APPENDIX A

NOP and IS

APPENDIX A-1

NOP and Initial Study

NOTICE OF PREPARATION
OF A DRAFT ENVIRONMENTAL IMPACT REPORT

Date:	April 8, 2014
To:	State Clearinghouse Responsible Agencies Trustee Agencies Interested Parties
Subject:	Notice of Preparation of a Draft Environmental Impact Report for the proposed Alpine Sierra project and Notice of Public Scoping Meeting
Project Title/File Number:	Alpine Sierra Subdivision (PSUB 20130004)
NOP Comment Period:	Written comments are due no later than May 9 by 5:00 p.m.
Public Scoping Meeting:	In accordance with Public Resources Code Section 21083.9, notice is hereby given that Placer County will conduct a public scoping meeting on **Monday April 28, 2014 at 10:00 a.m.** The meeting will be held in the Community Room at the **Squaw Valley Public Service District** at 305 Squaw Valley Road, Olympic Valley CA 96146.
Project Location:	Approximately 47.2 acres generally near the eastern end of Alpine Meadows Road, north of the Alpine Meadows Ski Resort.
Project Applicant:	Alpine Sierra Partners LLC c/o Chris Nelson Capstone Partners LLC 1015 NW 11th Avenue, Suite 243 Portland, OR 97209 (503) 226-1972 ext. 110
Lead Agency and Contact Person:	Placer County Community Development Resource Agency 3091 County Center Drive, Suite 190 Auburn, CA 95603 Attn: Maywan Krach, Community Development Technician Phone: (530) 745-3132 Fax: (530) 745-3080 Email: cdraecs@placer.ca.gov

1.0 PURPOSE OF THIS NOTICE OF PREPARATION

Placer County has determined that the proposed Alpine Sierra Subdivision project could significantly affect the environment. In accordance with the California Environmental Quality Act (CEQA), this document provides notice to the public and other agencies that may have jurisdiction over some portion of the project that a Draft Environmental Impact Report (EIR) will be prepared to evaluate the environmental impacts of the proposed project. The purpose of this Notice of Preparation (NOP) is to provide sufficient information about the proposed project and its potential environmental impacts to allow agencies and interested parties the opportunity to provide a meaningful response related to the scope and content of the EIR, including mitigation measures that should be considered and alternatives that should be addressed (State CEQA Guidelines 14 CCR Section 15082[b]).

2.0 PROJECT DESCRIPTION

The Alpine Sierra Subdivision project proposes to construct 33 single family residential units and 14 residential halfplex units on ±45.5 acres adjacent to the Alpine Meadows resort area. In addition, up to five of the single family units would include separate guest facilities. A detailed description of the proposed project is presented below. A potentially feasible project alternative is also described in section 2.4 of this NOP.

2.1 Project Location

The project site consists of five parcels totaling approximately 47.2 acres located north of the Alpine Meadows Ski Resort and generally south of the Bear Creek Association neighborhood and John Scott Trail Road. The project site is within the *Alpine Meadows General Plan* area of Placer County, which encompasses approximately 3,600 acres south of Squaw Valley and west of the Truckee River, about 12 miles south of the Town of Truckee and 5 miles north of Tahoe City. The project region is shown in *Figure 1 Regional Location*. Further, as shown on *Figure 2 Vicinity Map* and *Figure 3 Project Site*, the project site is located in the Bear Creek Valley on the east side of Alpine Meadows Road, approximately 2.7 miles west of State Route 89. Bear Creek bisects the narrow corridor that comprises the westernmost extent of the project site and an unpaved U.S. Forest Service (USFS) trail traverses the eastern portion of the site. As shown in *Figure 2 Vicinity Map,* the project site is situated in Section 5 of Township 15 North and Range 16 East on the 7.5 minute Tahoe City USGS topographic quadrangle.

Figure 3 Project Site identifies the project site parcels on an aerial photograph of the project area. Two contiguous irregularly shaped parcels (APN 095-280-022 and 095-280-023) totaling 45.5-acres comprise the majority of the project site. The remainder of the site consists of three detached parcels (APN 095-280-011, 021, and 095-450-006) totaling approximately 2.37 acres that are physically separate but would be part of the subdivision. These parcels are located north of the northeast corner of the two primary project site parcels, within the Bear Creek Association (BCA) subdivision. Additionally, *Figure 3 Project Site* also shows that the project site is bound on the west by Alpine Meadows Road, on the north by the Bear Creek Association residential subdivision and John Scott Trail Road, to the south by the Alpine Meadows Ski Resort, single family homes, condominiums, and the Stanford Alpine Chalet lodging facilities.

DUDEK

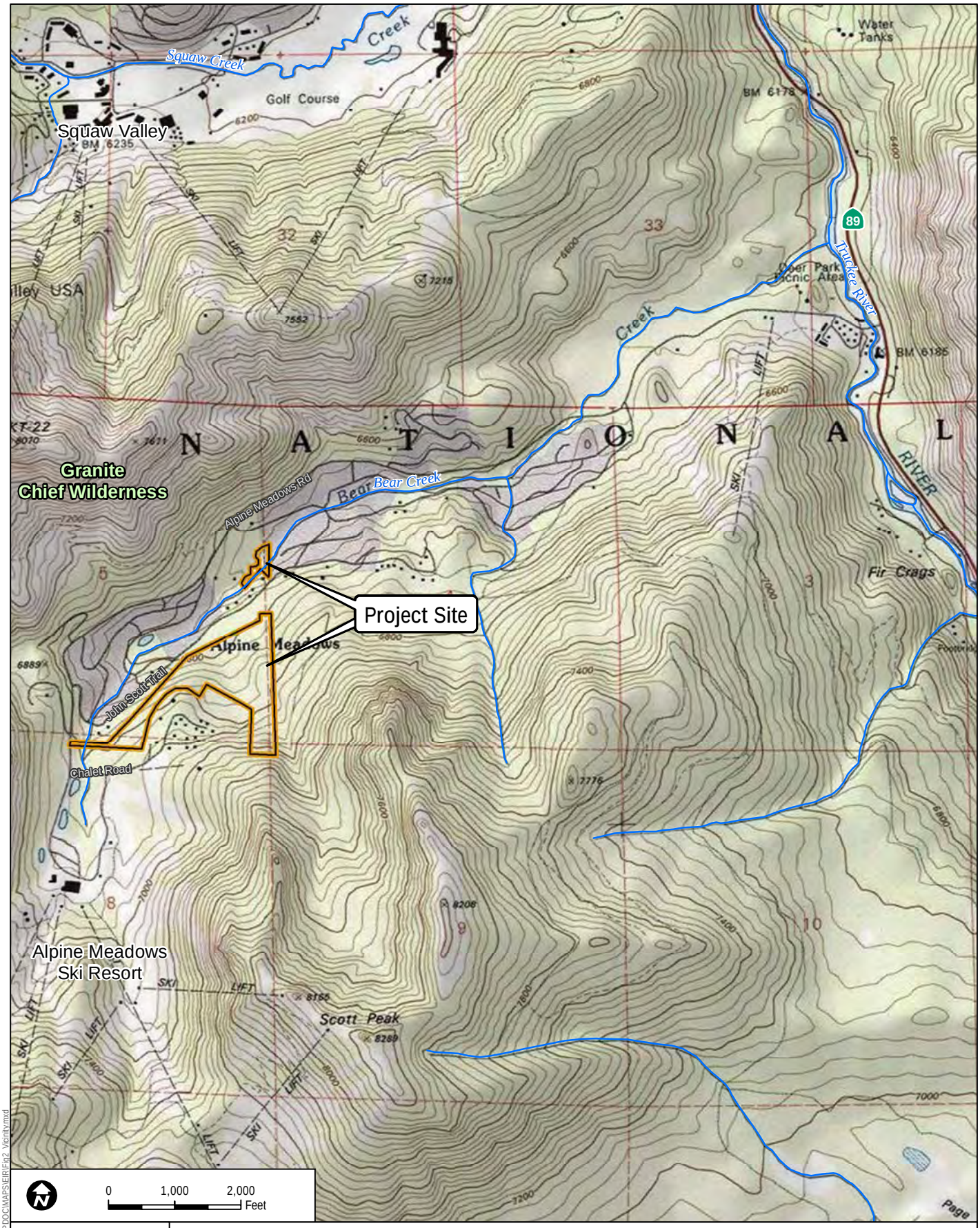
7688

FIGURE 1

Regional Map

ALPINE SIERRA SUBDIVISION

Path: Z:\Projects\7688801\MAP\DOC\MAPS\EIR\Fig1_Regional_location.mxd



DUDEK

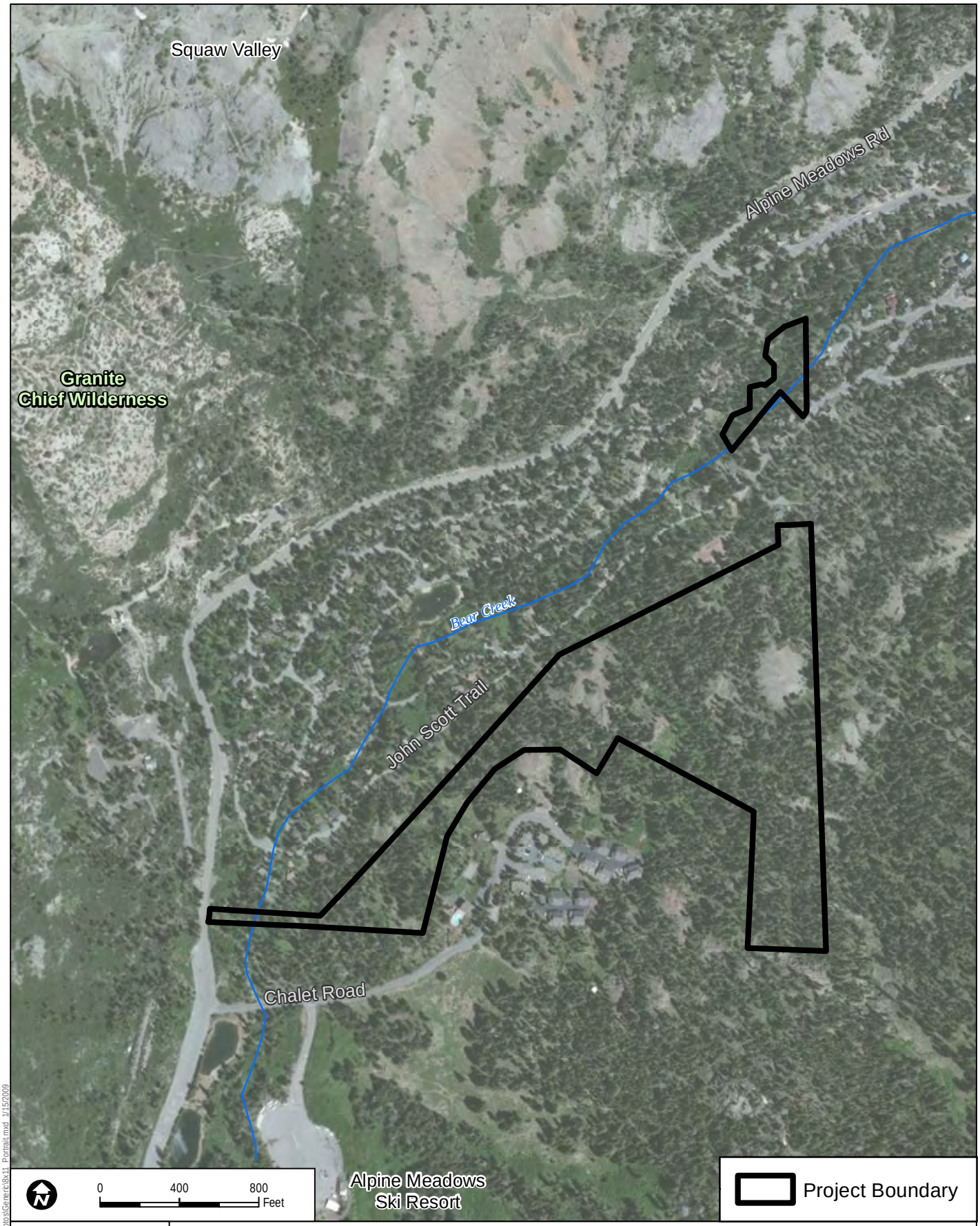
7688

SOURCE: USGS 7.5 Minute Series Topographic Maps

FIGURE 2
Vicinity Map

ALPINE SIERRA SUBDIVISION

Path: Z:\Projects\7688\01\MAP DOC\MAPS\IER\Fig2_Vicinity.mxd



DUDEK

7688

SOURCE: ESRI 2013, County of Placer 2012

FIGURE 3
Project Site

ALPINE SIERRA SUBDIVISION

Z:\Templates\Arcmap\New Protos\Generic\8x11 Portrait.mxd 1/15/2009

2.2 Project Setting

Site Characteristics

The Alpine Sierra Subdivision project site is presently undeveloped and there are no existing structures on-site. As noted above an existing USFS trail traverses the eastern portion of the site. The site has steeply sloping topography, with elevations ranging between 6,600 and 7,080 feet above mean sea level. The project site contains two primary drainage systems: Bear Creek at the western end of the property and an unnamed seasonal stream in the eastern area of the site that flow north-south into Bear Creek. Other minor ephemeral drainages are located in the northeast end of the property. Runoff from the site flows to the northwest towards Bear Creek. White fir forest is the dominant plant community on most of the project site, which is characterized as an open forest with white fir and western white pine.

Existing and Proposed Land Uses

The site is irregular in shape and is connected to Alpine Meadows Road by a narrow strip of land on the southwestern portion of the project area. As stated above, the project site is currently undeveloped but supports an unpaved USFS trail. Land uses north of the project site are single family residential, while condominiums and the Stanford Alpine Chalet lodging are located to the south of the site. The Alpine Meadows Ski Resort is located adjacent to a portion of the southern property boundary; a large parking area associated with the resort is immediately south of the site. Overhead power lines are also present in the area, including along a portion of the southern site boundary.

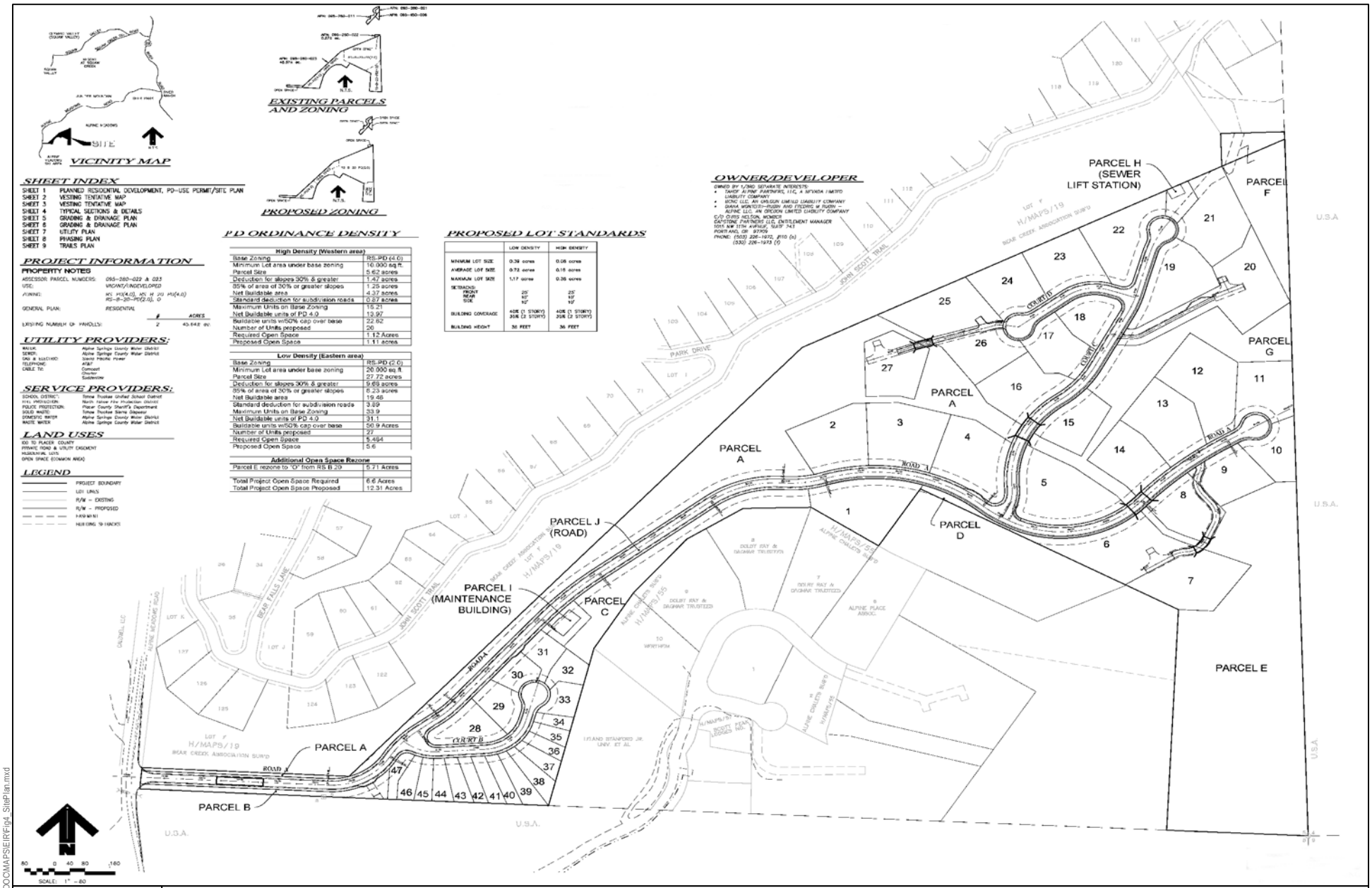
The project would create 47 residential parcels within the currently undeveloped site - 27 custom home sites, 6 custom cabin sites, and 14 halfplex sites – as shown on *Figure 4 Site Plan*. The proposed development is discussed further in Section 2.3 below.

Existing and Proposed Land Use and Zoning Designations

The land use designation for the project site, as described in the *Alpine Meadows General Plan*, is Residential. This existing land use designation could allow for development of a maximum of 97 single-family homes, provided that all of the County's development standards are met.

Zoning designations on the project site are Residential Single Family, Planned Development 4.0 (RS PD=4.0), Residential Single Family, Combining Building Site of 20,000 square feet, Planned Development 2.0 (RS-B-20 PD=2.0) and Open Space (O). The residential zoning designations at the site allow for single family residences at maximum densities of either 2 or 4 units per acre. The Open Space designation is applied to approximately 9.8 acres of the 47.2-acre project site. A change to the existing zoning designation boundaries is proposed as described below and shown on *Figure 5 Proposed Zoning*.

Table 1 identifies the existing land use and zoning designations as well as the current land use for the project site and adjacent parcels while Table 2 identifies the proposed zoning designation changes.



DUDEK

SOURCE: TLA Engineering & Planning, Inc. 2013

FIGURE 4

Site Plan

7688

ALPINE SIERRA SUBDIVISION

Path: Z:\Projects\7688\01\MAP\DOC\MAPS\EIR\Fig4_SitePlan.mxd

Table 1
Existing Land Use and Zoning Designations and Land Uses

Location	Placer County Zoning Designation	Alpine Meadows General Plan Designation	Existing Land Use
Project Site	**RS-B-20 PD=2.0** (Residential Single Family, Combining Building Site Size of 20,000 square feet minimum, Planned Development = 2 units per acre) **RS-B-20 PD=4.0** (Residential Single Family, Combining Building Site Size of 20,000 square feet minimum, Planned Development = 4 units per acre) **O** (Open Space)	Residential	Vacant
North	**RS** (Residential Single Family) **O** (Open Space)	Residential	Residential
South	**RS PD=8** (Residential Single Family, Planned Development = 8 units per acre) **O** (Open Space)	Residential & Open Space	Condominiums, Ski Resort
East	**RS-B-20 PD=2.0** (Residential Single Family, Combining Building Site Size of 20,000 square feet minimum, Planned Development = 2 units per acre) **RS PD=3** (Residential Single Family, Planned Development = 3 units per acre) **O** (Open Space)	Residential & Open Space	Vacant & Open Space

Location	Placer County Zoning Designation	Alpine Meadows General Plan Designation	Existing Land Use
West	**RS-B-20 PD=2.0** (Residential Single Family, Combining Building Site Size of 20,000 square feet minimum, Planned Development = 2 units per acre) **RS** (Residential Single Family) **RS PD=3** (Residential Single Family, Planned Development = 3 units per acre) **O** (Open Space)	Residential	Residential & Open Space

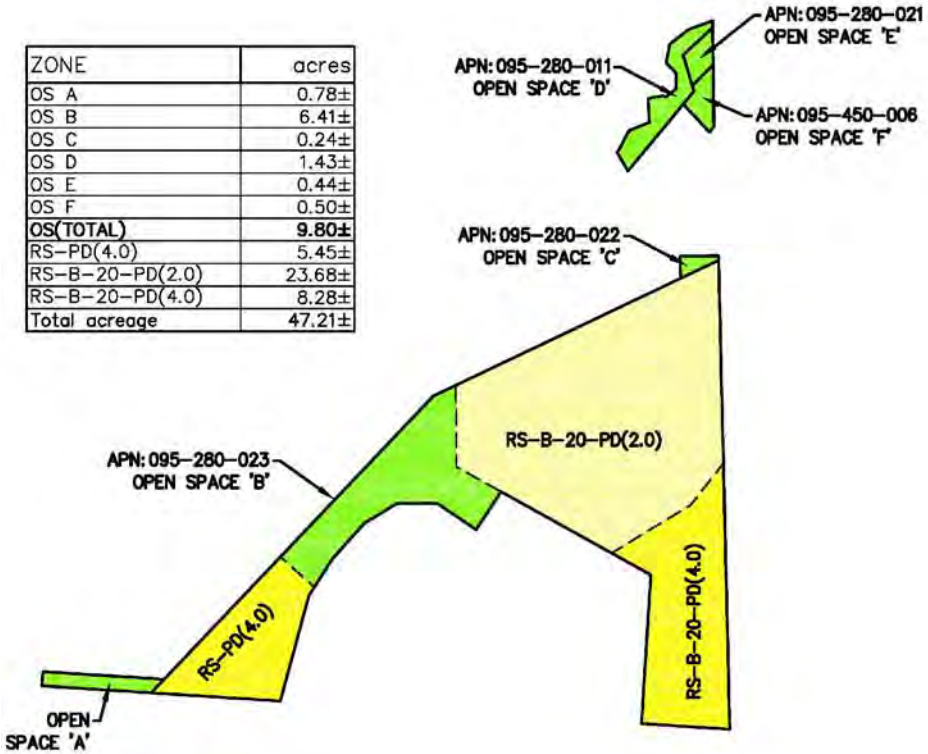
The project proposes to reconfigure the zoning designations within the portion of the site proposed for development, as shown on *Figure 5 Proposed Zoning*. Specifically, the project would:

- reduce the size of Parcel B and the associated Open Space designation by slightly expanding the RS-PD(4.0) area in the western portion of the site (adding approximately 0.16 acres to this designation) and expanding the RS-B-20-PD(2.0) designation in the eastern portion of the site;
- convert a portion of the RS-B-20-PD(4.0) designation in the eastern portion of the site to the RS-B-20-PD(2.0) designation; and
- convert the remaining portion of the RS-B-20-PD(4.0) designation in the eastern portion of the site to Open Space.

Table 2
Existing and Proposed Zoning Designations

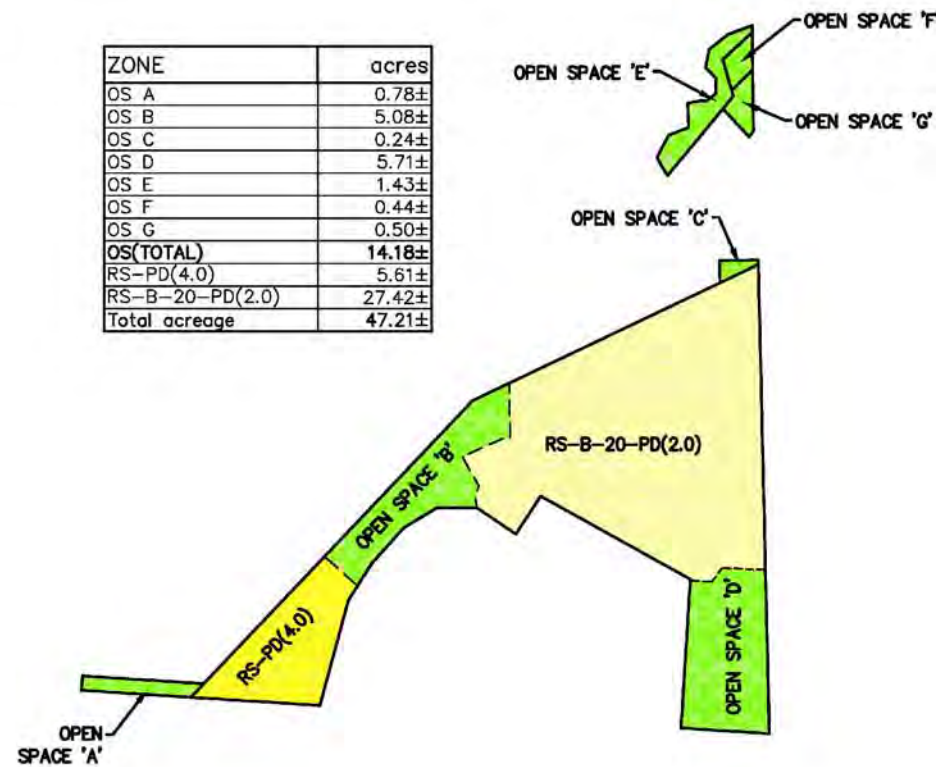
Zoning Designation	Existing Acreage	Proposed Acreage	Net Change
RS-PD(4.0)	5.45	5.61	+0.16
RS-B-20-PD(2.0)	23.68	27.42	+3.74
RS-B-20-PD(4.0)	8.28	0	-8.28
O	9.8	14.18	+4.38
Total	***47.2***	***47.2***	***0***

ZONE	acres
OS A	0.78±
OS B	6.41±
OS C	0.24±
OS D	1.43±
OS E	0.44±
OS F	0.50±
OS(TOTAL)	**9.80±**
RS-PD(4.0)	5.45±
RS-B-20-PD(2.0)	23.68±
RS-B-20-PD(4.0)	8.28±
Total acreage	47.21±



EXISTING PARCELS AND ZONING

ZONE	acres
OS A	0.78±
OS B	5.08±
OS C	0.24±
OS D	5.71±
OS E	1.43±
OS F	0.44±
OS G	0.50±
OS(TOTAL)	**14.18±**
RS-PD(4.0)	5.61±
RS-B-20-PD(2.0)	27.42±
Total acreage	47.21±



PROPOSED ZONING

N

N.T.S.

DUDEK

7688

SOURCE: TLA Engineering & Planning, Inc. 2013

FIGURE 5

Proposed Zoning

ALPINE SIERRA SUBDIVISION

Path: Z:\Projects\7688\MAPDOC\MAPS\NOP\Fig5_Rezoning.mxd

2.3 Project Components

The project proposes to create a subdivision for the development of 47 single-family residential units on the ±45.5-acre property. As shown in *Figure 4 Site Plan*, 27 of the lots are located on the eastern portion of the project site. These lots are proposed to range in size from 0.39 acres to 1.17 acres, averaging 0.72 acres in size, and would be established as custom build sites. Up to five of these lots are proposed to include separate guest facilities. The 20 lots on the western portion of the project site are proposed to include 14 halfplex sites and 6 custom cabin sites. The halfplex sites range in size from 0.08 to 0.17 acres and the custom cabin sites range in size from 0.19 acres to 0.38 acres. The project would build on-site roadways and utilities, including a sewer lift station (on Parcel H). A separate storage facility and residential unit with a footprint of approximately 1,000 square feet would be constructed on a parcel held in common by the HOA (Parcel I). The facility would house a front loader, implements, a small dwelling unit for HOA staff, and a HOA meeting room. A total of 14.18 acres of open space is proposed to be established, which would be held in common by the Homeowner's Association. Of this amount, 2.37 acres of open space would be located on the three parcels that are physically separated from the site of the proposed development (located north of the project site, within the BCA subdivison. Within the primary development area, there would be 12.31 acres of open space, which is an increase of 4.38 acres compared to the existing zoning designations.

The site access road is proposed to connect to Alpine Meadows Road near the entrance to the Alpine Meadows Ski Resort. Private secondary roads would serve the proposed subdivision. A bridge over Bear Creek and four bridges or culverts over a seasonal drainage and two ephemeral drainages are proposed.

Land Use. The project proposes to develop 33 single family homes and 14 residential halfplex units. Single family home sites are proposed as custom build lots. Halfplex units are proposed to be configured such that two halfplex units would share a common wall and property boundary and would be designed to appear as a single residential structure. Residential development would encompass approximately 27 acres, comprising approximately 59 percent of the site, not including subdivision roadways. The remaining land (approximately 20 acres, contained in proposed parcels A, B, C, D, E, F, G, H, I and J) would support roads, sewer infrastructure, an HOA caretaker residence with small conference room, an amenities lot with hot tub, picnic area, small support structures, and open space and would be maintained by the Homeowners Association (HOA). The project also includes construction of a public pedestrian trail to connect to the existing USFS trail that traverses the project site. Note that the amenities lot is proposed to be located in a portion of the area shown as Lot 5 on Figure 4, as reflected on the site plan for the BCA Access Alternative discussed in Section 2.4 below (Figure 6).

Circulation. The project proposes an entrance off of Alpine Meadows Road on the western side of the project site. Circulation through the project site would be provided by this main road extending east from the entrance and terminating in a cul-de-sac. Three secondary roads (cul-de-sacs) would intersect the main road to provide access to proposed lots. Roads are proposed to be privately owned and maintained by the HOA. Looped or secondary access to the project site is not available from adjacent properties, but the project includes access easements through the project site to USFS property boundaries in two locations to allow for a connection through USFS lands in the future should the USFS determinate that they will provide looped access

throughout the Valley. In addition to roads, a public pedestrian trail would be constructed on-site as part of the project, connecting with the existing USFS trail that traverses the project site.

Utilities. The proposed project would require construction of new infrastructure to provide water, wastewater, electricity, telephone, and cable television services to the site. Underground utilities would be constructed in easements along roadways within the development. Domestic water would be supplied from Alpine Springs County Water District (ASCWD). Wastewater disposal would also be provided by ASCWD. Most of the homes will use gravity sewer but a few will require individual sewage pumps to access the gravity sewer. One sewer lift station will be required and would be constructed in the northeastern corner of the project site (Parcel H). Solid waste will be collected by the Tahoe Truckee Sierra Disposal and disposed of at the Eastern Placer Regional Landfill. Electric utilities would be supplied by Sierra Pacific Power; individual propane tanks would also be provided.

The project would also include construction of offsite improvements to increase water supply reliability and pressure throughout the ASCWD service area. As identified by ASCWD the offsite improvements that may be necessary to ensure adequate water supply and pressure to serve the proposed project and to increase water supply reliability and pressure throughout the ASCWD service area include:

- Mitigate zonal supply deficiencies with the installation of three booster pump stations (pump stations B, C and D) that will convey excess supply from Zone 4 to Zones 3, 2 and 1.
- Zone 1 to 2 Pressure Reducing Valve (PRV) Upgrade: Replace existing 2-inch and 3-inch PRVs with 3-inch and 6-inch PRVs. This will provide fire flows from Zone 1 storage during emergencies and reduce maintenance issues by the installation of a 3-inch anti-cavitation valve to address the high differential operating pressure at this site.
- Zone 1 to 2, 8-inch diameter secondary supply main: Install 500 linear feet of 8-inch diameter main along Alpine Meadows Road between White Wolf and John Scott Trail. This improvement provides an increase in service pressures and a significant increase in available fire flows and redundancy throughout Zone 2 and proposed Zone 2A, and provides a needed second connection to Zone 1.
- 6-inch PRV upgrade: Install a 6-inch PRV at Booster Station B2 site. Improves fire flow in Deer Park area and in proposed Pressure Zone 2A.
- John Scott Trail 8-inch Main Upgrade & PRV: Install 820 linear feet of 8-inch diameter main along John Scott Trail between Upper Bench and Mineral Springs and new 3-inch/6-inch PRV vault. This allows for the creation of pressure Zone 2A and allows the upper portions of Juniper Mountain to meet fire flows and service pressures without a dedicated booster pump.
- Rebuild Pump Station A: Rebuild will increase capacity to supply pressure Zone 1 Maximum Day Demand (MDD) with water from Zone 2.
- Additional Capacity to proposed Pump Stations C and D: Added capacity will allow the ASCWD to supply the water system from the bottom during MDD if horizontal wells are out of service.

- Additional Capacity to proposed Pump Station B: Added capacity will allow the ASCWD to supply the water system from the bottom during MDD if horizontal wells are out of service.
- Additional fire flow and redundancy improvement: Install 920 linear feet of 6-inch diameter main connecting the NE portion of Alpine Sierra Development (ASD) to the Bear Creek Subdivision (BCS). This improvement would provide a third point of connection between Zones 1 and 2 with improvements in fire flow along portions of John Scott Trail in the BCS and Alpine Estates Subdivision (AES). This option cannot be a substitute for other improvements.

Placer County and the ASCWD will coordinate to determine which of these improvements are necessary to serve the project. The impacts to construct and operate those improvements will be analyzed in the EIR.

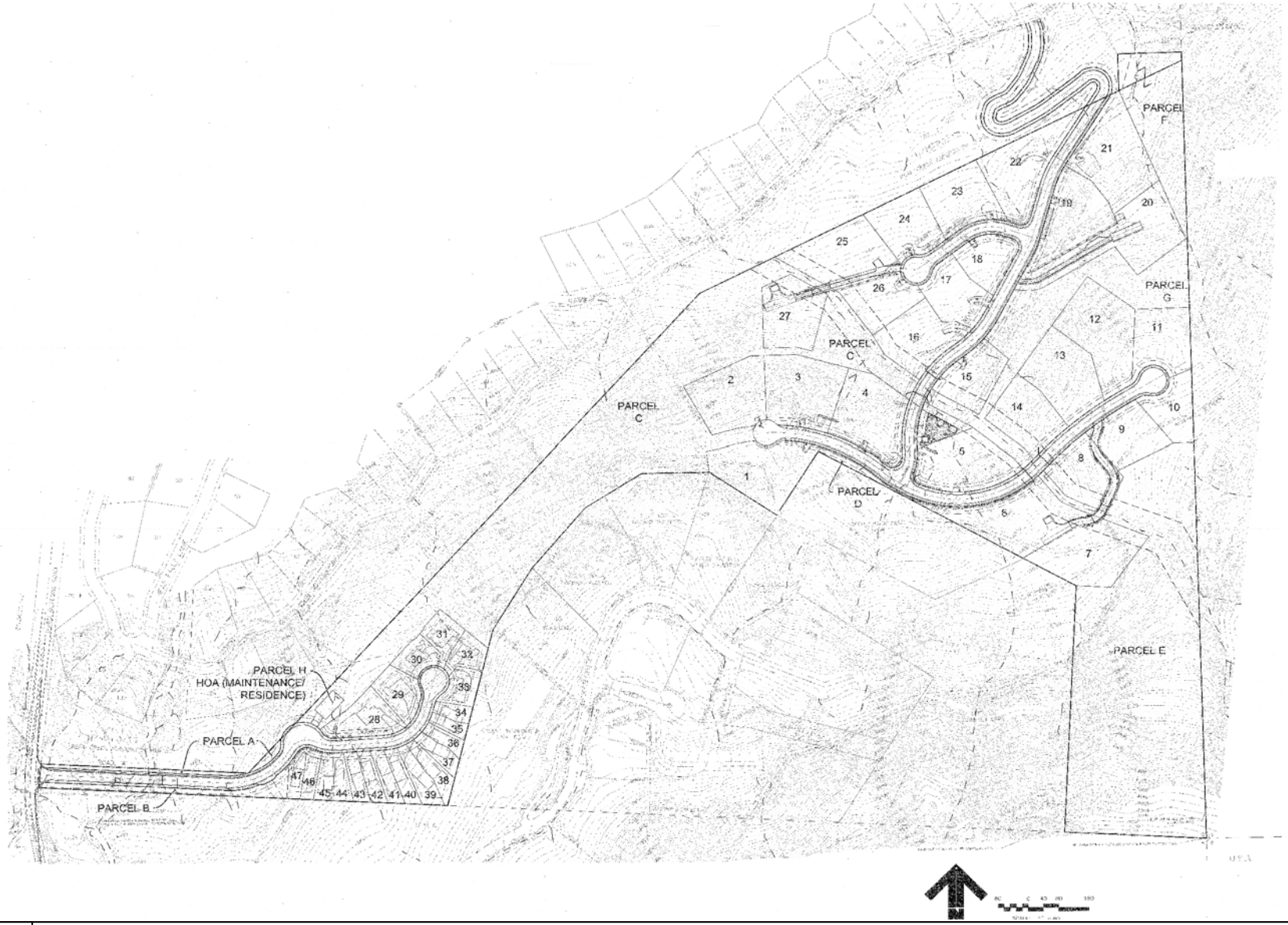
Grading and Drainage. Development of the proposed project would require grading for the residences, maintenance building and HOA residence, roadways, driveways, bridges, retaining walls and utilities. Due to the steepness of the site, future homes and the project infrastructure would require extensive cuts and the use of retaining walls. Residential lots would be custom graded for homes. The Preliminary Grading Plan indicates that while substantial grading is necessary, cuts and fills across the site are expected to balance, but may involve significant export and import of materials due to the lack of suitability of the excavated material to be used as structural fill due to rocky nature of the site.

Low Impact Development (LID) systems to treat site runoff are included in the project plans. Drainage systems proposed include the use of cut-off ditches, cross culverts and level spreaders to capture and disburse runoff from undeveloped areas. As described above, the project site contains two primary drainage systems; Bear Creek at the western end of the property and an unnamed seasonal stream in the eastern area of the site that flows north-south into Bear Creek. Runoff from the site flows to the northwest towards Bear Creek.

2.4 BCA Access Alternative

A potentially feasible project alternative is currently being considered, which would provide a second point of vehicular access through the BCA subdivision north of the project site. This alternative has not been approved by the BCA and its feasibility is unknown at the time of this NOP. Unless the BCA Access Alternative is determined to be infeasible during the course of EIR preparation, it is proposed to be evaluated in the EIR as a "co-equal" alternative, meaning that it will be evaluated at the same level of detail as the proposed project.

The BCA Access Alternative maintains the same number of homesites in generally the same configuration as the proposed project. The primary difference between the proposed project and the BCA Access Alternative is that this alternative would provide two vehicular access points to the project site. A primary project access road would be constructed from the eastern portion of the project through an existing open space parcel within the BCA subdivision adjacent to the northern property boundary and would connect with existing roads in the BCA subdivision. As shown in *Figure 6 BCA Access Alternative Site Plan*, the access road would leave the project site between lots 21 and 22, traverse the slope across the open space parcel with two sharp bends,



DUDEK

7688

SOURCE: Placer County 2013

FIGURE 6

BCA Access Alternative Site Plan

ALPINE SIERRA SUBDIVISION

Path: Z:\Projects\7688\01\MAPDOC\MAPSIF\p6_BCA_Alt_Site_Plan.mxd

and connect to John Scott Trail. This access road from John Scott Trail would provide access to the 27 lots on the eastern portion of the project site. Under this alternative, a second primary access road would be constructed to provide access to the western portion of the project site from Alpine Meadows Road and would terminate in a cul-de-sac.

This roadway would provide access to the 14 halfplex sites, 6 custom cabin sites, and HOA maintenance/residence parcel proposed in the western portion of the project site. This roadway would not be constructed through the central portion of the project site and would not connect to the roadway constructed from John Scott Trail to access the eastern portion of the project. The BCA Access Alternative would also provide for placement of a gravity sewer line within the access roadway right-of-way constructed to access the east portion of the project site, allowing connection to existing sewer lines and eliminating the need for the sewer lift station shown in Parcel H under the proposed project site plan (refer to Figure 4).

3.0 PROBABLE ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The EIR prepared for the Alpine Sierra Subdivision project will evaluate impacts pertaining to the resource areas identified below. As noted above, unless the BCA Access Alternative is determined to be infeasible, the EIR will evaluate both the proposed project and the BCA Access Alternative at an equal level of detail. Preliminary analysis of the proposed project and the BCA Access Alternative has identified impacts likely to result from the project. The preliminary analysis is presented in the Initial Study, which is attached to this NOP. The following paragraphs discuss the results of preliminary impact identification and anticipated analyses that will be included in the EIR. The project level EIR will be prepared in accordance with the CEQA Statues, CEQA Guidelines, and Placer County's Environmental Review Ordinance. The impact analysis will consider impacts resulting directly from the proposed project or project alternative as well as the project's or project alternative's contribution to cumulative impacts in the project area. The EIR will identify feasible mitigation measures to reduce or avoid impacts, will consider other project alternatives, and will evaluate the potential for the project and the BCA Access Alternative to contribute to cumulative impacts in the region.

Potential Impacts to be Evaluated in the EIR

Land Use. The proposed project and the BCA Access Alternative are generally consistent with the existing zoning (RS PD=4.0, RS-B-20 PD=2.0 and OS) and General Plan designation (Residential). Under the proposed project some land currently zoned for Open Space would be converted to Residential Single Family (approximately 1.33 acres), however there would be an overall net increase in the open space zoning designation of 4.38 acres. In addition, the RS=B-20-PD(4.0) zoning designation would be removed from the site. The portion of the site currently carrying that designation would be converted to open space and to RS-B-20-PD(2.0). Under the BCA Access Alternative, the primary access road serving the east portion of the project site and utility infrastructure would be constructed across a portion of an existing off-site Open Space parcel within the Bear Creek Association Subdivision. This primary access road would also cross a proposed new on-site Open Space parcel (Parcel H) within the project. These improvements would slightly alter the total area of Open Space both on- and off-site.

The EIR will evaluate the effect of the project and project alternatives on the character of the project area, identify potential impacts associated with land use incompatibilities, and identify

any physical impacts that could result from inconsistencies with adopted plans and policies, including consideration of the project's consistency with development standards and zoning requirements, particularly the requirements of the County's Planned Residential Development zone district.

Biological Resources. A Biological Assessment, including a rare plant survey, was prepared for the project site by EcoSynthesis Scientific & Regulator Services, Incorporated in 2012. North Fork Associates (NFA) also prepared a Wetland Delineation and a Rare Plant Survey of the project site in 2002 and a Tree Resources Assessment in 2004. NFA updated the wetland delineation in 2009 and it was subsequently verified by the U.S. Army Corps of Engineers in 2010. Additional surveys of the off-site land that would support project-related infrastructure under the BCA Access Alternative will be completed during preparation of the EIR.

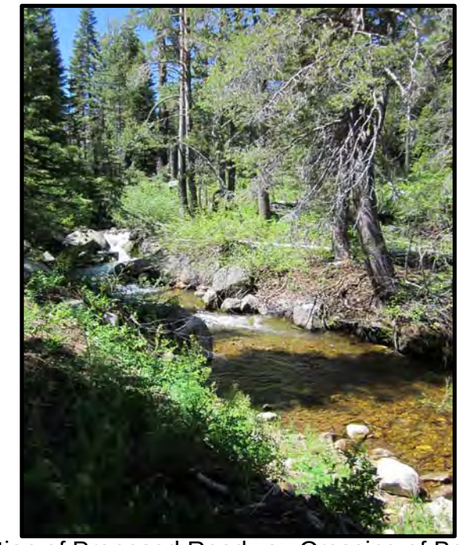
The vegetation of the site is classified as Sierran white fir forest dominated by white fir and western white pine. Lodgepole or tamarack pine and Jeffrey pine are also found on the lower slopes. Red fir and mountain hemlock occur but are not dominant, being found mostly on the upper slopes where the vegetation is in transition to red fir forest. In general, the western end of the property is drier and supports more of the white fir forest species. Approximately 2 acres of the site is characterized as montane riparian scrub. Although drainages occur in several locations on the project site, the riparian vegetation is confined to a narrow band along the drainageway and does not have continuous riparian vegetation. Mountain alder is the most common among species restricted to the streamsides; American dogwood is also frequent. Typical conditions within and adjacent to the project site are shown in *Figure 7 Site Photographs*.

The project site was found to have approximately 0.69 acres of wetland within the jurisdiction of the U.S. Army Corps of Engineers. The project site was also found to be potential habitat for two special status plant species – Donner Pass buckwheat, and Munroe's desert mallow have a moderate to high potential to be located on-site. Special status species surveys did not find any of these plants on the project site. Disturbance to the Bear Creek stream zone could impact the habitat of four special status animal species: Sierra marten, Sierra Nevada snowshoe hare, Cooper's hawk, and yellow warbler. The EIR will analyze impacts to each habitat type and special-status species.

Two thousand five hundred and eleven trees were assessed within the project site. These include white fir (65%), red fir (15%), Lodgepole pine (14%), white pine (5%), and Jeffrey pine (1%). The majority (40%) of trees assessed are between 12 and 17 inches in diameter, while 72 trees were measured to be at least 42 inches in diameter. Although it is unknown at this time precisely how many native trees will be removed, it is anticipated that tree removal would occur within areas disturbed for road construction and utility installation and within the building pads and immediately adjacent areas of each proposed lot. The EIR will quantify the extent of tree removal and mitigation measures will be provided to ensure compliance with the Placer County policies.

The site does not support oak woodlands and the project would have no impact on oak woodlands. Based on the analysis in the Initial Study, impacts to woodlands will not be evaluated in the EIR.

Location of Proposed Entrance Roadway


Location of Proposed Roadway Crossing of Bear Creek

Representative Site Conditions

Representative Site Conditions

Representative Site Conditions

Representative Site Conditions

DUDEK

7688

FIGURE 7

Site Photos

ALPINE SIERRA SUBDIVISION

Path: Z:\Projects\7688801\MAPDOC\MAPSIE\FIG_Site_Photos.mxd

Visual Resources/Aesthetics. The proposed project and the BCA Access Alternative would construct single family residential structures, a maintenance facility, roadways, grading cuts, retaining walls and residential night time lighting. The project and project alternative would also implement a fuel modification plan to reduce the risk of wildfire. These project attributes would alter the visual quality and character of the project site and have the potential to introduce new sources of light and glare that may affect adjacent land uses and nearby residences. For these reasons the project and project alternative have the potential to impact the area's existing visual character, including the existing visual relationship of the project site with surrounding land uses. The general visual character of the project area is shown in the photographs in Figure 7. The EIR will present visual simulations to characterize the proposed development and evaluate project visibility from off-site locations. The EIR will examine the impact of visibility of the project and project alternative from significant exterior viewsheds, the aesthetic compatibility of new construction with existing adjacent residential development and open space uses, and the consistency of the new residential construction with applicable General Plan policies.

Air Quality and Climate Change. Construction and operation of the project or project alternative would introduce new sources of pollutant emissions, including greenhouse gases to the project area. As the project and project alternative would involve generally the same construction and operational characteristics, it is expected that the air pollution and greenhouse gas emissions would be the same for both scenarios. The CalEEMod modeling program will be used to estimate the amount of air pollutant emissions that the project is likely to generate during construction and operation. These emissions will be compared to Placer County Air Pollution Control District's thresholds to determine the significance of the project's short-term and cumulative impacts to air quality. Emissions of greenhouse gases will be evaluated to determine the project's consistency with regional and statewide goals for the reduction of greenhouse gas emissions.

Noise. The proposed project would result in short-term noise impacts in the project area as a result of heavy equipment operation during site preparation, grading, and construction. Vehicle use associated with the project as well as residential uses of the project site could also expose people to noise levels that exceed standards established the *Placer County General Plan* and the Placer County Noise Ordinance. Modeling will be conducted to predict noise levels and compare them to the standards established in the *General Plan* and the Noise Ordinance. The EIR will analyze all potential short-term and long-term noise impacts related to the project and project alternatives. The analysis will consider noise effects associated with use of the vehicular access route(s) to the project site.

Geology/Soils. Due to the steepness of the site, substantial grading would be required for residences, the maintenance building, bridges and roadways. The project would also require trenching and backfill for construction of utilities. The extent of grading would be generally the same under the proposed project and the BCA Access Alternative. Grading and trenching activities would alter site topography and could result in accelerated soil erosion and unstable earth conditions. The disruption of soils increases the risk of erosion and creates a potential for contamination of stormwater runoff through typical grading practices. Portions of the project may be located in geologic conditions that are unstable or that would become unstable as a result of the project. A discussion of the exposure of people or property to geologic and

geomorphological hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards will be included in the EIR and mitigation measures will be identified associated with the development of the project. In addition, based on the 2013 Avalanche Hazard Study conducted by Larry Haywood, portions of the project site are located within a County delineated Potential Avalanche Hazard Area (PAHA). More specifically, PAHAs are located in three areas on the project site: one located near Alpine Meadows Road at the entrance to the project site, another in the narrow central portion of the project site, and the third in the southeastern portion of the project site. The EIR will evaluate the extent to which the project and project alternatives could increase avalanche risk for off-site areas and the extent to which project residents would be exposed to potential avalanche risks. The EIR will also analyze project compliance with the applicable sections of the County Code pertaining to avalanche hazards.

Hydrology/Water Quality. Hydrologic features on-site include Bear Creek and seasonal and ephemeral drainages that are tributary to Bear Creek. Bear Creek is tributary to the Truckee River. Residential uses on the project site could introduce urban pollutants to surface water in the area, which could also lead to contamination of groundwater supplies. The development of the project has the potential to alter the existing drainage patterns on the site and increase flows downstream that could overload design capacity of drainage facilities and alter the 100 year floodplain. Potential impacts to water quality associated with runoff of urban pollutants and sediment from the project site during and following construction will be evaluated in the EIR. The EIR will evaluate the potential for grading and other site disturbance associated with the project or the project alternative to result in accelerated sedimentation of area waterways and the project's compliance with the Total Maximum Daily Load (TMDL) standards for the Truckee River. The EIR will address these hydrologic impacts and mitigation measures will be identified associated with the development of the project or the project alternative. The project would not use groundwater and the site soils do not allow for substantial percolation to any groundwater aquifer. Based on the analysis in the Initial Study, impacts to groundwater quantity and quality will not be evaluated in the EIR.

Transportation/Circulation. The proposed project would introduce additional traffic to project area roadways and intersections. The proposed project would also construct a new roadway within the development, as well as a new intersection for project access from Alpine Meadows Road. The BCA Access Alternative would also create a new access from John Scott Trail. The EIR will include analysis of project or project alternative impacts to the following intersections:

SR-89/Alpine Meadows Road

Alpine Meadows Road/Site Access

John Scott Trail/Site Access

John Scott Trail/Alpine Meadows Road

The EIR will also evaluate project or project alternative effects on the following roadway segments:

Alpine Meadows Road immediately north of the Site Access

Alpine Meadows Road at SR-89

SR-89 north of Alpine Meadows Road

SR-89 south of Alpine Meadows Road

John Scott Trail east of the Site Access

Alpine Meadows Road east of John Scott Trail

The EIR will evaluate whether traffic generated by the 47 proposed residential units would result in decreased levels of service at intersections and on roadway segments. The EIR will also evaluate whether construction of the proposed roadways within the development and the proposed access point(s) would result in any safety impacts based on compliance with County design standards, vehicle turnaround areas, and vehicle sight distance. The EIR will also consider emergency access, pedestrian and bicycle access, and alternative modes of transportation.

Utilities and Public Services. The proposed project would require the extension of utility services to the project, construction of new utilities on-site, and potential construction of upgrades to existing utility infrastructure at specified off-site locations. Utility services at the project site and public services in the surrounding area would be provided by the following agencies or companies:

WASTEWATER	Alpine Springs County Water District
WATER	Alpine Springs County Water District
ELECTRICITY	Liberty Energy
TELEPHONE	AT&T
CABLE	Comcast, Charter, Suddenlink
SCHOOL DISTRICT	Tahoe Truckee Unified School District
FIRE PROTECTION	North Tahoe Fire Protection District
POLICE PROTECTION	Placer County Sheriff's Department
SOLID WASTE	Tahoe Truckee Sierra Disposal
SNOW REMOVAL	Placer County for Alpine Meadows Road; Alpine Sierra HOA for on-site roadways

The EIR will evaluate potential project impacts related to provision of all utility and public services to the project site. Utility service providers will be contacted to determine whether existing infrastructure, facilities, and staffing is sufficient to serve the project or to identify the necessary improvements to ensure service and maintain acceptable response time and staffing goals in accordance with goals or policies of the *Placer County General Plan*. The EIR will evaluate the environmental effects associated with construction of the necessary improvements and will evaluate whether the service demands of the proposed project would exceed the capacity of the service provider. In discussing fire protection services, the EIR will also evaluate the extent to which the proposed development could be at risk from wildland fires. The demands for utilities and public services would be generally the same under the proposed project and the BCA Access Alternative, with the exception that a sewer lift station would be needed under the proposed project and would not be required under the BCA Access Alternative.

Project Alternatives and CEQA Considerations. The EIR will evaluate a range of alternatives to the proposed project that are capable of meeting most of the basic project objectives and would reduce or avoid any of the significant environmental impacts that could result from the proposed project. As described above, this is expected to include the BCA Access Alternative.

The EIR will summarize all of the significant and unavoidable impacts of the proposed project as well as the irreversible changes to the environment that would result from implementation of the proposed project. The EIR will also evaluate the potential for the project to induce additional growth in the project region.

Topics Focused Out of the EIR

Based on the analysis in the Initial Study, which is attached to this NOP, the EIR will not address the following topics:

Agricultural/Forestry Resources. The project site and adjacent properties do not currently support any agricultural or forestry activities. Some trees will be removed during the construction of the project and impacts due to their removal will be evaluated in the Biological Resources chapter of the EIR. The project site supports forest habitat but does not currently and has not historically supported timber production or other forestry uses. The project would not result in any impacts to agricultural or forestry resources. This topic will not be evaluated in the EIR.

Hazards and Hazardous Materials. As described above, an evaluation related to avalanche risks will be included in the Geology and Soils section of the EIR and an evaluation of wildland fire risks will be included in the Public Services and Utilities section of the EIR. No other hazards or hazardous materials are known to occur on the undeveloped project site and therefore, an evaluation of potential environmental impacts related to hazardous materials will not be included in the EIR.

Cultural Resources. A survey of the project site was conducted and no evidence of archeological or historical resources was observed on-site. However, there is a possibility that archeological and/or historical resources could be present below the ground surface. The Initial Study notes that standard construction conditions would apply to the project, requiring that if any archeological or historical resources are uncovered during construction, all work must stop until the resources can be property evaluated and protected as necessary. No further analysis of these potential impacts will be included in the EIR.

Mineral Resources. The project site and adjacent properties are not known to support any mineral removal activities. The project would not result in any impacts to mineral resources. This topic will not be evaluated in the EIR.

Population and Housing. While the project proposes new housing, the number of units is consistent with that permitted by the underlying zoning. Substantial population growth is not anticipated. In addition, the project site is vacant and construction of new housing would not displace existing housing or existing persons. As such, this topic will not be further evaluated in the EIR.

In addition, the analysis in the Initial Study also demonstrates that the project would have no impacts relative to the following discrete issues. While the EIR will include chapters evaluating the major topics listed below (such as aesthetics and biological resources), the EIR will not address the following specific issues:

Aesthetics – Substantially Damage Scenic Resources Visible From a State Scenic Highway. Although not an Officially Designated State Scenic Highway, State Route (SR) 89 is identified by the California Department of Transportation (Caltrans) as an Eligible State Scenic Highway (Caltrans 2013). SR 89 is located approximately 2.7 miles east of the project site and due to tall, intervening vegetation (i.e., pine and fir trees) and mountainous terrain, the project site is not visible from SR 89. No impacts to scenic resources within a state scenic highway are anticipated. This issue will not be evaluated in the EIR.

Biological Resources – Oak Woodlands. The site does not support any oak woodland habitat and the project would have no impact on oak woodlands. This issue will not be evaluated in the EIR.

Biological Resources – Conflict with Habitat Conservation Plan. There is no adopted habitat conservation plan applicable to the project site and the project would have no impact related to conflict or consistency with such a plan. This issue will not be evaluated in the EIR.

Geology & Soils – Loss of Unique Geologic Features. As reflected in the Geotechnical Evaluation for the project site, there are no unique geologic features on-site and the project would have no impact related to loss of such features. This issue will not be evaluated in the EIR.

Geology & Soils – Hazards Related to Expansive Soils. As reflected in the Geotechnical Evaluation for the project site, soils in the project area are not expansive and the project would have no impact related to construction on expansive soils. This issue will not be evaluated in the EIR.

Hydrology & Water Quality – Adversely Affect Groundwater Supplies. The project would not use groundwater or otherwise deplete groundwater supplies. Based on soil and geologic conditions, the project site does not provide opportunities for groundwater recharge and development of the site would not reduce groundwater recharge, lead to degradation of groundwater quality, or alter the rate and/or flow of groundwater. This issue will not be evaluated in the EIR.

Noise– Airport Noise Exposures. The project site is not within the vicinity of a public or private airport or airstrip and the project site is not exposed to noises from aircraft overflights. Impacts associated with airport noise will not be evaluated in the EIR.

Transportation & Traffic – Air Traffic Patterns. The project site is not within the vicinity of a public or private airport or airstrip and development of the project would have no effect on air traffic patterns. This issue will not be evaluated in the EIR.

4.0 PROJECT APPROVALS

Several permits would be required prior to construction of the proposed project. The responsible agencies and types of permits are listed below. All other regulatory guidance will be discussed in the applicable resources chapter of the EIR.

Approvals Issued by Placer County

Rezoning Approval – The County must review and approve the zoning district boundary adjustment between the residential and open space zones.

General Plan/Community Plan Amendment – The County must amend the Alpine Meadows General Plan to reflect the proposed adjustment between the residential and open space areas.

Tentative Subdivision Map Approval - The County must review and approve the proposed tentative subdivision map.

Conditional Use Permit - The County must issue a Conditional Use Permit to allow development within the Planned Residential Development Combining Zone district.

Design Review and Improvement Plan Approval - The County must review and approve Improvement Plans.

Final Map Approval - The County must review and approve Final Subdivision Maps.

Approvals Issued by Other Agencies

Section 404 Permit - The U.S. Army Corps of Engineers (Corps) regulates the placement of fill or dredged material that affects waters of the United States, which include streams and wetlands. The Corps regulates these activities under authority granted through Section 404 of the Clean Water Act. Impacts to wetlands on the project site will require the project to obtain a Section 404 permit from the Corps.

Section 401 Water Quality Certification – In association with the Section 404 permit issued by the Corps, the project must apply for and obtain a state Water Quality Certification from the Regional Water Quality Control Board in compliance with Section 401 of the Clean Water Act.

Section 402 National Pollutant Discharge Elimination System Permit Compliance – Any project that disturbs more than one acre of land is required to obtain a permit for stormwater discharge under the NPDES program administered by the Regional Water Quality Control Board. The proposed project would be required to obtain coverage under the program for construction phase and post-construction phase stormwater discharge and would be required to develop a Storm Water Pollution Prevention Plan.

Improvement Plan Approval – In addition to approval from Placer County, Improvement Plans must be approved by the Alpine Springs County Water District.

This page intentionally left blank.

COUNTY OF PLACER
Community Development Resource Agency

ENVIRONMENTAL COORDINATION SERVICES

Michael J. Johnson, AICP
Agency Director

E. J. Ivaldi, Coordinator

3091 County Center Drive, Suite 190 ● Auburn ● California 95603 ● 530-745-3132 ● fax 530-745-3080 ● www.placer.ca.gov

INITIAL STUDY & CHECKLIST

This Initial Study has been prepared to identify and assess the anticipated environmental impacts of the following described project application. The document may rely on previous environmental documents (see Section C) and site-specific studies (see Section I) prepared to address in detail the effects or impacts associated with the project.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.) CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to prepare an EIR, use a previously-prepared EIR and supplement that EIR, or prepare a Subsequent EIR to analyze the project at hand. If the agency finds no substantial evidence that the project or any of its aspects may cause a significant effect on the environment, a Negative Declaration shall be prepared. If in the course of analysis, the agency recognizes that the project may have a significant impact on the environment, but that by incorporating specific mitigation measures the impact will be reduced to a less than significant effect, a Mitigated Negative Declaration shall be prepared.

Project Title: **Alpine Sierra Subdivision**	Plus# 20130004
Entitlement(s): Tentative Map, Conditional Use Permit, General Plan Amendment and Rezoning	
Site Area: 47.2 total acres - 45.5 proposed development site	APN: 095-280-022, 095-280-023, 095-280-011, 095-280-021, and 095-450-006
Location: East side of Alpine Meadows Road, approximately 2.7 miles west of State Route 89	

A. BACKGROUND:

Project Site and Location:
The property is an irregularly shaped site located one-fourth mile north of the Alpine Meadows Ski Resort. The project site is located within the Alpine Meadows General Plan area, which encompasses approximately 3,600 acres south of Squaw Valley and west of the Truckee River, about 12 miles south of the Town of Truckee and 5 miles northwest of Tahoe City. Specifically, the ±47.2-acre project site is located in the Bear Creek Valley and consists of five parcels:

- Two parcels (APN 095-280-022 and 095-280-023) located on the east side of Alpine Meadows Road, approximately 2.7 miles west of State Route 89. These two parcels, totaling approximately 45.5 acres, would support all of the proposed development and infrastructure.

- Three additional parcels (APN 095-280-011, -021, and 095-450-006) totaling approximately 1.7 acres, physically separate from the proposed development site, located north of the northwest corner of the main two parcels. These parcels would remain in open space but are part of the proposed subdivision.

Figures provided with the Notice of Preparation (NOP) of an EIR for this project identify the project site's regional location (Figure 1) and the project vicinity (Figure 2). NOP Figure 3 provides an aerial photograph of the project vicinity. As shown on Figures 2 and 3, the ±45.5-acre proposed development site is bound on the west by Alpine Meadows Road, on the north by John Scott Trail and single-family residences in the Bear Creek Association (BCA) neighborhood, and on the south and east by Ginzton Access Road and Chalet Road, the Stanford Alpine Chalet (visitor lodging), single family residences, and the Alpine Meadows Ski Resort. Bear Creek bisects the narrow corridor that comprises the westernmost extent of the project site. The project site is situated in Section 5 of Township 15 North and Range 16 East on the 7.5 minute Tahoe City USGS topographic quadrangle.

Project Description:
As shown in NOP Figure 4 Site Plan, the project proposes approval of a subdivision for the development of 47 residential units on the ±45.5-acre proposed development site. The eastern portion of the site would support 27 lots ranging in size from 0.39 acres to 1.17 acres, averaging 0.72 acres. The 20 lots on the western portion of the proposed development site range in size from 0.08 acres to 0.38 acres, averaging 0.16 acres. Fourteen of the lots on the western end would be configured as halfplex units. The project would also create commonly held open space throughout the proposed development site and build project serving utilities, a small Homeowners Association (HOA) residence, meeting room and equipment storage facility, an amenities lot with hot tub, picnic area, and small support structures, and an onsite sewer lift station. A total of 14.1 acres of the site is proposed to be zoned Open Space (O). This includes an existing 9.8 acres already designated Open Space and the proposal to rezone 5.7 acres to Open Space from Residential Single-Family (RS). The project also proposes to rezone 1.33 acres currently designated Open Space to Residential Single-Family. The proposed rezoning is shown in NOP Figure 5. The project would result in residential development of 27 acres of the site, not including subdivision roadways. The remaining 20 acres would support project roadways or be left in open space. A public trail would also be constructed and dedicated to Placer County. The trail would connect to the existing USFS and partly realigned trail that crosses the eastern portion of the proposed development site. The existing trail also extends to the additional three parcels that are included in the proposed subdivision.

Circulation. The project is proposed to be served by a single private roadway access off of Alpine Meadows Road on the western side of the proposed development site. Circulation through the site would be provided by this single main road extending east from the entrance and terminating in a cul-de-sac. Secondary roads (cul-de-sacs) would intersect the main road to provide access to proposed lots. Roads are proposed to be privately owned and maintained by the HOA. A bridge over Bear Creek and four bridges or culverts over a seasonal stream and two ephemeral drainages are proposed.

Utilities. The proposed project would require construction of onsite and offsite infrastructure to provide water, wastewater, electricity, telephone, and cable television services to the site. Underground utilities would run in easements along roadways within the development. Domestic water would be supplied from Alpine Springs County Water District (ASCWD). Wastewater disposal would also be provided by ASCWD. Most of the homes would use gravity sewer but a few would require individual sewage pumps to access the gravity sewer. One sewer lift station would be required and would be constructed in the northeastern corner of the proposed development site. Solid waste would be collected by the Tahoe Truckee Sierra Disposal and processed at the Eastern Regional Materials Recovery Facility. Electric utilities would be supplied by Liberty Energy. Individual propane tanks would be provided. Offsite improvements to ASCWD's facilities and infrastructure would be necessary to ensure adequate service is available to the project and to increase water supply reliability and pressure throughout the ASCWD service area. As identified by ASCWD the offsite improvements that may be necessary to ensure adequate water supply and pressure to serve the proposed project and to increase water supply reliability and pressure throughout the ASCWD service area include:

- Mitigate zonal supply deficiencies with the installation of three booster pump stations (pump stations B, C and D) that will convey excess supply from Zone 4 to Zones 3, 2 and 1.
- Zone 1 to 2 Pressure Reducing Valve (PRV) Upgrade: Replace existing 2-inch and 3-inch PRVs with 3-inch and 6-inch PRVs. This will provide fire flows from Zone 1 storage during emergencies and reduce maintenance issues by the installation of a 3-inch anti-cavitation valve to address the high differential operating pressure at this site.
- Zone 1 to 2, 8-inch diameter secondary supply main: Install 500 linear feet of 8-inch diameter main along Alpine Meadows Road between White Wolf and John Scott Trail. This improvement provides an increase in service pressures and a significant increase in available fire flows and redundancy throughout Zone 2 and proposed Zone 2A, and provides a needed second connection to Zone 1.
- 6-inch PRV upgrade: Install a 6-inch PRV at Booster Station B2 site. Improves fire flow in Deer Park area and in proposed Pressure Zone 2A.
- John Scott Trail 8-inch Main Upgrade & PRV: Install 820 linear feet of 8-inch diameter main along John Scott Trail between Upper Bench and Mineral Springs and new 3-inch/6-inch PRV vault. This allows for the creation of pressure Zone 2A and allows the upper portions of Juniper Mountain to meet fire flows and service pressures without a dedicated booster pump.
- Rebuild Pump Station A: Rebuild will increase capacity to supply pressure Zone 1 Maximum Day Demand (MDD) with water from Zone 2.
- Additional Capacity to proposed Pump Stations C and D: Added capacity will allow the ASCWD to supply the water system from the bottom during MDD if horizontal wells are out of service.
- Additional Capacity to proposed Pump Station B: Added capacity will allow the ASCWD to supply the water system from the bottom during MDD if horizontal wells are out of service.
- Additional fire flow and redundancy improvement: Install 920 linear feet of 6-inch diameter main connecting the NE portion of Alpine Sierra Development (ASD) to the Bear Creek Subdivision (BCS). This improvement would provide a third point of connection between Zones 1 and 2 with improvements in fire flow along portions of John Scott Trail in the BCS and Alpine Estates Subdivision (AES). This option cannot be a substitute for other improvements.

Placer County and the ASCWD will coordinate to determine which of these improvements are necessary to serve the project. The impacts to construct and operate those improvements will be analyzed in the EIR.

Grading and Drainage. Development of the proposed project would require grading for the residences, HOA maintenance building and residence, roadways, driveways, bridges, retaining walls, utilities, and project amenities. Due to the steepness of the site, future homes and the project infrastructure would require extensive cuts and the use of retaining walls. Because the subdivision is proposed for custom homes, the project applicant would grade for and construct all roadways, utilities (including a sewer lift station) and the proposed HOA residence, while grading for homes would be undertaken by individual lot owners. The Preliminary Grading Plan indicates that while substantial grading is necessary, cuts and fills across the site are expected to balance, but may involve significant export and import of materials due to the lack of suitability of the excavated material to be used as structural fill due to rocky nature of the site.

Low Impact Development (LID) systems to treat site runoff are included in the project plans. Drainage systems proposed include the use of cut-off ditches, cross culverts and level spreaders to capture and disburse runoff from undeveloped areas. As described above, the proposed development site contains two primary drainage systems; Bear Creek at the western end of the property and an unnamed seasonal stream in the eastern area of the site that flows north-south into Bear Creek. Runoff from the site flows to the northwest towards Bear Creek.

BCA Access Alternative Description:
As discussed in the NOP, a potentially feasible project alternative is currently being considered. Unless the BCA Access Alternative is determined to be infeasible during the course of EIR preparation, it is expected to be evaluated in the EIR as a "co-equal" alternative, meaning that it will be evaluated at the same level of detail as the proposed project. To support the co-equal analysis of the project alternative, the analysis presented throughout this Initial Study reflects consideration of both the proposed project and the BCA Access Alternative.

As shown in NOP Figure 6 BCA Access Alternative Site Plan, this project alternative would eliminate the central portion of the proposed on-site road and would instead provide a second vehicular access point in the northeastern portion of the project site. The access road would leave the northern property boundary between lots 21 and 22, cross an existing Open Space parcel located between the project site and the BCA neighborhood, and connect with the John Scott Trail road within the BCA neighborhood. This alternative would also eliminate the need for the sewer lift station proposed near lots 21 and 22 (see NOP Figure 4).

B. ENVIRONMENTAL SETTING:

Location	Zoning	General Plan/Community Plan Designations	Existing Conditions and Improvements
Site	**RS PD=4.0** (Residential Single Family, Planned Development= 4 units per acre) **RS-B-20 PD=2.0** (Residential Single Family, Combining Building Site Size of 20,000 square feet minimum, Planned Development = 2 units per acre) **RS-B-20 PD=4.0** (Residential Single Family, Combining Building Site Size of 20,000 square feet minimum, Planned Development = 4 units per acre) **O** (Open Space)	Residential (R)	Vacant
North	**RS** (Residential Single Family) **O** (Open Space)	Residential (R)	Residential
South	**RS PD=8** (Residential Single Family, Planned Development = 8 units per acre)	Residential (R) & Open Space (O)	Condominiums, Ski Resort

	O (Open Space)		
East	**RS-B-20 PD=2.0** (Residential Single Family, Combining Building Site Size of 20,000 square feet minimum, Planned Development = 2 units per acre) **RS PD=3** (Residential Single Family, Planned Development = 3 units per acre) **O** (Open Space)	Residential (R) & Open Space (O)	Vacant and Open Space
West	**RS-B-20 PD=2.0** (Residential Single Family, Combining Building Site Size of 20,000 square feet minimum, Planned Development = 2 units per acre) **RS** (Residential Single Family) **RS PD=3** (Residential Single Family, Planned Development = 3 units per acre) **O** (Open Space)	Residential (R)	Residential & Open Space

C. PREVIOUS ENVIRONMENTAL DOCUMENT:

The County has determined that an Initial Study shall be prepared in order to determine whether the potential exists for unmitigatable impacts resulting from the proposed project. Relevant analysis from the County-wide General Plan Certified EIR and other project-specific studies and reports were used to provide background information for this Initial Study. The decision to prepare the Initial Study utilizing the analysis contained in the General Plan Certified EIR, and project-specific analysis summarized herein, is sustained by Sections 15168 and 15183 of the CEQA Guidelines.

Section 15168 relating to Program EIRs indicates that where subsequent activities involve site-specific operations, the agency would use a written checklist or similar device to document the evaluation of the site and the activity, to determine whether the environmental effects of the operation were covered in the earlier Program EIR. A Program EIR is intended to provide the basis in an Initial Study for determining whether the later activity may have any significant effects. It will also be incorporated by reference to address regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.

The following program-level EIR is hereby incorporated by reference in this Initial Study. Where applicable throughout this Initial Study analysis, the relevant information from the EIR is summarized

- ➔ Placer County General Plan EIR

Section 15183 states that “projects which are consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or site.” Thus, if an impact is not peculiar to the

project or site, and it has been addressed as a significant effect in the prior EIR, or will be substantially mitigated by the imposition of uniformly applied development policies or standards, then additional environmental documentation need not be prepared for the project solely on the basis of that impact.

The Placer County General Plan EIR is available for review Monday through Friday, 8am to 5pm, at the Placer County Community Development Resource Agency, 3091 County Center Drive, Auburn, CA 95603 and in the Tahoe Division Office, 565 West Lake Blvd., Tahoe City, CA 96145.

D. EVALUATION OF ENVIRONMENTAL IMPACTS:

The Initial Study checklist recommended by the CEQA Guidelines is used to determine potential impacts of the proposed project on the physical environment. The checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by the project (see CEQA Guidelines, Appendix G). Explanations to answers are provided in a discussion for each section of questions as follows:

a) A brief explanation is required for all answers including “No Impact” answers.
b) “Less Than Significant Impact” applies where the project’s impacts are insubstantial and do not require any mitigation to reduce impacts.
c) "Less Than Significant with Mitigation Measures" applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact" to a "Less than Significant Impact." The County, as lead agency, must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from earlier analyses may be cross-referenced).
d) "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
e) All answers must take account of the entire action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts [CEQA Guidelines, Section 15063(a)(1)].
f) Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration [CEQA Guidelines, Section 15063(c)(3)(D)]. A brief discussion should be attached addressing the following:
   - ➔ **Earlier analyses used** – Identify earlier analyses and state where they are available for review.
   - ➔ **Impacts adequately addressed** – Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards. Also, state whether such effects were addressed by mitigation measures based on the earlier analysis.
   - ➔ **Mitigation measures** – For effects that are checked as “Less Than Significant with Mitigation Measures,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
g) References to information sources for potential impacts (i.e. General Plans/Community Plans, zoning ordinances) should be incorporated into the checklist. Reference to a previously-prepared or outside document should include a reference to the pages or chapters where the statement is substantiated. A source list should be attached and other sources used, or individuals contacted, should be cited in the discussion.

I. AESTHETICS – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Have a substantial adverse effect on a scenic vista? (PLN)	X			
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway? (PLN)				X
3. Substantially degrade the existing visual character or quality of the site and its surroundings? (PLN)	X			
4. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? (PLN)	X			

Discussion- Items I-1, 3:
The project site is located in northeastern Placer County, within the community of Alpine Meadows and set against the backdrop of the northeastern Sierra Nevada Mountains. The surrounding mountainous terrain and landscape include open fir and pine forests, rock outcroppings, perennial streams, seasonal streams and ephemeral drainages, which provide substantial scenic resources. Scenic vistas are generally available from the mountains surrounding the valley as well as from various locations within the valley, such as at rock outcroppings and meadows where openings in the trees allow for broad and expansive views.

The proposed development site, which is generally the same under the proposed project and the BCA Access Alternative, is visible from surrounding slopes and ridgelines, nearby land uses and local roadways. For example, expansive views of the Alpine Meadows valley, including the proposed development site and surrounding residential development, are available from the mountains surrounding the area to the north, west, and south. More specifically, the site may be visible from locations along the Five Lakes Trail; several residents of the Bear Creek Association neighborhood to the north as well as residents of the condominium development to the south along Chalet Road and visitors to the Stanford Alpine Chalet are afforded views of portions of the project site; and motorists on Alpine Meadows Road and smaller roads in the project vicinity may be afforded views of the proposed development site.

The EIR will evaluate the degree to which the project or the BCA Access Alternative would affect scenic vistas and degrade the existing visual character or quality of the project site and its surroundings. Visual simulations from critical viewpoints surrounding the project site will be prepared to demonstrate the project's effects to the existing visual character or quality of site and will characterize any adverse impacts to the site and its surroundings.

Discussion- Items I-2:
Although not an Officially Designated State Scenic Highway, State Route (SR) 89 is identified by the California Department of Transportation (Caltrans) as an Eligible State Scenic Highway (Caltrans 2013). SR 89 is located approximately 2.7 miles east of the project site and due to tall, intervening vegetation (i.e., pine and fir trees) and mountainous terrain, the project site is not visible from SR 89 and therefore, no impacts to scenic resources within a state scenic highway are anticipated under either the proposed project or the BCA Access Alternative.

Discussion- Item I-4:
Project infrastructure and new residential buildings have the potential to increase daytime glare and to introduce substantial amounts of new lighting that would impact nighttime views in the area. Metal guard rails and other roadway safety railings have the potential to increase daytime glare. Residential finish materials such as windows, metallic siding, and safety or decorative railing may create new sources of glare that could be visible to viewers in the immediate area. If not properly shielded and directed downward, outdoor residential lighting has the potential to adversely affect nighttime views by introducing a substantial amount of new lighting to the project area that could be visible from adjacent residential neighborhoods, community roadways, and public trails. The homesites are in generally the same location and configuration under both the proposed project and the BCA Access Alternative. The EIR will evaluate the degree to which the project or the BCA Access Alternative would increase light or glare to the project site and its surroundings and will propose mitigation measures to address any impacts that would occur.

II. AGRICULTURAL & FOREST RESOURCES – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (PLN)				X
2. Conflict with General Plan or other policies regarding land use buffers for agricultural operations? (PLN)				X
3. Conflict with existing zoning for agricultural use, a Williamson Act contract or a Right-to-Farm Policy? (PLN)				X
4. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (PLN)				X
5. Involve other changes in the existing environment which, due to their location or nature, could result in the loss or conversion of Farmland (including livestock grazing) or forest land to non-agricultural or non-forest use? (PLN)				X

Discussion- Item II-1: The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance (Farmland). There would be no impact to these farmland resources under either the proposed project or the BCA Access Alternative.

Discussion- Items II-2, 3, 5: The project site is not adjacent to any agricultural land and does not conflict with the General Plan or other policies regarding land use buffers for agricultural operations. The site does not conflict with any existing agricultural zoning, Williamson Act contract, or Right-to-Farm Policy. It would not result in the loss or conversion of Farmland for other purposes. While the site supports forest, it is not used or designated for any forestry use. Further, the project would not remove the forest habitat from large portions of the site. Neither the proposed project nor the BCA Access Alternative would result in the loss or conversion of forest land to non-forest uses.

Discussion- Item II-4: The project site and adjacent parcels are not designated for or used for timberland production. The proposed project does not conflict with existing zoning of the site or in the vicinity. The majority of subject property is zoned under three residential single-family zoning districts with varying minimum parcel sizes and a portion of the site is zoned Open Space. These residential zoning designations do not allow timber harvesting or production. The Open Space zoning designation does allow for timber harvesting and production; however the project site has not historically supported any timber harvest or forestry activities. There would be no impact to forest land or timberland as defined in the Public Resources Code or Government Code under either the proposed project or the BCA Access Alternative.

III. AIR QUALITY – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Conflict with or obstruct implementation of the applicable air quality plan? (PLN, Air Quality)	X			
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (PLN, Air Quality)	X			
3. Result in a cumulatively considerable net increase of any criteria for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (PLN, Air Quality)	X			
4. Expose sensitive receptors to substantial pollutant concentrations? (PLN, Air Quality)	X			
5. Create objectionable odors affecting a substantial number of people? (PLN, Air Quality)				**X**

Discussion- Items III-1-4: The project site is located in the Mountain Counties Air Basin. The Placer County portion of this basin is designated non-attainment for the following air quality standards:

- State and federal standards for Ozone
- State standards for coarse particulate matter (PM10)
- Federal standards for fine particulate matter (PM2.5)

For the state standards for PM2.5 and carbon monoxide, the basin is unclassified (meaning there is not enough data to determine if the state standards have been attained).

The proposed project and the BCA Access Alternative would have similar construction and operational characteristics with respect to air pollution emissions. Construction and operation of either the proposed project or the BCA Access Alternative could generate air pollutant emissions associated with the use of motor vehicles, dust emissions during grading activities, particulate matter emissions from use of wood-burning stoves and fireplaces, new/increased use of utilities and use of consumer products (cleaning supplies and personal care products) and landscaping equipment. New emissions associated with the project or project alternative could result in a significant impact to regional air quality.

The EIR will utilize the most recent version of the California Emissions Estimator Model (CalEEMod) program to estimate air pollutant emissions associated with construction and operation. The EIR air quality chapter will discuss the modeling and evaluate these emissions in relation to standards adopted

by the Placer County Air Pollution Control District. Mitigation measures, if necessary, will be consistent with PCAPCD Rules and Regulations.

Discussion- Item III-5: Under both the proposed project and the BCA Access Alternative, the project would construct a new residential development. Residential land uses do not generate substantial objectionable odors that could affect other residences nearby.

IV. BIOLOGICAL RESOURCES – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
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 & Game, U.S. Fish & Wildlife Service or National Oceanic and Atmospheric Administration Fisheries? (PLN)	X			
2. Substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number of restrict the range of an endangered, rare, or threatened species? (PLN)	X			
3. Have a substantial adverse effect on the environment by converting oak woodlands? (PLN)				**X**
4. Have a substantial adverse effect on any riparian habitat or other sensitive natural community, including oak woodlands, identified in local or regional plans, policies or regulations, or by the California Department of Fish & Game, U.S. Fish & Wildlife Service, U.S. Army Corps of Engineers or National Oceanic and Atmospheric Administration Fisheries? (PLN)	X			
5. Have a substantial adverse effect on federal or state protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) or as defined by state statute, through direct removal, filling, hydrological interruption, or other means? (PLN)	X			
6. Interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nesting or breeding sites? (PLN)	X			
7. Conflict with any local policies or ordinances that protect biological resources, including oak woodland resources? (PLN)	X			

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
8. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (PLN)				X

Discussion- Item IV-1, 2:
EcoSynthesis Scientific & Regulator Services, Incorporated, prepared a Biological Survey Report for the proposed project site in 2012. As detailed in the Biological Survey Report, onsite habitat consists primarily of White Fir forest with lesser acreages of Montane Chaparral, Montane Riparian, and rocky forb-subshrub vegetation. While the site is dominated by white fir, numerous Jeffrey pine trees occur on the steep slopes of the project site and lodgepole pine trees were identified near the Bear Creek drainage. Montane Riparian habitat is generally associated with drainage ravines traversing the site with the largest areas of riparian habitat occurring along Bear Creek in the narrow corridor comprising the western extent of the proposed development site and along a riverine feature located in the east-central portion of the site. Four pockets of riparian habitat that are not immediately adjacent to drainages also occur in the northeastern portion of the site. Dominant species identified in riparian areas include mountain alder, red-osier dogwood, and Scouler's willow.

In addition to vegetation mapping, the Biological Survey Report includes a record of plants and animals observed onsite and an assessment of the potential for onsite habitat to support special-status plant and wildlife species. The project area was found to provide suitable habitat for two special-status plant species including Donner Pass buckwheat and Munro's desert mallow. A third special-status plant species, Northern meadow sedge, was determined to have marginal potential to occur onsite. The proposed development site was also found to provide suitable habitat for four special-status wildlife species including Sierra marten, Sierra Nevada snowshoe hare, Cooper's hawk, and yellow warbler. Long-legged myotis and willow flycatcher were determined to have marginal potential to occur onsite due to low foraging value of habitat and lack of willow thickets.

The existing studies did not evaluate habitats, species, or other biological resources that may be supported in the off-site parcel that would support the access road contemplated under the BCA Access Alternative. While it is expected that biological resources in that area would be similar to those found on—site, additional site-specific resource evaluation will be conducted.

The EIR will evaluate existing data and information from the biological resource survey prepared for the proposed project as well as the new resource evaluation for the BCA Access Alternative. All potentially significant direct and indirect impacts to special-status plant and wildlife species and habitat will be identified and discussed in the EIR. Mitigation measures for all identified impacts will be developed in consultation with Placer County and representatives of applicable regulatory agencies.

Discussion- Item IV-3:
The proposed development site does not contain oak woodlands, and would therefore not have an adverse effect on any oak woodlands environment under either the proposed project or the BCA Access Alternative.

Discussion- Items IV-4, 5:
Montane riparian habitat and riverine areas occur on the proposed development site. Construction of roadways, installation of utility infrastructure, development of building pads and construction of residential structures could result in the direct removal of riparian habitat. In addition, road development would require crossing riparian habitat and jurisdictional waters of the U.S. Depending on engineering of project infrastructure, direct impacts (e.g., fill) within federally jurisdictional or non-jurisdictional wetlands or other

waters may occur and may be considered significant. Even if fills were avoided, project construction or operation (e.g., stormwater management and/or discharge) could result in the discharge of sediment or in modification of surface runoff amounts or concentration so as to result in erosion and consequent contribution of sediment to the Truckee River watershed. Since sediment impairment is already recognized within the watershed, this would likely be regarded as a significant impact.

The EIR will evaluate existing data and information from the biological resource survey prepared for the proposed project as well as the new resource evaluation for the BCA Access Alternative. All potentially significant direct and indirect impacts to riparian habitat, other sensitive natural communities and federal and state waters and wetland will be identified and discussed in the EIR. Mitigation measures for all identified impacts will be developed in consultation with Placer County and representatives of applicable regulatory agencies.

Discussion- Item IV-6:
While the proposed development site supports various upland habitat types, there are no known native resident or migratory wildlife corridors within the project area. However, the site is located between existing development to the north and south, and while narrow in width in some areas, wildlife may use the site to access undeveloped lands to the east. The BCA Open Space parcel is also narrow but could support wildlife movement. Within the site boundaries montane riparian habitat occurs along drainage ravines. However, use of the drainages by special-status aquatic vertebrates including Lahontan cutthroat trout (LCT) is not anticipated because Bear Creek includes non-native trout species, and the stream reach located within the project boundary does not include spawning substrate for LCT.

The proposed development site is primarily populated with white fir with lesser occurrences of Jeffrey pine and lodgepole pine also occurring onsite. Raptors and smaller migratory birds may potentially use onsite habitat for nesting and breeding sites, and vegetation removal or ground disturbance may result in direct and indirect impacts to species subject to the Migratory Bird Treaty Act.

The EIR will evaluate existing data and information from the project biological resource survey as well as the new resource evaluation for the BCA Access Alternative pertaining to wildlife corridors and use of onsite habitat as potential breeding and nesting sites. All potentially significant direct and indirect impacts will be identified and discussed in the EIR and mitigation measures will be developed in consultation with Placer County and representatives of applicable regulatory agencies.

Discussion- Item IV-7:
Due to the presence of perennial streams, seasonal streams, ephemeral drainages, wetlands and montane riparian habitat, development of the site under either the proposed project or the BCA Access Alternative would be subject to policies established in the Placer County General Plan Natural Resources Element for the protection of the County's rivers, streams, creeks and wetland and riparian areas. Applicable policies include the establishment of sensitive habitat buffers around perennial and intermittent streams and sensitive habitats to be protected. Additional policies regarding stream encroachment, "no net loss" for wetland areas, suitable habitat for indigenous wildlife species, and the use of native and compatible non-native drought-resistant species in landscape plans may also be applicable to the proposed project.

The EIR will evaluate the potential for the proposed project or the BCA Access Alternative to conflict with local policies established for the preservation of biological resources. All potential inconsistencies with applicable policies and ordinances will be identified and discussed in the EIR and mitigation measures will be developed in consultation with Placer County.

Discussion- Item IV-8:
Placer County has not adopted a Habitat Conservation Plan or Natural Communities Conservation Plan and the Placer County Conservation Plan (PCCP) program currently being developed would not apply to the project region. In addition, there are no other approved local, regional, or state habitat conservation plans that are applicable to the project area. Therefore, there would be no impacts related to conflicts with adopted conservation plans resulting from either the proposed project or the BCA Access Alternative.

V. CULTURAL RESOURCES – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Substantially cause adverse change in the significance of a historical resource as defined in CEQA Guidelines, Section 15064.5? (PLN)			X	
2. Substantially cause adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines, Section 15064.5? (PLN)			X	
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (PLN)			X	
4. Have the potential to cause a physical change, which would affect unique ethnic cultural values? (PLN)				X
5. Restrict existing religious or sacred uses within the potential impact area? (PLN)				X
6. Disturb any human remains, including these interred outside of formal cemeteries? (PLN)			X	

Discussion- Items V-1, 2:
Some of the oldest archaeological resources in the Tahoe Region have been found in the Truckee River Canyon near the proposed project site, suggesting occupation as long as 9,000 years ago. The project site falls within historic Native American Washoe territory, a tribe that is still active and present in the Lake Tahoe area today. In addition, the greater region of the project area played a historical role in the transportation, logging and herding industries throughout the 19th and 20th centuries. Over 20 cultural sites have been recorded in a 2600-acre study of the nearby Alpine Meadows Ski Resort uncovering heritage and historic themes such as: prehistoric hunting, plant food processing, tool stone acquisition and habitation, historic logging, Basque sheep herding and recreational skiing.

In 2001, archaeologist Susan Lindström, PhD, conducted a comprehensive literature review and archaeological reconnaissance of the project site and found no significant prehistoric or historic artifacts, features or sites. Dr. Lindström updated the study in 2012 and found there have been no changes in the presence of cultural resources within the project site since her initial report. Dr. Lindström concluded that no further pre-construction considerations were warranted.

The archaeological investigation consisted of a literature review of prehistoric and historical themes for the project area, a records search at the North Central Information Center (NCIC) at California State University Sacramento, and archaeological reconnaissance of the site in November of 2001. The report documents that while the project area falls within the center of the Washoe territory with primary use attributed to the northern Washoe or *Wa She Shu*, the closest Washoe ethnographic encampments in the region are noted in west Truckee, around Donner Lake and at Tahoe City. The updated to the analysis completed in 2012 included a supplemental records search at the NCIC, updated consultation with the Washoe Tribe of Nevada and California, and review of the proposed project plans. The updated report found that there have been no changes in the presence of cultural resources within the project site.

While no significant archaeological resources were identified within the proposed development site, the archaeological report indicated that buried or concealed resources could potentially be present and could be unearthed during construction or ground disturbance activities. The following standard construction

condition will apply to this project or the BCA Access Alternative, which will ensure that any buried or concealed resources unearthed during construction would be appropriately handled to avoid significant impacts:

> If any archaeological artifacts, exotic rock (non-native), or unusual amounts of shell or bone are uncovered during any on-site construction activities, all work must stop immediately in the area and a SOPA-certified (Society of Professional Archaeologists) archaeologist retained to evaluate the deposit. The Placer County Planning Services Division and Department of Museums must also be contacted for review of the archaeological find(s). If the discovery consists of human remains, the Placer County Coroner and Native American Heritage Commission must also be contacted. Work in the area may only proceed after authorization is granted by the Placer County Planning Services Division. A note to this effect shall be provided on the Improvement Plans for the project. Following a review of the new find and consultation with appropriate experts, if necessary, the authority to proceed may be accompanied by the addition of development requirements which provide protection of the site and/or additional mitigation measures necessary to address the unique or sensitive nature of the site.

Discussion- Item V-3:
The project site is not located in an area of high sensitivity for paleontological resources and therefore, impacts are not anticipated. The following standard construction condition will apply to this project or to the BCA Access Alternative, which will ensure that any paleontological resources unearthed during construction would be appropriately handled to avoid significant impacts:

> A note shall be placed on the Improvement Plans that if paleontological resources are discovered on-site, the applicant shall retain a qualified paleontologist to observe grading activities and salvage fossils as necessary. The paleontologist shall establish procedures for paleontological resource surveillance and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of fossils. If major paleontological resources are discovered, which require temporarily halting or redirecting of grading, the paleontologist shall report such findings to the project developer, and to the Placer County Department of Museums and Planning Services Division. The paleontologist shall determine appropriate actions, in cooperation with the project developer, which ensure proper exploration and/or salvage. Excavated finds shall be offered to a State-designated repository such as Museum of Paleontology, U.C. Berkeley, the California Academy of Sciences, or any other State-designated repository. Otherwise, the finds shall be offered to the Placer County Department of Museums for purposes of public education and interpretive displays. These actions, as well as final mitigation and disposition of the resources shall be subject to approval by the Department of Museums. The paleontologist shall submit a follow-up report to the Department of Museums and Planning Services Division which shall include the period of inspection, an analysis of the fossils found, and present repository of fossils.

Discussion- Items V-4, 5:
The 2001 archaeological study and 2012 study update did not identify unique ethnic cultural values or religious/sacred uses within the project site. Therefore, construction and operation of the proposed project or the BCA Access Alternative is not anticipated to have potential to cause a physical change that would affect unique ethnic cultural values or restrict existing religious or sacred uses of the site.

Discussion- Item V-6:
The project site was not identified as a formal or informal burial ground in the archaeological studies prepared for the proposed project and therefore, human remains are not anticipated to be impacted during construction activities. However, similar to the buried or concealed historical and archaeological resources, grading and other ground disturbing activities may encounter buried, previously unknown remains on the site. In the event that human remains are encountered during construction of the

proposed project or the BCA Access Alternative, all construction activities would be stopped immediately and the County Coroner's Office would be contacted pursuant to Public Resources Code (PRC) Section 7050.5. Further, as required by PRC Section 5097.94, 5097.98 and 5097.99, if the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) should be notified within 24 hours of determination and the NAHC should notify designated Most Likely Descendants (in this case the Washoe Tribe), who should provide recommendations for the treatment of the remains within 24 hours. Therefore, while human remains are not anticipated to occur onsite, compliance with existing regulations would ensure that impacts to human remains during construction are less than significant.

VI. GEOLOGY & SOILS – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Expose people or structures to unstable earth conditions or changes in geologic substructures? (ESD)	X			
2. Result in significant disruptions, displacements, compaction or overcrowding of the soil? (ESD)	X			
3. Result in substantial change in topography or ground surface relief features? (ESD)	X			
4. Result in the destruction, covering or modification of any unique geologic or physical features? (ESD)				X
5. Result in any significant increase in wind or water erosion of soils, either on or off the site? (ESD)	X			
6. Result in changes in deposition or erosion or changes in siltation which may modify the channel of a river, stream, or lake? (ESD)	X			
7. Result in exposure of people or property to geologic and geomorphological (i.e. Avalanches) hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards? (ESD)	X			
8. Be located on a geological 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? (ESD)	X			
9. Be located on expansive soils, as defined in Chapter 18 of the California Building Code, creating substantial risks to life or property? (ESD)				X

Discussion- Items VI-1, 2, 3, 5, 6, 8:
The proposed project or the BCA Access Alternative would result in the development of approximately 33 acres of undeveloped land with roads, a sewer lift station, 33 single family residential units and 14 residential halfplex units. Potential environmental effects associated with development of the project may occur as a result of disruption and compaction of soils during grading, excavating and building pad preparation. In addition, if not properly protected, graded and excavated areas may be exposed to the erosive forces of wind and water which could potentially result in increased erosion and/or siltation of local rivers and streams.

According to the Geotechnical Study prepared for the project, near surface soils on the site consist of approximately 4 to 18 inches of silty sand containing organic material (i.e., topsoil) over a majority of the site. The topsoil is anticipated to be underlain by medium dense to very dense silty sand with gravel and silty gravel with sand accompanied by cobbles and boulders up to approximately 4 feet in diameter (Holdrege & Kull 2013). Depth to rock is anticipated to be variable across the site. The project site and the surrounding Alpine Meadows Valley are located in a potentially active seismic area. Potentially active faults in the area include the Dog Valley Fault (approximately 12 miles northwest of the site), a group of unnamed faults southeast of Truckee (approximately 8 and 10 miles northeast of the site), the Polaris Fault (approximately 12 miles to the northeast) and the North Tahoe and Dollar Point Faults (approximately 8 miles to the southeast) (Holdrege & Kull 2013).

The EIR will include an analysis of the potential effects of the proposed project and the BCA Access Alternative associated with geology and soils and if warranted, will provide mitigation measures to address any impacts associated with construction and/or operation of the proposed project.

Discussion – Item VI-4:
Based on the result of the Geotechnical Report prepared for the proposed project, no unique geologic or physical features occur on or underlay the project site. Therefore, no impacts to unique geologic or physical features would occur as a result of development of the project site under the proposed project or the BCA Access Alternative.

Discussion- Item VI-7:
An Avalanche Hazard Study for the proposed development site was prepared by Larry Heywood in July 2013. Lands subject to avalanches are referred to as Potential Avalanche Hazard Areas (PAHAs). The Placer County Code establishes construction requirements including certification from California licensed architect or engineer experienced in snow design (in conjunction with a recognized avalanche expert or team of experts) that the structure will be safe under the anticipated loads and conditions of an avalanche for projects within any designated PAHAs (Heywood 2013). Three PAHAs are located within the proposed development site.

The EIR will include an analysis of potential risks associated with avalanches, PAHAs and development of the project site under the proposed project and the BCA Access Alternative. If warranted, the EIR will provide mitigation measures to address any impacts associated with construction and/or operation of the proposed project and exposure of existing or future residents to risks associated with avalanches.

Discussion – ItemVI-9:
According to the Geotechnical Report prepared for the proposed project, expansive soils do not occur on the proposed development site (Holdrege & Kull 2013). Therefore, development of the site under the proposed project or the BCA Access Alternative would not create substantial risks to life or property and as such, no impacts are anticipated to occur.

VII. GREENHOUSE GAS EMISSIONS – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant and/or cumulative impact on the environment? (PLN, Air Quality)	X			
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (PLN, Air Quality)	X			

Discussion- Items VII-1 & 2:
Climate change, which involves significant changes in global climate patterns, has been associated with an increase in the average temperature of the atmosphere near the Earth's surface. This warming has been attributed to an accumulation of greenhouse gases (GHGs) in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Although GHGs have historically been generated by natural factors, increasingly, human activity is contributing to a measurable change in the temperature of the earth's surface and the resultant changes in global climate patterns.

In 2006, the State of California enacted Assembly Bill (AB) 32, the Global Warming Solutions Act. AB 32 requires a reduction in human-generated statewide greenhouse gas (GHG) emissions to 1990 levels by 2020. The state's plan for meeting these reduction targets is outlined in the California Air Resource Board's (CARB) Climate Change Scoping Plan (CARB 2008).

The CARB-approved CalEEMod program will be used to estimate GHG emissions associated with project construction and operation. Characteristics of the proposed project construction and operation related to GHG emissions are expected to be similar to the characteristics of the BCA Access Alternative. The operational analysis will include consideration of GHG emissions generated onsite, from vehicle use associated with the project, and generated offsite as related to energy consumption, solid waste disposal, water usage, and wastewater treatment. The EIR will evaluate the GHG emissions estimates in relation to regional and statewide goals for GHG emission reductions to find whether the project may have a direct or indirect impact on the environment. In particular, the EIR will determine consistency of the project and the BCA Access Alternative with AB32 goals, and whether or not the project would conflict attainment of those goals.

Mitigation measures will be developed in consultation with the Planning Services Division and the Placer County Air Pollution Control District.

VIII. HAZARDS & HAZARDOUS MATERIALS – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous or acutely hazardous materials? (EHS)			X	
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? (EHS)			X	
3. Emit hazardous emissions, substances, or waste within one-quarter mile of an existing or proposed school? (PLN, Air Quality)				X
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (EHS)				X

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (PLN)				X
6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing in the project area? (PLN)				X
7. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (PLN)	X			
8. Create any health hazard or potential health hazard? (EHS)				X
9. Expose people to existing sources of potential health hazards? (EHS)				X

Discussion- Item VIII-1, 2:
During construction under either the proposed project or the BCA Access Alternative, there is the potential for the use, storage, and transportation of hazardous substances and wastes on and/or to and from the proposed development site. These may include fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, storage containers and applicators containing such materials. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials represent a potential threat to human health and the environment if not properly treated. Accident prevention and containment are the responsibility of the construction contractors, and provisions to properly manage hazardous substances and wastes are typically included in construction specifications. All contractors are required to comply with applicable laws and regulations regarding hazardous materials and hazardous waste management and disposal. In addition, the project or the BCA Access Alternative would be required to comply with the statewide Construction General Permit (part of the National Pollutant Discharge Elimination System). This requires preparation and implementation of a stormwater pollution prevention plan (SWPPP) and development of best management practices (BMPs) for all phases of construction to control potential pollutants generated by the construction activities. Compliance with existing regulations and implementation of required plans and BMPs will minimize the potential for impacts associated with the use, transport and handling of typically hazardous materials associated with construction activities. Therefore, impacts are anticipated to be less than significant under either the proposed project or the BCA Access Alternative.

Discussion- Item VIII-3:
The project site is not located within one-quarter mile of an existing or proposed school. The nearest existing school, Squaw Valley Academy, is located approximately 3 miles north of the site in Squaw Valley. The closest schools in the Tahoe-Truckee Unified School District, Tahoe Lake Elementary and North Tahoe High School, are located approximately 5 miles southeast and 7 miles east of the site, respectively. Therefore, no impacts to schools with one-quarter mile of the project site would occur under the proposed project or the BCA Access Alternative.

Discussion- Item VIII-4:
An Environmental Data Resource, Incorporated (EDR) Radius Map Report was prepared in May 2013 to evaluate known risks in the area surrounding the proposed development site. Development of the report consisted of a search of available environmental records in order to fulfill the search requirements

developed for the evaluation of environmental risks associated with the project site (EDR 2013). According to the EDR Report, a total of 10 sites and 17 listings (several sites were identified on more than one database) within an approximate one-quarter mile radius of the proposed development site were identified on federal, state, and/or tribal environmental databases (EDR 2013). The project site was not listed on any of the databases searched by EDR.

Because the project site was not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, development under either the proposed project or the BCA Access Alternative would not create a significant hazard to the public or the environment. As such, no impacts are anticipated to occur.

Discussion- Item VIII-5, 6:
The project site is not located within the boundaries of an airport land use plan and is not located within two miles of a public/public use airport. The nearest airport to the project site, the Truckee Tahoe Airport, is located approximately 11 miles northeast of the site in the town of Truckee. In addition, there are no private airstrips in the Alpine Meadows Valley/Bear Creek Valley or Squaw Valley. Therefore, development of the project site with residential structures would not create a safety hazard for people residing in the area. No impacts to public or private airports or airstrips are anticipated to occur under either the proposed project or the BCA Access Alternative.

Discussion- Item VIII-7:
Existing residential development interspersed with fir and pine forests are located north and south of the proposed development site. While the proposed development would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, the introduction of additional residential structures to the area under either the proposed project or the BCA Access Alternative could present an increased potential for wildland fires associated with human error, utilities, and automobiles. Therefore, the EIR will evaluate the potential for increased wildland fire risks associated with development of the proposed project and the project alternative. Both the project and the alternative will be analyzed for consistency with the requirements of SB 1241 pertaining to requirements for fire hazard mitigation, emergency response and evacuation in very high fire hazard severity zones. All potential significant impacts will be identified and discussed in the EIR and mitigation measures will be developed in consultation with Placer County and the serving fire agency.

Discussion- Item VIII-8, 9:
The project site was not listed on any of the databases searched by EDR and therefore, development is not anticipated to expose people to existing sources of health hazards under either the proposed project or the BCA Access Alternative.

IX. HYDROLOGY & WATER QUALITY – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Violate any federal, state or county potable water quality standards? (EHS)	X			
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lessening of local groundwater supplies (i.e. 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)? (EHS)				X
3. Substantially alter the existing drainage pattern of the site or area? (ESD)	X			
4. Increase the rate or amount of surface runoff? (ESD)	X			
5. Create or contribute runoff water which would include substantial additional sources of polluted water? (ESD)	X			
6. Otherwise substantially degrade surface water quality?(ESD)	X			
7. Otherwise substantially degrade ground water quality? (EHS)				X
8. 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? (ESD)	X			
9. Place within a 100-year flood hazard area improvements which would impede or redirect flood flows? (ESD)	X			
10. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (ESD)				**X**
11. Alter the direction or rate of flow of groundwater? (EHS)				X
12. Impact the watershed of important surface water resources, including but not limited to Lake Tahoe, Folsom Lake, Hell Hole Reservoir, Rock Creek Reservoir, Sugar Pine Reservoir, French Meadows Reservoir, Combie Lake, and Rollins Lake? (EHS, ESD)	X			

Discussion- Item IX-1, 3, 4, 5, 6, 12:
The Bear Creek Valley (in which the project site is situated) is located on the westerly side of the Truckee River, approximately 5 miles west of Tahoe City and 10 miles southwest of Truckee. Mountains to the north separate the Bear Creek Valley from Squaw Valley and associated development (mountainous

terrain to the east and south also surround Bear Creek Valley). According to the Alpine Meadows General Plan, the Bear Creek Valley consists of a 3,600-acre watershed that drains to Bear Creek and ultimately feeds into the Truckee River (Placer County 1968). The general topography of the valley is somewhat steep and most of the valley is covered with alpine forests and large granite boulders. The proposed development site is bound by Alpine Meadows Road to the west, Ginzton Access Road and Chalet Road to the south, and John Scott Trail to the north. The majority of the site is situated on north-facing slopes and elevations range from about 6,600 feet above sea level along the north-central site boundary to about 7,080 feet at the southeast corner. Bear Creek bisects the narrow corridor of the site near Alpine Meadows Road and the property is drained through two primary systems: Bear Creek and an unnamed seasonal stream in the eastern portion of the property. The seasonal stream traverses the site from south to north and flows into Bear Creek north of the site. The site is also drained by other minor ephemeral drainages in the northeast end of the property. Runoff from the site generally flows to the northwest towards Bear Creek.

During construction of either the proposed project or the BCA Access Alternative, vegetation removal, grading and other ground disturbing activities, material stockpiling and the presence of construction vehicles and hazardous materials on the proposed development site could potentially result in short-term impacts to local water quality. Vegetation removal and grading operations would alter existing onsite drainage patterns and flow velocities and if not properly managed, erosion and sedimentation of on- and off-site water resources could result. Sedimentation could also result from poor stockpile management and more specifically, from a lack of appropriate containment measures/barriers on the construction site. Other potential impacts to water quality during construction could result from the improper handling and disposal of construction waste materials and oil and grease leakage from vehicles and equipment. After construction there is the potential for the proposed project operations to affect water quality, under either the proposed project or the BCA Access Alternative. For example, runoff from post-construction areas left exposed could result in downstream sedimentation and fertilizer-derived nutrients from landscaped areas could enter runoff and affect local waters. In addition, alteration of existing drainage patterns due to development and construction of residential structures, roads, and associated parking areas (e.g., driveways) would increase the amount of impervious area on the proposed development site which would increase the rate and/or amount of surface runoff and increase the potential for erosion and sedimentation in local waters. Depending on the severity of these effects, impacts to water resources resulting from development of the project or the BCA Access Alternative could be potentially significant.

A site-specific drainage study will be prepared and will identify local and regional water resources, characterize existing drainage patterns and improvements, quantify changes to storm water runoff rates attributed to project development and recommend appropriate BMPs to address potential impacts to water resources that may occur during construction. If potential impacts are determined to be significant, the drainage study may also include mitigation measures to address identified impacts. Through an independent review of the drainage study, the EIR will evaluate the potential for construction and operational impacts to hydrology and water quality including potential impacts concerning violations of potable water standards, alteration of drainage patterns, and increased rate and amount of surface runoff resulting from surface disturbance and development. All potential impacts under either the proposed project or the BCA Access Alternative will be identified and discussed in the EIR and if necessary additional mitigation measures beyond those included in the drainage study may be included. All mitigation measures will be developed in consultation with Placer County and appropriate regulatory agencies.

Discussion- Item IX-2, 7, 11:
No groundwater usage is proposed during construction or operation of the proposed project or the BCA Access Alternative. In addition, according to the Geotechnical Report prepared for the proposed project, the project site is generally underlain 4 to 18 inches of silty sand likely underlain by medium dense to very dense silty sand with gravel containing varying amounts of cobbles and boulders (Holdrege & Kull 2013). Gravel soils, cobbles, and boulders suggest a limited ability of site soils to support groundwater recharge via percolation of surface water. Further, groundwater was not encountered in test pits excavated during the onsite investigation conducted for the geotechnical report. Therefore, no impacts to groundwater

resources or groundwater recharge are anticipated to occur as a result of the proposed project or the BCA Access Alternative.

Discussion- Item IX-8, 9:
The project site is not located within the boundary of a 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA) or Placer County. The project site is displayed on two FEMA flood insurance rate maps: Map Number 06061C0200 F and 06061C0182 F. The boundaries of a delineated 100-year flood hazard map do not extend to the project site (FEMA 1998a, 1998b). In addition, the project site does not appear to be located within the boundaries of a FEMA floodplain as displayed in the Placer County Multi-Hazard Mitigation Plan (Placer County 2005), While the site is not located within a 100-year flood hazard area as mapped by FEMA, two drainageways (Bear Creek and an unnamed seasonal stream) traverse the proposed development site and support a tributary of more than 20 acres. Local 100-year floodplains associated with each drainageway will be mapped and the EIR will evaluate the potential for flood hazards associated with development of the project site under either the proposed project or the BCA Access Alternative. All potential impacts will be identified and discussed in the EIR and if necessary, additional mitigation measures developed in consultation with Placer County and appropriate regulatory agencies will be included.

Discussion- Item IX-10:
The project site and the surrounding Alpine Meadows area are not located within the boundaries of a County delineated levee or dam inundation zone. Three small impoundments occur south of the project site, within the Alpine Meadows Ski Resort. These impoundments are adjacent to Bear Creek, but due to their small size are not mapped in the County inundation zone. The nearest dam in the project vicinity, the Lake Tahoe Dam, is located maintained by the Bureau of Reclamation and is located approximately 5 miles south of the project site at the confluence of the Truckee River and Lake Tahoe in Tahoe City (Bureau of Reclamation 2013). Due to distance and because the project site is situated approximately 600 feet greater in elevation than the Truckee River at SR-89, failure of the Lake Tahoe Dam is not anticipated to pose a substantial inundation risk to the project site under either the proposed project or the BCA Access Alternative.

X. LAND USE & PLANNING – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Physically divide an established community? (PLN)				X
2. Conflict with General Plan/Community Plan/Specific Plan designations or zoning, or Plan policies adopted for the purpose of avoiding or mitigating an environmental effect? (EHS, ESD, PLN)	X			
3. Conflict with any applicable habitat conservation plan or natural community conservation plan or other County policies, plans, or regulations adopted for purposes of avoiding or mitigating environmental effects? (PLN)	X			
4. Result in the development of incompatible uses and/or the creation of land use conflicts? (PLN)	X			
5. Affect agricultural and timber resources or operations (i.e. impacts to soils or farmlands and timber harvest plans, or impacts from incompatible land uses)? (PLN)				X

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
6. Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)? (PLN)				**X**
7. Result in a substantial alteration of the present or planned land use of an area? (PLN)	X			
8. Cause economic or social changes that would result in significant adverse physical changes to the environment such as urban decay or deterioration? (PLN)				X

Discussion- Items X-1 & 6:
The project site is currently undeveloped. The proposed development site is bounded by existing residential development on the north and south. The project site is zoned for single-family residential and open space uses, and the density of the proposed project is consistent with the current zoning and with adjacent residential development. Development of new residential uses on the proposed development site under either the proposed project or the BCA Access Alternative would not divide or disrupt any existing communities.

Discussion- Items X-2, 3:
The project site is not subject to any applicable habitat conservation plan or natural community conservation plan.

The EIR will evaluate the project and the BCA Access Alternative for consistency with existing County policies and ordinances adopted for the purpose of avoiding or mitigating environmental effects as well as land use and development standards of the General Plan and Zoning Ordinance. Existing County policies and ordinances that will be analyzed for the project and the project alternative include, but are not necessarily limited to, policies pertaining to establishment of buffers for protection of perennial and seasonal streams or other sensitive biological resources, restrictions on development on slopes in excess of 30 percent, consistency with allowances and limitations to develop new land uses in Potential Avalanche Hazard Areas, and policies regarding the protection of scenic resources and limitations on the effects of nighttime lighting associated with new development. All potentially significant impacts will be identified and mitigation measures will be developed in consultation with Placer County.

The EIR will present detailed consideration of the project's and BCA Access Alternative's consistency with General Plan policies adopted for the purpose of avoiding or mitigating environmental effects as well as land use and development standards of the General Plan and Zoning Ordinance. It will also evaluate the compatibility of the proposed project and BCA Access Alternative with the existing land uses in the project vicinity and consider the degree to which the project or BCA Access Alternative could alter the community character.

Discussion- Items X-4, 7:
Existing development in the Alpine Meadows General Plan area generally consists of single family and some multi-family residences along Alpine Meadows Road, limited commercial development near SR 89 and at the ski resort, and occasional public service facilities such as the local fire station and ASCWD facilities.

The majority of the proposed development site is zoned for residential use and a smaller portion of the site is zoned for open space. The site is currently undeveloped and is located between the single-family residential Bear Creek neighborhood to the north and existing residential and lodging development to the south. Because the project and the BCA Access Alternative propose residential uses on land zoned

Residential and designated by the General Plan for residential use, the majority of the proposed project and BCA Access Alternative are not anticipated to conflict with land use policies of the Placer County General Plan or the Alpine Meadows General Plan pertaining to land use compatibility. The EIR will analyze the effects of the proposed rezone of a portion of the property from Open Space to Residential Single-Family land use and will evaluate the compatibility of the project and the BCA Access Alternative with the existing land uses in the project vicinity and consider the degree to which the project could alter the community character. All potentially significant impacts will be identified and mitigation measures developed in consultation with Placer County.

Discussion- Item X-5:
The proposed development site is not designated or used for timberland production. The majority of the proposed development site is zoned for Residential use and a smaller area is zoned Open Space; in addition the three isolated parcels that are part of the subdivision are zoned Open Space. Residential Single-Family zoning does not allow timber harvesting or production. The Open Space zoning designation does allow for timber harvesting and production. However the project site has not historically supported any timber harvest or forestry activities. Therefore, development of the project site would not displace or affect agricultural or timber resource operations. As such, no impacts to these resources are anticipated under either the proposed project or the BCA Access Alternative.

Discussion- Item X-8:
The proposed project and the BCA Access Alternative include the subdivision of a 45.5-acre proposed development site to allow construction of single family residences and residential halfplex units as well as associated infrastructure. The Bear Creek Association neighborhood to the north consists of relatively large-lot single family residences. Existing single- and multiple-family development and visitor lodging facilities are located south of the site. Because similar uses and similar housing products are located in the immediate vicinity of the project site, development of the site for residential uses at densities consistent with the existing zoning is not anticipated to cause economic or social change that could result in urban decay or deterioration under either the proposed project or the BCA Access Alternative.

XI. MINERAL RESOURCES – Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. The loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (PLN)				**X**
2. 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? (PLN)				**X**

Discussion- Items XI-1 & 2:
There are no known mineral resources within the project site, and no mineral recovery activities have been known to occur onsite. The addition of the proposed residential development under the proposed project or the BCA Access Alternative would not adversely affect any mineral resources of value to the state or region.

XII. NOISE – Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan, Community Plan or noise ordinance, or applicable standards of other agencies? (PLN)	X			
2. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (PLN)	X			
3. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (PLN)	X			
4. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (PLN)				X
5. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (PLN)				X

Discussion- Item XII-1, 2, 3:
Noise associated with traffic on Alpine Meadows Road and smaller residential access roads are anticipated to be the primary generators of noise in the project area. Existing residential development is located north and south of the proposed development site. The Alpine Meadows Lodge and parking lot are located to the southwest and undeveloped terrain is located to the west and east. Given the development pattern in the surrounding area, existing ambient noise levels are anticipated to be relatively low and consistent with that of a rural residential neighborhood. Sound level limits for sensitive receptors are established in the Placer County General Plan and Chapter 9 of the Placer County Code (Public Peace, Safety and Welfare).

Construction activities of the project (which would be similar to those of the BCA Access Alternative), including equipment and vehicle use onsite and transport of construction equipment and materials to the site, would generate noise throughout the duration of the construction schedule. In addition, operation of the residential development under either the proposed project or the BCA Access Alternative would generally result in an increase in the existing ambient noise levels through the introduction of 33 single-family residences and 14 residential halfplex units and associated traffic to the project area. The EIR will include an analysis of potential noise impacts associated with construction and operation of the proposed project and the BCA Access Alternative. If noise generated by the proposed project or BCA Access Alternative exceeds standards established in the Placer County Code for sensitive receptors or represents a substantial permanent or temporary increase above existing ambient noise levels, the EIR will provide mitigation measures to address the identified impact(s).

Discussion – Item XII-4, 5:
The project site is not located within the boundaries of an airport land use plan and is not located within two miles of a public/public use airport. In addition, the project site in not located in the vicinity of a private airstrip. See response to Hazards and Hazardous Materials, Discussion – Item VIII-5 and -6. The project site is not affected by noise from aircraft overflights.

XIII. POPULATION & HOUSING – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Induce substantial population growth in an area, either directly (i.e. by proposing new homes and businesses) or indirectly (i.e. through extension of roads or other infrastructure)? (PLN)			X	
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (PLN)				X

Discussion- Item XIII-1:
Development of the project site with single-family residential uses would be consistent with the underlying zoning and densities established for the site. Both the proposed project and the BCA Access Alternative would result in the development of a 45.5-acre site with 33 single family residences and 14 residential halfplex units. With an average per household population of 2.59 people, the project or the BCA Access Alternative could provide housing for approximately 123 new residents. Because the proposed residential development is consistent with the underlying zoning applicable to the proposed development site, the population growth supported by the project or the BCA Access Alternative in the Alpine Meadows area would be consistent with the county's population projections. Furthermore, the 123 residents of the project site would not substantially increase population in the project area and impacts would be less than significant.

Discussion- Item XIII-2:
The 45.5-acre proposed development site is currently undeveloped and therefore, development would not displace existing housing. As such, no impacts would occur under either the proposed project or the BCA Access Alternative.

XIV. PUBLIC SERVICES – Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Fire protection? (ESD, PLN)	X			
2. Sheriff protection? (ESD, PLN)	X			
3. Schools? (ESD, PLN)	X			
4. Maintenance of public facilities, including roads? (ESD, PLN)	X			
5. Other governmental services? (ESD, PLN)	X			

Discussion- Items XIV-1 through 5:
Under either the proposed project or the BCA Access Alternative, development of the proposed single family residences and residential halfplex units would create additional demand for public services in the Alpine Meadows area. Services in the area include the following:

- The North Tahoe Fire Protection District provides fire protection and emergency services to the project area. The nearest station to the project site (Alpine Meadows Fire Station 56) is located approximately 2.5 miles east of the project site at 270 Alpine Meadows Road.
- Placer County Sheriff's Department provides police protection services in the project area. The nearest Sheriff's facility (the Tahoe Substation) is located approximately 7 miles of the project site at 2501 North Lake Boulevard, Tahoe City.
- Placer County Public Works Department maintains public facilities, including roads and provides snow removal services
- The Tahoe-Truckee Unified School District (TTUSD) is the designated school district for the Alpine Meadows area. The district school located closest to the Alpine Meadows area, Tahoe Lake Elementary and North Tahoe High School, are located approximately 5 miles southeast and 7 miles east of the project site in Tahoe City. Squaw Valley Academy, an international college-prep boarding school, is located approximately 3 miles north of the project site in Squaw Valley.

Fire Protection:
The project and the BCA Access Alternative propose 47 new single-family residences, which would increase the demand for fire protection and emergency services. The project applicant may be required to contribute to the acquisition or construction of capital facilities as a condition of the serving fire agency's agreement to serve the project. Should the serving fire agency notify the County that new facilities or alterations to existing facilities are required to serve the proposed project or the BCA Access Alternative, those requirements will be disclosed and potential impacts of meeting those requirements will be evaluated in the EIR. As the proposed project and the BCA Access Alternative would develop the same number of residences in generally the same location, impacts related to fire protection are expected to be similar for both scenarios.

Sherriff Protection:
The *Placer County General Plan* (Policy 4.H.1) requires that, within the County's overall budgetary constraints, the Placer County Sheriff's Department shall strive to maintain a staffing ratio of one officer per 1,000 residents in unincorporated Placer County. The proposed project or the BCA Access Alternative could increase the demand for additional Sherriff's officers or equipment. If the Sherriff's Department submits comments stating that additional officers or equipment are required to serve the proposed project or the BCA Access Alternative, those requirements will be disclosed and potential impacts of meeting those requirements will be evaluated in the EIR. As the proposed project and the BCA Access Alternative would develop the same number of residences at the project site, impacts related to sheriff protection are expected to be similar for both scenarios.

Schools:
The project would generate new students that would attend TTUSD schools. If the TTUSD notifies the County that the addition of new students generated by the project would result in shortages to staffing or impacts to existing facilities, those shortages and associated impacts will be evaluated in the EIR. If TTUSD identifies a need for increased staffing or expanded facilities, those requirements will be disclosed and potential impacts of meeting those requirements will be evaluated in the EIR. However, under the provisions of Senate Bill 50 school districts negotiate directly with developers of residential projects to establish terms and conditions of service to new projects, including payment of capital facilities fees for new or altered school district facilities. As the proposed project and the BCA Access Alternative would develop the same number of residences, impacts related to schools are expected to be similar for both scenarios.

County Facilities and Roads:
New or altered county government facilities, including significant expansion of existing public roads, are not anticipated to be required as a result of the proposed project or the BCA Access Alternative, although the project or the alternative would result in an incremental increase in demand for county facilities.

Development of new county facilities and incremental improvement to existing county facilities are primarily funded by payment of one-time capital improvement fees, such as Traffic Impact Fees, which are collected at the time of Building Permit approval. Other county government facilities and services, such as library services, assessor services and the courts are funded by payment of property taxes, user fees, and collection of fines. The incremental expansion and funding of these types of county facilities and services as needed to support the proposed project or the BCA Access Alternative will be addressed in the EIR.

XV. RECREATION – Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Would the project 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? (PLN)	X			
2. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (PLN)	X			

Discussion- Items XV-1 & 2:
Development under the proposed project or the BCA Access Alternative would increase the residential population of the project area which would increase the demand for recreational facilities. Development under either the proposed project or the BCA Access Alternative would include construction of an on-site trail connecting to existing USFS trails located on-site and extending off-site. The EIR will evaluate the demand for use of existing recreational facilities associated with the project as well as the environmental effects associated with construction and/or relocation of the onsite trails and identify mitigation measures if warranted. As the proposed project and the BCA Access Alternative would develop the same number of residences in generally the same location, impacts related to recreation are expected to be similar for both scenarios.

XVI. TRANSPORTATION & TRAFFIC – Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. An increase in traffic which may be substantial in relation to the existing and/or planned future year traffic load and capacity of the roadway 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)? (ESD)	X			
2. Exceeding, either individually or cumulatively, a level of service standard established by the County General Plan and/or Community Plan for roads affected by project traffic? (ESD)	X			

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
3. Increased impacts to vehicle safety due to roadway design features (i.e. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (ESD)	X			
4. Inadequate emergency access or access to nearby uses? (ESD)	X			
5. Insufficient parking capacity on-site or off-site? (ESD, PLN)	X			
6. Hazards or barriers for pedestrians or bicyclists? (ESD)	X			
7. Conflicts with adopted policies, plans, or programs supporting alternative transportation (i.e. bus turnouts, bicycle lanes, bicycle racks, public transit, pedestrian facilities, etc.) or otherwise decrease the performance or safety of such facilities? (ESD)	X			
8. Change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (PLN)				X

Discussion- Items XVI-1, 2, 3, 4, 5, 6, 7:
Regional access to the project site and Alpine Meadows area is provided by State Route (SR) 89, a two-lane undivided state route with shoulders and a posted speed limit of 45 miles per hour at its intersection with Alpine Meadows Road. SR 89 connects Truckee and the Interstate 80 corridor to the north with Squaw Valley, Alpine Meadows, and Tahoe City to the south. Traffic on SR 89 varies by season, with congestion occurring during winter peak demand periods due to adverse weather and ski area activity. According to Caltrans, peak month Average Daily Traffic (ADT) on SR 89 in the project vicinity is 14,800 vehicles per day (LSC Transportation Consultants, Inc., 2012). Alpine Meadows Road, a small, two-lane undivided roadway with a posted speed limit of 35 miles per hour, provides local access from SR 89 to the Alpine Meadows residential and recreational areas, as well as the project site. Near the project site and throughout the Alpine Meadows area, narrow roadways are constructed off of Alpine Meadows Road and provide access to residences. Buses run on SR 89 and a seasonal shuttle service runs on Alpine Meadows Road providing service to Alpine Meadows Lodge and Squaw Valley. Additional traffic would be generated in the project area as a result of construction activities and as a result of project operations.

Separate bicycle and pedestrian facilities are not generally constructed adjacent to roadways in the Alpine Meadows area, requiring bicyclists and pedestrians to share the right of way with vehicles. The increase in local traffic associated with the project could increase hazards for bicyclists and pedestrians.

The EIR will evaluate the potential for traffic and transportation impacts during construction and operation of the proposed project and the BCA Access Alternative. Specific analysis will be provided to evaluate the effects of each scenario's provisions for vehicular access to the project site. All significant impacts will be identified and if determined to be necessary, mitigation measures developed in consultation with Placer County will be included in the EIR.

Discussion- Item XVI-8:
No changes to air traffic patterns would occur as a result of construction or operation of the project or the BCA Access Alternative. The project site is not located within 2 miles of a public or private airport or airstrip and the project proposes the construction of residential building products on undeveloped vacant

land. The height of proposed structures would comply with the building standards established for the underlying zoning and therefore, no impacts with air traffic patterns would occur.

XVII. UTILITIES & SERVICE SYSTEMS – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (ESD)	X			
2. Require or result in the construction of new water or wastewater delivery, collection or treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (EHS, ESD)	X			
3. Require or result in the construction of new on-site sewage systems? (EHS)	X			
4. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (ESD)	X			
5. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (EHS)	X			
6. Require sewer service that may not be available by the area's waste water treatment provider? (EHS, ESD)	X			
7. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs in compliance with all applicable laws? (EHS)	X			

Discussion- Items XVII-1, 2, 3, 4, 5, 6, 7:
The proposed project would require placement of infrastructure to provide water, wastewater, electricity, telephone, and cable television services to the site. Underground utilities would run in easements along roadways within the development. Domestic water would be supplied from Alpine Springs County Water District (ASCWD) and wastewater disposal services would be also be provided by ASCWD. Most of the homes would use gravity sewer but a few would require individual sewage pumps to access the gravity sewer. One sewer lift station would be required under the proposed project; it is proposed to be constructed in the northeastern corner of the proposed development site. This lift station would not be required under the BCA Access Alternative as all residential lots would have access to gravity sewer lines. As noted in the Project Description summary above and in the NOP, off-site improvements to ASCWD facilities may also be necessary to ensure adequate service provision to the project and to existing ASCWD customers. Solid waste would be collected by the Tahoe Truckee Sierra Disposal and processed at the Eastern Regional Materials Recovery Facility. Electric utilities would be supplied by Liberty Energy; individual propane tanks would also be provided. Telephone services would be provided by AT&T and Comcast, Charter, and Suddenlink would provide cable services.

The EIR will evaluate potential impacts to utilities and services systems associated with the proposed project, including environmental effects associated with construction of offsite improvements to ASCWD facilities. All significant impacts will be identified and if determined to be necessary, mitigation measures developed in consultation with Placer County and applicable service providers will be included in the EIR.

As the proposed project and the BCA Access Alternative would develop the same number of residences in generally the same location, impacts related to utilities and service systems are expected to be similar for both scenarios.

E. MANDATORY FINDINGS OF SIGNIFICANCE:

Environmental Issue	Yes	No
1. Does the project have the potential to degrade the quality of the environment, substantially impact biological resources, or eliminate important examples of the major periods of California history or prehistory?	X	
2. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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.)	X	
3. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	X	

Discussion- Items E-1, 2, 3:
The proposed project and the BCA Access Alternative have the potential to result in significant impacts to the physical environment at the project site and in the vicinity. The EIR will provide a detailed analysis of the potentially significant impacts identified in this Initial Study, including consideration of the project's and project alternative's contribution to cumulative impacts in the project region.

F. OTHER RESPONSIBLE AND TRUSTEE AGENCIES whose approval is required:

☒ California Department of Fish and Wildlife	☐ Local Agency Formation Commission (LAFCO)
☐ California Department of Forestry	☐ National Marine Fisheries Service
☐ California Department of Health Services	☐ Tahoe Regional Planning Agency
☐ California Department of Toxic Substances	☒ U.S. Army Corp of Engineers
☒ California Department of Transportation	☒ U.S. Fish and Wildlife Service
☐ California Integrated Waste Management Board	☐ _____
☒ California Regional Water Quality Control Board	☐ _____

G. DETERMINATION – The Environmental Review Committee finds that:

☒	The proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required (i.e. Project, Program, Subsequent, or Master EIR).

Signature_____ Date 4/7/14
E. J. Ivaldi, Environmental Coordinator

I. SUPPORTING INFORMATION SOURCES: The following public documents were utilized and site-specific studies prepared to evaluate in detail the effects or impacts associated with the project. This information is available for public review, Monday through Friday, 8am to 5pm, at the Placer County Community Development Resource Agency, Environmental Coordination Services, 3091 County Center Drive, Auburn, CA 95603. For Tahoe projects, the document will also be available in our Tahoe Division office, 775 North Lake Blvd., Tahoe City, CA 96145.

County Documents		☒ Air Pollution Control District Rules & Regulations
		☒ Community Plan
		☒ Environmental Review Ordinance
		☒ General Plan
		☒ Grading Ordinance
		☒ Land Development Manual
		☒ Land Division Ordinance
		☒ Stormwater Management Manual
		☐ Tree Ordinance
		☐ _____
Trustee Agency Documents		☐ Department of Toxic Substances Control
		☐ _____
Site-Specific Studies	Planning Services Division	☒ Biological Study
		☒ Cultural Resources Pedestrian Survey
		☒ Cultural Resources Records Search
		☐ Lighting & Photometric Plan
		☐ Paleontological Survey
		☒ Tree Survey & Arborist Report
		☐ Visual Impact Analysis
		☒ Wetland Delineation
		☐ Acoustical Analysis
		☒ Avalanche Hazard Study
	Engineering & Surveying Division, Flood Control District	☐ Phasing Plan
		☒ Preliminary Grading Plan
		☒ Preliminary Geotechnical Report
		☒ Preliminary Drainage Report
		☐ Stormwater & Surface Water Quality BMP Plan
		☒ Traffic Study
		☐ Sewer Pipeline Capacity Analysis
		☐ Placer County Commercial/Industrial Waste Survey (where public sewer is available)
		☐ Sewer Master Plan
		☒ Utility Plan
		☒ Tentative Map
	Environmental Health Services	☐ Groundwater Contamination Report
		☐ Hydro-Geological Study
		☐ Phase I Environmental Site Assessment

		☐ Soils Screening
		☐ Preliminary Endangerment Assessment
		☐ _____
	Planning Services Division, Air Quality	☐ CALINE4 Carbon Monoxide Analysis
		☐ Construction Emission & Dust Control Plan
		☒ Geotechnical Report (for naturally occurring asbestos)
		☐ Health Risk Assessment
		☐ CalEEMod Model Output
		☐ _____
	Fire Department	☐ Emergency Response and/or Evacuation Plan
		☐ Traffic & Circulation Plan
		☐ _____
	Mosquito Abatement District	☐ Guidelines and Standards for Vector Prevention in Proposed Developments
		☐ _____

References

Bureau of Reclamation. 2013. Lake Tahoe Dam. http://www.usbr.gov/projects/Facility.jsp?fac_Name=Lake+Tahoe+Dam&groupName=General. Website accessed September 27, 2013.

Caltrans (California Department of Transportation). California Scenic Highway Mapping System, Placer County. http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm. Website accessed September 27, 2013.

EcoSynthesis Scientific & Regulatory Services, Inc. 2012. Alpine Sierra Subdivision Biological Survey Report. December 18, 2012.

EDR. 2013. The EDR Radius Map Report for the Alpine Sierra (Alpine Meadows Roads at Ginzton Road). Inquiry Number 3621309.1s. May 30, 2013.

FEMA (Federal Emergency Management Agency). 1998a. FIRM (Flood Insurance Rate Map), Map Number 06061C0200 F. June 8, 1998.

FEMA (Federal Emergency Management Agency). 1998b. FIRM (Flood Insurance Rate Map), Map Number 06061C0182 F. June 8, 1998.

Heywood, Larry. 2012. Alpine Sierra Subdivision Avalanche Hazard Study. July 2013.

Holdrege & Kull. 2013. Geotechnical Engineering Report Update for the Alpine Sierra Development. September 20, 2013.

Lindström, Susan, 2001. Alpine Meadows Subdivision Project Heritage Resource Inventory. December 2001.

Lindström, Susan. 2012. Alpine Sierra Subdivision Heritage Resources Study Update (Letter Report). October 31, 2012.

LSC Transportation Consultants, Inc. 2012. Alpine Sierra Subdivision Traffic Impact Analysis. October 31, 2012.

Placer County. 1968. Alpine Meadows General Plan.

Placer County. 2005. Multi-Hazard Mitigation Plan. January 2005.

Placer County. 2013. Placer County General Plan. May 2013.

This page intentionally left blank.

APPENDIX A-2

NOP Comments

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

April 8, 2014

To: Reviewing Agencies

Re: Alpine Sierra Subdivision
SCH# 2014042028

Attached for your review and comment is the Notice of Preparation (NOP) for the Alpine Sierra Subdivision draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Alexander Fisch
Placer County
3091 County Center Drive
Auburn, CA 95603

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2014042028
Project Title Alpine Sierra Subdivision
Lead Agency Placer County

Type NOP Notice of Preparation

Description The project proposes to create a subdivision for the development of 47 single-family residential units on the 45.5 acre property, comprised of 33 single family homes and 14 residential halfplexes. The project would also include an HOA maintenance parcel, including a HOA employee residential unit, and project amenities. Substantial grading would be necessary to construct roads and install infrastructure. Site access would be provided from Alpine Meadows Road.

Lead Agency Contact

Name Alexander Fisch
Agency Placer County
Phone 530 745 3081 **Fax**
email
Address 3091 County Center Drive
City Auburn **State** CA **Zip** 95603

Project Location

County Placer
City
Region
Cross Streets
Lat / Long 39° 10' 13.73" N / 120° 14' 8.92" W
Parcel No. 095-280-011, -021, -022, -023, 095-450-006
Township 15N **Range** 16E **Section** 5/8 **Base**

Proximity to:

Highways SR 89
Airports No
Railways No
Waterways Bear Creek, Five Lakes Creek, Whiskey Creek, Squaw Creek, Truckee River
Schools No
Land Use Various

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Cal Fire; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 2; Native American Heritage Commission; State Lands Commission; Tahoe Regional Planning Agency; California Highway Patrol; Caltrans, District 3 N; Air Resources Board; Regional Water Quality Control Bd., Region 6 (So Lake Tahoe)

Date Received 04/08/2014 **Start of Review** 04/08/2014 **End of Review** 05/07/2014

Form A: NOTICE OF COMPLETION

SCH # 2014042028 (See Note Below)

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

Project Title: Alpine Sierra Subdivision
Lead Agency: Placer County — Contact Person: Alexander Fisch, Senior Planner
Street Address: 3091 County Center Drive — Phone: (530) 745-3081
City: Auburn — Zip: 95603 — County: Placer County

Project Location:
County: Placer County — City/Nearest Community: Bear Creek Association/Alpine Meadows
Address: No address assigned — Zip Code: 96145 & 96146 — Total Acres: 47.2
Latitude/Longitude: 39°10'13.73" north and 120°14'08.92" west — Assessor's Parcel No.: 095-280-011,-021, -022, -023; 095-450-006
Section: 5 and 8 — Twp: 15 N — Range: 16 E — Base: Tahoe City
Within 2 Miles: — State Hwy: State Route 89 — Waterways: Bear Creek, Five Lakes Creek, Whiskey Creek, Squaw Creek, Truckee River
Airports: none — Railways: none — Schools: none

Document Type
CEQA: ☒ NOP ☐ Supplement/Subsequent EIR (Prior SCH No.) _____ ☐ Early Cons ☐ Neg. Dec. ☐ Draft EIR ☐ Mit.Neg. Dec. ☐ Other _____
NEPA: ☐ NOP ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other _____

RECEIVED APR 08 2014 STATE CLEARING HOUSE

Local Action Type
☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☒ Planned Unit Development ☒ Site Plan
☒ Rezone ☐ Prezone ☒ Use Permit ☒ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other

Development Type
☒ Residential: Units 47 Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees ___
☐ Commercial: Sq.ft. _____ Acres _____ Employees ___
☐ Industrial: Sq.ft. _____ Acres _____ Employees ___
☐ Educational: _____
☐ Recreational: _____
☐ Water Facilities: Type _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____
☐ Waste Treatment: Type _____
☐ Hazardous Waste: Type _____
☐ Other:

Project Issues Discussed in Document
☒ Aesthetic/Visual ☒ Agriculture Land ☒ Air Quality ☒ Archeological/Historical ☐ Coastal Zone ☒ Drainage/Absorption ☐ Economic/Jobs ☐ Fiscal
☒ Flood Plain/Flooding ☒ Forest Land/Fire Hazard ☒ Geologic/Seismic ☒ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities ☒ Recreation/Parks
☒ Schools/Universities ☐ Septic Systems ☒ Sewer Capacity ☒ Soil Erosion/Grading ☒ Solid Waste ☒ Toxic/Hazardous ☒ Traffic/Circulation ☒ Vegetation
☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☒ Wildlife ☒ Growth Inducing ☒ Land Use ☒ Cumulative Effects ☒ Greenhouse Gases

Present Land Use/Zoning/General Plan: The site currently is vacant except for an unpaved US Forest Service trail and other use-trails. The land use designation for the site is residential. Zoning designations on the project site are Residential Single Family, Planned Development 4.0 (RS PD=4.0), Residential Single Family, Combining Building Site of 20,000 square feet, Planned Development 2.0 (RS-B-20 PD=2.0) and Open Space (O).

Project Description: The project proposes to create a subdivision for the development of 47 single-family residential units on the ±45.5-acre property, comprised of 33 single family homes and 14 residential halfplexes. The project would also include an HOA maintenance parcel, including a HOA employee residential unit, and project amenities. Substantial grading would be necessary to construct roads and install infrastructure. Site access would be provided from Alpine Meadows Road.

NOP Distribution List

County: PLACER

SCH# 2014042028

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Nicole Wong
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Tamya Trujillo
- [ ] **Dept. of Conservation**
  Elizabeth Carpenter
- [ ] **California Energy Commission**
  Eric Knight
- [x] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources Resources Agency**
  Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Donald Koch
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [x] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [ ] **Fish & Wildlife Region 3**
  Charles Armor
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Sickler
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Dept. of Public Health**
  Jeffery Worth
  Dept. of Health/Drinking Water
- [ ] **Delta Stewardship Council**
  Kevan Samsam

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Michael Machado
- [ ] **OES (Office of Emergency Services)**
  Dennis Castrillo
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [x] **State Lands Commission**
  Jennifer Deleong
- [x] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [x] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects
- [ ] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [x] **Caltrans, District 3**
  Gary Arnold
- [ ] **Caltrans, District 4**
  Erik Alm
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- [x] All Projects
  CEQA Coordinator
- [ ] Transportation Projects
  Nesamani Kalandiyur
- [ ] Industrial Projects
  Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
- [ ] **RWQCB 5F**
  Central Valley Region (5)
  Fresno Branch Office
- [ ] **RWQCB 5R**
  Central Valley Region (5)
  Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
- [ ] **RWQCB 6V**
  Lahontan Region (6)
  Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [x] **Other** RWQCB65
- [ ] _____ Conservancy

Last Updated 1 /29/2014

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
13760 Lincoln Way
AUBURN, CA 95603
(530) 889-0111
Website: www.fire.ca.gov

RECEIVED
APR 17 2014
PLANNING DEPT.

April 16, 2014

TO: Alexander Fisch
Placer County
3091 County Center Drive
Auburn, CA 95603

RE: Alpine Sierra Subdivision SCH# 2014042028

This project will require a Timberland Conversion and Timber Harvest Plan as per the following:

California Code of Regulations, per section 1103, and Public Resources Code 4581 requires a Timberland Conversion Permit and/or Timber Harvest Plan be filed with the California Department of Forestry and Fire Protection if the project involves the removal of a crop of trees of commercial species (regardless of size of trees or if trees are commercially harvested).

The Timberland Conversion Permit shall address the following:

a. The decrease in timber base in the county as a result of the project.
b. The cover type, including commercial species, density, age, and size composition affected by the project.
c. The ground slopes and aspects of the area affected by the project.
d. The soil types affected by the project.
e. Any significant problems that may affect the conversion.

If you require further clarification, please contact Forester Jeff Dowling at (530) 587-8926.

Sincerely,

Brad Harris
CAL FIRE
Unit Chief

Jeff Dowling
Jeff Dowling
Truckee Area Forester

jd

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Lahontan Regional Water Quality Control Board

RECEIVED
APR 29 2014
ENVIRONMENTAL COORDINATION SERVICES

April 23, 2014

Maywan Krach, Community Development Technician
Placer County Planning Services Division
3091 County Center Drive
Auburn, CA 95603

RESPONSE TO INITIAL STUDY AND NOTICE OF PREPARATION FOR ENVIRONMENTAL IMPACT REPORT FOR THE ALPINE SIERRA SUBDIVISION PROJECT, PLACER COUNTY, SCH 2014142128

The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) staff appreciate the opportunity to comment on the Placer County Notice of Preparation (NOP) and Initial Study (IS) for the Alpine Sierra Subdivision Project (Project). The proposed Project is located adjacent to the Alpine Meadows resort area. The Project proponent proposes to construct 47 new residential units on approximately 45.5 acres.

These comments are submitted in compliance with the California Environmental Quality Act (CEQA) Guidelines § 15096, which requires responsible agencies to specify the scope and content of the environmental information applicable to their jurisdictions and lead agencies to include that information in the Environmental Impact Report (EIR) for the Project.

The State Water Resources Control Board (State Water Board) and the Lahontan Water Board regulate discharges to protect the quality of water of the State, broadly defined as "the chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affects its use." Early consultation in the EIR process is encouraged, as Project reconfiguration may be required to avoid and minimize impacts to State waters. If the proposed Project has any of the following discharges, the Project proponent is required to obtain a permit from the State or Lahontan Water Board:

DISCHARGE TYPE	TYPES OF PERMITS INVOLVED
• DISCHARGE OF DREDGE AND FILL MATERIALS	- CLEAN WATER ACT (CWA) §401 WATER QUALITY CERTIFICATION FOR FEDERAL WATERS; OR WASTE DISCHARGE REQUIREMENTS FOR NON-FEDERAL WATERS.

DISCHARGE TYPE	TYPES OF PERMITS INVOLVED
• WASTEWATER DISCHARGES	- CWA §402 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT, E.G. STORM WATER PERMIT.
• OTHER DISCHARGES	- WASTE DISCHARGE REQUIREMENTS OR OTHER PERMITS FOR DISCHARGES THAT MAY AFFECT GROUNDWATER QUALITY AND OTHER WATERS OF THE STATE, SUCH AS OPERATION OF PROPOSED SOLID WASTE TRANSFER FACILITIES, DOMESTIC WELL DRILLING, AND OTHER PROPOSED PROJECT ACTIVITIES.

Effects of Urban Development on Water Quality

Watersheds are complex natural systems in which physical, chemical, and biologic components interact to create the beneficial uses of water on which our economy and well-being depend. Improperly implemented urban development has the potential to disrupt these natural interactions and degrade water quality through a number of interrelated effects. The primary impacts resulting from improperly implemented development projects that may have the potential to degrade water quality, increase peak flows and flooding, and destabilize stream channels include:

Direct impacts – the direct physical impacts of filling and excavation on wetlands, riparian areas, and other waters;
Pollutants – the generation of urban pollutants during and after construction;
Hydrologic Modification – the alteration of flow regimes and groundwater recharge by impervious surfaces and stormwater collector systems;
Watershed-level effects – the disruption of watershed-level aquatic functions, including pollutant removal, floodwater retention, and habitat connectivity.

The Water Boards are mandated to prevent water quality degradation. The CEQA establishes the process to provide the information we need to regulate projects involving potential water quality impacts, and protect water quality.

Scope and Level of Needed Analyses

The EIR for this project should characterize all project-specific, cumulative, direct, and indirect impacts of this project on the quality of waters of the state as defined above, and identify alternatives and other mitigation measures to reduce and eliminate such impacts. Analyses should include:

1. Avoidance and Minimization Analysis

A proposed project can degrade water quality in a number of ways, and can create a complicated analysis. Fortunately, avoiding or minimizing impacts will eliminate or reduce subsequent effects and will simplify the analyses, and we strongly encourage avoidance as the primary strategy to address water quality concerns.

We request you address the following in the DEIR:

Measures to avoid or minimize each potential cause of water quality degradation as described in Attachment 1 to these comments, with particular emphasis on wetlands and other surface waters, including 100-year floodplain areas.

An analysis of why any remaining impacts cannot be avoided or further minimized.

2. Alternatives Analysis

Because development projects can individually and cumulatively cause major water quality impacts, we strongly encourage a low-impact planning approach.

We request you address the following in the DEIR:

a. Alternatives that include a low-impact approach, based on principles and practices described in the documents listed in Attachment 1, *Low Impact Development References*.

b. Low Impact Development generally involves more compact development that:

- Preserves pre-development hydrologic processes;
- minimizes generation of urban pollutants;
- preserves the amenity and other values of natural waters;
- maintains natural waters, drainage paths, landscape features and other water-holding areas to promote stormwater retention, pollution removal, and groundwater recharge;
- designs communities and landscaping to minimize stormwater generation, runoff, and concentration; promote groundwater recharge; and reduce water demand;
- promotes water conservation.

3. Identification of Affected Waters

A clear understanding of the location and nature of the waters potentially affected by this project is fundamental to fulfillment of our regulatory responsibilities.

We request you address the following in the DEIR:

a. Map the waterbodies and 100-year floodplains in the project area.
b. For waterbodies and their 100-year floodplains expected to be directly affected, identify the acreage and, for drainage features, the number of linear feet potentially impacted, and sum the total affected acres and linear feet by waterbody type.
c. Identify any "isolated" wetlands or other waters excluded from federal jurisdiction by court decisions[1].

4. Characterization of Impacts.

As noted above, avoidance is often the best strategy for managing potential water quality impacts. For unavoidable impacts, understanding how pollution pathways will operate is essential to managing them.

We request you address the following in the DEIR:

a. Specify the causes, natures, and magnitude of all proposed impacts. Provide a level of analyses commensurate with the size and complexity of the project and its potential water quality impacts, referring to Attachment 1 to these comments.

b. Quantify impacts as definitively as feasible, using appropriate modeling and adequate data. Modeling approaches should be documented; and data deficiencies or other factors affecting the reliability of the results identified and characterized.

c. Identify whether impacts will be temporary or permanent.

5. Hydrologic Disruption Analysis

Because increased runoff from developed areas is the key variable driving a number of other adverse effects, attention to improving the pre-development hydrograph will prevent or minimize many problems and will limit the need for other analyses and mitigation in the EIR.

We request you address the following in the DEIR:

a. Alternatives and mitigations analyses measures to improve the pre-project hydrograph.

b. Provide a meaningful analysis of potential cumulative impacts to watershed hydrology from existing and other planned development in the watershed or planning area.

---

[1] Such as, U.S. Supreme Court, *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 2001, and *Rapanos v. United States*, 2006.

c. An assessment of the environmental impacts on Bear Creek flow from additional pumping of the groundwater aquifer to provide adequate water supply for Project implementation. This analysis should include how impacts to Bear Creek from additional groundwater pumping will be mitigated.

6. Water Board Waste Discharge Prohibitions

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) includes waste discharge prohibitions applicable to the Project area, including the following:

> *The discharge or threatened discharge, attributable to human activities, of solid or liquid waste materials including soil, silt, clay, sand, and other organic and earthen materials to lands within the 100-year floodplain of the Truckee River or any tributary to the Truckee River is prohibited.*

An exemption to this prohibition may be granted by the Water Board under certain circumstances. See Section 4.1 of the Basin Plan for the complete list of waste discharge prohibitions and for the applicable exemption criteria (http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/docs/ch4_implementplans.pdf). We request you address the Project's compliance with Basin Plan prohibitions and/or need for prohibition exemptions by the Water Board in the EIR.

7. Groundwater Supply and Recharge

We note that pages 19 and 22 of the NOP indicate the project would not use ground water. However, groundwater would be supplied by the Alpine Springs Water District for construction and occupancy and should be evaluated in the EIR. We also suggest the project site may provide opportunities for ground water recharge by runoff that must be addressed in the EIR.

Thank you for the opportunity to comment on this Project. We look forward to working with Placer County and the Project proponent to protect water quality. If you have any questions or comments, please contact me at (530) 542-5430, or Dale Payne, Environmental Scientist, at (530) 542-5464.

Alan Miller

Alan Miller, P.E., Chief
North Basin Regulatory Unit

Enclosure: Low Impact Development References

Cc: State Clearinghouse, Office of Planning and Research

DYP/adw/T: Alpine Sierra Subdivision NOP Comments.docx
File Under: General / Placer County /Alpine Sierra Subdivision

Low-Impact Development References

Low-impact (LID) development generally involves more compact development that:

- minimizes generation of urban pollutants;
- preserves the amenity and other values of natural waters;
- maintains natural waters, drainage paths, landscape features and other water-holding areas to promote stormwater retention and groundwater recharge;
- designs communities and landscaping to minimize stormwater generation, runoff, and concentration; promote groundwater recharge; and reduce water demand;
- promotes water conservation and re-use.

The following documents are among many that provide more specific guidance in LID.

Bay Area Stormwater Management Agencies Association. Start at the Source. 1999. Online: http://www.basmaa.org/index.cfm.

Center for Watershed Protection. Better Site Design: A Handbook for Changing Development Rules in Your Community. August 1998. Online: http://www.cwp.org/.

Local Government Commission. The Ahwahnee Water Principles: A Blueprint for Regional Sustainability. July 2006. Online: http://water.lgc.org/guidebook.

Prince George's County, Maryland, Department of Environmental Protection. Low-Impact Development Design Strategies. January 2000.

Prince George's County, Maryland, Department of Environmental Protection. Low-Impact Development Hydrologic Analysis. January 2000.

United States Environmental Protection Agency. Using Smart Growth Techniques as Stormwater Best Management Practices. EPA 231-B-05-002. December 2005.

United States Environmental Protection Agency. Parking Spaces/Community Places. EPA 231-K-06-001. January 2006.

United States Environmental Protection Agency. Protecting Water Resources with Higher Density Development. EPA 231-R-06-001. January 2006.

United States Environmental Protection Agency. Growing Toward More Efficient Water Use: Linking Development, Infrastructure, and Drinking Water Policies. EPA 230-R-06-001. January 2006.

Further Online References:

Ca. Office of Environmental Health Hazard Assessment: http://www.oehha.ca.gov/ecotox.html
United States Environmental Protection Agency: http://www.epa.gov/smartgrowth/

PLACER COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Ken Grehm, Executive Director
Brian Keating, District Engineer
Andrew Darrow, Development Coordinator

May 5, 2014

Maywan Krach
Placer County
Community Development Resource Agency
3091 County Center Drive
Auburn, CA 95603

RE: Alpine Sierra Subdivision / NOP of a Draft EIR

Maywan:

Regarding the preparation of a Draft EIR for the subject project I have the following comments.

The proposed development has the potential to create the following impacts:

a.) Increases in peak flow runoff downstream of the project site.

b.) Overloading of the actual or designed capacity of existing stormwater and flood-carrying facilities.

c.) The alteration of 100-year floodplain boundaries.

Future EIRs must specifically quantify the incremental effects of each of the above impacts due to this proposed development and propose mitigation measures if necessary.

Please call me at (530) 745-7541 if you have any questions regarding these comments.

Andrew Darrow, P.E., CFM
Development Coordinator

d:\data\letters\cn14-48.docx

TAHOE-TRUCKEE SANITATION AGENCY

A Public Agency
13720 Butterfield Drive
TRUCKEE, CALIFORNIA 96161
(530) 587-2525 • FAX (530) 587-5840

Directors
O.R. Butterfield
Dale Cox
Erik Henrikson
S. Lane Lewis
Jon Northrop
General Manager
Marcia A. Beals

VIA U.S. MAIL AND E-MAIL

29 April 2014

Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603
Attn: Maywan Krach
cdraecs@placer.ca.gov

RE: T-TSA Comments on Notice of Preparation of a Draft Environmental Impact Report for the Proposed Alpine Sierra Project

Dear Ms. Krach:

The Tahoe-Truckee Sanitation Agency (T-TSA) has received the Notice of Preparation (NOP) you sent us for the Proposed Alpine Sierra Project (Project). T-TSA staff have reviewed these materials and offers the following comments.

T-TSA provides regional wastewater treatment service to the properties that lie within the Agency's five member sewage collection districts - the North Tahoe Public Utility District, the Tahoe City Public Utility District, the Alpine Springs County Water District (ASCWD), the Squaw Valley Public Service District, and the Truckee Sanitary District (TSD). T-TSA also serves Northstar by way of an agreement between TSD and the Northstar Community Services District. T-TSA owns, operates and maintains the Truckee River Interceptor (TRI), a main trunk line for raw sewage conveyance, and the Tahoe-Truckee Sanitation Agency Water Reclamation Plant (WRP), both of which are described in more detail below.

The 17-mile long TRI pipeline runs along the Truckee River corridor between Tahoe City and the WRP in Truckee. The interceptor flows exclusively by gravity and varies in size from 24- to 42-inches in diameter. The interceptor conveys all of the untreated, raw sewage collected from the northern and western shores of Lake Tahoe, Alpine Meadows, Squaw Valley, Truckee, and Northstar.

The WRP regional facility is designed to treat and dispose of the sewage delivered by the TRI. Through a series of biological, chemical and physical processes, the wastewater is purified to a degree where surface and ground water quality is protected. Wastewater flow to the facility varies in quantity and quality in proportion to the population present during the year. The WRP

is principally sized to treat the maximum sewage flows that occur during peak holiday periods with the large influx of seasonal residents and visitors.

We would like to take this opportunity to offer the following comments on the documents you've made available for review:

1. As part of the environmental review phase, there will be a need to assess the potential impacts on the sewage conveyance and treatment infrastructure that would serve the proposed Project. This Project would result in an increase in the amount of wastewater that would require conveyance through the TRI and treatment at the WRP. More detail will need to be furnished on the proposed improvements before T-TSA can make a proper assessment as to what impact the Project may have on our facilities. In order to accurately evaluate whether or not the TRI and WRP have sufficient unused capacities to serve the proposed Project, estimated Project wastewater flows must be provided to T-TSA. Project developers will need to present development plans with tabulated fixture unit counts and other T-TSA billing factor counts. The methodology used to develop these fixtures, factors, and flowrates also must be submitted.

2. Please be advised at this early stage in the planning process that T-TSA does not issue Will Serve letters. All capacity allocations are made on a first-come, first-serve basis for all projects within T-TSA's service area.

Potential impacts to ASCWD's wastewater collection facilities should also be evaluated. Project planners should contact and coordinate with ASCWD separately from T-TSA in evaluating the impacts of this Project to their systems.

T-TSA would like to thank Placer County for the opportunity to provide these comments. Please evaluate and address the concerns noted above so that we can better define the impacts that this Project might have on T-TSA's facilities and operations.

If you have any questions, please do not hesitate to call me at (530) 587-2525.

Sincerely,

Jason A. Parker
Engineering Department Manager

JAP:jp

c: Marcia Beals, General Manager
John Collins, Alpine Springs County Water District

FRIENDS OF THE WEST SHORE
• Protecting Our Watersheds • Wildlife • Rural Quality of Life

Placer County Planning Department
Maywan Krach, Community Development Technician
3091 County Center Drive
Auburn, CA 95603
cdraecs@placer.ca.gov

May 8, 2014

Subject: Notice of Preparation (NOP) for Draft Environmental Impact Report (DEIR) for Alpine Sierra Subdivision

Dear Ms. Krach:

The Friends of the West Shore appreciates this opportunity to provide comments on the Notice of Preparation (NOP) for the Draft Environmental Impact Report (EIR) for the Alpine Sierra Subdivision.

The Friends of the West Shore (FOWS) works towards the preservation, protection and conservation of the West Shore, our watersheds, wildlife, and rural quality of life, for today and future generations. We are concerned with the extent of proposed development along the West Shore, North Shore, and areas bordering the Lake Tahoe Basin (such as Alpine Meadows), and the cumulative impacts of these multiple projects on our communities and environment, which include increased Vehicle Miles Traveled (VMT) in the Basin, increased water and air pollution, noise, and other adverse impacts associated with increasing visitor and resident populations, both in the Basin and surrounding areas. The following comments are provided to assist with development of the DEIR for the proposed project:

1. **Project Purpose and Range of Alternatives:**

   Unfortunately, the NOP includes no information regarding the range of alternatives to be evaluated in the EIR, including an environmentally superior alternative. Oddly, the NOP only mentions one possible alternative – essentially the same project with a second access road:

   > "A potentially feasible project alternative is currently being considered, which would provide a second point of vehicular access through the BCA subdivision north of the project site. This alternative has not been approved by the BCA and its feasibility is unknown at the time of this NOP." (p. 13).

   The DEIR must include an adequate RANGE of alternatives, including alternatives with fewer impacts. Further, what is the purpose of the Project? What are the objectives?

   The situation regarding the USFS trail that traverses the project site needs clarification. Is there an easement, or does the project area include a portion of USFS land? In addition, has Placer County and/or the applicant discussed the potential future USFS loop road access with the USFS? Does the project, or issues related to the project (e.g. evacuation routes/emergency access) rely on USFS taking this action?

2. Environmental Impacts of traffic and related pollution in the Lake Tahoe Basin

The NOP only notes traffic studies will be completed for intersections outside of the Lake Tahoe Basin (p. 19-20), however, new residents and visitors to Alpine Meadows are likely to drive into the Basin at some point (or regularly), affecting intersections in Tahoe City and south on S.R. 89 along the West Shore. Lake Tahoe Basin VMT, congestion, air pollution, water pollution, noise, and other cumulative impacts must be adequately analyzed in the EIR.

3. Placement of more people in hazardous area and increased difficulty of emergency access

FOWS is concerned the project proposes to place more homes and people in fire-prone areas. As noted in the attached "Dangerous Developments" (2007 Sierra Nevada Alliance), this is a dangerous project from a public safety standpoint. Making matters worse, climate change impacts are anticipated to bring drier conditions, more winds, and other factors which exacerbate fire danger.

We hope these comments will assist Placer County with the development of a comprehensive, technically-adequate EIR, which also takes into account a variety of alternative options and which reflects the desires of the local Alpine Meadows community. Please feel free to contact Jennifer Quashnick at jqtahoe@sbcglobal.net if you have any questions.

Sincerely,

Susan Gearhart,
President,
Friends of the West Shore

Jennifer Quashnick
Conservation Consultant,
Friends of the West Shore

Attachments: Dangerous Developments, Sierra Nevada Alliance, 2007.

DANGEROUS DEVELOPMENT

Wildfire and Rural Sprawl in the Sierra Nevada

SIERRA NEVADA ALLIANCE

Keeping light in the range.

September 2007

Dangerous Development

Wildfire and Rural Sprawl in the Sierra Nevada

SIERRA NEVADA ALLIANCE

Executive Summary

Wildfire and population growth are on a collision course in the Sierra

New research by Sierra Nevada Alliance finds that large numbers of people are moving to very high fire hazard areas of the Sierra, leading to more wildfires, more taxpayer expense, and more loss of life.

In the next 20-40 years, even more people and homes will be in harm's way. The population of the Sierra is expected to triple by the year 2040, and new research by Sierra Nevada Alliance finds that 94% of the land slated for rural residential development is classified as very high or extreme fire hazard by the California Department of Forestry and Fire Protection (also known as CDF or CalFire).

At the same time, climate change is already making summers in the Sierra hotter and drier, leading to an increase in the frequency and severity of catastrophic wildfire (Westerling, 2006).

The combination of population growth and climate change in our fire-prone region is creating a "perfect firestorm" where increasing numbers of people and homes will be at greater risk of catastrophic wildfire.

The Sierra's population is growing -- and so is the risk of catastrophic wildfire. Photo by Maria Mircheva.

New Findings of This Report:

- Between 1990 and 2000, the number of people living in *very high* or *extreme* fire threat areas of the Sierra grew by 16%.
- 94% of the land slated for rural residential development in the Sierra is classified by CalFire as *very high* or *extreme* fire threat.
- Between 1990 and 2000, the Sierra's wildland urban interface (or WUI) grew by 131,000 acres, a 12% increase.
- Better community planning can help reduce the number of lives and homes at risk.

This report examines the relationship between land use planning and wildfire prevention in the Sierra. We hope this report will help the public, decision makers and conservation leaders assess where and how we grow, to make better choices that will keep our homes and communities safer.

Local governments in the Sierra, along with state and federal agencies, must take action to limit the spread of residential development into dangerous areas. We must also end subsidies that encourage reckless development at taxpayer expense.

Fire is natural & unavoidable in the Sierra

The Sierra Nevada is a fire-dependent landscape. California's Mediterranean climate of wet winters and hot, dry summers creates the exact conditions for fire to flourish. Sierra plants, animals and forests evolved with fire for thousands of years, and have adapted to not only survive with fire, but to depend upon it. The health of the Sierra landscape depends upon frequent, low-intensity fires that thin crowded forests, recycle nutrients, and increase biodiversity (Barbour, 1993).

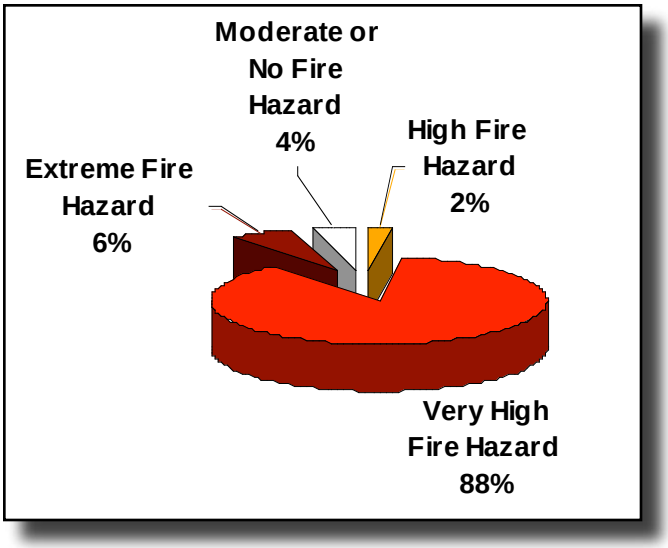
Decades of fire suppression and logging have created a tinderbox

After the gold rush, fire suppression became the standard practice, and these small, low-intensity fires were regularly put out. This seemingly good idea has had disastrous consequences. After 100 years of fire suppression and logging large, fire-resistant trees, Sierra forests have become virtual tinderboxes, crowded with dead brush and small trees. (Barbour, 1993). The continuing conversion of mature, fire-resistant forests to plantations and other industrial logging practices are compounding the fire threats in the Sierra Nevada, taking what was a fire-adapted forest system and making it much more vulnerable to catastrophic fire. Unlike the small, low-intensity fires that used to be the norm, Sierra wildfires today are much more likely to become catastrophic crown fires that char everything in their path.

The Sierra is growing – into wildfire areas

The Sierra is the third-fastest growing region of California, and that growth is putting more people directly in the path of catastrophic wildfire. By 2040, the population of the Sierra will triple to 1.5 million - 2.4 million residents (Sierra Nevada Ecosystem Project, 1996). New research by Sierra Nevada Alliance finds that 94% of the land slated for rural residential development is in areas classified by CalFire as very high or extreme fire hazard.

The 2007 Angora fire destroyed 242 homes near South Lake Tahoe. Photo by Autumn Bernstein.



This figure depicts fire hazard on lands slated for rural residential development in the Sierra.

Unsafe growth patterns increase fire danger

The wildland urban interface -- the area where houses and wildlands meet, and where catastrophic wildfires are likely to destroy lives and property -- is growing rapidly in the Sierra. New research by Sierra Nevada Alliance finds that between 1990 and 2000, the wildland urban interface (WUI) in the Sierra grew by 12%. As the size of the wildland-urban interface grows, so does the risk of catastrophic wildfire that destroys lives and property.

The WUI in the Sierra is characterized by low-density housing development scattered in a sea of flammable vegetation. This pattern of low-density development, with one house every 2-80 acres, is often referred to as "rural ranchette" development. Ranchette development in the WUI makes it more difficult and more costly for fire managers to prevent wildfires and protect homes and lives when major fires do occur.

Climate change is increasing wildfire danger

At the same time that population growth is putting more people in fire hazard areas, climate change is already making summers in the Sierra hotter and drier, leading to an increase in the frequency and severity of catastrophic wildfire (Westerling 2006). CalFire predicts that these impacts will become more severe in coming years (CalFire 2003), leading to a "perfect fire storm" where increasing numbers of people and homes will be at greater risk of catastrophic wildfire.

Poorly-planned growth is putting more homes in the path of wildfires like the 2007 Angora Fire. Photo by Eric Winford.

Taxpayers are subsidizing unsafe growth

Costs of fire prevention have increased exponentially in recent years as state and federal firefighters spend more time and money protecting new homes in wildland areas. The vast majority of these costs are shouldered not by the affected homeowners, but by state and federal taxpayers. A recent federal audit found that the US Forest Service is spending up to $1 billion annually to protect private homes adjacent to national forest land (USDA Office of Inspector General, 2006). CalFire's fire protection expenditures increased an average of 10% per year between 1994 and 2004, and much of that increased cost was due to increasing numbers of homes in wildland areas (California Legislative Analyst's Office, 2005).

Current policy is failing at-risk communities

Our current policy framework doesn't do enough to minimize risks to lives, assets, watersheds, wildlife and ecosystem health. In most parts of the Sierra, land use planning in wildfire areas focuses on site-specific requirements such as clearing defensible space and building with fire-retardant materials. Site-specific building policies are important, but fire-safe planning must look at the bigger picture: planning the *neighborhood* and the *community.*

"Fire-smart growth" can save lives and money

Development in high fire threat areas of the Sierra is inherently dangerous. However, community design can play a large role in minimizing exposure and reducing losses. Infill and clustered development, aka "fire-smart growth," has numerous advantages over low-density ranchette development when it comes to fire safety. These factors should be considered by counties, cities and developers when planning for new development in the Sierra.

Taxpayers are subsidizing fire protection for homes in high fire hazard areas. Photo by Shasta Ferranto.

Better planning can make our communities safer. Photo by CanyonFlorey.com

Principles for planning fire-safe communities

This report recommends that planning in high fire threat areas should adhere to five fire-safe planning principles. Implementation measures for each of these five principles are explored in chapter six of this report.

1. Make new development pay its own way: Landowners contemplating development in high fire threat areas should be required to pay the full cost for fire protection.

2. Cluster development in and around existing communities: Local governments should encourage infill development and concentric outward growth while discouraging low-density sprawl and leapfrog development in high fire hazard areas.

3. Don't build in unsafe places: Even within an area of high fire hazard, some places are more dangerous than others. New development should be curtailed in places that will put new or existing residents at greater risk.

4. Manage the forested landscape to restore resiliency and reduce fire risk: State, federal and local agencies should support responsible forest management practices that restore forest health and reduce the risk of catastrophic crown fire in the WUI.

5. Improve planning and budgeting processes to fully address risks: All levels of government involved in wildland fire prevention and protection need to improve planning and budgeting to prepare for coordinated wildfire prevention and response.

Conclusion: Better planning is the key

The threat of catastrophic wildfire in Sierra communities has increased dramatically in recent years, and will only get worse unless local, state and federal agencies, in partnership with Sierra residents, NGOs and community groups, work together to address the underlying issues of poor planning and unfair subsidies that encourage irresponsible development.

We can build thriving communities that are safer and sustainable, by making an upfront investment in good planning that will save lives and money in the long run. Or we can continue with business as usual, and deal with the consequences every fire season to come. The choice is ours.

Dangerous Development

Wildfire and Rural Sprawl in the Sierra Nevada

Table of Contents

Executive Summary..... i

Table of Contents.....v

Foreword: Lessons from the Angora Fire 1

Chapter 1: History and Ecology of Fire in the Sierra.....2

Chapter 2: Wildfire and Population Growth on a Collision Course..... 6

Chapter 3: How Does Development Affect Wildfire?..... 12

Chapter 4: Subsidizing Disaster: Who Pays for Protecting Unsafe Development?... 16

Chapter 5: Why Current Land Use Policy is Failing At-Risk Communities.....20

Chapter 6: Principles for Planning Fire-Safe Sierra Communities..... 22

Appendix A: Data for each County 28

Appendix B: References.....39

Appendix C: Maps of Fire Risk and General Plans in the Sierra 42

Acknowledgements

Written by Autumn Bernstein, Land Use Coordinator for Sierra Nevada Alliance.

Many people that gave their time, energy, wisdom and experience to this report, including Bob Johnston, Warren Alford, Zeke Lunder, Ray Griffiths, Craig Thomas, Paul Mason, and Tim Ingalsbee.

Several outstanding research interns spent their summers helping put this together, including Sarah Ford, Michela Adrian and especially Nicole Gibson.

We are indebted to those researchers who assisted with data analysis and/or shared their data: Bob Johnston of UC Davis Dept. of Environmental Science & Policy, Nate Roth at the UC Davis Information Center for the Environment, GreenInfo Network, and Shelley Schmidt at the University of Wisconsin SILVIS lab. Thanks also to Shasta Ferranto for her help with spatial analysis.

Zeke Lunder, Eric Winford, John Pickett, Maria Mircheva, Shasta Ferranto, Canyon Florey and Darin Dinsmore allowed me to use their photos. Thanks to Canyon Florey for cover art, layout and design. (CanyonFlorey.com)

Thanks to Ellen Hickey and Shannon Raborn who got the ball rolling on this report.

Lastly, thanks to the staff and board of Sierra Nevada Alliance, especially Joan Clayburgh, Kay Ogden, Terry Manning, Bob Johnston and Addie Jacobson.

The author bears responsibility for any factual errors. Recommendations and views expressed are those of Sierra Nevada Alliance and do not necessarily represent those of funders, reviewers or others who offered assistance to this report.

About Sierra Nevada Alliance

The Sierra Nevada Alliance has been protecting and restoring Sierra land, water, wildlife and communities since 1993. The Alliance is a network of conservation groups that are based or work in the Sierra Nevada region. There are over 85 member groups that span the entire 400 mile mountain range.

The Alliance's Planning for the Future Campaign works to ensure that future growth protects our natural resources, working landscapes and rural communities.

For more information or to obtain additional copies:

Sierra Nevada Alliance
PO Box 7989
South Lake Tahoe, CA 96158
530.542.4546
www.sierranevadaalliance.org
info@sierranevadaalliance.org

Copyright 2007 by Sierra Nevada Alliance. Permission is granted to reproduce portions of this report provided the title and publishing organization – Sierra Nevada Alliance – are acknowledged.

Foreword:

Lessons from the Angora Fire

by Autumn Bernstein, Land Use Coordinator

Sunday, June 24, 2007: When I saw the first plumes of smoke rising over the ridge behind my house, I went inside to make a sandwich.

It might sound crazy, but I've spent my entire life in California. After a while, you get used to seeing little plumes of smoke. You don't panic. You listen for the sirens, you keep one eye on the sky, you turn on the news, but you don't panic. Most of the time, these little fires are put out before they can become destructive. Most of the time, but not this time.

While I was in the kitchen slicing cheese and toasting bread, I felt a great gust of wind shuddering across the side of the house. I walked back outside and saw that the little plume of grey smoke had suddenly become a billowing orange column, arcing over my house and blocking out the sun. The wind blew again – it was coming my way, fast and hot.

I never got to eat that sandwich. My stomach was still growling as I drove down the road with my pets, laptop, sleeping bag, and a copy of *East of Eden* I'd bought at a garage sale that morning. As I drove, I thought about all the things I'd left behind, and wondering if they'd still be there tomorrow. Six days later, when I was allowed to return home, the hunk of cheddar cheese was still on the counter, the bread still in the toaster.

I live on Angora ridge near South Lake Tahoe. The fire came to the very edge of my neighborhood, within ¼ mile of my home. I am one of the lucky ones. 242 families lost their homes, and over a thousand experienced the same fear and suspense that I did, before returning to find homes and possessions intact.

I'd spent the last two years researching and writing this report on wildfire and rural development, only to have my own terrifying first-hand experience with wildfire just weeks before this report was scheduled to be released. It brought home the lessons of this report in a very personal way that I couldn't have imagined before.

My house was saved because of the remarkable efforts of the firefighters that kept the fire at the perimeter of our neighborhood. It was also saved because the US Forest Service had recently completed fuel treatment in the forest directly adjacent to our neighborhood, helping to create a defensible space around our homes. And it was saved because I simply got lucky.

Fire is natural and unavoidable in the Sierra. Equally natural and unavoidable are the impulses of people like myself, who want to make a home in this beautiful landscape. How do we reconcile this apparent contradiction?

Defensible space is one solution, and that issue has gotten a lot of attention in the aftermath of the Angora fire. But there is another, larger issue that has been largely ignored: How can we use the tools of urban planning to build safer communities?

While I love my home, I question whether or not my neighborhood should have been built in the first place. It is an isolated, leapfrog subdivision perched atop a steep, fire-prone ridge, surrounded by dense forests. All of these factors make it an extremely dangerous place in the event of a wildfire.

New subdivisions like mine are popping up all over the Sierra, with little thought about the implications for fire safety. Worse still, isolated rural ranchettes are sprawling across the landscape, putting people in even more remote, hazardous areas. This pattern of 'rural sprawl' increases the likelihood that more homes will be destroyed and more lives will be lost as wildfire makes its inevitable march across the landscape.

2007 is shaping up to be one of the worst fire seasons in recent memory. It is also the year that I stopped being a fire observer, and became a fire survivor. It is an experience I hope never to repeat. But unless we Sierrans start asking hard questions about where and how we grow, I fear that many more of us will have our own survivor stories to tell, and they won't all have happy endings.

Chapter 1
History and Ecology of Wildfire in the Sierra

The Sierra Nevada region

The Sierra Nevada is a 400-mile region characterized by tall granite peaks, coniferous forests and rolling, oak- and chaparral-covered foothills. It includes portions of 22 California counties and is home to approximately 600,000 people. The Sierra is also home to over half the plant and animal populations of the state, and provides 60% of California's drinking water.

Low-intensity ground fires were common in the Sierra before 1850. Photo by Zeke Lunder.

The forest that John Muir saw

Fire is an integral part of the Sierran landscape. Before the arrival of Europeans, low-intensity ground fires were commonplace and rarely catastrophic. Several studies have shown that prior to 1875, fires occurred every 8-15 years in pine forests, and every 16-30 in wetter fir forests (Barbour, 1993).

When fire was commonplace in the Sierra, our forests, woodlands and chaparral areas looked quite different than they do today. The forests were more open and park-like, with big, mature trees and carpets of grass and wildflowers, and much less woody brush and fewer small trees than we see today.

John Muir described the forests of the Sierra as:

> *"[among] the grandest and most beautiful in the world. . . The giant pines, and firs, and Sequoias hold their arms open to the sunlight, rising above one another on the mountain benches. . . The inviting openness of the Sierra woods is one of their most distinguishing characteristics. The trees of all the species stand more or less apart in groves, or in small irregular groups, enabling one to find a way nearly everywhere, along sunny colonnades and through openings that have a smooth, park-like surface," (Barbour ibid).*

This open, park-like setting was due largely to the beneficial influence of fire. It is hard to imagine today, when wildfires frequently char everything in their path, but fires used to be far less destructive and were in most cases beneficial. The frequent ground fires cleared away brush and smaller trees, but left the larger trees intact. Fire also cleared away the layer of dead leaves, pine needles and brush that covered the ground, leaving behind bare soil and stimulating the regeneration of grasses, wildflowers and other small plants that might otherwise be unable to grow.

Because fires came through frequently, brush and dead wood were eliminated before they could accumulate to dangerous levels. When brush piles up and small trees clutter the forest, they form a "ladder" which allows fire to climb from the ground into the treetops, resulting in catastrophic crown fires that kill the large trees and threaten homes and lives. In the Sierra before European arrival, such fires were less common than they are today and large, old trees survived dozens or even hundreds of fires (Barbour, ibid).

The Giant sequoia and fire

In some cases, fire also has a more specialized role in ensuring the health of Sierra ecosystems and even the survival of species. One example is the Giant sequoia,

which is the world's most massive living organism and is found nowhere else in the world outside the Sierra. With its huge size and majestic stature it is hard to imagine that the Giant sequoia is actually quite vulnerable.

But its lifecycle is intimately dependent upon fire. Giant sequoias produce huge amounts of cones, but unlike the cones of most conifers, these cones do not automatically open and release their seeds. Instead, the cones remain green, hanging onto the parent tree and holding their seeds for as long as twenty years. Hot air from a ground fire causes the cones to open and rain seeds upon the forest floor – up to 8 million seeds per acre fall after a fire (Harvey, 1980).

Survival and successful germination of Giant sequoia seeds also depends upon fire. The seeds have a hard time germinating and growing to maturity in the litter of needles and leaves which usually covers the forest floor. When fire has exposed the bare soil and reduced the amount of shade in the forest, then the seeds can germinate and grow successfully.

Land managers who steward Giant sequoia groves now understand the importance of fire and use controlled burns to ensure the long-term survival of the species. Since the reintroduction of fire into Kings Canyon National Park, the number of seedlings per acre has grown from virtually zero to 22,000 (Harvey ibid).

Native Californians and fire

For as long as there have been people in the Sierra, there has been management of fire. The Sierra Nevada has been inhabited for at least 10,000 years by peoples of the Miwok, Paiute, Washo, Maidu, Yokuts, Nisenan, Konkow and Mono cultures, and virtually all of these tribal groups actively managed the landscape until the arrival of Europeans. They used a variety of tools and techniques, but the tool that was most widely used, and had the most dramatic effect on the appearance and ecology of the Sierra, was fire. Indeed, it now appears that Native Americans used fire to manage forest throughout the New World (Mann, 2006).

Foothill areas were routinely burned to reduce brush and stimulate the production of herbaceous plants and tubers, which were important to the diet of Native Californians, both because people ate the plants directly, and because they provided food for deer, elk and other game. Fire also helped maintain the productivity of oak woodlands, important for the acorns they provided, and stimulated the growth of shrub shoots, used for basketry, buildings and, in the case of fruit-producing shrubs like chokecherry and manzanita, food. Burning was also important to Native Californians because it reduced the risk of catastrophic crown fires that destroyed homes and food-producing trees, and eliminated habitat for game and fish. According to UC Davis ethnobotanist M. Kat Anderson, "burning to keep the brush down" was a maxim adhered to by all Sierran peoples (Anderson, 1996) .

The impacts of regular and widespread burning by Native Americans were significant. Approximately 100,000 Native Americans lived in the Sierra Nevada before the arrival of Europeans, and virtually every tribal group regularly burned large areas. While it is impossible to know how many fires were historically caused by lightning and how many by Native Americans, it is likely that both natural fires and human-caused fires played an important role in shaping the Sierra. What is clear is that the open, park-like forest which so enchanted John Muir and other early settlers was not a pristine wilderness, but a landscape that was managed by those who inhabited it for thousands of years (Anderson, 1996).

Changing regimes: fire suppression and logging

As Europeans moved in and replaced Native Americans as California's land managers, the fire regime in the Sierra changed dramatically. It became the norm to extinguish fires caused by lightning or other natural causes and deliberate human-caused fires were seen as a menace rather than as a management tool. Fire suppression became the official policy of the Forest Service in 1905 and the California Department of Forestry followed suit in 1924.

In addition, the widespread industrial logging which began during the mining era has also changed the composition of Sierra forests. The practice of clearcutting replaced diverse forests with vast plantations of small trees that are all the same age. Most of the Sierra's national forests and private

forestlands were clearcut regularly for decades. Today, clearcutting continues on a large scale on some private forestlands. The Sierra Nevada Ecosystem Project (SNEP) characterized the effect of logging in this way:

> *"Timber harvest, through its effects on forest structure, local microclimate, and fuel accumulation, has increased fire severity more than any other recent human activity." (SNEP, 1996).*

The results of a century of fire suppression and logging large, fire-resistant trees have been dramatic. Sierra forests and woodlands today are more crowded and shrubbier. Shade-tolerant trees such as the white fir have thrived under these conditions and vastly expanded their numbers and range, while fire-dependent species such as the Giant sequoia have suffered (Barbour, ibid). High meadows have been invaded by thickets of conifers (Taylor, 1990), and oak woodlands have been overtaken by deerbrush (Barbour, ibid).

This scene from the aftermath of the 2007 Angora fire is typical of a crown fire in a dense, crowded forest. Photo by Autumn Bernstein.

In these conditions, the likelihood of catastrophic crown fire has increased dramatically. Dense stands of young, small trees are very flammable. Accumulated brush and dead wood are also highly flammable. Taken together, small trees, brush and dead wood form a "ladder" that allows fire to climb from the ground into the canopy and spread quickly from tree to tree. This type of fire is difficult to control.

Fire suppression has changed the behavior of fires, but the effects vary by forest type. For example, high elevation red fir forests historically experienced fairly long intervals between fires, so the recent departure from the natural fire regime has been less pronounced in these forests. By contrast, fires were historically far more frequent in lower-elevation ponderosa pine forests, so the effects of fire suppression in this forest type have been more pronounced.

Beyond fire suppression: new methods for fire management

In recent years, fire and land managers in the Sierra and throughout the West have become aware of the unintended consequences of fire suppression and logging, and they are taking proactive steps to undo the damage of a century's worth of mismanagement. The removal of brush and small trees, in conjunction with prescribed burning, are techniques now widely used to restore forests to a condition similar to that which existed before fire suppression.

Making a forest more fire safe usually involves cutting young trees and tall brush first, which are then piled and burned safely. Once these fuel sources are removed, a ground fire is set to burn the remaining small brush and accumulated debris on the forest floor (pine needles, fallen branches, etc.). After the ground fire has run its course, what remains are large, living trees and bare soil – a forest in which catastrophic crown fire is less likely to occur. The following spring, the forest floor turns green as shrubs re-sprout and annual herbs and wildflowers flourish in the rich, newly-fertile soil.

While these new management techniques are widely believed to be effective at both restoring forest health and preventing catastrophic fire, they are resource-intensive, requiring large amounts of both capital and labor. Over time, brush and small trees will accumulate once again, so effective fuel reduction programs require an ongoing investment of resources. In addition, fuel treatments are more difficult and costly to implement on steep slopes and in fragile areas such as stream environments. Efforts to

implement fuel reduction programs on a large scale are complicated by funding shortfalls, competing management priorities and the mishmash of state, federal and private lands.

The continuing hazard of timber plantations

The conversion of forests to plantations continues on some private forestlands in the Sierra, increasing fire hazard in adjacent forests and communities. Tree plantations stocked with densely-stocked, even-aged, nursery-grown conifers have their needles and branches close to the ground and tend to have interlocking crowns; consequently, they form a continuous aerial fuel mass that can easily ignite and spread as a crown fire. This is why plantations are susceptible to severe fire damage even from low-to-moderate intensity fires.

Because young timber plantations pose such extreme fire risks and fuel hazards, they must be managed with complete fire exclusion. It takes just a few scattered plantations to put whole areas at risk of uncharacteristically severe fire, and thus, plantations zones are managed for fire exclusion, causing hazardous fuel loads to accumulate over time. The presence of these plantations compels adjacent public land management agencies to design expensive thinning treatments near plantations to increase successful suppression operations and induces fire fighters to take risky actions to aggressively fight fires burning in plantation zones—even fires that otherwise could have been used for fuel treatment and ecological benefits (Ingalsbee, 1997).

Sierra forest before and after mechanical fuel treatment. Photos by Zeke Lunder.

The new threat: Rural development

In recent years, the Sierra has begun to experience a development boom, fueled by retirees and second homeowners. In contrast to previous eras where growth was clustered around small, tight-knit towns, today's population growth is characterized by low-density rural "ranchette" development and leapfrog subdivisions where houses are scattered across the landscape. In some parts of the Sierra, rural residential development is outstripping all other types of development by a ratio of 10 to 1 (California Department of Conservation, 2006). This type of development makes forest management with regular controlled burning very difficult. Rural development also puts more lives and homes in danger. This newthreat to fire management is the central issue explored in this report.

Conclusion

In recent decades, forest managers and residents in the Sierra have begun to recognize the integral role of fire in Sierra forests. We now understand that fire cannot be eliminated or suppressed – it must be carefully managed. In the next chapter, we explore how population growth and wildfire are both on the rise in the Sierra, with potentially dangerous consequences.

Chapter 2
Wildfire and Population Growth on a Collision Course

For the last several decades, the number of people living in high fire threat areas of the Sierra has increased dramatically, resulting in increasing conflicts between people and fire. That growth is projected to continue over the next forty years. Other factors, such as climate change and the conversion of private forestland to highly-flammable plantations, are also contributing to a 'perfect firestorm' where more lives and homes will be at risk of catastrophic wildfire.

Ranchettes and the wildland urban interface

In many parts of the rural west, including the Sierra, the predominant form of new development is low-density "rural ranchettes" where houses are scattered at low densities (1 house per 2-80 acres) in a sea of wildland vegetation.

In many parts of the Sierra, ranchette development is the only game in town. For example, between 2002 and 2004, 261 acres of ranchland in Amador County were converted to urban development (commercial, industrial and medium density housing). During that same time period, 3,100 acres of agricultural land in Amador County were converted to ranchettes. In other words, ranchette development is outstripping urban development by a ratio of 10 to 1 (California Department of Conservation, ibid).

This type of development creates a 'wildland urban interface' (see sidebar) that is extremely problematic for fire management. Preventing and fighting wildfire in the wildland urban interface (WUI) is extremely difficult and resource-intensive.

Fires in the WUI tend to burn fast and fierce, and cause many homes to be lost at once. A case in point is the 2007 Angora fire, which began in the WUI and spread quickly to adjacent homes. All 242 houses and 67 commercial buildings destroyed by the fire were lost during the first twelve hours (Norman, 2007). In the 1990 Painted Cave fire in Santa Barbara, 479 homes were destroyed, most within two hours of the initial report (Cohen, 2000).

What is the Wildland Urban Interface?

The wildland urban interface, or WUI, is a term developed by fire managers to designate places where development is interspersed with areas that are prone to wildland fire. The USDA defines the WUI as "the area where houses meet or comingle with undeveloped wildland vegetation."

There are two types of wildland urban interface: In areas where developed cities share a distinct boundary with the adjacent wildland, the WUI is known as interface WUI. In areas where low-density development is intermingled with wildland vegetation, it is know as intermix WUI.

Source: USDA and USDI. 2001. Urban wildland interface communities within vicinity of Federal lands that are at high risk from wildfire. Federal Register 66: 751-777.

The wildland urban interface in the Sierra and the rural West is growing larger, and exposing more people to risk, every year. Population growth and wildland fire are, quite literally, on a collision course in the Sierra.

Fire and population growth: Recent trends in the western US

In states throughout the West, increasing numbers of homes are being built in high fire threat areas, dramatically increasing the size of the wildland urban interface. According to a study by researchers at the University of Wisconsin, in the Rocky Mountain states (AZ, CO, ID, KS, MT, ND, NE, NM, NV, SD, UT, WY), the number of homes in the WUI grew by 67.8% between 1990 and 2000 (Radeloff, 2005).

As the number of homes has grown, so has the sheer size of the wildland urban interface itself. From 1990 to 2000, the WUI in the Rocky Mountain states grew by 2,089,895 acres, an increase of 30.2%. In Nevada, the number of homes in the WUI grew by a whopping 91.7% during the same time period (Radeloff, ibid).

At the same time that the size of the wildland urban interface is growing, the frequency and severity of wildfires in the West is also growing. In 2006, a study in Science reported there were four times as many wildfires in the last sixteen years than during the previous sixteen years. The total area burned by those fires also increased dramatically, by 650%. Much of this increased fire activity was concentrated in mid-elevation forests in Northern California and the Northern Rockies (Westerling, 2006).

The same study also found that the recent increase in wildfire activity is correlated with an increase in average spring and summer temperature. This indicates that global climate change has probably begun to increase the frequency and severity of wildland fire in the western US (Westerling, ibid). Projections of further temperature rises, then, most likely will entail further increases in wildfire.

Fire and population growth: Recent trends in California

California is infamous for wildland fires that take lives, destroy homes, and char vast expanses of wildlands. The 2003 Old Fire killed six people, destroyed 1,000 homes and scorched about 100,000 acres in the San Bernardino Mountains above San Bernardino (USFS, 2003). Three years later, the Esperanza Fire killed five people, destroyed 34 homes, and charred 42,000 acres in the same area (CalFire, 2006). Thirty-six firefighters with the U.S. Forest Service and California Department of Forestry have died battling California wildfires since 1990.

Part of the reason California wildland fires are so destructive is that California has the most homes in the wildland urban interface of any state. According to the University of Wisconsin study, between 1990 and 2000, the number of homes in California's wildland urban interface increased by 14.5%, to 5.1 million. There are a total of 12 million homes in California, meaning that nearly one out of every two California homes is in the wildland urban interface.(Radeloff, ibid).

There are 8 million acres of WUI in California. Of those 8 million acres, about 5.5 million are classified by CalFire as high, very high, or extreme wildfire threat (see sidebar) (California LAO, 2005).

The real and potential economic costs of fire in California's WUI are staggering. CalFire estimates that the replacement value for homes in the wildland urban interface is $107 billion for the structures alone. On average, 703 homes in California are lost to wildfire every year, at a cost of $163 million (California Fire Plan, 1996).

Nearly one out of every two California homes is in the wildland urban interface.

These averages belie the enormous social and economic costs associated with large, devastating fires. The costs of the 2003 Old, Grand Prix and Padua fires, including, among other things, firefighting expenditures, private insurance payments, and FEMA assistance, were estimated by the Forest Service at $1.3 billion (Dunn, 2003).

CalFire's Fire Threat Classes

CalFire's Fire and Resource Assessment Program (FRAP) has developed a rating of wildland fire threat based on the combination of potential fire behavior (Fuel Rank) and expected fire frequency (Fire Rotation) to create a 4-class index for risk assessment. Impacts are more likely to occur and/or be of increased severity for the higher threat classes.

The Fire Threat classes are: Extreme, Very High, High, and Moderate. Areas that do not support wildland fuels (e.g. open water, agricultural lands, etc) are omitted from the calculation and are considered 'Non-fuel.' Most large urbanized areas receive a moderate fire threat classification to account for fires carried by ornamental vegetation and flammable structures.

CalFire is currently in the process of developing new hazard severity zone maps for California which will contain more current information. However, at the time of publication, these new maps were not finalized.

Source: http://frap.cdf.ca.gov/projects/fire_threat/

Fire and population growth: Recent trends in the Sierra Nevada

Much of the Sierra, particularly the western foothills, are classified by CalFire as "very high" or "extreme" fire threat. These areas are also the fastest-growing parts of the Sierra.

According to new research by Sierra Nevada Alliance, between 1990 and 2000, over 88,000 people —a 16% increase—moved into areas of the Sierra Nevada categorized by CalFire as either a "very high" or "extreme" fire threat.

Our data show that approximately 97% of the population growth in the Sierra took place in these very high or extreme fire threat areas.

Table 2.1 on page 8 shows the growth in population in "very high" and "extreme" threat portions of Sierra Nevada counties between 1990 and 2000.

Between 1990 and 2000, 97% of the Sierra's population growth was in areas considered* very high *or* extreme *fire threat by CalFire.

At the top of the list is El Dorado County, where over 140,000 people now live in these high fire risk areas, an increase of over 27,000 since 1990. Nevada and Placer Counties follow with 92,000 and 77,000 people respectively.

Table 2.1 Population growth in *very high* and *extreme* fire threat areas (in Sierra portions of counties)

County	1990	2000	change	% change
El Dorado	113,029	140,261	27,232	24%
Nevada	78,461	91,981	13,520	17%
Placer	66,241	76,877	10,636	16%
Tuolumne	46,732	52,449	5,717	12%
Butte	31,913	35,975	4,062	13%
Calaveras	25,339	30,005	4,666	18%
Amador	24,646	27,998	3,352	14%
Lassen	22,927	25,319	2,393	10%
Madera	18,453	24,303	5,850	32%
Plumas	19,062	20,064	1,001	5%
Mariposa	14,294	17,120	2,826	20%
Kern	15,330	15,754	424	3%
Fresno	13,030	15,652	2,622	20%
Tulare	12,388	13,196	808	7%
Mono	9,000	11,756	2,756	31%
Inyo	10,479	10,325	-155	-1%
Yuba	7,911	8,488	577	7%
Tehama	4,720	4,538	-182	-4%
Sierra	3,133	3,357	224	7%
Alpine	991	1,075	85	9%
Total	**538,079**	**626,492**	**88,413**	**16%**

Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

The Sierra's wildland urban interface is growing quickly

As population in high fire threat areas grows, so too does the size of the wildland-urban interface. For this report, Sierra Nevada Alliance analyzed regional data from the University of Wisconsin study (Radeloff, ibid) to identify how quickly the WUI in the Sierra grew between 1990 and 2000. (Note: this analysis only includes the 13 'core' Sierra Nevada counties. See sidebar for details). This is the first time this WUI data for the Sierra has been analyzed at this regional scale. The results are consistent with state and national trends: Between 1990 and 2000, the area of the WUI in the core Sierra region grew by 11.55% -- 131,000 acres.

Table 2.2 on page 9 shows the size of the WUI in each core Sierra Nevada county in 2000. Not surprisingly, the counties with the largest populations also have the largest WUI.

Core and Peripheral Sierra Counties

The 'core' Sierra Nevada counties are those whose populations and land area are entirely or almost entirely within the Sierra Nevada. These include: Alpine, Amador, Calaveras, El Dorado, Inyo, Lassen, Mariposa, Mono, Nevada, Placer, Plumas, Sierra and Tuolumne.

Peripheral Sierra Nevada counties are the foothill counties whose population and land area are predominately in the Central Valley: Butte, Yuba, Tehama, Madera, Fresno, Tulare and Kern.

Climate change is increasing the prevalence of wildfire

Even as the Sierra's wildland urban interface is growing, wildfire in the region is becoming more prevalent, according to a recent study published in Science. In the last sixteen years, wildfire activity in the Sierra and Northern California has increased "substantially."

Between 1990 and 2000, the area of the WUI in the core Sierra region grew by 11.55% -- 131,000 acres.

Most of this increased wildfire activity happened in years where spring came early, leaving the forests very dry by late summer and vulnerable to wildfire. The study found that mid-elevation forests are particularly sensitive to these changes, which are brought on by increasing temperature, a direct result of global climate change (Westerling, ibid).

Table 2.2
Area of the Sierra Nevada Wildland Urban Interface in 2000 (in acres)

County	Area of WUI
El Dorado	280,129
Placer	204,784
Nevada	190,892
Calaveras	138,588
Tuolumne	112,350
Mariposa	92,268
Amador	80,067
Lassen	54,006
Plumas	52,409
Mono	35,534
Inyo	16,401
Sierra	6,230
Total:	**1,263,658**

Source: Radeloff, 2005

Projections for the future: More growth in very high risk areas

The California Department of Finance predicts that by 2040, the population of the Sierra will triple to somewhere between 1.5 million and 2.4 million residents.

According to new research by Sierra Nevada Alliance, nearly all of this growth will happen in areas of 'very high' fire threat. We used GIS mapping to identify the amount of land currently designated for rural residential development (parcels from 2 acres to 80 acres in size) that is also classified as very high, or extreme fire threat by CalFire. The results are troubling:

94% of the land designated for rural residential development in the Sierra is in areas classified as very high or extreme fire threat.

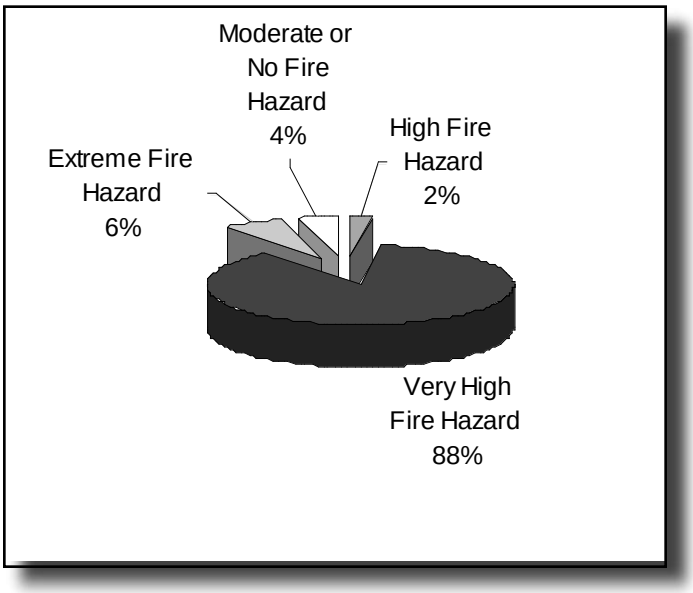
The maps in Appendix C (pages 42-45) illustrate the extent of lands slated for development in high fire threat areas. A summary of results for each county is in Table 2.3 on page 11. More detailed results for each county can be found in Appendix A. Figure 2.4 on page 10 shows the breakdown of lands slated for development by fire threat.

Our analysis clearly shows that the problem of population growth in high fire threat areas of the Sierra will only increase in coming years. As more people move into these areas, the size of the wildland urban interface will increase, bringing with it increased risk of catastrophic wildfire and loss of life and property.

Climate change will compound threat

This problem will be compounded by global warming, which will lead to larger and more frequent wildland fires in the Sierra. According to a 2003 California Department of Forestry report, fire behavior models predict "a sharp increase in both ignitions and fire spread under warmer temperatures combined with lower humidity and drier fuels. . . the net result being an expected increase in both fire frequency and size," (CalFire, 2003).

Figure 2.1 Fire Threat on Lands Designated for Rural Residential Development in the Sierra Nevada



As noted earlier, there is already ample evidence to demonstrate that climate change is already leading to drier, hotter summers and increased frequency and severity of wildfire.

Conclusion: The risk of catastrophic wildfire will grow exponentially

As more and more people look for a home in the Sierra, the compounding effects of climate change and the expansion of the wildland-urban interface will continue to put more lives and property at risk, unless we take a hard look at where -- and how -- we grow. In the next chapter we explore how population growth and development in the wildland-urban interface affects fire management.

Table 2.3 Percentage of rural residential land that lies within *very high* or *extreme* fire threat areas

County	Land Designated for Rural Residential Development	Amount in *Very High* or *Extreme* Fire Threat Areas	% in *Very High* or *Extreme* Fire Threat Areas
Amador	176,857	176,857	100.0%
Calaveras	144,477	144,462	100.0%
El Dorado	177,611	177,611	100.0%
Mariposa	95,663	95,663	100.0%
Nevada	247,686	247,686	100.0%
Placer	103,340	103,340	100.0%
Yuba	128,766	128,766	100.0%
Tuolumne	64,226	64,069	99.8%
Fresno	207,052	206,459	99.7%
Tulare	99,864	99,596	99.7%
Madera	218,865	216,744	99.0%
Alpine	10,683	9,913	92.8%
Mono	36,552	31,779	86.9%
Lassen	537,779	459,219	85.4%
Plumas	163,127	118,698	72.8%
Modoc	127,126	78,186	61.5%
Kern	67,806	39,523	58.3%
Inyo	24,613	13,143	53.4%
Shasta	158,592	65,753	41.5%
Tehama	11,478	2,868	25.0%
Total	**2,957,596**	**2,772,658**	**93.7%**

Methodology: *We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004). Our analysis only includes those portions of the counties that lie within the Sierra Nevada region, as defined by the Sierra Nevada Ecosystem Project study area boundary. We focused on lands classified as low density residential (density range 1 house per 2-20 acres) and very low density residential (density range 1 house per 20-80 acres).We then overlaid CalFire's statewide Fire Threat map to compare areas where high, very high or extreme fire threat overlap with areas classified for rural residential development. This analysis does not distinguish between lands that are already developed and lands that are not yet developed. Also, we did not examine other land classifications, such as commercial, industrial, medium or high density residential, which constitute a very small fraction of development in our region. The General Plan data used for this analysis were compiled in 2000.*

Note: *Sierra County's General Plan does not designate any areas for rural residential development. However there are some areas in which the General Plan does not reflect the reality on the ground. Because of pre-existing entitlements and grandfathered zoning, there are growing rural residential areas in Sierra County (Duber, 2007). This analysis looked only at General Plans, and therefore does not reflect the full potential for rural residential development in Sierra County or, indeed, in other Sierra Nevada counties.*

Chapter 3

How Does Development Affect Wildland Fire?

Development in high fire threat areas affects every aspect of the fire cycle, from prevention to ignition to recovery. As we plan for future growth in the Sierra, thoughtful consideration of how and where we build new homes and businesses, will have a huge impact on our ability to co-exist with fire.

Impact # 1: Development leads to more ignitions. In California, 90-95% of fires are caused by humans. The vast majority of these ignitions are unintentional: Cars, equipment, and debris burning are among the major culprits. Statewide, just 5% of fires are caused by lightning (CalFire, 2005).

Human-caused fires are most numerous in the wildland-urban interface, where people are living in close proximity to flammable vegetation (Cardille, 2001). As the density of people living in the WUI increases, so too does the number of ignitions. CalFire estimates that an increase in density from one house every 50 acres to one house per acre increases the number of ignitions by 189% (CalFire, 1997). A study of wildfire in the Great Lakes region found that the number of ignitions also increases with road density (Cardille, ibid).

Traditional Sierra neighborhoods, like this one in Quincy, have numerous advantages for fire protection. Photo by Autumn Bernstein.

Impact # 2: Development makes it more difficult and costly to fight fires. Protecting houses and other structures in the wildland-urban interface is expensive and difficult, and firefighters are often put in dangerous places they would not otherwise be (Rice, 1991). In the Esperanza fire, for example, five firefighters were killed while trying to protect homes on steep slopes where fire moves quickly.

When a wildland fire occurs, local, state and federal firefighting agencies must make it their highest priority to protect homes from the fire. Thus when there are homes in the path of a major wildland fire, protecting those homes necessarily diverts resources away from fighting the blaze directly. (Winter, 2001). When there is a fire truck parked in the driveway of every home, there are fewer trucks doing 'perimeter control' fighting the fire directly.

This cost difference can be dramatic, as illustrated by two recent fires in Wyoming, one of which occurred in the WUI, and the other in an undeveloped wilderness. The Boulder Creek Fire of 2000 charred 4,500 acres in the Gros Ventre Wilderness, far away from developed areas, and cost $750,000 to extinguish.

In contrast, the Green Knoll Fire of 2001 charred 4,470 acres in the Bridger Teton National Forest near the town of Jackson, where homes were at risk. Firefighters saved 240 homes at a cost of $13 million, or roughly $54,000 per house. This fire was over 17 times more costly than the Boulder Creek fire, despite being the same size (Stanionis, 2006).

Impact # 3: Development limits options for fuel reduction and fire prevention. Once homes are introduced into a high fire threat area, fire managers no longer have the same range of options to manage fire and reduce fuels. In undeveloped areas, fire managers may allow naturally-caused fires to burn, thus reducing the fuel load and allowing the natural fire cycle to run its course. During periods when fire danger is low (late fall or early spring) they may also set prescribed burns for the same reasons.

The incursion of homes into a wildland area makes it vastly more difficult to do prescribed burns or allow natural fires to burn, requiring more hand-thinning and other labor-intensive techniques that allow for fuel removal without using fire that could spread to homes. This increases the costs of fuel reduction and means that limited resources are spread more thinly across the landscape, thereby increasing the risk of catastrophic wildfire (California LAO, ibid).

Clustered vs. low density development: which is better for living with fire?

Development that is clustered in a traditional town design avoids many of these problems. Historic Sierra towns like Auburn, Jackson, Quincy and Truckee were built at urban densities, with little or no wildland vegetation remaining within the historic town areas.

The advantages of infill and town-centered development include:

Compact neighborhoods have a smaller boundary to defend. When houses are clustered together rather than spread out, the perimeter of the community is smaller, and thus firefighters have a smaller boundary to defend in the case of an approaching wildland fire. When the community is spread out over dozens or even hundreds of square miles, it takes many more resources to defend every home.

There's usually less wildland fuel in a town. At higher densities, brush, small trees and other wildland vegetation are reduced and/or discontinuous, so there is often less wildland fuel that can cause a fire to start or spread. The prevalence of irrigated landscaping and paved surfaces also contributes to reducing fuel load in urbanized areas. There is an important caveat, however: once a fire is established in a developed area, the houses themselves become a source of fuel, and firebrands can quickly spread fire from house to house (Sapsis, 1999). This was true of the Angora wildfire.

There are fewer ignitions in a town. Numerous studies have shown that as population increases in wildland areas, the number of ignitions also increases. However, once development reaches an urban or suburban density, it has been shown that the number of ignitions drops off dramatically (Cardille, ibid). This may be due to the decreased amount of flammable fuel in urban settings. Burning yard waste and using machinery such as tractors and large mowers are also two major sources of ignitions, and these practices are also less common in urban areas.

Infill and compact development gets more bang for the fuel reduction buck. Fuel reduction programs are very expensive and resource-intensive. These costs are magnified at low densities, where many acres often need to be cleared for the sake of protecting a single home. At higher densities, residents in a neighborhood or town can pool their resources and invest in fuel reduction projects around the perimeter of the neighborhood or town, thereby sharing both the benefits and the costs.

Infill and compact development allows for faster response times. Houses in and around a town generally have better road networks and are located in closer proximity to fire stations. In low-density areas, homes may be located along roads that are too narrow, too steep, and lack the turnarounds necessary to accommodate large fire equipment (Rice, ibid). Proximity to fire stations is also an issue. Fires that start in remote wildland-urban interface areas take longer to access, and thus are more likely to develop into major fires before crews can reach them (Cardille, ibid). Clustered development makes it easier to locate fire stations within closer proximity to all the homes in the area. These two factors – better roads and proximity of fire stations – make it easier for fire crews to respond quickly to fires and protect assets in a clustered development (Sapsis, ibid).

Water and power are more available in central areas. Towns and denser neighborhoods more often have centralized water supply and better infrastructure, compared to rural development which usually relies upon wells for water and often loses electricity during major fires. Wells are hard to access, especially if the electricity isn't working, and wells also have a lower capacity and are less reliable than municipal water systems. These factors can be important in ensuring that firefighters have quick, easy access to water and electricity to power well pumps. (Sapsis, ibid and Rice, ibid).

Compact development uses fire protection resources more efficiently. Where homes are closer together, less equipment and crews are needed to defend the same amount of homes. When fire threatens homes that are scattered throughout the WUI, one fire truck and crew might be parked outside every single wildland home in the vicinity of a fire to protect it. In a town setting, the same truck and crew could defend a larger number of homes, thereby freeing up resources to protect other areas or attack the fire directly (Rice, ibid).

A tale of two foothill communities

To illustrate how clustered development is better for fire protection than sprawling development, let's take a hypothetical example. Imagine you have two Sierra foothill communities of 1000 homes each. Both communities are located in identical environments: a mix of mid-elevation forest and chaparral. Both have a historic town center that is one square mile across (640 acres), and both have recently added 1,000 new homes. In one community, let's call it Ranchetteville, those new homes are low-density ranchettes. In the other community, Townville, those 1,000 new homes were added in a compact, town-centered fashion. Let's examine the fire implications of each.

Ranchetteville:
Maximum risk, Minimal protection

In Ranchetteville, the new development is a 5,000 acre ranch adjacent to the historic town center that has been divided into 1,000 parcels. Each new home is on a 5-acre ranchette, intermixed with forest and chaparral. There is a fire station along the main road leading through the area, and most homes are accessed via a maze of paved and dirt roads, some public, some private. Conditions on these roads vary according to the landowner, the time of year, the grade and the county budget for road maintenance. There is no centralized water district, so every home has its own well and septic system.

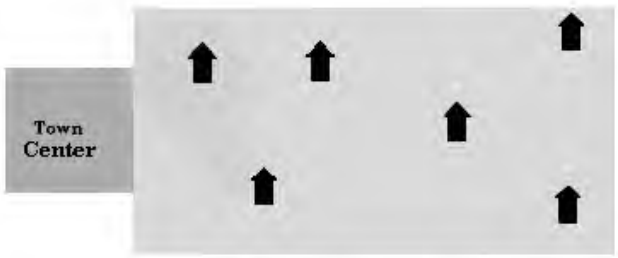
Because this new development is so large, it has increased the length of the perimeter of Ranchetteville by 9.8 miles, an increase of 245%. Local fire managers in Ranchetteville have a very large boundary to defend in the case of a wildland fire.

The average rate of ignitions in this new community is very high, since there are so many people driving cars, burning debris, and using heavy equipment in this forested, low-density setting. The cost-benefit ratio of fuel-reduction projects in this community is very low, because the perimeter of the community is long, and there is a large amount of flammable wildland vegetation within the community itself. Large amounts of forest must be cleared and thinned around every home. The fire station has a large territory to cover, and thus the average response time is relatively long, increasing the likelihood that fires will burn out of control before firefighters can respond. Road conditions, water supply and power generation are all challenges. In the case of a large fire, many trucks and crews are needed to protect homes.

Townville: Lower risk, more protection

In our other hypothetical community, the new 1,000 homes were added a traditional, compact neighborhood design on 480 acres directly adjacent to the historic town center. Each home is on slightly less than half an acre. All homes are connected to a municipal water system, and the number of people living in close proximity means that the road network is smaller and better maintained, and every home is within easy reach of the fire station.

Figure 3.1 Ranchetteville



In Ranchetteville, new development is scattered on 5-acre parcels far from the existing town center.

Figure 3.2 Townville

In Townville, new development is clustered around the existing town center.

Low-density development near the town of Arnold illustrates what Ranchetteville might look like. Photo by Darin Dinsmore.

Tuolumne City, near Sonora, illustrates what Townville might look like. Photo by Darin Dinsmore.

Table 3.1 Perimeters of Ranchetteville and Townville after new development

	Ranchetteville	**Townville**
Number of new homes	1,000	1,000
Average parcel size	5 acres	.48 acres
New perimeter to defend	9.8 miles	2.5 miles

In this case, the perimeter of Townville has grown by 2.5 miles, an increase of just 62% for the same amount of population growth. Fire managers in Townville have a much smaller perimeter to protect in the case of a wildland fire.

Within both the community itself and the surrounding wildland, the average rate of ignitions is lower. This is because there is less wildland vegetation within the community itself – landscaped yards, driveways and roads provide fuel breaks.

The cost-benefit ratio of doing fuel reductions in this community is high, because the perimeter is small and there is less wildland vegetation within the community itself. Fire managers might want to extend fuel treatment into the surrounding wildlands, but the bare-bones area that must be treated to keep the community safer is dramatically smaller than in the case of Ranchetteville.

When a fire starts inside the community, fire crews can respond quickly because the fire station is within easy reach of every home. Water and power are in ready supply. In the case of a large wildland fire bearing down on the town, crews have a much smaller perimeter to defend, and smaller numbers of trucks and crews are needed to defend each home. Thus, more resources can be directed toward the fire itself.

Conclusion: Town-centered development can save lives, assets and money

Development in high fire threat areas of the Sierra is inherently dangerous, and the risk of catastrophic wildfire and its associated loss of life and property is, to a certain extent, unavoidable. However, community design can play a large role in minimizing exposure and reducing losses. Town-centered development has numerous advantages over low-density, rural residential development when it comes to fire safety, and these factors should be considered by counties, cities and developers when planning for new development in the Sierra.

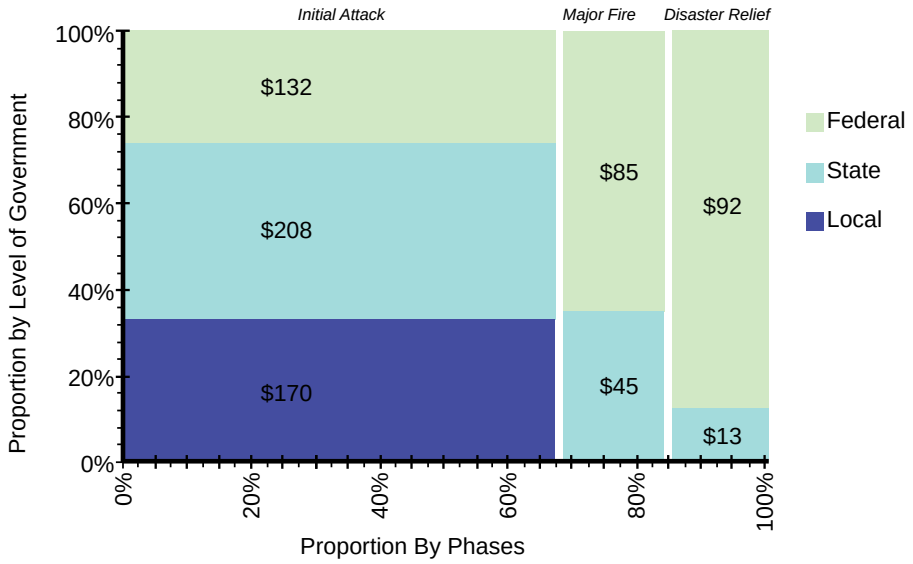
Chapter 4

Subsidizing Disaster: Who Pays for Protecting Unsafe Development?

The costs of fighting wildfire are staggering, and they continue to grow every year. Protecting and rebuilding homes in the wildland urban interface adds substantially to these costs, much of which are borne by the taxpayers and the public at large.

The federal government, the State of California and local governments all have a role in managing wildfire in the Sierra and each of them plays some role in subsidizing unsafe development. Currently the state and federal governments shoulder a disproportionately large burden of fire protection costs, while it is local governments that are approving development that compounds fire danger. Figure 4.1 on page 16 shows a breakdown of fire agency budgets.

Figure 4.1
State, local and federal wildlife agency budgets



Automatic aid agreements

Most fire protection agencies in the Sierra operate under agreements that the closest firefighting unit will respond to a fire, regardless of whose jurisdiction it falls in. Thus, if a fire breaks out on national forest land and the nearest fire station is operated by the California Department of Forestry and Fire Protection, then CalFire will respond until the Forest Service is able to take over. The Forest Service will then reimburse CalFire for the costs it incurred in fighting the fire.

Local Governments: Stretching thin resources even thinner

Fire Responsibility: Local government agencies – in the Sierra, usually county governments- are responsible under state law for providing fire protection in densely populated communities (known as 'Local Responsibility Areas' and defined as more than 3 houses per acre). To do so, most local governments have established fire districts and/or fire departments that protect homes and businesses within fixed geographic boundaries. Local governments also frequently take the lead in protecting homes and structures in wildland areas known as State Responsibility Areas, or SRAs, discussed below.

Some Sierra counties, cities and fire districts contract with CalFire to provide fire protection and emergency services in Local Responsibility Areas, rather than have their own separate fire departments. These contracts are referred to as "Schedule A" agreements. These agreements are common in rural Sierra counties with small populations, where it makes better economic sense to pay CalFire to provide these services. In these instances, CalFire is reimbursed by the county or city for providing local fire protection.

Annual spending on wildfire in California: For the last several years, California counties have experienced double-digit increases in fire protection spending. In 2004-2005, California counties spent $352 million on fire protection, a 12.5% increase over the year before (California State Controller, 2007).

Where the money comes from: Local fire agencies are usually funded by the County's general fund, special property taxes, or special assessment districts. As a result of Proposition 13 and other state fiscal policies, local governments in California have far fewer discretionary funds than they did 30 years ago. As a result, general funds are stretched thinner, even while development puts more and more pressure on existing fire resources.

How local governments are subsidizing unsafe development: Every time a new house is built in the WUI, that home is added to the growing pool of homes sharing a finite resource: the local fire response system. This includes fire stations, trucks and engines, firefighters and dispatchers, roads, fuel reduction programs and emergency water supplies. Increasing the number of homes in a fire district without increasing the capacity of the district itself means longer response times, fewer proactive inspections, and fewer fuel reduction and community education programs.

Thus, existing residents are subsidizing every new home that is built in their district. A report by the California Legislative Analyst's Office found that:

> *"As the number of structures in and adjacent to wildland areas continues to grow, the costs for structure protection in connection with wildland fires have increased significantly." (California LAO, ibid)*

Some jurisdictions now levy impact fees on every new home to offset the additional burden on local fire districts. However, nationwide studies of impact fees consistently find that most impact fees fall far short of fully offsetting the true costs of new development. A study by Virginia Tech found that impact fees need to be increased an average of 8 to 22 times.

State of California: Robbing Peter to protect Paul?

Fire responsibility: The California Department of Forestry and Fire Protection, also known as CDF or CalFire, is responsible for fire protection on all rural lands in California that are not owned by the federal government. This includes private forest and ranchlands and rural lands owned by the state and local governments. These lands are known as "State Responsibility Areas," or SRAs. There are 31 million acres classified as SRAs in California. Less than 1% of SRAs are public land. Figure 4.2 lists the acreage of SRAs in all Sierra counties. Other state agencies, including the Office of Emergency Services, Department of Corrections, and Department of the Youth Authority also play a limited role in fighting fires in conjunction with CalFire (California LAO, ibid).

Table 4.2
State Responsibility Areas (SRAs) by County
(includes entire county, not just Sierra portion)

County	Acres	County	Acres
Alpine	38,200	Modoc	628,600
Amador	291,400	Mono	198,100
Butte	525,100	Nevada	386,900
Calaveras	526,700	Placer	384,400
El Dorado	564,600	Plumas	428,800
Fresno	763,500	Shasta	86,900
Inyo	218,600	Sierra	794,800
Kern	1,764,500	Tehama	1,276,600
Lassen	1,028,200	Tulare	603,000
Madera	373,000	Tuolumne	356,100
Mariposa	442,900	Yuba	213,700
		Total	**11,894,600**

When the SRA system was originally set up during World War II, State Responsibility Areas in the Sierra were sparsely populated timber and ranchlands, where very few lives and homes were jeopardized by wildfire. They were considered worthy of statewide protection because of the timber and watershed values they provided. Today, however, SRAs include some of the fastest-growing parts of the Sierra.

CalFire's role is supposed to be fighting wildland fire, while local fire districts protect homes and structures. In practice, however, protection of life and property is rightly CalFire's top priority and frequently local districts lack the capability to protect all homes, so CalFire often winds up playing this role as well.

In some counties, CalFire is the sole fire protection agency, having entered so-called 'Schedule A agreements' to provide all the County's fire protection services, even in local responsibility areas. These are usually very rural counties that lack the tax base and/or population density to sustain an independent fire district. These counties essentially 'contract' out their fire protection to CalFire.

CalFire's role doesn't stop there. As rural parts of the Sierra become increasingly developed, CalFire's costs for responding to non-fire (usually medical) emergencies in those areas also increases. According to the California Legislative Analyist's Office:

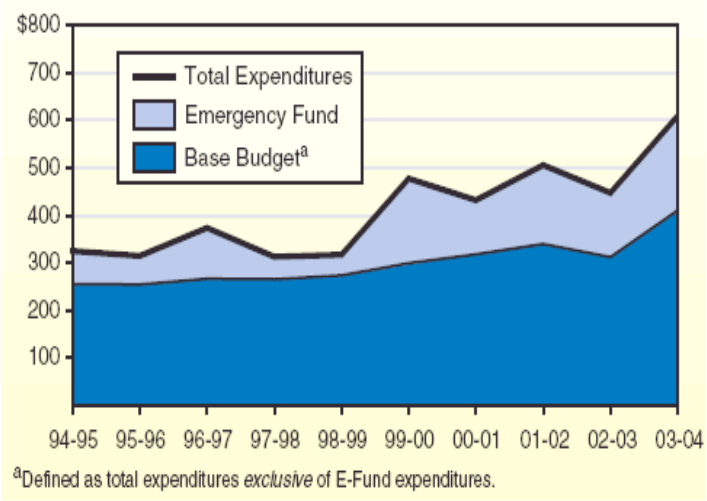
> *"In the fast-growing foothill region of the Sierra, CalFire reports that the number of its life protection-related emergency responses more than doubled between 1993 and 2000 – increasing from 10,000 to 25,000 responses." (California LAO, ibid).*

Annual spending on wildfire: $500 million

Where the money comes from: CalFire's firefighting programs are almost exclusively funded by the State of California's General Fund. Reimbursements from local fire districts account for 3% of CalFire's budget. Another 3% comes from federal trust funds, and the remaining 94% comes from the General Fund (California LAO, ibid).

How the State of California is subsidizing unsafe development: CalFire's firefighting operations are funded almost exclusively by the General Fund – in other words, by California taxpayers. But where is the public benefit to justify this public financing? The SRA system was originally set up to protect undeveloped wildlands that provide benefit to the general public by providing quality drinking water and timber. Besides, the cost of fighting fires in undeveloped wildlands remained relatively low for many years.

Figure 4.3
CalFire's Wildland Fire Protection Expenditures 1994-2004 (in millions)



Source: California LAO, ibid

But as development increases in SRAs, bringing with it increased hazards and costs, who is paying for those increased costs, and who is benefiting?

In theory, local fire districts reimburse CalFire for costs incurred in protecting homes and structures, but these reimbursements cover only 3% of CalFire's annual budget. Meanwhile, the costs of fighting fire in SRAs have increased an average of 10% per year over the last decade, and much of this increased cost is due to increasing numbers of homes in SRAs. According to the Legislative Analyst's Office, "Increasing development in the WUI translates into increased fire protection costs." (California LAO, ibid).

Figure 4.3 shows CalFire's increasing expenditures for wildland fire protection between 1994 and 2004. The budget is divided into two figures: base budget and emergency fund. The base budget includes the day-to-day costs of operating CalFire facilities, fighting fires, payments to contract counties, and fire prevention costs. When additional resources are needed to fight large fires, these come out of the Emergency Fund.

As development continues in SRAs, these costs will also continue to rise, increasing the disparity between who pays for fire protection -- all taxpayers; and who benefits -- homeowners in the WUI.

Federal Government: Protecting more than just national forests

What they do: The USDA Forest Service is primarily responsible for managing fire on federal lands. In the Sierra, there are 8.5 million acres of land managed by the Forest Service (Sierra Nevada Ecosystem Project, 1996). Like CalFire, the Forest Service areas of responsibility co-mingle with private lands in many places, so the Forest Service also has agreements with local agencies to help respond to nearby fires, even if those fires don't occur on federal land (California LAO, ibid).

The federal government also plays a role in post-fire recovery, usually through the Federal Emergency Management Agency. FEMA provides loans and grants to assist fire victims in rebuilding their homes and businesses.

Annual spending on wildfire (nationwide): $1-1.5 billion (USDA Office of Inspector General, ibid).

Where the money comes from: The USDA Forest Service is funded primarily by general fund allocations from Congress, with limited reimbursements from local fire districts.

How the federal government is subsidizing unsafe development: A 2006 audit by the USDA's Inspector General found that protecting WUI homes adjacent to federal land was responsible for 50-95% of the $1 billion spent annually by the Forest Service to suppress large wildfires nationwide. (USDA Office of Inspector General, 2006). If that number is correct, then the federal government is providing subsidies of $500 million to $1 billion per year for individual homeowners in the wildland urban interface.

By doing so, the audit contends, the Forest Service is removing incentives for homeowners to take responsibility for their homes. The audit recommends that state and local governments that approve development in the WUI should shoulder more financial responsibility for fire suppression in those areas. (USDA Office of Inspector General, ibid).

Conclusion: State, federal and local agencies are all subsidizing unsafe development

Local, state and federal agencies all play an important role in fire management in the Sierra. CalFire and the US Forest Service are larger and better funded than local fire districts, so when a major wildfire sweeps through the region, these two agencies often shoulder most of the burden. Both agencies are funded by the taxpayers at large, not the individual WUI homeowners whose homes are in danger. Thus, homeowners in the WUI are essentially getting a public subsidy from the state and federal governments to build homes in unsafe places.

Local governments are also responsible for subsidizing unsafe development because they are the agencies which approve new development in the first place. Local governments can help ensure that new development pays a fair share of fire protection costs, by imposing impact fees on new homes that flow to local fire districts. However, very few local governments in the Sierra charge any impact fees whatsoever, let alone fees that are adequate to cover the costs of fire protection.

State, federal and local agencies all play a role in subsidizing unsafe development in fireprone areas. Photo by Zeke Lunder.

Chapter 5

Why current land use policy is failing at-risk communities

The interrelationship of fire and development in the WUI is not news to fire managers, land use planners and decision makers. However, the status quo doesn't do enough to ensure that we are minimizing the risk to lives, assets, watersheds, wildlife and ecosystems.

Current fire prevention policy focuses on site-specific solutions such as clearing defensible space, selecting building sites to minimize fire danger, and building with fire-retardant materials. In this chapter we discuss the limitations of this approach, and argue that fire-safe planning must evolve to look at the neighborhood and community scale.

The current policy framework: Site-specific requirements

Currently, fire-safe planning relies primarily upon building and zoning codes that apply to individual homes and/or building sites, or sometimes new subdivisions. This system places the burden of responsibility on individual homeowners or developers, who implement the standards at a site- or subdivision-specific level during and after construction. When new homes are sold, the owners are responsible for ensuring the homes stay up to code.

These codes often mandate that new homesites provide adequate road access, water and power. Non-flammable building materials and fire-retardant vegetation may be required. Builders may be required to site a new building away from steep slopes, ridgelines or other especially hazardous areas. Homeowners may be required to maintain defensible space around the home by cutting trees and shrubs.

The creation of these codes has been an important step toward improving fire safety and decreasing losses of life in the WUI. However, current research and the historical record show that this site-specific approach to fire safe planning has serious shortcomings. For example, many of the 1,000 homes that burned in the 2003 Old and Grand Prix Fires in Southern California were in compliance with local fire safety codes. In the 18 months after these devastating fires, cities and counties in the Inland Empire issued permits for another 2,500 homes in areas of 'extreme' or 'very high' fire danger (Miller, 2005).

Homeowner reluctance: An obstacle to implementing codes

One major problem confounding the success of firesafe codes targeted at individual homeowners is the reluctance of the homeowners themselves. Numerous studies have shown that fire safety programs focused on changing individual homeowner behavior have limited success, because many homeowners are concerned about the cost and aesthetics of firesafe strategies, and they question the effectiveness of the programs (Nelson, 2005). Nationwide, the majority of new homeowners in the WUI take no action to reduce their home's risk of wildfire (National Academy of Public Administration, 2002).

Many of the 1,000 homes that burned in the 2003 Old and Grand Prix Fires in Southern California were in compliance with local fire safety codes

Yet most firesafe building and zoning codes are predicated on the assumption that homeowners in high fire risk areas will keep their homes up to code. While many codes impose fines on homes that are out of compliance, enforcement of the codes in most parts of California is sporadic at best, due to lack of funds. Enforcement duties generally fall upon local fire departments that often don't have the resources to enforce the code.

For instance, in 2004 Riverside County firefighters issued 20,000 warning notices to homes that were out of compliance with fire safety codes, but were

unable to follow up on most of the warning notices. In total, only 15 citations were issued (Miller, ibid)

Clearly, the current practice of requiring individual homeowners to implement fire safety practices is important and shouldn't be discarded. However, given the documented shortcomings of these programs with regard to homeowner reluctance and lack of enforcement, planning and zoning codes need to look beyond individual homes and building sites to ensure that new development is safer.

What we're missing: The big picture

What all these zoning and building codes fail to do is look at fire in the larger planning context. In every community there are areas which are more dangerous to develop and areas which are safer. Topography, vegetation, slope, proximity to existing emergency services, roads, and municipal water supply are just some of the features which can help determine which areas are safer for development, and which are more dangerous. By looking at fire danger at the scale of the entire community, rather than the individual property, city planners and fire managers can direct growth into safer areas, and limit development in areas of extreme hazard (Schwab, 2005).

Disconnect between who approves development and who protects it

So why are local governments not looking at fire in this larger context? Why are they relying upon site-specific planning for fire safety?

One major reason is the disconnect between who approves new development and who pays the cost of protecting that development from fire. As discussed in the previous chapter, state and federal agencies shoulder the vast majority of firefighting costs in California's wildlands. However, it is local governments – in the Sierra, usually counties – who are responsible for developing land use policies and zoning codes and approving development. As the California Legislative Analyst's Office puts it:

> *"The decisions on where and how these homes are built are generally made at the local level. However, the consequences of these decisions are experienced at both the state and local level. . . when a large wildland fire threatens a development, firefighting resources for structure and life protection beyond those available at the local level are often needed. The cost of those additional resources is generally borne by state taxpayers rather than local residents." (California LAO, ibid).*

Local governments in California, especially rural counties like those in the Sierra, are cash-strapped and often struggle to sustain important programs like health care and road maintenance as well as public safety. The reasons for this poor fiscal situation are many and complicated, but the end result is that cities and counties across California, particularly in rural areas, are desperate for cash. New development of any kind generates short-term revenue that local governments can use to meet their budgets. This creates a powerful incentive for local governments to approve new development despite potential consequences to public safety and the environment.

Because local governments shoulder just a fraction of the costs of fighting wildland fire and receive most of the short-term economic benefits of approving new development, there is little financial incentive for them to keep development out of dangerous areas.

The myth of subdivision rights

In addition, some local government officials operate under the mistaken assumption that landowners have a legal right to subdivide and develop their land as much as they wish, regardless of the impacts to the community as a whole. This assumption is not legally correct, as State and Federal Courts have repeatedly held that there is no right to subdivide and split parcels. Both the state and federal governments delegate land use planning responsibilities to local governments, and require only that landowners must be allowed some economic use of their land, not any economic use. Since most landowners do enjoy some economic use of their land (such as farming, grazing, logging and building one house per parcel), there is no legal justification for allowing new subdivisions that jeopardize public safety. California Government Code section 66474 states that a subdivision may be denied if it is "likely to cause public. . . safety problems."

In the next chapter, we explore ways that federal, state and local policy can be reformed to encourage fire-safe planning at the community scale.

Chapter 6
Principles for Planning Fire-Safe Sierra Communities

"Including fire standards in general plans and subdivision regulations is not enough to prevent the devastation of a major fire. The fact is that 32 million Californians live in a tinderbox. And with a half-million more per year on the way, it's impossible to change the situation – unless public officials and the voters who elect them decide they're willing to pass regulations that would keep people from building in the woods."

- Bill Fulton, California planning expert (Fulton, 1995)

So what can local communities and state and federal agencies do to improve land use planning to prevent catastrophic wildfire in the Sierra?

We propose that land use planning in high fire threat areas should adhere to the following principles:

1. **Make development pay its own way**
2. **Cluster development in and around existing communities**
3. **Don't build in unsafe places**
4. **Manage the forested landscape to restore resiliency and reduce fire hazard**
5. **Improve planning and budgeting processes to fully address risks**

An initial investment in improving and updating General Plans and zoning codes will be cheaper than trying to fight fires in poorly-planned communities twenty years from now. This chapter explores each principle and recommends actions that communities and government agencies can take to implement them.

Fire-Safe Planning Principle 1: Make development pay its own way

Landowners contemplating development in high fire threat areas should be required to pay the full cost for protecting new development from fire. Such a policy would both discourage irresponsible development and ensure that taxpayers aren't unfairly shouldering the burden for protecting new homes in unsafe areas. The State of California used to impose a state fire protection fee on homeowners in areas where CalFire is the only source of fire protection (State Responsibility Areas or SRAs). In the years since the State of California suspended this fee, CalFire's costs for providing fire protection have skyrocketed. We suggest that the State of California and local governments should work together to reinstate such a fee that helps offset both state and local costs in protecting these homes.

To implement this principle, local, state and federal agencies can take the following actions:

Local Government Actions:

Impose impact fees that pay true costs: Cities and counties should levy fire impact fees on new development that reflect the true cost of providing fire protection and fuel reduction over the long term. These fees should be collected annually by the local government in conjunction with property taxes. The fees should be used to fund local fire districts and fuel reduction programs. The fee program should be structured to reflect relevant factors such as development intensity, fire risk, and proximity to existing roads and services. Voluntary fuel reduction measures by homeowners should be rewarded with lower fees.

Assist CalFire in collecting a state fire protection fee: When local governments approve new development in areas where CalFire must provide fire protection (State Responsibility Areas, or SRAs), they should work with

CalFire to impose and collect a reinstated fire protection fee (see State of California recommendations, below). Local governments should also help CalFire impose reinstated fire protection fees when existing homes within SRAs are sold or transferred.

Establish fire assessment districts in already-developed areas: To improve fire safety in already-developed areas, local governments and voters can establish fire assessment districts (see sidebar). Revenue generated from annual assessments should be used to fund the local fire districts and fuel reduction programs.

State of California Actions:

Reinstate fire protection fees linked to development: The State of California should reinstate fire protection fees that are linked to development intensity in SRAs. Unlike the flat fee which was debated in the California Legislature in 2004-2005, this fee should only apply to parcels which are developed. To minimize costs associated with administering such a program, the state could work with local governments to collect the fee in conjunction with subdivision approvals, issuance of building permits, and property tax reassessment.

Fire-Safe Planning Principle 2: Cluster development in and around existing communities

While no development in high fire threat areas is completely safe, clustering development in and around existing communities has numerous benefits for fire response and prevention. Local governments should encourage infill development and concentric outward growth while discouraging rural sprawl. There is a range of planning tools available to help local governments direct growth into appropriate locations.

Local Government Actions:

Promote infill first: Putting new development within existing communities, rather than allowing it to sprawl outward, can help prevent the expansion of the WUI, keep emergency response times short and make fuel-reduction programs more cost-efficient. Local governments should identify infill sites and encourage development of these areas. Tools such as redevelopment, transfer of development rights programs, and

Definitions

Fire Assessment District: An Assessment District is a special district formed by a local government agency and includes property that will receive direct benefit from the new public improvements or from the maintenance of existing public improvements. Fire Assessment Districts often pay for fuel reduction programs, construction of new fire stations, and other improvements. The local agency that forms the assessment district sells bonds to raise the money to build or acquire the public improvement. The agency then levies a special assessment against each parcel of land within the district, which is included on the County's general property tax bill.

Impact fee: An impact fee is a fee assessed on new development, usually by a local government. The purpose is to pay for expansion of new infrastructure such as fire stations, sewer and water, parks, and other government services. Impact fees may also be assessed to offset impacts to the environment or surrounding community. The fees are used to mitigate the impacts of the development.

State fire protection fee: Historically, the state of California collected a fire protection fee from all private properties located in a State Responsibility Area (areas that receive fire protection from CALFIRE). This fee used to offset CALFIRE's cost for protecting these properties from fire. The fire protection fee was suspended and recent attempts to reinstate the fee were unsuccessful.

Transfer of Development Rights (TDR): TDR is a market-based approach used by local governments to encourage development in certain places, and discourage development in others. TDR programs allow landowners to sever development rights from properties in areas that are to be protected as open space, and sell those development rights to landowners to increase the density of development in areas targeted for intensive development.

Redevelopment: California law authorizes local governments to identifydeteriorated areas where market forces alone aren't sufficient to revitalize the area. In Sierra communities, these areas are often abandoned railyards or lumber mills, or historic downtowns that have been left behind by highway bypasses or strip development on the edge of the community. Through a process known as 'redevelopment,' agencies develop a plan and provide the initial funding to encourage private investment in those areas. Redevelopment actions include capital improvements, direct public investments, and providing tax benefits to new development.

other incentives can be used to encourage infill development.

Concentric outward growth: Where there is no room for infill development, local governments should encourage concentric outward growth that is compact and orderly. As with infill development, such growth patterns will discourage rapid WUI growth and use fire prevention and response services efficiently. Concentric outward growth will also help avoid creating isolated pockets of wildland vegetation that can cause fires to spread to surrounding homes. Tools such as general plans, urban growth boundaries and urban reserve systems can be used to foster concentric growth patterns.

Cluster development: New development in remote areas far from existing towns and communities should be strongly discouraged. However, in situations where development is unavoidable due to existing entitlements, communities should be designed to minimize fire danger. New subdivisions in remote areas should be designed to optimize safety and access, by clustering new lots in low-threat areas close to access roads. These new clustered developments should provide a permanent ¼ mile buffer of defensible space on all sides. This buffer must be maintained on an ongoing basis. Local governments can require clustering and buffers as part of the General Plan, zoning code, and/or subdivision regulations.

California and Federal Government Actions:

Assist in developing local codes and regulations: CalFire and the USFS already play an important role in reviewing proposed plans, codes and development applications in some parts of the Sierra. CalFire and USFS could expand their role in local policy development by providing technical assistance, planning grants, stakeholder convening, and policy development in partnership with local governments.

Better land use planning can help protect communities from wildfire while preserving the health of Sierra forests, watersheds and wildlife. Photo by Autumn Bernstein.

Fire-Safe Planning Principle 3: Don't build in unsafe places

Within a given community or county, some places are more prone to fire danger than others. Brushy areas, steep slopes, ridgelines and south-facing hillsides, for example, are often more hazardous than other areas within the surrounding landscape. Other areas may pose a particular threat to an established community, such as a brushy canyon that sits adjacent to a town. New development should be curtailed in places that put new or existing residents at increased risk of catastrophic wildfire.

Local Government Actions:

No new parcels in high fire hazard areas: Use zoning and the development code to restrict the creation of new parcels in high risk areas outside fire district boundaries. Maintain zoning in these areas at very low densities, such as 160 acres or 320 acres per parcel. Existing smaller parcels are grandfathered in such ordinances, but at least further parcelization is prevented.

Limit development of existing parcels in high fire hazard areas: Use tools such as conservation easements, transfer of development rights programs and fee-title acquisition to limit development of existing parcels in high fire hazard areas that have multiple resource values (e.g. wildlife, watershed, agriculture etc)

Create fire protection boundaries: Establish a service boundary for the local fire district, and require new development outside the boundary to reimburse the fire district for 100% of costs rendered to protect structures from fire.

California and Federal Government Actions:

Enact legislation limiting further subdivision of lands in State Responsibility Areas. Since the State of California is responsible for fire protection in SRAs, the state should take action to limit development that will increase fire danger and drive up taxpayer-funded fire protection costs in these areas.

Definitions

Incentives for infill development: In addition to redevelopment, local governments can offer other incentives to encourage infill development. These include streamlining the permit process, creating flexible zoning codes for infill areas, and creating a community plan or specific plan for the area that undergoes environmental review at the plan level, thereby reducing the amount of review necessary for individual projects within the plan area.

Urban growth boundaries: UGBs designate where urban growth will be allowed to occur, and which areas will remain as forest or rangeland. A UGB is essentially a line drawn around a community that divides urban from rural. Some UGBs are permanent, while others have a 'sunset' provision and must be reconsidered after 10-30 years.

Clustering ordinance: Local governments use clustering ordinances to minimize the footprint of new development in remote areas. New development is 'clustered' into the portion of the property that is the least hazardous, is close to existing roads and infrastructure, and/or avoids environmentally-sensitive areas. The remainder of the property is permanently protected.

Urban reserves: Urban reserves are areas set aside for development at a future time, usually 10-20 years in the future. The designation of urban reserve is usually accompanied by a set of 'triggers' or thresholds that must be achieved in order for development to begin. Urban reserves are used to preventing premature or 'leapfrog' growth.

Conservation easements: Conservation easements are used by local governments, land trusts or other entities to purchase the development rights for a piece of property to keep it undeveloped, while allowing the private owner to retain ownership of the land and use it a manner consistent with the easement (such as agriculture, timber harvesting or recreation).

Fee-title acquisition: When a local government, land trust or other entity purchases a property outright for the purpose of conservation, this is known as 'fee-title acquisition.'

Support efforts to protect undeveloped lands: State and federal government agencies can provide grants to assist with conservation easements and fee-title acquisition of certain lands which should remain undeveloped, such as those with multiple resource values. In addition, agencies can provide planning grants and technical assistance to help communities establish local districts to manage conservation easements, land acquisition, and transfer of development rights programs.

Assist in developing local plans and codes: CalFire and the USFS already play an important role in local planning in some parts of the Sierra. CalFire and USFS staff often review draft plans, codes and development applications and make recommendations. CalFire and USFS could expand their role in local policy development by providing technical assistance, planning grants, stakeholder convening and policy development in partnership with local governments.

Fire Safe Planning Principle 4: Manage the forested landscape to restore resiliency and reduce fire risk

100 years of fire suppression and logging large, fire-resistant trees have made our forests a tinderbox. State, federal and local agencies should support responsible forest management practices that restore resiliency and reduce the risk of catastrophic crown fire. In forests near communities that are important for protecting life and property, we should not allow forest management that increases fire danger.

Local Government Actions:

Work in partnership to manage the local wildland urban interface: In those places where local community meets the forest, do thinning and treatment to manage the WUI. Partner with community organizations, fire safe councils to work at making fuels management viable and cost-effective.

Require and enforce defensible space: Require new and existing homeowners to create defensible space and implement fire safe measures around their homes. Boost staffing and budgeting for enforcement.

Encourage safe timber harvest: Local governments have limited authority over forest practices which are governed by the state. They do have the authority to determine land zoning which does affect forestlands in their jurisdiction. If approved by the state Legislature, local governments should create a wildland-urban interface timber production zone designation that would guide timber harvest near communities to ensure that any logging that occurs does not increase fire severity behavior that can threaten homes.

State of California Actions:

Support fuel reduction effort in the WUI: Increase investment in programs to help local communities reduce fuels in the WUI. Provide technical assistance, stakeholder convening, grants and personnel to develop and implement local fuel reduction plans.

Develop a WUI timber harvest zone: The state should develop a wildland urban interface zoning designation for forestlands in California so that local governments can control forest practices near communities to reduce wildfire risks. The state should also pass forest regulation changes that limit forest conversion to plantations and require shaded fuel breaks in areas adjacent to communities and in high priority areas identified in existing emergency regulations promulgated by the Board of Forestry.

Federal Government Actions:

Support responsible forest management: Increase funding for community pre-fire suppression activities and stewardship contracts. Increase investment into restoration on public lands. Encourage fire-resilient management on private lands.

State, federal and local agencies should partner to restore healthy forests. Photo by Zeke Lunder.

Fire-safe planning principle 5: Improve planning and budgeting processes to fully address risk

Lastly, all levels of government involved in wildland fire prevention need to improve planning and budgeting to adequately plan and prepare for coordinated wildfire prevention and response efforts. If we are to take action, we must first understand the full scope of the problem.

Local Government Actions:

Bring fire agencies to the table: Local governments should ensure that fire safe councils, local fire departments, CalFire and USFS have a meaningful role in land use planning efforts and decisions. Representatives from all fire agencies should be invited to the table early on in planning processes to ensure that their concerns are adequately addressed.

Improve understanding of threats: New analytical tools such as fire behavior modeling can be used to assist planners and landowners in mapping how wildfire is likely to burn through an existing community or planned development. These tools can identify high wildfire hazard areas, inform land use decisions, and prioritize areas for fuels treatment.

Assess true costs of fire protection – and budget accordingly: Most Sierra counties lack the funding to adequately fund fire prevention. Funding mechanisms such as impact fees and assessment districts are non-existent or woefully inadequate. Local governments should examine the true, long-term costs of fire prevention and protection and create or expand these mechanisms to attain budgetary needs.

State of California Actions:

Strengthen CEQA requirements for fire threat: The California Environmental Quality Act (CEQA) encourages agencies to consider wildfire threat as a potential impact that should be examined and mitigated. However, this provision is rarely utilized and many projects are approved without mitigation. The State of California should revise CEQA to clarify how impacts should be analyzed and suggest mitigation measures.

Definitions

Fire behavior modeling: GIS mapping technology has led to the creation of powerful new computer programs which allow fire experts to 'map' the likely behavior of wildfire in a community or landscape. These programs use fuels, weather, and topographic information to create graphical portrayals of potential wildfire spread patterns, rates of spread, and burn intensities.

CEQA: CEQA is short for the California Environmental Quality Act. CEQA requires government agencies, including cities and counties, to analyze the potential environmental impacts of a proposed action – such as approving a new subdivision – and 'mitigate' those impacts to the extent possible. CEQA is the premiere law governing the approval of new development in California.

Mitigation: Under CEQA, actions that are taken to offset the impacts of a project are called mitigation. Mitigation measures are the specific requirements which will "minimize, avoid, rectify, reduce, eliminate, or compensate" for significant environmental effects. See Section 15370 of the CEQA Guidelines for a full definition.

Conclusion: The choice is ours

The threat of catastrophic wildfire in Sierra communities has increased dramatically in recent years and will only get worse unless local, state and federal agencies, in partnership with Sierra residents, NGOs and community groups, work together to address the underlying issues of poor planning and subsidies that encourage dangerous development.

Bold leadership and decisive action are needed to address these challenges. Every day that we avoid dealing with this problem, more Sierra residents, communities, and ecosystems are put at risk.

We can build thriving communities that are safer and sustainable, by making an upfront investment in good planning that will save lives and money in the long run. Or we can continue with business as usual and deal with the consequences every fire season to come. The choice is ours.

Appendix A:
Fire and Land Use Statistics by County

Alpine County

Area of Wildland Urban Interface [1]: 4,850 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	1,867	8,816	10,683
Acres in Very High Fire Threat Class	1,841	8,072	9,913
% in Very High Fire Threat Class	99%	92%	93%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**1,841**	**8,072**	**9,913**
% in Very High or Extreme Fire Threat Class	**99%**	**92%**	**93%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	991	1,075	85	9%

Amador County

Area of Wildland Urban Interface [1]: 80,067 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	34,735	142,122	176,857
Acres in Very High Fire Threat Class	34,735	142,122	176,857
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**34,735**	**142,122**	**176,857**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	24,646	27,998	3,352	14%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Butte County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	5,601	149,833	155,434
Acres in Very High Fire Threat Class	5,601	98,626	104,228
% in Very High Fire Threat Class	100%	66%	67%
Acres in Extreme Fire Threat Class	0	51,207	51,207
% in Extreme Fire Threat Class	0%	34%	33%
Total Acres in Very High or Extreme Fire Threat Class	**5,601**	**98,627**	**104,228**
% in Very High or Extreme Fire Threat Class	**100%**	**66%**	**67%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	31,913	35,975	4,062	13%

Calaveras County

Area of Wildland Urban Interface [1]: 138,588 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	5,666	138,811	144,477
Acres in Very High Fire Threat Class	5,666	138,796	144,462
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**5,666**	**138,796**	**144,462**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	113,029	140,261	27,232	24%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

El Dorado County

Area of Wildland Urban Interface [1]: 280,129 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	132,516	45,095	177,611
Acres in Very High Fire Threat Class	132,516	45,095	177,611
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**132,516**	**45,095**	**177,611**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000[3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	113,029	140,261	27,232	24%

Fresno County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	88,599	118,453	207,052
Acres in Very High Fire Threat Class	88,176	118,283	206,459
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**88,176**	**118,283**	**206,459**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	13,030	15,652	2,622	20%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Inyo County

Area of Wildland Urban Interface [1]: 16,401 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	8,695	15,917	24,613
Acres in Very High Fire Threat Class	6,328	6,815	13,143
% in Very High Fire Threat Class	73%	43%	53%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**6,328**	**6,815**	**13,143**
% in Very High or Extreme Fire Threat Class	**73%**	**43%**	**53%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	10,479	10,325	-155	-1%

Kern County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	67,806	0	67,806
Acres in Very High Fire Threat Class	39,523	0	39,523
% in Very High Fire Threat Class	58%	0%	58%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**39,523**	**0**	**39,523**
% in Very High or Extreme Fire Threat Class	**58%**	**0%**	**58%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	15,330	15,754	424	3%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Lassen County

Area of Wildland Urban Interface [1]: 54,006 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	405,269	132,510	537,779
Acres in Very High Fire Threat Class	358,972	100,247	459,219
% in Very High Fire Threat Class	89%	76%	85%
Acres in Extreme Fire Threat Class	16,076	12,458	28,534
% in Extreme Fire Threat Class	4%	9%	5%
Total Acres in Very High or Extreme Fire Threat Class	**358,972**	**100,247**	**459,219**
% in Very High or Extreme Fire Threat Class	**89%**	**76%**	**85%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	22,927	25,319	2,393	10%

Madera County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	86,166	132,699	218,865
Acres in Very High Fire Threat Class	86,166	130,578	216,744
% in Very High Fire Threat Class	100%	98%	99%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**86,166**	**130,578**	**216,744**
% in Very High or Extreme Fire Threat Class	**100%**	**98%**	**99%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	18,453	24,303	5,850	32%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Mariposa County

Area of Wildland Urban Interface [1]: 92,268 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	88,424	7,239	95,663
Acres in Very High Fire Threat Class	88,424	7,239	95,663
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**88,424**	**7,239**	**95,663**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	14,294	17,120	2,826	20%

Modoc County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	61,114	66,012	127,126
Acres in Very High Fire Threat Class	48,092	30,095	78,186
% in Very High Fire Threat Class	79%	46%	62%
Acres in Extreme Fire Threat Class	8,160	815	8,975
% in Extreme Fire Threat Class	13%	1%	7%
Total Acres in Very High or Extreme Fire Threat Class	**48,092**	**30,095**	**78,186**
% in Very High or Extreme Fire Threat Class	**79%**	**46%**	**62%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	data not available			

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Mono County

Area of Wildland Urban Interface [1]: 35,534 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	8,520	28,033	36,552
Acres in Very High Fire Threat Class	7,836	23,943	31,779
% in Very High Fire Threat Class	92%	85%	87%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**7,836**	**23,943**	**31,779**
% in Very High or Extreme Fire Threat Class	**92%**	**85%**	**87%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	9,000	11,756	2,756	31%

Nevada County

Area of Wildland Urban Interface [1]: 190,892 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	156,375	91,311	247,686
Acres in Very High Fire Threat Class	156,375	91,311	247,686
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**156,375**	**91,311**	**247,686**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	78,461	91,981	13,520	17%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Placer County

Area of Wildland Urban Interface [1]: 204,784 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	82,673	20,667	103,340
Acres in Very High Fire Threat Class	82,673	20,667	103,340
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	0
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**82,673**	**20,667**	**103,340**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	66,241	76,877	10,636	16%

Plumas County

Area of Wildland Urban Interface [1]: 52,409 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	34,167	128,961	163,127
Acres in Very High Fire Threat Class	33,424	85,274	118,698
% in Very High Fire Threat Class	98%	66%	73%
Acres in Extreme Fire Threat Class	552	790	1,341
% in Extreme Fire Threat Class	2%	1%	1%
Total Acres in Very High or Extreme Fire Threat Class	**33,424**	**85,274**	**118,698**
% in Very High or Extreme Fire Threat Class	**98%**	**66%**	**73%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	19,062	20,064	1,001	5%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Shasta County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	58,267	100,325	158,592
Acres in Very High Fire Threat Class	19,459	46,293	65,752
% in Very High Fire Threat Class	33%	46%	41%
Acres in Extreme Fire Threat Class	38,808	50,624	89,432
% in Extreme Fire Threat Class	67%	50%	56%
Total Acres in Very High or Extreme Fire Threat Class	**19,460**	**46,294**	**65,753**
% in Very High or Extreme Fire Threat Class	**33%**	**46%**	**41%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	data not available			

Sierra County

Area of Wildland Urban Interface [1]: 6,230 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	Sierra County's General Plan does not designate any areas for rural residential development. However there are some areas in which the General Plan does not reflect the reality on the ground. Because of pre-existing entitlements and grandfathered zoning, there are growing rural residential areas in Sierra County (Duber, 2007). This analysis looked only at General Plans, and therefore does not reflect the full potential for rural residential development in Sierra County.		
Acres in Very High Fire Threat Class			
% in Very High Fire Threat Class			
Acres in Extreme Fire Threat Class			
% in Extreme Fire Threat Class			
Total Acres in Very High or Extreme Fire Threat Class			
% in Very High or Extreme Fire Threat Class			

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	3,133	3,357	224	7%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Tehama County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	7	11,471	11,478
Acres in Very High Fire Threat Class	7	2,860	2,867
% in Very High Fire Threat Class	100%	25%	25%
Acres in Extreme Fire Threat Class	0	8,611	8,611
% in Extreme Fire Threat Class	0%	75%	75%
Total Acres in Very High and Extreme Fire Threat Class	**7**	**2,861**	**2,868**
% in Very High or Extreme Fire Threat Class	**100%**	**25%**	**25%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	4,720	4,538	-182	-4%

Tulare County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	25,935	73,929	99,864
Acres in Very High Fire Threat Class	25,935	73,661	99,596
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**25,935**	**73,661**	**99,596**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	12,388	13,196	808	7%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Tuolumne County

Area of Wildland Urban Interface [1]: 112,350 acres

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	48,880	15,346	64,226
Acres in Very High Fire Threat Class	48,722	15,346	64,069
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**48,722**	**15,346**	**64,069**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	46,732	52,449	5,717	12%

Yuba County

Area of Wildland Urban Interface [1]: data not available

Residential Land and Fire Threat [2]	Residential Low	Residential Very Low	Residential Total
Total Acres in Land Use Designation	82,701	46,065	128,766
Acres in Very High Fire Threat Class	82,701	46,065	128,766
% in Very High Fire Threat Class	100%	100%	100%
Acres in Extreme Fire Threat Class	0	0	
% in Extreme Fire Threat Class	0%	0%	0%
Total Acres in Very High or Extreme Fire Threat Class	**82,701**	**46,065**	**128,766**
% in Very High or Extreme Fire Threat Class	**100%**	**100%**	**100%**

Population Growth from 1990 to 2000 [3]	1990	2000	Change	% Change
Popn in Very High or Extreme Fire Threat Areas	7,911	8,488	577	7%

1. Data is for entire County. Source: Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

2. Data is for Sierra Nevada portion of County. Methodology: We used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004) and overlaid CalFire's fire threat data map (CalFire 2004)

3. Data is for Sierra Nevada portion of County. Methodology: These data were compiled using GIS to compare CalFire's fire threat data map (CalFire 2004) with population information from the California Department of Finance. GreenInfo Network, 2004.

Appendix B:
References

Anderson, M. K. and M. J. Moratto. 1996. Native American Land-Use Practices and Ecological Impacts, *Sierra Nevada Ecosystem Project: Final Report to Congress, Vol. II.* Wildland Resources Center Report No. 39, University of California, Davis, p. 187-206.

Barbour, M, B Pavlik, F Drysdale and S Lindstrom. 1993. *California's Changing Landscapes.* Sacramento, Ca: California Native Plant Society, p.100-106.

California Board of Forestry and Fire Protection and California Department of Forestry and Fire Protection. 1996. *California Fire Plan.* http://CalFiredata.fire.ca.gov/fire_er/fpp_planning_cafireplan

California Department of Conservation, Farmland Mapping and Monitoring Program. 2006. *2002-2004 Farmland Conversion Data.* http://www.consrv.ca.gov/DLRP/fmmp/

California Department of Forestry and Fire Protection. 2006. *Esperanza Fire fact sheet.* http://CalFiredata.fire.ca.gov/pub/CalFire/images/incidentfile161_325.pdf

California Department of Forestry and Fire Protection. 2005. *Percent of Fires by Cause, Statewide 5-Year Average (2000-2005).* http://CalFiredata.fire.ca.gov/admin/CalFire/images/incidentstatsevents_106.pdf

California Department of Forestry and Fire Protection. 2004. *Fire threat data (Fthrt04_1).*

California Department of Forestry and Fire Protection. 2003. *The Changing California: Forest and Range 2003 Assessment Summary,* p.134. http://frap.CalFire.ca.gov/assessment2003/Assessment_Summary/assessment_summary.html

California Department of Forestry and Fire Protection. 1997. *How Will Increased Population Affect Wildfire Incidence: is ignition frequency in the Sierra Nevada related to population density?* http://frap.CalFire.ca.gov/projects/ignition_regression/ignit_pop.html

California Legislative Analyst's Office. 2005. *A Primer: California's Wildland Fire Protection System.* http://www.lao.ca.gov/2005/fire_protection/051205_fire_protection.pdf

California State Controller. 2007. *Counties Annual Report for 2004-2005.*

Cardille, JA, SJ Ventura and MG Turner. 2001. Environmental and Social Factors Influencing Wildfires in the Upper Midwest United States. *Ecological Applications* 11(1), 111-127.

Cohen, JD. 2000. Preventing disaster: home ignitability in the wildland urban interface. *Journal of Forestry* 98: 15-21

Duber, Stevee, former Sierra County planner. Personal communication, April 2007.

Dunn, AE, A Gonzales-Caban and K Solari. 2003. *The Old, Grand Prix, and Padua Wildfires: How much did these Fires Really Cost?* USDA Forest Service, Pacific

Southwest Research Station.
http://www.fs.fed.us/r5/sanbernardino/documents/2003_wildfires_report.pdf

Fulton, W. 1995. Burn, California, Burn. *Planning,* June 2005.

Harvey, HT, HS Shellhammer and RE Stecker. 1980. *Giant Sequoia Ecology: Fire and Reproduction* Washington, D.C.: National Park Service, Scientific Monograph Series No. 12.

Ingalsbee, T. 1997. Fires Burn Hotter in Tree Farms. *Forest Fires: Problems and Solutions.* Headwaters Forest News.

Johnston, RA, K Dobeta and S Gao. 2004. *California Land Use Plans and Potential Resource Conflicts.* Dept. of Environmental Science and Policy, University of California, Davis.
http://morpheus.des.ucdavis.edu/gen_plan.asp

Mann, CC. 2006. *1491: New Revelations of the Americas before Columbus.* Vintage Books, New York.

Miller, J and B Goad. 2005. Wildfires' Echoes: Developing in the Danger Zone. *Riverside Press Enterprise*, July 17, 2005, page A-1.

National Academy of Public Administration. 2002. *Wildfire Suppression: Strategies for Containing Costs.*
http://www.napawash.org/pc_management_studies/ongoing_suppression.html

Nelson, AC and M Moody. 2003. *Paying For Prosperity: Impact Fees And Job Growth*. Brookings Institution Center on Urban and Metropolitan Policy.

Nelson KC, MC Monroe and JF Johnson. 2005. The Look of the Land: Homeowner Landscape Management and Wildfire Preparedness. *Society and Natural Resources*, 18:321-336.

Norman, Rex, USFS Lake Tahoe Basin Management Unit. Personal communication, July 2007.
Platt, R.1999. *Disasters and Democracy: The Politics of Extreme Natural Events*. Washington, DC: Island Press.

Radeloff, VC, RB Hammer, SI Stewart, JS Fried, SS Holcomb, and JF McKeefry. 2005. The Wildland Urban Interface in the United States. *Ecological Applications* 15:799-80

Rice, CL and JB Davis. 1991. *Land Use Planning May Reduce Fire Damage in the Urban-Wildland Intermix.* USFS Pacific Southwest Research Station.

Sapsis, D. 1999. *Development Patterns and Fire Suppression.* California Department of Forestry and Fire Protection.

Schwab, J and S Meck. 2005. *Planning for Wildfires,* Washington DC: American Planning Association, p.77-81

Sierra Nevada Ecosystem Project, 1996. *Status of the Sierra Nevada: Summary of the Sierra Nevada Ecosystem Project Report.* Wildland Resources Center Report No. 39, University of California, Davis, p.15.

Stanionis, C and D Glick. 2006. Sprawling into Disaster: the Growing Impact of Rural Residential Development on Wildland Fire Management in the Greater Yellowstone Area. *The Wildfire Reader* (301-310), Island Press.

Taylor, A. H. 1990. Tree Invasion in Meadows of Lassen Volcanic National Park, California. *The Professional Geographer* **42** (4), p. 457-470.

USDA Forest Service. 2003. *Old Fire fact sheet*. http://www.fs.fed.us/r5/sanbernardino/fire/oldfire.shtml

USDA Office of Inspector General, Western Region. 2006. *Audit Report: Forest Service Large Fire Suppression Costs.* Report No. 08601-44-SF http://www.usda.gov/oig/webdocs/08601-44-SF.pdf

Westerling, AL, HG Hidalgo, DR Cayan and TW Swetnam. 2006. Warming and Earlier Spring Increase Western US Forest Wildfire Activity. *Science* 313: 940-943

Winter, GJ and JS Fried. 2001. Estimating Contingent Values for Protection from Wildland Fire Using a Two-Stage Decision Framework. *Forest Science* 47(3), 349-360.

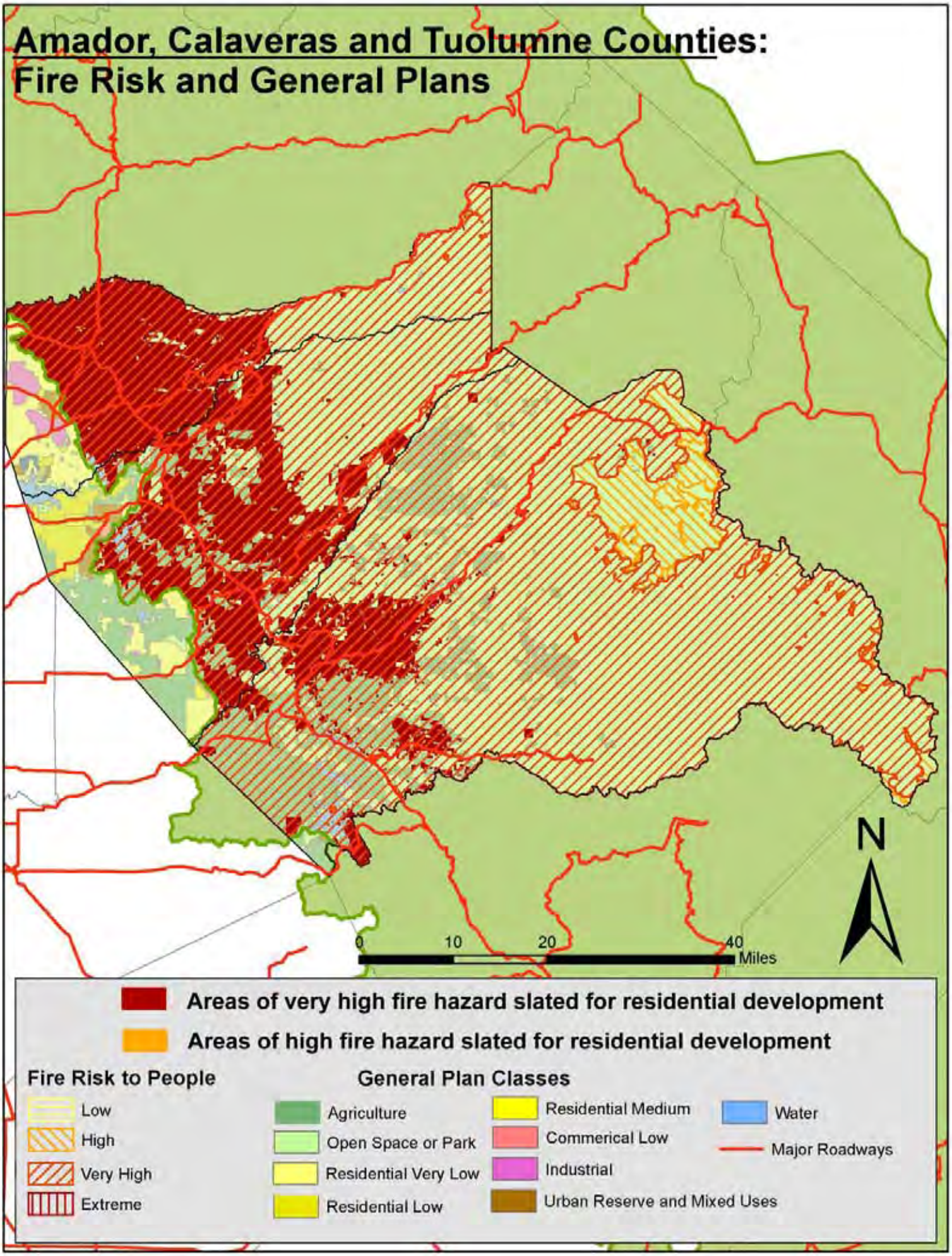
Appendix C:

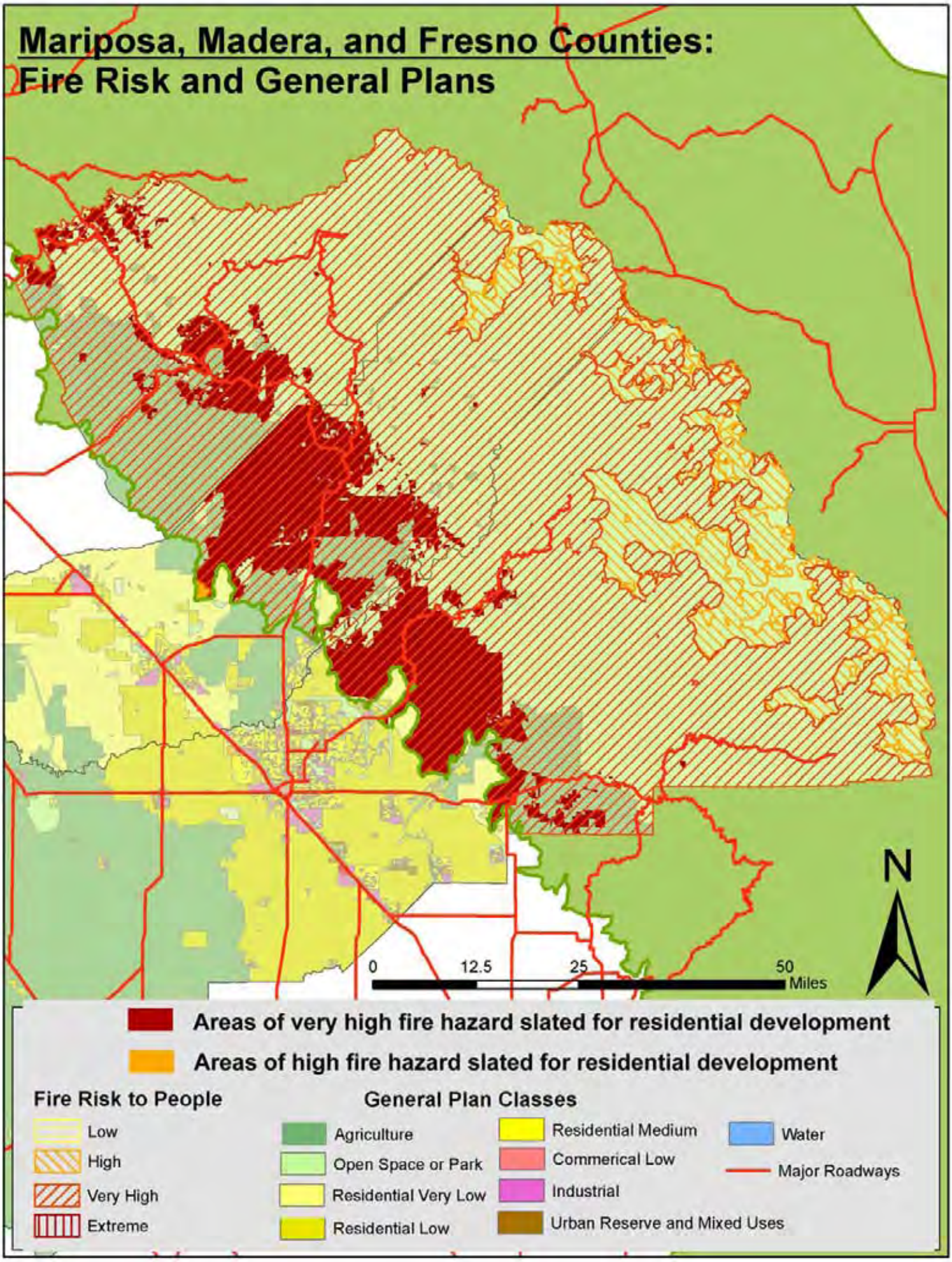
Maps of Fire Risk and General Plans in the Sierra Nevada

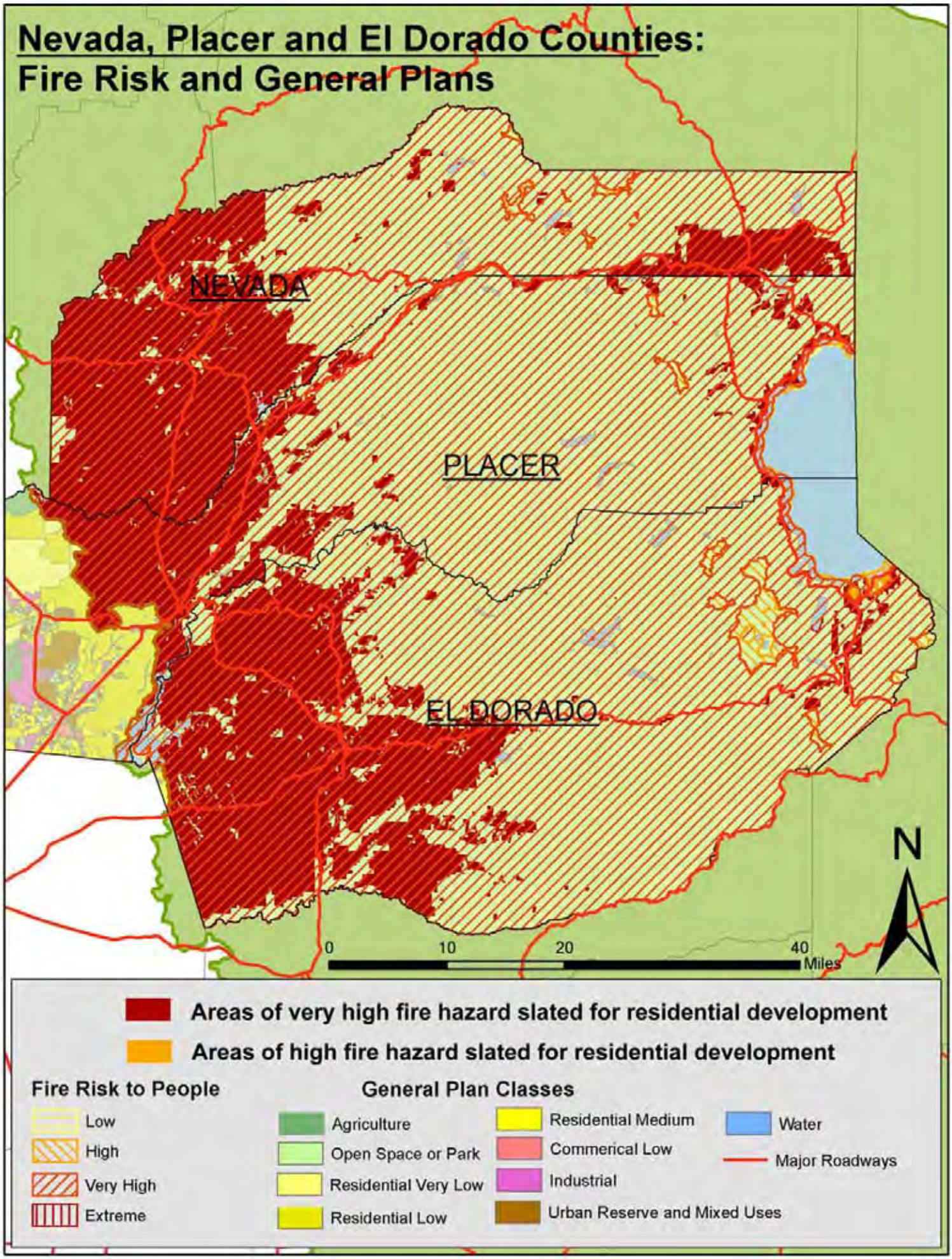
The following maps identify areas that are slated for rural residential development that are classified as "very high" or "extreme" fire threat by CalFire.

To create these maps, we used GIS data of the General Plans for all 21 California counties that lie partially or fully within the Sierra Nevada Region (Johnston, 2004). Our analysis only includes those portions of the counties that lie within the Sierra Nevada region, as defined by the Sierra Nevada Ecosystem Project study area boundary. We focused on lands classified as low density residential (density range 1 house per 2-20 acres) and very low density residential (density range 1 house per 20-80 acres).

We then overlaid CalFire's statewide Fire Threat map to compare areas where high, very high or extreme fire threat overlap with areas classified for rural residential development. This analysis does not distinguish between lands that are already developed and lands that are not yet developed. Also, we did not examine other land classifications, such as commercial, industrial, medium-density residential and high density residential, which constitute a very small fraction of development in our region. The General Plan data used for this analysis were compiled in 2000.


Amador, Calaveras and Tuolumne Counties:
Fire Risk and General Plans
N
0
10
20
40
Miles
Areas of very high fire hazard slated for residential development
Areas of high fire hazard slated for residential development
Fire Risk to People
Low
High
Very High
Extreme
General Plan Classes
Agriculture
Open Space or Park
Residential Very Low
Residential Low
Residential Medium
Commerical Low
Industrial
Urban Reserve and Mixed Uses
Water
Major Roadways


Mariposa, Madera, and Fresno Counties:
Fire Risk and General Plans
N
0
12.5
25
50
Miles
Areas of very high fire hazard slated for residential development
Areas of high fire hazard slated for residential development
Fire Risk to People
Low
High
Very High
Extreme
General Plan Classes
Agriculture
Open Space or Park
Residential Very Low
Residential Low
Residential Medium
Commerical Low
Industrial
Urban Reserve and Mixed Uses
Water
Major Roadways


Nevada, Placer and El Dorado Counties:
Fire Risk and General Plans
NEVADA
PLACER
EL DORADO
N
0
10
20
40
Miles
Areas of very high fire hazard slated for residential development
Areas of high fire hazard slated for residential development
Fire Risk to People
Low
High
Very High
Extreme
General Plan Classes
Agriculture
Open Space or Park
Residential Very Low
Residential Low
Residential Medium
Commerical Low
Industrial
Urban Reserve and Mixed Uses
Water
Major Roadways

SIERRA NEVADA ALLIANCE

Keeping light in the range.

PO Box 7989
South Lake Tahoe, CA 96158
530.542.4546
www.sierranevadaalliance.org
info@sierranevadaalliance.org

Maywan Krach

From: Barta Barnum and Bill Trenn <bartaandbill@cox.net>
Sent: Wednesday, April 09, 2014 8:20 AM
To: Placer County Environmental Coordination Services
Subject: Alpine Sierra Subdivision

I am totally against this subdivision and further building in that area. The increase in cars, noise and pollution alone should be enough to stop this building. The environment cannot withstand
further invasions of the land, and subsequent depletion of the water supply needed for this venture. I have lived in the Reno area over 25 years, and currently spend time in the Tahoe area every summer.

I believe this would be terrible for the environment, and the area as a whole.

Thank you,

Barta
Barta Barnum
2453 N Quesnel Lp
Tucson AZ 85715

Maywan Krach, Community Development Technician
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603
Sent by email to: cdraecs@placer.ca.gov

May 9, 2014

Dear Ms. Krach,

I am a homeowner on John Scott Trail in Alpine Meadows. I have reviewed the Initial Study and Notice of Preparation for the Alpine Sierra Subdivision. My comments follow.

Density:
The 20 lots in the western portion of the project site are proposed to include six custom cabin sites of .19 to .38 acres and 14 halfplex sites of .08 to .17 acres. The 27 lots on the eastern portion of the project site are proposed to range from 0.39 to 1.17 acres.

On page 23 of the Alpine Meadows General Plan, residential density requirements are defined as:

- Subdivision areas near the creek: a minimum of 10,000 square feet of land area per unit, which translates to a minimum of 0.23 acres per unit.
- Subdivision areas in the upper slopes (which would seem to be the definition of this Alpine Sierra development): a minimum of 20,000 square feet of land area per unit, which translates to a minimum of 0.46 acres per unit.
- Townhouses (Patio houses): a maximum density of 8.25 units per acre, which equates to 0.121 acres per unit.

Summary -
The proposed lot sizes for the 6 custom cabin sites are smaller than the required 0.46 acres for upper slopes. Even if the development area is considered "near the creek", some of the lot sizes are smaller than the 0.23 acre minimum.

The proposed lot sizes of the 27 lots in the eastern portion also include some lots which are smaller than the 0.46 acres required for upper slopes.

The range of proposed lot sizes for the halfplex sites also starts below the required minimum of 0.121 acres for townhouses.

Traffic Patterns:
The "BCA Access Alternative" as I understand it would build a private road allowing residents of the new development to exit onto the private section of John Scott Trail in the Bear Creek Association, and then open a private gate to travel down the public section of John Scott Trail in order to access Alpine Meadows Road. The BCA Access Alternative is in conflict with the Alpine Meadows General Plan (AMGP) which states:

- on page 2, item #6, that the planning process should "provide a functional street pattern of efficient location and improvement with minimal disturbance…", and
- on page 4, Item # 5, that "… all streets should be designed to discourage through traffic".

As I understand it, the developer has proposed paying the Bear Creek Association (BCA) in order to join BCA and install a private electronic gate enabling BCA residents to exit their development through the

private gate and exit through the public section of John Scott Trail. At the same time, the homeowners living on the public section of John Scott Trail cannot travel through the gate. This would create substantial traffic and disturbance on the public section of John Scott Trail and through Alpine Meadows Estates Association (AMEA), causing substantial deterioration of the peaceful environment for the AMEA residents, while money is collected by the BCA. This is in conflict with the Alpine Meadows General Plan.

Impact on water supply & fire protection:
While California is experiencing a very serious drought, the extra demand for water supply from the Alpine Sprints County Water District and the increased demand for fire protection services make such a development prohibitive at this time.

Aesthetics:
The size of this development would substantially degrade the existing visual character and quality of the site, and the development would be visible from many locations, including the Five Lakes Trail. In addition there would be substantial light impacting nighttime views in the area.

The Alpine Meadows General Plan states on page 18 that "Alpine Meadows must preserve and maintain a permanent surrounding greenbelt, as a means of insuring finite limits to future development, to preserve the relationship to nature, and to complement the residential amenity of the valley." I believe the density of this development and the visibility of this development from various vantage points in Alpine Meadows is not in keeping with the spirit of the general plan.

Impact on wildlife habitat:
It is known that there are numerous bears and other wildlife living in the area of the proposed development. The density of the proposed development creates a significant threat to this wildlife.

Thank you for your consideration of my comments. Please feel free to contact me at any time.

Sincerely,
Judy Bruner

Mailing Address:
14072 Okanogan Drive
Saratoga, CA 95070
Work Phone: 408-801-1516
Cell Phone: 408-772-7599
Email: judy.bruner@sandisk.com

Alpine Meadows Property:
1751 and 1743 John Scott Trail
Alpine Meadows, CA

Maywan Krach

From: William and Cheryl Bry <lego434@gmail.com>
Sent: Wednesday, April 09, 2014 11:35 AM
To: Placer County Environmental Coordination Services
Subject: Commentary re Alpine Sierra Subdivision NOP

We live at 1440 Chateau Place, Alpine Meadows. We would like to voice our concerns about using John Scott Trail as a major entry point into the proposed Alpine Sierra Subdivision.

The short segment of John Scott Trail between Mineral Springs Road and the turn onto Upper Bench is steep and reverse-banked. We have lived on Chateau Place for over 20 years - every snowfall, without fail, we witness cars get stuck there, preventing all other residents from access to their homes until the car is towed or pushed back down the hill. (We ourselves, with an all-wheel drive Ford Explorer and plenty of winter driving experience, have had to back down the hill, park in a neighbor's driveway, and walk the last mile or so home.)

As an illustration of the dangers this section of road creates, we captured this photo on March 29th at about 5 in the afternoon, during the snow that day. You can see the street signs showing the location on John Scott Trail at the Upper Bench turn. The car had started sliding, and could not get traction to continue up. When I took the photo, the car has slid sideways across the road, blocking the turn to Upper Bench, and the owner was struggling to put on chains. Of note, this was also an all-wheel drive vehicle, and yet could not navigate the road segment. Additionally, it was not the only vehicle stuck at that moment. There was also what appeared to be a taxi blocking access onto Trapper McNutt.

Our concern is that the increased traffic from a new subdivision that proposes to use this problematic section of road as a main entry point will end up exacerbating an already dangerous situation. Cars driving down Upper Bench face a steep, icy, blind curve onto John Scott Trail, often making the turn in free-fall. Anyone in such a situation could not help but crash into a car stuck on John Scott. Cars abandoned by owners in search of help leave residents driving up hill on John Scott stranded and prevent plows from doing their all-important job of clearing the roads.

This is not an issue that a person who does not live and drive in the area would know to recognize as a problem, but it is an issue that warrants serious consideration, and should be addressed prior to approval of any development plan. The impact of the necessary road improvements will need to be addressed in the EIR as well.

Sincerely,

The Brys

William and Cheryl Bry
1440 Chateau Place, Alpine Meadows
415 497 2059
lego434@gmail.com

Maywan Krach

From: JON CADY <joncady@sbcglobal.net>
Sent: Thursday, April 24, 2014 10:11 AM
To: Maywan Krach
Subject: Re: Alpine Sierra Subdivision (PSUB 20130004)

Dear Maywan Krach,

I am against the proposed Alpine Sierra Subdivision development in Squaw Valley. I feel it does not adequately address traffic issues, overcrowding and is not needed - and is only for financial gain by the developers. The "amenities" are not needed and the natural amenities should be left as they are - natural.

Thank you!

~Lisa Cady~

From: Maywan Krach <MKrach@placer.ca.gov>
To: Maywan Krach <MKrach@placer.ca.gov>
Sent: Tuesday, April 8, 2014 1:56 PM
Subject: Alpine Sierra Subdivision (PSUB 20130004)

To All Interested Parties,

You have requested to be included in the noticing of the subject project and/or CEQA projects in Placer County. Below please find the link to the Notice of Preparation for your review.
http://www.placer.ca.gov/departments/communitydevelopment/envcoordsvcs/eir/alpinesierrasubdivision

The public comment period starts on 4/8/14 and ends on 5/9/14. Your comments can be emailed to cdraecs@placer.ca.gov or mailed to the contact information below.

Thanks.

.....

Maywan Krach
Community Development Technician
Environmental Coordination Services
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190, Auburn, CA 95603
530-745-3132 fax 530-745-3080
Monday 8:30-5 (every other Monday off)
Tuesday-Friday 7:30-5

.....

Maywan Krach

From: Jerry Cahill <jcahill@calfox.com>
Sent: Friday, April 18, 2014 9:52 PM
To: Placer County Environmental Coordination Services
Cc: John McCauley; 'mike.laufer@gmail.com'; 3 Carolyn Cahill - gmail; 1 Kathy King; Bill Cahill Jr.; 'Theresa Eaton Sinnott'
Subject: Alpine Sierra Subdivision PSUB 201300004

Attn Maywan Krach, Community Development Technician:

I will be unable to attend the scoping meeting on April 28, but I have carefully reviewed the Notice of Preparation of a draft Environmental Impact Report. I own a cabin at 1783 Deer Park Drive in Alpine Meadows. I have the following comments.

1. The EIR must study the wildlife trails and hiking trails in the area that will be affected by development and provide for mitigation alternatives. There are significant number of these trails crisscrossing the property.
2. The power line that parallels the proposed road should be undergrounded as a mitigation for the road construction. All homes should be served by underground utilities.
3. The road design should be done using berms and reforestation. Road cuts should be carefully bulk headed to minimize erosion.
4. Storm water drainage from the parcels and the roads should be designed to provide maximum erosion control
5. This area is heavily wooded. Although Placer County allows offsite mitigation payments, every effort should be made to retain large trees and design around them. The EIR should evaluate the effect of on bird life and wildlife based upon different amounts of tree removal. The property abuts US Forest Service property and provides crossings and access for the bird and animal life in the area.
6. The EIR should evaluate the feasibility of a lower density development. The halfplex buildings appear to be constructed on very small lots, but will require the same amount of parking, energy resources. They will require more clearing of wooded areas..

Please introduce these comments into the record.

Jerry Cahill
Calfox, Inc.
300 Drake's Landing Road, Suite 207
Greenbrae CA 94904
tel 415-464-3664
fax 415-464-3678

RE: ALPINE SIERRA SUBDIVISION INITIAL STUDY/CHECKLIST AND NOTICE OF PREPARATION OF A DRAFT EIR, dated April 2014

Comments of **Interested Parties Robert H. Cole and Eleanor Swift**, submitted May 9, 2014, by email to cdraecs@placer.ca.gov

These comments are submitted by us as interested parties. We own two second homes on Upper Bench Road in the Alpine Meadows Estates subdivision, one of which we live in and the other our adult children's families live in. These homes will be seriously adversely impacted by the proposed subdivision in several ways: by the noise, pollution, and congestion during a very long construction process, which will be all the worse if the BCA Access Alternative (which heavily impacts John Scott Trail, the access road to our Upper Bench Road) were adopted; by the increased population from the subdivision, and by the havoc it would wreck on the splendid hiking trail behind our homes. But we also write in the more important capacity as parties intensely concerned about the severe impact of the proposed subdivision on a more or less unspoiled, fragile alpine environment. We are not environmental professionals in any way, so these are the comments of interested laypeople.

We sincerely thank you in advance for considering these comments, which we realize are lengthy.

Excellent, admirable reports. The quality of the Initial Study/Checklist [IS] and Notice of Preparation [NOP] is truly impressive. These are clear, thorough, balanced, highly professional, major pieces of work. We are very grateful to the County and the staff who prepared this thoughtful work, which is obviously the result of hard, conscientious effort. We think the various conclusions of "potentially significant impact' throughout the IS and the "yes" findings of significance on IS p. 31 are entirely justified and appropriate. The comments and questions that follow are in no way critical of these estimable reports. The purpose of public comment is to add as complete a picture as possible, and we write in that spirit.

The cumulative effects on the environment, especially of the 27 homes and 5 guest houses seem overwhelming. The IS rightly considers not only the individual impacts of the proposed subdivision but also its overall impact. This perspective seems crucial. The portion of the subdivision where the 27 houses and 5 guest houses would be located – which seems to be about 30 acres altogether – seems especially problematic. The reports do not appear to say how big the individual houses would be – information the developer should provide if one is to evaluate the proposal – but it is obvious that this is to be a high-end project and each of the 27 houses at least will have a large footprint. With all the retaining walls (particularly problematic, we think), grading, roads, driveways, sewers, and utilities, this part of the subdivision will simply wipe out some 30 acres of forest and wetlands and the full range of environmental values that go with them. Even at the most favorable to the development, the project is too big for the sensitive area into which it would be squeezed.

Moreover, construction access to these lots, with or without the BCA Access Alternative, will be arduous and harsh – and the process will go on for years. It's hard to see how more than 2 or 3 lots would be bought and houses actually built in a year, so we can assume the serious, radiating disruption would go on for a decade. It sometimes has to be the case that owners cannot use their property in a certain way at such high environmental costs.

A phased approach seems called for. The subdivision is essentially two separate projects. One project is the eastern (let's say) 30-acre site for the 27 houses and 5 guest houses, which is even more independent under the BCA Access Alternative. This site is the more problematic. The other, western site comprises the 14 halfplexes and some of the subdivision overhead. It is hard by the Alpine Meadows ski resort parking lot and its extremely heavily trafficked access road and is near a number of other lots and buildings. In other words, it is in an environment that is already relatively developed.

Would it not make sense to limit the subdivision at the outset to the site of the 14 halfplexes? Given the severity of the cumulative impact of the 27 house/5 guest house project, the last thing anyone – the developers, the interested parties, the County – would want is for all the destructive overhead to be done and the lots remain undeveloped. Consider the Alpine Knolls Subdivision of some 10 years ago. It called for some 27 houses in a fairly unspoiled area. Nothing has been done on it, presumably because, basically, there is no market for those houses. Just think how absolutely awful it would have been if all the destructive overhead had been built but the site just sat there, ruined but unused. That scenario should not be allowed or risked with the large, forested, eastern project of Alpine Sierra. If a market actually develops for this site, then the proposal should be reconsidered. Meanwhile, both the environmental damage and the market risk for the western project, the halfplexes, are much less problematic and it could proceed – to the extent it meets the standards required by your EIR.

We realize that market considerations are matters for the developers and perhaps do not ordinarily figure in an EIR. But one would think the feasibility of a project should be part of the review. Here those market considerations function only to reinforce environmental considerations. The eastern portion of the subdivision perhaps should not be built at all; In that case the developer is no worse off if it has to wait to see whether it can develop the eastern site, and how. In the meantime, it will redeem its investment by building on the western site.

The BCA Access Alternative seems environmentally unjustifiable and would unfairly impose unallowable externalities on AME residents and the County. Presumably because it is still hypothetical, the BCA Access Alternative is not studied in the IS and NOP. If the developer proposes it in fact, it will need intense scrutiny. In the following discussion, we assume that what is intended would be for the BCA Access Alternative to remove the barrier between the BCA and AME subdivisions and connect the 27 houses/5 guest houses with John Scott Trail through a new access road for a continuous route to the Alpine Meadows Road. This is what the IS and NOP seem to assume.

On the face of it now, this BCA Access Alternative is environmentally unjustifiable.

-- It isn't stated at this point how long the new cut-off would be, but clearly this new access road would cut through an area of more or less undisturbed forest. In contrast, the present proposal would run the access road directly off of a major thoroughfare (Alpine Meadows Road), near a huge parking lot, and through a short, narrow connector parcel from the halfplexes to the large houses; this connector parcel is situated near existing lots and houses and is of no particular environmental value.

-- The BCA Access Alternative would channel subdivision traffic for a mile or so through a curving rural residential street (John Scott trail with a part of Deer Park) that is in an entirely different subdivision. In contrast, the present proposal would channel the Alpine Sierra Subdivision traffic all the way on a major thoroughfare and then directly into the subdivision itself.

-- The BCA Access Alternative would add traffic on the curving rural residential John Scott Trail, amounting to triple or quadruple what it is now for some houses near Alpine Sierra and amounting to maybe twenty-five to fifty percent more than what it is now for houses on John Scott nearer to Alpine Meadows Road. Moreover, many Bear Creek residents would now use this route instead of, as presently, reaching Alpine Meadows Road entirely from within the Bear Creek Subdivision. The increased traffic burden on John Scott Trail in AME could be quite substantial. In contrast, the present proposal would add an insignificant amount of traffic to the already heavily trafficked Alpine Meadows Road and would deposit the traffic directly into its own subdivision.

--In winter, the BCA Access Alternative would require drivers to travel a mile or so on the curving uphill John Scott Trail, which might not be plowed promptly and even when plowed is narrow and treacherous in winter. In contrast, the present proposal would keep drivers on a wide, gradual, promptly plowed thoroughfare that is the safest road in the area.

In short, on every measure, the BCA Access Alternative creates serious environmental harm and hazards while the present proposal does not create them. Adopting the BCA Access Alternative serves no interest at all except the minor convenience of 27 homeowners. Homeowner convenience cannot justify permitting an environmentally seriously harmful plan when an environmentally neutral alternative is readily available.

Moreover, the BCA Access Alternative is blatantly unfair to the AME residents on or affected by John Scott Trail. If BCA homeowners permit the developer to build this access, it would be because the developer is paying them money to do so. BCA homeowners therefore will be choosing to benefit from the access alternative, deciding that their own environmental and other costs are worth less than the money the developer will pay them. A number of them will also get a windfall benefit in the form of a shortcut – through AME – to the Alpine Meadows Road via John Scott Trail. Meanwhile, the great bulk of the costs of the BCA Access Alternative will be born by homeowners in the

AME subdivision, who have no say whatever in BCA's authorizing the access alternative and get zero benefit from it. The costs AME homeowners will pay are in increased traffic volume (from BCA as well as from Alpine Sierra houses); associated increased traffic danger to cars, pedestrians, children and dogs; noise and air pollution; maintenance costs the County may ultimately pass on to them; and even loss of property value. Imposing the costs of one's activities on one's innocent neighbor is an improper externality. It must be the case that environmental review prohibits improper externalities like this. BCA homeowners cannot pocket some large sum of money for use of their property and their convenience and then dump all the costs of that use on the neighbors. To be sure, a few BCA homes may front the traffic on John Scott Trail from the new access road (we don't have the facts), but that is BCA's choice and these homeowners may receive extra compensation for all we know. In any event, the number of BCA homes affected would be a small handful, whereas many more AME homes on John Scott Trail will be adversely impacted.

The same externality affects the County, too, which will have increased burdens of maintenance, safety, emergency access, and plowing on John Scott Trail.

A further evil is apparent from what has just been said. To permit BCA homeowners to impose these externalities on AME homeowners is a recipe for conflict between neighbors. AME homeowners understandably object to having to bear the externalities of BCA homeowners' profit-making decision; yet some BCA homeowners already have expressed hostility that they object at all. We would think it part of the job of land use regulation to avoid knowingly promoting such conflict, and certainly when the environmentally better alternative avoids it.

If the BCA Access Alternative were to be adopted, the only way to prevent these externalities and conflicts is for the barrier on John Scott Trail between BCA and the County's road to remain in place, permanently. All traffic to the BCA Access Alternative would and should have to go from the Alpine Meadows Road exclusively through BCA. In that way, BCA homeowners would be internalizing the costs for which they received payment, which is the only fair outcome.

<u>The Alpine Sierra segment of the hiking trail connected to USFS land would seem to be a public easement.</u> This trail has been used continually, openly, as of right, and adversely to the property owners since time out of mind. We and our family ourselves have used it regularly for the past 17 years, and back in 1997 it had obviously already been in use seemingly forever. As a result, we believe the public owns this trail now. As such, it is not something that the owners of the property it traverses can dispense with or replace as they wish as if they owned it, even subject to environmental controls. We imagine this would include not only the absolute width of the trail but also some kind of buffer zones alongside it and the views from it. We don't know what the role of the EIR is in determining this kind of a question of ownership but we trust you can and will fully deal with it in the EIR. Nor do we know what authority the County may have over public easements like this, but we believe it must start from the premise that this resource should be preserved and protected.

This is not a minor quibble over claims but rather is something worth every effort to preserve. The trail is genuinely special. It is special, indeed unique, because it is very accessible while giving the sense of being unspoiled and remote; it is easy to use while still having some challenge; it is remarkably varied for such a compact distance, traversing forest, streams, wetlands, meadows and desolate outcroppings; and it continually offers beautiful sights up close and of mountains across the valley that show off a varied nature at every season.

Just where and how much of the hiking trail goes through Alpine Sierra property does not appear from the maps in the NOP; the developer should provide this precise information. The IS and NOP deal with the trail essentially only in passing. We trust that the EIR will give it full dress review.

The project would seem to add more than 123 people to the area. This is the one place we think we disagree with the IS, which on p. 26 projects about 123 new "residents." If we are talking about actual occupants at any one time, let's say during the ski season and high summer, the number would seem to be much more than 123. Skiers will almost certainly number more than the projected average of 2.59 per unit. In the large houses, you would expect routinely for there to be 6 or 8 people on a weekend, and in the halfplexes at least four. Then you have renters. Many of these houses and halfplexes are going to be rented out, and rental groups are probably typically more than one couple or even one nuclear family. Amateurs though we are, we think that an average occupancy of 5 – 6 people during peak times seems more reasonable, with a resulting population increase of, say, 250 people. These peak occupancy periods would seem to be highly relevant in predicting environmental effects. When traffic and people's activities are the greatest, presumably their environmental effects are not only heaviest but also are lasting. The damage done may not just disappear when the temporary residents leave.

The provision for open space in the subdivision seems too minimal. The open space comprising parcels D, E and F is nice but inconsequential. Presumably it could not be built on anyway, and it does not seem to buffer any of the proposed development. Similarly, the open space B doesn't seem to serve the public in any particular way. It is essentially a connector between the two project sites, buffering the big houses from the halfplexes, and perhaps could not be developed anyway. Apart from the trivial open spaces A and C, the proposal seems to make no effort environmentally to buffer either the big houses or the halfplexes. Certainly, much more open space and a much more generous effort to buffer the housing developments environmentally should be required, and even more if the BCA Access Alternative is improved. Protecting the hiking trail could and should be part of this.

The duration of construction will be onerous. As indicated above, the sale of 27 large high-end lots and construction of large houses and guest houses on them could easily go on for 10 years. Added to that must be the years we imagine it will take to build roads and retaining walls, grade lots, and install utilities. Perhaps the halfplexes would be built and sold in a shorter time frame. This is another way of seeing that the

subdivision as proposed is too big for the area. We trust the extreme duration of construction will be fully considered in the EIR.

Bears and coyotes, by the way. Shouldn't they be included in Item IV-6 on page 12 of the IS? They are major mammals that one imagines would have habitat in the site of the proposed subdivision.

The long-sought traffic light at the intersection of SR 89 and the Alpine Meadows Road will be necessary now. As early as the mid-00's, Cal Trans (or the County?) had said it would install a much needed traffic light at this intersection by 2008. If any part of the Alpine Sierra Subdivision should be approved, that would seem to be the culminating necessity for installing the traffic light promptly.

Including consideration of the effects of further Squaw Valley – Alpine Meadows consolidation. We of course do not know what the owners of Squaw and Alpine are planning. Nor do we know how much you can learn about their plans. But if it is at all possible, we think an EIR should take account of those plans, even if doing so is somewhat speculative. Ann isolated approach to the building of 14 halfplexes plus overhead adjacent to Alpine Meadows in the face of the overlapping development of connections between two major ski resorts in that very same vicinity seems highly undesirable. Environmental review would seem to require knowing as much as possible about Squaw's plans since some development or other is widely believed to be possible. Further consolidation between Squaw and Alpine might also bear on traffic and congestion along the Alpine Meadows Road that could be connected to the incremental burdens of Alpine Sierra construction traffic and residential traffic. We hope you can consider these matters in the EIR.

Once again, thank you for considering our comments and for the preparation of these admirable reports.

####

Subject: Comments on Notice of Preparation of a Draft Environmental Impact Report for the Alpine Sierra Subdivision (PSUB 20130004)

My name is Robert M. Czarnecki. My wife and I have owned a home at 1820 John Scott Trail, Alpine Meadows for 24 years, having purchased the property in 1990. Our property is located approximately 100 yards east of the end of County maintained road, where the road is gated to prevent east-west through traffic on John Scott Trail. This feature restricts traffic on John Scott Trail, results in very low traffic volumes passing our house and equally benefits residents on both sides of the gate. This very low traffic volume (and the associated favorable impacts on noise, air pollution and safety) was a major consideration when we purchased the property and a feature we have enjoyed for almost 25 years.

We are concerned that the proposed project may seek to access the site via John Scott Trail, from the east through the location where John Scott Trail is currently gated, i.e. the end of the County maintained road. We understand the proposed project may seek this access both during construction and as a permanent means to access the project, post-construction. We are strongly opposed to granting access to the proposed project from the east on John Scott Trail by the temporary or permanent removal of the gate that separates the County maintained road from the road owned and maintained by the Bear Creek Association (BCA) Home Owners' Association (HOA). Granting such access would impact the traffic, noise, air pollution and safety exposure to residents living east of the gate. We see no practical means to mitigate these potential impacts to less than significant, and there exists a completely practical alternative, specifically accessing the project from the west. Therefore, we will oppose the project if access is granted from the east.

Further, we note that the Notice of Preparation (NOP) includes in Paragraph 2.4 a description of the BCA Access Alternative, referencing NOP Figure 6. Our comment is that Figure 6 is entirely unreadable and the text on Paragraph 2.4 is vague and non-specific. This lack of clarity and detail is a grave concern, causing us to speculate on the motives of the project proponents in putting forth an alternative that the public cannot understand or comment on in a meaningful way. Regardless of the motivation, these actions have created an atmosphere of mistrust, which if not corrected at the NOP stage, will prevail throughout the CEQA process, and result in more time and money to be spent by all. We also note that Figures 2 and 3 lack a North Arrow and the photos fail to describe the location and direction from which/to which the photo is taken. Are these flaws simple oversights, or a deliberate attempt to miss-inform the public? Can we expect a similar lack of clarity and detail in the subsequent Environmental Impact Report? Given these concerns, we strongly urge the County to recall the NOP and require the project proponent re-issue a new NOP that clearly describes the BCA Access Alternative and corrects other apparent flaws in the current NOP document.

Respectfully submitted,

Robert M. Czarnecki
Judith A. Czarnecki
1820 John Scott Trail, Alpine Meadows Estates.

Maywan Krach

From:	Dennis Duff <Dennis@adidam.org>
Sent:	Thursday, May 08, 2014 10:36 AM
To:	board@alpinemeadowsestatesassociation.org; Placer County Environmental Coordination Services
Subject:	Alpine Sierra Division
Importance:	High

Dear AMEA Board of Directors,

I am responding to your announcement about the proposed Alpine Sierra Subdivision.

I want to go on record that I am opposed to this subdivision as are all the members of our family.

We purchased our home in Alpine Meadows because it was NOT Squaw Valley. We were disappointed when Alpine was combined with Squaw for obvious reasons. Nothing was added to Alpine Meadows with this sale - only a dramatic increase in ski ticket prices and crowded ski slopes.

Now another development is being considered. How will it effect the rest of Alpine Meadows? Obviously the developers will get rich, but beyond that what will happen in Alpine Meadows?

Will there be greater infrastructure improvement that the new property owners or developers will pay for? Will we finally get decent internet service in the valley? How about HiDef TV? Will the horrible, dangerous and rotting power poles finally be put underground? Will there be added conveniences created to the Alpine Meadows ski facilities? (How about decent restaurants, a good bar, summer mountain activities, a small village with ice rink? etc.)

I have just touched on a few issues, but I am sure there are others who feel as we do.

Sincerely, Dennis

Dennis M Duff
1450 Beaver Dam Trail
Middletown, CA 95461

Alex Fisch, Sr. Planner
Maywan Krach, Community Development Technician
Placer County Community Development Resource Agency

April 30, 2014

Dear Sirs,

We have been residents in the Alpine Meadows Valley since 1988. We are responding to the Notice of Preparation of a draft Environmental Impact report for the Alpine Sierra Subdivision (PSUB 2013004.)

We were not able to make the April 28, 2014 Public Scoping Meeting, but wish to add some of our concerns regarding this project.

Poorly presented materials and information:
Our first exposure to the project was a map in a little box at the site, found only when walking on the road last summer. When we received the meeting notice in the mail, we were surprised to see the only paper map of the project a mere star on the region. When we went to the on line page, the map was incorrectly presented, still showing a small area near Bear Creek, which, as we understand, is no longer a part of the project. We feel like the presentation has been confusing and material incorrect, so it makes us a bit apprehensive about the project itself.

Noise:
We live on upper John Scott Trail, and have spent the last two summers listening to construction noise while a 4800 square foot house was built just down the street. That experience has made us acutely aware of how the loud noises of excavation, blasting, rock removal and heavy equipment, trucks and extra vehicles, going on from 8 a.m. to 4 p.m. or later every day, can impact an area. Our narrow valley carries the noises from way up at the ski resort. We can hear the avalanche control guns as if they were just outside the house.

Traffic:
We hope that the plan with the single private roadway off Alpine Meadows Road is the chosen plan, rather than the BCA Access Alternative. We feel that the impact on existing neighborhoods would certainly be decreased by having roads with cul-de-sacs and using a much bigger road, Alpine Meadows Road as the main exit. Summer traffic on Alpine Meadows road is light, and far less sharp curves than John Scott. We hope that we won't be getting great numbers of large trucks and construction vehicles accessing a gate to lower John Scott Trail. This gate is closed except during avalanche evacuation times, and we are concerned that this will become the main road for these vehicles. The intersections below the gate, at Upper Bench, Mineral Springs, Deer Park, and Alpine Meadows Road, all require sharp turns. Is construction planned for winter as well as summer? What are the hours of construction? We look forward to detailed explanations of these topics. Is there any possibility of using Chalet Road as access to the proposed development? It is already built and a new road and entrance to the development could be possible with less

bridges and culvert bridges needing to be built, or how about having a connecting road to Chalet Road for an additional egress? There could be more creative alternatives to the BCA Access Plan.

Gate issue:
We don't think it is neighborly of Bear Creek Association to channel construction through a gate that is never used except in case of emergency and avalanche leading directly to our neighborhood. We hope to have detailed plans as to what will happen with the gate if the BCA Access Alternative is chosen. We feel like the developer is hoping to hook up the sewer to the John Scott line, and that makes sense, but can't that be done without having the road go to John Scott as well? Is the developer hoping to avoid additional costs of building the sewer lift apparatus?

Staging Areas:
We fear that John Scott Trail, just below the gate, will become a staging area. The road widens there, as a turn around, and it could become a waiting area for trucks. They keep the engines running while waiting, so it becomes stinky and noisy, as well as polluting the air. As you know, during excavation, there is a constant stream of trucks going in and out, carrying loads of debris and rocks.

Stream and Pond Habitat Destruction:
Many mineral springs flow on the hillsides here, and the flow down Bear Creek to The Pond, and then down to our swimming area at the bottom of the hill contain innumerable habitats for animals, birds and plants. Tree removal, excavation and other unavoidable construction activities will affect these habitats. How can prudent work be guaranteed? On such steep hillsides, erosion and increased avalanche danger will occur with major tree removal. Many of the environmental issues brought up in the Initial Study and Checklist fall into the "Potentially Significant with Impact" category, and we hope to learn much more about the plans for mitigation.

In conclusion, we recommend going with Plan A with a cul-de-sac and using Alpine Meadows Road as the main road for this proposed development. We think this is much more acceptable to residents already living in the area, and a show of a "good neighbor policy" on the part of the developer. It will have less impact on the environment because it will be less road construction and land impacted.

We neighbors in the area hope that you keep accurate information flowing and accessible to us regarding this project. We look forward to learning more from the EIR to see the many mitigations that will be necessary.

Thank you for the opportunity to be a part of this process.

Elaine and Pete Geffen
1855 John Scott Trail

email: elaineofpew@sbcglobal.net
Mailing: 9315 Skyline Blvd. Oakland, CA. 94611

Maywan Krach

From: Dick Genest <dickg@exwire.com>
Sent: Tuesday, May 06, 2014 12:25 PM
To: Placer County Environmental Coordination Services
Subject: Proposed Alpine Sierra Subdivision

Dear Placer County:

I am writing to express my opinion on the Alpine Sierra Subdivision development proposal, specifically the access. Due to the large size of the project it is crucial that access be via a new road, ideally off of Chalet due to the increased traffic due to construction and residents, alternatively off of Alpine Meadows Rd.

Dick Genest
530-906-4575

RECEIVED
MAY 08 2014
ENVIRONMENTAL COORDINATION SERVICES

May 6, 2014

Placer County
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

Attn: Maywan Krach

Subject: Draft Environmental Impact Report for the proposed Alpine Sierra Subdivision Project (PSUB 20130004)

Dear Ms Krach:

I have reviewed the subject document and have the following concerns regarding this redevelopment project.

It is clear that the existing (natural) topography will NOT support this development plan. Significant grading will be required to make this development. This will change the runoff patterns and volumes that flow to Bear Creek and the Truckee River. The cumulative effects to the creek and river are uncertain and are not worth the risk.

From *NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT dated April 8, 2014*:

> *Geology/Soils.* Due to the steepness of the site, substantial grading would be required for residences, the maintenance building, bridges and roadways. The project would also require trenching and backfill for construction of utilities. The extent of grading would be generally the same under the proposed project and the BCA Access Alternative. Grading and trenching activities would alter site topography and could result in accelerated soil erosion and unstable earth conditions. The disruption of soils increases the risk of erosion and creates a potential for contamination of stormwater runoff through typical grading practices.

As an owner of a condominium on Chalet Road (Alpine Place) the open space views to the south, east, and west of that development will be significantly impacted. Also the increase in vehicle traffic (short term and long vehicle exhaust and noise) will impact the serene environment that currently exists. The increase in traffic for individuals going to the Five Lakes Trail on weekends is already noticed on Alpine Meadows Road and adjacent side roads. Adding this residential development (i.e. more people, more sewage generation, increase run-off, increase demand for water resources, increase garbage generation, and increase in vehicles) is not sustainable for this pristine area. It is clear that this residential development would not improve the environment at Alpine Meadows; in fact it will have a negative impact.

Please stop this proposed development project now.

Sincerely,

Ron Goloubow
2363 43rd Ave
San Francisco, CA 94116
510-501-1789 cell
goloubow@yahoo.com

Graf
339 Clay Street
Nevada City, CA 95959

April 30, 2014

EIR, Placer Co
Maywan Krach
Placer Co. Community Dev. Res. Agency
3091 County Center Dr #190
Auburn California 95603

To Whom it May Concern:

We have been in Alpine Meadows Estates since 1963, having built our own cabin at 1571 Deer Park Drive at John Scott Bridge. We are against the Alpine Sierra development coming through the John Scott gate into Alpine Meadows Estates. It is Bear Creek's development, not ours! The traffic from just ONE huge house built on John Scott last year was dangerous and incessant! Do not permit this project to go!!

Thank you

Susan & Peter Graf

Contact: susanflanders@sbcglobal.net (alpine)
(530) 265-0941 or (530) 583-5273

Maywan Krach

From: Ursula Hirsbrunner <casparh.ursulah@gmail.com>
Sent: Thursday, May 08, 2014 2:17 PM
To: Placer County Environmental Coordination Services
Subject: Alpine Sierra NOP

Dear Ms Krach,
Our opposition to the Alpine Sierra Development is based on the " real need" for this development, is it necessary to build 33 homes and14 duplexes in this environmentally sensitive steep and difficult to build on terrain. The impact from the road construction alone would be huge, the noise, dust and pollution in general from the traffic up and down Alpine Meadows road would be incredibly imposing on all the residents in this narrow valley as there is tremendous echo.

There are already a great number of under used properties not only in Alpine Meadows but all over in the greater Tahoe Basin. Is there really a need to just develop because one can and not question the "need" for it. In Switzerland the people voted recently to stop over building tourist areas. The law now requires that only 20% of all homes in towns can be 2nd homeowners to avoid more so called cold beds (unoccupied properties).

Proposal B would be an unfair deal to the AMEA residents who will have to tolerate the traffic through their neighborhoods. Bear Creek Association would get financially compensated for not giving access through their property. The residential county roads and bridges would take an enormous beating during construction seasons. Will the county improve the battered roads?

Please take our concerns into consideration.
Regards,
Caspar and Ursula Hirsbrunner
1309 Mineral Springs Place
Alpine Meadows

Sent from my iPad

Maywan Krach

From: Alexander Fisch
Sent: Friday, May 09, 2014 8:13 AM
To: Maywan Krach
Cc: eric@wordofmouth-inc.com
Subject: FW: EIR Notice of Preparation comments - Alpine Sierra Subdivision (PSUB 20130004)

Hi Maywan,

Please add Mr. Jacobs' comments to the list of NOP comments. Thanks

Alex

From: Eric Jacobs [mailto:eric@wordofmouth-inc.com]
Sent: Friday, May 09, 2014 12:41 AM
To: Alexander Fisch
Subject: EIR Notice of Preparation comments - Alpine Sierra Subdivision (PSUB 20130004)

Dear Alex Fisch,

I would like to comment on the scope of the EIR Notice of Preparation for the Alpine Sierra Subdivision (PSUB 20130004) regarding noise.

It's important that the noise study, in addition to CNEL (Community Noise Equivalent Level) analysis, also look at SENL (Single Event Noise Level) analysis of vehicles on the proposed access Road A connecting Alpine Sierra West and Alpine Sierra East. Reflected sound from the retaining walls of Road A can reinforce the sound (make the sound louder). Given the elevation of Road A (approx. 100 feet) above the Bear Creek Association community, sound may be direct (line of sight) and unmitigated by any geographical features. Nearest homes to Road A are only 100 feet away. During the summer, residents may have open windows, and the reinforced sound from Road A can adversely affect residential tranquility. In particular, residents have designed their homes so that their decks and bedrooms are typically not facing the road. In the proposed project, 17 homes on John Scott Trail now have the fronts of their homes facing John Scott Trail, and the rears of their homes facing Road A. The community pond may also be adversely affected by vehicle noise from Road A. Road A is relatively straight, flat and long (1500 feet), encouraging faster driving and thus more noise, and this also needs to be considered.

Eric Jacobs
1997 Bear Creek Road
(Bear Creek Association)
tel: 408-221-2128
mailto:eric@wordofmouth-inc.com

Maywan Krach

From: cathykarrotr@netscape.net
Sent: Friday, May 09, 2014 2:00 AM
To: Placer County Environmental Coordination Services; Maywan Krach
Subject: Alpine Sierra Subdivision (PSUB 20130004)

To the Placer County Community Development Resource Agency,

My husband and I are against the proposed Alpine Sierra Subdivision Development in Squaw Valley. Squaw Valley is a natural treasure that has already been developed to provide lodging and comforts for visitors. Further development is not needed and would be undesirable because of the overcrowding and increased traffic it would promote. Would this even be a financial gain for the developers considering the economy? We do not believe we would like to ski at Squaw if there is increased development.

Thank-you.

Sincerely,
Cathy and Tony Karr

Maywan Krach

From: Michael Koppe <mjkoppe@gmail.com>
Sent: Tuesday, April 22, 2014 10:54 AM
To: Placer County Environmental Coordination Services
Subject: Alpine Sierra Subdivision

Dear Maywan Krach,

Thanks for the opportunity to review the Alpine Sierra Subdivision EIR report. I live on 1676 John Scott Trail in Alpine Meadows Estates. I enjoy the community and the quiet street which offers us the opportunity to peacefully walk our dogs and access the local trails. In regards to the Alpine Sierra project, the owners of private property should be able to freely develop their property according to Placer County guidelines, but since Alpine Sierra subdivision wishes to be a private association like Bear Creek, Alpine Sierra needs to take ownership of the traffic and construction inconvenience. The recent construction project of just one house on John Scott Trail in the Alpine Meadows subdivision significantly and adversely affected the traffic and safety on our steep street, especially during periods of snow.

Therefore I prefer the original plan which limits access to Alpine Sierra Subdivision from Alpine Meadows Road, but potentially allows for future egress in the event the Forest Service recommends looped access. Hopefully they would have a gate similar to the one that the Bear Creek Association maintains on John Scott Trail which limits traffic through the community except during emergencies which typically includes avalanches and wild land fires.

In event the Bear Creek Association offers access through their property and receives compensation then Bear Creek should take ownership of the increased traffic and construction inconvenience and limit traffic through their neighborhood.

Thank you for considering the consequences of this development on our neighborhood.

Sincerely,
Michael Koppe
1676 John Scott Trail
Alpine Meadows

Maywan Krach

From: Alexander Fisch
Sent: Friday, May 09, 2014 11:40 AM
To: Maywan Krach
Cc: rhmatzke@aol.com
Subject: FW: Alpine Sierra P SUB 20130004

Please add Mr. Matzke's comments to the list of NOP comments for this project. Thank you

From: rhmatzke@aol.com [mailto:rhmatzke@aol.com]
Sent: Friday, May 09, 2014 11:34 AM
To: Alexander Fisch
Subject: Alpine Sierra P SUB 20130004

Mr Fisch
Pleased be advised that as a long time property owner in Bear Creek I am strongly against the development plans proposed by Sierra Alpine particularly the access road sometimes referred to as Road A. In addition, the proposal for the development of the lots on SAE has a dramatic negative impact on those who have invested, built and live in Bear Creek. Noise, traffic, tree removal, ground destabilization, avalanche potential, increased fire risk, increased water consumption are just a few of the negative elements that would be created by the proposed development.

Your consideration of the interest of the many tax paying owners in Bear Creek would be most appreciated.
Richard H Matzke

Maywan Krach
Community Development Technician
Environmental Coordination Services
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190, Auburn, CA 95603
(By email)

May 5, 2014

Dear Ms. Krach,

I have reviewed the Initial Study and the Notice of Preparation for the 47-Acre project at Alpine Meadows and provided comments on April 24, 2014. In addition I attended the community meting conducted on April 28 and led by Alex Fisch. I have additional comments with regard to Traffic and Circulation.

Page 29 of the initial study states that a "BCA access co-equal alternative" to traffic will also be studied but the details of the alternative plan were not specifically described in the NOP or Initial Study. In my April 24 letter I expressed concern with this lack of transparency.

I learned at the April 28 meeting that the proposal is for a private road to connect to the Bear Creek element of John Scott Trail road (BC-JST) just before the intersection where the private road intersects the public element of John Scott Trail road (AMEA-JST). Evidently, the plan is for the private electronic gate allowing new residents to exit to the AMEA-JST and prevent owners or members of the public to cross into BC-JST from the public section of the road. It appears that the angle the new road intersects with BC-JST is designed so sharp that a driver cannot turn left and proceed through Bear Creek streets but would always exit to AMEA-JST creating substantial cut through traffic on AMEA-JST.

At the meeting on April 28 Alex Fisch stated that there are no provisions that limit the number of cars on county maintained roads. If this refers to metering of traffic on existing roads, this makes sense to me. However, it seems to me that there is an earlier step that deals with the design of roads that the NOP Initial Study and DEIR should acknowledge and consider.

The general plan states on page 2 that Alpine should have a functional street pattern of "efficient location and improvement with minimum disturbance…." Page 4 states that circulation should be planned designed and built "to discourage through traffic". Page 27 goes on at length about the principles of circulation and notes an advantage in Alpine is that instead of tinkering with existing problems the streets

can be "designed in toto from the beginning" because there is no static street system.

The Placer County PD zoning requirements include the following (underlines my me).

C. Circulation and Parking.
1. Roads. Street design shall satisfy the following criteria:
a. Dwelling areas shall only have limited access to major traffic arteries, but adjacent properties/ communities shall be linked by an interior street or streets without creating an unintended and convenient detour for through-traffic, whenever possible.
b. Collector streets of appropriate width and flowing alignment shall feed traffic between the arterial streets and to a network of minor streets on which most of the home sites are located.
c. Where terrain permits, short loop streets and short cul-de-sacs should be used for minor streets.
d. At least two vehicle entry/exit points shall be provided or planned for adequate circulation and emergency purposes unless otherwise determined by the planning commission. If two vehicle entry/exit points are required by the commission, these entrances shall be constructed and available for use with the first and all stages of a phased project, unless otherwise determined by the planning commission.

Guidance in the General Plan and in the county PD zoning rules both calls for a project development and road design that does not create cut through traffic. The proposed project is on undeveloped land where there is the possibility to develop access in a manner where residents access their property from Alpine Meadows Road by using roads built by the developer. This is what the General Plan calls for.

The NOP does not discuss the details of the alternative plan and the proposals lack of compliance with the general plan. Please consider adding more information about the BCA access co-equal alternative and the relevant General Plan and Placer county PD requirements to the NOP and Initial Study item XVI so that the public has all the facts at this stage of the process.

Page 19 also does not list all the intersections on AMEA-JST that will be affected. Please add the following intersections to your study.

JST and Upper Bench
JST and Trapper PL
JST and Trapper McNutt Trail
JST and Mineral Springs Trail
JST and Dear Park Drive
Deer Park Drive and Beaver Dam Trail
Deer Park Drive and Alpine Meadows Road (both intersections)

Thank you for your consideration of my latest observations.

Sincerely,

John McCauley

Mailing address
434 Rose Avenue
Mill Valley, CA 94941
415 515 7660 (cell)

Second home
1633 Deer Park Drive
Alpine Meadows, CA

Maywan Krach
Community Development Technician
Environmental Coordination Services
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190, Auburn, CA 95603
(By email)

April 24,2014

Dear Ms. Krach

I have reviewed the Initial Study and the Notice of Preparation for the 47-Acre project at Alpine Meadows and have the following comments.

Density

The initial study makes reference to the Placer County General plan on page 5 and refers to the proposed project density being "consistent with zoning guidance". I see from the Alpine Meadows General Plan on page 23 that minimum site land area per unit should be established with a requirement of at least 10,000 or 20,000 square feet of land area per unit depending on location. I believe that this translates to .23 or .46 acres per unit. In addition on page 24 of the General Plan discusses townhouses and refers to a maximum density of 8 units per acre or a minimum size of .125 acres per unit.

Page 23 of the General Plan states that resident uses should be subject to the Planned Unit Development or cluster design approaches, but limited to overall established densities.

I believe that the townhouses are proposed on .08-.17 acres per unit and the houses at .19-.38 acres per unit. This does not seem to be consistent with the minimum density requirements listed above. In addition I see that Placer County has guidance in the Zoning Ordinance 17.54.100 Design and development standards that is rather complex but also appears to require less density.

Page 23 and 24 of the initial study indicates that the proposal is "consistent with current zoning". I believe that this statement either needs to be explained further or comments added that the density exceeds the Alpine Meadows General Plan guideline and would need a variance.

Traffic and Circulation

The initial study states on page 29 that a "BCA access alternative approach co-equal alternative" to traffic will also be studied. There is little specific information about what this alternative is.

Owners who live in the Alpine Meadows Estates Association (AMEA) and in the Bear Creak area all access the Ski Resort by traveling on loop roads to the main arterial, Alpine Meadows Road.

During the winter Alpine Meadows Road is periodically closed for avalanche control. While John Scott Trail could provide access through the neighborhoods up the mountain the road is blocked at the start of the Bear Creak development and I understand that this is a private road.

Any BCA alternative that converts John Scott Trail into a collector or arterial type road is completely inconsistent with the guidance in the General Plan. Not only would it greatly increase traffic on John Scott, due to use by the development residents, it could become the main way up the mountain during avalanche control events. If the Bear Creak Association is paid a fee for the proposed development to gain access to this private road, the residents in AMEA deal with the substantial increase in traffic and Bear Creak ends up with the fees!

In addition, it appears to me that the proposed circulation approach and the co-equal alternative approach (details to follow?) each result in only one way to enter or leave the proposed development.

I think it is important for the initial study to refer to the guidance that exists in the General Plan with regard to traffic in the Alpine Meadows area. Page 4 of the General Plan states that streets should be "designed to discourage through traffic". Page 6 refers to a loop road concept.

The Placer County PD zoning requirements include the following.

C. Circulation and Parking.

1. Roads. Street design shall satisfy the following criteria:

a. Dwelling areas shall only have limited access to major traffic arteries, but adjacent properties/ communities shall be linked by an interior street or streets without creating an unintended and convenient detour for through-traffic, whenever possible.

b. Collector streets of appropriate width and flowing alignment shall feed traffic between the arterial streets and to a network of minor streets on which most of the home sites are located.

c. Where terrain permits, short loop streets and short cul-de-sacs should be used for minor streets.

d. At least two vehicle entry/exit points shall be provided or planned for adequate circulation and emergency purposes unless otherwise determined by the planning commission. If two vehicle entry/exit points are required by the commission, these entrances shall be constructed and available for use with the first and all stages of a phased project, unless otherwise determined by the planning commission.

For the EIR to be effective it seems to me that the Notice of Preparation and the Initial Study should be much more forthcoming with regard to what the alternative proposed approach is, and also make reference to the General Plan and Zoning guidance. If the developer has not fully addressed these basic requirements as to circulation, then the project is not ready for a public process. The NOP and Initial study should inform the public as to what the "rules" are to be complete.

Thank you for your consideration of my observations.

Sincerely,

John McCauley

Mailing address
434 Rose Avenue
Mill Valley, CA 94941
415 515 7660 (cell)

Second home
1633 Deer Park Drive
Alpine Meadows, CA

May 9, 2014

Maywan Krach, Community Development Technician
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603
Sent by email to: cdraecs@placer.ca.gov

Subject: Alpine Sierra Subdivision: NOP Comments

Dear Ms. Krach,

I am a full-time resident of Alpine Meadows who lives on Deer Park Drive. After reviewing the Initial Study and the Notice of Preparation of a Draft Environmental Impact Report for the Alpine Sierra Subdivision (PSUB20130004) in Alpine Meadows, I have a number of issues and concerns in relation to this project. There are at least five major topics that I am hoping to see further addressed in the EIR.

1) "Biological Resources"

I have a number of concerns about how this development project will impact the flora and fauna that live in Alpine Meadows. Alpine Meadows is a special place where a variety of living things thrive because of the relative lack of development. At the time that this Alpine Sierra subdivision was slated for this scale of development, it may not have been clear how sensitive the valley's ecosystem is and how many animals and plants depend on the undeveloped and underdeveloped spaces for their survival. The main road alone can be deadly for animals and birds trying to get from one side of the valley to the other; any additional traffic will have negative impacts on these creatures. There is also at least one bear den that is located in the proposed development area and there have already been issues between the bears and their human neighbors over the years. To develop this parcel further limits the location options that bears have for their dens and I would like to see this issue explored further. There is also at least one mountain lion that I have seen while hiking in this particular area of Alpine Meadows. This undeveloped land is in its range and an increase in development and traffic increases the likelihood of a human-mountain lion interaction, which may not end well for either party.

The report states that there are 2511 trees within the project site. The large-scale removal of most (if not all) of these trees means habitat destruction for the birds and small woodland creatures that use the area as their home. I would like to know in detail what steps will be taken to protect the various birds that nest in these trees and how potential harm to them and their offspring will be mitigated.

In addition to the four animal species named in the report that will be impacted by disturbances to the Bear Creek stream zone, I am concerned about potential impacts on the Sierra Nevada Yellow-legged frog that has recently been protected under the Federal Endangered Species Act. In the FWS report that I read, it stated that the Five Lakes area,

or “Subunit 2D,” has been deemed part of the critical habitat area for this amphibian and will be protected as such. I have concerns about whether this frog species is limited to just that area or if it in fact also lives, at least occasionally if not more permanently, in Bear Creek and some of the other seasonal creeks, drainages, and water supplies in the upper Alpine Meadows area. I would ask that a more thorough study be conducted, especially in light of the new federal protection the species is being given.

I spend countless hours walking along Bear Creek and I have noticed that in the summer months, after the increased volume in the creek from the spring snowmelt has subsided and the flow decreases, that there has been an increase in algae growth in the creek in the last few years. I would attribute this to “cultural eutrophication,” which is defined as excessive algae growth due to excessive nutrient levels. Nitrogen and phosphorous from automobile emissions, caused by increased traffic along the road, are to blame as is the increase in fine sediments like sand getting washed into the creek from the road and erosion from developed areas along the creek. I have noticed that especially at the end of Beaver Dam road, where the creek is very close to the road and at the bottom of a steep hill, the algae is extremely prevalent and worse than it was a few years ago. The increased traffic from the addition of 47 residential parcels and the cars associated with them will have increased negative consequences on Bear Creek. Development further up the road as well as the suspected erosion impacts that tree removal and cutting into the hillside will have all make this problem even more serious in the future. I would like to see these issues addressed in the EIR. I think the current health of Bear Creek should be assessed once the flow has decreased to its typical summer and fall level, as it is a crucial part of the Alpine Meadows ecosystem and water supply before we evaluate the impacts that any future development will have. This is especially important right now since we are in the midst of a multi-year drought.

2) “Transportation/Circulation”

Within the “Transportation/Circulation” section of the NOP roadways and intersections that will be impacted by the increase in traffic are listed; however, Deer Park Drive is not included as a roadway segment that will be affected by the BCA project alternative. Furthermore, the following intersections are not addressed:

John Scott Trail / Upper Bench Road
John Scott Trail / Trapper Place
John Scott Trail / Trapper McNutt Trail
John Scott Trail / Mineral Springs
John Scott Trail / Deer Park
Deer Park / Beaver Dam Trail
Deer Park / Alpine Meadows Road

The introduction of increased traffic on John Scott Trail and Deer Park Drive as well as all the aforementioned intersections associated with these roadway segments will most likely have considerable safety impacts including, but not limited to, obscured vehicle site distance, roadway width, and alignment flow. I would also argue that people using

electronic mapping services are offered the alternative route of Snow Crest to Mineral Springs to John Scott Trail, so these roads will likely see increased traffic as well.

Our roadways and the above-mentioned intersections already have difficulty handling the increased traffic that busier times of the year bring to our neighborhoods. If there is heavy snowfall during a busy time such as the Christmas-New Year's week, the current impacts on the roadways are already practically more than they can bear. Our roads can become one lane in width while we wait for the County's plows to catch up with the amount of plowing that needs to be done. Cars with inadequate clearance or without 4-wheel drive end up stuck in snow banks and can be abandoned for hours while the owners try to figure out how to handle the snow and these situations to which they are unaccustomed. These cars that partially block the roadways then become hazards to other people trying to navigate the roads and the roads can become virtually impassable.

There is an additional problem that happens when Alpine Meadows Road is closed for avalanche control. On one particular morning during the Christmas time period, December 29, 2010, it took my husband and I nearly one hour to drive from our house on Deer Park out of Alpine Meadows. We could not drive up Deer Park and onto the main road because of avalanche control and the traffic that was caused by the plows trying to clear the avalanche debris that the bombs had released and then all of the cars that were lined up behind them. Because we needed to leave Alpine Meadows on this particular morning to get to work, we turned around and tried to take an alternate route out of our neighborhood. We became stuck on Mineral Springs Trail because of all of the cars heading in the opposite direction on the now one lane Mineral Springs Trail as they tried to find an alternative way up to Alpine Meadows. On this occasion, the main road was bumper-to-bumper stopped traffic all the way from the Deer Park intersection down onto SR-89 in both directions. Unless the County can commit to more plows and more manpower to operate the additional plows, I anticipate some serious consequences from the additional traffic associated with 47 additional residential parcels. If an emergency situation were to occur during this time frame, it could be quite severe and possibly the difference between life and death. As a full-time resident, this is a very serious concern to me.

I also have some very real concerns about what might happen if there was an evacuation situation that resulted from a fire in Alpine Meadows. The additional cars and subsequent traffic could clog these roads and create a dire situation both for residents trying to escape and for the emergency responders trying to reach the fire.

Therefore, I seriously object to the alternative access or second primary access to the Alpine Sierra development through John Scott Trail via Deer Park Drive or Mineral Springs Trail, as I do not believe that these roads were designed to handle that level of increased traffic.

3) "Utilities and Public Services"

The existing infrastructure of the Alpine Springs County Water District should be assessed to determine how the project would affect the water resources available to the existing residents. I have a number of concerns about what will happen to the existing water supply with the addition of 47 new residential parcels, which is nearly a 8% increase to the current number of homes in the valley. There is a finite supply of water in Alpine Meadows and in addition to the increase from daily water use, I would expect that most (if not all) of these homes will want to add hot tubs, which require quite a bit more water per residence per year. I am concerned that the water supply will not be able to handle the additional demands and that as water becomes scarcer, it will be hard to satisfy these demands and the cost of water (which is already not cheap) will most likely have to increase as a response. In my opinion, these increases will have a disproportionately negative impact on the valley's full-time residents who need water all day, every day and who are already trying to maintain a daily existence in a valley where the majority of homes are occupied by second homeowners or their vacation renters.

Especially in light of recent drought conditions, this assessment or study should be applicable to the current conditions. I also have some serious concerns about what would happen if there were a fire in Alpine Meadows in terms of how much water would be available to fight it.

4) "Groundwater and Hydrology"

On page 22 of the NOP, it states, "The project would not use groundwater or otherwise deplete groundwater supplies…this issue will not be evaluated in the EIR."

It is my understanding that groundwater (in the form of springs) is the source of our drinking water supply and therefore I would think that any development project in Alpine Meadows would use groundwater and potentially deplete groundwater supplies. I would like the Draft EIR to address the impacts that this project will have on the groundwater. I would also like to know what measures will be taken to protect our groundwater and our fresh water springs that are the primary source of our drinking water.

5) "Aesthetics"

On page 22, "Substantially Damage Scenic Resources Visible from a State Scenic Highway" is stated as a potential concern but is not given any weight because this development will not be visible from SR-89. I am interested in the potential negative aesthetic impacts that the development will have for hikers of the Five Lakes Trail as well as hikers of the PCT that stop near the Five Lakes Wilderness area. This development will also be visible from a number of ski trails, especially near the top of the Squaw Creek trail and from parts of Alpine Meadows. Currently, the condominiums at the top of Alpine Meadows Road and the Stanford Alpine Chalet are extremely visible for most of the hike and stick out in what could be considered a negative way. The rest of the development in the valley has been subject to strict architectural and developmental guidelines. I would like to know whether any consideration has been

given to the aesthetics of this development and if precautions will be taken to have the houses and town homes in the subdivision use some of the architectural guidelines that the Bear Creek Planning Committee uses to shape development in a manner that is more in accordance with its natural surroundings. I would like to have future development occur in a fashion that focuses on mitigating the visual impacts of the increased buildings instead of development that wants to showcase the existence of 47 new homes, so as to preserve the quality of the views and the underdeveloped, natural feeling and character of the Alpine Meadows valley.

I appreciate the consideration of and attention to these and other comments during the preparation of your Draft Environmental Impact Report for the Alpine Sierra Subdivision.

Sincerely,

Christine Mixon, on behalf of myself and Rex and Susan Mixon

1531 Deer Park Drive
Alpine Meadows, CA

Mailing Address:

Post Office Box 3391
Olympic Valley, CA 96146

April 14, 2014

Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

Re: Alpine Sierra Subdivision (PSUB 20130004)

To Whom it May Concern,

As a resident of the area, I have several concerns regarding the proposed Alpine Sierra Subdivision. However, at this particular time, I propose discussing only a few of those concerns.

It is my understanding the EIR will explore two proposed options for Alpine Sierra. One option includes one access point (off of Alpine Meadows Road) and the construction of a road, which would connect the Western part of the development to the Eastern part. The second option would provide for two access points (one through BCA property and the other off of Alpine Meadows Road). This second option would eliminate the road connecting the Western part to the Eastern part of the development. The Board of Directors of BCA have been nogitating a MOU with Alpine Sierra which would require AS to pay BCA 3.65 million in exchange for access onto John Scott Trail. One of the conditions of this negotiation is that ALL traffic connected to the Eastern portion of the development filter through Alpine Meadows Estate. Traffic will not be allowed through BCA but BCA will collect future homeowner's dues to pay for maintenance of current BCA amenities and future amenities of the Western part of Alpine Sierra.

The plans for Alpine Sierra have a meeting room, loader storage facility and living space for a caretaker all located within the Western section, along with the proposed picnic area, clubhouse and hot tub. Since the "merge" with BCA does not provide for a road to connect the Eastern and Western section of the development, does this mean any resident of the Eastern section who elects to use the amenities has to exit onto Alpine Meadows Road, onto Deer Park Road to reach John Scott Trail? And, will the caretaker have to travel down John Scott Trail to Deer Park Road, to Alpine Meadows Road in order to access the Eastern section of homes/townhouses for snow removal and house inspections? The increase traffic and heavy equipment traveling through AME will cause severe noise pollution and stress on its infrastructure (i.e. Bridges) and seems particularly dangerous in times of heavy winter storms/snow removal.

With BCA or without BCA, the only difference in the proposed development is a connecting road. BCA wants to eliminate the road but wants none of the traffic associated with the development. This can be accomplished without victimizing AME. Alpine Sierra should be a self-contained development. Access from Alpine Meadows

Road alone and a road connecting the Eastern and Western parts will eliminate any traffic through AME and BCA.

Lastly, despite the zoning of this area, some places, due to their locations, should not be developed. Homes in Galtur were built at the base of several mountains, in an area, which was labeled a Green Zone. In 1999 an avalanche buried most of the town and killed 31 people. How about the area in Washington State where a mud slide killed numerous people? And, closer to home, we should never forget the Alpine Meadows ski resort where the locker room was built in an area that was thought to be safe until an avalanche destroyed it and killed several people.

Building changes terrain and creates hazards. The road to and the entire Eastern section of the Alpine Sierra Development should not be developed. The area is too unpredictable and dangerous. Placer County should do all it can to facilitate a donation of this land to Open Space. The resulting tax deduction should keep the developer's profits safe along with the lives of everyone around the development.

Sincerely,

Devie Nelson

Maywan Krach

From: Alexander Fisch
Sent: Friday, May 09, 2014 2:42 PM
To: Maywan Krach
Cc: Robb Olson
Subject: FW: ALPINE SIERRA: NOP-EIR additional concerns

Please add Mr. Olson's comments to the NOP comments for this project. Thank you

From: Robb Olson [mailto:robb@ooadesign.com]
Sent: Friday, May 09, 2014 2:20 PM
To: Alexander Fisch
Subject: ALPINE SIERRA: NOP-EIR additional concerns

Hi Alex, thanks for you time you are always available and helpful.

Things BCA would like to confirm are under consideration for the EIR. I know much of this would be covered in some kind of development standard from Chris, but in there absence...

-Light Spill: Either AS complies with Dark Sky guidlines or something very close to minimize light spilling. Currently BCA (under BCPC) requires new homes and additions to come up to similar standards.

-Retaining Walls and Piers: We are concerned with the looks of the 1500lf road that faces JST, Chris has talked to us about ways of blending, but we want this noted again. Additionally, same goes for hillside homes that may be built on piers/walls and properly addressing the underside if seen from BCA.

-Snow Storage: plan for proper storage of snow so it does not cause issues to neighbors below (namely BCA trees, roads and/or structures)

-Lot Slope: Chris has talked about suggested building pads on lots with steep slopes, this would help insure placement of structures respect the natural features of each lot as best they can.

-Slope Cuts: I know building on a steep lot is possible but ensuring development standards are in place much like TRPA on immediate revegetation of large disturbed areas.

-Construction at Holidays: In some developments they restrict construction on holidays. Seeing as the majority of Alpine Meadows is full during these times, in addition to how much sound travels in our tight bowl, we would love some consideration at least around holidays.

-CC+Rs: We would like to see if the proposed CC+Rs are similar to our BCPC Architectural Review Manual, which the majority of the valley is under.

BCA will have word to you on the Co-Equal Access Alternative (Plan B) by the 28th.

Cheers,
Robb Olson, AIA
CA 32403, HI 12657, NV 6049

Olson-Olson Architects, LLP

Post Office Box 7949
Tahoe City, California 96145
530.550.0709 T ext. 101
530.550.0704 F

The information contained in this transmission may contain privileged and confidential information. It is intended only for the use of the person(s) named above. If you are not the intended recipient, you are hereby notified that any review, dissemination, distribution or duplication of this communication is strictly prohibited. If you are not the intended recipient please contact the sender by reply e-mail and destroy all copies of the original message.

Maywan Krach

From: chuck pistoia <condophx@yahoo.com>
Sent: Tuesday, May 06, 2014 4:49 PM
To: Placer County Environmental Coordination Services
Subject: alpine sierra subdivision

How about upgrading the phone and internet service to the whole valley? right now your AT&T cell phone service is is useless in some areas.
with more homes and computers how about getting some better internet derive providers? The valley will be overwelled with more homes trying to get service.

Maywan Krach
Community Development Technician
Environmental Coordination Services
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190, Auburn, CA 95603
(By email)

May 9th, 2014

Dear Ms Krach,

I am a homeowner on John Scott Trail in Alpine Meadows, CA. I have reviewed the Initial Study and Notice of Preparation for the Alpine Sierra Development, and have the following comments:

Density:
I am concerned that the proposed lot sizes both for the larger lots on the upper slopes and for the townhouses, appear to be inconsistent with Page 23 of the Alpine Meadows General Plan.

Traffic:
As a homeowner on John Scott Trail I am especially concerned about the proposed "BCA Alternative Access", as I believe this to be in conflict with the Alpine Meadows General Plan (AMGP) in several respects. The AMGP states:

- on page 2, item #6, that the planning process should "provide a functional street pattern of efficient location and improvement with minimal disturbance...", and

- on page 4, Item # 5, that "... all streets should be designed to discourage through traffic".

My understanding is that the proposed "Alternative Access" includes having the primary access and egress from the northeastern part of the development onto John Scott trail close to the current BCA gate. Clearly little or none of the traffic will come into or out of the development via Bear Creek, putting much most of heading north-east on John Scott Trail. In fact it looks from the drawings as though it will be hard to make the turn to the left into Bear Creek at all.

The AMGP states on page 2 that Alpine should have a functional street pattern of "efficient location and improvement with minimum disturbance…." Page 4 states that circulation should be planned designed and built "to discourage through traffic". Page 27 goes on at length about the principles of circulation and notes an advantage in Alpine is that instead of tinkering with existing problems the streets can be "designed <u>in toto</u> from the beginning" because there is no static street system.

Placer County PD zoning requirements states the following:

C. Circulation and Parking.

1. Roads. Street design shall satisfy the following criteria:

a. Dwelling areas shall only have limited access to major traffic arteries, but adjacent properties/ communities shall be linked by an interior street or streets without creating an unintended and convenient detour for through-traffic, whenever possible.

b. Collector streets of appropriate width and flowing alignment shall feed traffic between the arterial streets and to a network of minor streets on which most of the home sites are located.

c. Where terrain permits, short loop streets and short cul-de-sacs should be used for minor streets.

d. At least two vehicle entry/exit points shall be provided or planned for adequate circulation and emergency purposes unless otherwise determined by the planning commission. If two vehicle entry/exit points are required by the commission, these entrances shall be constructed and available for use with the first and all stages of a phased project, unless otherwise determined by the planning commission.

Guidance in the General Plan and in the county PD zoning rules both calls for a project development and road design that does not create cut through traffic. The proposed project is on undeveloped land where there is the possibility to develop access in a manner where residents access their property from Alpine Meadows Road by using roads built by the developer. This is what the AMGP calls for. The "BCA Access Alternative" plan appears not to be consistent with any of the above.

Page 19 does not list all the intersections on John Scott Trail which will be affected by this development. Please would you add the following:

John Scott Trail and Upper Bench
John Scott Trail and Trapper PL
John Scott Trail and Trapper McNutt Trail
John Scott Trail and Mineral Springs Trail
John Scott Trail and Dear Park Drive
Deer Park Drive and Beaver Dam Trail
Deer Park Drive and Alpine Meadows Road (both intersections)

It should be noted that if the traffic using John Scott Trail were substantially increased there would need to be significant improvement to the intersection of John Scott Trail and Upper Bench, which is already very dangerous, especially during winter months.

I believe that the proposed development as a whole and its visibility from well-known local trails like the Five Lakes Trail is not consistent with the spirit of page 18 of the AMGP which states that:

"Alpine Meadows must preserve and maintain a permanent surrounding greenbelt, as a means of insuring finite limits to future development, to preserve the relationship to nature, and to complement the residential amenity of the valley."

I believe that there are at least two bear dens in the proposed development area. It would indeed be a pity to see this habitat reduced.

Many thanks for your consideration of my comments. I would be very happy for you to contact me at any time.

Sincerely,

Andrew Pitcairn

Mailing address:
557 Crofton Ave
Oakland, CA 94610
Cell: 510 435 3550
Email: apitcairn@mac.com

Alpine Meadows Address:
1880 John Scott Trail
Alpine Meadows, CA

Maywan Krach

From: Douglas Rotz <dougski@ltol.com>
Sent: Monday, May 05, 2014 8:33 AM
To: Placer County Environmental Coordination Services
Cc: Alexander Fisch
Subject: Alpine Sierra Subdivision NOP Scoping meeting additional concerns

Dear Sirs,
Pursuant to those comments and ideas that were discussed by myself and others at the 4/28/14 NOP Scoping meeting for this project, my wife and I would like to add the following to be addressed in the EIR:
1. Defensible space that would be required for all structures and roadways, specifically what types of vegetation and to what distances would this action
entail. This issue would most likely impact the visual appeal, or lack thereof, of the project, as well as impact potential snow movement and movement
of soils and debris under heavy sustained rains not unusual for this area.
2. If avalanche studies reveal hazardous zones within the project boundaries, would that prevent some lots from development? Would avalanche prevention
measures be a possibility such as fencing, contouring, etc.? Would current structures located below the project that were not considered to be in
avalanche zones now be potentially reclassified in this regard?

We would also request some clarification on the following questions:
1. Were notices of the NOP Scoping meeting sent to all homeowners in Alpine Meadows or just those requesting such notification?
2. Was the Alpine Meadows Estate Association sent a notice of this meeting and if so, what date was that notice sent to AMEA?
3. In the sequence of events regarding this project, when does the Bear Creek Homeowners Association vote on this project? What exactly are the issues the
BCHA will be voting on? What does the result of such voting mean for Alpine Sierra Partners LLC going forward?
4. Can ASP be its own subdivision outside of BCA boundaries and directives? If so this would require ASP to be responsible for the maintenance and
upkeep of roads and bridges, snow removal, etc. Potential financial solvency would then be an issue.
5. What, if anything, must ASP LLC provide to Placer County to assure the County they have the financial ability to perform the construction for which they are requesting approvals?

We hope the above EIR issues will be addressed and would appreciate your responses to the questions posed. Thank you for your time and effort in these regards.

Douglas and Marie Rotz

Maywan Krach

From: Emma Samuels <emma.samuels@gmail.com>
Sent: Friday, May 09, 2014 5:01 PM
To: Placer County Environmental Coordination Services
Subject: Project

Dear Ms. Krach,
After reviewing the Initial Study & Checklist and the Notice of Preparation of a Draft Environmental Impact Report for the Alpine Sierra Subdivision (PSUB20130004) in Alpine Meadows, I would like to express my concern.

I appreciate how difficult and time-consuming this process must be, and your efforts in the preparation of your Draft Environmental Impact Report for the Alpine Sierra Subdivision (PSUB20130004) in Alpine Meadows.

Please be aware that I am deeply perturbed by the traffic increase through my neighborhood, as well as the environmental impact.

Thank you for your time.

Sincerely,

Emma Samuels
1520 Deer Park Drive
Alpine Meadows, CA 96146

May 6, 2014

Placer County
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

Attn: Maywan Krach

Subject: Draft Environmental Impact Report for the proposed Alpine Sierra Subdivision Project (PSUB20130004)

Dear Ms. Krach:

I have reviewed the Environmental Impact Report (EIR) for the Alpine Sierra Subdivision, a proposed 45 plus acre development of homes and townhomes on a very steep grade in Alpine Meadows, CA.

1. Where is the water supply?
Today, an 840 page report on Global Warming (I have not read) was identified in the news as concluding that global warming is not just a problem for future generations, but is a current problem causing drastic weather patterns affecting everyone on this planet. The past 2 years, California has faced significant draught conditions. These conditions are most evident in Alpine Meadows where the snowpack was so low this and last year, the threat of forest fires will increase.

But, for the environment, the snowpack is needed for local water supply. The more residents, the more need there is for water. Where more homes are built, there should be a projection for global warming and reduced water supply should be considered before any residential development of this scale in this sensitive area can be approved. This is not a theory, but a reality. The EIR failed to address future water loss in the region, and how that will affect a proposed subdivision. New homes need a water source and the existing sources are drying up. And, even the wildlife, bears, coyotes, squirrels, birds, and all, should not be deprived because man chooses to keep building homes, depleting the planets scarce natural resources; specifically a residential development of this scale in this sensitive area.

2. Gravity Sewer:
Gravity sewers are risky to the environment. The report does not identify how this would work or where. Nor are the risks of "gravity sewers" identified in the report.

3. Slide Dangers
The topography of the region proposed for the new homes is way too steep. "Due to the steepness of the site, future homes and the project infrastructure would require extensive cuts and the use of retaining walls." Cutting into mountainsides creates slide dangers. The EIR does not address the risk of landslides in rainy years (especially where there is little ice or snow) or an increased risk for avalanches. By developing a steep grade by disrupting the natural topography of the area ("extensive cuts") will place the upper hill landowners at risk of having their properties slide if the mountainside is weakened.

As an attorney, I was involved in at least one lengthy mudslide litigation because the side of a hillside was "extensively cut" disrupting natural drainage – even though additional drainage ditches were engineered/constructed, the hill slid because of natural geologic repercussions over time caused by the initial extensive cutting into the hillside.

Has anyone checked if the recent loss of life in the state of Washington could have been prevented if a subdivision had not been developed on the mountain side that slid burying numerous homes and people?

4. Air Pollution
More cars will be expected to get to the homes, create traffic congestion and emissions. If the homes include woodburning units, such as fireplaces, stoves or outdoor firepits, the upper level homeowners (I have a condo at Alpine Place) will be subject to the air pollution from the proposed residential development. The EIR does not address the added air pollution to the area and its impact.

Propane is one of the dirtiest of fuels. Occasionally, those propane tanks leak. And even when they don't leak, there is always some propane emission. In a steep valley such as Alpine Meadows, the pollution does not dissipate quickly. An increase potential for fires due to sparks should be addressed.

Emission of gases, smoke, soot and other pollutants clearly creates significant health hazards. The number of sinus allergies has increased (according to my physician). Up until age 45, I never had a diagnosed allergy – and now, my sinuses are adversely affected by pollutants. The Yosemite fire of 2013 affected my eyes and sinuses while sitting by the side of Lake Tahoe. I now have a prescription nasal spray at the age of 55. Again, no allergies until recent years. But pollutants in the air seem to adversely affect my personal health and I assume other people are also affected.

5. Views and Forest Affects
Currently, the proposed residential development site is a beautiful pristine forest. Deforestation is what will occur when building starts. Upper landowners/condo owners will lose the forest views. The forest does not just provide views, but the pines are natures

natural chime when the wind blows through — that will be diminished, if not lost. The smell of the forest will be diminished as well.

More homes generate more waste. More garbage increases the bear population. The EIR does not address the displacement of all animals or all habitats.

Pyramid Lake– dead fish were everywhere. The Truckee River flows into Pyramid. What killed the fish? People creating more pollution and draining the water systems.

Aren't there enough homes in the Tahoe basin, Tahoe national forest, etc?

Olympic Valley – Squaw Valley has a huge development plan ongoing to increase the number of residences in the area. There is no need for anymore. There are plenty of homes available for sale on the open market and always will be.

Truckee – Martis Valley, etc. overdeveloped.

The edge of the lake is protected by TRPA, to protect Lake Tahoe itself. The local counties need to be involved in protecting the greater region, the mountains, valleys, rivers and streams. In boom times, the developers take over. In recessions, houses go into foreclosure. Why set up a new development where there will eventually be a recession, causing homeowners to let their houses go unmaintained increasing the risk for hazards in the area.

Economic Impact
Existing homeowners rely on seasonal rental income to keep their homes. With an influx of new homes and townhomes, the homeowners who rely on rental income to maintain existing homes will lose that income. Inevitably, the new homeowners will likely rely on seasonal rental income as well creating more rental competition.

As an existing condo homeowner, I am adamantly opposed to any new development in such a beautiful location. Please help to stop any new development so that the mountains and forests of California don't continue to be diminished.

Sincerely,

Christine Schenone
Homeowner

(415) 517-3757 cell
(415) 553-9310 work

David Smelser
P.O. Box 2666
Olympic Valley, CA
530-583-1249

RECEIVED
APR 21 2014
ENVIRONMENTAL COORDINATION SERVICES

April 17, 2014

Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

Re: Alpine Sierra Subdivision (PSUB 20130004)

Dear Maywan Krach,

My home address is 1503 Deer Park Drive, Alpine Meadows. My concern is traffic so how this fits into the Environmental Impact Report I'm not sure, other than air quality and noise.

If any part of this development plans to use Deer Park Drive to access the new lots for construction, emergency or regular access then I object to the increase traffic. I live at the corner of Deer Park and Beaver Dam Trail and each winter my cars and or carport get hit by sliding cars at least twice each year. I have asked for a stop sign at that corner for the last 30 years with no luck.

Placer County abandoned the connection of Upper Bench Road with Lower Upper Bench Road without notice. They now call Lower Upper Bench Snow Crest. That means that if that property at the end of Upper Bench is developed some day all that traffic will flow past me on Deer Park plus any Alpine Sierra traffic that is allowed to use John Scott to Deer Park. That is just not acceptable.

So mine is a strong No Vote and please get on County Roads to put a stop sign at my corner.

Sincerely,

David Smelser

Maywan Krach

From: Alexander Fisch
Sent: Thursday, May 08, 2014 4:17 PM
To: Maywan Krach
Cc: sjfastpro@aol.com
Subject: FW: Alpine Sierra Plan B issues
Attachments: John_Scott_Photo.jpg

Hi Maywan,

Please add Mr. Smits comments to the NOP comments for this project. Thank you

Alex

From: Sjfastpro [mailto:sjfastpro@aol.com]
Sent: Thursday, May 08, 2014 4:06 PM
To: Alexander Fisch
Subject: Fwd: Alpine Sierra Plan B issues

Alex,

We are concerned about the safety and traffic impact on John Scott Trail if Plan B were to be approved. John Scott Trail is basically a single lane road from Park Drive and the gate at the end of Bear Creek subdivision. It has not been a major issue thus far because there are only about 9 homes on this street currently. With the addition of 27 more homes using this road I believe it will be hazardous and a real safety concern. The only place to pass an on coming vehicle is by one of the three road side parking spots. In the winter time it is almost impossible to pass another vehicle
.
The eastern side of John Scott Trail (east of the gate)is very difficult to negotiate in the winter time. The snow removal is almost always 6 to 8 hours behind that of Bear Creek during normal conditions. When the weather gets more extreme it can be a day or two to get the road cleared which would force all traffic to run through the one way section on John Scott Trail.

Attached is a photo of a vehicle on John Scott Trail with no snow.

Alex, thanks for you consideration on this matter.

Thanks,

Brian Smits
1900 John Scott Trail
Alpine Meadows, CA
sjfastpro@aol.com
209-648-2000

Ford

WERTHEIM VAN DER PLOEG & KLEMEYER

Architecture Landscape Architecture Planning
2145 NINETEENTH AVENUE SAN FRANCISCO, CA 94116

Tel 415 / 664-0832 Fax 415 / 664-0102

27 April 2014

Subject: Alpine Sierra development meeting in Squaw vale 28 April 2014

Comments by: Ernest Wertheim, resident in Bear Creek Lot 84 on 1950 Cub Lane

First of all I would like to compliment the Placer County Staff for preparing 34 pages with a lot of very good information.

1.What is a public trail when it is located on private land, who will maintain it?

2. Define a halfplex.

3. There a mention of a swimming pool and also a hot tub, are both in the same location?

4.. There is a mention of a homeowner association residence, meeting room and equipment storage. Does this imply that there will be a residence, plus a meeting room and bath rooms?

5. It appears that some of the existing open space will be relocated. This would involve a change in the existing General plan. Can an existing General plan be changed without proper hearings?

6. Would you please tell me the difference between a general plan prepared by the County and a community General plan that has been approved by the county.

7.. There is reference to a 500' water line and another 920'. Will either of these pipelines been off the subdivision site and if so what impact will this construction be on the local environment? The same question applies to pump stations.

8. Where does the definition of parcel A through H apply?

9. Since the site is very rocky will road building and underground utilities involve dynamiting and how will this be handled safely?

10. How will the storm water run off from individual lots be handled, will each lot owner be responsible to contain its own water. Will Bear Creek be protected from such additional storm water run off.

11. How will the storm water from the roadways be handled?

Ernest Wertheim ASLA
Landscape Architect CA Lic 229

Frederick J. Klemeyer, Jr. AIA/FCSI
Architect CA Lic C9491, NCARB

12. There will be cut and fill banks, will these be re vegetated and if so how will this be done and who will keep such planting up as far as maintenance is concerned.

13. What will happen to the snow when it is being blown off the street, where will this snow be stored? Will Bear Creek be protected from such snow plowing? This refers to Plan A and the main road.

14. Is there enough storage area for snow to keep the roads open and where will the snow for drive ways to residences be stored? A lot can be learned from Bear Creek Association about snow storage as well as from Juniper Mountain.

15. If Access is through Bear Creek Association where does the sewer line for lots 21 and 22 go?

16. Where is the EIR of 1968 on line, how can one get a copy to study?

17. At time of year was the Eco Synthesis Service study Bialogical Survey done? Was it aftr a wet year or dry winter?

18. On page 16 there is reference to a word called Topsoil. Can this be better defined? Will suitable planting soil be stockpiled and reused?

19. On Page19 there is a reference to emergency evacuation. Would you please explain how this would take place.

20. Will there be parking at the Recreational facilities?

21. On page 30 there is a reference to waste water, could you give some details.

22. In case the east section will become a part of the Bear Creek Association how will BCA handle the extra traffic, because many people do walk on the BCA roads and there is a speed limit.

23. Will the EIR address the intersection of the proposed road and Alpine Meadows road and the entrance road to Troy Caldwell's development. This intersection is very close to the Gunston road and the bridge. During the big avalanche there was one avalanche that reached the bridge and as far as I remember one person was killed at the bridge.

24. The EIR should address how the various bridges and culverts will be build and how water will be detoured and what environmental condition this will create. Will all bridges and culverts be maintained by the Developer?
25. Has the Bear Creek Planning Committee agreed to take responsibility for checking house applications?
26. Will the public have an opportunity to review the new EIR and make comments on it?

28. How long will it take to prepare the EIR.

Thank you for giving me the opportunity to prepare this list.

Sincerely yours

Ernest Wertheim

wvk@aol.com

May 1, 2014

Placer County
Community Development Resource Agency
3091 County Center Dr. Ste. 190
Auburn, CA 95603
Attn: Maywan Krach
Re: Alpine Sierra Subdivision (PSUB 20130004)

Thank you for the opportunity to review the notice of preparation for a draft EIR, and for the time to comment on this project. Unfortunately we were unable to attend the meeting on April 28.

We own a house and an adjacent lot on Juniper Mountain Road in Alpine Meadows and that is the compelling reason for our interest in this project. We are not full-time residents in Alpine Meadows. It is a place of escape, beauty, peace and recreation for us, as it is for our full-time resident neighbors.

There is always a bit of a groan, when a new house or new development is to be built nearby, but it doesn't inspire opposition. The Alpine Sierra Subdivision does, although not because of the number of units. The proposed site is steep and would require awkward terracing and retaining walls. The installation of proper utilities is complicated. I question whether being in an environment that is on the one hand delicate and on the other subject to harsh weather conditions doesn't render these challenges insurmountable.

The proposed Bear Creek Association alternative makes a bad situation worse. This would permanently change the nature of this lovely, unique neighborhood. The disruption from noise, traffic, and environmental degradation isn't fair to the residents of Bear Creek. Even if the access would be temporary, the length of time for this project is surely to be 10 or more years especially considering the short season for most construction.

A final concern is the precedent set by developing marginal property and by inconveniencing other residents to do it. If it's built in this case, why can't more steep, avalanche prone property be developed?

We aren't against further residential construction in Alpine Meadows as long as it doesn't require extraordinary measures and has minimal impact on existing neighborhoods. We trust you will consider all aspects of this proposal carefully and fairly. As residents of a nearby neighborhood, but not directly impacted, we are opposed to this particular project.

Sincerely yours,

Kenneth & Ruth Wilcox

Maywan Krach

From: Michael Willson <mr.honey-do@hotmail.com>
Sent: Friday, May 09, 2014 3:27 PM
To: Placer County Environmental Coordination Services
Subject: Public Comment on Alpine Sierra Project

Michael Willson
Marijane Rees
PO Box 5247
1895 John Scott Trail
Tahoe City, Ca 96145
May 9th, 2014
Maywan Krach, Community Development Technician
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190 Auburn, CA 95603
Email: cdraecs@placer.ca.gov

Dear Ms. Krach;
As we understand it, the developer has proposed paying millions of dollars to the Bear Creek Association (BCA) in order to join BCA. In addition there are plans to install a private gate enabling BCA residents to exit their development through the private gate and exit the public section of the John Scott Trail, at the same time, the homeowners living on the public section of John Scott Trail cannot travel through the gate in the other direction. This would create substantial traffic and disturbance on the public section of John Scott Trail and through Alpine Meadows Estates Association (AMEA). The result would cause substantial deterioration of the peaceful environment for the AMEA residents. While money is collected by BCA, the expense and inconvenience is increased for others in the lower valley, hardly a neighborly gesture. This is in conflict with the Alpine Meadows General Plan. If the developer & the BCA want access to this property let them find it through their own property and not thru or in front of ours!!! Also the BCA does not contribute tax dollars towards the maintenance of roads and yet they want to use ours?
The BCA Access Alternative is in conflict with the Alpine Meadows General Plan (AMGP) which states:
Page 2, item #6, that the planning process should "provide a functional street pattern of efficient location and improvement with minimal disturbance...", and
Page 4, Item # 5, that "... all streets should be designed to discourage through traffic".

The terrain the proposed development is on is very steep and rocky. The developer cannot possibly construct the roadways in one year's time as stated. The dynamite blasting and heavy equipment use to try and construct these roads would last for years due to "unforeseen conditions" and be not only a nuisance in one year's time but a nightmare for many years to come, as this would become a major expense to the developer. We are opposed to an on-going of blasting and heavy equipment use, which would have major impact on everyone living in the valley. The construction, noise, and unrest would continue not only for the road's development, but for water, sewer, and other utility installations as well. In addition, the development of the future housing structures to come would eventually last for many years and further disturb the habitat and tranquility of our valley! This enormous project would be a forever long lasting project that would deteriorate & have devastating

effects on our neighborhood. We believe the density of this development and the visibility of this development in Alpine Meadows is not in keeping with the spirit of the general plan.

Thank you for hearing our concerns,
Michael Willson and Marijane Rees

Maywan Krach

Community Development Technician

Environmental Coordination Services

Placer County Community Development Resource Agency

3091 County Center Dr, Suite 190, Auburn, Ca 95603 May 3, 2014

Dear Ms. Krach

As a 30+ year full time resident of Alpine Meadows Estates with a home on Upper Bench, a side street off of John Scott Trail, I am concerned about the analysis of the BCA Access Alternative to the proposed Alpine Sierra subdivision.

On page 3 of the Initial Study, the paragraph involving grading mentions there" may involve significant export and import of materials due to the lack of suitability of the excavated material to be used as structural fill due to the rocky nature of the site. " A mental picture of large trucks traveling up and down John Scott Trail for an extended, un specified amount of time emerges in my brain. In fact, if the alternative access road becomes "the access road " into the new subdivision, then it is obvious that during infrastructure construction, there will be constant flow of "disruptive, non-residential traffic……..intruding upon residential areas", which the Alpine Meadows General Plan directs should be prevented.

At this time, I have been unable to learn the actual percentages of full time residents living in Alpine Meadows Estates (AME) verses the fulltime residents living in Bear Creek, but I believe it is fair to say that using ASE public roads to provide access to a private, new, Bear Creek development will have a much bigger impact on year round AME residents using our roads daily. We have single access roads, with no sidewalks. Besides using the roads for driving, they are used for biking, walking the dog, running, etc. I would like this to be considered in the access alternative discussions.

Another point I'd like to mention is the difficulty of getting up and down our road in the winter. It's a very steep climb from the John Scott Trail bridge to Upper Bench Road. Then, a sharp, steep, slanted, blind curve, with additional uphill to the top of Upper Bench. During winters with average snowfall it is an acquired skill to drive up and even down our road, even with 4 wheel drive vehicles. The Upper Bench /John Scott intersection is so poorly designed in regards to grading and drainage and width there's just always an accident waiting to happen situation. Snow melts, becomes water, flows across the road above and below the turn, freezes into a sheet of ice making it difficult for traction up and dangerous going down at the intersection. Numerous times I have tried to get home from work and can't get access because a neighbor, or more likely a visitor has gotten stuck, blocking my access since

there's only one street for me to drive on. On a few occasions, vehicles have been so stuck, they have been abandoned creating another problem, the plow is unable to drive through to do it's job.

I am against the BCA Access Alternative because increased non residential traffic considering the scope of this project on our public roads that currently need maintenance, will then increase the difficiencies in our neighborhood. Building yet another road with single entry/ exit point is poor judgement in my opinion. As stated in the Alpine Meadows General Plan under Circulation, "An efficient, economic, functional, (and minimal) street pattern and movement system is essential to the development. "……..

"Traffic loadings……..must be carefully determined……". I also refer to all the 4 Principles listed on page 27 of the General Plan. Also noted on page 27, the "Purpose of a circulation element is to provide: a safe, economic, convenient movement throughout the area; the least disruption or disturbance to land use, ……..to unify all aspects of the area by providing access and communication. " Using the BCA Access Alternative does not fulfill the General Plan philosophy. In fact, the General Plan "depicts a loop major road system……..as a means of alleviating the single access character of the present situation" Has the Alpine Sierra project even considered or studied this loop road system as an access alternative? Shouldn't a brand new development project of such density be expected to build it's own access roads, in accordance with the General Plan?

On page 2 of the IS&C, the project description mentions that a public trail would be constructed and dedicated to Placer County. What does that actually mean? Placer County would then be responsible for maintaining this public trail? How is this trail location determined, is it a truly walkable trail and is it already in greenbelt designated area? Many of us use the horse trail loop for hiking in summer, and snowshowing in winter. Would our trails access be taken away by the new development?

In reading the IS&C I did not find a site plan showing the locations for the new offsite infrastructure. Seems like this should be studied as to how this new infrastructure affects full time residents again w/only one entry/exit road

Finally, I'd like the EIR to evaluate all the potential disturbances to all the Alpine Meadows wildlife in the area; besides fish, raptors, and birds. In particular, what about the bears, coyotes, porcupines, deer, etc. whose habitat we encroach on.

Thank You for your consideration,

Cordially,

Lin Winetrub

1491 Upper Bench Rd, Tahoe City, Ca 96145

(530) 583-1815

Maywan Krach

From: William York <wyork17@gmail.com>
Sent: Friday, May 09, 2014 4:14 PM
To: Placer County Environmental Coordination Services
Subject: Re: Alpine Sierra Subdivision (PSUB 20130004): NOP Comments

Ms. Krach,
In addition to the letter I submitted earlier I would also like to request that the Draft EIR addresses the potential impacts on the Sierra Nevada Yellow-legged frog that has recently been protected under the Federal Endangered Species Act. I understand that the Five Lakes area has been deemed part of the critical habitat area for this amphibian and I have concerns that the habitat may extend to Bear Creek and some of the other seasonal creeks, drainages, and water supplies in upper Alpine Meadows and within the project area.

Thanks again!

Will York

On Fri, May 9, 2014 at 11:26 AM, Placer County Environmental Coordination Services <CDRAECS@placer.ca.gov> wrote:

Your comments have been received and forwarded to the planner.

Thanks.

.....

Maywan Krach

Community Development Technician

Environmental Coordination Services

Placer County Community Development Resource Agency

3091 County Center Drive, Suite 190, Auburn, CA 95603

530-745-3132 fax 530-745-3080

Monday 8:30-5 (every other Monday off)

Tuesday-Friday 7:30-5

May 8, 2014

To: **Placer County Community Development Resource Agency**
3091 County Center Drive, Suite 190
Auburn, CA 95603

Attn: **Maywan Krach, Community Development Technician**
(via email) cdraecs@placer.ca.gov

Subject: **Alpine Sierra Subdivision (PSUB 20130004): NOP Comments**

Dear Ms. Krach,

After reviewing the Initial Study & Checklist and the Notice of Preparation of a Draft Environmental Impact Report for the Alpine Sierra Subdivision (PSUB20130004) in Alpine Meadows and attending the Public Scoping Meeting on April 28, 2014 I would like to provide you with the following written comments.

1) "Transportation/Circulation"

Within the "Transportation/Circulation" section of the NOP roadways and intersections that will be impacted by the increase in traffic are listed; however, Deer Park Drive is not included as a roadway segment that will be effected by the BCA project alternative. Furthermore, the following intersections are not addressed:

John Scott Trail / Upper Bench Road
John Scott Trail / Trapper Place
John Scott Trail / Trapper McNutt Trail
John Scott Trail / Mineral Springs
John Scott Trail / Deer Park
Deer Park / Beaver Dam Trail
Deer Park / Alpine Meadows Road

The introduction of increased traffic on John Scott Trail and Deer Park Drive as well as all the aforementioned intersections associated with these roadway segments will most likely have considerable safety impacts including, but not limited to, obscured vehicle site distance, roadway width, and alignment flow.

2) "Utilities and Public Services"

The existing infrastructure of the Alpine Springs County Water District should be assed to determine how the project will affect the water resources available to the existing residents and the implications on the existing gravity flow sewer mains. In light of recent drought conditions this assessment or study should be applicable to the current conditions.

3) "Groundwater and Hydrology"

It is my understanding that groundwater is the source of our drinking water supply and therefore I would like the Draft EIR to address the impacts that this project will have on the groundwater.

I appreciate the attention to these and other comments during the preparation of your Draft Environmental Impact Report for the Alpine Sierra Subdivision (PSUB20130004) in Alpine Meadows.

Regards,

William York

Primary Address:
1531 Deer Park Drive
Alpine Meadows, CA 96146

Mailing Address:
Post Office Box 3391
Olympic Valley, CA 96146

Alpine Sierra NOP Comment Summaries – EIR Scoping Meeting

	Participant	Comments	EIR Section
1.	Rick Wertheim pt. 1	a) Should evaluate Upper Bench at John Scott Trail (JST) – existing safety issues in winter b) Is JST capable of handling the additional traffic it would receive under BCA alternative c) Under BCA alternative, evaluate project traffic through Alpine Meadows Estates (AME)	- Transportation
2.	John McCauley	a) Project is not compatible with the unique attributes of the Alpine Meadows area – which has no large-scale condos and is free of congestion even on busy weekends b) Project is at a higher density than the General Plan allows c) Due to the angle of the project road intersection with JST; traffic will turn right to Alpine Estates d) While negotiations regarding the BCA Access Alternative are with BCA, all traffic would go through AME e) One-way gate is inappropriate and burdens AME with the impacts f) The NOP should be recirculated with a full description of BCA alternative	- Aesthetics - Transportation - Alternatives
3.	Doug Rotz pt. 1	a) NOP asserts no impact on subsurface water, but project has a large area with very little soil; Need more analysis of potential impacts to groundwater b) Construction traffic could result in long-term noise impacts (in contrast to NOP statement that construction noise would be short-term) c) How will construction and long-term project traffic be routed? Appears it would be through AME. How would pass-through traffic to Alpine Meadows Ski Area be managed?	- Hydrology/Water Quality - Noise - Transportation
4.	Mary Coolidge pt. 1	a) Safety concerns with slope of JST b) JST is supposed to be a one-way street during winter, how would full	- Bio Resources - Transportation - Public Services

		access to eastern portion be provided? c) Wildlife concerns (bears)	
5.	Brian Smitz	a) BCA alternative would bring traffic, including construction traffic, right past residence b) Safety concerns with small children and dog walkers c) Appears trade-off between proposed project and BCA alternative is aesthetic impacts of the proposed road compared to impacts of additional traffic through AME d) construction traffic through AME is inappropriate	- Aesthetics - Transportation - Alternatives
6.	Lynn Wientraub	a) Project could result in drainage problems associated with a. Extent of material removed (mostly rock, which is not appropriate fill) b. Disturbance from construction of and runoff from long, steep driveways and infrastructure c. Re-vegetation after cuts and fills not described d. Increased runoff from roof tops, roads	- Hydrology/Water Quality
7.	Robb Olson	a) Road concerns a. Noise from the road adjacent to larger retaining walls will allow sound to reverberate through valley (particularly with increasing speed) b. Road will be visible to people walking on JST c. Understanding of concerns for diverting traffic to AME, but need to evaluate options	- Aesthetics - Transportation - Alternatives
8.	Rachelle Latimer	a) Concerned about water runoff to eastern portion of site as well as the road b) Snow removal along road could blow down to JST c) Wildlife concerns, even if none found on site, bears are nearby and should be addressed in EIR	- Bio Resources - Hydrology/Water Quality - Public Services
9.	Doug Rotz, pt. 2	a) Questioned if there is a separate	- Cumulative

			proposal for the isolated properties within the Bear Creek Association b) A normal year can bring 20 feet or more of snow; will there be winter construction?		Effects
10.	Willy York	a)	Traffic concerns – additional intersections should be evaluated	-	Transportation
11.	Robb Olson pt. 2	a)	Question relevance of Alpine Meadows Community Plan given its age	-	Cumulative Effects
12.	Mike Koppe	a) b) c) d)	Does USFS require looped access Confirm and elaborate on extent of grading under each alternative Evaluate gate operation and traffic flow; road is steep and quiet Snow removal; need a blower in addition to a loader. How will blower and loader access eastern portion of the site	- - -	Hydrology/Water Quality Transportation Public Services
13.	Rick Wertheim pt. 2	a)	EIR should evaluated the number of Jeffery Pine trees to be removed	-	Bio Resources
14.	Ernest Wertheim	a) b) c) d) e)	Are project plans and reports complete? Evaluate safety of the intersection at the site access and Alpine Meadows Road, particularly in regards to proximity to Troy C.'s driveway and Ginzton Access Road Safety concerns - icy roads in winter Recognizes there may be some changes in views, but the development is anticipated in the General Plan; the owner has the right to build and residents can't just object, but instead should be involved Question order of approvals – should General Plan should be amended first	- - -	Aesthetics Transportation Cumulative Effects
15.	Mary Coolidge pt. 2	a)	EIR should consider alternatives to access – such as from condos or road below or across from parking lot (Dolby property)	-	Transportation
16.	Doug Rotz pt. 3	a)	EIR should address bridge and culvert standards with respect to potential flooding	-	Hydrology/Water Quality
17.	Alain Baume	a)	Suggest tunnel instead of road –	-	Alternatives

			less visible and less maintenance (no snow blowing)	
18.	Casper Hirsbrunner	a) b) c)	Need for emergency access in case of avalanche What is construction timeline - could be as much as 10 years Winter construction traffic would conflict with emergency access – road must be kept open for emergencies	- Transportation - Public Services