed that access would be via Little Valley Road. Like the project site, extensive tree removal would be required on Site 4 and mitigation would be similar to the project. Because of the site’s size, it is assumed the building could be set back father from Little Valley Road and the reduced slope of the site at Little Valley Road could reduce the amount of grading required, compared to the proposed project. Therefore, the impact of views of the building (and retaining wall) from Little Valley Road would be reduced compared to the project and would likely be eliminated. Like Sites 2 and 3, operational impacts would be the same as those of the project, though traffic and associated noise could increase along Little Valley Road. Similarly, it is not anticipated that the traffic noise would exceed standards. Access at Site 4 would also require improvements along Little Valley Road to ensure safe customer and delivery access.

Alta Sierra Site 5 is located on Alta Sierra Drive west of the project site. Development on this site would require less tree removal and less grading than the proposed project site. This site is not within the views of residential areas and would therefore not result in the significant visual impact identified for the project. Although it is closer to SR 49, the site is in a developed commercial area so it would not result in a substantial change in the character of a scenic highway. Access to the site would be along Alta Sierra Drive, which would provide good visibility from the west, but there would be limited visibility from the east, which could affect westbound ingress and egress. Operational impacts would be similar to the project, though development on this site would not require construction of a soundwall as the proposed project would.

In summary, Alta Sierra Site 1 and Site 4 would not reduce the significant and unavoidable aesthetics impact identified for the project. Development on Alta Sierra Sites 2, 3, and 5 would avoid or reduce the significant and unavoidable aesthetics impact identified for the project.
16.3.5 Alta Sierra Site -- Environmentally Superior Alternative

For the Alta Sierra site, the No Project/No Build Alternative would be the environmentally superior alternative because it would avoid all of the impacts of the proposed project. It would not meet project objectives. The No Project/Other Commercial Development Alternative may not be considered as environmentally superior because there is no specific project, and the environmental impacts of this alternative compared to the proposed project cannot be determined based on available information. The Reduced Project Alternative could reduce visual effects compared to the project, but it cannot be determined to be reduced to a less than significant level. Among the remaining alternatives, four of the off-site alternative locations could eliminate the aesthetic impact identified for the proposed project. Among those four, Alta Sierra sites 2 or 3 would be the environmentally superior alternative because, given their location, these would have the least potential to change the character of the residential area along Little Valley Road, would not affect views along a scenic highway, and would have fewer sight distance and access issues than the proposed project.

16.4 Penn Valley Site -- Comparative Analysis of Environmental Impacts

The potential environmental impacts of the Penn Valley site alternatives compared to the proposed project’s impacts are summarized in Table 16.0-3. As noted above, all impacts would be less than significant or no impact, and all potentially significant impacts could be mitigated to less than significant levels. No significant and unavoidable impacts were identified.

16.4.1 Penn Valley Site -- No Project/No Build Alternative

Under the No Project/No Build Alternative, the Penn Valley site would remain in its existing vacant and undeveloped condition. There would be no environmental impacts at the site because construction or operation would not occur. This alternative would not achieve any of the proposed project objectives.

16.4.2 Penn Valley Site -- No Project/Other Commercial Development Alternative

Under the C2-SP zoning at the Penn Valley site and based on the parcel size and site development standards (which would limit building size), the following uses could reasonably be developed upon County approval of a use permit or development permit: auto repair in an enclosed structure, auto and truck sales and leasing, bar, building supply sales and storage, car wash, convalescent home, equipment rental and leasing, fitness center, kennel (commercial), medical support services (e.g., ambulance, laboratory), retail plant nursery, offices and services, restaurants (including fast food), retail sales (this category applies to the proposed project), service station, or veterinary hospital/clinic. Any of these uses would also be subject to Site Performance Combining District development standards and the Penn Valley Village Area Plan design guidelines for commercial development.
## 16.0 Project Alternatives

### Table 16.0-3 Penn Valley Site Alternatives – Summary of Environmental Impact Comparison

<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Project (Significance)</th>
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<th>Off-Site Alternative (Comparison)</th>
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<tbody>
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*Note: Significance is identified by the following: LS: less than significant.*
If any of these other types of commercial uses were developed, they would require site preparation, including vegetation removal and grading. Construction activities would generate air and GHG emissions and would temporarily increase noise levels. Impacts on biological resources and cultural resources would be the same as with the proposed project because there would be ground disturbance. Hydrology and water quality (drainage) impacts would be similar to the proposed project because new impervious surfaces would generate stormwater runoff that would drain to the on-site wash that discharges to Squirrel Creek. Aesthetics impacts would depend on the type of use and building. It should be noted that C2 zoning allows building heights of 45 feet or three stories. The proposed project building would be approximately 27 feet high at its maximum point (roof parapet). Regardless of the type of use, there would be a permanent change in the visual character of the site.

Different land uses have different trip generation rates. Some uses could result in more trips than the proposed Penn Valley project, while some could result in fewer trips. Trucks could also make deliveries to the site, depending on the use, and the type of truck and frequency of delivery would also depend on the use. Any occupied use on the site would require connection to public water and sewer service. Noise levels during operation may be more or less than with the proposed project. For example, a car wash or auto repair shop could generate periodic noise from equipment, but an office-type use likely would not.

The No Project/Other Commercial Development Alternative would not be expected to result in environmental impacts that would differ substantially from those of the proposed project.

16.4.3 Penn Valley Site – Reduced Project Alternative

Environmental Impacts That Would Be Reduced Compared to the Proposed Project

A smaller project footprint could reduce the amount of ground disturbance, which could result in fewer construction-related impacts such as grading, air quality and GHG emissions, and noise.

Impacts on biological resources and cultural resources would be less than with the proposed project because it is assumed there would be less ground disturbance needed to accommodate the building and associated improvements, such as parking.

Hydrology and water quality (drainage) impacts would be reduced compared to the proposed project because there would be less impervious surface generating stormwater runoff. Potable water demand and wastewater disposal would be less for the Reduced Project Alternative.

As noted above, it is assumed that a smaller store would carry less inventory and result in reduced patronage. Using the same trip generation rate as for the proposed project (64.03 trips per 1,000 square feet), this alternative would generate 448 daily trips compared to 583 daily trips for the proposed project. The reduction in trips would result in corresponding decreases in air quality and GHG emissions, project traffic–generated noise, and parking lot noise.

Environmental Impacts That Would Be Similar to the Proposed Project

The traffic hazards and emergency access impact identified for the proposed project (Impact 15.2.2[PV]) would be the same for the Reduced Project Alternative. Although there would be fewer trips, customers and delivery trucks would still make the same turning movements onto Penn Valley Drive. The Reduced Project Alternative would also result in the need for a construction traffic control plan.
Environmental Impacts That Would be More Severe than the Proposed Project

There would be no impacts of a Reduced Project Alternative that would be greater than the proposed project.

16.4.4 Penn Valley Site – Off-Site Alternative

As noted above, all of the environmental impacts at the Penn Valley site would be less than significant or could be mitigated to less than significant levels. As such, most of the environmental impacts at the five alternative sites would be similar to those of the proposed project, with some exceptions, which are described below.

Penn Valley Site 1 is in a commercial area surrounded by nonresidential development. Aesthetics impacts would be reduced compared to the proposed project. The site is sloped and would require cut and fill, which would not occur with the proposed project. This could result in more construction air quality and GHG emissions impacts than with the proposed project. There are no apparent wetland features. The site has more trees than the project site, and tree removal would result in the need for mitigation (as with the proposed project) for nesting birds and raptors. There would be no sensitive receptors that could be exposed to construction air emissions or noise, or noise from customer traffic and delivery trucks. The site is accessible from SR 20 via Pleasant Valley Road, which provides access to the immediate area where truck traffic serving the mix of commercial and industrial uses already occurs. No intersection operational impacts were identified for the proposed project at that intersection (Table 15.0-5), but additional study would likely be required to address truck turning movements into and out of the site.

Penn Valley Site 2 is a highly disturbed site with a combination of gravel parking areas and grass with a few shrubs. It is in the same commercial area as Site 1. Aesthetics impacts would be reduced compared to the proposed project. Biological resources and cultural resources impacts would be reduced compared to the proposed project because of existing site disturbance. There would be no sensitive receptors that could be exposed to construction air emissions or noise, or noise from customer traffic and delivery trucks. As with Site 1, no intersection operational impacts were identified for the proposed project (Table 15.0-5), but additional study would be required to address truck turning movements into and out of the site.

Penn Valley Site 3 is a flat, mostly grass-covered site with direct access from Penn Valley Drive, similar to the proposed project site. Surrounding uses are a combination of residential and nonresidential uses, similar to the proposed project site. Environmental impacts at this site would generally be similar to the proposed project. Additional study would be required to evaluate site access and turning movements.

Penn Valley Site 4 is a flat, partially vegetated site that adjoins the proposed project site to the northeast behind the post office. It is closer to the mobile home park than the project site, and therefore construction-related air emissions and noise could have a greater (but still temporary) impact. Aesthetics impacts may also be greater, but could be mitigated through design review and appropriate lighting. Depending on the site layout, delivery trucks would likely be closer to the residential use, which could result in a greater noise impact than the proposed project. All other environmental impacts would generally be similar to those of the proposed project.
Penn Valley Site 5 is a flat, predominantly grass-covered site surrounded by a sparse mix of residential and nonresidential development and vacant land along Spenceville Road. Environmental impacts at this site would generally be similar to those of the proposed project. Additional study would be required to evaluate delivery truck travel on Spenceville Road.

16.4.5 Penn Valley Site – Environmentally Superior Alternative

For the Penn Valley site, the No Project/No Build Alternative would be the environmentally superior alternative because there would be no environmental impacts, but it would not meet project objectives. The No Project/Other Commercial Development Alternative may not be considered as environmentally superior because there is no specific project, and the environmental impacts of this alternative compared to the proposed project cannot be determined based on available information. Although no significant impacts were identified for the proposed Penn Valley site, among the remaining alternatives, the Reduced Project Alternative would be the environmentally superior alternative. The Reduced Project Alternative would further lessen project impacts, it would not result in any new or more severe environmental impacts when compared to potential impacts that may occur at some of the off-site alternative locations, and it would meet project objectives.

16.5 Rough and Ready Highway Site – Comparative Analysis of Environmental Impacts

The potential environmental impacts of the Rough and Ready Highway site alternatives compared to the proposed project’s impacts are summarized in Table 16.0-4. As noted above, two significant and unavoidable impacts were identified for the Rough and Ready Highway site related to aesthetics and land use compatibility. All other impacts would be less than significant or have no impact, and all potentially significant impacts, other than visual character and land use compatibility, could be mitigated to less than significant levels.

16.5.1 Rough and Ready Highway Site – No Project/No Build Alternative

Under the No Project/No Build Alternative, the Rough and Ready Highway site would remain in its existing condition with the vacant commercial building and parking lots. There would be no environmental impacts at the site because construction or operation would not occur. The No Project/No Build Alternative would avoid the significant and unavoidable aesthetics impacts at the Rough and Ready Highway site. This alternative would not achieve any of the proposed project objectives.

16.5.2 Rough and Ready Highway Site – No Project/Other Commercial Development Alternative

Under the C1 zoning at the Rough and Ready Highway site and based on the parcel size and site development standards (which would limit building size), the following uses could reasonably be developed upon County approval of a use permit or development permit: auto repair in an enclosed structure, bar, building supply sales and storage, car wash, fitness center, kennel (commercial), medical support services (e.g., ambulance, laboratory), retail plant nursery, offices and services, restaurants (including fast food), retail sales (this category applies to the proposed project), service station, or veterinary hospital/clinic.
### Table 16.0-4 Rough and Ready Highway Site Alternatives — Summary of Environmental Impact Comparison

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**Notes:** Significance is identified by the following: LS: less than significant, SU: significant and unavoidable

¹. The off-site alternative for the Rough and Ready Highway site is the proposed Penn Valley project, for which all impacts were determined to be less than significant
If any of these other types of commercial uses were developed, they would require site preparation, including tree removal and grading. Construction activities would generate air and GHG emissions and would temporarily increase noise levels. Impacts on biological resources and cultural resources would be the same as with the proposed project because there would be ground disturbance. Hydrology and water quality (drainage) impacts would be similar to the proposed project because new impervious surfaces would generate stormwater runoff. Aesthetics impacts would depend on the type of use and building. It should be noted that C1 zoning allows building heights of 45 feet or three stories. The proposed project building would be approximately 27 feet high at its maximum point (roof parapet). Regardless of the type of use, there would be a permanent change in the visual character of the site. Different land uses have different trip generation rates. Some uses could result in more trips than the proposed project, while some could result in fewer trips. Trucks could also make deliveries to the site, depending on the use, and the type of truck and frequency of delivery would also depend on the use. Any occupied use on the site would require a septic system and connection to public water service. Noise levels during operation may be more or less than with the proposed project. For example, a car wash or auto repair shop could generate periodic noise from equipment, but an office-type use likely would not.

The No Project/Other Commercial Development Alternative would not be expected to result in environmental impacts that would differ substantially from those of the proposed project. It is unknown whether the significant and unavoidable aesthetics impact of the proposed project could be avoided or reduced because there are no site plans.

16.5.3 ROUGH AND READY HIGHWAY SITE – REDUCED PROJECT ALTERNATIVE

Environmental Impacts That Would Be Reduced Compared to the Proposed Project

A smaller project footprint could reduce the amount of ground disturbance, which could result in fewer construction-related impacts such as grading, air and GHG emissions, and noise.

Impacts on biological resources and cultural resources would be less than with the proposed project because it is assumed there would be less ground disturbance needed to accommodate the building and associated improvements, such as parking.

Hydrology and water quality (drainage) impacts would be reduced compared to the proposed project because there would be less impervious surface generating stormwater runoff. Potable water demand would be less for the Reduced Project Alternative.

As noted above, it is assumed that a smaller store would carry less inventory and result in reduced patronage. Using the same trip generation rate as for the proposed project (64.03 trips per 1,000 square feet), this alternative would generate 448 daily trips compared to 583 daily trips for the proposed project. The reduction in trips would result in corresponding decreases in air quality and GHG emissions, project traffic–generated noise, and parking lot noise.

Environmental Impacts That Would Be Similar to the Proposed Project

Aesthetics impacts would depend on the height of the building. However, with a smaller footprint for the building itself, there would be more options for site planning that could allow the building to be situated where it may appear less visually intrusive. Even with a reduction in building size and development footprint, however, there would be a permanent change in the visual character of the site and vicinity. Therefore, the aesthetics and land use compatibility impacts are assumed to remain significant and unavoidable under this alternative.
The Reduced Project Alternative would result in the need for mitigation for a traffic signal, as identified for the proposed project (Impact 15.3.1[RR]) because with the addition of the project and other approved projects, the intersection of Rough and Ready Highway and Ridge Road would operate at an unacceptable level of service during the morning peak hour.

The traffic hazards and emergency access impact identified for the proposed project (Impact 15.3.2[RR]) would be the same for the Reduced Project Alternative. Although there would be fewer trips, customers and delivery trucks would still make the same turning movements onto Rough and Ready Highway. The Reduced Project Alternative would also result in the need for a construction traffic control plan.

**Environmental Impacts That Would Be More Severe than the Proposed Project**

There would be no impacts of a Reduced Project Alternative that would be greater than the proposed project.

**16.5.4 ROUGH AND READY HIGHWAY SITE – OFF-SITE ALTERNATIVE**

As described above, based on the County’s criteria for potential off-site alternative locations, no parcels in the Rough and Ready community were identified as alternative locations for an off-site alternative. Given the proximity to Penn Valley, the proposed Penn Valley project site would be the off-site alternative for the Rough and Ready Highway site. The environmental impacts of the Penn Valley site were evaluated in Sections 4.0 through 15.0 of this Draft EIR and are summarized in Table 16.0-3. Only the proposed Penn Valley site, if approved, would be considered for the off-site alternative to the Rough and Ready Highway site; the County would not select one of the Penn Valley off-site alternatives for the Penn Valley site under this scenario.

**16.5.5 ROUGH AND READY HIGHWAY SITE – ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

For the Rough and Ready Highway site, the No Project/No Build Alternative would be the environmentally superior alternative because it would avoid all of the impacts of the proposed project. However, it would not meet project objectives. The No Project/Other Commercial Development Alternative may not be considered as environmentally superior because there is no specific project, and the environmental impacts of this alternative compared to the proposed project cannot be determined based on available information. The Reduced Project Alternative would result in fewer trips, air quality and GHG emissions, and noise. The magnitude of change in visual character on the site could be subjectively perceived as less because the building mass and height would be reduced, although this still would conservatively be considered a significant and unavoidable impact because of the change in the site relative to its surroundings. The Reduced Project Alternative would meet project objectives.

Among the remaining alternatives, the Off-Site Alternative, which would consist of developing the project at the Penn Valley site, would be the environmentally superior alternative because it would eliminate the significant and unavoidable aesthetics and land use compatibility impacts identified for the Rough and Ready Highway site. In addition, no off-site improvements for fire flow would be required, a new septic system would not need to be installed, and no building demolition would be necessary. This could result in reduced construction-related impacts. The Off-Site Alternative (Penn Valley site) would meet all of the project objectives.
16.6 **Off-Site Alternative Considered but Not Selected for Analysis**

The Higgins Marketplace is an approved project in Higgins Corner at the intersection of Combie Road and SR 49 in the Lake of the Pines area. The project consists of an 86,500-square-foot shopping center (with 41,000 square feet of office space). The tentative parcel map has not been recorded; however, Parcels 2, 3, and 4 in the tentative parcel map meet the criteria that were used to identify the off-site alternatives for Alta Sierra and Penn Valley, and could be modified prior to map recordation to accommodate a Dollar General project. The parcels are zoned C2-SP-SC and have a General Plan designation of CC. The project is entitled and waiting for tenant commitments prior to proceeding with development. The environmental impacts of construction and occupancy of the Higgins Marketplace project were evaluated in an EIR, which the County certified in August 2009 (SCH #2005022022).

The Higgins Marketplace is 15.5 miles south of the existing Dollar General store in Grass Valley and 7.6 miles south of the Alta Sierra site. The Higgins Marketplace project is beyond the 12.5-mile geographic range identified in the proposed project’s economic study as the area most likely to generate demand for retail sales in Grass Valley, including beyond a more specific market area for the Alta Sierra project (ALH 2015). This location would be considered an “other retail node” and would be too far away to meet the project objectives to provide a commercial development that serves the local market in the areas identified for the proposed projects. As such, this off-site alternative was eliminated from further analysis.
references

17.0 Other CEQA Analysis
This section discusses additional topics statutorily required by the California Environmental Quality Act (CEQA), including growth-inducing impacts, significant irreversible environmental effects, significant and unavoidable environmental effects, and a summary of cumulative effects. In addition, this section provides an analysis of the proposed projects’ energy consumption and conservation consistent with CEQA Guidelines Appendix F.

17.0 OTHER CEQA CONSIDERATIONS

17.1 GROWTH-INDUCING IMPACTS

INTRODUCTION

CEQA Guidelines Section 15126.2(d) requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by CEQA Guidelines as:

...the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...It must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if, for example, a project involved construction of new housing. A project would have indirect growth inducement potential if, for example, it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, a project would indirectly induce growth if, for example, it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project facilitating an increased water supply in an area where water service historically limited growth could be considered growth inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans include land use development patterns and growth policies that allow the orderly expansion of development supported by adequate public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

COMPONENTS OF GROWTH

As required by Government Code Section 65300, the Nevada County General Plan is intended to serve as the overall plan for the physical development of the county. While the General Plan does not specifically propose any development projects, it does regulate the location and type of future development and thus controls future county population and economic growth that would result in indirect growth-inducing effects.
**17.0 OTHER CEQA CONSIDERATIONS**

The Alta Sierra and Rough and Ready project sites are designated Neighborhood Commercial (NC), while the Penn Valley project site is designated Community Commercial (CC) in the Nevada County General Plan. Therefore, the Nevada County General Plan assumed that each of the project sites would generate commercial growth.

**GROWTH EFFECTS OF THE PROPOSED PROJECTS**

Changes in population and employment are not in and of themselves environmental impacts. However, they may result in the need for the construction of new housing, businesses, infrastructure, and services that accommodate increases in population and employment. Following is a discussion of the proposed projects’ potential to generate growth in the area and the anticipated effects of such growth.

The proposed projects would not result in the development of any residential uses but would create new employment opportunities in the county. Each project would employ approximately 6 to 10 people. The jobs created would be full- and part-time, would not require specialized skills, and would likely be filled by the existing population. Thus, the projects would not substantially increase employment opportunities such that the county’s population would be significantly increased, and no new housing would be required beyond that anticipated by the General Plan.

Historically, Nevada County has had a jobs/housing imbalance, with more households in the county than jobs available for members of the households. The increase in employment opportunities associated with the proposed projects would serve to improve the jobs/housing balance by increasing job opportunities for local residents. Furthermore, because of the type of jobs to be created, it is anticipated that these jobs would be filled by existing area residents. Therefore, the projects are not anticipated to result in the need for the construction of any new housing, businesses, infrastructure, or services to support new growth. The potential impacts of the projects on the physical environment are evaluated in Sections 4.0 through 15.0 of this Draft EIR.

**Other Economic-Related Growth**

The proposed projects would increase economic activity through the short-term creation of jobs during construction. However, the existing number of residents in the county and other nearby areas who are employed in the construction industry would be sufficient to meet the demand for construction workers that would be generated by the projects. As such, substantial population growth or increases in housing demand in the region as a result of these jobs would not be anticipated.

The proposed projects would also increase demand for public services and utilities. However, as discussed in Section 14.0, Public Services and Utilities, the proposed developments could be served by existing facilities and no new or expanded off-site facilities would be required beyond minor improvements to connect existing facilities. Furthermore, the projects would not extend infrastructure to areas outside the respective project boundaries that are not already served, nor would they provide additional capacity.

**17.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS**

CEQA Sections 21100(b)(2) and 21100.1(a) require that EIRs prepared for the adoption of a plan, policy, or ordinance of a public agency must include a discussion of significant irreversible environmental changes of project implementation. In addition, CEQA Guidelines Section 15126.2(c) describes irreversible environmental changes as:
Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Development of the project sites would irretrievably commit building materials and energy to the construction and maintenance of the proposed buildings and infrastructure. Renewable, nonrenewable, and limited resources would likely be consumed as part of the development of the proposed projects and would include, but not be limited to, oil, gasoline, lumber, sand and gravel, asphalt, water, steel, and similar materials. In addition, development of the project sites would result in increased demand on public services and utilities.

The project sites are each designated for commercial development in the Nevada County General Plan. Therefore, development of the project sites would be consistent with existing plans and would result in significant irreversible impacts similar to those discussed in the Nevada County General Plan EIR.

17.3 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. In addition, Section 15093(a) of the CEQA Guidelines allows the decision-making agency to determine whether the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The County can approve the projects with unavoidable adverse impacts if it prepares a Statement of Overriding Considerations setting forth the specific reasons for making such a judgment.

The significant and unavoidable impacts identified in the Draft EIR are:

Alta Sierra Site

- Substantial changes in visual character of the site and surroundings

Rough and Ready Highway Site

- Substantial changes in visual character of the site and surroundings
- Incompatibility with surrounding residential uses

There were no significant and unavoidable impacts identified for the Penn Valley site.

17.4 CUMULATIVE IMPACTS SUMMARY

This discussion summarizes the cumulative impacts associated with the proposed projects that are identified in the environmental issue areas in Sections 4.0 through 15.0 of this Draft EIR. Cumulative impacts are the result of combining the potential effects of the proposed projects with other recently approved, planned, and reasonably foreseeable development projects in the region. The reader is referred to Sections 4.0 through 15.0 for a full discussion of the cumulative impacts of the proposed projects.
INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), “an EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable.” Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

...the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1) Either:
   a. A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or
   b. A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project’s contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, the lead agency is not required to consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

CUMULATIVE IMPACT APPROACH

The cumulative setting for the proposed projects includes all past, present, and probable future development as identified in the Nevada County General Plan, the Penn Valley Village Center Area Plan, the Grass Valley General Plan, and the Nevada City General Plan.

Table 17.0-1 lists the status of large-scale development projects in western Nevada County. This list of projects was used in the development and analysis of the cumulative settings for the projects. Please note that this list is not intended to be an inclusive list of all projects in the region.

Significance thresholds, unless otherwise specified, are the same for cumulative impacts as project impacts for each environmental topic area described in Sections 4.0 through 15.0.
### Table 17.0-1

**Proposed and Approved Projects in the Vicinity of the Proposed Project Sites**

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Location</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Planning (Development)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ananda Village Master Plan</td>
<td>San Juan Ridge</td>
<td>Comprehensive Master Plan, rezone, and development agreement to allow phased</td>
<td>Project documents currently under review; CEQA review not yet under way</td>
</tr>
<tr>
<td></td>
<td></td>
<td>residential development of 195 units over 706 acres, commercial uses, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>other improvements</td>
<td></td>
</tr>
<tr>
<td>Boca Quarry Mine</td>
<td>Near Hinton</td>
<td>Use permit to expand mining operation and associated reclamation plan</td>
<td>FEIR available for review; Planning Commission hearing in 2013 postponed</td>
</tr>
<tr>
<td>Nevada County Solar Project</td>
<td>Various locations</td>
<td>Various solar energy installations</td>
<td>Application under review</td>
</tr>
<tr>
<td>Hansen Brothers Greenhorn Creek Mining Expansion</td>
<td>Greenhorn Creek</td>
<td>Use permit to expand sand and gravel mining operation and associated</td>
<td>Revised reclamation plan submitted May 20, 2016; review period ended</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reclamation plan</td>
<td>July 8, 2016</td>
</tr>
<tr>
<td>Trees Resort at Darkhorse</td>
<td>Near Lake of the Pines</td>
<td>Create 14 new single-family residential lots and 64 new resort townhomes;</td>
<td>Project documents currently under review; CEQA review not yet under way</td>
</tr>
<tr>
<td></td>
<td></td>
<td>improvements to golf course buildings</td>
<td></td>
</tr>
<tr>
<td>Spears Final Map</td>
<td>Penn Valley</td>
<td>Subdivide 117.3 acres into 11 residential lots</td>
<td>MND public review period ended May 16, 2016</td>
</tr>
<tr>
<td>Yuba River Charter School</td>
<td>Grass Valley</td>
<td>New K through 8 elementary school</td>
<td>MND approved in 2015</td>
</tr>
<tr>
<td>Players Pizza</td>
<td>Penn Valley</td>
<td>Convert existing automotive shop to a 1,350 square foot restaurant</td>
<td>Approved</td>
</tr>
<tr>
<td>Spenceville Road Bar</td>
<td>Penn Valley</td>
<td>2,270 square foot bar</td>
<td>Approved</td>
</tr>
<tr>
<td>Wildwood Ridge Estates</td>
<td>Penn Valley</td>
<td>372 unit residential development</td>
<td>Approved</td>
</tr>
<tr>
<td>Sierra Terrace</td>
<td>Grass Valley</td>
<td>Residential development</td>
<td>Approved</td>
</tr>
<tr>
<td>Makiah Woods</td>
<td>Grass Valley</td>
<td>Residential development</td>
<td>Approved</td>
</tr>
<tr>
<td>Loma Rica</td>
<td>Grass Valley</td>
<td>Large mixed use development</td>
<td>Approved</td>
</tr>
<tr>
<td>Gold Country Village</td>
<td>Grass Valley</td>
<td>Senior housing facility</td>
<td>Approved</td>
</tr>
<tr>
<td>Wolf Creek Village</td>
<td>Grass Valley</td>
<td>Residential development</td>
<td>Approved</td>
</tr>
</tbody>
</table>
### 17.0 OTHER CEQA CONSIDERATIONS

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Location</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berriman Ranch</td>
<td>Grass Valley</td>
<td>Residential development</td>
<td>Approved</td>
</tr>
<tr>
<td>314 Railroad Avenue</td>
<td>Grass Valley</td>
<td>Office development</td>
<td>Approved</td>
</tr>
<tr>
<td>Ridge Meadows</td>
<td>Grass Valley</td>
<td>Residential development</td>
<td>Approved</td>
</tr>
<tr>
<td>Ridge Village</td>
<td>Grass Valley</td>
<td>Residential development</td>
<td>Approved</td>
</tr>
<tr>
<td>Village at South Auburn</td>
<td>Grass Valley</td>
<td>Mixed use development</td>
<td>Approved</td>
</tr>
<tr>
<td>Milco 3</td>
<td>Grass Valley</td>
<td>Light industrial development</td>
<td>Approved</td>
</tr>
<tr>
<td>Victoria Grove</td>
<td>Grass Valley</td>
<td>Residential development</td>
<td>Approved</td>
</tr>
<tr>
<td>Twin Cities Church</td>
<td>Grass Valley</td>
<td>Church expansion</td>
<td>Approved</td>
</tr>
<tr>
<td>Forest Springs Mobile Home Park</td>
<td>Alta Sierra</td>
<td>Residential development</td>
<td>Approved</td>
</tr>
</tbody>
</table>

**Advance Planning (Long-Range Plans and Recreation)**

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Location</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soda Springs Area Plan</td>
<td>Soda Springs</td>
<td>Long-term guidance for Donner Summit area</td>
<td>Draft Area Plan public review</td>
</tr>
<tr>
<td>Housing Element Rezone Program Implementation</td>
<td>Countywide</td>
<td>General Plan amendments and rezoning for 18 parcels to accommodate future development of high-density housing</td>
<td>Final EIR certified October 2015; project partially approved</td>
</tr>
</tbody>
</table>

*Source: Nevada County 2016; LSC Transportation Consultants, Inc. 2014*
**Cumulative Impacts**

As described above, cumulative impacts are two or more effects that, when combined, are considerable or compound other environmental effects. The analysis presented in the technical sections of this Draft EIR (Sections 4.0 through 15.0) determined that all cumulative impacts can be mitigated to less than cumulatively considerable, except for the contribution of the Alta Sierra and the Rough and Ready Highway projects’ contribution changes in the existing visual character in the county.

**17.5 Energy Conservation**

**Introduction**

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the California Legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The CEC’s statutory mission is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines.

CEQA Guidelines Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed projects would not result in the wasteful, inefficient, and unnecessary consumption of energy and therefore would not create a significant impact relative to energy resources.

**Background**

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximate amounts of energy contained in common energy sources are as follows:

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>BTUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>124,340 per gallon</td>
</tr>
<tr>
<td>Diesel Fuel</td>
<td>137,380 per gallon</td>
</tr>
<tr>
<td>Compressed Natural Gas</td>
<td>22,453 per pound</td>
</tr>
<tr>
<td>Electricity</td>
<td>3,414 per kilowatt-hour</td>
</tr>
</tbody>
</table>

Sources: USDOE 2014

Total energy usage in California was 7,826 trillion BTUs in 2010, which equates to an average of 209.6 million BTUs per capita. Of California’s total energy usage, the breakdown by sector is 38.7 percent transportation, 24.4 percent industrial, 18.6 percent commercial, and 18.3 percent residential. The primary sources of California’s energy are natural gas (31 percent) and motor gasoline (21 percent). Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use (EIA 2014).
17.0 OTHER CEQA CONSIDERATIONS

Given the nature of the proposed projects, the following discussion focuses on the sources of energy that are most relevant to the projects—electricity and natural gas for the proposed commercial operations, and transportation fuel for vehicle trips associated with the projects.

Current Energy Use

The Alta Sierra and Penn Valley project sites are currently undeveloped and do not consume any energy. The Rough and Ready Highway project site contains a small commercial structure currently occupied by a jewelry sales and repair business. This structure consumes a negligible amount of energy.

APPLICABLE REGULATIONS

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the US Department of Transportation, the US Department of Energy, and the US Environmental Protection Agency (EPA) are three agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through the establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the state level, the California Public Utilities Commission (CPUC) and the California Energy Commission are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting state fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and state energy-related laws and plans are discussed below.

FEDERAL

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the United States would meet certain fuel economy goals. Through this act, Congress established the first fuel economy standards for on-road motor vehicles in the country. Pursuant to the act, the National Highway Traffic and Safety Administration, which is part of the US Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined based on each manufacturer’s average fuel economy for the portion of their vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers’ compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer, based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the US Department of Transportation is authorized to assess penalties for noncompliance. In the course of its more than 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation’s vehicle fleet.
Intermodal Surface Transportation Efficiency Act

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that metropolitan planning organizations (MPOs) were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values which were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, state, and local energy goals. Through these requirements, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of intelligent transportation systems, to help improve operations and management of transportation systems and vehicle safety.

State

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

The California Energy Code (Title 24, Part 6, of the California Code of Regulations, California’s Energy Efficiency Standards for Residential and Nonresidential Buildings) establishes energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The provisions of the California Energy Code apply to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances; they also guide construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including appliances, water and space heating and cooling equipment, and insulation for doors, pipes, walls, and ceilings. The CEC adopted the 2005 changes to the Building Efficiency Standards, which emphasized saving energy during peak periods and seasons, and improving the quality of installation of energy efficiency measures. It is estimated that implementation of the 2005 Title 24 standards has resulted
in an increased energy savings of 8.5 percent relative to the previous Title 24 standards. Compliance with Title 24 standards is verified and enforced through the local building permit process. The 2008 Title 24 Standards, which had an effective date beginning August 1, 2009, include added provisions that require, for example, “cool roofs” on commercial buildings; increased efficiency in heating, ventilating, and air conditioning systems; and increased use of skylights and more efficient lighting systems. California’s Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2013 standards continue to improve upon the previous standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 standards went into effect on July 1, 2014.

LOCAL

Nevada County General Plan

The following is a list of relevant goals and policies from the General Plan Housing Element.

Goal EC-8.2 To the extent feasible, encourage the reduction of greenhouse gas emissions during the design phase of construction projects.

Policy EC-8.6.2 Support appropriate neighborhood-serving commercial activities in residential areas that would reduce vehicle miles traveled, such as small pedestrian-oriented grocery stores and childcare centers. The uses should serve the needs of the immediate residential neighborhood and not draw significant trade from outside the neighborhood, not disrupt or detract from the livability of the surrounding neighborhood, and be designed in keeping with the established residential character of the area.

Policy EC-8.6.3 Promote infill within existing residential neighborhoods and intensify land uses consistent with existing neighborhood or commercial district patterns in developed areas currently served by municipal services.

Policy EC-8.6.8 Encourage residents and developers to increase energy conservation and improve energy efficiency. Support education programs that promote energy conservation and energy efficiency. Support project applicants in incorporating cost-effective energy efficiency that exceeds State standards.

CEQA GUIDELINES

CEQA Guidelines Appendix F requires that EIRs contain a discussion of the potential energy impacts of a project with an emphasis on reducing the wasteful, inefficient, or unnecessary consumption of energy. CEQA Guidelines Appendix F further states that the means of achieving the goal of energy conservation include the following:

- Decreasing overall per capita energy consumption.
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil.
- Increasing reliance on renewable energy sources.
Project Energy Consumption and Conservation

As described previously, the proposed projects would introduce energy usage on sites that are currently undeveloped or vacant and thus use no energy. The projects would consume energy in both the short term during construction and in the long term during operation.

Construction Phase

During construction, the projects would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials, such as lumber and glass.

Energy Consumed by Construction Vehicles and Equipment

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site grading, paving, and construction and would be temporary in nature. Fuel use calculations for the proposed projects are provided in Appendix 17.0. Fuel use associated with construction activities was based on estimated equipment assumptions, as well as vehicle trips identified in the California Emissions Estimator Model (CalEEMod) computer modeling conducted for the projects (see Section 5.0, Air Quality). Construction of the Alta Sierra project would consume approximately 13,103 gallons of diesel fuel; Penn Valley, approximately 14,384 gallons; and Rough and Ready Highway approximately 8,473 gallons. In total, construction of all three projects would use approximately 35,960 gallons of diesel fuel for an estimated total of approximately 5.0 billion BTUs.

Bound Energy Contained in Construction Materials

Construction of the proposed projects would require large amounts of construction materials such as concrete, asphalt, steel, lumber, and glass, which require energy to acquire, manufacture, process, and transport. Given high fuel prices, contractors and owners have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce the costs of transportation. Furthermore, it is reasonable to assume that production of building materials would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business. Therefore, it is expected that materials used in construction would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Operational Phase

The operational phase of the proposed projects would consume energy for multiple purposes including, but not limited to, building heating and cooling, water heating, lighting, and electronics. Electricity and natural gas usage calculations for the proposed projects are provided in Appendix 17.0-A. In total, operation of all three projects would use approximately 76.7 million BTUs each year. Several companies provide natural gas (propane) to users in Nevada County, so a single source cannot be referenced. Pacific Gas and Electric (PG&E) provides electric services in Nevada County. Approximately one-half of the electricity PG&E delivers is a combination of both renewable and greenhouse gas-free resources. In order to achieve its goal to provide 33 percent of energy from renewable resources by the end of 2020, PG&E has begun investing in the following clean energy resources: solar, wind, geothermal, biomass, small hydro, renewable energy from third parties, and renewable projects that are PG&E-owned. In an effort to harness solar power, PG&E has added more than 100 megawatts (MW) of new solar generation, with three PG&E-owned and -operated facilities in Fresno County. Additionally, the utility company has
invested in new conventional generation facilities, notably the Contra Costa County Gateway Generating Station, the Colusa Generating Station, and the Humboldt Bay Generating Station.

PG&E’s power mix delivered in 2012 included:

- Non-emitting nuclear generation (21 percent)
- Large hydroelectric facilities (11 percent)
- Eligible renewable resources, such as wind, geothermal, biomass, solar and small hydroelectric (19 percent)
- Natural gas/other (27 percent)
- Unspecified power (21 percent). This electricity is not traceable to specific sources by any auditable contract trail.

In 2015, PG&E’s power mix included:

- Non-emitting nuclear generation (23 percent; increased 2 percent from 2012)
- Large hydroelectric facilities (6 percent; decreased 5 percent from 2012)
- Eligible renewable resources (30 percent; increased 11 percent from 2012)
- Natural gas/other (25 percent; decreased 2 percent from 2012)
- Unspecified power (17 percent; decreased 5 percent from 2012)

PG&E estimates that it is on target to achieve its 33 percent renewable energy resources goal in the upcoming 3 years.

Energy would also be consumed during each vehicle trip associated with the proposed developments. Transportation energy is discussed separately below.

Energy Conservation during Operation

Each of the projects would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage, and it is assumed that incorporation of Title 24 Energy Efficiency Standards ensures the projects will not result in the inefficient, wasteful, or unnecessary consumption of energy.

Transportation

Transportation Energy Consumption and Conservation

Vehicle trips associated with the proposed projects would result in the consumption of an estimated 171 gallons of gasoline daily, or 62,415 gallons annually, and 1.3 gallons of diesel fuel daily, or 475 gallons annually (CARB 2011). Therefore, the proposed projects would annually consume an estimated 7.8 billion BTUs of energy for transportation purposes.

While these trips would be new trips to the project sites, as noted above, the vehicle fleet is subject to the federal Energy Policy and Conservation Act, which regulates fuel efficiency for
automobiles. Therefore, fuel use by automobiles traveling to and from the projects would improve as the vehicle fleet improves and would not be considered wasteful or inefficient.

CONCLUSION

In summary, operation of the proposed projects would result in the consumption of electricity and natural gas for project operation. Additional BTUs of gasoline and diesel fuels would be consumed during construction and for auto trips of employees and customers of the proposed developments. However, compliance with Title 24 and continuous improvements in vehicle fleet fuel efficiency, as required under federal law, would reduce project energy consumption. Therefore, although the projects would result in the consumption of energy from multiple sources, they would not result in a significant impact to energy resources, as they would not use energy in an inefficient, wasteful, or unnecessary manner. It is also important to note that the projects would consist of development in areas that are currently developed and would avoid unnecessary energy usage from development of less accessible areas of the county that would involve energy consumption from the extension of public services and utilities where they do not currently exist.
REFERENCES


18.0 REPORT PREPARERS
NEVADA COUNTY

Brian Foss ......................................................................................................................... Planning Director
Tyler Barrington ................................................................................................................. Principal Planner
Jessica Hankins .................................................................................................................. Senior Planner

EIR CONSULTANTS

MICHAEL BAKER INTERNATIONAL

Patrick Hindmarsh ................................................................................................................ EIR Project Manager
Kristin Faoro ....................................................................................................................... Environmental Planner
Alice Tackett ......................................................................................................................... Environmental Planner
Seth Myers, Lindsay Taylor ................................................................................................. Noise, Air Quality, Greenhouse Gas
Kristin Bogue ...................................................................................................................... Visual Simulations
Mark Teague ......................................................................................................................... Technical Review
Suzanne Wirth, Ana Cotham ............................................................................................... Technical Editors