Because of this condition FEMA has classified several thousand acres of land along Martis Creek into a Zone A floodplain category – "Special Flood Hazard area (100-year flood)". The size of this acreage is approximately 1,300 acres that are located mostly in Sections 19, 20, 29, and 30. This area is located up stream from Martis Creek Lake, along side State Route 267, and in an area where drainage channels of the Martis, West Martis, Middle Martis and East Martis Creeks converge. A smaller strip of land located along both sides of Martis Creek in low lying terrain is also classified as Zone A.

Subsequent development under the Proposed Land Use Diagram would be located outside of the designated 100-year floodplain. The 100-year floodplain would be designated as Open Space. However, this land use map option would result in the substantial development of approximately 4,300 acres of the Plan area, which would increase impervious surfaces and would alter drainage conditions and rates.

AA Existing Martis Valley General Plan Land Use Map

A vast majority of the Plan area, per the Federal Emergency Management Agency (FEMA) via their National Flood Insurance Program, is in a Zone X designation – "Areas determined to be outside 500 year floodplain". While most of the Plan area is dominated by terrain not prone to flooding there are low lying areas along Martis Creek that are subject to 100-year floods. Because of this condition FEMA has classified several thousand acres of land along Martis Creek into a Zone A floodplain category – "Special Flood Hazard area (100-year flood)". The size of this acreage is approximately 1,300 acres that are located mostly in Sections 19, 20, 29, and 30. This area is located up stream from Martis Creek Lake, along side State Route 267, and in an area where drainage channels of the Martis, West Martis, Middle Martis and East Martis Creeks converge. A smaller strip of land located along both sides of Martis Creek in low lying terrain is also classified as Zone A.

Subsequent development under the existing Martis Valley General Plan Land Use Map would be located outside of the designated 100-year floodplain. The 100-year floodplain would be designated as Open Space. However, this land use map option would result in the substantial development of approximately 4,900 acres of the Plan area, which would increase impervious surfaces and would alter drainage conditions and rates.

AB Alternative 1 Land Use Map

A vast majority of the Plan area, per the Federal Emergency Management Agency (FEMA) via their National Flood Insurance Program, is in a Zone X designation – "Areas determined to be outside 500 year floodplain". While most of the Plan area is dominated by terrain not prone to flooding there are low lying areas along Martis Creek that are subject to 100-year floods. Because of this condition FEMA has classified several thousand acres of land along Martis Creek into a Zone A floodplain category – "Special Flood Hazard area (100-year flood)". The size of this acreage is approximately 1,300 acres that are located mostly in Sections 19, 20, 29, and 30. This area is located up stream from Martis Creek Lake, along side State Route 267, and in an area where drainage channels of the Martis, West Martis, Middle Martis and East Martis Creeks converge. A smaller strip of land located along both sides of Martis Creek in low lying terrain is also classified as Zone A.

Subsequent development under the Alternative 1 Land Use Map would be located outside of the designated 100-year floodplain. The 100-year floodplain would be designated as Open Space. However, this land use map option would result in the substantial development of approximately 3,700 acres of the Plan area, which would increase impervious surfaces and would alter drainage conditions and rates.

AC Alternative 2 Land Use Map

A vast majority of the Plan area, per the Federal Emergency Management Agency (FEMA) via their National Flood Insurance Program, is in a Zone X designation – "Areas determined to be outside 500 year floodplain". While most of the Plan area is dominated by terrain not prone to flooding there are low lying areas along Martis Creek that are subject to 100-year floods. Because of this condition FEMA has classified several thousand acres of land along Martis Creek into a Zone A floodplain category – "Special Flood Hazard area (100-year flood)". The size of this acreage is approximately 1,300 acres that are located mostly in Sections 19, 20, 29, and 30. This area is located up stream from Martis Creek Lake, along side State Route 267, and in an area where drainage channels of the Martis, West Martis, Middle Martis and East Martis Creeks converge. A smaller strip of land located along both sides of Martis Creek in low lying terrain is also classified as Zone A.

Subsequent development under the Alternative 2 Land Use Map would be located outside of the designated 100-year floodplain. The 100-year floodplain would be designated as Open Space. However, this land use map option would result in the substantial development of approximately 3,500 acres of the Plan area, which would increase impervious surfaces and would alter drainage conditions and rates.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation programs would mitigate drainage and flooding impacts to less than significant.

Policy 6.E.2 *The County shall ensure that new storm drainage systems are designed in conformance with the Placer County Flood Control and Water Conservation District's Stormwater Management Manual and the County Land Development Manual.*

Policy 6.E.3 *The County shall continue to implement and enforce its Grading Ordinance and Flood Damage Prevention Ordinance.*

Policy 6.E.4 *The County shall continue to support the programs and policies of the watershed flood control plans developed by the Flood Control and Water Conservation District.*

Policy 6.E.7 *The County shall require new development to adequately mitigate increases in stormwater peak flows and/or volume. Mitigation measures must take into consideration impacts on adjoining lands in the Town of Truckee and Nevada County adjacent to Placer County, and Martis Lake and its tributaries.*

Policy 6.E.8 *The County shall encourage project designs that minimize drainage concentrations and impervious coverage and maintain, to the extent feasible, natural site drainage conditions.*

Policy 6.E.9 *The County shall require that new development conform with the applicable programs, policies and recommendations of the Placer County Flood Control and Water Conservation District.*

Policy 6.E.10 *The County shall require projects that have significant impacts on the quantity and quality of surface water runoff to allocate land as necessary for the purpose of detaining post-project flows and/or for the incorporation of mitigation measures for water quality impacts related to urban runoff.*

Policy 6.F.1 *The County shall require that arterial roadways and expressways, residences, commercial and industrial uses and emergency facilities be protected, at a minimum, from a 100-year storm event.*

Policy 6.F.3 *The County shall continue to work closely with the U.S. Army Corps of Engineers, the Resource Conservation District, the Federal Emergency Management Agency, the State Department of Water Resources, and the Placer County Flood Control District, in defining existing and potential flood problem areas.*

Policy 6.F.4 *The County shall require evaluation of potential flood hazards prior to approval of development projects. The County shall require proponents of new development to submit accurate topographic and flow characteristics information and depiction of the 100-year floodplain boundaries under fully developed, unmitigated runoff conditions.*

Policy 6.F.5 *The County shall maintain natural conditions within the 100-year floodplain of all rivers and streams except under the following circumstances:*

a. Where work is required to manage and maintain the stream's drainage characteristics and where such work is done in accordance with the Placer County Flood Damage Prevention Ordinance, California Department of Fish and Game regulations, and Clean Water Act provisions administered by the U.S. Army Corps of Engineers; or

b. When facilities for the treatment of urban runoff can be located in the floodplain, provided that there is no destruction of riparian vegetation.

c. For the construction of bridges or other similar drainage crossings.

d. Where recreational facilities can be safely and sensitively located.

Policy 6.F.7 *The County shall cooperate with the Placer County Flood Control and Water Conservation District, surrounding jurisdictions, the cities in the county, and other public agencies in planning and implementing regional flood control improvements.*

Policy 6.F.9 *The County shall continue to implement floodplain zoning and undertake other actions required to comply with FEMA requirements, and to maintain the County's eligibility under the National Flood Insurance Program.*

Policy 6.F.12 *The County shall ensure that new storm drainage systems are designed in conformance with the Placer County Flood Control and Water*

Conservation District's Stormwater Management Manual and the County's Land Development Manual.

Implementation Programs

Storm Drainage

18. The County shall develop brochures and other methods to educate the public and developers regarding the potential impacts of development on drainage, flooding, and water quality.

Responsible Agency/Department: Department of Public Works, Flood Control and Water Conservation District, Department of Environmental Health
Time frame: Ongoing
Funding: General Fund

Flood Protection

19. The County shall continue to implement and enforce its Grading Ordinance and Flood Damage Prevention Ordinance.

Responsible Agency/Department: Department of Public Works
Time frame: Ongoing
Funding: Permit fees

20. The County shall continue to implement and fund programs necessary to comply with Flood Control Plans and Policies of the Placer County Flood Control and Water Conservation District.

Responsible Agency/Department: Department of Public Works
Time frame: Ongoing
Funding: Permit fees

21. The County shall continue to implement zoning policies which minimize potential loss of property and threat to human life caused by flooding.

Responsible Agency/Department: Planning Department, Department of Public Works
Time frame: Ongoing
Funding: Permit fees

Mitigation Measure

None required.

4.7.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

As previously described, the Plan area is located within the Truckee River watershed, which consists of approximately 2,720 square miles consisting of Lake Tahoe, Truckee River and Pyramid Lake systems. However, this cumulative analysis is focused on the Truckee area portion of the watershed, which extends from the outflow of Lake Tahoe to the California/Nevada state line

and includes Placer County, Town of Truckee and Nevada County (approximately 428 square miles). This is the area that was evaluated under Desert Research Institute as part of the Water Quality Assessment and Modeling of the California Portion of the Truckee River Basin Report. Groundwater issues were focused on the Martis Valley Groundwater Basin, which is described in the Ground Water Availability in the Martis Valley Ground Water Basin Report prepared by Nimbus Engineers (March 2001) and generally includes the Town of Truckee, Placer County and Nevada County.

Table 3.0-1 and **Figures 3.0-4, 4.0-1** and **4.0-2** illustrates proposed and conceptual development projects in the Martis Valley area, (which includes conceptual expansion of the Northstar-at-Tahoe Ski Resort), that would contribute to cumulative water resource impacts.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.7.7 Cumulative Water Quality Impacts

PP Construction activities and operation of land uses under the Proposed Land Use Diagram would contribute to water quality impacts from development of other projects in the region. This would be a **cumulative significant** impact.

AA Construction activities and operation of land uses under the Existing Martis Valley General Plan Land Use Map would contribute to water quality impacts from development of other projects in the region. This would be a **cumulative significant** impact.

AB Construction activities and operation of land uses under the Alternative 1 Land Use Map would contribute to water quality impacts from development of other projects in the region. This would be a **cumulative significant** impact.

AC Construction activities and operation of land uses under the Alternative 2 Land Use Map would contribute to water quality impacts from development of other projects in the region. This would be a **cumulative significant** impact.

PP Proposed Land Use Diagram

As described under Impacts 4.7.1, 4.7.2 and 4.7.3, approximately 4,300 acres of the Plan area is anticipated to be substantially disturbed with urban levels of development under this land use map option. This would add to other potential development activities in the region listed in **Table 3.0-1** as well as conceptual development proposed at Northstar-at-Tahoe. Construction and operation of these land uses may result in significant increases in pollutants in the Truckee River watershed and potential groundwater contamination. The Truckee River is currently a Section 303(d) listed waterway for sediment.

AA Existing Martis Valley General Plan Land Use Map

As described under Impacts 4.7.1, 4.7.2 and 4.7.3, approximately 4,900 acres of the Plan area is anticipated to be substantially disturbed with urban levels of development under this land use map option. This would add to other potential development activities in the region listed in **Table 3.0-1** as well as conceptual development proposed at Northstar-at-Tahoe. Construction and operation of these land uses may result in significant increases in pollutants in the Truckee River watershed and potential groundwater contamination. The Truckee River is currently a Section 303(d) listed waterway for sediment.

AB Alternative 1 Land Use Map

As described under Impacts 4.7.1, 4.7.2 and 4.7.3, approximately 3,700 acres of the Plan area is anticipated to be substantially disturbed with urban levels of development under this land use map option. This would add to other potential development activities in the region listed in **Table 3.0-1** as well as conceptual development proposed at Northstar-at-Tahoe. Construction and operation of these land uses may result in significant increases in pollutants in the Truckee River watershed and potential groundwater contamination. The Truckee River is currently a Section 303(d) listed waterway for sediment.

AC Alternative 2 Land Use Map

As described under Impacts 4.7.1, 4.7.2 and 4.7.3, approximately 3,500 acres of the Plan area is anticipated to be substantially disturbed with urban levels of development under this land use map option. This would add to other potential development activities in the region listed in **Table 3.0-1** as well as conceptual development proposed at Northstar-at-Tahoe. Construction and operation of these land uses may result in significant increases in pollutants in the Truckee River watershed and potential groundwater contamination. The Truckee River is currently a Section 303(d) listed waterway for sediment.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation to water quality impacts. The reader is referred to Impacts 4.7.1, 4.7.2 and 4.7.3 regarding applicable proposed policies and implementation programs.

Mitigation Measures

Implementation of the proposed policies, implementation programs identified under Impact 4.7.1 and 4.7.2 and mitigation measures MM 4.7.1a through c, MM 4.7.2a through e and MM 4.7.3 would mitigate the Community Plan's contribution to construction water quality impacts to a **less than significant** level for the Proposed Land Use Diagram and alternatives AA, AB and AC.

Impact 4.7.8 Cumulative Groundwater Recharge Area Impacts

PP Implementation of the Proposed Land Use Diagram would not contribute to a substantial loss of groundwater recharge area. This would be a **less than significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would not contribute to a substantial loss of groundwater recharge area. This would be a **less than significant** impact.

AB Implementation of the Alternative 1 Land Use Map would not contribute to a substantial loss of groundwater recharge area. This would be a **less than significant** impact.

AC Implementation of the Alternative 1 Land Use Map would not contribute to a substantial loss of groundwater recharge area. This would be a **less than significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Development of the Plan area under the Proposed Land Use Diagram and alternatives AA through AC would contribute to an increase in impervious surfaces in Martis Valley that could

potentially limit the ability of groundwater recharge to occur from infiltration of precipitation. As described under Impact 4.7.4, a majority of the land area planned for development is located within Sections 5, 6, 21, 23, 26, 27, 28, and 31 through 36, which are located in areas of shallow bedrock consisting of lava, tuff, breccia and volcaniclastic deposits ranging from andesite to basalt (see **Figure 4.7-4**). Test pits and well data in these areas verify that the depth to volcanic bedrock ranges from at the surface to 50 feet below the ground surface, with the depth to bedrock generally increasing from west to east (Black Eagle, 1999; GeoTrans, 2000). Near surface groundwater encountered in these areas is generally limited to localized perched and upper aquifer groundwater conditions that do not appear to be substantially tied to the middle/lower aquifer, but do provide for diversion of groundwater to the northern and eastern portions of the Basin. Given these geologic conditions, these areas do not substantially contribute directly to groundwater recharge of the middle/lower aquifer. More favorable geologic conditions for groundwater recharge are located in Sections 19, 20, and a portion of 29 (see **Figure 4.7-4**). As shown in **Figures 3.0-5** through **3.0-8**, a majority of this area is proposed to be designated as open space, which would not be significantly impacted by the placement of impervious surfaces.

As shown **Table 4.7-3**, the implementation of the Proposed Land Use Diagram and alternatives AA through AC would also designate the majority of the Plan area as open space or a low intensity land use type that would not result in a substantial amount of impervious surface (i.e., Forest and Forest Residential).

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan. The reader is referred to Impact 4.7.4 regarding applicable policies. Compliance with these Plan policies and implementation programs would further ensure that groundwater recharge is not impacted.

Mitigation Measure

None required.

Impact 4.7.9 Cumulative Groundwater Usage Impacts

PP Implementation of land uses under the Proposed Land Use Diagram would contribute to further increases in groundwater usage in Martis Valley, which could adversely impact groundwater resources. This would be a **cumulative significant** impact.

AA Implementation of land uses under the Existing Martis Valley General Plan Land Use Map would contribute to further increases in groundwater usage in Martis Valley, which could adversely impact groundwater resources. This would be a **cumulative significant** impact.

AB Implementation of land uses under the Alternative 1 Land Use Map would contribute to further increases in groundwater usage in Martis Valley, which could adversely impact groundwater resources. This would be a **cumulative significant** impact.

AC Implementation of land uses under the Alternative 2 Land Use Map would contribute to further increases in groundwater usage in Martis Valley, which could adversely impact groundwater resources. This would be a **cumulative significant** impact.

PP Proposed Land Use Diagram

Groundwater Resources

As described under Impact 4.7.5, buildout under the Proposed Land Use Diagram in combination with buildout in Martis Valley (Placer County and Nevada County) is anticipated to be approximately 21,000 to 22,000 acre-feet annually. The availability of groundwater has been investigated by Nimbus Engineers. Based upon thirty years of hydrologic data, which included both years of severe drought and multiple years of prolonged drought, Nimbus estimated that approximately 24,700 acre feet of groundwater could be pumped annually without long-term loss of groundwater storage. In addition to groundwater resources, up to 6,000 acre feet of surface water may be available following execution and implementation of TROA. Thus, there are adequate water resources available to serve the Proposed Land Use Diagram as well as buildout of the Martis Valley area. It should be noted, however, that these water usage estimates do not take into account potential future snow-making facility expansions at the Northstar-at-Tahoe Ski Resort.

Interactions Between Groundwater and Surface Water

As identified previously and in the Ground Water Availability in the Martis Valley Ground Water Basin report, the groundwater conditions in Martis Valley does appear to result in discharges to surface waters as evidenced by monitoring data along the Truckee River as well as the existence of springs and seeps in the Plan area (e.g., Northstar-at-Tahoe, west of Siller Ranch, Eaglewood). Existing and future groundwater production for domestic use are expected to utilize the middle/lower aquifer. While it is assumed that there is some interaction between the upper aquifer and middle/lower aquifer, this interaction appears to be limited given the geologic conditions in the Plan area. Specifically, boring data from the installation of wells in the general vicinity of Schaffer Mill Road and the Truckee-Tahoe Airport have all identified water bearing formations (sediments associated with the Lousetown Formation and Truckee Formation) and non-bearing formations (lava associated with the Lousetown Formation Volcanics) associated with the upper and middle/lower aquifers at varying depths and thickness (GeoTrans, 2000). In addition, the Ground Water Availability in the Martis Valley Ground Water Basin Report identifies that there is a continuous clay member at the base of the upper aquifer that limits the transfer of groundwater based on well data from the Tahoe-Truckee Sanitation Agency and also identifies that hydrogeologic and water level data indicates that the middle/lower aquifer responds as a confined aquifer (Nimbus, 2001). Given these conditions and that future development and anticipated well facilities under the Proposed Land Use Diagram would be located in areas where geologic conditions generally do not favor direct interactions between and upper aquifer and the middle/lower aquifer, it is anticipated potential impacts to Plan area surface water features from increased groundwater production would be minimal. Additional groundwater pumping in the Truckee area would not impact surface water features in the Plan area given its down gradient location (groundwater in the Plan area generally flows northeast and along the Truckee River). Groundwater discharge reductions to the Truckee River would be offset by increased discharges of approximately 11,000 acre-feet annually from the Tahoe-Truckee Sanitation Agency's plant expansion as well as improved timing and magnitude of seasonal river flows and enhanced flows for consumptive, environmental and fishery uses associated with the implementation of TROA.

AA Existing Martis Valley General Plan Land Use Map

As described under Impact 4.7.5, buildout under the Existing Martis Valley General Plan Land Use Map in combination with buildout in Martis Valley (Placer County and Nevada County) is anticipated to be approximately 21,000 to 22,000 acre-feet annually. The availability of

groundwater has been investigated by Nimbus Engineers. Based upon thirty years of hydrologic data, which included both years of severe drought and multiple years of prolonged drought, Nimbus estimated that approximately 24,700 acre feet of groundwater could be pumped annually without long-term loss of groundwater storage. In addition to groundwater resources, up to 6,000 acre feet of surface water may be available following execution and implementation of TROA. Thus, there are adequate water resources available to serve the Existing Martis Valley General Plan Land Use Map as well as buildout of the Martis Valley area. It should be noted, however, that these water usage estimates do not take into account potential snowmaking facility expansions at the Northstar-at-Tahoe Ski Resort.

Interactions Between Groundwater and Surface Water

The Existing Martis Valley General Plan Land Use Map would result in the same effects to the interaction between groundwater and surface water as the Proposed Land Use Diagram under cumulative conditions.

AB Alternative 1 Land Use Map

As described under Impact 4.7.5, buildout under the Alternative 1 Land Use Map in combination with buildout in Martis Valley (Placer County and Nevada County) is anticipated to be approximately 21,000 acre-feet annually. The availability of groundwater has been investigated by Nimbus Engineers. Based upon thirty years of hydrologic data, which included both years of severe drought and multiple years of prolonged drought, Nimbus estimated that approximately 24,700 acre feet of groundwater could be pumped annually without long-term loss of groundwater storage. In addition to groundwater resources, up to 6,000 acre feet of surface water may be available following execution and implementation of TROA. Thus, there are adequate water resources available to serve the Alternative 1 Land Use Map as well as buildout of the Martis Valley area. It should be noted, however, that these water usage estimates do not take into account potential snowmaking facility expansions at the Northstar-at-Tahoe Ski Resort.

Interactions Between Groundwater and Surface Water

The Alternative 1 Land Use Map would result in the same effects to the interaction between groundwater and surface water as the Proposed Land Use Diagram under cumulative conditions.

AC Alternative 2 Land Use Map

As described under Impact 4.7.5, buildout under the Alternative 2 Land Use Map in combination with buildout in Martis Valley (Placer County and Nevada County) is anticipated to be approximately 21,000 acre-feet annually. The availability of groundwater has been investigated by Nimbus Engineers. Based upon thirty years of hydrologic data, which included both years of severe drought and multiple years of prolonged drought, Nimbus estimated that approximately 24,700 acre feet of groundwater could be pumped annually without long-term loss of groundwater storage. In addition to groundwater resources, up to 6,000 acre feet of surface water may be available following execution and implementation of TROA. Thus, there are adequate water resources available to serve the Alternative 2 Land Use Map as well as buildout of the Martis Valley area. It should be noted, however, that these water usage estimates do not take into account potential snowmaking facility expansions at the Northstar-at-Tahoe Ski Resort.

Interactions Between Groundwater and Surface Water

The Alternative 2 Land Use Map would result in the same effects to the interaction between groundwater and surface water as the Proposed Land Use Diagram under cumulative conditions.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation to groundwater resource impacts. The reader is referred to Impacts 4.7.5 regarding applicable proposed policies and implementation programs.

Mitigation Measures

Implementation of the proposed policies, implementation programs identified under Impact 4.7.5 and Mitigation Measure MM 4.7.5 would mitigate the Community Plan's contribution to construction water quality impacts to a **less than significant** level for the Proposed Land Use Diagram and alternatives AA, AB and AC.

Impact 4.7.10 Cumulative Flood Hazards

PP Implementation of the Proposed Land Use Diagram would increase impervious surfaces and alter drainage conditions and rates in the Plan area, which could contribute to regional flooding impacts. However, implementation of proposed Community Plan policies and implementation programs would mitigate the Community Plan's contribution and would make this a **less than significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would increase impervious surfaces and alter drainage conditions and rates in the Plan area, which could contribute to regional flooding impacts. However, implementation of proposed Community Plan policies and implementation programs would mitigate the Community Plan's contribution and would make this a **less than significant** impact.

AB Implementation of the Alternative 1 Land Use Map would increase impervious surfaces and alter drainage conditions and rates in the Plan area, which could contribute to regional flooding impacts. However, implementation of proposed Community Plan policies and implementation programs would mitigate the Community Plan's contribution and would make this a **less than significant** impact.

AC Implementation of the Alternative 2 Land Use Map would increase impervious surfaces and alter drainage conditions and rates in the Plan area, which could contribute to regional flooding impacts. However, implementation of proposed Community Plan policies and implementation programs would mitigate the Community Plan's contribution and would make this a **less than significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

As described under Impact 4.7.6, subsequent development under the Proposed Land Use Diagram and alternatives AA through AC would be located outside of the designated 100-year floodplain. However, development under each of these land use map options would result in

the increase in impervious surfaces as well as alteration of drainage patterns. This would impact downstream areas.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are identified in Impact 4.7.6. Compliance with these Plan policies and implementation programs would mitigate drainage and flooding impacts to less than significant.

Mitigation Measure

None required.

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SECTION 4.8
GEOLOGY AND SOILS

This section describes the geology of the Plan area and general vicinity and analyzes issues such as potential exposure of people and property to geologic hazards, landform alteration, and erosion. In addition, potential seismic/geologic hazards such as earthquakes, landslides, soil erosion and avalanche are discussed.

4.8.1 EXISTING SETTING

MARTIS VALLEY AREA TOPOGRAPHY & LOCAL GEOLOGY

Martis Valley Setting

Martis Valley is an area of 70 square miles located near the Town of Truckee in the central Sierra Nevada Mountains, north of and adjacent to the Lake Tahoe Basin. Martis Valley spans portions of both Placer and Nevada Counties. The Truckee River traverses the northern boundary of the Martis Valley, flowing east toward Reno. Martis Creek, a major tributary of the Truckee River, flows through the valley from south to north.

Plan Area Setting

The Plan area includes approximately 35 square miles of land area generally bounded by Placer/Nevada County line to the north, Highway 89 to the west, the Lake Tahoe Basin to the south and the California/Nevada state line to the east. Long narrow valleys typify the Martis Valley area with moderate to steep sloping hillsides that bound them on either side. The topography of the Plan area is part of the Truckee Basin that ranges from nearly flat valley floors in the central portion of the region to gentle to steep sloping terrain along eastern and southern boundaries of the Plan area. **Figure 4.8-1** illustrates the existing topography of the Martis Valley Community Plan area.

During the last glacial period, glaciers were the main sculptors of the existing terrain in the Martis Valley watershed. They shaped valleys and deposited rock debris over large areas including the Plan area. As a result, the region's topography is atypical with high rugged slopes such as those located in the southern part of the Plan area and the lower valley floor along the Placer/Nevada County border. Within the Martis Valley basin and along Martis Creek at the Placer/Nevada County border the land elevation is approximately 5,830 feet above mean sea level (msl). But, in the eastern portion of the Plan area Martis Peak rises up to approximately 8,742 feet msl. To the south, Mt. Pluto dominates the skyline at an elevation of approximately 8,617 feet msl. High ground between these two peaks is maintained by ridgelines that separate Martis Valley from the Tahoe Basin to the south. From these ridges the ground surface falls away in a northerly direction until it meets the floor of Martis Valley.

The Martis Creek watershed is contained within the Truckee Basin that is part of an intermountain graben situated at the northern end of the Upper Truckee Canyon. Throughout the Truckee Basin and across a large portion of the Plan area there are Miocene-Pliocene andesites underlying the terrain and helping to maintain the area's high relief. Small isolated areas are also underlain by bedrock consisting of Pliocene andesite and Pleistocene basalt. Deposition of both these units postdate the Pliocene-Pleistocene deformation that took place within this region prior to its recent glaciation. In low lying areas of the Martis Valley basin the surface is covered mostly be lower Pleistocene nonmarine sedimentary rocks composed of fluvial and lacustrine gravel, sand, silt and clay, and upper Pleistocene glacial deposits.

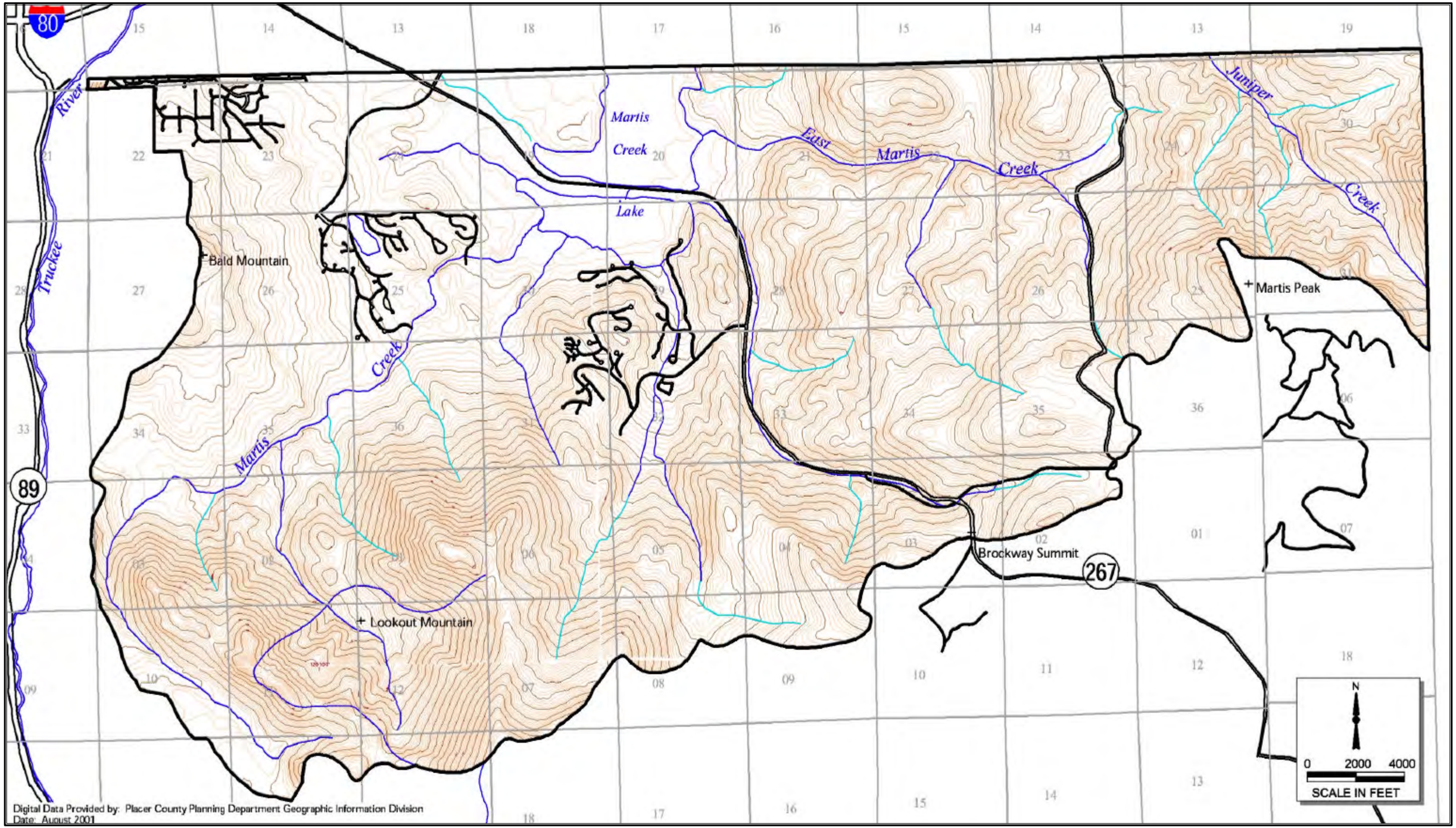

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FIGURE 4.8-1
TOPOGRAPHIC CONDITIONS

The Truckee and Tahoe Basins, and Sierra Valley all appear to be related parts of a large graben situated along a westerly margin of the Basin and Range province. Large-scale analysis indicates that generation of this province may have been the result of oblique extension caused by a combination of internal extension and dextral shear regimes related to the dextral shearing mechanism of the San Andreas Fault located along the western margin of the North American Plate.

On a smaller scale the geometry of late Tertiary and Quaternary faults in the western Basin and Range province, including faults located within the Truckee Basin, can be used to characterize the regional strain that has affected the study area. Numerous faults previously located by others within the Plan area are shown on **Figure 4.8-2.** These faults occur mostly in four distinct orientations and are related by orthorhombic symmetry. This pattern relates their orientation to regional tectonic strain with the same trend. The age of most of these faults can be inferred from offsets of the mafic lava flows located in the Plan area and surrounding region. According to Axelrod (1962), Birkeland (1963) and Latham (1985), most movement on those faults located in the area occurred from five and one million years ago. Subsequent studies have been performed on faults in the northwestern portion of the Plan area associated with the Lahontan community and proposed development associated with Eaglewood (Blackburn, 2000; GeoTrans, 2000) and Siller Ranch (Black Eagle, 1999). The technical studies have identified one fault structure as active, which is located on Siller Ranch in map Sections 26 and 35 (see **Figure 4.8-2**). The status of suspected faults in Sections 23 and 25 appear not to be active and may not exist at all based on technical review, trenching and well monitoring data (Placer County, 1993; Blackburn, 2000; GeoTrans, 2000).

It was also concluded that faulting in the area north of Lake Tahoe represents the failure of rocks in which an inherent regional strain with principal axes oriented S78E, N12E, with vertical dip was once present. The two horizontal principal strains are both extensional with magnitudes within a factor of three. This strain is approximated by superposition of an ESE-WNW extension and right lateral simple shear across a vertical plane striking N30W. These observations were consistent with Basin and Range evidence found on the larger scale and compatible with a hypothesis that the region is not purely extensional, but also possesses a diffuse right lateral shear component.

Slope Stability

In general the steeper hillsides located in the Plan area are concentrated in areas where ground surface elevations are greater than 6,500 feet msl and underlain by Miocene-Pliocene volcanic rocks of andesitic composition. Below this elevation and at the foot of steeper hillsides the terrain becomes more flat as it leaves mountains areas and onto valley floors and open meadows. **Figure 4.8-2** shows the slope conditions located within the Martis Valley Community Plan area. These hillsides have been classified into stability criteria that were previously utilized in the development of the 1975 Martis Valley General Plan. There are three distinct classifications for the slope stability in this region:

- The first classification is **high stability**. This classification designates areas that require little support or have no stability problems under normal conditions. There are some areas within this classification that can become unstable with tectonic movement or earthquakes.

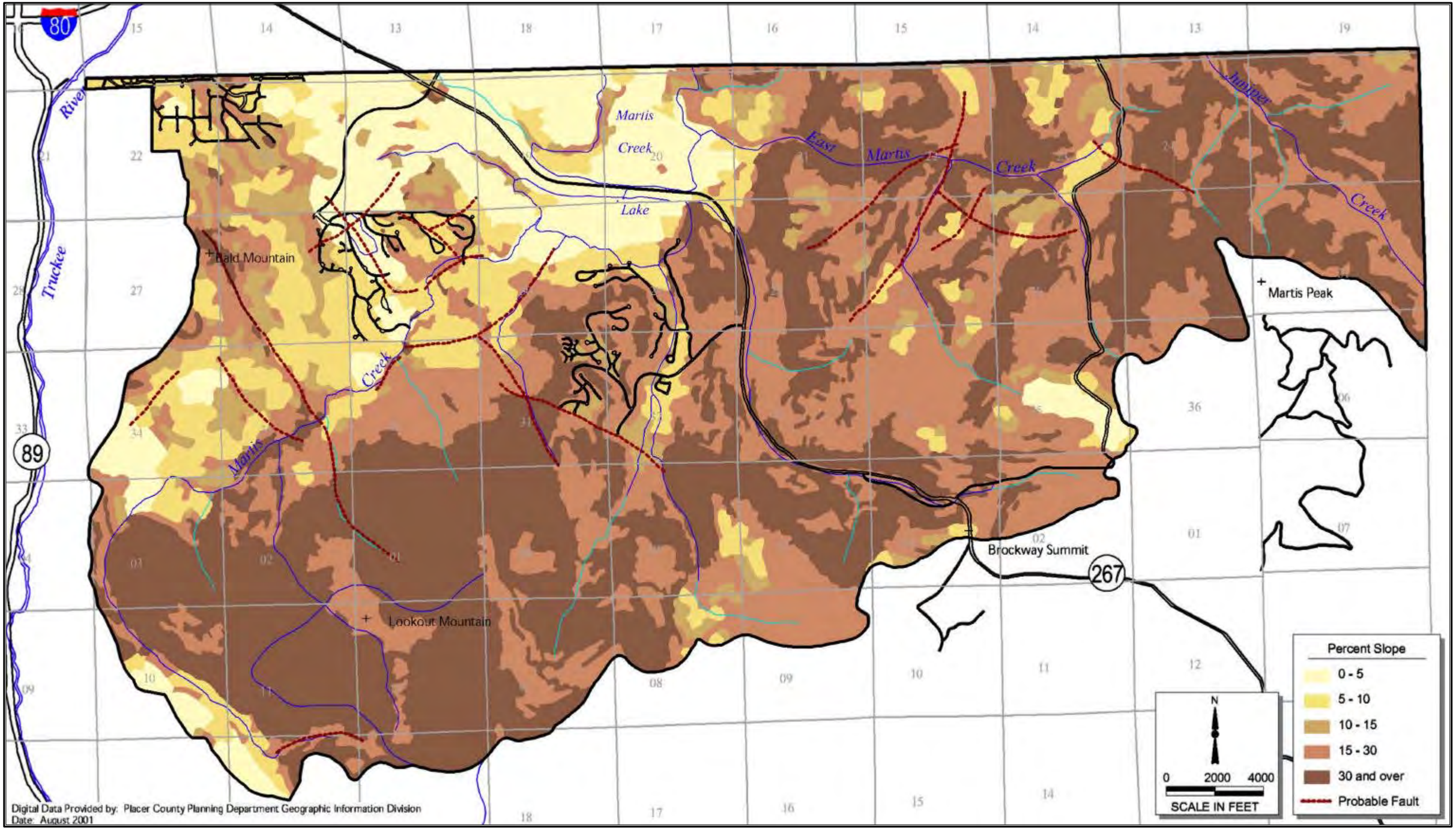

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FIGURE 4.8-2
SLOPE AND FAULT CONDITIONS

- The second classification is **moderate stability**. This classification designates those areas where some slope stability measures are probably needed prior to any construction. There is a possibility of low stability with tectonic movement or earthquakes.

- The third and last classification is **low stability**, which is defined as unsuitable for construction. These areas are hazardous during earthquakes and susceptible to high rates of erosion under normal conditions.

The majority of the Martis Valley Community Plan area is classified as having moderate to high stability. Low stability areas are generally located east of State Route 267 and in the northeastern portion of the Community Plan area. Similar conditions are located in areas with land use designations consisting of either Open Space or Forest under the existing Martis Valley General Plan.

Avalanches

The term avalanche, if unmodified, refers to down slope movements of a mass of snow and/or ice, and this mass of frozen water can also be accompanied by other materials. Avalanches are classified by the type of snow involved. These include climax, combination, damp snow, delayed action, direct action, dry snow, hangfire, and windslab avalanches. Sometimes the term avalanche is used to describe those landslides in which the material catches a pocket of underlying air thus reducing underlying friction and resulting in incredibly rapid downslope movement of snow and/or ice. As movement becomes much more rapid because of lower cohesion, higher water content and steeper slopes the definition for an avalanche can grade from debris slides to debris flows and from debris slide to debris avalanche. Debris slides and, less commonly, debris avalanches may have slump blocks at their heads. In debris slides, the moving mass breaks up into smaller and smaller particles as it advances toward the foot of the slope and the movement is usually slow. In debris avalanches, progressive failure is more rapid and the whole mass, either because it is quite wet or because it is on a steep slope, liquefies, at least in part and flows and tumbles downhill. These movements are commonly along a stream channel and may advance well beyond the foot of the slope. Debris avalanches generally take place along long narrow drainage ways and often leave a serrated or V-shaped scar tapering uphill at the head in contrast to the horseshoe-shaped scarp of a slump.

The setting in which conditions for avalanche are favorable consists of a combination of factors including steepness of slope, exposure, snow pack composition, wind, temperature, rate of snow fall, and other interacting factors outlined in the Placer County Code, Chapter 35, Section 35.01. Avalanches most frequently occur on northerly- and easterly-facing slopes inclined at angles greater than 29 degrees, but under the right combination of factors avalanches can be released under a wide variety of slopes with any aspect.

The Plan area has a typically maritime climate with generally deep snow packs, mild temperatures and strong southerly to southwesterly winds. Although avalanches have the potential to occur on steeper slopes in the Plan area, they are not likely to occur on the terrain that is dominated by more subtle surface features. There have been no records of avalanches occurring in the area.

Faults and Seismicity

Earthquakes threaten manmade improvements by either directly shearing the ground surface beneath structures, and/or by causing the ground to oscillate back-and-forth or side-to-side as their energy waves migrate through earth's subsurface materials. Based on review of available professional and published reports the potential for both mechanisms appears to be present in certain locations within the Plan area. In the past, geologists have prepared various reports in an attempt to delineate the potential level of seismic risk imposed on improvements in the Martis Valley area by future earthquakes that may originate from faults located within the Plan area, in the Truckee basin and within the surrounding region.

Surface Rupture

The ground surface may rupture due to shearing action at a fault's trace or intersection with the ground surface. The types of ground failure will be the result of the type of movement along the fault including right lateral, left lateral, normal, thrusting or combination of these movements. According to above published reports, several normal faults are located across the Plan area and in the immediate surrounding area. Therefore, in the event of movement along one of these faults, the hanging-wall block will most likely move downward in relation the foot-wall block, thus causing the ground surface across the fault to step downward. This differential movement could destroy structures situated atop the fault including foundations underneath structures, roadways and earth embankments. The degree of differential movement would be a function of relative movement of hanging and footwalls located adjacent to the fault. Because of the seismic characteristics in this portion of the Basin and Range province, overall movement along fault structures will likely be more oblique with a small striking component present with the more dominant dip component. Known fault traces in the Plan area are shown in **Figure 4.8-2**.

Ground Shaking

The Plan area is located within Seismic Zone 3, an area with potential for earthquake damage. In populated areas, the greatest potential for loss of life and property damage is a result of ground shaking from a nearby earthquake. The degree of damage depends on many interrelated factors. Among these factors are the Richter magnitude, focal depth, distance from the causative fault, source mechanism, duration of shaking, high rock accelerations, type of surficial deposits or bedrock, degree of consolidation of surficial deposits, presents of high groundwater, topography, and design, type, and quality of building construction.

The risk of damage to manmade structures may also be caused by ground oscillating back-and-forth or side-to-side as earthquake "P" or "S" energy waves migrate through earth's subsurface materials, respectively. Since numerous fault structures are present within the Plan area (**Figure 4.8-2**) and the region, there is a high probability that the region will experience a seismic event sometime in the future that could result in shaking of the ground surface. Two of these faults including the Stampede Valley (Also Dog Valley Fault zone) and Lake Tahoe Faults have experienced movement within the past 10,000 years and are therefore considered as active. According the CDMG Open File Report 92-1, both faults are capable of producing a maximum credible earthquake of 6.5 magnitude that could result in the generation of 0.2 g to 0.3 g peak ground accelerations in certain portions of the Plan area. Also, CDMG Map Sheet 48, titled Seismic Shaking Hazards Map indicates that the above accelerations have a 10 percent chance of being exceeded in 50 years. These conclusions are also stated in the CDMG OFR 96-08 and USGS OFR 96-706.

Conversely, Blackburn reported that a 0.6 g peak ground acceleration is possible in certain areas of the Plan area according to a Caltrans Seismic Hazard Map (1996). Apparently, Caltrans believes that a southerly terminus to the Stampede Valley Fault is located in Martis Valley and approximately 2 miles southeasterly of Truckee and one mile southwesterly of the Truckee Airport. Based on available data, direct evidence confirming this condition is not available.

Map Sheet 48 also suggests the Plan area is situated in a region that has endured damage of at least VII on the Modified Mercalli Intensity (MMI) scale. Areas experiencing this intensity of damage due to seismic activity typically experience slight to moderate damage in older (masonry) structures and considerable damage in poorly built or inadequately designed structures. The MMI scale has a range of values from I to XII with the lowest value representing the least intensity of damage from a seismic event. On the other hand a seismic event generating a MMI value of XII will generate total damage to manmade improvements and eyewitnesses can see the seismic wave move along the ground surface. The following **Table 4.8-1** is an outline of a generalized relationship between the Richter Magnitude and Modified Mercalli Scales.

TABLE 4.8-1
MODIFIED MERCALLI INTENSITY SCALE FOR EARTHQUAKES

Richter Magnitude Scale M_s=1+2/3 I_o	Modified Mercali Scale	Effects Of Intensity
1.67 (0.1-0.9)	I	Not felt except by a very few under especially favorable circumstances.
2.33 (1.0-2.9)	II	Felt by only a few persons at rest, especially on upper floors of building. Delicately suspended objects may swing.
3.0 (3.0-3.9)	III	Felt quite noticeably in doors, especially on upper floors of building, but many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibration like passing a truck. Duration estimated.
3.67 (4.0-4.5)	IV	During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensation like heavy truck striking building. Standing cars rocked noticeably.
4.33 (4.6-4.9)	V	Felt by nearly everyone, many awakened. Some dishes, windows, and so on broken; cracked plaster in a few places; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.
5.0 (5.0-5.5)	VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster and damaged chimneys. Damage slight.
5.67 (5.6-6.4)	VII	Everyone runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.
6.33 (6.5-6.9)	VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monument, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving in cars disturbed.

Richter Magnitude Scale $M_s=1+2/3\ I_o$	Modified Mercali Scale	Effects Of Intensity
7.0 (7.0-7.4)	IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
7.67 (7.5-7.9)	X	Some well built structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Railway lines bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed, slopped over banks.
8.33 (8.0-8.4)	XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of services. Earth slumps and land slips in soft ground. Rails bent greatly.
9.0 (8.5+)	XII	Total damage. Waves seen on ground. Lines of sight and level distorted. Objects thrown into the air.

M_s = Surface wave magnitude, I_o = Epicentral intensity. Intensity scale comparison by Richter (1958). Richter Magnitudes in parenthesis are by CDMG. MMI Table by Bolt.

Liquefaction

The threat of damage to future improvements from liquefaction appears low because subsurface conditions underlying most of the Plan area (shallow soil overlaying bedrock) are generally lacking in the required combination of deep saturated soils, soil type and high ground water needed for failure. In order for liquefaction to occur there must be a sudden large decrease in shearing strength in cohesionless saturated soils along with an associated large increase in the ground water's pore water pressure. The development of this condition can result from the propagation a shock wave (acceleration) generated by an earthquake, but again the pre-existing combination of subsurface conditions must also be in place.

Pre-existing conditions needed for liquefaction may be present where lakes are retained behind earth-filled dam structures. Seepage of water through earthen dams can cause localized high ground water pressures and conditions within the dam structure that could cause liquefaction to occur within the structure during a seismic event. If an earthquake did occur then failure of the dam could take place. Areas underlain by deep non-drained fills may also be susceptible.

Other Potential Geologic Hazards

Though the surrounding region is dominated by evidence of past volcanic activity the likelihood of immediate exposure to magmatic eruptions of lava, mudflow, and pyroclastics appears to be low. Recent volcanic activity is lacking and the mechanism to help ensure this stability is currently in place within the surrounding region. Also, swarms of deep to shallow earthquakes have not been detected in the surrounding region thus indicating that upward flow of magma is absent. Likewise, any evidence of nearby geothermal activity is absent thus indicating there is no immediate threat to the area by developing vents.

Also absent are mechanisms related to glaciers, elevated wind velocities, and large/fast moving bodies of water. Therefore the existing dynamic equilibrium within the interstice of the

atmosphere, biosphere, hydrosphere and lithosphere indicates the risk by mass wasting of terrain within boundaries of the Plan area is minimal.

Soils

The Martis Valley Community Plan area and surrounding region are underlain mostly by upper Cenozoic andesites. This material is a fine-grained extrusive rock that is equivalent in geochemistry to granodiorite and diorite, which are medium to coarse-grained intrusives. Their mineral assemblage is composted from zero to approximately 10 percent quartz, 50 to 60 percent feldspar that is mostly dominated by sodium plagioclase, 10 percent mica (wet minerals), and approximately 20 percent amphibole. These minerals are dominated by a geochemistry that is typical of the silicates and composed of silica, oxygen, sodium, iron, magnesium, calcium, aluminum, and potassium. Andesite is a fine-grained volcanic rock with intermediate composition and its color falls between acidic (felsitic) and ultrabasic (basaltic) rocks. It is commonly porphyritic, in that larger crystals are found in a finer grained mineral matrix. This characteristic is due mainly to two or more stages of cooling by the lava as it migrates upward then out onto the ground surface.

Residual soils found on the ground surface are considered as erosional end-member products of the underlying andesitic bedrock. According the U.S. Department of Agriculture in cooperation with the Soil Conservation Service, University of California Agricultural Experiment Station and through the U.S. Forest Service utilizing their Soil Survey for the Tahoe National Forest, the Plan area is covered by several soil types. These residual soils typically consist of particles with a wide grain size distribution ranging from smaller clays to larger cobbles and boulders. The larger rock fragments tend to be angular to subangular but as they evolve through the natural process of chemical disintegration they become subrounded to rounded. **Figure 4.8-3** provides a map of the various soils located in the Martis Valley Community Plan area. A listing of their physical constraints, hydrologic capacities and engineering characteristics are tabulated in **Table 4.8-2.**

The classification system used by the Soil Conservation Service typically classifies soils into four categories. Class 1 soils are easy to manage, Class 2 soils are readily manageable, Class 3 soils are moderately difficult to manage, and Class 4 soils are very difficult to manage. Class 1 and 2 type soils are on slopes less than 30 percent, while Class 3 type soils are on slope between 30 percent to 50 percent, and 4 type soils are on slope greater than 50 percent. A management modifier as listed below accompanies each classification.

a. "S" if slope stability is low and "s" if it is moderate;

b. "E" if the maximum erosion hazard is high or very high and "e" if it is moderate;

c. "D" if the soil depth is less than 10 inches and "d" if it is 10 to 20 inches;

d. "P" if the upper 20 inches of soil has an available water capacity of less than 1.2 inches and "p" if it is 1.2 to 1.4 inches;

e. "W" if the soil is poorly drained and "w" if it is somewhat poorly drained; and

f. "X" if cobbles or stones comprise greater than 15 percent of the surface and "x" if they comprise 3 to 15 percent of surface.

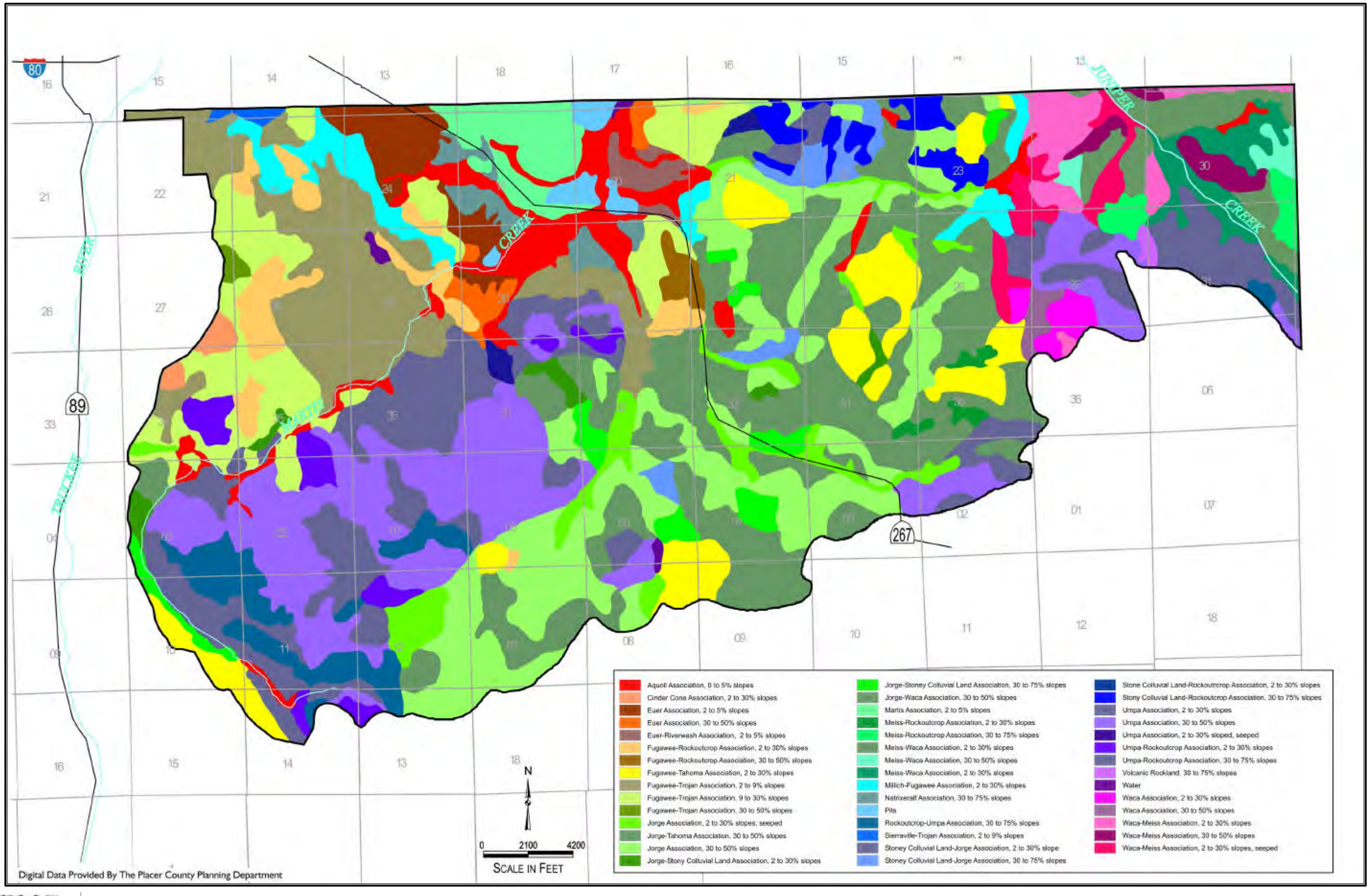

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FIGURE 4.8-3
PLAN AREA SOILS

TABLE 4.8-2
SOIL MAPPING UNITS

Map Unit Name	Erosion Potential	Drainage	Sub Soil Permeability	Effective Depth	Water Holding Capacity	FSSC Class	Limitations For Road Construction
Aquoll association - 0-5% slopes Aquolls (90%) (Wet Meadows)	Low	Poor/VP	Slow/VS	Variable	3" +	NC	Severe
Cinder cone association - 2-30% slopes	Low	ND	ND	ND	ND	N/A	Slight/Mod
Euer association - 2-5% slopes	Low	Well	Slow	18-24"	1.5-2.5"	5, 6	Slight
Euer association - 5-30% slopes	Low	Well	Slow	18-25:	1.5-2.5"	5, 6	Slight
Euer riverwash association - 2-5% slopes	Low/Mod	ND	ND	ND	ND	5, 6	Mod/Severe
Fugawee rock outcrop association - 2-30% slopes	Low/Mod	Well	Moderate	24-40"	4.0-6.0"	5	Mod/Severe
Fugawee rock outcrop association - 30-50% slopes	High	Well	Moderate	24-40"	4.0-6.0"	5	Mod/Severe
Fugawee - Tahoma association - 2-30% slopes	Moderate	Well	Moderate	24-40"	4.0-6.0"	5, 6	Moderate
Fugawee - Tahoma association - 30-50% slopes	High	Well	Moderate	24-40"	4.0-6.0"	5, 6	Moderate
Fugawee - Trojan association - 2-9% slopes	Low	ND	ND	ND	ND	4, 5	Slight
Fugawee - Trojan association - 9-30% slopes	Moderate	ND	ND	ND	ND	4, 5	Slight/Mod
Fugawee - Trojan association - 30-50% slopes	High	ND	ND	ND	ND	4, 5	Moderate
Jorge association - 2-30% slopes	Low/Mod	Well	Moderate	40-60"	3.5-5.0"	4	Moderate
Jorge association - 30-50% slopes	Mod/High	ND	ND	ND	ND	N/A	Moderate
Jorge association - 30-75% slopes	Low/Mod	ND	ND	ND	ND	N/A	Low/Mod
Jorge - Waca association - 30-75% slopes	Mod/High	ND	ND	ND	ND	4, 5	Mod/High
Martis association - 2-5% slopes	Low	Well	Slow/Mod	18-44"	1.5-4.5"	NC	Slight
Meiss - rock outcrop association - 2-30% slopes	Low/Mod	Excessive	Moderate	10-20"	1-2"	NC	Severe
Meiss - rock outcrop association - 30-75% slopes	Moderate	Excessive	Moderate	10-20"	1-2"	NC	Severe
Meiss - Waca association - 2-30% slopes	Moderate	ND	ND	ND	ND	NC	Mod/Severe
Meiss - Waca association - 30-50% slopes	High	ND	ND	ND	ND	NC	Mod/Severe
Meiss - Waca association 2-30% slopes, seeped	Moderate	ND	ND	ND	ND	NC	Mod/Severe
Millich - Fugawee association - 2-30% slopes	Moderate	Moderate	Slow	3-18"	1.5-2"	N/A	Mod/Severe

Map Unit Name	Erosion Potential	Drainage	Sub Soil Permeability	Effective Depth	Water Holding Capacity	FSSC Class	Limitations For Road Construction
Natrixeralf - association - 2-9% slopes	Moderate	Moderate	Very Slow	5-10"	1-2"	N/A	Mod/Severe
Pits (gravel, cinder)	Low	ND	ND	ND	ND	N/A	Moderate
Rock outcrop - Umpa association - 30-75% slopes	High	ND	ND	ND	ND	5	Severe
Sierraville - Trojan association - 2-30% slopes	Moderate	Well	Moderate	40-60"	6-10"	4, 5	Moderate
Stony colluvial land - Jorge association - 2-30% slopes	Low	ND	ND	ND	ND	N/A	Slight/Mod
Stony colluvial land - Jorge association - 30-75% slopes	Low/Mod	ND	ND	ND	ND	N/A	Mod/Severe
Stony colluvial land - rock outcrop association - 2-30% slopes	Low	ND	ND	ND	ND	N/A	Mod/Severe
Stony colluvial land - rock outcrop association - 30-75% slopes	Low	ND	ND	ND	ND	N/A	Severe
Umpa association - 2-30% slopes	Moderate	Well	Moderate	20-40"	2-3.5"	4, 5	Moderate
Umpa association - 30-50% slopes	High	Well	Moderate	20-40"	2-3.5"	4, 5	Moderate
Umpa association - 2-30% slopes, seeps	Moderate	Well	Moderate	20-40"	2-3.5"	4, 5	Mod/Severe
Umpa - rock outcrop association - 2-30% slopes	Low/Mod	ND	ND	ND	ND	N/A	Mod/Severe
Umpa - rock outcrop association - 30-75% slopes	High	ND	ND	ND	ND	N/A	Severe
Volcanic rock land - 30-75% slopes	High	ND	ND	ND	ND	N/A	Severe
Water (lakes, ponds)	-	-	-	-	-	N/A	-
Waca association - 2-30% slopes	Moderate	Well	Moderate	21-40"	2-3.5"	4	Moderate
Waca association - 30-50% slopes	High	Well	Moderate	21-40"	2-3.5"	4	Moderate
Waca association - 2-30% slopes, seeped	Moderate	Well	Moderate	21-40"	2-3.5"	4	Mod/Severe
Waca - Meiss association - 2-30% slopes	Moderate	ND	ND	ND	ND	NC	Mod/Severe
Waca - Meiss association - 30-50% slopes	High	ND	ND	ND	ND	NC	Mod/Severe
Waca - Meiss association - 2-30% slopes, seeped	Moderate	ND	ND	ND	ND	NC	Mod/Severe

FSSC= Forest Survey Site Class for timber productivity.
N/A= No classification given.
NC= Not capable
ND = No data
VS = Very Slow
Mod = Moderate

A substantial area within the Martis Valley Community Plan area is in low-lying terrain where soil types are classified into Class 1 and 2 categories. Above valley floors and in densely forested hillsides soils are typically classified into Class 2 and 3 categories and in these areas land uses are considered suitable for habitat and aesthetic purposes. Class 4 type soils are typically located on mountain peaks, ridges, and hillsides located at elevations above the timberline. Based on the information provided in **Table 4.8-2** the soils located across the Plan area vary substantially regarding their erosion potential, ability to drain and suitability for use in engineered fills.

Timber productivity of soils is a separate component expressed by the Forest Survey Site Class (FSSC) which is an expression of the volume of bole wood produced on one acre per year in a normal, even-aged stand at culmination and mean annual increment. The FSSC component is shown below and listed in **Table 4.8-2**:

TABLE 4.8-3
SOIL SUITABILITY FOR TIMBER PRODUCTION CLASSIFICATIONS

FSSC	Volume of Bole Wood (lbs/acre)
1	> 225
2	165 to 225
3	120 to 165
4	85 to 120
5	50 to 85
6	20 to 50
7	< 20

Mineral Resources

Using data contained in CDMG Open–File Report 95-10, titled Mineral Land Classification of Placer County, CA, the Plan area was classified for its mineral resource potential. According to this document the area northerly of Lake Tahoe and between the Town of Truckee and North Shore are in the westerly margin of the Basin and Range Province. It is an area located easterly of the eastern metamorphic terrain of the Sierra Nevada Mountains and dominated by Cenozoic volcanic rocks. As previously stated the Plan area is underlain mostly be andesitic lava flows.

According to OFR 95-10 the following mineral categories and classifications apply to the Plan area:

- Category - Deposits formed by mechanical concentration.

  Classification – For this category the entire Plan area is classified as MRZ-4 or area of unknown mineral resource significance.

- Category – Deposits form by hydrothermal processes.

  Classification – For this category one specific site within the Plan area is classified as MRZ-3a$^{(h-15)}$. MRZ-3 is for areas of undetermined mineral resource significance. The Elizabethtown prospect is a gold and silver lode prospect located near the Brockway Summit in T17N, R17E, in Section 33. This prospect was active in 1861 but work at the site

was short lived. Two selected samples collected from the site did not reveal anomalous amounts of ore or indicator minerals.

- Category – Deposits of construction aggregate resources, industrial mineral deposits and deposits formed by magmatic segregation processes.

  Classification – For this category an area approximately 2,000 acres in size is situated on both sides of State Highway 267 in the north-central portion of the Plan area and is classified as MRZ-3a(sg-15). It is considered to be composed of glacial deposits suitable for aggregate.

- Category – Areas with identified mineral resource significance for all minerals.

  Classification – MRZ-2 is designation for this category, but no areas with this designation are located within the Plan area.

- Category – Areas of no mineral resource significance.

  Classification - MRZ-1 is the designation for this category, but no areas with this designation are located within the Plan area.

The Plan area is mostly covered by the MRZ-4 classification. Sites described by this classification are considered to be in "areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources". The distinction between the MRZ-1 and MRZ-4 categories is important for land-use considerations, but it must be emphasized that MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources, but rather there is a lack of knowledge regarding the mineral occurrence.

For the north-central portion of the Plan area, the County uses MRZ-3a classification for those areas containing known mineral occurrences of undetermined mineral resource significance. This area is contained in Sections 19, 20, 21, 30 of T 17 N, R 17 E. The classification is further subdivided with a (sg-15) superscript on the "a" designator. The total classification for this area is MRZ-3a(sg-15). This classification has the following description - "Glacial Deposits: The areas mapped as glacial deposits are classified for aggregate". Construction aggregate is commercially produced from glacial out wash deposits in the Martis Valley area in adjacent Nevada County, and some aggregate is also commercially produced from similar deposits in Placer County around Donner Lake and in the Hirschdale area.

4.8.2 REGULATORY FRAMEWORK

STATE

California Division Of Mines and Geology

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (prior to January 1, 1994 called the Alquist-Priolo Special Studies Zones Act – CCR, Title 14, Section 3600) sets forth the policies and Criteria of the State Mining and Geology Board that governs the exercise of governments' responsibilities to prohibit the location of developments and structures for human occupancy cross the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface

faulting or fault creep within Earthquake Fault Zones delineated of maps officially issued by the State Geologist. Working definitions include:

- *Fault* – a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side;
- *Fault Zone* – a zone of related faults, which commonly are braided, and sub parallel, but may be branching and divergent. A fault zone has a significant with (with respect to the scale at which the fault is being considered, portrayed, or investigated), ranging from a few feet to several miles;
- *Potentially Active Fault* – a fault that showed evidence of surface displacement during Quaternary time (last 1.6 million years) for the purpose of evaluation for possible zonation. No longer used.
- *Sufficiently Active Fault* – a fault that has evidence of Holocene surface displacement along one or more of its segments or branches; and,
- *Well-Defined Fault* – a fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The geologist should be able to locate the fault in the field with sufficient precision and confidence to indicate that the required site-specific investigations would meet with some success.

"Sufficiently Active" and "Well Defined" are the two criteria used by the State to determine if a fault should be zoned under the Alquist-Priolo Act.

LOCAL

Martis Valley General Plan

The 1975 Martis Valley General Plan provides the two following policies to address geology within the Martis Valley Community Plan area.

Environmental Resources Policy

9. Conservation of economic mineral deposits should be practiced and their source locations protected from incompatible land use.

Community Development and Transportation Policy

18. The avalanche hazard areas for the ski slope and development areas must be precisely determined. Evaluation of the effectiveness of possible control measures, including recommendations of the absolute limits of development in various areas, must be made with each project report.

Placer County General Plan

The 1994 Placer County General Plan provides regulatory framework for geologic resources.

Policy 1.J.1 The County shall require new mining operations to be designed to provide a buffer between existing or likely adjacent uses, minimize incompatibility with

nearby uses, and adequately mitigate their environmental and aesthetic impacts.

Policy 1.J.2 The County shall require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance will be based upon an evaluation of noise, aesthetics, drainage, operating conditions, topography, lighting, traffic, operating hours and air quality.

Policy 1.J.3 The County shall discourage the development of any uses that would be incompatible with adjacent mining operations or would restrict future extraction of significant mineral resources.

Policy 1.J.4 The County shall discourage the development of incompatible land uses in areas that have been identified as having potentially significant mineral resources.

Policy 1.J.5 The County shall require that all mining operations prepare and implement reclamation plans that mitigate environmental impacts and incorporate adequate security to guarantee proposed reclamation.

Policy 1.J.6 The County shall require that plans for mining operations incorporate adequate measures to minimize impacts to local residents and county roadways.

Policy 8.A.1 The County shall require the preparation of a soils engineering and geologic-seismic analysis prior to permitting development in areas prone to geological or seismic hazards (i.e., ground shaking, landslides, liquefaction, critically expansive soils, avalanche).

Policy 8.A.2 The County shall require submission of a preliminary soils report, prepared by a registered civil engineer and based upon adequate test borings, for every major subdivision and for each individual lot where critically expansive soils have been identified or are expected to exist.

Policy 8.A.3 The County shall prohibit the placement of habitable structures or individual sewage disposal systems on or in critically expansive soils unless suitable mitigation measures are incorporated to prevent the potential risks of these conditions.

Policy 8.A.4 The County shall ensure that areas of slope instability are adequately investigated and that any development in these areas incorporates appropriate design provisions to prevent land sliding.

Policy 8.A.5 In landslide hazard areas, the County shall prohibit avoidable alteration of land in a manner that could increase the hazard, including concentration of water through drainage, irrigation, or septic systems; removal of vegetative cover; and steepening of slopes and undercutting the bases of slopes.

Policy 8.A.6 The County shall require the preparation of drainage plans for development in hillside areas that direct runoff and drainage away from unstable slopes.

Policy 8.A.7 In areas subject to severe ground shaking, the County shall require that new structures intended for human occupancy be designed and constructed to minimize risk to the safety of occupants.

Policy 8.A.8 County shall continue to support scientific geologic investigations, which refine, enlarge, and improve the body of knowledge on active fault zones, unstable areas, severe ground shaking, avalanche potential, and other hazardous conditions in Placer County.

Policy 8.A.9 The County shall require that the location and/or design of any new buildings, facilities, or other development in areas subject to earthquake activity minimize exposure to danger from fault rupture or creep.

Policy 8.A.10 The County shall require that new structures permitted in areas of high liquefaction potential be sited, designed, and constructed to minimize the dangers from damage due to earthquake induced liquefaction.

Policy 8.A.11 The County shall limit development in areas of steep or unstable slopes to minimize hazards caused by landslides or liquefaction.

Policy 8.A.12 The County shall not issue permits for new development in potential avalanche hazard areas (PAHA) as designated in the Placer County Avalanche Management Ordinance unless project proponents can demonstrate that such development will be safe under anticipated snow loads and conditions of an avalanche.

Policy 8.H.1 The County shall maintain maps of potential avalanche hazard areas.

Policy 8.H.2 The County shall require new development in areas of avalanche hazard to be sited, designed, and constructed to minimize avalanche hazards.

Placer County Avalanche Management Program

Placer County's avalanche management program defines Potential Avalanche Hazard Areas (PAHAs) as those areas where the minimum probability of avalanche occurrence is greater than 1 in 100 per year or where avalanche damage has already occurred. The Placer County Department of Public Works and property owners that rent their property to the public are required to post information, described below, in facilities located in PAHAs explaining avalanche hazards and available emergency services. The following are relevant Placer County General Plan policies related to avalanche hazards.

According to the Placer County Avalanche Management Ordinance (Ordinance No. 4331-B), specific project related information must include:

- Information that a structure is within a PAHA;
- A warning that avalanche control work, including the use of explosives, may be carried out and that avalanche control personnel may provide special advisories or instructions;
- A warning that authorities may attempt to contact property owners during periods of severe storm events, but that the responsibility of the occupants to use good judgment during such events; and

- Identification of local radio stations that provide weather information, phone numbers of the Office of Emergency Services and other local emergency offices, and available brochures about avalanches.

The County will not issue a building permit for construction in a PAHA without certifying that the structure will be safe under the anticipated snow loads and conditions of an avalanche, or as an alternative, without a recorded statement that discloses that special construction methods were not employed. In general, structures must be constructed of reinforced concrete or other reinforced masonry at least as high as the depth of an expected avalanche because constructing wood-frame structures that will withstand forces greater than 1 ton per square meter is considered economically infeasible. Currently, the Plan area is not covered in the Placer County Avalanche Management Ordinance.

4.8.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The CEQA Guidelines (Appendix G) indicate that a proposed project may have potentially significant geologic impacts if it exposes people to potential impacts involving: fault rupture, liquefaction, landslides or mudslides, unstable soil conditions from excavation or filling, land subsidence, or disruption of unique geologic features.

The proposed Martis Valley Community Plan Update would have significant geologic impacts if it would result in:

- locating structures for human occupancy within the trace of an active fault;
- exposing people to strong seismic ground shaking;
- potential damage from liquefaction;
- exposing people to hazards from tsunami or seiches inundation or volcanic hazards;
- exposing people or property to hazards from landslides, mudflows or avalanches;
- causing erosion, changes in topography or unstable soil conditions from excavation, grading, of filling;
- potential damage from expansive soils;
- creating land use conflicts that would preclude the protection of mineral resources at the site; or
- altering or destroying a unique geologic feature.

The following geologic hazards are not present in the Plan area: tsunami, seiche, or land subsidence. In addition, future projects to be developed within the Plan area are located outside of any designated Mineral Resource Zones that identify potential mineral resource significance. Thus, no significant mineral resource impacts are expected to occur as a result of implementation of any of the Martis Valley Community Plan Alternatives. Since geologic

conditions in the Plan area do not include ultramafic rock conditions that could support naturally occurring asbestos, no public health exposure impacts to asbestos are expected to occur.

METHODOLOGY

Evaluation geology and related soils located within the proposed Plan area was based on review of regional reports prepared by consultants and memorandums prepared by various departments in Placer County and the State of California.

The Proposed Land Use Diagram and Alternatives AA through AC have residential holding capacities ranging between 11,688 to 7,956 dwelling units along with various uses including commercial, forest, residential, open space, recreational, and access and internal roads, and utilities. Based on these plans detailed grading to generate cuts and fills are anticipated to construct roads and building pads. However, to date detailed grading and improvement plans are not complete for all development areas proposed in the Plan area. Thus, the geologic and soil stability analysis is a qualitative evaluation of subsequent development under the Proposed Land Use Diagram and Alternatives AA through AC.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 4.8.1 Geologic Stability and Suitability of the Martis Valley Community Plan Area

PP Subsequent development under the Proposed Land Use Diagram could expose future residents and structures to geologic instability. However, Community Plan proposed policies and implementation programs would ensure adequate consideration of geologic stability issues. This would be a **less than significant** impact.

AA Subsequent development under the Existing Martis Valley General Plan Land Use Map could expose future residents and structures to geologic instability. However, Community Plan proposed policies and implementation programs would ensure adequate consideration of geologic stability issues. This would be a **less than significant** impact.

AB Subsequent development under the Alternative 1 Land Use Map could expose future residents and structures to geologic instability. However, Community Plan proposed policies and implementation programs would ensure adequate consideration of geologic stability issues. This would be a **less than significant** impact.

AC Subsequent development under the Alternative 2 Land Use Map could expose future residents and structures to geologic instability. However, Community Plan proposed policies and implementation programs would ensure adequate consideration of geologic stability issues. This would be a **less than significant** impact.

PP Proposed Land Use Diagram

As previously described, the Plan area is generally considered to be geologically stable for proposed developments based on various technical reports prepared by County and State agencies. However, there has been no extensive geologic subsurface investigation has been performed for the entire Plan area to verify degree of geologic stability, siting of critically expansive soils, liquefaction and avalanche potential, and overall engineering characteristics of

earth materials that may be situated beneath future roadways and foundations. While a majority of the Plan area would be developed on relatively gentle terrain, there are several development areas located within moderate to steep sloped areas. Improper consideration of site-specific geologic conditions could result in damage and/or failure of project facilities and buildings.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would have a similar land use pattern and would result in the same geologic stability issues as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would have a similar land use pattern and would result in the same geologic stability issues as the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would have a similar land use pattern and would result in the same geologic stability issues as the Proposed Land Use Diagram.

Policies and Implementation Programs

The Martis Valley Community Plan Update includes the following policies and implementation programs that would reduce the severity of this impact to **less than significant** for the Proposed Land Use Diagram and Alternatives AA through AC.

Policy 9.A.1 *The County shall require the preparation of a soils or geologic investigation prior to permitting development in areas of known or suspected geological or seismic hazards (i.e., seismically induced ground shaking, landslides, liquefaction, critically expansive soils, avalanche).*

Policy 9.A.2 *The County shall require submission of a preliminary soils report, prepared by a registered civil or geotechnical engineer and based upon adequate test borings, for every major subdivision and for each individual lot where critically expansive soils have been identified or are expected to exist.*

Policy 9.A.3 *The County shall prohibit the placement of habitable structures or individual sewage disposal systems on or in critically expansive soils unless suitable mitigation measures are incorporated to prevent the potential risks of these conditions.*

Policy 9.A.4 *The County shall ensure that areas of slope instability are adequately investigated and that any development in these areas incorporates appropriate design provisions to prevent landsliding.*

Policy 9.A.5 *In landslide hazard areas, the County shall prohibit alteration of land in a manner that could increase the hazard, including concentration of water through drainage, irrigation, or septic systems; removal of vegetative cover; and steepening of slopes and undercutting the bases of slopes.*

Policy 9.A.6 *The County shall require that drainage plans for development in mountainous and sloping areas that direct runoff and drainage away from unstable slopes.*

Policy 9.A.7 *The County shall continue to support scientific geologic investigations, which refine, enlarge, and improve the body of knowledge on active fault zones, unstable areas, severe groundshaking, avalanche potential, and other hazardous conditions in Placer County.*

Policy 9.A.9 *The County shall limit development in areas of steep (in excess of 30% or in some cases between 20 and 30%) or unstable slopes to minimize hazards caused by landslides or liquidefaction and to reduce grading and disturbance to such slopes.*

Implementation Programs

Geology

2. *Require the preparation of a soils and/or geologic investigation prior to permitting development in areas of known or suspected geological or seismic hazards (i.e., seismically induced groundshaking, landslides, liquefaction, critically expansive soils).*

   Responsible Agency/Department: Department of Public Works
   Time Frame: On-going
   Funding: Permit Fees/ Plan Review Fees

3. *Continue to enforce the Placer County Grading Ordinance to ensure that areas of slope instability are adequately investigated and that any development incorporates appropriate design provisions to prevent landsliding.*

   Responsible Agency/Department: Department of Public Works
   Time Frame: On-going
   Funding: Permit Fees/ Plan Review Fees

4. *Require the preparation of drainage plans that direct runoff and drainage away from unstable slopes for construction in hillside areas.*

   Responsible Agency/Department: Department of Public Works
   Time Frame: On-going
   Funding: Permit Fees/Plan Review Fees

6. *During the review of private development projects, required site-specific studies shall include soil reports, slope analyses, grading plans, and erosion control and*

rehabilitation plans during environmental review, or at the first available opportunity, as needed.

Responsible Agency/Department: Development Review Committee
Time Frame: On-going
Funding: Permit fees/Plan Review Fees

Mitigation Measure

None required.

Impact 4.8.2 Seismic Hazards

PP Subsequent development under the Proposed Land Use Diagram could expose future residents and structures to seismic hazards associated with fault rupture and ground shaking. This would be a **potentially significant** impact.

AA Subsequent development under the Existing Martis Valley General Plan Land Use Map could expose future residents and structures to seismic hazards associated with fault rupture and ground shaking. This would be a **potentially significant** impact.

AB Subsequent development under the Alternative 1 Land Use Map could expose future residents and structures to seismic hazards associated with fault rupture and ground shaking. This would be a **potentially significant** impact.

AC Subsequent development under the Alternative 2 Land Use Map could expose future residents and structures to seismic hazards associated with fault rupture and ground shaking. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

As shown on **Figure 4.8-2**, several faults have been located in the Plan area. Most of these faults are steeply dipping structures most of which are oriented between north and northwest and parallel to the regional trend of late Cenozoic faults. As previously described, at least one of these faults has been identified as active and is located within the Siller Ranch area (map Sections 26 and 35). If any of these faults were to experience renewed movement the ground surface adjacent to their trace would likely become offset with vertical displacement and thus create a vertical fault rupture. In addition to fault rupture future residents and structures could be exposed to ground shaking from earthquakes located along on and off-site faults. If earthquakes originate from off-site faults the ground motions they generate would probably produce strong horizontal motion, but an event originating from an on-site fault would likely produce very strong vertical movements as well.

Earthquakes originating on any of the region's active or potentially active faults could produce moderate to strong shaking of the ground across the Plan area, especially if the magnitude and location of the seismic event is strong and nearby. As previously described the Plan area is located within Seismic Zone 3, (moderate seismic risk zone) because earthquakes are possible on any of the surrounding faults.

Based on location and seismic history of the region proposed buildings to be constructed in future developments in the Plan area should be designed to seismic design standards for Seismic

Zone 3 as provided in Uniform Building Code (UBC). Also, as defined per site-specific geotechnical investigations the potential for liquefaction should also be evaluated because soils with varied grain-size distributions do occur across various projects in the Plan area and high groundwater conditions also exist in some areas.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would have a similar land use pattern and would result in the same seismic hazard issues as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would have a similar land use pattern and would result in the same seismic hazard issues as the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would have a similar land use pattern and would result in the same seismic hazard issues as the Proposed Land Use Diagram.

Policies and Implementation Programs

The Martis Valley Community Plan Update includes the following policies and implementation programs that would reduce the severity of this impact.

Policy 9.A.1. The County shall require the preparation of a soils or geologic investigation prior to permitting development in areas of known or suspected geological or seismic hazards (i.e., seismically induced ground shaking, landslides, liquefaction, critically expansive soils, avalanche).

Policy 9.A.7. The County shall continue to support scientific geologic investigations, which refine, enlarge, and improve the body of knowledge on active fault zones, unstable areas, severe groundshaking, avalanche potential, and other hazardous conditions in Placer County.

Policy 9.A.8. The County shall require that the location and/or design of any new buildings, facilities, or other development in areas subject to earthquake activity minimize exposure to danger from fault rupture or creep.

Implementation Programs

Geology

2. Require the preparation of a soils and/or geologic investigation prior to permitting development in areas of known or suspected geological or seismic hazards (i.e., seismically induced groundshaking, landslides, liquefaction, critically expansive soils).

Responsible Agency/Department: Department of Public Works
Time Frame: On-going

Funding: Permit Fees/ Plan Review Fees

5. *Enforce the Uniform Building Code for seismic concerns, including masonry building design requirements.*

   Responsible Agency/Department: Building Department
   Time Frame: Ongoing
   Funding: Permit Fees

Mitigation Measures

The following mitigation measures shall be incorporated into the Martis Valley Community Plan and apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC. Mitigation measure MM 4.8.2a shall be included in the plan as an implementation program under Geology and MM 4.8.2b shall be included as a policy under Goal 9.A of the Natural Resources Section.

MM 4.8.2a As part of the geotechnical subsurface investigation work (Geology Implementation Program 2), an onsite seismic hazards analysis for subsequent projects and their supporting infrastructure will be performed to further locate and identify active fault traces. Because of their presence additional exploration will be required across these structures in several locations to accurately map their trends across the region. This information shall be utilized to adjust, if needed, the configuration of subsequent projects to ensure future structures will not be located on or near an active fault. Appropriate setbacks must then be defined per results of field investigations, and guidelines contained in UBC and CDMG (Fault-Rupture Hazard Zones in California, Special Report 42 standards). No special setbacks or project design modifications will be required if technical studies fail to identify the presence of a suspected fault or if the fault is determined to be inactive.

MM 4.8.2b Future residential units, structures, project utilities, and infrastructure shall be designed to withstand expected seismic forces that could sustain both horizontal and vertical oscillations and net displacements of earth material along local active fault(s). This may include strengthening of foundations, offsets of structures, engineering of flexible utility connections to accommodate warping, and distributive deformation associated with faulting. These designs will meet requirements outlined by Uniform Building Code and California Department of Mines and Geology.

Implementation of the above policies, implementation programs and mitigation measures would reduce potential seismic impacts to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Impact 4.8.3 Soil Erosion

PP Subsequent development under the Proposed Land Use Diagram would include minor to major grading over large areas of land that could result in increased soil erosion above existing conditions. This would be a **potentially significant** impact.

AA Subsequent development under the Existing Martis Valley General Plan would include minor to major grading over large areas of land that could result in increased soil erosion above existing conditions. This would be a **potentially significant** impact.

AB Subsequent development under the Alternative 1 Land Use Map would include minor to major grading over large areas of land that could result in increased soil erosion above existing conditions. This would be a **potentially significant** impact.

AC Subsequent development under the Alternative 2 Land Use Map would include minor to major grading over large areas of land that could result in increased soil erosion above existing conditions. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

Subsequent development under the Proposed Land Use Diagram would include grading of sites (e.g., cut and fill and recontouring of existing slope conditions), including areas on gentle to moderate slopes. Approximately 4,300 acres would be disturbed under the Proposed Land Use Diagram. Construction activities could result in wind erosion and sedimentation of the various branches of Martis Creek and adjoining waterways. The reader is referred to Section 4.7 (Hydrology and Water Quality) regarding a further description of anticipated surface water quality impacts associated with development of the Plan area.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would include grading of sites (e.g., cut and fill and recontouring of existing slope conditions), including areas on gentle to moderate slopes. Approximately 4,900 acres would be disturbed under the Existing Martis Valley General Plan Land Use Map. Construction activities could result in wind erosion and sedimentation of the various branches of Martis Creek and adjoining waterways. The reader is referred to Section 4.7 (Hydrology and Water Quality) regarding a further description of anticipated surface water quality impacts associated with development of the Plan area.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would include grading of sites (e.g., cut and fill and recontouring of existing slope conditions), including areas on gentle to moderate slopes. Approximately 3,700 acres would be disturbed under the Alternative 1 Land Use Map. Construction activities could result in wind erosion and sedimentation of the various branches of Martis Creek and adjoining waterways. The reader is referred to Section 4.7 (Hydrology and Water Quality) regarding a further description of anticipated surface water quality impacts associated with development of the Plan area.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would include grading of sites (e.g., cut and fill and recontouring of existing slope conditions), including areas on gentle to moderate slopes. Approximately 3,500 acres would be disturbed under the Alternative 2 Land Use Map. Construction activities could result in wind erosion and sedimentation of the various branches of Martis Creek and adjoining waterways. The reader is referred to Section 4.7

(Hydrology and Water Quality) regarding a further description of anticipated surface water quality impacts associated with development of the Plan area.

Policies and Implementation Programs

New development projects in the Plan area would be required to adhere to the Martis Valley Community Plan policies and implementation programs listed below that would reduce the severity of this impact.

Policy 6.E.3 *The County shall continue to implement and enforce its Grading Ordinance and Flood Damage Prevention Ordinance.*

Policy 6.E.10 *The County shall require projects that have significant impacts on the quantity and quality of surface water runoff to allocate land as necessary for the purpose of detaining post-project flows and/or for the incorporation of mitigation measures for water quality impacts related to urban runoff.*

Policy 6.E.11 *The County shall identify and coordinate mitigation measures with responsible agencies for the control of storm sewers, monitoring of discharges, and implementation of measures to control pollutant loads in urban storm water runoff (e.g., California Regional Water Quality Control Board, Placer County Division of Environmental Health, Placer County Department of Public Works, Placer County Flood Control and Water Conservation District). Storm sewers are prohibited from connecting directly or indirectly to the TTSA sewer system.*

Policy 9.D.1 *The County shall require the provision of sensitive habitat buffers which shall, at a minimum, be measured as follows: 100 feet from the centerline of perennial streams, 50 feet from centerline of intermittent streams, and 50 feet from the edge of sensitive habitats to be protected including riparian zones, wetlands, old growth woodlands, and the habitat of rare, threatened or endangered species (see discussion of sensitive habitat buffers in Part 1 of the PCGP).*

In some cases, buffers shall be required which are substantially larger than noted above. Conversely, based on more detailed information supplied as a part of the review for a specific project, the County may determine that such setbacks are not applicable in a particular instance or should be modified based on the new information provided. In addition, the County may allow exceptions, such as in the following cases:

a. Reasonable use of the property would otherwise be denied;

b. The location is necessary to avoid or mitigate hazards to the public.

c. The location is necessary for the repair of roads, bridges, trails or similar infrastructure; or

d. The location is necessary for the construction of new roads, bridges, trails, or similar infrastructure where the County determines there is no feasible alternative and the project has minimized environmental impacts through project design and infrastructure placement

Policy 9.D.2 *The County shall require that any permitted disturbance in the 100-year floodplain comply with the provisions of the Placer County Flood Damage Prevention Ordinance and any other existing regulations.*

Policy 9.D.3 *The County shall require development projects proposing to encroach (where it has been determined to be appropriate) into a creek corridor or creek setback to do one or more of the following, in descending order of desirability:*

a. Avoid the disturbance of riparian vegetation;

b. Replace riparian vegetation (on-site, in-kind);

c. Restore another section of creek (in-kind) and/or;

d. Pay a mitigation fee for restoration elsewhere (e.g. wetland mitigation banking program).

Policy 9.D.4 *The County shall require public and private development to address creeks and riparian corridors as follows:*

a. Preserve creek corridors and creek setback areas through easements or dedications. Parcel lines (in the case of a subdivision) or easements (in the case of a subdivision or other development) shall be located to optimize resource protection. If a creek is proposed to be included within an open space parcel or easement, allowed uses and maintenance responsibilities within that parcel or easement should be clearly defined and conditioned prior to map or project approval;

b. Designate such easement or dedication areas (as described in a. above) as open space;

c. Protect creek corridors and their habitat value by actions such as: 1) providing an adequate creek setback, 2) maintaining creek corridors in an essentially natural state, 3) employing creek restoration techniques where restoration is needed to achieve a natural creek corridor, 4) utilizing riparian vegetation within creek corridors, and where possible, within creek setback areas, 5) prohibiting the planting of invasive, non-native plants (such as vinca major and eucalyptus) within creek corridors or creek setbacks, and 6) avoiding tree removal within creek corridors;

d. Provide recreation and public access near creeks consistent with other General Plan policies;

e. Use design, construction, and maintenance techniques that ensure development near a creek will not cause or worsen natural hazards (such as erosion, sedimentation, flooding, or water pollution) and will include erosion and sediment control practices such as: 1)turbidity screens and other management practices, which shall be used as necessary to minimize siltation, sedimentation, and erosion, and shall be left in place until disturbed areas are stabilized with permanent vegetation that will prevent the transport of sediment off site; and/or 2) temporary vegetation is established sufficient to stabilize disturbed areas, and;

f. Provide for long-term creek corridor maintenance.

Policy 9.D.5 *The County shall continue to require the use of feasible and practical Best Management Practices (BMPs) to protect streams from the adverse effects of construction activities and urban runoff and to encourage the use of BMPs for recreational development.*

Policy 9.D.7 *The County shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.*

Policy 9.D.8 *Where the stream environment zone has previously been modified by channelization, fill, or other human activity, the County shall require project proponents to restore such areas by means of landscaping, revegetation, or similar stabilization techniques as a part of development activities.*

Policy 9.D.9 *The County shall encourage the preservation and protection of open space located in watersheds, which serve reservoirs due to its importance in the adequate performance of those reservoirs for their intended purposes.*

The watershed is defined as those lands draining into a reservoir and having an immediate effect upon the quality of water within that reservoir. Those lands located within the watershed and within 5,000 feet of the reservoir shall be considered as having an immediate effect. For Martis Valley, this includes Martis Creek Lake.

Policy 9.D.10 *The County shall encourage the protection of flood plain lands and where appropriate, acquire public easements for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access and recreation.*

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the*

standards contained in the PCGP unless a larger buffer is warranted based on site-specific fieldwork.

Policy 9.F.5 *The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.*

Policy 9.H.7 *The County shall work with the Placer County Air Pollution Control District (PCAPCD) to reduce particulate emissions from construction, grading, excavation, and demolition to the maximum extent feasible. The County should include PM10 control measures as conditions of approval of subdivision maps, site plans, and grading permits. The County should inform developers of the requirements of the District's PM10 mitigation requirements when they apply for a grading permit.*

Policy 9.H.8 *The County may require new development projects to submit an air quality analysis. Based on this analysis, the County shall require appropriate mitigation measures consistent with the PCAPCD's current list of Best Available Mitigation Measures and/or the most recent version of the Air Quality Attainment Plan.*

Implementation Programs

Geology

3. *Continue to enforce the Placer County Grading Ordinance to ensue that areas of slope instability are adequately investigated and that any development incorporates appropriate design provisions to prevent landsliding.*

   Responsible Agency/Department: Department of Public Works
   Time Frame: On-going
   Funding: Permit Fees/Plan Review Fees

4. *Require the preparation of drainage plans that direct runoff and drainage away from unstable slopes for construction is hillside areas.*

   Responsible Agency/Department: Department of Public Works
   Time Frame: On-going
   Funding: Permit Fees/Plan Review Fees

6. *During the review of private development projects, required site specific studies shall include soil reports, slope analyses, grading plans, and erosion control and rehabilitation plans during environmental review, or at the first available opportunity, as needed.*

   Responsible Agency/Department: Development Review Committee
   Time Frame: On-going
   Funding: Permit fees/Plan Review Fees

7. *Through environmental review and project approval, avoid development on highly erosive soils and most slopes over 20%, if possible, and in all locations, slopes over 30%. Where development does occur in these areas, require the application of BMPs.*

   Responsible Agency/Department: Development Review Committee
   Time Frame: On-going
   Funding: Permit Fees.

8. *Continue the program of monitoring mitigation measures that relate to accelerated erosion and attendant problems.*

   Responsible Agency/Department: Department of Public Works
   Time Frame: On-going
   Funding: Permit Fees/General Fund

Water Resources

10. *The County shall inform the public and prospective developers about those sections of the California Fish and Game Code that apply to diversion or obstruction of stream channels and pollution of waterways with detrimental material. This shall be done through distribution of educational materials with building permits and as a part of project review.*

    Responsible Agency/Department: Planning Department
    Time Frame: On-going
    Funding: General Fund

15. *BMPs are structural and non-structural practices proven effective in soil erosion control and management of surface runoff. Eroding soils and surface water runoff transport pollutants, particularly plan nutrients and sediments, to the area's rivers and streams. Turf herbicides, pesticides, fertilizers, oil and grease contribute to the problem. Declines in water quality are directly attributable to the flow of non-point source pollutants into streams, rivers, and lakes. BMPs shall be implemented with every development project in the Martis Valley. The goal is to [1] stabilize the soil, [2] prevent erosion, and [3] divert runoff from impervious surfaces into infiltration systems. Within the Martis Valley, temporary BMPs are required while construction is underway and permanent BMPs are required to be in place prior to the development project being completed. Both temporary and permanent BMPs must be graphically shown on project plans.*

    Responsible Agency/Department: Department of Public Works
    Time Frame: On-going
    Funding: Permit Fees

18. *Include mitigation measures for new development projects adopted pursuant to the Lahontan Regional Water Quality Control Board's requirements and permits issued under Section 404 of the Federal Clean Water Act.*

    Responsible Agency/Department: Development Review Committee
    Time Frame: On-going
    Funding: Permit Fees

Mitigation Measures

Implementation of the above policies and implementation programs as well as mitigation measures MM 4.7.1a through c would reduce potential soil erosion impacts to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Impact 4.8.4 Avalanche Hazards

PP Subsequent development under the Proposed Land Use Diagram may result in the placement structures and residents in areas that could be exposed to avalanche hazards. This would be a **potentially significant** impact.

AA Subsequent development under the Existing Martis Valley General Plan Land Use Map may result in the placement structures and residents in areas that could be exposed to avalanche hazards. This would be a **potentially significant** impact.

AB Subsequent development under the Alternative 1 Land Use Map may result in the placement structures and residents in areas that could be exposed to avalanche hazards. This would be a **potentially significant** impact.

AC Subsequent development under the Alternative 2 Land Use Map may result in the placement structures and residents in areas that could be exposed to avalanche hazards. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

There are no records of avalanches occurring in the Plan area. However, the Plan area is not covered under the Placer County Avalanche Management Ordinance and no extensive avalanche hazard mapping of the Plan area has been performed. Subsequent development under the Proposed Land Use Diagram in map Sections 5, 6, 27, 28, 31, 33 through 36 (see **Figure 4.8-2**) are proposed for development and contain north-facing slopes that are adjacent to areas with slopes 30 percent and above. Development in these areas may expose certain improvements to the threat of damage by snow and ice flows, especially if improvements are located at the base of high, steep hillsides with terrain that can funnel, concentrate and increase the flow of snow/ice from up slope areas. Any buildings and other improvements located at the base of these areas would be exposed to the down hill movements of these flows and the threat of being pushed off their foundations and down slope.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would have a similar land use pattern and would result in the same potential avalanche hazard issues as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would have a similar land use pattern and would result in similar potential avalanche hazard issues as the Proposed Land Use Diagram. However, this alternative would avoid potentially exposing future structures and residents to avalanche hazards from avoiding large-scale development in map Sections 27, 28, 33 and 34 east of SR 267.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would have a similar land use pattern and would result in similar potential avalanche hazard issues as the Proposed Land Use Diagram. However, this alternative would avoid potentially exposing future structures and residents to avalanche hazards from avoiding large-scale development in map Sections 27, 28, 33 and 34 east of SR 267.

Policies and Implementation Programs

New development projects in the Plan area would be required to adhere to the Martis Valley Community Plan policies listed below that would reduce the severity of this impact.

Policy 9.B.1 *The County shall maintain maps of potential avalanche hazard areas.*

Policy 9.B.2 *The County shall require new development in areas of avalanche hazard to be sited, designed, and constructed to minimize avalanche hazards.*

Mitigation Measure

The following mitigation measure shall be incorporated into the Martis Valley Community Plan Update as an implementation program in the Geology portion of the Natural Resources Section and apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

MM 4.8.4 During review of any project would be located along a north-facing slope adjacent to areas with slopes 30 percent or greater, Placer County shall require each subsequent project provide the County with an avalanche hazard investigation report for their project. This report will document field investigations of surface conditions in areas where construction of all structures is proposed as well as typical snow accumulation and climate conditions. Evaluation of surface materials will be made to evaluate slope stability characteristics of underlying near surface conditions and probable snow conditions that will likely by present during various storm conditions. Avalanche hazard areas shall be mapped and the site design shall be modified to avoid these areas. If avoidance is infeasible, structures to be placed in the avalanche hazard areas shall designed to withstand

anticipated snow loads and conditions of an avalanche consistent with the Placer County Avalanche Management Program.

Implementation of the above policies and mitigation measures would mitigate avalanche hazards in the project area to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

4.8.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

SETTING

Geotechnical impacts tend to be site specific rather than cumulative in nature and each development site would be subject to, at a minimum, uniform site development and construction standards relative to seismic and other geologic conditions that are prevalent within the region. Impacts regarding surficial deposits, namely erosion and sediment deposition, can be cumulative in nature within a watershed. The reader is referred to Section 4.7 (Hydrology and Water Quality) regarding cumulative water quality impacts from soil erosion and Section 4.6 (Air Quality) regarding dust (particulate matter) generation.

IMPACTS AND MITIGATION

Impact 4.8.5 Cumulative Geologic Impacts

PP Development under the Proposed Land Use Diagram could result in site-specific geologic hazards for area residents. This is considered a **less than significant** cumulative impact.

AA Development under the existing Martis Valley Community Plan Land Use Map could result in site-specific geologic hazards for area residents. This is considered a **less than significant** cumulative impact.

AB Development under the Alternative 1 Land Use Map could result in site-specific geologic hazards for area residents. This is considered a **less than significant** cumulative impact.

AC Development under the Alternative 2 Land Use Map could result in site-specific geologic hazards for area residents. This is considered a **less than significant** cumulative impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Impacts associated with geologic and seismic hazards would be site-specific to the Plan area and would not contribute significantly to existing geologic and seismic hazards in Martis Valley. The project contains mitigation measures to abate the Plan area geologic and seismic hazards. As a result, the proposed project is not anticipated to contribute to cumulative human heath impacts. Impacts are considered to be **less than significant**.

Mitigation Measure

None required.

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SECTION 4.9
BIOLOGICAL RESOURCES

This biological resources section summarizes the natural resources present within the Martis Valley Community Plan area (Plan Area), including vegetation communities present, the wildlife species occurring, and sensitive habitats located within the Plan area. This section also identifies impacts associated with the adoption of the Proposed Land Use Diagram (PP) (the Existing Martis Valley Community Plan Land Use Map – AA, the Alternative 1 Land Use Map – AB, and the Alternative 2 Land Use Map-AC) as well as impacts identified with 3 land use map alternatives. Mitigation measures are provided for each impact. Cumulative impact analysis is also provided in this section. This biological resources section was prepared by Foothill Associates.

4.9.1 SETTING

The following sections describe the regional and local planning area setting, as well as the natural resources present within the Plan area.

REGIONAL SETTING

The Sierra Nevada mountain range spans from northern California to the south-central portion of California, occurring along the state's easternmost border. The Sierra Nevada supports multiple vegetation types, which vary depending on elevation and available moisture. Elevations within the Sierra Nevada range from approximately 1,900 to 12,000 feet above mean sea level (MSL). Vegetation communities within the Sierra Nevada mountain range include lower and upper montane coniferous forests, subalpine forests, and nonconiferous vegetation. Lower montane coniferous forests include vegetation types such as ponderosa pine, white fir-mixed conifer, and giant sequoia communities. Red fir, Jeffrey pine, and lodgepole pine communities comprise the Sierra Nevada's upper montane forests. Subalpine forests occur in elevations above upper montane coniferous forests and include mountain hemlock, western white pine, whitebark pine, foxtail pine, and limber pine communities. Nonconiferous vegetation is found throughout the Sierra Nevada at ranging elevations and includes communities such as montane chaparral, riparian scrub, and montane meadows (Barbour & Major, 1990).

LOCAL SETTING

The Plan area is located east of State Route (SR) 89 and south of Interstate 80 (I-80) in Placer County. The Plan area spans approximately 25,570 acres of the Sierra Nevada mountains, ranging in elevations from 5,800 feet to 8,600 feet above Mean Sea Level (MSL). Current land uses within the Plan area include residential, timberland, commercial, resort/recreational, and public. A majority of the Plan area is currently undeveloped. Dominant vegetation communities present within the Plan area include mixed coniferous forest, Great Basin sage scrub, red fir forest, and montane meadow. Major watersheds located within the planning area include Martis, Juniper, and Monte Carlo Creeks. These water features flow from higher elevations in the southern portions of Martis Valley into Martis Creek Lake, which is located in the northern portion of the planning area.

BIOLOGICAL COMMUNITIES

The Plan area supports mixed coniferous forest, red fir forest, Great Basin sagebrush scrub, montane chaparral, montane meadow, ruderal, riparian scrub, stream, and open water habitats. These habitats are mapped in **Figure 4.9-1**. The dominant vegetation and wildlife species associated with these habitats are described below. In addition, vegetation associations occurring within each habitat are identified in **Figure 4.9-2**.

Wildlife and plant species known to occur within the Martis Valley are listed in **Appendix 4.9**.

The information provided in **Figure 4.9-1**, **Figure 4.9-2**, and throughout this section pertaining to general vegetation associations within the Plan area is based on data provided by the U.S. Forest Service (USFS) Remote Sensing Lab and the Tahoe National Forest (TNF), aerial photo interpretation, and field reconnaissance.

Mixed Coniferous Forest

Vegetation

Mixed coniferous forest is the dominant habitat found within the Plan area. This habitat totals over 15,000 acres of the planning area and is comprised of 5 major vegetation associations: eastside pine, lodgepole pine, mixed conifer, subalpine conifer, and white fir. Dominant tree species found in mixed coniferous forest habitats include Jeffrey pine (*Pinus jeffreyi*), white fir (*Abies concolor*), sugar pine (*Pinus lambertiana*), ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta* ssp. *murrayana*), and western white pine (*Pinus monticola*). Plant species known to grow in the understory include Indian paintbrush (*Castilleja pinetorum*), snowberry (*Symphoricarpos mollis*), mule ears (*Wyethia mollis*), Sierra currant (*Ribes nevadense*), and mountain pride (*Penstemon newberryi*) (Placer County & Nevada County, 1974).

Wildlife

Mixed coniferous forest provides cover, foraging, and breeding habitat for a large diversity of resident and migratory wildlife. Avian species associated with these habitats include western tanager (*Piranga ludoviciana*), western wood peewee (*Contopus sordidulus*), hairy woodpecker (*Picoides villosus*), mountain chickadee (*Poecile gambeli*), white-breasted nuthatch (*Sitta carolinensis*), brown-headed cowbird (*Molothrus ater*), chipping sparrow (*Spizella passerina*), Oregon junco (*Junco hyemalis thurberi*), yellow-rumped warbler (*Dendroica coronata*), northern flicker (*Colaptes auratus*), and Steller's jay (*Cyanocitta stelleri*). Mammalian species associated with mixed coniferous forest habitats include lodgepole chipmunk (*Tamias speciosus*), mule deer (*Odocoileus hemionus*), montane vole (*Microtus montanus*), fisher (*Martes pennanti*), California vole (*Microtus californicus*), black bear (*Ursus americanus*), raccoon (*Procyon lotor*), mountain lion (*Felis concolor*), and western gray squirrel (*Sciurus griseus*).

Red Fir Forest

Vegetation

Red fir forest habitats comprise over 4,000 acres of the Plan area. These habitats within the Plan area are characterized by dense stands of red fir (*Abies magnifica*). Because the canopy associated with this habitat is extremely dense and relatively impermeable to sunlight, the understory supports sparse vegetation.

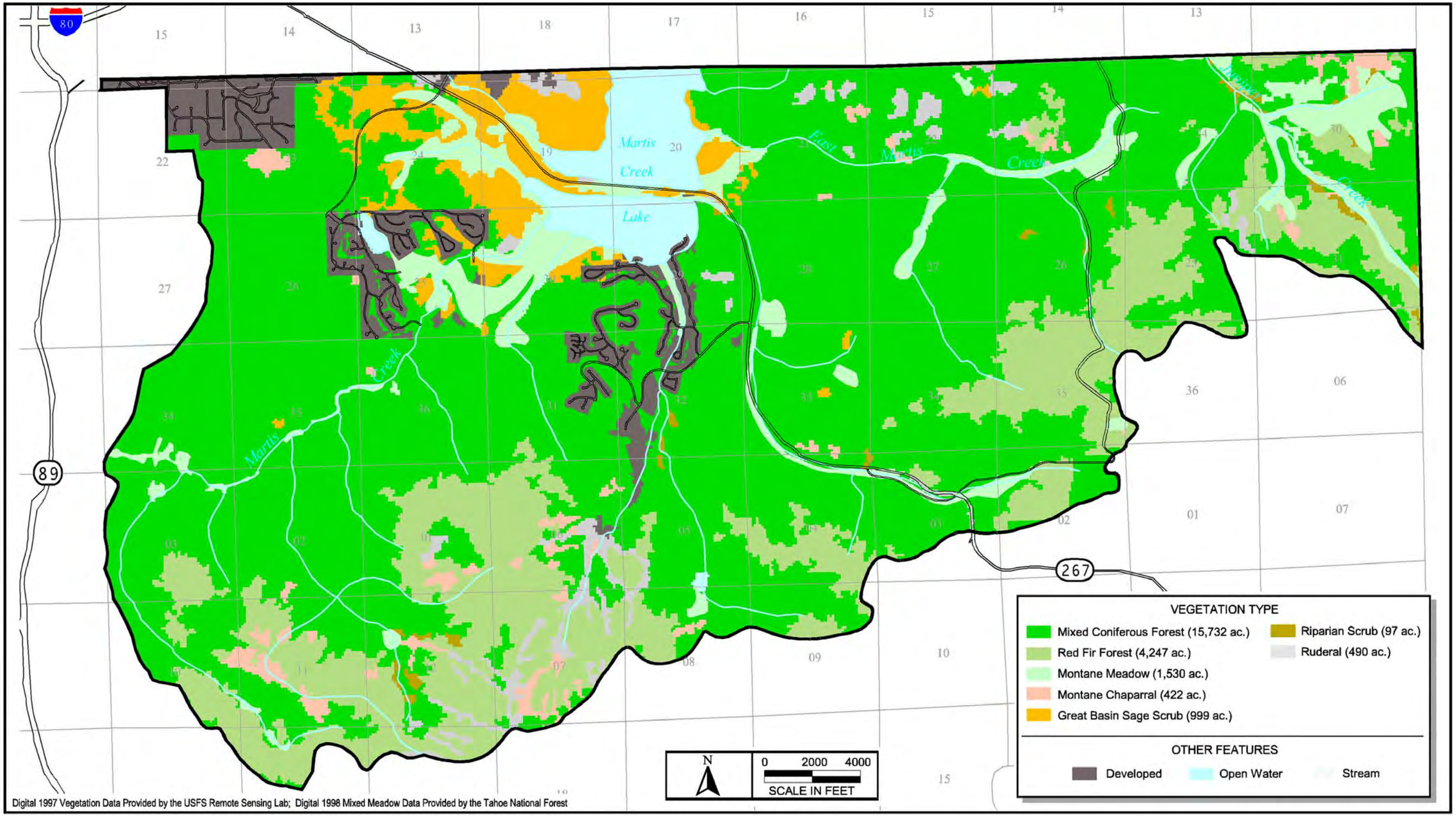
Wildlife

Red fir forests provide shelter, breeding, and foraging opportunities for numerous wildlife species. Species expected to occur within this habitat in the Plan area include species similar to those found in mixed coniferous forest habitats (see above discussion).

Great Basin Sage Scrub

Vegetation

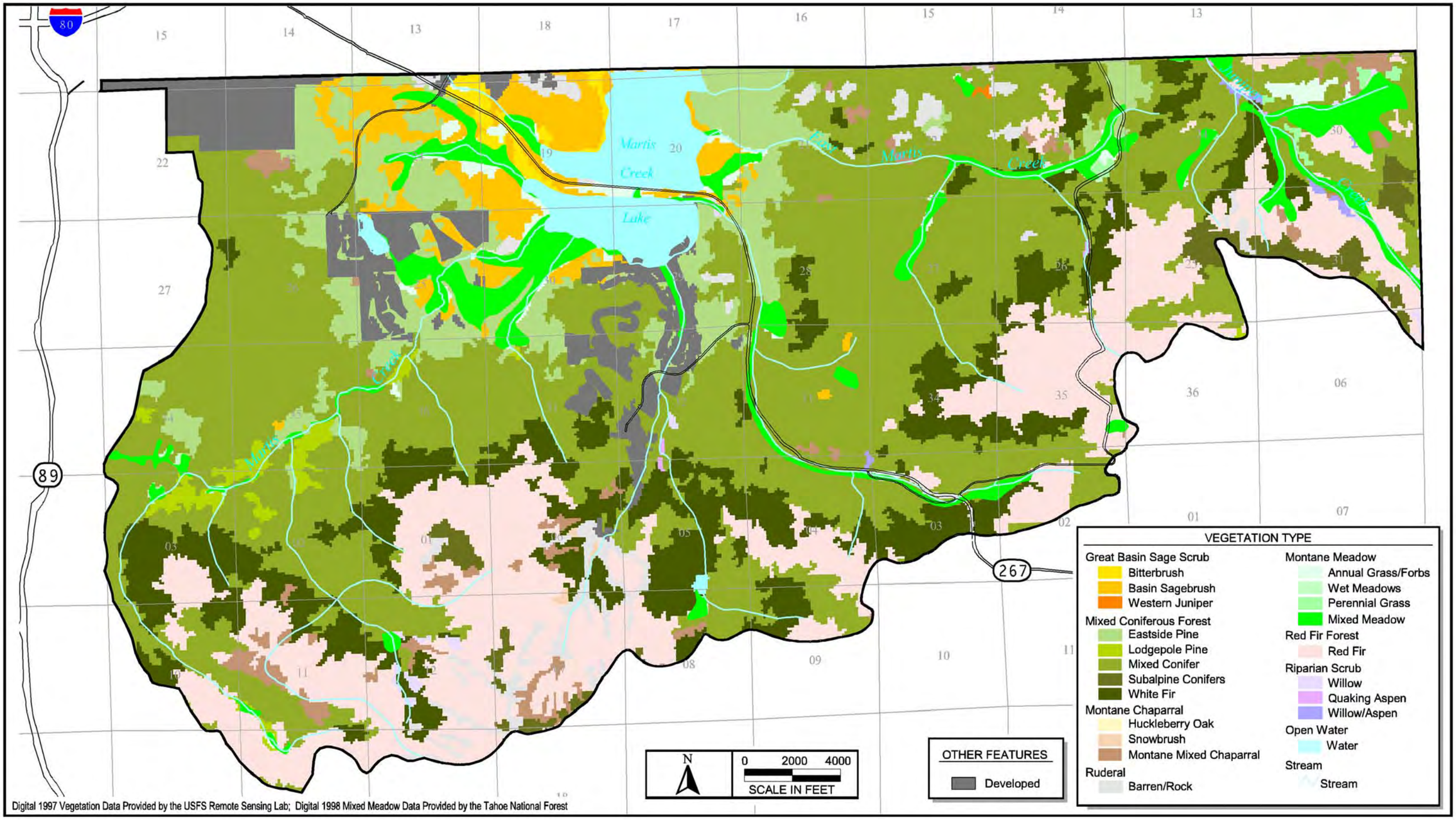
Three vegetation associations, bitterbrush, basin sagebrush, and western juniper, are found within the Great Basin sage scrub habitats in the Plan area. Great Basin sage scrub habitat occurs within approximately 1,000 acres of the Plan area. This habitat is dominated by



PMC

SOURCE: FOOTHILL ASSOCIATES, 2001

FIGURE 4.9-1
BIOLOGICAL COMMUNITIES



PMC

SOURCE: FOOTHILL ASSOCIATES, 2001

FIGURE 4.9-2
VEGETATION ASSOCIATIONS

sagebrush (*Artemisia tridentata*), however rabbitbrush (*Chrysothamnus nauseosus*), western juniper (*Juniperus occidentalis* var. *occidentalis*), squirrel tail (*Sitanion hystrix*), and bitterbrush (*Purshia tridentata*) are also associated with this habitat in the planning area. Scattered trees, such as Jeffery pine and ponderosa pine, are found interspersed throughout this habitat.

Wildlife

In addition to providing shelter, Great Basin sage scrub habitat provides excellent foraging opportunities for wildlife species. Additionally, several species of birds and small mammals utilize this habitat for nesting. Avian species commonly associated with Great Basin sage scrub habitats include violet green swallow (*Tachycineta thalassina*), turkey vulture (*Cathartes aura*), American robin (*Turdus migratorius*), mountain chickadee, mourning dove (*Zenaida* macroura), northern flicker, chipping sparrow, vesper sparrow (*Pooecetes gramineus*), and Oregon junco. This habitat also provides forage for mule deer migrating through the Plan area.

Montane Chaparral

Vegetation

Three vegetation associations, montane mixed chaparral, huckleberry oak, and snowbrush, are found in the montane chaparral habitats within the planning area. This habitat spans over 400 acres of the Plan area. Montane chaparral habitat is characterized predominantly by shrubs such as manzanita (*Arctostaphylos patula*), huckleberry oak (*Quercus vaccinifolia*), tobacco brush (*Ceanothus velutinus*), snowbrush (*Ceanothus cordulatus*), and bitterbrush, however herbaceous species including wild onions (*Allium* spp.) and mules ears (*Wyethia* spp.) also occur here.

Wildlife

Wildlife species found utilizing this habitat include species similar to those associated with the Great Basin sage scrub habitat within the Plan area (see above discussion).

Montane Meadow

Vegetation

Four vegetation associations, annual grass/forbs, wet meadow, perennial grass, and mixed meadow, are found in the ± 1,530 acres of montane meadow habitats within the Plan area. Montane meadow habitats are characterized predominantly by grasses and forbs, however shrubs, such as various willows (*Salix* spp.), are also found here. In some cases, plant species associated with montane meadows have adapted to the saturated soil conditions present within these habitats. Species typically associated with these areas include meadow barley (*Hordeum brachyantherum*), common monkeyflower (*Mimulus guttatus*), clover (*Trifolium* spp.), Indian paintbrush, mint (*Mentha* sp.), shooting star (*Dodecatheon jeffreyi*), and yarrow (*Achillea millefolium*) (Placer County & Nevada County, 1974). Additional herbaceous species associated with this habitat include fireweed (*Epilobium angustifolium*.), cinquefoil (*Potentilla* sp.), and primrose (*Primula* sp.).

Wildlife

Montane meadow habitats support numerous resident and migratory wildlife species. Such species include American robin, mountain chickadee, cliff swallow (*Petrochelidon pyrrhonota*), killdeer (*Charadrius vociferus*), mourning dove, northern flicker, California mule deer, western bluebird (*Sialia mexicana*), and green-tailed towhee (*Pipilo chlorurus*).

Ruderal

Vegetation

Approximately 490 acres of the Plan area is comprised of ruderal habitats. These areas primarily consist of gravel substrate and are nearly devoid of vegetation. This habitat is highly disturbed and provides marginal plant habitat. Sparse vegetation, dominated by invasive non-native species, occurs in some areas within this habitat.

Wildlife

Ruderal habitat provides marginal foraging habitat for wildlife species and, compared to the other vegetation communities within the planning area, this habitat provides the lowest value to wildlife species. Species expected to occur within this habitat include American robin, mourning dove, turkey vulture, and killdeer.

Riparian Scrub

Vegetation

Riparian scrub habitats total approximately 97 acres of the Plan area and are comprised of 3 vegetation associations: willow, quaking aspen, and willow-aspen. Riparian scrub habitat is found adjacent to streams within the planning area and is dominated by plant species that have adapted to the wet soil conditions found along stream margins. Species typical of riparian habitats in the Sierra Nevada include willow (*Salix* sp.), alder (*Alnus tenuifolia*), cottonwood (*Populus* sp.), and quaking aspen (*Populus tremuloides*) (Placer County & Nevada County, 1974).

Wildlife

Numerous wildlife species utilize riparian scrub habitats. Such species include raccoon, western gray squirrel, California mule deer, northern flicker, mountain chickadee, and lodgepole chipmunk.

Stream

Vegetation

Martis Creek, Juniper Creek, Monte Carlo Creek, and the tributaries associated with these drainages are stream habitats, typically supporting minimal vegetation within the banks. However, the vegetation growing adjacent to these streams includes hydrophytic species such as carex (*Carex* spp.), juncus (*Juncus* sp.) and barley (*Hordeum brachyantherum*). In some locations within the planning area, these habitats occur adjacent to riparian scrub and montane meadow habitats.

Wildlife

Wildlife utilizing stream habitats include mostly aquatic species such as bullfrog (*Rana catesbeiana*), Pacific chorus frog (*Pseudacris regilla*), and various fresh-water fish species. Numerous wildlife species also forage within stream habitats such as raccoon and belted kingfisher (*Ceryle alcyon*).

Open Water

Vegetation

Martis Creek Lake, which occupies approximately 814 acres of the Plan area at full capacity, is an open water feature used primarily for flood control, recreational purposes, and wildlife habitat. Gooseneck Lake, an intermittent water feature, also exists within the planning area and provides habitat for wildlife and limited recreational use. Vegetation within these habitats is relatively sparse and consists predominantly of willow scrub associations around the lake margins.

Wildlife

Numerous aquatic species utilize open water habitats including fish species, bullfrog, and Pacific chorus frog. Mammals and avian species also utilize these habitats for foraging including belted kingfisher, black bear, raccoon, mule deer, and American white pelican (*Pelecanus erythrorhynchos*).

4.9.2. REGULATORY FRAMEWORK

The following describes federal, state, and local environmental laws and policies that are relevant to the CEQA review process. The CEQA significance criteria are also included in this section.

FEDERAL ENDANGERED SPECIES ACT

The United States Congress passed the federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. The FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

The FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3). Actions that result in take can result in civil or criminal penalties.

The FESA and EPA Section 404 guidelines prohibit the issuance of wetland permits for projects that would jeopardize the existence of threatened or endangered wildlife or plant species. The U.S. Army Corps of Engineers must consult with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) when threatened or endangered species may be affected by a proposed project to determine whether issuance of a Section 404 permit would jeopardize the species. In the context of the study site, the federal ESA would be triggered if development resulted in take of a threatened or endangered species (e.g., California red-legged frog, Coho salmon) or if issuance of a Section 404 permit or other federal agency action could adversely affect or jeopardize a threatened or endangered species.

CALIFORNIA ENDANGERED SPECIES ACT

The State of California enacted the California Endangered Species Act (CESA) in 1984. The CESA is similar to the FESA but pertains to state-listed endangered and threatened species. It requires state agencies to consult with the California Department of Fish and Game (CDFG) when preparing California Environmental Quality Act (CEQA) documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. It directs agencies

to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur, and allows CDFG to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that there are "overriding considerations"; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species.

The state ESA prohibits the taking of state-listed endangered or threatened plant and wildlife species. CDFG exercises authority over mitigation projects involving state-listed species, including those resulting from CEQA mitigation requirements. CDFG may authorize taking if an approved habitat management plan or management agreement that avoids or compensates for possible jeopardy is implemented. CDFG requires preparation of mitigation plans in accordance with published guidelines.

OTHER STATUTES, CODES, AND POLICIES AFFORDING LIMITED SPECIES PROTECTION

CDFG Species of Special Concern

In addition to formal listing under FESA and CESA, plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFG. It tracks species in California whose numbers, reproductive success, or habitat may be threatened.

California Native Plant Society – Native Plant Species List

The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the *Inventory of Rare and Endangered Vascular Plants of California* (Skinner and Pavlik, 1994). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS listings:

List 1A: Plants believed extinct.

List 1B: Plants rare, threatened, or endangered in California and elsewhere.

List 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere.

List 3: Plants about which we need more information - a review list.

List 4: Plants of limited distribution - a watch list.

Migratory Bird Regulations

Raptors (birds of prey) and migratory birds are protected by a number of state and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

WATERS OF THE U.S.

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including

intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. The U.S. Army Corps of Engineers (Corps) regulates discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act (CWA). "Discharges of fill material" is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeway or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)].

Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

The CDFG has jurisdiction under Section 1600 *et seq.* of the California Fish and Game Code over fish and wildlife resources of the state. Under Section 1603, a private party must notify the CDFG if a proposed project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds…except when the department has been notified pursuant to Section 1601." If an existing fish or wildlife resource may be substantially adversely affected by the activity, the CDFG may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the party, they may enter into an agreement with the CDFG identifying the approved activities and associated mitigation measures.

PLACER COUNTY GENERAL PLAN

The following is a list of policies within the Natural Resources Section of the Placer County General Plan that provide protection to the biological resources within Placer County.

Water Resources

Policy 6.A.1 The County shall require the provisions of sensitive habitat buffers which shall, at a minimum, be measured as follows: 100 feet from the centerline of perennial streams, 50 feet from centerline of intermittent streams, and 50 feet from the edge of sensitive habitats to be protected including riparian zones, wetlands, old growth woodlands, and the habitat of rare, threatened or endangered species (see discussion of sensitive habitat buffers in Part I of this Policy Document). Based on more detailed information supplied as a part of the review for a specific project, the County may determine that such setbacks are not applicable in a particular instance or should be modified based on the new information provided. The County may, however, allow exceptions, such as in the following cases:

a. Reasonable use of the property would otherwise be denied;

b. The location is necessary to avoid or mitigate hazards to the public;

c. The location is necessary for the repair of roads, bridges, trails, or similar infrastructure; or

d. The location is necessary for the construction of new roads, bridges, trails, or similar infrastructure where the County determines there is no feasible alternative and the project has minimized environmental impacts through project design and infrastructure placement.

Policy 6.A.2 The County shall require all development in the 100-year floodplain to comply with the provisions of the Placer County Flood Damage Prevention Ordinance.

Policy 6.A.3 The County shall require development projects proposing to encroach into a creek corridor or creek setback to do one or more of the following, in descending order of desirability:

a. Avoid the disturbance of riparian vegetation;

b. Replace riparian vegetation (on-site, in-kind);

c. Restore another section of creek (in-kind); and/or

d. Pay a mitigation fee for restoration elsewhere (e.g., wetland mitigation banking program).

Policy 6.A.4 Where creek protection is required or proposed, the County should require public and private development to:

a. Preserve creek corridors and creek setback areas through easements or dedications. Parcel lines (in the case of a subdivision) or easements (in the case of a subdivision or other development) shall be located to optimize resource protection. If a creek is proposed to be included within an open space parcel or easement, allowed uses and maintenance responsibilities within that parcel or easement should be clearly defined and conditioned prior to map or project approval;

b. Designate such easement or dedication areas (as described in a. above) as open space;

c. Protect creek corridors and their habitat value by actions such as: 1) providing an adequate creek setback, 2) maintaining creek corridors in an essentially natural state, 3) employing creek restoration techniques where restoration is needed to achieve a natural creek corridor, 4) utilizing riparian vegetation within creek corridors, and where possible, within creek setback areas, 5) prohibiting the planting of invasive, non-native plants (such as vinca major and eucalyptus) within creek corridors or creek setbacks, and 6) avoiding tree removal within creek corridors;

d. Provide recreation and public access near creeks consistent with other General Plan policies;

e. Use design, construction, and maintenance techniques that ensure development near a creek will not cause or worsen natural hazards (such as erosion, sedimentation, flooding, or water pollution) and will include erosion and sediment control practices such as: 1) turbidity screens and other management practices, which shall be used as necessary to minimize siltation, sedimentation, and erosion, and shall be left in place until disturbed areas; and/or are stabilized with permanent vegetation that will prevent the transport of sediment off site; and 2) temporary vegetation sufficient to stabilize disturbed areas.

f. Provide for long-term creek corridor maintenance by providing a guaranteed financial commitment to the County which accounts for all anticipated maintenance activities.

Policy 6.A.5 The County shall continue to require the use of feasible and practical best management practices (BMPs) to protect streams from the adverse effects of construction activities and urban runoff and to encourage the use of BMPs for agricultural activities.

Policy 6.A.6 The County shall require that natural watercourses are integrated into new development in such a way that they are accessible to the public and provide a positive visual element.

Policy 6.A.7 The County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.

Policy 6.A.8 Where the stream environment zone has previously been modified by channelization, fill, or other human activity, the County shall require project proponents to restore such areas by means of landscaping, revegetation, or similar stabilization techniques as a part of development activities.

Policy 6.A.9 The County shall require that newly-created parcels include adequate space outside of watercourses' setback areas to ensure that property owners will not place improvements (e.g., pools, patios, and appurtenant structures), within area that require protection.

Policy 6.A.11 Open space located in watersheds, which serve reservoirs, is important to the adequate performance of those reservoirs for their intended purposes and should be preserved and protected.

Policy 6.A.12 The County shall encourage the protection of floodplain lands and where appropriate, acquire public easements for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access and recreation.

Wetland and Riparian Areas

Policy 6.B.1 The County shall support the "no net loss" policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.

Policy 6.B.2 The County shall require new development to mitigate wetland loss in both regulated and non-regulated wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability: (1) avoidance of riparian habitat; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation banking program that provides the opportunity to mitigate impacts to rare, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas.

Policy 6.B.3 The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.

Policy 6.B.4 The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and nesting of wetland and riparian species.

Policy 6.B.5 The County shall require development that may affect a wetland to employ avoidance, minimization, and/or compensatory mitigation techniques. In evaluating the level of compensation to be required with respect to any given project, (a) on-site mitigation shall be preferred to off-site, and in-kind mitigation shall be preferred to out-of-kind; (b) functional replacement ratios may vary to the extent necessary to incorporate a margin of safety reflecting the expected degree of success associated with the mitigation plan; and (c) acreage replacement ratios may vary depending on the relative functions and values of those wetlands being lost and those being supplied, including compensation for temporal losses. The County shall continue to implement and refine criteria for determining when an alteration to a wetland is considered a less-than-significant impact under CEQA.

Fish and Wildlife Habitat

Policy 6.C.1 The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:

a. Wetland areas including vernal pools.

b. Stream environment zones.

c. Any habitat for rare, threatened or endangered animals or plants.

d. Critical deer winter ranges (winter and summer), migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including Blue Oak Woodlands, Valley Foothill Riparian, vernal pool habitat.

f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

g. Important spawning areas for anadramous fish.

Policy 6.C.2 The County shall require development in areas known to have particular value for wildlife to be carefully planned and, where possible, located so that the reasonable value of the habitat for wildlife is maintained.

Policy 6.C.3 The County shall encourage the control of residual pesticides to prevent potential damage to water quality, vegetation, and wildlife.

Policy 6.C.4 The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.

Policy 6.C.5 The County shall require mitigation for development projects where isolated segments of stream habitat are unavoidably altered. Such impacts should be mitigated on-site with in-kind habitat replacement or elsewhere in the stream system through stream or riparian habitat restoration work.

Policy 6.C.6 The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.

Policy 6.C.7 The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.

Policy 6.C.8 The County shall support the preservation or reestablishment of fisheries in the rivers and streams within the county, whenever possible.

Policy 6.C.9 The County shall require new private or public developments to preserve and enhance existing native riparian habitat unless public safety concerns require removal of habitat for flood control or other public purposes. In cases where new private or public development results in modification or destruction of riparian habitat for purposes of flood control, the developers shall be responsible for acquiring, restoring, and enhancing at least an equivalent amount of like habitat within or near the project area.

Policy 6.C.10 The County will use the California Wildlife Habitat Relationships (WHR) system as a standard descriptive tool and guide for environmental assessment in the absence of a more detailed site-specific system.

Policy 6.C.11 Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites by a wildlife biologist, the evaluation shall be based upon field reconnaissance performed at the appropriate time of year to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts or indicate why mitigation is not feasible. In approving any such discretionary development permit. The decision making body shall determine the feasibility of the identified mitigation measures.

Significant ecological resource areas shall, at a minimum, include the following:

a. Wetland areas including vernal pools.

b. Stream environment zones.

c. Any habitat for rare, threatened or endangered animals or plants.

d. Critical deer winter ranges (winter and summer), migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including Blue Oak Woodlands, Valley Foothill Riparian, vernal pool habitat.

f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the anadramous fish.

g. Important spawning areas for anadramous fish.

Policy 6.C.12 The County shall cooperate with, encourage, and support the plans of other public agencies to acquire fee title or conservation easements to privately-owned lands in order to preserve important wildlife corridors and to provide habitat protection of California Species of Concern and state or federally listed rare, threatened, or endangered plant and animal species.

Policy 6.C.13 The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats, wetland habitats, wildlife migration corridors, and locally-important species/communities.

Policy 6.C.14 The County shall support the management efforts of the California Department of Fish and Game to maintain and enhance the productivity of important fish and game species (such as the Blue Canyon and Loyalton Truckee deer herds) by protecting identified critical habitat for these species from incompatible suburban, rural residential, or recreational development.

Vegetation

Policy 6.D.1 The County shall encourage landowners and developers to preserve the integrity of existing terrain and natural vegetation in visually-sensitive areas such as hillsides, ridges and along important transportation corridors.

Policy 6.D.2 The County shall require developers to use native and compatible non-native species, especially drought-resistant species, to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits or for project mitigation.

Policy 6.D.3 The County shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands, riparian areas, and vernal pools.

Policy 6.D.4 The County shall ensure that landmark trees and major groves of native trees are preserved and protected. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.

Policy 6.D.5 The County shall establish procedures for identifying and preserving rare, threatened, and endangered plant species that may be adversely affected by public or private development projects.

Policy 6.D.6 The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.

Policy 6.D.7 The County shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, nutrient catchment, and wildlife habitats. Such communities shall be restored or expanded, where possible.

Policy 6.D.8 The County shall require that new development preserve natural woodlands to the maximum extent possible.

Policy 6.D.9 The County shall require that development on hillsides be limited to maintain valuable natural vegetation, especially forests and open grasslands, and to control erosion.

Policy 6.D.10 The County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.

Policy 6.D.11 The County shall support the continued use of prescribed burning to mimic the effects of natural fires to reduce fuel volumes and associated fire hazard to human residents and to enhance the health of biotic communities.

Policy 6.D.12 The County shall support the retention of heavily vegetated corridors along circulation corridors to preserve their rural character.

Policy 6.D.13 The County shall support the preservation of native trees and the use of native, drought-tolerant plant materials in all revegetation/landscaping projects.

Policy 6.D.14 The County shall require that new development avoid, as much as possible, ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas should be protected through public acquisition of fee title or conservation easements to ensure protection.

Open Space for the Preservation of Natural Resources

Policy 6.E.1 The County shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible. The County shall permanently protect, as open space, areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains.

Policy 6.E.2 The County shall require that new development be designed and constructed to preserve the following types of areas and features as open space to the maximum extent feasible:

a. High erosion hazard areas;

b. Scenic and trail corridors;

c. Streams, streamside vegetation;

d. Wetlands;

e. Other significant stands of vegetation;

f. Wildlife corridors; and

g. Any areas of special ecological significance.

Policy 6.E.3 The County shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement, and sustain ecosystems.

Policy 6.E.4 The County shall encourage either private and public ownership and maintenance of open space.

Policy 6.E.5 The County shall coordinate with local, state, and federal agencies and private organizations to establish visual and physical links among open space areas to form a system that, where appropriate, includes trails. Dedication of easements shall be encouraged, and in many cases, required as lands are developed and built.

Policy 7.E.1 The County shall encourage the sustained productive use of forest land as a means of providing open space and conserving other natural resources.

MARTIS VALLEY GENERAL PLAN

The following policies were established in the Martis Valley General Plan (1975) to give additional protection, above that offered in federal, state, and county regulations, to natural resources in the Martis Valley.

Environmental Resource Policies

Policy 1 Timber croplands, watershed lands, and urban forest lands must be managed and harvested on a coordinated basis and according to the recommendations of professional foresters.

Policy 2 Riparian vegetation areas and timberlands must be spared from urban encroachment.

Policy 3 Outstanding sport fisheries, especially the Truckee River, must be protected from the detrimental effects of man's activities.

Policy 4 Martis Creek and Truckee River should be protected by retention of natural areas along the channels (stream environment zones) either by acquisition or zoning protection. Roads, bridges or any type of man-made improvements in these zones should be kept at an absolute minimum. Only those necessary to serve development and designed to provide maximum protection of the streams and riparian vegetation may be built. Truckee River and its tributary water sources should be-retained at or near present flows and not used for domestic water supplies in order to protect the ecology of the stream and its environment.

Policy 7 A determination must be made of high intensity uses on the underground water level of Martis Valley, including usage and water quality, before any extensive development which may effect the groundwater occurs. The effects of usage upon the riparian vegetation and meadows must be determined in the same study. If the results of the study indicate that usage of the groundwater seriously impacts the riparian areas, the preservation of meadows and riparian areas must take precedent.

Policy 12 Retention of high quality open space and visual resources is of utmost importance to the future quality of life in Martis Valley.

SPECIAL-STATUS SPECIES

Special-status species are plant and animal species that have been afforded special recognition by federal, state, or local resource agencies or organizations. Listed and special-status species are of relatively limited distribution and may require specialized habitat conditions. Listed and special-status species are defined as:

Special-Status species are defined as plants and animals that are:

- Legally protected under the California and Federal Endangered Species Acts or under other regulations;
- Considered sufficiently rare by the scientific community to qualify for such listing; or
- Considered sensitive because they are unique, declining regionally or locally, or at the extent of their natural range.

Specifically, special-status plant species are:

- Plants listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the FESA (64 FR 205, October 25, 1999; 57533-57547).
- Plants that meet the definitions of rare or endangered species under the California Environmental Quality Act (CEQA) (CEQA Guidelines, Section 15380).
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered" in California (Lists 1B and 2 in Skinner and Pavlik [1994]).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 CCR 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants considered sensitive by other federal agencies (i.e., U.S. Forest Service, Bureau of Land Management) or state and local agencies or jurisdictions.
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (CEQA Guidelines, Appendix G).

Specifically, special-status animal species are:

- Animals listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species).
- Animals that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (54 CFR 554).
- Animals that meet the definitions of rare or endangered species under the CEQA (CEQA Guidelines, Section 15380).
- Animals listed or proposed for listing by the State of California as threatened and endangered under the California ESA (14 CCR 670.5).
- Animal species of special concern to the California Department of Fish and Game (Remsen [1978] for birds; Williams [1986] for mammals).
- Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

SPECIAL-STATUS SPECIES PRESENCE IN THE PLAN AREA

Table 4.9-1 identifies the species listed in the USFWS species list for the Truckee, Martis Peak, Tahoe City, and Kings Beach 7.5-minute USGS quadrangles. The species identified in the list are known to occur in the vicinity of the planning area or may be affected by projects within the planning area. Additionally, species records listed in the CNDDB occurring within ten miles of the planning are included in **Table 4.9-1** and shown on **Figure 4.9-3**.

Species listed as having no potential for occurrence are species either a) not expected to occur within the planning area based on the known range of the species or b) not expected to occur due to lack of suitable habitat within the planning area. Species that potentially occur within the planning area are listed in **Table 4.9-1** and are addressed further in the following pages.

TABLE 4.9-1
LISTED AND SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING WITHIN THE PLANNING AREA OR IN THE VICINITY

Common Name/ Scientific Name	Regulatory Status (Federal; State; CNPS; Forest Service)	Habitat Requirements	Potential for Occurrence
PLANTS			
Tahoe yellow-cress *Rorippa subumbellata*	FSC; CE; 1B; --	Shorelines supporting decomposed granitic soils; known only from the Lake Tahoe shoreline	NO (suitable habitat for this species is not present within the planning area)
Donner Pass buckwheat *Eriogonum umbellatum* var. *torreyanum48*	FSC; --; 1B; --	Volcanic soils in rocky meadows and upper montane coniferous forests	YES
Plumas ivesia *Ivesia sericoleuca*	FSC; --; 1B; --	Occurs in vernally mesic conditions within Great Basin sage scrub, lower	YES

Common Name/ Scientific Name	Regulatory Status (Federal; State; CNPS; Forest Service)	Habitat Requirements	Potential for Occurrence
		coniferous forest, meadow, seep, and vernal pool habitats	
Carson Range rock cress *Arabis rigidissima* var. *demota*	FSC; --; 1B; --	Broadleaved upland forest and upper montane coniferous forest within rocky well drained soil conditions	YES
Long-petaled lewisia *Lewisia longipetala*	FSC; --; 1B; --	Mesic, rocky sub-alpine coniferous forests and alpine boulder and rock fields	YES
American manna grass *Glyceria grandis*	--; --; 2; --	Wet meadows, ditches, streams, and ponds	YES
Munroe's desert mallow *Sphaeralcea munroana*	--; --; 2; --	Dry, open habitats	YES
WILDLIFE			
INVERTEBRATES			
Lake Tahoe benthic stonefly *Capnia lacustra*	FSC; --; --; --	Endemic to Lake Tahoe; found at depths of 95-400 feet	NO (planning area is outside the known range for this species)
AMPHIBIANS			
Mount Lyell salamander *Hydromantes platycephalus*	FSC; CSC (protected); --; --	Rock outcrops within mixed conifer, lodgepole pine, red fir, and subalpine habitats; distributed from El Dorado County south to Tulare County	NO (planning area is outside the known range for this species)
Mountain yellow-legged frog *Rana muscosa*	FSC; CSC (protected); --; FS:sensitive	Lakes, streams, and ponds in elevations ranging from 1,200 to 7,500 feet	YES
FISH			
Lahontan cutthroat trout *Oncorhynchus clarki henshawi*	FT; --; --; --	Freshwater lakes and streams in eastern California	YES
BIRDS			
Northern goshawk *Accipiter gentillis*	FSC (MNBMC); CSC; (sensitive); --; FS: sensitive	Middle to high elevation mixed coniferous forest habitats	YES
American peregrine falcon	FD (MNBMC); CE (sensitive,	Nests in a wide variety of habitats including	YES

Common Name/ Scientific Name	Regulatory Status (Federal; State; CNPS; Forest Service)	Habitat Requirements	Potential for Occurrence
Falco peregrinus anatum	fully protected); --; --	woodlands, dense coniferous forests, and coastal habitats	
California spotted owl *Strix occidentalis occidentalis*	FSC (MNBMC); CSC; --; FS: sensitive	Old growth forests with multiple layered canopies; associated with mixed coniferous, redwood, and Douglas fir forest habitats	YES
Bald eagle *Haliaeetus leucocephalus*	FT; CE (sensitive, fully protected); --; --	Nests in the northernmost counties of California within dense conifer stands and woodlands	YES
Yellow warbler *Dendroica petechia brewsteri*	--; CSC; --; --	Open canopy coniferous forests up to 8,000 feet (in Sierra Nevada)	YES
Little willow flycatcher *Empidonax traillii brewsteri*	--; CE; --; --	Open wet meadows and riparian habitat; nests in dense willow thickets	YES
Tricolored blackbird *Agelaius tricolor*	SC (MNBMC); CSC; --; --	Nests in emergent wetlands in dense cattails, blackberry, and willows throughout the Central Valley and California coast	NO (planning area is outside the known range for this species)
MAMMALS			
Spotted bat *Euderma maculatum*	FSC; CSC; --; --	Occurs in wide variety of habitats including arid deserts, grasslands, mixed coniferous forests; roosts in rock crevices, cliffs, and caves	YES
Sierra Nevada snowshoe hare *Lepus americanus tahoensis*	FSC; CSC; --; --	Found only in the Sierra Nevada in mixed conifer, subalpine conifer, red fir, Jeffrey pine, lodgepole pine, and aspen forests	YES
Small-footed myotis bat *Myotis ciliolabrum*	FSC; --; --; --	Occurs in a wide variety of habitats; roosts in caves, crevices, and buildings	NO (planning area is outside the known range for this species)
Long-eared myotis bat *Myotis evotis*	FSC; --; --; --	Woodland and forest habitats; known to roost in rock crevices, under bark, and tree snags	YES
Fringed myotis bat *Myotis thysanodes*	FSC; --; --; --	Known to roost in caves, mines, and rock crevices within a variety of habitats	YES

Common Name/ Scientific Name	Regulatory Status (Federal; State; CNPS; Forest Service)	Habitat Requirements	Potential for Occurrence
Long-legged myotis bat *Myotis volans*	FSC; --; --; --	Occurs in woodlands and forest habitats generally over 4,000 feet; roosts in rock crevices, under bark, in tree snags, and cliffs	YES
Yuma myotis bat *Myotis yumanensis*	FSC; CSC; --; --	Occurs in a wide variety of habitats; roosts in caves and rock crevices	YES
Sierra Nevada red fox *Vulpes vulpes necator*	FSC; CT; --; FS: sensitive	Lodgepole pine, mixed conifer, montane riparian, and ponderosa pine forests within the Sierra Nevada	YES
Pacific fisher *Martes pennanti pacifica*	FSC; CSC (full species); --; FS: sensitive	Dense, closed canopy coniferous forests and riparian habitats in the Sierra Nevada, Cascades, and Klamath Mountains	YES
Pale Townsend's big-eared bat *Corynorhinus townsendii pallescens*	FSC (full species); CSC (full species); FS: sensitive (full species)	Occurs in a wide variety of habitats, with the exception of alpine and sub-alpine habitats; known to roost in caves, buildings, and tunnels	YES
California wolverine *Gulo gulo luteus*	FSC; CT (fully protected); --; FS: sensitive	Mixed conifer, red fir, and lodgepole forests	YES
Sierra Nevada mountain beaver *Aplodontia rufa californica*	FSC; CSC; --; --	Dense growth forests within the Sierra Nevada mountain range	YES
Pine marten *Martes americana*	--; --; --; FS: sensitive	Various habitats along the north coast and within the Sierra Nevada, Klamath, and Cascades mountain ranges	YES

FE = federal endangered FT = federal threatened FSC = federal species of concern D = delisted

CE = state endangered CT = state threatened CR = state rare CSC = California species of special concern 1B = CNPS list plants rare, threatened, or endangered in California or elsewhere 2 = CNPS lists plants rare, threatened, or endangered in California, but more numerous elsewhere

FS = US Forest Service Sensitive MNBMC = Migratory Nongame Birds of Management Concern

Source: Foothill Associates

Listed and special-status species that are known to occur, or may potentially occur within the Plan area are discussed below. These species were considered for this analysis based on field surveys and review of the CNDDB database, USFWS species lists for the Martis Valley vicinity, CNPS literature, and existing documentation for the Martis Valley vicinity. Additionally, the Tahoe National Forest (TNF) was contacted to identify recent species observations within the Martis Valley (Kris Boatner, Pers. Com.).

Listed and Special-Status Plants

The CNDDB lists 7 special-status plant species as occurring within ten miles of the planning area. Based on literature review, soil analysis, and species range information, suitable habitat for 6 of these species [Donner Pass buckwheat (*Eriogonum umbellatum* var. *torreyanum*), Plumas ivesia (*Ivesia sericoleuca*), Carson Range rock cress (*Arabis rigidissima* var. *demota*), long-petaled lewisia (*Lewisia longipetala*), American manna grass (*Glyceria grandis*), and Munroe's desert mallow (*Sphaeralcea munroana*)] occurs within the planning area. Additionally, Truckee barberry (*Berberis sonnei*) is listed in the USFWS species list and this species is discussed below.

Donner Pass Buckwheat (Eriogonum umbellatum var. torreyanum)

Donner Pass buckwheat is a federal species of concern and is also listed as a CNPS 1B species. This species occurs in volcanic soils within rocky meadows and upper montane coniferous forests. Donner Pass buckwheat typically occurs in sparsely vegetated habitats in elevations ranging between 6,041-8,602 feet above MSL (Skinner & Pavlik, 1994). Five records of this species are listed with the CNDDB within ten miles of the Plan area. Although this species is currently known from fewer than ten occurrences, potential habitat is present in the Martis Valley and, consequently, this species could occur within the Plan area.

Plumas Ivesia (Ivesia sericoleuca)

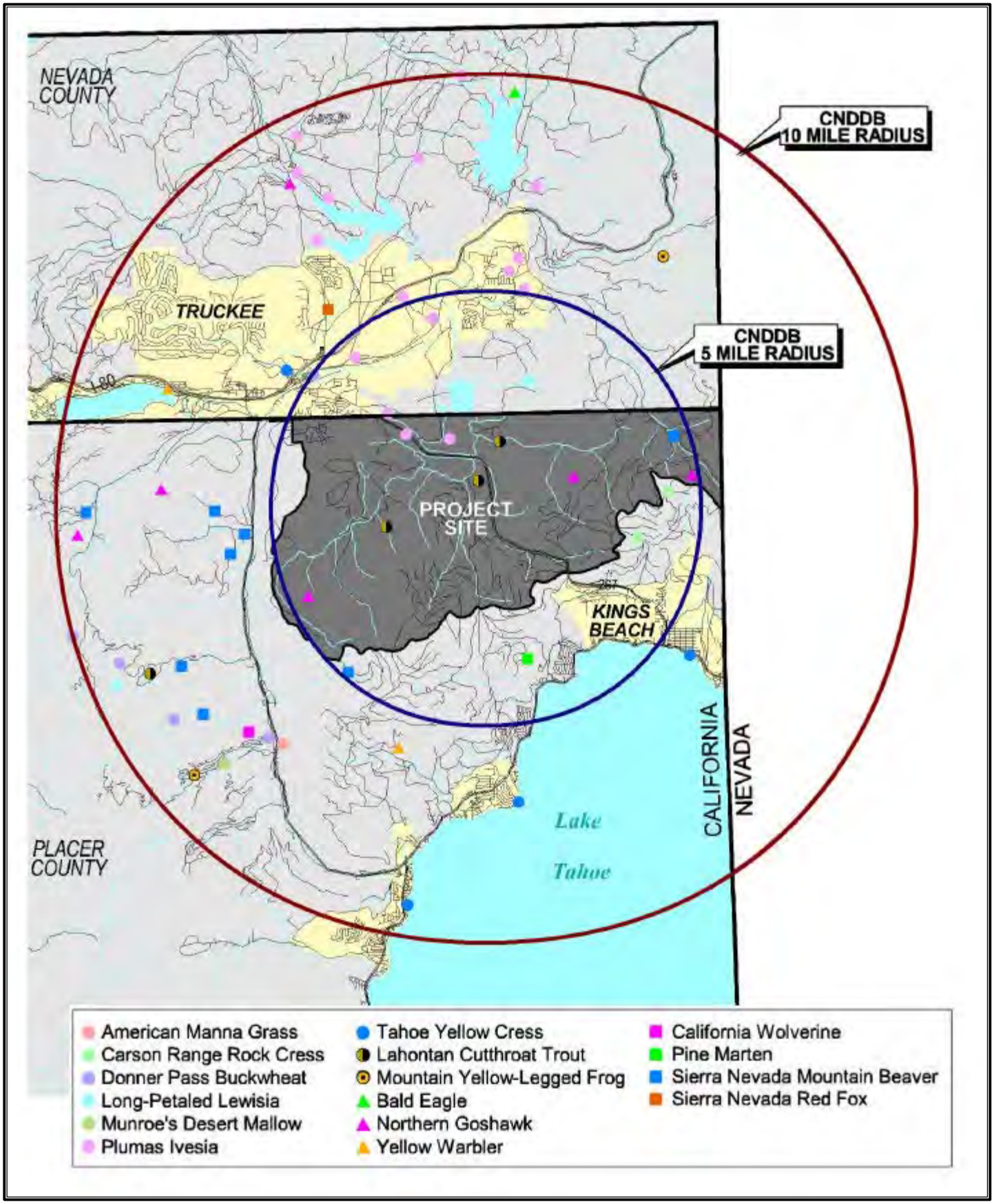
Plumas ivesia is listed with the CNPS as a 1B species. This plant occurs in vernally mesic conditions within Great Basin sage scrub, lower coniferous forest, meadow, seep, and vernal pool habitats (Skinner & Pavlik, 1994). Fourteen records of this species are listed with the CNDDB outside of the Plan area and two populations consisting of approximately 300 and 1,000 individuals were listed in 1986 with the CNDDB within the Plan area (CNDDB, 2001). These populations were identified along SR 267 within the Plan area and populations have been identified on the proposed Hopkins Ranch site. Additional areas supporting suitable habitat for this species are present within the Plan area and this species may occur in these locations.

Carson Range Rock Cress (Arabis rigidissima var. demota)

Carson Range rock cress is a federal species of concern and is a CNPS 1B species. This species occurs in broadleaved upland forests and upper montane coniferous forests within rocky well-drained soil conditions (Skinner & Pavlik, 1994). Carson Range rock cress grows at elevations ranging between 7,403 and 8,405 feet above MSL (CNDDB, 2001). This species is known from two locations within California approximately one mile from the southeastern Plan area boundary (CNDDB, 2001). Suitable habitat for this species occurs in the Plan area and, consequently, this species could occur here.

Long-petaled Lewisia (Lewisia longipetala)

Long-petaled lewisia is a federal species of concern and is CNPS listed with a 1B status. This species occurs in mesic, rocky sub-alpine coniferous forests and alpine boulder and rock fields. Sub-alpine forests occur in elevations ranging from 7,880 to 10,015 feet above MSL and are present in several areas within the planning area (Skinner & Pavlik, 1994). Long-petaled lewisia is



PMC

SOURCE: FOOTHILL ASSOCIATES, 2001

FIGURE 4.9-3
CNDDB SEARCH

known from fewer than twenty occurrences, however one record of this species is listed with the CNDDB approximately ten miles from the Plan area (CNDDB, 2001). As a result, this species could occur in suitable habitats within the Plan area.

American Manna Grass (Glyceria grandis)

American manna grass is a CNPS list 2 species typically found in wet meadows, ditches, streams, and ponds. This species occurs at lower elevations ranging from 50-6,500 feet above MSL (CNDDB, 2001). One occurrence of this species is listed in the CNDDB within ten miles of the Plan area vicinity. This observance was recorded in 1934 however this population is presumed extant (CNDDB, 2001). Suitable habitat for this species exists within the Plan area and this species could occur here.

*Munroe's desert mallow (*Sphaeralcea munroana*)*

Munroe's desert mallow is a CNPS list 2 species. This species occurs in dry open habitats and is listed in the CNDDB as occurring within 10 miles of the Plan area. This record is from 1922 and has not been recently verified (CNDDB, 2001). The Great Basin sage brush, montane chaparral, and ruderal habitats within the Plan area may provide suitable habitat conditions for this species and this species could occur in these locations.

Listed and Special-Status Animals

Discussed below are the special-status wildlife species that have the potential to occur within the planning area. The CNDDB lists 9 special-status wildlife species as occurring within ten miles of the Plan area. Potential habitat for all 9 species, Lahontan cutthroat trout (*Oncorhynchus clarki*), mountain yellow-legged frog (*Rana muscosa*), bald eagle (*Haliaeetus leucocephalus*), northern goshawk (*Accipiter gentillis*), yellow warbler (*Dendroica petechia brewsteri*), California wolverine (*Gulo gulo luteus*), Sierra Nevada red fox (*Vulpes vulpes necator*), pine marten (*Martes americana*), and Sierra Nevada mountain beaver (*Aplodontia rufa californica*), exists within the planning area. Four additional special-status species recorded in the USFWS species lists for the Truckee, Martis Peak, Tahoe City, and Kings Beach quadrangles have the potential to occur within the planning area. These species include American peregrine falcon (*Falco peregrinus anatum*), California spotted owl (*Strix occidentalis occidentalis*), Sierra Nevada snowshoe hare (*Lepus americanus tahoensis*), and Pacific fisher (*Martes pennanti pacifica*). Little willow flycatcher (*Empidonax trailli brewsteri*) is known from the Lake Tahoe basin and is listed in the USFWS species list for this region. These species, in addition to raptors and other migratory birds, are protected by state and/or federal resource agencies and are discussed below. Additionally, numerous species of bats listed in the USFWS species list, including spotted bat (*Euderma maculatum*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), long-legged myotis (*Myotis volans*), Yuma myotis (*Myotis yumanensis*), and Pale Townsend's big-eared bat (*Corynorhinus townsendii pallescens*), are known from the vicinity of the Plan area and are discussed below.

*Lahontan Cutthroat Trout (*Oncorhynchus clarki*)*

Lahontan cutthroat trout, a federally-listed threatened species, occurs in freshwater lakes and streams in eastern California. Historically, this species' range spanned Nevada, Placer, El Dorado, Alpine, and Mono Counties. Extant populations of this species in the Martis Valley area occur Pole Creek, Independence Creek, Independence Lake and in the Truckee River and related tributaries (USFWS, 1995). Truckee River populations have been historically monitored and stocked by the USFWS and CDFG (John Hiscox, Pers. Com.). This species tolerates varying stream conditions, however it does not typically occur in streams utilized by other salmonids (CNDDB, 2001). U.S. Fish and Wildlife Service is currently preparing a new recovery plan for the

Lahontan Cutthroat trout. Martis Creek, Monte Carlo Creek, Juniper Creek, and the other unnamed streams within the Martis Valley area are tributaries to the Truckee River and support potential spawning habitat conditions for the Lahontan cutthroat trout. The Lahontan cutthroat trout typically spawn from April to July. In the project vicinity, 3 records of this species are listed in the CNDDB from Martis Creek (two records) and Pole Creek (one record). However, the CNDDB identifies all these occurrences as being extirpated. There are historic accounts of cutthroat trout within the Martis Creek drainage, and suitable habitat is present within the tributaries of Martis Creek (DFG 2000). However, these waterways are intermittent and there are various potential fish barriers (e.g., fallen logs, downcuts) between the project area and lower stream reaches as well as other competition with other trout species and interbreeding with other trout species. Therefore this species is considered to have a low potential to occur within waters in the Plan area.

*Bald Eagle (*Haliaeetus leucocephalus*)*

The bald eagle is federally-listed as threatened and state listed as endangered. However, this species is currently proposed for federal delisting. This species nests in the northernmost counties of California within dense conifer stands and woodlands. Additionally, scattered small populations are found near reservoirs in the central portion of the state. Nest locations are restricted to areas within close proximity to permanent water sources (Zeiner *et. al.*, 1990a). Historically, this species was known from the Martis Valley (USFWS, 2001) and one record for this species is recorded near Boca Reservoir (CNDDB, 2001). Suitable bald eagle nesting and wintering habitat exists within the Martis Valley and this species may utilize suitable habitats within the Plan area. However, given the Plan area's distance from large water bodies, the potential for this species to occur is considered low.

*Northern Goshawk (*Accipiter gentillis*)*

Northern goshawks are a species of concern to federal and state resource agencies and are a USFS sensitive animal. This species frequents middle to high elevation mixed coniferous forest habitats although it prefers dense stands of lodgepole pines on north-facing slopes near water for nesting (Zeiner *et. al.*, 1990a). Northern goshawks forage in mixed coniferous forests, habitats widespread throughout the Sierra Nevada. Six records of this species are listed with the CNDDB within a ten-mile radius of the Martis Valley vicinity, 3 of which are located within the Plan area (CNDDB, 2001). TNF records indicate that two additional northern goshawk nest sites are located within ten miles of the Plan area. Biological surveys performed for the Siller Ranch site observed adult birds near Martis Creek in September 1999, but active nests were identified (Jones & Stokes, 2001). Suitable nesting, foraging, and wintering habitat for this species occurs within the Plan area and this species is known to utilize this habitat.

*Yellow Warbler (*Dendroica petechia brewsteri*)*

Yellow warblers are a species of special concern to the CDFG. This migratory species arrives in California in April and typically leaves the northern California region by October. In the Sierra Nevada, this species occurs in open canopy coniferous forests up to 8,000 feet above MSL. Shrubs or saplings provide suitable nesting habitat for this species (Zeiner *et. al.*, 1990a). Two yellow warbler records (CNDDB, 2001) are listed within ten miles of the Plan area and suitable habitat for this species exists here; consequently, this species may occupy this region.

*California Wolverine (*Gulo gulo luteus*)*

California wolverine is a species of concern to federal resource agencies and is listed in California as threatened. This species is also on the "sensitive" species USFS list. In the northern Sierra Nevada, wolverines occur in mixed conifer, red fir, and lodgepole forests ranging from

4,300-7,300 feet above mean sea level (MSL) (CNDDB, 2001). This species is listed in the USFWS species list for Martis Valley and the CNDDB lists this species within ten miles of the Plan area vicinity, however, this occurrence is from 1953 (CNDDB, 2001). This species is extremely rare in California and are not expected to be observed in areas near large human populations, however, habitat for this species exists in the Plan area and this species may utilize these habitats.

*Pine Martin (*Martes americana*)*

Pine martins are a "sensitive" species with the USFS. This species occurs in various habitats along the north coast and within the Sierra Nevada, Klamath, and Cascades mountain ranges. This species prefers habitats exhibiting >40% canopy closure and is associated with red fir, lodgepole pine, subalpine conifer, mixed conifer, Jeffrey pine, and eastside pine habitats. This species dens in log, tree, or stump cavities and sometimes burrows under snow adjacent to logs or stumps. Pine martins are sensitive to human disturbance and require habitat with limited human interaction (Zeiner *et. al.*, 1990a). This species is listed in the USFWS species list as historically occurring within the Martis Valley and one sighting of a pine martin is recorded within 5 miles of the Plan area (CNDDB, 2001). Suitable habitat for this species is present within the Plan area.

*Sierra Nevada Mountain Beaver (*Aplodontia rufa californica*)*

The Sierra Nevada mountain beaver is a species of concern to state and federal resource agencies. This species occupies dense growth forests within the Sierra Nevada mountain range and burrows into wet friable soils, requiring an abundant water source. This species is historically known from the Martis Valley (USFWS, 2001) and 8 records of Sierra Nevada mountain beavers are listed with the CNDDB in the Plan area vicinity, one of which is located within the Plan area. Consequently, this species may utilize suitable habitats within the Plan area.

*Mountain Yellow-Legged Frog (*Rana muscosa*)*

Mountain yellow-legged frogs are a species of concern to federal and state resource agencies and are considered a USFS sensitive species. This species is found associated with lakes, streams, and ponds in elevations ranging from 1,200 feet to 7,500 feet above mean sea level (MSL) (Zeiner *et. al.*, 1988). Historically, this species' range spanned the Sierra Nevada and portions of Los Angeles and San Bernadino Counties, however, currently the southern populations of this species are limited to the San Jacinto and San Gabriel Mountains (Jennings *et. al.*, 1994). In northern California this species is currently found throughout the Sierra Nevada from Plumas County southward to Tulare County (Zeiner *et. al.*, 1988). The USFWS lists this species as once occurring in the vicinity of Martis Valley and two records of mountain yellow-legged frog are recorded with the TNF and the CNDDB within ten miles of the Plan area (CNDDB, 2001). However, the presence of eastern brook trout introduced into Martis Creek are effective predators of the frog and have likely reduced the potential of this species occurring in Martis Creek (Jones & Stokes, 2001). Given this species current distribution, habitat requirements, and known occurrences in the Martis Valley mountain yellow-legged frog may utilize the streams (with the exception of Martis Creek) and/or lakes within the Plan area.

*American Peregrine Falcon (*Falco peregrinus anatum*)*

American peregrine falcon is currently state-listed as endangered and was recently removed from the federal endangered species list. This species nests in a wide variety of habitats including woodlands, dense coniferous forests, and coastal habitats. Nests are typically located in close proximity to a water source on cliffs, banks, or dunes. California populations of the peregrine falcon declined in the 1970's due to DDE contamination, however numbers are increasing statewide (Zeiner *et. al.*, 1990a). This species is recorded in the USFWS species list as

having once occurred in the Martis Valley, however the CNDDB lists no recent records of this species within the Plan area. Suitable nesting, foraging, and wintering habitat for this species is present within the Martis Valley and, as a result, this species could occur here.

*California Spotted Owl (*Strix occidentalis occidentalis*)*

California spotted owl is a species of concern to state and federal resource agencies and is a USFS "sensitive" species. This species occurs in old growth forests with multi-layered canopies and is associated with mixed coniferous, redwood, and Douglas fir forest habitats. This species range spans habitats up to 7,600 feet above MSL. While suitable nesting habitat primarily includes cavities in trees or snags, this species is also known to nest in abandoned raptor nests, mistletoe clusters, caves, and cliffs. California spotted owls are a year-round resident of California; however, in mountainous regions, such as the Sierra Nevada, this species may move to lower elevations during winter months (Zeiner *et. al.*, 1990a). According to the USFWS species list, historically this species is known from the Martis Valley vicinity (USFWS, 2001). One record of this species is listed with the TNF within the Plan area (Kris Boatner, Pers. Com.). Suitable foraging and nesting habitat for California spotted owl occurs within the planning area and this species may occupy these habitats.

*Sierra Nevada Snowshoe Hare (*Lepus americanus tahoensis*)*

Sierra Nevada snowshoe hares are a species of concern to state and federal resource agencies. This species, a subspecies of *Lepus americanus*, is restricted to the Sierra Nevada mountain range and population numbers are thought to be low (Zeiner *et. al.*, 1990b). Sierra Nevada snowshoe hares occupy young growth mixed conifer, subalpine conifer, red fir, Jeffrey pine, lodgepole pine, and aspen forests and often utilize habitats characterized with dense understory growth located along forest edges in close proximity to meadows (Zeiner *et. al.*, 1990b). The USWFS species list records this species historically in the Martis Valley vicinity and records from Placer County indicate that this species utilized habitats within the Martis Valley vicinity in the past (USFWS, 2001; Placer County, 1960). Although no recent records of the Sierra Nevada snowshoe hare are listed with the CNDDB, suitable habitat for this species is present within the Plan area and this species may occur here.

*Sierra Nevada Red Fox (*Vulpes vulpes necator*)*

The Sierra Nevada red fox is a federal species of concern and is listed in California as threatened. This species is also a USFS "sensitive" species. This species is typically found in higher elevations (>7,000 feet above MSL) but is known to occur in elevations as low as 3,900 feet above MSL. Sierra Nevada red fox occurs in a variety of habitats, including lodgepole pine, mixed conifer, montane riparian, and ponderosa pine forests within the Sierra Nevada mountain range. This species requires dense vegetation for cover and prefers habitats adjacent to meadows for hunting. The Sierra Nevada red fox dens in rock outcrops and hollow logs and is known to burrow in friable soils. Population numbers of this species are declining and this species is rare throughout its range (Zeiner *et. al.*, 1990b). Historically, this species occurred throughout the Martis Valley (USFWS, 2001). One observance of the Sierra Nevada red fox is listed with the CNDDB directly north of the Plan area vicinity (CNDDB, 2001). Consequently, this species may occupy undisturbed habitats within the Plan area, but are not expected to be observed in areas near large human populations.

*Pacific Fisher (*Martes pennanti pacifica*)*

Pacific fishers are a species of concern to state and federal resource agencies. This species is also listed "sensitive" with the USFS. This species is found in dense, closed canopy coniferous forests and riparian habitats in the Sierra Nevada, Cascades, and Klamath Mountains. This

species dens in hollow logs, trees, and snags within dense closed canopy forests (Zeiner *et. al.*, 1990b). No records of this species are listed with the CNDDB (CNDDB, 2001) in the vicinity of the Plan area; however, this species was identified in the USFWS species list as having once occurred in the Martis Valley (USFWS, 2001). Suitable habitat for this species exists in the Plan area and this species may occur here. However, the fisher has been identified as being extirpated from the central Sierra Nevada (Jones & Stokes, 2001).

*Little Willow Flycatcher (*Empidonax traillii brewsteri*)*

Little willow flycatchers are a state-listed endangered species. This species breeds in the Sierra Nevada from May to September in elevations ranging from 2,000-8,000 feet above MSL. Little willow flycatchers occupy open wet meadows and riparian habitats. Suitable nesting habitat consists of dense willow thickets (Zeiner *et. al.*, 1990a). According to the USFWS species list (USFWS, 2001), this species once occurred in the Lake Tahoe basin and may still occupy suitable habitat within this vicinity. Four records of this species are listed with the TNF within ten miles of the planning area. Because this species is known from the Martis Valley region and suitable habitat exists within the Martis Valley, little willow flycatcher may utilize appropriate habitats in the Plan area.

Raptors

Numerous raptor species, including red-tailed hawk (*Buteo jamaicensis*), Northern goshawk, Coopers hawk (*Accipiter cooperii*), and sharp-shinned hawk (*Accipiter striatus*), forage and nest in the Sierra Nevada. Raptor nests are protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the California Fish and Game Code. The montane riparian, red fir, and mixed coniferous forest habitats within the planning area support potential nesting habitat for numerous raptor species. Sharp-shinned hawk and Cooper's hawks were observed on the Siller Ranch site in 1999 and 2000 (Jones & Stokes, 2001). Consequently, raptor species likely forage and nest within the Plan area.

Other Migratory Birds

Migratory birds forage and nest in multiple habitats such as oak woodlands, grasslands, riparian woodlands, and coniferous forests. The nests of all migratory birds are protected under the MBTA, which makes it illegal to destroy any active migratory bird nest. Numerous migratory bird species have the potential to nest within the planning area.

Bats

Several bat species, including spotted bat, long-eared myotis, fringed myotis, long-legged myotis, Yuma myotis, and Pale Townsend's big-eared bat, are species of special concern to state and federal resource agencies. Habitat ranges for these species are widespread throughout California however many of these species are rare within these habitats (Zeiner *et. al.*, 1990b). Habitat for bat species consists of foraging habitat, night roosting cover, maternity roost sites, and winter hibernacula. These bat species may forage within montane riparian scrub, montane meadow, mixed coniferous forest, and red fir forest habitats within the Plan area. Suitable roosting sites within these habitats include caves, rock crevices, cliffs, buildings, and snags. Because potentially suitable day, night, maternity, and winter roosting habitat exists in the montane riparian scrub, mixed coniferous, and red fir forest habitats within the planning area, some or all of these bat species may utilize these habitats.

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code, or Section 404 of the Clean Water Act. Additionally, sensitive habitats are protected under the specific local objectives and policies listed in the Placer County and Martis Valley General Plans. Sensitive habitats within the Plan area include jurisdictional waters of the U.S., which include streams, montane meadows, and Martis Creek Lake; wildlife movement corridors; and riparian habitats. These habitats are discussed below.

Jurisdictional Waters of the U.S.

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Boundaries between jurisdictional waters and uplands are determined in a variety of ways depending on which type of waters is present. Methods for delineating wetlands and non-tidal waters are described below.

- Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Presently, to be a wetland, a site must exhibit 3 wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the "normal circumstances" for the site.

- The lateral extent of non-tidal waters is determined by delineating the ordinary high water mark (OHWM) [33 C.F.R. §328.4(c)(1)]. The OHWM is defined by the Corps as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

Potential jurisdictional waters of the U.S. within the Plan area include Martis Creek and associated tributaries, Monte Carlo Creek, Juniper Creek and associated tributaries, Martis Creek Lake, Gooseneck Lake, and montane meadows. **Figure 4.9-4** identifies potential jurisdictional waters of the U.S. within the Plan area. Additional water features considered jurisdictional by the Corps, such as wetlands, ponds, or intermittent drainages, occur within the Plan area. An official Corps delineation of the Plan area would result in the identification of such features.

Wildlife Movement Corridors

Wildlife movement corridors are established migration routes frequently utilized by wildlife that provide shelter and sufficient food supplies to support wildlife species during migration. Movement corridors generally consist of meadow, riverine, woodland, or forested habitats that span contiguous acres of undisturbed habitat. Additionally, movement corridors provide habitat for resident wildlife, enabling these species to move within areas of undisturbed habitats. Wildlife movement corridors are an important element of resident species home ranges, including black bear, mountain lion, and coyote, as well as migratory species populations, such as mule deer. As a result, wildlife movement corridors are considered a sensitive resource with the CDFG and Placer County.

Historically, resident and migratory wildlife movement in the Martis Valley was not restricted, as a majority of the valley was undeveloped. However, as development rates increased within Martis

Valley and the surrounding vicinity (e.g., Town of Truckee), the continuity of large areas of undisturbed land has decreased resulting in limited movement corridors in the Martis Valley. According to the existing development conditions within Martis Valley, 3 major undeveloped open space corridors remain in the Plan area (see **Figure 4.9-5**). These open space corridors are critical to the movement of local and migratory wildlife species (Jeff Finn, Pers. Com.).

In addition to providing dispersal habitat for resident wildlife, the open space corridors within Martis Valley function as migration corridors for the Verdi subunit of the Loyalton-Truckee deer herd (*Odocoileus hemionus hemionus*). This herd migrates annually from Nevada along the Truckee River and disperses into the Martis Valley in the spring. Known fawning habitat for this herd occurs near Dry Lake and near Lookout Mountain, in the southwest planning area vicinity (Placer County, 1999; Pencovic and Brown, 1990). The herd leaves the fawning area in the fall, returning to Nevada (see **Figure 4.9-5**).

A recent study conducted by Jones and Stokes utilized existing Caltrans deer kill data to identify 3 primary deer crossings along SR 267 (Jones & Stokes, 2001). These crossings are located at (1) Nevada County post mile 2.5-2.7; (2) Placer County post mile 1.0; and (3) Placer County post mile 1.5 (Jones and Stokes, 2001) (see **Figure 4.9-5**). Between 1979 and 1999, Caltrans recorded 37 deer fatalities along SR 267 in the Plan area during migration. Existing residential and commercial development along SR 267 appear to restrict deer movement along SR 267. The open valley portion of the Plan area is not expected to be a major corridor because the vegetation does not provide adequate cover for deer. Deer kill data along this portion of SR 267 supports this conclusion. Based on deer kill data, the major deer crossing of SR 267 is along the northern edge of the Truckee-Tahoe Airport in Nevada County at milepost 2.5 to 2.7. There are also a substantial number of deer crossings at Placer County milepost 1.0 and 1.5.

On the south side of SR 267, spring and fall movement of the herd appears to be confined to the 3 major corridors in the Plan area (see **Figure 4.9-5**). These corridors generally correspond with existing Caltrans and CDFG deer migration data for Loyalton-Truckee deer herd (Pencovic and Brown, 1990; CDFG, 1984) as well as the results of on-site deer surveys for Siller Ranch (Jones & Stokes, 2001). Deer migration corridors generally follow major topographic features such as drainages (Martis Creek), ridgelines, and the bases of major slopes or prominent hills. The location of corridors on these major topographic features can be influenced by vegetation and the seasonal cover and forage requirements of the migratory deer (Jones & Stokes, 2001). Based on surveys conducted on the Siller Ranch site, deer movement within the 3 identified corridors is correlated to browse species preferred by deer (e.g., antelope bitterbrush, service berry and snow berry) as well as cover and water (Martis Creek) (Jones & Stokes, 2001).

Riparian Habitat

Riparian habitats support a diverse assemblage of plant species and provide shelter, foraging, and breeding habitat, for numerous species of wildlife. Riparian habitats are not afforded special protection under federal law, however these habitats are considered special resources in Placer County and are protected under the Placer County General Plan (see relevant sections within the general plan below). Additionally, the continued decline of riparian habitats is of concern to the CDFG.

4.9.3 PROJECT IMPACTS AND MITIGATION MEASURES

METHODOLOGY

Document Review

Available information pertaining to the natural resources of the Plan area was reviewed. These documents include: Martis Valley General Plan (Placer County, 1974); Martis Valley Community Plan: Technical Supplement and Environmental Impact Report (Placer County, 1974); Placer County General Plan (Placer County, 1994); the California Natural Diversity Data Base (CNDDB: Truckee, Martis Peak, Tahoe City, and Kings Beach quadrangles, April, 2001); the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (Skinner and Pavlik, 1994); a list of special-status plant and wildlife species from the U.S. Fish and Wildlife Service (USFWS) for the Truckee, Martis Peak, Tahoe City, and Kings Beach quadrangles (USFWS, August 2001); the Jepson Manual: Higher Plants of California (Hickman, 1993); Biological Resources Assessment for the 480-acre Eaglewood Project (Glazner Environmental Consulting, 1999); Evaluation of Key Biological Resources on Hopkins Ranch (Jones & Stokes, 2001); and the Evaluation of Biological Resources on Siller Ranch (Jones & Stokes, 2001). Additionally, data was analyzed from the USFS Remote Sensing Lab, the TNF and previously prepared EIRs for projects in Martis Valley.

Field Reconnaissance

Key locations within the Plan area were surveyed intermittently from May 2000, during the preparation of the background report, to July 2001. Field investigations included general plant and wildlife surveys focusing on areas within the planning area with the potential to support special-status species and sensitive habitats. Recent color aerial photography of the planning area was also examined to identify biological resources and map vegetation types.

STANDARDS OF SIGNIFICANCE

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. A biological resource impact is considered significant if implementation of the project would result in any of the following:

1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as an endangered, threatened, or rare species or their habitats (including, but not limited to, plants, fish, insects, animals, and birds);

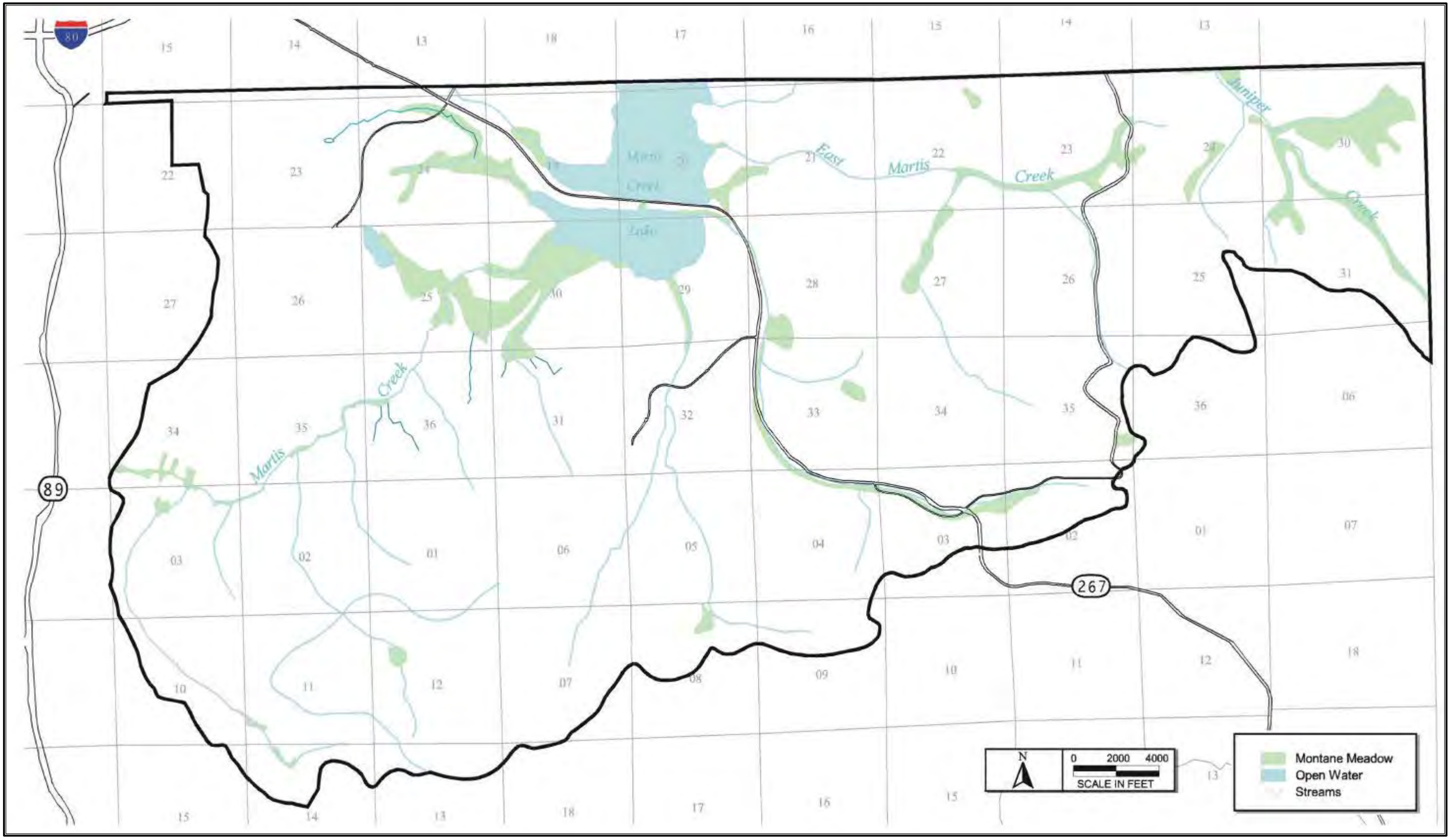
2) Have a substantial adverse effect on locally occurring natural communities (e.g., oak woodlands, mixed conifer, annual grasslands, etc.); or

3) Have a substantial adverse effect on significant ecological resources including:

   a) Wetland areas;

   b) Stream environment zones;

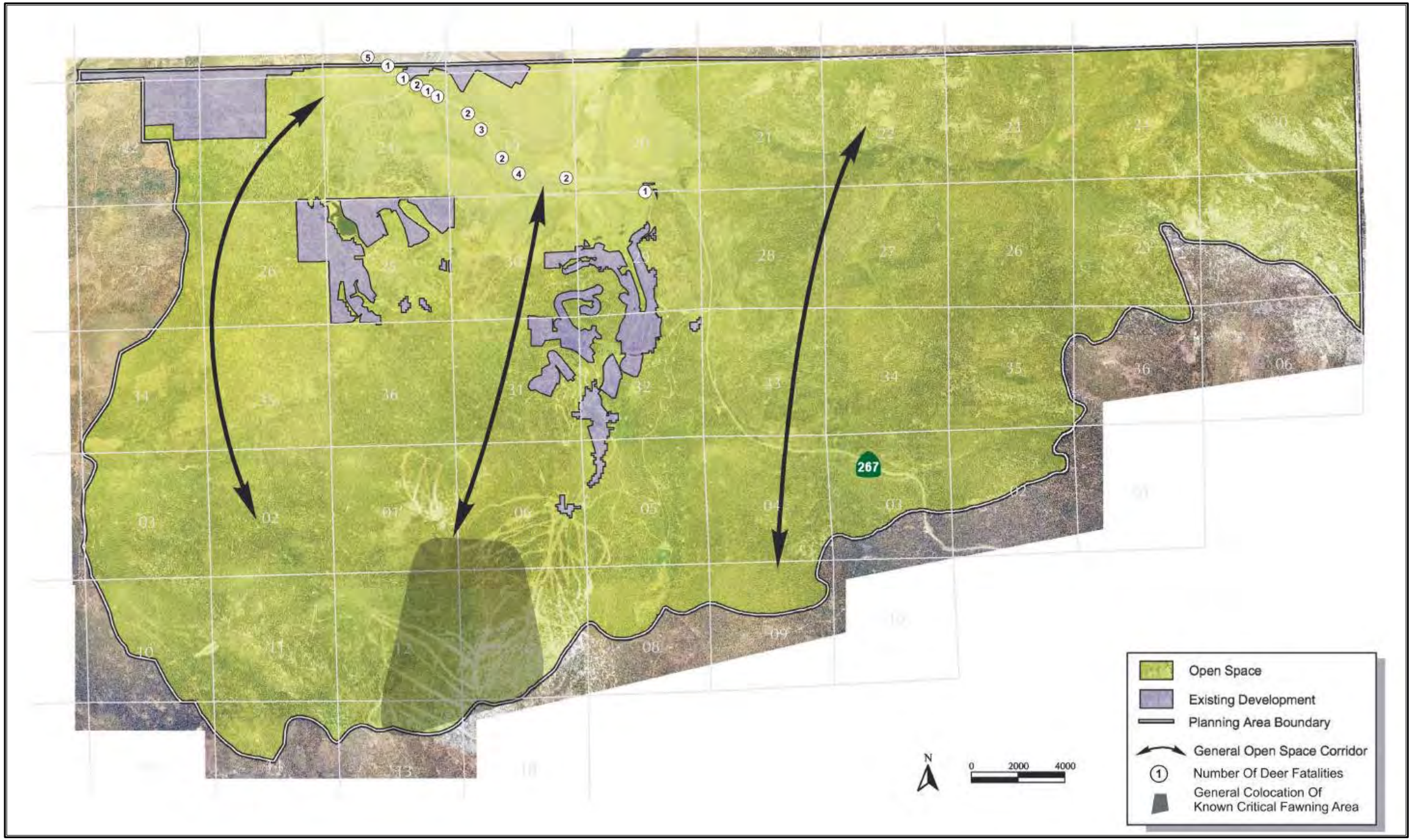
   c) Critical deer migratory routes, and fawning habitat;



PMC

SOURCE: FOOTHILL ASSOCIATES, 2001

FIGURE 4.9-4
JURISDICTIONAL WATERS OF THE U.S.



PMC

SOURCE: FOOTHILL ASSOCIATES, 2001; JONES & STOKES, 2001

FIGURE 4.9-5
OPEN SPACE CORRIDORS

d) Large areas of non-fragmented natural habitat that provides habitat to endangered, threatened, or rare species, or is considered critical habitat by federal, state and/or local governmental agencies; or

e) Identifiable wildlife movement zones.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important, but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide or region-wide basis.

APPROACH TO BIOLOGICAL RESOURCE IMPACT ANALYSIS

The following analysis of impacts is based on the implementation of the proposed Martis Valley Community Plan policy document and the Proposed Land Use Diagram (PP) and three land use map Alternatives (AA, AB, and AC). For the purposes of this discussion, full build out of proposed land use designations is assumed to calculate maximum direct impact to biological resources. To a much lesser extent, forest land uses would experience some human disturbance; however, the parcels within forest land are anticipated to be selectively logged and much of this habitat will likely remain largely undisturbed. In addition, a majority of this are is zoned "Timber Production", which restricts residential, commercial and recreational development. Consequently, forest parcels are considered separate impacts from those caused by implementation of the Martis Valley Community Plan.

Under current Placer County policy, open space areas within the Plan area are permitted to be utilized for recreational uses, such as golf courses, trails and parks. These uses result in direct disturbance of natural vegetation as well as indirect impacts from increased human presence in these areas. The impact analysis takes into account proposed and conceptual plans for future golf courses, trail extensions and other recreational uses.

Calculations for vegetation communities are based on the data received from the USFS remote sensing lab and the TNF, aerial photography, and field reconnaissance. Acreage calculations provided for each land use map option are associated with direct impacts from substantial development as reflected in each land use map. These calculations are approximate and do not take into account conceptual future ski terrain expansions under consideration by Northstar-at-Tahoe, or indirect impacts associated with roadway and trail expansions. These calculations are also only appropriate for community planning only. When specific project boundaries are defined within each parcel, site specific reconnaissance should be conducted to determine if additional communities are present within the site.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 4.9.1 Disturbance to Common Plant Communities

PP Subsequent development under the Proposed Land Use Diagram would result in the loss of vegetation types common in the region. This would be a **less than significant** impact.

AA Subsequent development under the Existing Martis Valley General Plan Land Use Map would result in the loss of vegetation types common in the region. This would be a **less than significant** impact.

AB Subsequent development under the Alternative 1 Land Use Map would result in the loss of vegetation types common in the region. This would be a **less than significant** impact.

AC Subsequent development under the Alternative 2 Land Use Map would result in the loss of vegetation types common in the region. This would be a **less than significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Common plant communities, including mixed conifer forest, red fir forest, Great Basin sage scrub, montane chaparral, and ruderal habitats, occur throughout the Plan area. **Figures 4.9-6** through **4.9-9** identify the estimated impacts to vegetation communities associated with the Proposed Land Use Diagram and Alternatives AA, AB, and AC. As previously identified, it is acknowledged that approximately 512 acres of land designated as open space under the Proposed Land Use Diagram and Alternative 2 would likely include the development of golf courses on approximately 512 acres associated with the Hopkins Ranch, Eaglewood, Siller Ranch and Waddle Ranch properties. Additional losses of these habitat types would also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, potential expansion of ski terrain at Northstar-at-Tahoe.

Mixed conifer forest, red fir forest, Great Basin sage scrub, montane chaparral, and ruderal habitats are widespread throughout the Sierra Nevada and currently receive no protection from federal, state, or local resource agencies. Therefore, this impact is considered less than significant for the Proposed Land Use Diagram and Alternatives AA, AB and AC.

Policies and Implementation Programs

It should be noted that the proposed Community Plan includes the following policies that would ensure common habitat loss is minimized.

Policy 9.E.1 *The County shall encourage landowners and developers to manage the integrity of existing terrain and native vegetation in visually-sensitive areas such as mountainsides, ridges, and along important transportation corridors consistent with fire safety standards. (Note: See also fire safe standards, Goal 5.H., and related Policies.)*

Policy 9.E.3 *The County shall support the conservation of a healthy forest including outstanding areas of native vegetation, including, but not limited to, open meadows, riparian areas, Great Basin Sage Scrub, Mixed Coniferous Forest, Montane Chaparral, Montane Meadow, and Red Fir Forest.*

Policy 9.E.4 *The County shall encourage the preservation of landmark trees and major groves of native trees, which have special characteristics or serve an important function such as historical interest, visual screening, shading of creeks or slope stability. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.*

Policy 9.E.5 *The County shall seek to preserve areas where rare, threatened, and endangered plant species identified as potentially occurring that may be adversely affected by public or private development projects.*

Policy 9.E.6 *The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.*

Policy 9.E.7 *The County shall encourage the planting of native trees, shrubs, and herbaceous species and in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.*

Policy 9.E.8 *The County shall support the continued use of prescribed burning and other methods of brush suppression to mimic the effects of natural fires to reduce fuel volumes and associated fire hazard to human residents and to enhance the health of biotic communities*

Policy 9.E.9 *The County shall support the preservation of native trees and the use of native seed sources and seedlings and drought-tolerant plant materials in all revegetation/landscaping projects.*

Policy 9.E.10 *The County shall require that new development avoid ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas and heritage trees should be protected through public acquisition of fee title or conservation easements to ensure protection.*

Policy 9.E.11 *The County shall encourage the continued use of commercially viable timberlands for timber production and other multiple use functions. Conversion of such lands to other uses is discouraged.*

Mitigation Measure

None required.

Impact 4.9.2 Disturbance to Common Wildlife

PP Subsequent development under the Proposed Land Use Diagram would result in the disturbance and potential loss of wildlife species common in the region. This would be a **less than significant** impact.

AA Subsequent development under the Existing Martis Valley General Plan Land Use Map would result in the disturbance and potential loss of wildlife species common in the region. This would be a **less than significant** impact.

AB Subsequent development under the Alternative 1 Land Use Map would result in the disturbance and potential loss of wildlife species common in the region. This would be a **less than significant** impact.

AC Subsequent development under the Alternative 2 Land Use Map would result in the disturbance and potential loss of wildlife species common in the region. This would be a **less than significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

As described in Section 4.9.1, numerous resident and migratory wildlife species utilize habitats within the Martis Valley for foraging, shelter, and breeding. Development under the Proposed

Land Use Diagram and Alternatives AA, AB and AC would result of the loss of habitat for these species. This disturbance to common wildlife could be further increased from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe. While some resident wildlife species would adapt to and live within developed conditions, several species would be displaced and would have to complete with existing resident populations in adjoining areas for resources. However, these species currently receive no protection from federal, state, or local resource agencies and are considered abundant. Therefore, this impact is considered **less than significant** for AA, AB and AC.

Policies and Implementation Programs

It should be noted that the proposed Community Plan includes the following policies that would ensure that impacts to common wildlife species is minimized.

Policy 9.G.1 *The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:*

a. Wetland areas.

b. Stream environment zones.

c. Identified habitat of rare, threatened or endangered animals or plants.

d. Critical deer winter ranges, migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including all habitat types in the Martis Valley Plan area.

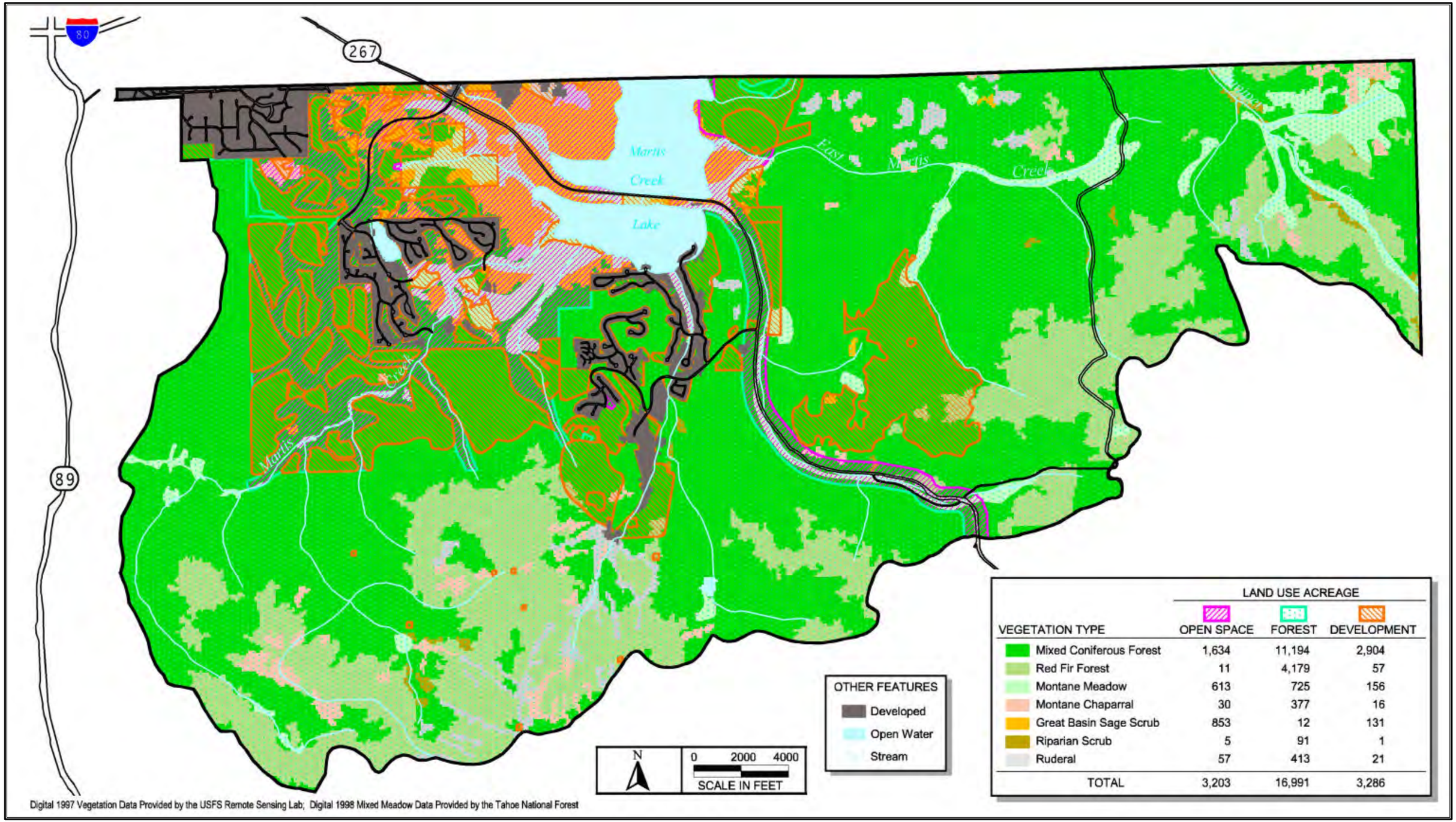
f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

g. Martis Lake and its tributaries.

Policy 9.G.2 *The County shall require the control of residual pesticides, herbicides, and related chemicals such as those used on golf courses, to prevent potential damage to water quality, vegetation, and wildlife.*

Policy 9.G.3 *The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.*

Policy 9.G.5 *The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.*

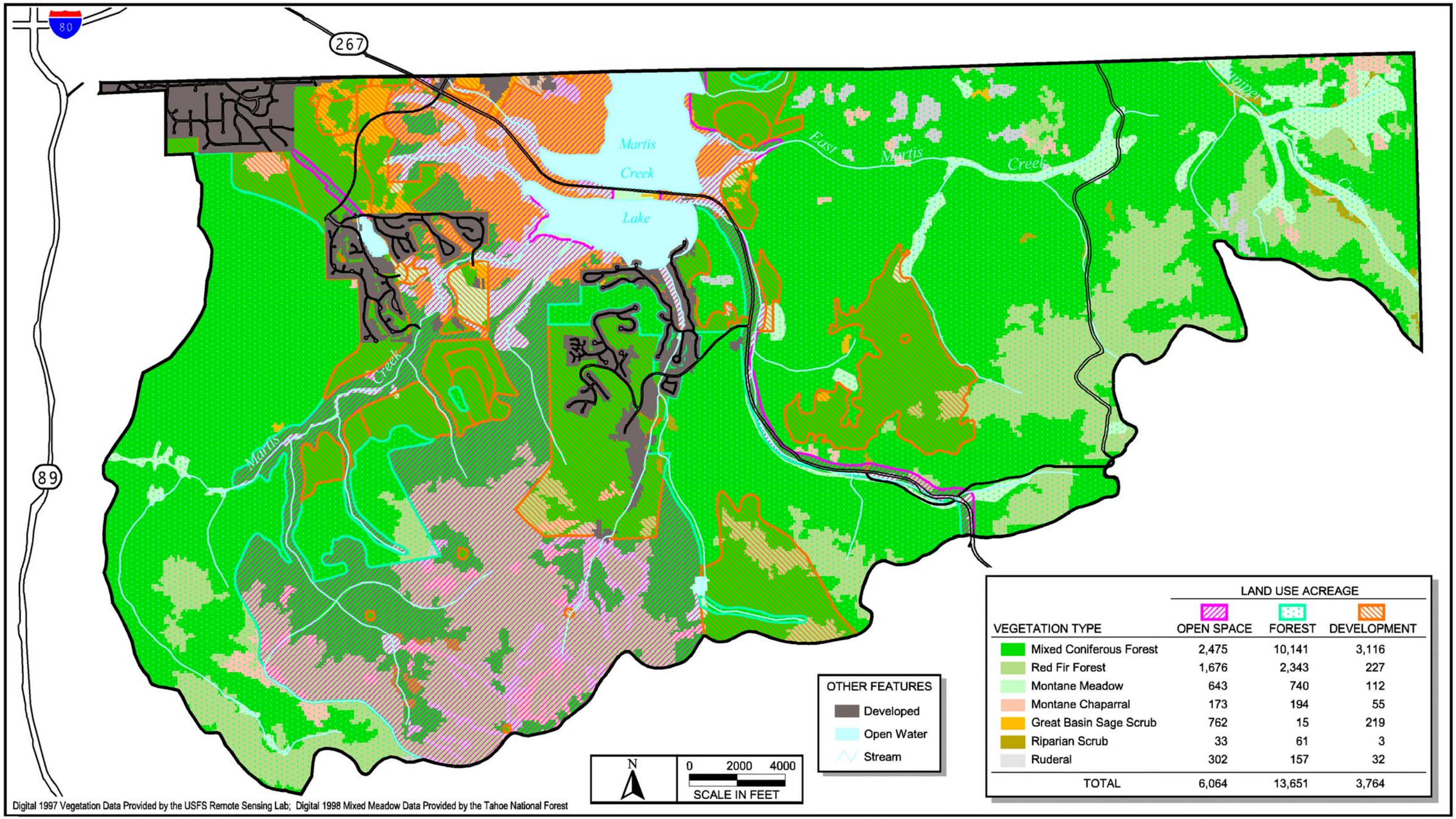


VEGETATION TYPE	LAND USE ACREAGE: OPEN SPACE	FOREST	DEVELOPMENT
Mixed Coniferous Forest	1,634	11,194	2,904
Red Fir Forest	11	4,179	57
Montane Meadow	613	725	156
Montane Chaparral	30	377	16
Great Basin Sage Scrub	853	12	131
Riparian Scrub	5	91	1
Ruderal	57	413	21
TOTAL	3,203	16,991	3,286

PMC

SOURCE: FOOTHILL ASSOCIATES, 2002

FIGURE 4.9-6
VEGETATION IMPACTS OF THE PROPOSED LAND USE DIAGRAM

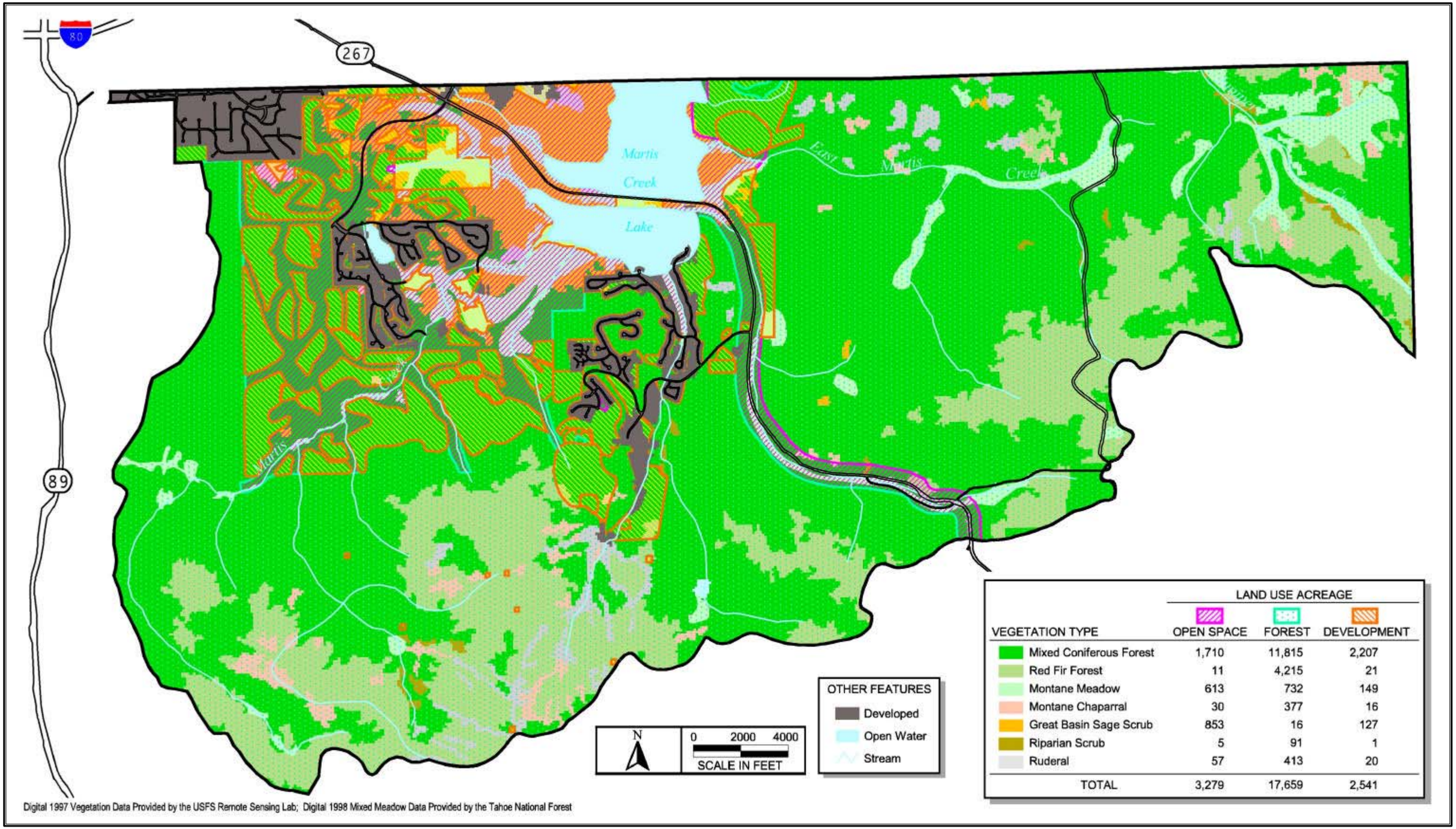


VEGETATION TYPE	LAND USE ACREAGE: OPEN SPACE	FOREST	DEVELOPMENT
Mixed Coniferous Forest	2,475	10,141	3,116
Red Fir Forest	1,676	2,343	227
Montane Meadow	643	740	112
Montane Chaparral	173	194	55
Great Basin Sage Scrub	762	15	219
Riparian Scrub	33	61	3
Ruderal	302	157	32
TOTAL	6,064	13,651	3,764

PMC

SOURCE: FOOTHILL ASSOCIATES, 2001

FIGURE 4.9-7
VEGETATION IMPACTS OF EXISTING MARTIS VALLEY GENERAL PLAN LAND USE MAP

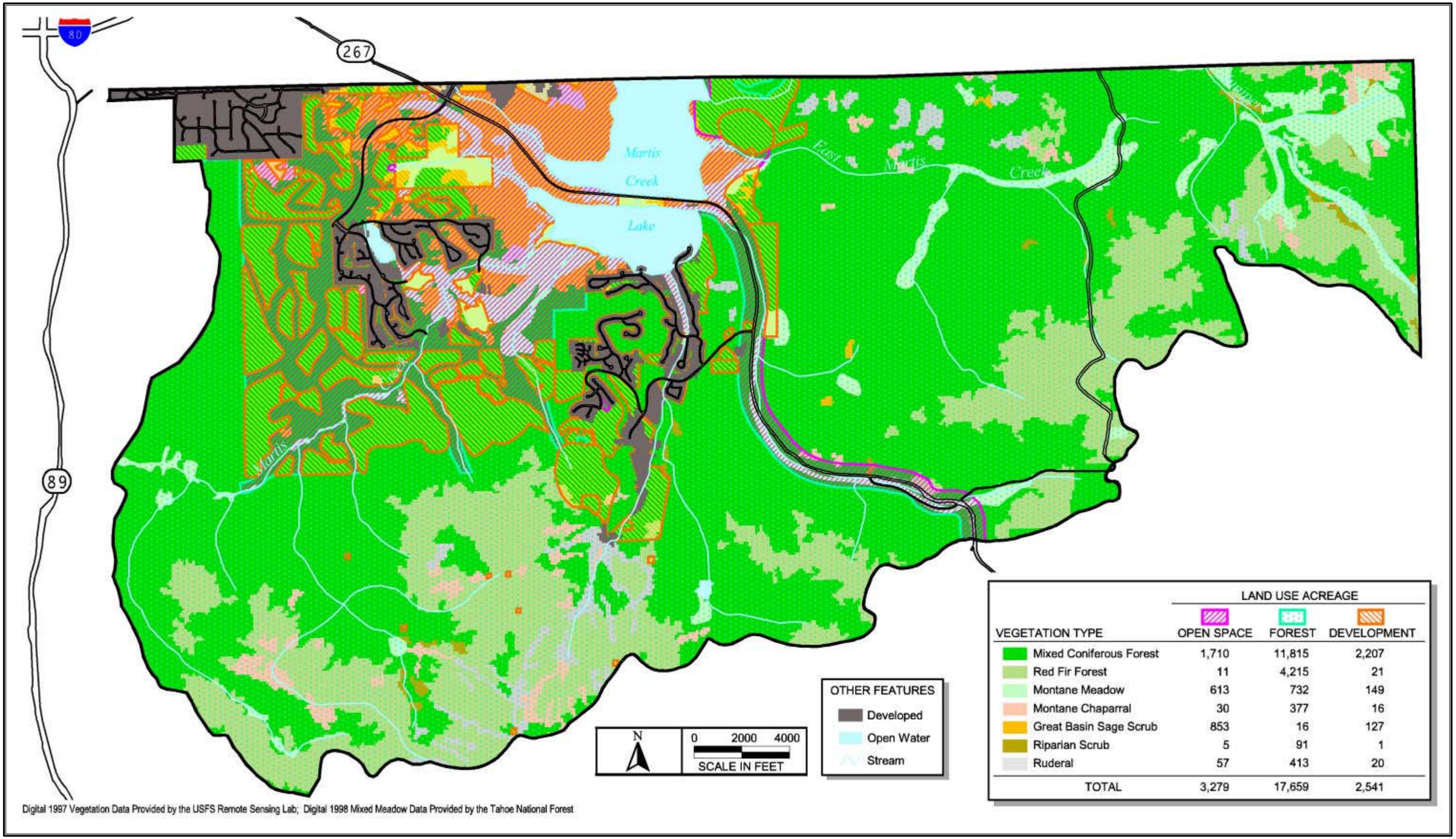


VEGETATION TYPE	LAND USE ACREAGE: OPEN SPACE	FOREST	DEVELOPMENT
Mixed Coniferous Forest	1,710	11,815	2,207
Red Fir Forest	11	4,215	21
Montane Meadow	613	732	149
Montane Chaparral	30	377	16
Great Basin Sage Scrub	853	16	127
Riparian Scrub	5	91	1
Ruderal	57	413	20
TOTAL	3,279	17,659	2,541

PMC

SOURCE: FOOTHILL ASSOCIATES, 2002

FIGURE 4.9-8
VEGETATION IMPACTS OF THE ALTERNATE 1 LAND USE MAP



VEGETATION TYPE	LAND USE ACREAGE: OPEN SPACE	FOREST	DEVELOPMENT
Mixed Coniferous Forest	1,710	11,815	2,207
Red Fir Forest	11	4,215	21
Montane Meadow	613	732	149
Montane Chaparral	30	377	16
Great Basin Sage Scrub	853	16	127
Riparian Scrub	5	91	1
Ruderal	57	413	20
TOTAL	3,279	17,659	2,541

PMC

SOURCE: FOOTHILL ASSOCIATES, 2002

FIGURE 4.9-9
VEGETATION IMPACTS OF THE ALTERNATIVE 2 LAND USE MAP

Policy 9.G.6 *The County shall support the preservation and or reestablishment of fisheries in the rivers and streams within Martis Valley. . This shall include the protection of Martis Lake as a high quality wild-trout sport-fishery and the protection of the lakes tributary streams as wild-trout habitat.*

Policy 9.G.9 *The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats; species and their habitats that have recreational value; wetland lacustrine and riverine habitats; wildlife migration corridors; and locally-important species/communities, such as wild trout.*

Mitigation Measure

None required.

Impact 4.9.3 Potential Disturbance to Special-Status Plant Species

PP Subsequent development under the Proposed Land Use Diagram may impact habitat for special-status plant species. This would be a **potentially significant** impact.

AA Subsequent development under the Existing Martis Valley General Plan Land Use Map may impact habitat for special-status plant species. This would be a **potentially significant** impact.

AB Subsequent development under the Alternative 1 Land Use Map may impact habitat for special-status plant species. This would be a **potentially significant** impact.

AC Subsequent development under the Alternative 2 Land Use Map may impact habitat for special-status plant species. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

Suitable habitat for special-status plant species, including Donner Pass buckwheat, plumas ivesia, Carson Range rock cress, long-petaled lewisia, Munroe's desert mallow, and American manna grass, occurs within the Plan area. These species occupy various habitats including Great Basin sage scrub, ruderal, riparian scrub, montane meadow, montane chaparral, and mixed coniferous forest. Populations of plumas ivesia are known to occur in the Plan area adjacent to SR 267. These species are considered sensitive to CNPS and U.S. Fish and Wildlife Service as well as Placer County (Placer County General Plan Policies 6.D.5 and 6.C.1.c).

As identified in **Figure 4.9-6**, direct development impacts associated with the Proposed Land Use Diagram may remove mixed coniferous forest habitat, red fir forest, montane meadow, montane chaparral, Great Basin sage scrub, riparian scrub, and ruderal habitats, all of which support potential habitat for special-status plant species. Forest land use activities may disturb potential special-status plant species habitat. In addition, vegetation removal in areas designated for open space use (e.g., proposed golf courses) may result in impact to special-status plant species.

In addition to direct development impacts to special-status plant species, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from

proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result similar direct and indirect impacts to special-status plant species as the Proposed Land Use Diagram. Habitat losses associated with this alternative are shown in **Figure 4.9-7**.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result similar (though reduced) direct and indirect impacts to special-status plant species as the Proposed Land Use Diagram. Habitat losses associated with this alternative are shown in **Figure 4.9-8**.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would result similar (though reduced) direct and indirect impacts to special-status plant species as the Proposed Land Use Diagram. Habitat losses associated with this alternative are shown in **Figure 4.9-9**.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation programs would provide some mitigation to special-status plant species impacts.

Policy 9.E.5 *The County shall seek to preserve areas where rare, threatened, and endangered plant species identified as potentially occurring that may be adversely affected by public or private development projects.*

Policy 9.E.10 *The County shall require that new development avoid ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas and heritage trees should be protected through public acquisition of fee title or conservation easements to ensure protection.*

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific fieldwork.*

Policy 9.F.4 *The County shall require new development to mitigate wetland and riparian loss in both federal jurisdictional and non-jurisdictional wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability; (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas.*

Non-jurisdictional wetlands may include riparian areas that are not federal "waters of the United States" as defined by the Clean Water Act.

Policy 9.G.10 *Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites, prepared by a wildlife biologist or other qualified professional. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year, (if necessary) to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts.*

Implementation Program

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors
   Time Frame: On-going
   Funding: Application Fees

Mitigation Measure

The following mitigation measure would be added to the Community Plan as an implementation program under Section 9.0 (Natural Resources) associated with the policies for "Vegetation" and would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

MM 4.9.3 The County shall require that biotic resources evaluation for subsequent projects required under Policy 9.G.10 to include a focused plant survey for the following special-status plant species: Donner Pass buckwheat, plumas ivesia, Carson Range rock cress, long-petaled lewisia, Munroe's desert mallow, and American manna grass. The survey shall determine the presence/absence of these species on the site. The surveys shall be conducted by a qualified botanist during the blooming season for each species (in general, from May-August). Plant species listed after the adoption of the Martis Valley Community Plan shall also be included in the survey.

If biotic surveys identify the presence of special-status plant species, the subsequent project will be designed to avoid the plant population including the provision of adequate buffers. If avoidance is deemed infeasible, other mitigation options shall be considered by the project. These may include, but not limited to, on- or off-site preservation of existing populations, seed and soil collection or plant transplant that ensures that the plant population is maintained. Subsequent projects shall submit a mitigation program for impacted special-status plant species that has been prepared by a qualified biologist approved by the County and shall include consultation with the appropriate governmental agencies (e.g., U.S. Fish and Wildlife Service, California Department of Fish and Game, Lahontan Regional Water Quality Control Board) as part of plan implementation.

Responsible Agency/Department: Planning Department
Time Frame: On-going
Funding: Permit Fees

Implementation of the above proposed Community Plan policies and implementation program and the above mitigation measure would mitigate Plan impacts for the Proposed Land Use Diagram and Alternatives AA, AB and AC to **less than significant**.

Impact 4.9.4 Potential Disturbance to Mountain Yellow-Legged Frog

PP Subsequent development under the Proposed Land Use Diagram may impact suitable habitat for mountain yellow-legged frog. This would be a **potentially significant** impact.

AA Subsequent development under the Existing Martis Valley General Plan Land Use Map may impact suitable habitat for mountain yellow-legged frog. This would be a **potentially significant** impact.

AB Subsequent development under the Alternative 1 Land Use Map may impact suitable habitat for mountain yellow-legged frog. This would be a **potentially significant** impact.

AC Subsequent development under the Alternative 2 Land Use Map may impact suitable habitat for mountain yellow-legged frog. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

Suitable habitat for mountain yellow-legged frog may occur in the streams and open water habitats located throughout the Plan area. In addition, this species may overwinter in adjacent upland habitats associated with streams or open water. The USFWS lists this species as once occurring in the vicinity of Martis Valley and two records of mountain yellow-legged frog are recorded with the TNF and the CNDDB within ten miles of the Plan area (CNDDB, 2001). However, the presence of eastern brook trout introduced into Martis Creek are effective predators of the frog and have likely reduced the potential of this species occurring in Martis Creek (Jones & Stokes, 2001). This species is a federal and state species of concern and is protected under Policy 6.C.6 of the Placer County General Plan.

Subsequent development under the Proposed Land Use Diagram would result in the construction of roads, bridges, or other structures over and adjacent to streams throughout the Plan area. Additionally, open water habitats may also be impacted through the development of the Plan area. Disturbance to adjacent upland habitat, potential changes in surface water quality, placement of structures in stream habitats, construction activity, and other various project-related activities may impact or remove habitat for this species. The reader is referred to Section 4.7 (Hydrology and Water Quality) regarding anticipated surface water quality impacts.

In addition to direct development impacts to the yellow-legged frog and its habitat, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result similar direct and indirect impacts to the mountain yellow-legged frog as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result similar direct and indirect impacts to the mountain yellow-legged frog as the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would result similar direct and indirect impacts to the mountain yellow-legged frog as the Proposed Land Use Diagram.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation programs would provide some mitigation to mountain yellow-legged frog impacts.

Policy 9.E.10 *The County shall require that new development avoid ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas and heritage trees should be protected through public acquisition of fee title or conservation easements to ensure protection.*

Policy 9.F.1 *The County shall encourage the preservation and enhancement of natural open space within the riparian areas of the watercourses and drainageways found in the Martis Valley as one means of minimizing the adverse effects of land development upon the chemical and physical quality of waters therein.*

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific fieldwork.*

Policy 9.F.3 *The County shall support the "no net loss" policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.*

Policy 9.F.4 *The County shall require new development to mitigate wetland and riparian loss in both federal jurisdictional and non-jurisdictional wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability; (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. Non-jurisdictional wetlands may include riparian areas that are not federal "waters of the United States" as defined by the Clean Air Act.*

Policy 9.F.5 *The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.*

Policy 9.F.6 *The County shall identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and reproduction of wetland and riparian species.*

Policy 9.F.7 *The County shall require development that may affect a wetland to employ avoidance, minimization, and/or compensatory mitigation techniques. In evaluating the level of compensation to be required with respect to any given project, a) on-site mitigation shall be preferred to off-site, and in-kind mitigation shall be preferred to out-of-kind; b) functional replacement ratios may vary to the extent necessary to incorporate a margin of safety reflecting the expected degree of success associated with the mitigation plans; and c) acreage replacement ratios may vary depending on the relative functions and values of those wetlands being lost and those being supplied, including compensation for temporal losses. The County shall continue to implement and refine criteria for determining when an alteration to a wetland is considered a less-than-significant impact under CEQA.*

Policy 9.G.1 *The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:*

a. Wetland areas.

b. Stream environment zones.

c. Identified habitat of rare, threatened or endangered animals or plants.

d. Critical deer winter ranges, migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including all habitat types in the Martis Valley Plan area.

f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

g. Martis Lake and its tributaries.

Policy 9.G.2 *The County shall require the control of residual pesticides, herbicides, and related chemicals such as those used on golf courses, to prevent potential damage to water quality, vegetation, and wildlife.*

Policy 9.G.3 *The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.*

Policy 9.G.4 *The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.*

Policy 9.G.8 *The County shall cooperate with, encourage, and support the plans of other public agencies to acquire fee title or conservation easements to privately-owned lands in order to preserve important wildlife corridors and to provide habitat protection of California Species of Concern and state or federally listed rare, threatened, or endangered plant and animal species*

Policy 9.G.9 *The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats; species and their habitats that have recreational value; wetland lacustrine and riverine habitats; wildlife migration corridors; and locally-important species/communities, such as wild trout.*

Policy 9.G.10 *Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites, prepared by a wildlife biologist or other qualified professional. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year, (if necessary) to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts.*

Implementation Program

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors
   Time Frame: On-going
   Funding: Application Fees

<u>Mitigation Measures</u>

The following mitigation measures would be added to the Community Plan as implementation program under Section 9.0 (Natural Resources) associated with the policies for "Fish and Wildlife Habitat" and would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

MM 4.9.4 The County shall require that biotic resources evaluation for subsequent projects include a mountain yellow-legged frog habitat suitability assessment be conducted on each parcel proposing a crossing over or development within stream or open water habitat area. The assessment shall include a detailed analysis of the habitat conditions present onsite and shall survey stream conditions 500 feet upstream and downstream from the proposed stream crossing. If the results of the habitat suitability survey indicate that potential habitat for this species is not present within 500 feet up or down stream of the crossing, no further study is required.

However, if potential habitat for this species is identified during the assessment, County shall condition projects involving disturbance of a waterway channel to perform the following:

- Conduct pre-construction surveys for the mountain yellow-legged frog during the breeding season by a qualified biologist. If frogs are identified in the construction area, the biologist shall contact CDFG and/or USFWS regarding the proper methods of moving the species an appropriate off-site location prior to the onset of construction activities at the waterways.
- Monitoring of construction activities within waterways until construction activities in the waterways is complete.
- Conduct training session for all construction personnel regarding the mountain yellow-legged frog, including a description of the species and its habitat and materials on species in order to assist in identifying species in the field.
- Revegetation and recontouring of channel conditions generally consistent with pre-construction conditions.

Responsible Agency/Department: Planning Department
Time Frame: On-going
Funding: Permit Fees

Implementation of the proposed Community Plan policies, implementation programs (including water quality provisions identified in Section 4.7 [Hydrology and Water Quality]) and mitigation measures MM 4.9.4 as well as MM 4.7.1a through c and MM 4.7.2a through e would mitigate Plan impacts for the Proposed Land Use Diagram and Alternatives AA, AB and AC to **less than significant**.

Impact 4.9.5 Potential Disturbance to Lahontan Cutthroat Trout

PP The implementation of the Proposed Land Use Diagram may disturb habitat for Lahontan cutthroat trout and impact current recovery efforts by the U.S. Fish and Wildlife Service. This would be a **potentially significant** impact.

AA The implementation of the Existing Martis Valley General Plan Land Use Map may disturb habitat for Lahontan cutthroat trout and impact current recovery efforts by the U.S. Fish and Wildlife Service. This would be a **potentially significant** impact.

AB The implementation of the Alternative 1 Land Use Map may disturb habitat for Lahontan cutthroat trout and impact current recovery efforts by the U.S. Fish and Wildlife Service. This would be a **potentially significant** impact.

AC The implementation of the Alternative 2 Land Use Map may disturb habitat for Lahontan cutthroat trout and impact current recovery efforts by the U.S. Fish and Wildlife Service. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

The Lahontan cutthroat trout occurs in the Truckee River and could potentially spawn in associated tributaries throughout the Plan area (William Cowen, Pers. Com.). Martis Creek, Monte Carlo Creek, Juniper Creek, and the other unnamed streams within the Martis Valley area are tributaries to the Truckee River and support potential spawning habitat conditions for the Lahontan cutthroat trout. The Lahontan cutthroat trout typically spawn from April to July. In the project vicinity, 3 records of this species are listed in the CNDDB from Martis Creek (2 records) and Pole Creek (1 record). However, the CNDDB identifies all these occurrences as being extirpated. There are historic accounts of cutthroat trout within the Martis Creek drainage, and suitable habitat is present within the tributaries of Martis Creek (DFG 2000). However, some of these waterways are intermittent and there are various potential fish barriers (e.g., fallen logs, downcuts) as well as other competition with other trout species and interbreeding with other trout species. Therefore this species is considered to have a low potential to occur within waters in the Plan area. This species is listed threatened federally and is afforded additional protection under Placer County Policy 6.C.6 and 6.C.8.

Disturbance to adjacent upland habitat, potential changes in surface water quality, placement of structures in stream habitats, construction activity, and other various development activities may impact or remove habitat for this species. The reader is referred to Section 4.7 (Hydrology and Water Quality) regarding anticipated surface water quality impacts. In addition, construction activities may result in the removal of spawning habitat and entrapment of the species. This may conflict with current recovery efforts by the U.S. Fish and Wildlife Service.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result similar direct and indirect impacts to the Lahontan cutthroat trout as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result similar direct and indirect impacts to the Lahontan cutthroat trout as the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result similar direct and indirect impacts to the Lahontan cutthroat trout as the Proposed Land Use Diagram.

<u>Policies and Implementation Programs</u>

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation programs would provide some mitigation to Lahontan cutthroat trout impacts.

Policy 9.F.1 *The County shall encourage the preservation and enhancement of natural open space within the riparian areas of the watercourses and drainageways found in the Martis Valley as one means of minimizing*

the adverse effects of land development upon the chemical and physical quality of waters therein.

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific fieldwork.*

Policy 9.F.3 *The County shall support the "no net loss" policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.*

Policy 9.F.4 *The County shall require new development to mitigate wetland and riparian loss in both federal jurisdictional and non-jurisdictional wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability; (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. Non-jurisdictional wetlands may include riparian areas that are not federal "waters of the United States" as defined by the Clean Air Act.*

Policy 9.F.5 *The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.*

Policy 9.F.7 *The County shall require development that may affect a wetland to employ avoidance, minimization, and/or compensatory mitigation techniques. In evaluating the level of compensation to be required with respect to any given project, a) on-site mitigation shall be preferred to off-site, and in-kind mitigation shall be preferred to out-of-kind; b) functional replacement ratios may vary to the extent necessary to incorporate a margin of safety reflecting the expected degree of success associated with the mitigation plans; and c) acreage replacement ratios may vary depending on the relative functions and values of those wetlands being lost and those being supplied, including compensation for temporal losses. The County shall continue to implement and refine criteria for determining when an alteration to a wetland is considered a less-than-significant impact under CEQA.*

Policy 9.G.1 *The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and*

sustaining wildlife populations. Significant ecological resource areas include the following:

a. Wetland areas.

b. Stream environment zones.

c. Identified habitat of rare, threatened or endangered animals or plants.

d. Critical deer winter ranges, migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including all habitat types in the Martis Valley Plan area.

f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

g. Martis Lake and its tributaries.

Policy 9.G.2 *The County shall require the control of residual pesticides, herbicides, and related chemicals such as those used on golf courses, to prevent potential damage to water quality, vegetation, and wildlife.*

Policy 9.G.3 *The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.*

Policy 9.G.4 *The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.*

Policy 9.G.6 *The County shall support the preservation and or reestablishment of fisheries in the rivers and streams within Martis Valley. . This shall include the protection of Martis Lake as a high quality wild-trout sport-fishery and the protection of the lakes tributary streams as wild-trout habitat.*

Policy 9.G.8 *The County shall cooperate with, encourage, and support the plans of other public agencies to acquire fee title or conservation easements to privately-owned lands in order to preserve important wildlife corridors and to provide habitat protection of California Species of Concern and state or federally listed rare, threatened, or endangered plant and animal species.*

Policy 9.G.9 *The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their*

habitats; species and their habitats that have recreational value; wetland lacustrine and riverine habitats; wildlife migration corridors; and locally-important species/communities, such as wild trout.

Policy 9.G.10 *Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites, prepared by a wildlife biologist or other qualified professional. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year, (if necessary) to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts.*

Implementation Programs

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors
   Time Frame: On-going
   Funding: Application Fees

Mitigation Measures

The following mitigation measures would be added to the Community Plan as policies under Goal 9.G under Section 9.0 (Natural Resources) and would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

MM 4.9.5a The County shall require that construction activities within the channels of waterways identified to be potential spawning habitat of the Lahontan cutthroat trout shall not occur during the spawning season (April through July).

MM 4.9.5b No structures shall be permitted in streams or watercourses within the Plan area that would result in the blockage of water flow creating a barrier to fish movement.

Implementation of the above mitigation measures, proposed Community Plan policies, implementation programs (including water quality provisions identified in Section 4.7 [Hydrology and Water Quality]), and mitigation measures MM 4.7.1a through c, and MM 4.7.2a through e would mitigate impacts for the Proposed Land Use Diagram and Alternatives AA, AB and AC to **less than significant**.

Impact 4.9.6 Potential Disturbance to Nesting Raptors and Other Migratory Birds

PP Implementation of the Proposed Land Use Diagram could result in the direct and temporary impacts on nesting special-status bird species, raptors, and other migratory birds. This would be a **potentially significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map could result in the direct and temporary impacts on nesting special-status bird species, raptors, and other migratory birds. This would be a **potentially significant** impact.

AB Implementation of the Alternative 1 Land Use Map could result in the direct and temporary impacts on nesting special-status bird species, raptors, and other migratory birds. This would be a **potentially significant** impact.

AC Implementation of the Alternative 2 Land Use Map could result in the direct and temporary impacts on nesting special-status bird species, raptors, and other migratory birds. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

Raptors, including northern goshawk, American peregrine falcon (federal and state listed species), California spotted owl, bald eagle (federal and state listed species), Cooper's hawk, and red-tailed hawk, as well as other migratory birds, including yellow warbler and little willow flycatcher (state listed species), may utilize habitats within the Plan area for nesting. These species are considered special-status species by federal and/or state resource agencies. In addition, raptors and raptor nests are protected under Section 3503.5 of the California Fish and Game Code and all migratory birds are protected under the MBTA.

As shown in **Figure 4.9-6**, development allowed under the Proposed Land Use Diagram may result in the loss of habitat that is being utilized for nesting activities for raptors and other migratory birds. Forest and open space land uses may also result in nesting impacts. Removal of this habitat would be considered a direct and significant impact if sensitive bird species were taken or deterred from breeding and nesting locations. Construction could also result in noise, dust, and other indirect disturbances to nesting bird species in the vicinity, resulting in potential nest abandonment and mortality to eggs and chicks.

In addition to direct development impacts to raptors and other migratory birds and their habitat, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result similar direct and indirect impacts to nesting special-status bird species, raptors, and other migratory birds as the Proposed Land Use Diagram (see **Figure 4.9-7**).

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result similar direct and indirect impacts to nesting special-status bird species, raptors, and other migratory birds as the Proposed Land Use Diagram (see **Figure 4.9-8**).

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would result similar direct and indirect impacts to nesting special-status bird species, raptors, and other migratory birds as the Proposed Land Use Diagram (see **Figure 4.9-9**).

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation programs would provide some mitigation to impacts on nesting special-status bird species, raptors, and other migratory birds.

Policy 9.E.3 *The County shall support the conservation of a healthy forest including outstanding areas of native vegetation, including, but not limited to, open meadows, riparian areas, Great Basin Sage Scrub, Mixed Coniferous Forest, Montane Chaparral, Montane Meadow, and Red Fir Forest.*

Policy 9.E.4 *The County shall encourage the preservation of landmark trees and major groves of native trees, which have special characteristics or serve an important function such as historical interest, visual screening, shading of creeks or slope stability. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.*

Policy 9.E.5 *The County shall seek to preserve areas where rare, threatened, and endangered plant species identified as potentially occurring that may be adversely affected by public or private development projects.*

Policy 9.E.6 *The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.*

Policy 9.E.7 *The County shall encourage the planting of native trees, shrubs, and herbaceous species and in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.*

Policy 9.E.9 *The County shall support the preservation of native trees and the use of native seed sources and seedlings and drought-tolerant plant materials in all revegetation/landscaping projects.*

Policy 9.E.10 *The County shall require that new development avoid ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas and heritage trees should be protected through public acquisition of fee title or conservation easements to ensure protection.*

Policy 9.E.12 *The County shall support the on-going implementation of the Forest Practices Act at the State level to ensure that timber harvest operations are conducted in an environmentally sensitive manner.*

Policy 9.F.1 *The County shall encourage the preservation and enhancement of natural open space within the riparian areas of the watercourses and drainageways found in the Martis Valley as one means of minimizing the adverse effects of land development upon the chemical and physical quality of waters therein.*

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific fieldwork.*

Policy 9.F.4 *The County shall require new development to mitigate wetland and riparian loss in both federal jurisdictional and non-jurisdictional wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability; (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. Non-jurisdictional wetlands may include riparian areas that are not federal "waters of the United States" as defined by the Clean Air Act.*

Policy 9.F.5 *The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.*

Policy 9.F.6 *The County shall identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and reproduction of wetland and riparian species*

Policy 9.G.1 *The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:*

a. Wetland areas.

b. Stream environment zones.

c. Identified habitat of rare, threatened or endangered animals or plants.

d. Critical deer winter ranges, migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including all habitat types in the Martis Valley Plan area.

f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

g. Martis Lake and its tributaries.

Policy 9.G.2 *The County shall require the control of residual pesticides, herbicides, and related chemicals such as those used on golf courses, to prevent potential damage to water quality, vegetation, and wildlife.*

Policy 9.G.3 *The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.*

Policy 9.G.4 *The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.*

Policy 9.G.5 *The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.*

Policy 9.G.8 *The County shall cooperate with, encourage, and support the plans of other public agencies to acquire fee title or conservation easements to privately-owned lands in order to preserve important wildlife corridors and to provide habitat protection of California Species of Concern and state or federally listed rare, threatened, or endangered plant and animal species.*

Policy 9.G.9 *The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats; species and their habitats that have recreational value; wetland lacustrine and riverine habitats; wildlife migration corridors; and locally-important species/communities, such as wild trout.*

Policy 9.G.10 *Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites, prepared by a wildlife biologist or other qualified professional. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year, (if necessary) to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts.*

Implementation Program

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors

Time Frame: On-going
Funding: Application Fees

Mitigation Measure

The following mitigation measure would be added to the Community Plan as an implementation program under Section 9.0 (Natural Resources) associated with the policies for "Fish and Wildlife Habitat" and would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

MM 4.9.6 If active nests are found during surveys associated with implementation of Policy 9.G.10, the County shall require mapping identifying the locations of identified nests. The subsequent project will be required to conduct focused nest surveys 30 days prior to the beginning of construction activities by a qualified biologist in order to determine if active nests are still present. If active nests are found, the County shall be notified on the status of the nests and no construction activities shall take place within 500 feet of the nest to avoid disturbance until the birds leave the nest, or a time deemed acceptable (e.g., when the juveniles have fledged) by the biologist. Monitoring reports summarizing nest activities shall be submitted to the County until the nest is determined to be inactive. Trees containing nest sites that must be removed shall be removed during the non-breeding season.

If active nests that are identified involve federal and/or state listed species (under the Federal Endangered Species Act and the California Endangered Species Act) within or adjacent to the area of planned disturbance, additional setbacks, restrictions and/or mitigation may be required from California Department of Fish and Game and U.S. Fish and Wildlife Service as part of agency permitting to ensure no take of the species. Nest sites of federal and/or state listed species shall not be taken, unless approved by California Department of Fish and Game and U.S. Fish and Wildlife Service.

Responsible Agency/Department: Planning Department
Time Frame: On-going
Funding: Permit Fees

Implementation of the above Community Plan policies and mitigation measure would reduce impacts to nesting special-status bird species, raptors, and other migratory birds to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Impact 4.9.7 Potential Disturbance to Special-Status Bat Species

PP The implementation of the Proposed Land Use Diagram may remove potential roosting habitats for special-status bat species. This would be a **potentially significant** impact.

AA The implementation of the Existing Martis Valley General Plan Land Use Map may remove potential roosting habitats for special-status bat species. This would be a **potentially significant** impact.

AB The implementation of the Alternative 1 Land Use Map may remove potential roosting habitats for special-status bat species. This would be a **potentially significant** impact.

AC The implementation of the Alternative 2 Land Use Map may remove potential roosting habitats for special-status bat species. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

Several species of special-status bats, including spotted bat, long-eared myotis, fringed myotis, long-legged myotis, Yuma myotis, and Pale Townsend's big-eared bat, have the potential to roost within the Plan area. The mixed coniferous forest, red fir forest, montane meadow, and riparian scrub habitats within the Plan area support suitable habitat for these species. Bats roost in a variety of locations such as rock crevices, under bark, trees, in buildings, under bridges, and in culverts. Depending on the species, bats may utilize separate day and night roosts. In addition, winter hibernacula and maternity roosting sites are also occupied at different times of the year. These special-status bat species are considered species of concern to the CDFG and/or the USFWS.

As shown in **Figure 4.9-6**, implementation of the Proposed Land Use Diagram would result in disturbance to mixed coniferous forest, red fir forest, ruderal, and riparian scrub habitats, all of which may provide roosting habitat for special-status bat species. Additionally, forest and open space land uses may result in further impacts.

In addition to direct development impacts to special-status bat species roosting habitat, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result similar direct and indirect impacts to special-status bat species roosting habitat as the Proposed Land Use Diagram (see **Figure 4.9-7**).

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result similar direct and indirect impacts to special-status bat species roosting habitat as the Proposed Land Use Diagram (see **Figure 4.9-8**).

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would result similar direct and indirect impacts to special-status bat species roosting habitat as the Proposed Land Use Diagram (see **Figure 4.9-9**).

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation programs would provide some mitigation to impacts on special-status bat species roosting habitat.

Policy 9.E.3 *The County shall support the conservation of a healthy forest including outstanding areas of native vegetation, including, but not limited to, open meadows, riparian areas, Great Basin Sage Scrub, Mixed Coniferous Forest, Montane Chaparral, Montane Meadow, and Red Fir Forest.*

Policy 9.E.4 *The County shall encourage the preservation of landmark trees and major groves of native trees, which have special characteristics or serve an important function such as historical interest, visual screening, shading of creeks or slope stability. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.*

Policy 9.E.5 *The County shall seek to preserve areas where rare, threatened, and endangered plant species identified as potentially occurring that may be adversely affected by public or private development projects.*

Policy 9.E.6 *The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.*

Policy 9.E.7 *The County shall encourage the planting of native trees, shrubs, and herbaceous species and in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.*

Policy 9.E.9 *The County shall support the preservation of native trees and the use of native seed sources and seedlings and drought-tolerant plant materials in all revegetation/landscaping projects.*

Policy 9.E.10 *The County shall require that new development avoid ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas and heritage trees should be protected through public acquisition of fee title or conservation easements to ensure protection.*

Policy 9.E.12 *The County shall support the on-going implementation of the Forest Practices Act at the State level to ensure that timber harvest operations are conducted in an environmentally sensitive manner.*

Policy 9.F.1 *The County shall encourage the preservation and enhancement of natural open space within the riparian areas of the watercourses and drainageways found in the Martis Valley as one means of minimizing the adverse effects of land development upon the chemical and physical quality of waters therein.*

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific fieldwork.*

Policy 9.F.4 *The County shall require new development to mitigate wetland and riparian loss in both federal jurisdictional and non-jurisdictional wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability; (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation*

banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. Non-jurisdictional wetlands may include riparian areas that are not federal "waters of the United States" as defined by the Clean Air Act.

Policy 9.F.5 *The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.*

Policy 9.F.6 *The County shall identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and reproduction of wetland and riparian species*

Policy 9.G.1 *The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:*

a. Wetland areas.

b. Stream environment zones.

c. Identified habitat of rare, threatened or endangered animals or plants.

d. Critical deer winter ranges, migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including all habitat types in the Martis Valley Plan area.

f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

g. Martis Lake and its tributaries.

Policy 9.G.2 *The County shall require the control of residual pesticides, herbicides, and related chemicals such as those used on golf courses, to prevent potential damage to water quality, vegetation, and wildlife.*

Policy 9.G.3 *The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.*

Policy 9.G.4 *The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.*

Policy 9.G.5 *The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.*

Policy 9.G.8 *The County shall cooperate with, encourage, and support the plans of other public agencies to acquire fee title or conservation easements to privately-owned lands in order to preserve important wildlife corridors and to provide habitat protection of California Species of Concern and state or federally listed rare, threatened, or endangered plant and animal species.*

Policy 9.G.9 *The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats; species and their habitats that have recreational value; wetland lacustrine and riverine habitats; wildlife migration corridors; and locally-important species/communities, such as wild trout.*

Policy 9.G.10 *Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites, prepared by a wildlife biologist or other qualified professional. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year, (if necessary) to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts.*

Implementation Programs

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors
   Time Frame: On-going
   Funding: Application Fees

<u>Mitigation Measures</u>

The following mitigation measure would be added to the Community Plan as an implementation program under Section 9.0 (Natural Resources) associated with the policies for "Fish and Wildlife Habitat" and would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

MM 4.9.7 If bat roosts are identified on site as a result of surveys required by Policy 9.G.10, the County shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to May of each construction phase (maternity roots are generally occupied from May to August) prior to the onset of construction activities. The removal of the roosting sites shall occur during the time of day when the roost is unoccupied.

Responsible Agency/Department: Planning Department
Time Frame: On-going
Funding: Permit Fees

Implementation of the above Community Plan policies and mitigation measure would reduce impacts to special-status bat species roosting habitat to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Impact 4.9.8 Potential Disturbance to Sierra Nevada Red Fox, California Wolverine, Sierra Nevada Snowshoe Hare, Pacific Fisher, Sierra Nevada Mountain Beaver, and Pine Marten

PP The implementation of the Proposed Land Use Diagram may remove potential habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten. This would be a **potentially significant** impact.

AA The implementation of the Existing Martis Valley General Plan Land Use Map may remove potential habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten. This would be a **potentially significant** impact.

AB The implementation of the Alternative 1 Land Use Map may remove habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten. This would be a **potentially significant** impact.

AC The implementation of the Alternative 2 Land Use Map may remove habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

The mixed coniferous forest, red fir forest, montane meadow, and riparian scrub habitats within the Plan area provide potential habitat for Sierra Nevada red fox (state listed species), California wolverine (state listed species), Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten. Some or all of these species may utilize the Plan area as part of their home range. In addition, these species could den or nest within suitable habitats on site. However, no den or borrow sites for any of these species have been identified in the Plan area. The Sierra Nevada red fox, pine marten and California wolverine are not expected to be observed in areas near large human populations and potential for these to occur in the Plan area is low. These species are considered sensitive by federal and/or state resource agencies as well as the PCGP (Policy 6.C.6).

As shown in **Figure 4.9-6**, implementation of the development and forest uses designated under the Proposed Land Use Diagram will disturb mixed coniferous forest, red fir forest, montane meadow, and riparian scrub habitats. These communities support potential habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten. Recreational uses associated with open space elements may remove additional habitat.

In addition to direct development impacts to the Sierra Nevada Red Fox, California Wolverine, Sierra Nevada Snowshoe Hare, Pacific Fisher, Sierra Nevada Mountain Beaver, and Pine Marten

and their habitat, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result similar direct and indirect impacts to habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten as the Proposed Land Use Diagram (see **Figure 4.9-7**).

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result similar direct and indirect impacts to habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten as the Proposed Land Use Diagram (see **Figure 4.9-8**).

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would result similar direct and indirect impacts to habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten as the Proposed Land Use Diagram (see **Figure 4.9-9**).

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation programs would provide some mitigation to impacts on habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten.

Policy 9.E.3 *The County shall support the conservation of a healthy forest including outstanding areas of native vegetation, including, but not limited to, open meadows, riparian areas, Great Basin Sage Scrub, Mixed Coniferous Forest, Montane Chaparral, Montane Meadow, and Red Fir Forest.*

Policy 9.E.4 *The County shall encourage the preservation of landmark trees and major groves of native trees, which have special characteristics or serve an important function such as historical interest, visual screening, shading of creeks or slope stability. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.*

Policy 9.E.5 *The County shall seek to preserve areas where rare, threatened, and endangered plant species identified as potentially occurring that may be adversely affected by public or private development projects.*

Policy 9.E.6 *The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.*

Policy 9.F.1 *The County shall encourage the preservation and enhancement of natural open space within the riparian areas of the watercourses and drainageways found in the Martis Valley as one means of minimizing the adverse effects of land development upon the chemical and physical quality of waters therein.*

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific fieldwork.*

Policy 9.G.1 *The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:*

a. Wetland areas.

b. Stream environment zones.

c. Identified habitat of rare, threatened or endangered animals or plants.

d. Critical deer winter ranges, migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including all habitat types in the Martis Valley Plan area.

f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

g. Martis Lake and its tributaries.

Policy 9.G.2 *The County shall require the control of residual pesticides, herbicides, and related chemicals such as those used on golf courses, to prevent potential damage to water quality, vegetation, and wildlife.*

Policy 9.G.3 *The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.*

Policy 9.G.4 *The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.*

Policy 9.G.5 *The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.*

Policy 9.G.6 *The County shall support the preservation and or reestablishment of fisheries in the rivers and streams within Martis Valley. . This shall include the protection of Martis Lake as a high quality wild-trout sport-fishery and the protection of the lakes tributary streams as wild-trout habitat.*

Policy 9.G.7 *The County will use the California Wildlife Habitat Relationships (WHR) system as a standard descriptive tool and guide for environmental assessment in the absence of a more detailed site-specific analysis.*

Policy 9.G.8 *The County shall cooperate with, encourage, and support the plans of other public agencies to acquire fee title or conservation easements to privately-owned lands in order to preserve important wildlife corridors and to provide habitat protection of California Species of Concern and state or federally listed rare, threatened, or endangered plant and animal species.*

Policy 9.G.9 *The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats; species and their habitats that have recreational value; wetland lacustrine and riverine habitats; wildlife migration corridors; and locally-important species/communities, such as wild trout.*

Policy 9.G.10 *Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites, prepared by a wildlife biologist or other qualified professional. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year, (if necessary) to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts.*

Implementation Programs

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors
   Time Frame: On-going
   Funding: Application Fees

Mitigation Measure

The following mitigation measure would be added to the Community Plan as an implementation program under Section 9.0 (Natural Resources) associated with the policies for "Fish and Wildlife Habitat" and would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

MM 4.9.8 The County shall require focused surveys for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten as part of surveys required by Policy 9.G.10. If active den/burrow sites for the Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and/or pine marten dens/nests are identified, the mitigation plan shall be developed in consultation with the California Department of Fish and Game and/or U.S. Fish and Wildlife Service to ensure no animals are killed and that den/burrow sites are properly addressed. Measures may include, but not limited to, redesign of the project (Placer County General Plan Policy 6.C.6) to provide adequately sized open space areas and corridors around den/burrow sites, capture and relocation of the species. Subsequent projects shall submit the mitigation plan that has been reviewed and approved the appropriate governmental agencies (e.g., U.S. Fish and Wildlife Service, California Department of Fish and Game) and the necessary regulatory permits have obtained for the Sierra Nevada red fox and California wolverine (California Endangered Species Act) to the County prior to development activities.

Responsible Agency/Department: Planning Department
Time Frame: On-going
Funding: Permit Fees

Implementation of the above Community Plan policies and mitigation measure would reduce impacts on habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Impact 4.9.9 Disturbance to Riparian Habitat

PP The implementation of the Proposed Land Use Diagram may remove riparian scrub habitat. However, implementation of proposed Community Plan policies would ensure no net loss of riparian areas. This would be a **less than significant** impact.

AA The implementation of the Existing Martis Valley General Plan Land Use Map may remove riparian scrub habitat. However, implementation of proposed Community Plan policies would ensure no net loss of riparian areas. This would be a **less than significant** impact.

AB The implementation of the Alternative 1 Land Use Map may remove riparian scrub habitat. However, implementation of proposed Community Plan policies would ensure no net loss of riparian areas. This would be a **less than significant** impact.

AC The implementation of the Alternative 2 Land Use Map may remove riparian scrub habitat. However, implementation of proposed Community Plan policies would ensure no net loss of riparian areas. This would be a **less than significant** impact.

PP Proposed Land Use Diagram

The riparian scrub habitat within the Plan area supports a wide diversity of plant species and provides habitat to numerous wildlife species. Riparian habitats are considered sensitive to the CDFG and Placer County (PCGP Policy 6.A.1). These habitats are also protected in the existing Martis Valley General Plan (MVGP Policy 2).

As shown in **Figure 4.9-6**, implementation of the Proposed Land Use Diagram may result in the loss of riparian scrub habitat due to development of the designated land uses. Forest use activity may impact riparian scrub habitat. Recreational uses associated with open space areas may disturb riparian habitat. In addition to direct development impacts to riparian scrub habitat, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

However, as described below, the proposed Community Plan includes several policies that would minimize direct and indirect impacts to riparian areas as well as ensure no net loss of riparian habitat.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result in similar direct and indirect impacts to riparian habitat as the Proposed Land Use Diagram (see **Figure 4.9-7**). However, as described below, the proposed Community Plan includes several policies that would minimize direct and indirect impacts to riparian areas as well as ensure no net loss of riparian habitat.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result in similar direct and indirect impacts to riparian habitat as the Proposed Land Use Diagram (see **Figure 4.9-8**). However, as described below, the proposed Community Plan includes several policies that would minimize direct and indirect impacts to riparian areas as well as ensure no net loss of riparian habitat.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would result in similar direct and indirect impacts to riparian habitat as the Proposed Land Use Diagram (see **Figure 4.9-9**). However, as described below, the proposed Community Plan includes several policies that would minimize direct and indirect impacts to riparian areas as well as ensure no net loss of riparian habitat.

<u>Policies and Implementation Programs</u>

New developmental projects in the Plan area would be required to comply with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation program would fully mitigate impacts on riparian habitat for the Proposed Land Use Diagram and Alternatives AA, AB and AC.

Policy 9.E.3 *The County shall support the conservation of a healthy forest including outstanding areas of native vegetation, including, but not limited to, open meadows, riparian areas, Great Basin Sage Scrub, Mixed*

Coniferous Forest, Montane Chaparral, Montane Meadow, and Red Fir Forest.

Policy 9.E.10 *The County shall require that new development avoid ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas and heritage trees should be protected through public acquisition of fee title or conservation easements to ensure protection.*

Policy 9.F.1 *The County shall encourage the preservation and enhancement of natural open space within the riparian areas of the watercourses and drainageways found in the Martis Valley as one means of minimizing the adverse effects of land development upon the chemical and physical quality of waters therein.*

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific fieldwork.*

Policy 9.F.4 *The County shall require new development to mitigate wetland and riparian loss in both federal jurisdictional and non-jurisdictional wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability; (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. Non-jurisdictional wetlands may include riparian areas that are not federal "waters of the United States" as defined by the Clean Air Act.*

Policy 9.F.5 *The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.*

Policy 9.F.6 *The County shall identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and reproduction of wetland and riparian species*

Implementation Program

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors

   Time Frame: On-going

Funding: Application Fees

Mitigation Measures

None required.

Impact 4.9.10 Loss of Wetland Areas

PP The implementation of the Proposed Land Use Diagram may disturb wetland areas. However, implementation of proposed Community Plan policies would ensure no net loss of wetland resources. This would be a **less than significant** impact.

AA The implementation of the Existing Martis Valley General Plan may disturb wetland areas. However, implementation of proposed Community Plan policies would ensure no net loss of wetland resources. This would be a **less than significant** impact.

AB The implementation of the Alternative 1 Land Use Map may disturb wetland areas. However, implementation of proposed Community Plan policies would ensure no net loss of wetland resources. This would be a **less than significant** impact.

AC The implementation of the Alternative 2 Land Use Map may disturb wetland areas. However, implementation of proposed Community Plan policies would ensure no net loss of wetland resources. This would be a **less than significant** impact.

PP Proposed Land Use Diagram

Martis Creek, Juniper Creek, Monte Carlo Creek, associated tributaries, wet meadow habitats, Martis Creek Lake, and Gooseneck Lake consist of wetland areas, some of which are considered jurisdictional waters of the U.S. and are regulated under Section 401 and 404 of the CWA. These water features are afforded additional protection in the Placer County General Plan (Policy 6.B.5).

Implementation of the Proposed Land Use Diagram may result in the fill and disturbance of wetland areas. In addition to development impacts to wetland areas, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

However, as described below, the proposed Community Plan includes several policies that would minimize direct and indirect impacts to wetland areas as well as ensure no net loss of wetland resources.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result in similar direct and indirect impacts to wetland areas as the Proposed Land Use Diagram. However, as described below, the proposed Community Plan includes several policies that would minimize direct and indirect impacts to wetland areas as well as ensure no net loss of wetland resources.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result in similar direct and indirect impacts to wetland areas as the Proposed Land Use Diagram. However, as

described below, the proposed Community Plan includes several policies that would minimize direct and indirect impacts to wetland areas as well as ensure no net loss of wetland resources.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would result in similar direct and indirect impacts to wetland areas as the Proposed Land Use Diagram. However, as described below, the proposed Community Plan includes several policies that would minimize direct and indirect impacts to wetland areas as well as ensure no net loss of wetland resources.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation program (including water quality provisions identified in Section 4.7 [Hydrology and Water Quality]), and mitigation measures 4.7.1a through c, and MM 4.7.2a through e, as well as would fully mitigate impacts on wetland resources for the Proposed Land Use Diagram and Alternatives AA, AB and AC.

Policy 9.F.1 *The County shall encourage the preservation and enhancement of natural open space within the riparian areas of the watercourses and drainageways found in the Martis Valley as one means of minimizing the adverse effects of land development upon the chemical and physical quality of waters therein.*

Policy 9.F.2 *The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific field work.*

Policy 9.F.3 *The County shall support the "no net loss" policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.*

Policy 9.F.4 *The County shall require new development to mitigate wetland and riparian loss in both federal jurisdictional and non-jurisdictional wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability; (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. Non-jurisdictional wetlands may include riparian areas that are not federal "waters of the United States" as defined by the Clean Air Act.*

Policy 9.F.5 *The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and*

siltation will not significantly adversely affect the value or function of wetlands.

Policy 9.F.6 *The County shall identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and reproduction of wetland and riparian species*

Policy 9.F.7 *The County shall require development that may affect a wetland to employ avoidance, minimization, and/or compensatory mitigation techniques. In evaluating the level of compensation to be required with respect to any given project, a) on-site mitigation shall be preferred to off-site, and in-kind mitigation shall be preferred to out-of-kind; b) functional replacement ratios may vary to the extent necessary to incorporate a margin of safety reflecting the expected degree of success associated with the mitigation plans; and c) acreage replacement ratios may vary depending on the relative functions and values of those wetlands being lost and those being supplied, including compensation for temporal losses. The County shall continue to implement and refine criteria for determining when an alteration to a wetland is considered a less-than-significant impact under CEQA.*

Implementation Program

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors
   Time Frame: On-going
   Funding: Application Fees

Mitigation Measures

None required.

Impact 4.9.11 Disturbance to Wildlife Movement

PP The implementation of the Proposed Land Use Diagram may block local wildlife movement as well as established deer migration movement corridors. This would be a **potentially significant** impact.

AA The implementation of the Existing Martis Valley General Plan Land Use Map may block local wildlife movement as well as established deer migration movement corridors. This would be a **potentially significant** impact.

AB The implementation of the Alternative 1 Land Use Map may block local wildlife movement as well as established deer migration movement corridors. This would be a **potentially significant** impact.

AC The implementation of the Alternative 2 Land Use Map may block local wildlife movement as well as established deer migration movement corridors. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

The Verdi subunit of the Loyalton-Truckee deer herd migrates every spring from wintering habitat in Nevada into Martis Valley. The herd generally follows the Truckee River west and then disperses to two fawning locations: (1) near Dry Lake, north of the Plan area, and (2) south of Lookout Mountain, located in the southern region of the Plan area. In the late fall, the herd begins migration back to their wintering habitat in Nevada. The exact composition of this herd and its movements is not known; no comprehensive studies have been conducted of this herd. As previously described, existing CDFG and Caltrans data and deer surveys conducted in the Plan area indicate that the deer move along the 3 corridors in the Plan area (see **Figure 4.9-5**). Deer migration routes are protected by the CDFG and are afforded additional protection in the Placer County General Plan (Policy 6.C.1.f and 6.E.2.f). In addition to deer movement, resident wildlife species occurring in the Plan area include black bear, coyote, raccoon, and numerous other mammal species utilize these corridor areas for movement.

Implementation of the Proposed Land Use Diagram may result in development patterns associated with residential, commercial and recreation use development that obstruct these corridors. Specifically, development in the northwestern portion of the Plan area could block movement of deer and resident wildlife species that are currently utilizing the western-most corridor identified in **Figure 4.9-5**, depending on the ultimate density and form of development. While there are open space corridors provided in the northwestern portion of the Plan area on various properties (e.g., Hopkins Ranch, Eaglewood, Siller Ranch), there is no direct linkage between these areas to provide for wildlife movement. Residential and recreational development in the general Northstar-at-Tahoe area may result in alteration of the use of the southern-most movement and result in constricting movement along the central corridor generally along the Martis Creek corridor, which would be designated as open space.

In addition to direct development impacts to deer migration movement corridors, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

AA Existing Martis Valley General Plan Land Use Map

Implementation of the Existing Martis Valley General Plan Land Use Map may result in development patterns that obstruct these corridors associated with residential, commercial and recreation use development. Specifically, development in the northwestern portion of the Plan area could block movement of deer and resident wildlife species that are currently utilizing the western-most corridor identified in **Figure 4.9-5**, depending on the ultimate density and form of development. While the Siller Ranch density would likely provide adequate spacing for wildlife movement, there are open space corridors connections to the northeast (e.g., Hopkins Ranch and Eaglewood). Residential and recreational development in the general Northstar-at-Tahoe area may result in alteration of the use of the southern-most movement and result in constricting movement along the central corridor generally along the Martis Creek corridor, which would be designated as open space.

In addition to direct development impacts to deer migration movement corridors, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

AB Alternative 1 Land Use Map

Implementation of the Alternative 1 Land Use Map may result in development patterns that obstruct these corridors associated with residential, commercial and recreation use development. Specifically, development in the northwestern portion of the Plan area could block movement of deer and resident wildlife species that are currently utilizing the western-most corridor identified in **Figure 4.9-5**, depending on the ultimate density and form of development. While the Siller Ranch density would likely provide adequate spacing for wildlife movement, there are open space corridors connections to the northeast (e.g., Hopkins Ranch and Eaglewood). Residential and recreational development in the general Northstar-at-Tahoe area may result in alteration of the use of the southern-most movement and result in constricting movement along the central corridor generally along the Martis Creek corridor, which would be designated as open space.

In addition to direct development impacts to deer migration movement corridors, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

AC Alternative 2 Land Use Map

Implementation of the Alternative 2 Land Use Map may result in development patterns that obstruct these corridors associated with residential, commercial and recreation use development. Specifically, development in the northwestern portion of the Plan area could block movement of deer and resident wildlife species that are currently utilizing the western-most corridor identified in **Figure 4.9-5**, depending on the ultimate density and form of development. While there are open space corridors provided in the northwestern portion of the Plan area on various properties (e.g., Hopkins Ranch, Eaglewood, Siller Ranch), there is no direct linkage between these areas to provide for wildlife movement. Residential and recreational development in the general Northstar area may result in alteration of the use of the southern-most movement and result in constricting movement along the central corridor generally along the Martis Creek corridor, which would be designated as open space.

In addition to direct development impacts to deer migration movement corridors, additional impacts may also occur from direct (removal and loss) and indirect (human intrusion) impacts from proposed trail extensions, potential widening of SR 267 to 4 lanes, and potential expansion of ski terrain at Northstar-at-Tahoe.

<u>Policies and Implementation Programs</u>

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are listed below. Compliance with these Plan policies and implementation programs would provide some mitigation to wildlife movement corridor impacts.

Policy 9.D.1 *The County shall require the provision of sensitive habitat buffers which shall, at a minimum, be measured as follows: 100 feet from the centerline of perennial streams, 50 feet from centerline of intermittent streams, and 50 feet from the edge of sensitive habitats to be protected including riparian zones, wetlands, old growth woodlands, and the habitat of rare, threatened or endangered species (see discussion of sensitive habitat buffers in Part 1 of the PCGP).*

In some cases, buffers shall be required which are substantially larger than noted above. Conversely, based on more detailed information supplied as a part of the review for a specific project, the County may determine that such setbacks are not applicable in a particular instance or should be modified based on the new information provided. In addition, the County may allow exceptions, such as in the following cases:

a. Reasonable use of the property would otherwise be denied;

b. The location is necessary to avoid or mitigate hazards to the public.

c. The location is necessary for the repair of roads, bridges, trails or similar infrastructure; or

d. The location is necessary for the construction of new roads, bridges, trails, or similar infrastructure where the County determines there is no feasible alternative and the project has minimized environmental impacts through project design and infrastructure placement

Policy 9.D.4 *The County shall require public and private development to address creeks and riparian corridors as follows:*

a. Preserve creek corridors and creek setback areas through easements or dedications. Parcel lines (in the case of a subdivision) or easements (in the case of a subdivision or other development) shall be located to optimize resource protection. If a creek is proposed to be included within an open space parcel or easement, allowed uses and maintenance responsibilities within that parcel or easement should be clearly defined and conditioned prior to map or project approval;

b. Designate such easement or dedication areas (as described in a. above) as open space;

c. Protect creek corridors and their habitat value by actions such as: 1) providing an adequate creek setback, 2) maintaining creek corridors in an essentially natural state, 3) employing creek restoration techniques where restoration is needed to achieve a natural creek corridor, 4) utilizing riparian vegetation within creek corridors, and where possible, within creek setback areas, 5) prohibiting the planting of invasive, non-native plants (such as vinca major and eucalyptus) within creek corridors or creek setbacks, and 6) avoiding tree removal within creek corridors;

d. Provide recreation and public access near creeks consistent with other General Plan policies;

e. Use design, construction, and maintenance techniques that ensure development near a creek will not cause or worsen natural hazards (such as erosion, sedimentation, flooding, or water pollution) and will include erosion and sediment control

practices such as: 1) turbidity screens and other management practices, which shall be used as necessary to minimize siltation, sedimentation, and erosion, and shall be left in place until disturbed areas are stabilized with permanent vegetation that will prevent the transport of sediment off site; and/or 2) temporary vegetation is established sufficient to stabilize disturbed areas, and;

f. Provide for long-term creek corridor maintenance.

Policy 9.D.9 *The County shall encourage the preservation and protection of open space located in watersheds, which serve reservoirs due to its importance in the adequate performance of those reservoirs for their intended purposes.*

The watershed is defined as those lands draining into a reservoir and having an immediate effect upon the quality of water within that reservoir. Those lands located within the watershed and within 5,000 feet of the reservoir shall be considered as having an immediate effect. For Martis Valley, this includes Martis Creek Lake.

Policy 9.D.10 *The County shall encourage the protection of flood plain lands and where appropriate, acquire public easements for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access and recreation.*

Policy 9.E.3 *The County shall support the conservation of a healthy forest including outstanding areas of native vegetation, including, but not limited to, open meadows, riparian areas, Great Basin Sage Scrub, Mixed Coniferous Forest, Montane Chaparral, Montane Meadow, and Red Fir Forest.*

Policy 9.E.4 *The County shall encourage the preservation of landmark trees and major groves of native trees, which have special characteristics or serve an important function such as historical interest, visual screening, shading of creeks or slope stability. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.*

Policy 9.E.6 *The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.*

Policy 9.G.1 *The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:*

a. Wetland areas.

b. Stream environment zones.

c. Identified habitat of rare, threatened or endangered animals or plants.

d. Critical deer winter ranges, migratory routes and fawning habitat.

e. Large areas of non-fragmented natural habitat, including all habitat types in the Martis Valley Plan area.

f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

g. Martis Lake and its tributaries.

Policy 9.G.2 *The County shall require the control of residual pesticides, herbicides, and related chemicals such as those used on golf courses, to prevent potential damage to water quality, vegetation, and wildlife.*

Policy 9.G.3 *The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.*

Policy 9.G.5 *The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.*

Policy 9.G.8 *The County shall cooperate with, encourage, and support the plans of other public agencies to acquire fee title or conservation easements to privately-owned lands in order to preserve important wildlife corridors and to provide habitat protection of California Species of Concern and state or federally listed rare, threatened, or endangered plant and animal species.*

Policy 9.G.9 *The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats; species and their habitats that have recreational value; wetland lacustrine and riverine habitats; wildlife migration corridors; and locally-important species/communities, such as wild trout.*

Policy 9.G.10 *Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites, prepared by a wildlife biologist or other qualified professional. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year, (if necessary) to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts.*

Implementation Program

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Natural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Land Development Departments/Planning Commission/Board of Supervisors
   Time Frame: On-going
   Funding: Application Fees

Mitigation Measures

The following mitigation measures would be added to the Community Plan as implementation programs under Section IX (Natural Resources) associated with the policies for "Fish and Wildlife Habitat" and would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

MM 4.9.11a The County shall require deer migration surveys for projects located within or adjacent to the 3 corridors identified in Figure 4.9-5 of the Martis Valley Community Plan Update EIR, as part of surveys required by Policy 9.G.10. The surveys shall define the extent of deer movement across the subject property and will refine the extent of the deer corridor onsite. If a deer migration corridor is identified, the corridor shall be maintained as open space. The exact width, design and amount of allowed disturbance (e.g., trails, recreation facilities, golf courses) in the corridor shall be based on the results of the survey and shall take into account connections with adjacent open space areas, vegetation and the seasonal cover and forage requirements of the migratory deer. The open space corridor shall be mapped and its design clearly identified.

Responsible Agency/Department: Planning Department
Time Frame: On-going
Funding: Permit Fees

MM 4.9.11b The County shall require that subsequent projects designate building envelopes as the allowed area of disturbance on an individual parcel basis to maximize the preservation of existing vegetation. Where possible, contiguous stands of trees within development areas shall be preserved and incorporated into the project design.

Fencing shall be limited to the building envelope of the parcel and not along parcel lines. If fencing is required along a parcel boundary, only post and cable, or other fencing methods easily cleared by wildlife, shall be installed.

Responsible Agency/Department: Planning Department
Time Frame: On-going
Funding: Permit Fees

Implementation of the above Community Plan policies, implementation program and mitigation measures would reduce impacts on wildlife movement to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

4.9.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION

SETTING

The cumulative setting is defined based on the distribution of local resident and migratory wildlife movement in Martis Valley. The Martis Valley cumulative setting for biological resources generally includes the Truckee portion of the Truckee River watershed, which extends from the outflow of Lake Tahoe to the California/Nevada state line and includes Placer County, Town of Truckee, and Nevada County. This takes into account the special-status species and their habitat found within the Plan area, including mountain yellow-legged frog, Lahontan cutthroat trout, migratory deer herds, raptors and other migratory birds, Sierra Nevada Red Fox, California Wolverine, Sierra Nevada Snowshoe Hare, Pacific Fisher, Sierra Nevada Mountain Beaver, and Pine Marten, and special-status bat species.

Table 3.0-1 and **Figures 3.0-4, 4.0-1** and **4.0-2** illustrate proposed and conceptual development projects in the Martis Valley area that along with development allowed under the Placer County General Plan, Town of Truckee General Plan, and Nevada County General Plan would contribute to cumulative biological resource impacts.

IMPACTS AND MITIGATION MEASURES

Impact 4.9.12 Loss of Special-Status Species and their Habitat, Interference with Wildlife Movement, and Fragmentation of Habitat

PP Implementation of the Proposed Land Use Diagram would contribute to the loss of habitat and forage lands, habitat degradation due to encroaching urbanization, direct and indirect impacts to sensitive species, habitat fragmentation, obstruction of movement corridors, and conflicts between wildlife and human activity. This would be a **cumulative significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would contribute to the loss of habitat and forage lands, habitat degradation due to encroaching urbanization, direct and indirect impacts to sensitive species, habitat fragmentation, obstruction of movement corridors, and conflicts between wildlife and human activity. This would be a **cumulative significant** impact.

AB Implementation of the Alternative 1 Land Use Map would contribute to the loss of habitat and forage lands, habitat degradation due to encroaching urbanization, direct and indirect impacts to sensitive species, habitat fragmentation, obstruction of movement corridors, and conflicts between wildlife and human activity. This would be a **cumulative significant** impact.

AC Implementation of the Alternative 2 Land Use Map would contribute to the loss of habitat and forage lands, habitat degradation due to encroaching urbanization, direct and indirect impacts to sensitive species, habitat fragmentation, obstruction of movement corridors, and conflicts between wildlife and human activity. This would be a **cumulative significant** impact.

PP Proposed Land Use Diagram

As proposed, the development of the Plan area, in conjunction with other future developments in the Town of Truckee and throughout the Martis Valley, would contribute to the ongoing loss of natural, undisturbed open space in the region resulting in a decline of biological resources and species diversity. The encroachment of urban areas into natural, relatively undisturbed open

space would directly impact special-status plant and wildlife species in Martis Valley and increased human use results in the degradation of natural undisturbed habitats. Road construction, site grading, and the construction of residential and recreational uses directly removes native plant species, removes habitat for wildlife, and increases the fragmentation of open space in the region effecting wildlife dispersal.

Cumulative development conditions in Martis Valley (including the Proposed Land Use Diagram) would result in the restriction of wildlife movement. In addition, ski terrain expansions at Northstar-at-Tahoe, the widening of SR 267, and the extension of trail systems within Martis Valley would have both direct and indirect impacts on biological resources. Cumulatively, these developments will contribute to the continuing fragmentation of the Martis Valley.

AA Existing Martis Valley General Plan Land Use Map

The Existing Martis Valley General Plan Land Use Map would result in contribute to cumulative biological resource impacts in Martis Valley in a manner similar to the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

The Alternative 1 Land Use Map would result in contribute to cumulative biological resource impacts in Martis Valley in a manner similar to the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

The Alternative 1 Land Use Map would result in contribute to cumulative biological resource impacts in Martis Valley in a manner similar to the Proposed Land Use Diagram.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan that are identified in Impacts 4.9.1 through 4.9.11, which would minimize cumulative biological resource impacts of the Proposed Land Use Diagram and Alternatives AA through AC.

Mitigation Measures

While previously identified policies and implementation programs within the Martis Valley Community Plan along with mitigation measures MM 4.9.3, MM 4.9.4, MM 4.9.5a and b, MM 4.9.6, MM 4.9.7, MM 4.9.8 and MM 4.9.11a and b would reduce the impacts of the Proposed Land Use Diagram and Alternatives AA, AB, and AC, these cumulative impacts are considered **significant and are unavoidable** given the extent of fragmentation and loss of habitat anticipated under cumulative conditions**.**

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PERSONAL COMMUNICATIONS

Jeff Finn, Biologist, California Department of Fish and Game. May 16, 2000 and August 1, 2001.

John Hiscox, Fisheries Biologist, California Department of Fish and Game. July 31, 2001.

Kris Boatner, District Wildlife Biologist, U.S. Forest Service Tahoe-Truckee Ranger District. August 1, 2001.

William Cowen, Fisheries Biologist, U.S. Fish and Wildlife Service. September 2001.

SECTION 4.10
CULTURAL AND PALEONTOLOGICAL RESOURCES

This section describes the potential impacts of the project on cultural resources within the Placer County segment of the Martis Valley area. This section also includes an assessment of significance for identified cultural resources and an evaluation of potential impacts to cultural resources that could result from implementation of the proposed project. Analysis in this section is based upon a literature review conducted for prehistoric and historic resources within the vicinity of the Plan area, and information obtained from a record search performed by the North Central Information Center for California Historical Resources.

4.10.1 EXISTING SETTING

PREHISTORIC BACKGROUND

In the broadest terms, the archaeological signature of the Truckee Basin consists of a trend from hunting-based societies in earlier times to populations that were increasingly reliant upon diverse resources by the time of historic contact. The gradual shift in characteristics may be attributed to factors such as paleoclimate, a shifting subsistence base, and demographic changes.

Some of the oldest archaeological remains reported for the Tahoe Region have been found in the Truckee River Canyon near Squaw Valley. These Pre-Archaic remains suggest occupation about 9,000 years ago. Other Pre-Archaic to Early Archaic occupation was documented at Spooner Lake near Spooner Summit overlooking Lake Tahoe, dating from about 7,000 years ago. The most intensive period of occupation in the region may have occurred at varying intervals between 500 and 4,000 years ago. The protohistoric ancestors of the Washoe, also of Late Archaic times, may date roughly from 500 years ago to historic contact in the early 1800's.

ETHNOGRAPHIC BACKGROUND

The Martis Valley area falls within the center of historic Washoe territory, with primary use by the northern Washoe. Washoe settlements are known to have existed in the Community Plan area. The Town of Truckee is on the site of a large Washoe village called *K'ubuna detde'yi'*. Below Truckee, at Trout Creek, was the village site of *Pele ma'lam detde'yi'*.

The Washoe are part of an ancient Hokan-speaking residual population, which has been subsequently surrounded by Numic-speaking intruders, such as the Northern Paiute (Jacobsen 1966). While they were an informal and flexible political collectivity, Washoe ethnography hints at a level of technological specialization and social complexity that was uncharacteristic of their surrounding neighbors in the Great Basin. A semi-sedentary existence and higher population densities, concepts of private property, and communal labor and ownership are reported and may have developed in conjunction with their residential and subsistence resource stability.

The ethnographic record suggests that during the mild season, small groups traveled through high mountain valleys collecting edible and medicinal roots, seeds and marsh plants. In the higher elevations, men hunted large game and trapped smaller mammals. The Truckee River and its tributaries were important fisheries year-round. Suitable toolstone was quarried at various locales. The Washoe have a tradition of making long treks across the Sierran passes for the purpose of hunting, trading and gathering acorns. These aboriginal trek routes, patterned after game trails, were often the precursors of historic and modern road systems. Archaeological evidence of these ancient subsistence activities is found along the mountain flanks.

While some Washoe trekked to distant places for desired resources, most groups circulated in the vicinity of their traditional habitation sites. They appear to have been less compelled in their subsistence pursuit to cover large expanses of land than was the case for other groups in the Great Basin, due to the large variety of predictable resources close at hand (d'Azevedo l986:472). Their relatively rich environment afforded the Washoe a degree of isolation and independence from neighboring peoples and may account for their long tenure in their known area of historic occupation. Even into the 20th century, the Washoe were not completely displaced from their traditional lands.

The contemporary Washoe have developed a Comprehensive Land Use Plan. It includes goals of reestablishing a presence within the Tahoe Sierra and revitalizing Washoe heritage and cultural knowledge, including the harvest and care of traditional plant resources and the protection of traditional properties within the cultural landscape. The Washoe regard all "prehistoric" remains and sites within the Truckee Basin as being associated with their history.

HISTORICAL BACKGROUND

Early Settlement

The history of the Truckee community began with the arrival of Joseph Gray, who built a stage station near the present-day downtown in l863. Gray was soon joined by a blacksmith named S. S. Coburn, and the fledgling settlement of Gray's Toll Station was renamed Coburn's Station. This tiny way station grew from two structures into a thriving town that accommodated emigrants, stagecoach travelers and freight wagons en route westward to California's gold fields and eastward to the Comstock Lode in Nevada. In 1868, Coburn's Station burned and the name was changed to Truckee. The completion of the transcontinental railroad in l868 gave rise to other developments in transportation, lumber, ice, agriculture and tourism, which were to become the essential economic bases of Truckee.

Throughout most of the 19th century, Truckee thrived on the related fields of lumber, railroading and ice. By the 1920s, this industrial economy and society had largely disappeared, due to the relocation of the train-switching yard to Roseville, the depletion of local timber supplies and the development of mechanical refrigeration. In its place, the community began to develop a recreation-based economy, boosted by the completion of a good state highway over Donner Summit. The 1960 Winter Olympics at nearby Squaw Valley secured Truckee's position as a center point for year-round recreation. In 1993, Truckee was incorporated as a Town.

Virtually all the Town of Truckee is considered moderately to extremely sensitive with regard to the presence of cultural resources. The downtown is home to a high concentration of structures that have historical significance. The area consisting of Donner Pass Road, Jibboom Street, Bridge Street, Church Street, and East and West River Street comprise the commercial and early residential area of Truckee. The downtown area is formed around the Southern Pacific railroad line that runs through the heart of Truckee. The Truckee station was an integral part of the first transcontinental railroad and became an important hub of train service for the western United States.

Transportation

Some of the first Euro American visitors to the Truckee area were members of the Stephens-Murphy-Townsend Party, who ascended the Truckee River in mid-November of l844. Subsequent emigrant travelers followed an alternate route to avoid the rugged Truckee River Canyon, leaving Nevada in the vicinity of Dog Valley and then angling back down to the Truckee River east of the route of

present-day State Route 89. This route later became known as the Truckee Route of the Emigrant Trail.

The Emigrant Trail was a route that thousands of people followed in order to reach California or Oregon. Between the years 1841 and 1869, it is estimated that 300,000 to 500,000 individuals traveled 2,000 miles across the continent to California or Oregon in search of a new life or gold. A portion of the Emigrant trail follows a route through the Truckee Basin. The trail passes through the Town of Truckee and continues toward Donner Lake. This area is where the ill-fated Donner Party was stranded during a harsh Sierra winter from 1846 to 1847.

In 1864, the Dutch Flat and Donner Lake Wagon Road (DFDLWR) was opened over Donner Pass. The road followed basically the same route through Truckee that the earlier emigrants had followed, entering the northeast end of the Town along a present-day dirt road that runs between the Old Truckee Cemetery and the Old Catholic Cemetery. This freight and passenger wagon road was situated near the proposed alignment of the Central Pacific Railroad (CPRR), as it was designed to aid in transporting supplies to points along the line. It formed the final link in a continuous freight and passenger road from Dutch Flat to the Comstock mines near Virginia City. Used as a wagon haul road until 1909, the DFDLWR was rebuilt as an auto and truck road between 1909 and 1915. This new road was renamed the "Lincoln Highway" in 1915, forming the Verdi-Truckee link in the nation's pioneer transcontinental automobile highway. In the 1920s, the Lincoln Highway was redesignated the `Victory Highway,' which subsequently became U.S. Highway 40 in 1925. Travel along Highway 40 was short-lived, as later that year the route was moved into the Truckee River Canyon. Today, US Highway 80 provides a vital east-west route over the Sierra-Nevada mountain range.

Logging

Logging was first initiated in the Martis Valley area after the discovery of the Comstock Lode in 1859. The Martis Valley area soon became one of the major lumbering centers. Intensive cutting within the project area commenced in 1863. Lumber mills were prevalent throughout the area with lumber mills located at Hobart, Truckee, in Martis Valley, and the Squaw Valley area. Sawmills owned by George Schaffer were scattered throughout the Martis Valley. The Schaffer's Mill Chairlift at Northstar is located near the site of one of his mills. Railroad lines were constructed to connect Truckee with the Hobart lumber mill. A narrow gauge line was also constructed between Truckee and Tahoe City to haul freight, forest products and tourists. Logging continued to be a major industry in the area until the 1920's.

Charcoal Production

Charcoal production formed an important adjunct to the lumber industry. The organization of Sisson, Crocker and Company was created in l866 at Truckee exclusively for the purpose of importing Chinese labor for railroad construction. With the completion of the railroad, the Chinese immigrants were channeled to the lumber industry, among other occupations. Such engagement forced immigrant Chinese into direct competition with Euro Americans. Subsequent anti-Chinese sentiment resulted in the initial expulsion of Chinese from Truckee in l878 and the ultimate demise of Truckee's Chinese community in 1886. Between those dates, the project area and adjoining lands were apparently under the ownership of Sisson, Crocker and Company, who employed large numbers of Chinese in the production of charcoal to supply the railroad and the smelting works of Nevada and Utah.

Grazing

The Martis Valley Community Plan area has historically been used for cattle grazing. The meadows provided feed for cattle herds from the Sacramento Valley during the hot summer months. The historic Joerger Ranch is located between Schaffer Mill Road and State Route 267 north of the Lahontan development.

Ice Production

Truckee played an important role as an ice production area for the transcontinental railroad from the 1880's until the early 1900's. Truckee was a vital railroad switching yard and the cold climate of the Martis Valley allowed for perishable goods on board trains to be packed with ice before being shipped east across Nevada or west toward Sacramento. The ice industry came to an abrupt halt with the introduction of mechanized refrigeration.

Recreation

Skis, which were once the only available means of winter transportation, are now a major form of winter recreation. "Snowshoe" racing, on skis 14 feet long, first became a popular sport during the 1860's. The Truckee basin contains several winter recreational resorts. Squaw Valley, the oldest ski operation in the area, was started in 1947, and was the home of the 1960 Winter Olympic Games. The Martis Valley Community Plan area contains the Northstar-at-Tahoe resort that provides skiing as well as year round recreational opportunities.

KNOWN CULTURAL RESOURCES IN THE PLAN AREA

Prehistoric Resources

The Martis Valley area is generally considered rich in cultural resources. While several prehistoric sites and resources have been identified, there is a high probability that many significant cultural resources remain undiscovered within the project region. A comprehensive cultural resources inventory was completed by the Placer County Department of Museums. Phase III of the Placer County Cultural Resources Inventory focused on unincorporated areas of the County, including Martis Valley. While this survey did not indicate that prehistoric resources had been located in the planning area, it is a well-known fact that the Martis Valley Community Plan area was home to the Washoe people. Prehistoric campsites, lithic scatters, and bedrock milling stations are known to be throughout the planning area. Many sensitive resource sites are adjacent to waterways and meadow areas.

A cultural resources record search was requested of the North Central Information Center (NCIC) at California State University, Sacramento. Using the information from the NCIC record search along with previous environmental impact reports for projects within the Martis Valley Community Plan area, the following prehistoric cultural resources have been identified in the Plan area.

The Gooseneck Ranch (Lahontan) Final Environmental Impact Report indicated that ten potentially sensitive sites occur within the project area. Of these ten culturally sensitive sites, the following nine sites are prehistoric in nature:

- GN2 consists of a small scatter of basalt flakes and one rhyolite bifacial core.
- GN3 is a small sparce scatter of lithic tools, primarily basalt.
- GN4 contains small basalt debitage, worked flakes, a kneeled surface, and an obsidian projectile point fragment.
- GN5 a large prehistoric campsite with midden and lithic material
- GN6 a small prehistoric campsite containing basalt debitage and an obsidian projectile point fragment.
- GN7 a small lithic scatter containing basalt cores, edge modified flakes, and debitage.
- GN8 a small lithic scatter of basalt debitage.
- GN9 contains a small prehistoric camp containing a midden and obsidian and basalt debitage.
- GN10 a large prehistoric campsite along Martis Creek.

The Lahontan II Environmental Impact Report indicated that five sites of potential historical or archaeological significance were located. Of these five sites, the following three have prehistoric significance:

- LHT-01 is a small bedrock milling station and lithic scatter along the eastern bank of a shallow drainage, containing 2 bedrock morter loci with a total of 5 pits in low basalt rocks.
- LHT-02 a sparse lithic scatter over the surface of an open meadow area near a shallow drainage.
- LHT-04 consists of a sparse lithic scatter adjacent to a major spring on the western margin of a shallow drainage.

The Cultural Resources Baseline Data for Northstar-at-Tahoe (KEA, 2001) indicated eight prehistoric sites within the Northstar-at-Tahoe project area. Most of the prehistoric remains consist of isolated artifacts such as single projectile points or flakes. The sections where the prehistoric resources were discovered exhibit relatively level ground and close proximity to at least seasonal water sources. Both of these features are consistently present on most prehistoric archaeological sites. Most of the terrain on the Northstar property is steep, rocky slope that is not attractive for a living environment, and consequently, was most likely infrequently occupied or visited by prehistoric peoples. The following resources were found to be prehistoric in nature on the Northstar-at-Tahoe property:

- (NS-32) Sawmill Flat Site I
- (NS-35) Sawmill Flat Site II
- (NS-36) Sawmill Flat Site III
- (NS-29) Sawmill Flat Site IV
- (NS-16) Middle Martis Creek Site I
- (NS-18) Middle Martis Creek Site II
- (NS-20) Middle Martis Creek Site III
- (NS-21) Middle Martis Creek Site IV

Historic Resources

Properties of historical importance in California are currently designated as significant resources in three State registration programs: State Historical Landmarks, Points of Historical Interest, and the California Register of Historic Places. Below is a list of three State Historical Landmarks that are within the region.

- No. 134 Donner Monument (or) Pioneer Monument: Located at Donner Memorial State Park, Old Highway 40 at Interstate 80 and Truckee exit, Truckee, the memorial commemorates the ill-fated Donner Party of California-bound emigrants, who wintered here in 1846-1847. Many of the party died of exposure and starvation.

- No. 780-6 First Transcontinental Railroad, Truckee: While construction on Sierra tunnels delayed Central Pacific, advance forces at Truckee began building 40 miles of track east and west of Truckee, moving supplies by wagon and sled. The Summit Tunnel was opened in December 1867. The line reached Truckee April 3, 1868, and the Sierra was conquered. Rails reached Reno June 19, 1868 and construction advanced eastward toward meeting with Union Pacific at the rate of one mile daily. On May 10,1869, the rails met at Promontory (Utah) to complete the first transcontinental railroad. The railroad is located at Southern Pacific Depot, 70 Donner Pass Road, Truckee.

- No. 724 Pioneer Ski Area of America, Squaw Valley: The VIII Olympic Games of 1960 commemorated a century of sport skiing in California and took place at Squaw Valley Sports Center, northeast corner of Blyth Olympic Arena Building, Squaw Valley Road, Squaw Valley. By 1860, the Sierra Nevada, particularly at the mining towns of Whiskey Diggings, Poker Flat, Port Wine, Onion Valley, LaPorte, and Johnsville, some 60 miles north of Squaw Valley, saw the first organized ski clubs and competition in the western hemisphere.

Within the region, there is one National Historic Landmark. Donner Camp located at the Donner Memorial State Park, National Register Number 66000218. This site is a memorial to the Donner party. In the winter of 1846-1847, a group of 89 California-bound emigrants led by Jacob and George Donner was trapped by the heavy snows of the High Sierra. Bitter cold and dwindling food supplies reduced the wagon train to a group of desperate individuals unable to cooperate, driven to terror and degradation. Four relief expeditions eventually rescued 47 of the party.

The Northstar-at-Tahoe North Lookout Ski Pod Project Final Environmental Impact Report indicates that the project area's likelihood to contain historic resources is considered moderately high. Sawmills, logging roads, skidways, and wood camps associated with logging are the principle historical sites. The Cultural Resources Baseline Data for Northstar-at-Tahoe prepared by KEA Environmental (March 2001) identifies historic resources on the Northstar-at-Tahoe property. In general, these features are located in two main areas near the eastern extent on Northstar property. One group of resources is located near the Middle Martis Creek drainage which includes several sections of logging roads, a cabin site, and sections of the Richardson Brothers railroad grade, which would have been associated with the Richardson Brothers logging operations. The second cluster of sites is found on Sawmill Flat near the Sawmill Flat Reservoir. Present in this area is a large section of the Richardson Brothers log chute, associated supply depots and two structures that may have been related to the logging operation or served as hunting cabins in the early years of the 20th century. The following are the identified historic resources in the Northstar-at-Tahoe area:

- (NS-1) Richardson Brothers Log Chute
- (NS-1 contd.) Richardson Brothers log chute & Railroad Grade
- (NS-2) Beaver Pond Aspen Carvings
- (NS-7) Richardson Brothers Railroad Grade
- (NS-4, NS-9) Logging Road Sections
- (NS-11) Terry's Cabin
- (NS-12) Terry's Cabin Stone Wall
- (NS-13) Sawmill Flat Cabins
- (NS-29) Sawmill Flat Historic Scatter, Site IV
- (NS-50) Backside Mine
- (NS-27) Middle Martis Mining Feature
- (NS-8, 9) Middle Martis Logging Roads
- (NS-24) Old Brockway Road

The Historic Brockway Road Grade has partial pavement remaining. This runs parallel to the present day Rt. 267 for approximately one-half mile before disappearing in road fill from present route.

The Gooseneck Ranch Final Environmental Impact Report indicated that ten potentially sensitive sites occur within the project area. Of these ten sites, one site had the potential to be an historic resource.

- GN1 contains historic materials and consists of a trash dump from the turn of the century.

The Lahontan II Environmental Impact Report indicated that five sites of potential historical or archaeological significance were located. Of the five sites, only one was historic in nature and upon further investigation, did not prove to be significant.

- LHT-05 includes a historic trash deposit on the edge of a wet meadow from approximately the 1950's.

The Siller Ranch Archaeological Investigations report (Pacific Legacy, 2002) indicated that there are three archaeological sites located within the Siller Ranch project boundaries. Of the three sites, only the Schaffer Mill site has historic significance. The Schaffer Mill site is eligible for inclusion in the CRHR due to its associate with the life of a person important in the history of Truckee.

- P-31-001158 is a historic water ditch or flume.
- FS 05-17-57-449 is a historic trash scatter.
- P-31-001142 (Schaffer Mill) is a historic mill site.

A cultural resources record search by North Central Information Center (NCIC) at California State University, Sacramento identified the historic settlement of Elizabethtown, which was established in the early 1860s as result of the discovery of gold and silver north of Lake Tahoe. Based on historical accounts, Elizabethtown only consisted of two to three houses and was abandoned by 1864 (NCIC, 2000).

NATIVE AMERICAN RESOURCES

A sacred lands search and a list of Native American contacts was requested from the Native American Heritage Commission. The sacred lands search did not identify any Native American cultural resources either within or near the currently proposed project area.

PALEONTOLOGICAL RESOURCES

Paleontology is defined as a science dealing with the life of past geological periods as known from fossil remains. Paleontological resources include fossil remains, as well as fossil localities and formations, which have produced fossil material in other nearby areas. This resource can be an important educational resource for the reasons mentioned before, and are nonrenewable once destroyed. The California Environmental Quality Act offers protection for these sensitive resources and requires that they be addressed during the EIR process.

The Martis Valley area has been under study from universities and academics from all over the country. The area consists of mostly settled volcanic flows that have been carved out by glaciation. The glaciation that occurred in the area thousands of years ago provides academics with potential for paleontological finds within the area. These finds are of particular concern and of great value since they contain data about our geologic past.

Known Occurrences of Paleontological Resources in the Region

While there have been some paleontological finds in the region, there have been no finds to date within the Martis Valley Community Plan area. In 1993, there was a finding of a mastodon[1] just north of the Martis Valley Community Plan area near Boca Reservoir in Nevada County. The mastodon is hypothesized to have originated from a more northerly location and was relocated in a glacier that slowly moved into the region.

Within Placer County, there have been four findings of paleontological significance. They have been discovered in the western part of the County, where it is more urbanized. The urbanization and development of this area is the impetus to these finds. The occurrences of paleontological finds within the Martis Valley Community Plan area will most likely be predicated by the future development. To date, there are no active digs within Martis Valley Community Plan area.

An analysis for the potential presence of paleontological resources was performed as part of the environmental review of the Lahontan II project, which is located within the western portion of the Community Plan area. The analysis determined that the presence of paleontological resources on the Lahontan II project was unlikely, and that preserved fossil remains would more likely occur in Pleistocene Nonmarine Sedimentary Rocks, fluvial and lacustrine deposits of gravel, sand, silt and clay (Placer County, 1999).

The paleontologic resource assessments of the Hopkins Ranch Project (August 26, 2001) and the Eaglewood Project (March 20, 2001) addresses paleontology and geology and the effects on

[1] Like the modern elephant, the mastodon was very large, with thick, sturdy legs; a huge head; tusks; hairy almost wooly body; and a flexible, muscular trunk.

each in the northwest section of the Martis Valley. This report outlines three specific geologic units in the Plan area that generally encompass land areas planned for development.

- Bald Mountain Olivine Latite (Qlbm) - This is one of approximately 20 volcanic flows within the Truckee area. There are no fossil occurrences reported from these volcanics, and due to the nature of their origin it is unlikely that any fossils will occur in them.

- Pleistocene nonmarine sedimentary rocks – Prosser Creek Alluvium (Qc, Qos, Qlpc)- This is a sedimentary unit composed of multiple facies including sandstones, siltstones and mudstones and was deposited in river-stream and lake environments. A record search of the paleontologic collections of the Museum of Paleontology, University of California, Berkeley indicated that no fossils have been collected from deposits mapped as Prosser Creek Alluvium or Pleistocene nonmarine within the Plan area. However, two terrestrial fossil vertebrate localities are recorded within 8 miles of the Plan area to the north of the Truckee River.

- Quaternary alluvium - This consists of unconsolidated gravels, sands, silts and muds that have accumulated in Recent to Sub-Recent time. There have not been any fossils or localities discovered in these deposits in the area. When fossils are found in this sediment, it is considered to be significant as it pertains to information about a time in the not to distant past.

4.10.2 REGULATORY FRAMEWORK

FEDERAL

The National Historic Preservation Act (NHPA), enacted in 1966, was an attempt to preserve the historical and cultural foundations of the American people. The congress found that historic properties significant to the Nation's heritage were being lost or substantially altered, often inadvertently. The preservation of this irreplaceable heritage was in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, benefits would be maintained and enriched for future generations of Americans.

The Advisory Council on Historic Preservation's implementing regulations, "Protection of Historic Properties" can be found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process under NHPA is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60. Recent amendments to the Act (1986 and 1992) and subsequent revisions to the implementation regulations have strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if the project requires a federal permit or if it uses federal money.

STATE

The California Register of Historic Resources (CRHR) serves as the authoritative guide to resources that are considered historic under the California Environmental Quality Act (CEQA). However, simply because a resource is not currently listed in the CRHR does not mean that it is not a historical resource. State historic preservation regulations affecting the Martis Valley Community

Plan include statutes and guidelines contained in the CEQA: Public Resources Code Sections 21083.2 and 21084.1 and Section 15064.5 of the CEQA Guidelines. CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. A "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript, which is historically or archaeologically significant (Public Resources Code Section 5020.1). Section 15064.5 of the CEQA Guidelines specifies criteria for evaluating the importance of cultural resources. Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to, museums, historical commissions, associations and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (California Health and Safety Code Section 7050.5, California Public Resources Code Sections 5097.94f).

Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:

a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

b. Is associated with the lives of persons important in our past;

c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

d. Has yielded, or may be likely to yield, information important in prehistory or history.

CEQA emphasizes avoidance of archaeological and historical resources as the preferred means of reducing potential significant effects. If avoidance is not feasible, an excavation program or some other form of mitigation must be developed to mitigate the impacts.

LOCAL

Placer County General Plan

The Placer County General Plan identifies the County as having a rich cultural resource heritage that includes archaeological, historical, and paleontological sites and resources. The following Placer County General Plan goal details the County's policy on archaeology and cultural resources:

Goal 5.D. To identify, protect, and enhance Placer County's important historical, archaeological, paleontological and cultural sites and their contributing environment.

The Placer County General Plan contains several policies encouraging the inventory, protection, and interpretation of significant archaeological and historical resources. The proposed Community Plan policy document incorporates and refines these policies of the General Plan.

Martis Valley General Plan

The Martis Valley General Plan identifies the area as having a rich cultural significance recommends that prior to approval or implementation of any major projects, archaeological surveys should be completed. Efforts should also be made to enhance, preserve, and in some cases reconstruct known historical sites.

The Martis Valley General Plan contains the following policy related to cultural resources:

Environmental Resource Policies

13. Protection of archaeologic sites and enhancement of historic sites must be consistent and diligent.

4.10.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Cultural Resources

CEQA establishes statutory requirements for establishing the significance of archaeological resources (prehistoric-era) in Section 21083.2 and historical resources (historic-era) in Section 21084.1. Section 21083.2 defines a "unique archaeological resource" as "...an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

2) It has a special and particular quality such as being the oldest of its type or the best available example of its type.

3) Is directly associated with a scientifically recognized important prehistoric or historic event."

Section 21084.1 of CEQA defines historical resources as those listed on or eligible for listing on the California Register. The two sections operate independently to ensure that significant potential effects on archaeological and historical resources are considered as part of a project's environmental analysis.

The CRHR establishes a third set of criteria for determining the significance of historical resources that by definition includes prehistoric-era and historic-era resources (the California State Register Bill, PRC 5020 *et seq.*). The CRHR establishes 50 years as the period in which sufficient time has passed to allow a scholarly perspective in understanding the historic importance of a resource. A historical resource must be significant at the local, State, or national level under one or more of the following four criteria:

1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

2) It is associated with the lives of persons important to local, California, or national history;

3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or,

4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

All sets of criteria must be addressed when evaluating the significance of archaeological and historical resources under CEQA. Resources that are not deemed significant through formal evaluation need not be considered further in the CEQA process. In practice, however, ascertaining that a resource is not "unique," not "important," and does not meet CRHR criteria may involve more research, analysis, and testing than if the resource could be avoided or standard mitigation measures adopted for project impacts.

Paleontological Resources

Development of land areas within the Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units would be considered a potentially significant impact given the potential of these geologic units to contain paleontological resources.

METHODOLOGY

A document review for cultural resources was conducted for the parcel by the North Central Information Center of the California Historical Resources Information System on July 30, 2000. The records search indicated that somewhat less than 15 percent of the Plan area has been previously surveyed by professional archaeologists. This amounts to about five sections of land out of the over thirty-eight sections included in the Community Plan area. The review also mentioned another nine to ten sections had been inspected by foresters but their work was not those administered by the California Department of Forestry and Fire Protection. The majority of the study area either had no field survey or was surveyed by non-professionals (NCIC, 2000).

In addition to information provided by the North Central Information Center, existing documents prepared for the Plan area were reviewed and utilized. For paleontological resources, geologic mapping for the Plan area was reviewed for the potential presence of geologic units that have potential to bear paleontological resources.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 4.10.1 Impacts to Prehistoric and Historic Resources in the Plan Area

PP Implementation of the Proposed Land Use Diagram could result in the disturbance of known and undiscovered prehistoric and historic resources in the Plan area. This would be a **potentially significant** impact.

AA Implementation of the existing Martis Valley General Plan Land Use Map could result in the disturbance of known and undiscovered prehistoric and historic resources in the Plan area. This would be a **potentially significant** impact.

AB Implementation of the Alternative 1 Land Use Map could result in the disturbance of known and undiscovered prehistoric and historic resources in the Plan area. This would be a **potentially significant** impact.

AC Implementation of the Alternative 2 Land Use Map could result in the disturbance of known and undiscovered prehistoric and historic resources in the Plan area. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

Under the Proposed Land Use Diagram could conflict with existing known cultural resources as well as areas considered cultural sensitive in the Plan area. These areas/resources are generally described above in Section 4.10.1 (Existing Setting). In addition to these "known" resource areas, there is the potential that there are undiscovered prehistoric and historic resources that would be encountered by future development. As noted by NCIC, less than 15 percent of the Plan area has been previously surveyed by professional archaeologists.

In addition to planned development under the Proposed Land Use Diagram, conceptual ski resort and recreation facility expansions by Northstar-at-Tahoe would result in further land disturbance and potential cultural resource impacts beyond what is currently anticipated by the Proposed Land Use Diagram. Potential County roadway improvements (including potential widening of SR 267 to four lanes) and trail extensions could also further contribute to significant impacts to prehistoric and historic resources.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result in the similar impacts to known and undiscovered prehistoric and historic resources in the Plan area as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result in the similar impacts to known and undiscovered prehistoric and historic resources in the Plan area as the Proposed Land Use Diagram. However, this alternative would avoid major development east of the Northstar-at-Tahoe resort community on the Sierra Pacific property that is currently proposed under the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result in the similar impacts to known and undiscovered prehistoric and historic resources in the Plan area as the Proposed Land Use Diagram. However, this alternative would avoid major development east of the Northstar-at-Tahoe resort community on the Sierra Pacific property that is currently proposed under the Proposed Land Use Diagram.

Policies and Implementation Programs

The following Martis Valley Community Plan policies and implementation programs would reduce potential cultural resource impacts.

Policy 8.A.1 *The County shall assist the citizens of Martis Valley in becoming active guardians of their community's cultural resources.*

Policy 8.A.2 *The County shall solicit the cooperation of the owners of cultural and paleontological resources, encourage those owners to treat these resources as assets rather than liabilities, and encourage the support of the general public for the preservation and enhancement of these resources.*

Policy 8.A.3 *The County shall solicit the views of the Native American Heritage Commission and/or the local Native American community in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.*

Policy 8.A.4 *The County shall use, where feasible, incentive programs to assist private property owners in preserving and enhancing cultural resources.*

Policy 8.A.5 *The County shall require that discretionary development projects identify and protect from damage, destruction, and abuse, important historical, archaeological, paleontological, and cultural sites and their contributing environment. Such assessments shall be incorporated into a countywide cultural resource database, to be maintained by the Department of Museums.*

Policy 8.A.6 *The County shall require that discretionary development projects are designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance, and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical, or paleontological consultants, depending on the type of resource in question.*

Policy 8.A.7 *The County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.*

Policy 8.A.8 *The County shall support the registration of cultural resources in appropriate landmark designations (i.e., National Register of Historic Places, California Historical Landmarks, Points of Historical Interest, or*

Local Landmark). The County shall assist private citizens seeking these designations for their property.

Policy 8.A.9 *The County shall consider acquisition programs as a means of preserving significant cultural resources that are not suitable for private development. Organizations that could provide assistance in this area include, but are not limited to, the Archaeological Conservancy, The Nature Conservancy, and the Placer Land Trust.*

Implementation Programs

1. *Review development projects for compliance with the goals, policies and specific discussions contained in the Cultural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Board of Supervisors, Planning Commission, Land Development Departments
   Time frame: Ongoing
   Funding: Application fees

2. *The County shall prepare, adopt, and implement procedures for review and approval of all County-permitted projects involving ground disturbance and all building and/or demolition permits that will affect buildings, structures, or objects 45 years of age or older.*

   Responsible Agency/Department: Board of Supervisors, Planning Department, and Department of Museums
   Time frame: Ongoing
   Funding: Mitigation fees, Permit fees

3. *The County shall develop preservation incentive programs for owners of important cultural and paleontological resources, using such mechanisms as the Mills Act, the Historic Preservation Easement program, the Certified Local Government program, and the Heritage Tourism program.*

   Responsible Agency/Department: Planning Department, Department of Museums, Assessor
   Time frame: Ongoing
   Funding: Grants, General Fund

4. *The County shall establish a formal Placer County Register of Historical Properties to facilitate preservation of the locally significant historical properties that do not qualify for State or Federal listings.*

   Responsible Agency/Department: Department of Museums
   Time frame: Ongoing
   Funding: General Fund, Grants

5. *Because of the moderate to high sensitivity rating for most of the Plan area, it is believed prudent that all future projects which will involve potential ground disturbance be requested to provide a project specific record search as a part of environmental review. Based on the results of the record search, specific*

recommendations for archaeological or historical field survey, archival research, architectural evaluations, etc., could be made. In most cases, a field survey may be required.

Responsible Agency/Department: Department of Museums/Planning Department
Time frame: On-going
Funding: Permit fees/mitigation fees

6. *Require site-specific studies for archaeological or historical sites within the federal government's definition of "historical context" in all instances where land development has the potential to have a detrimental impact on these sites.*

   Responsible Agency/Department: Department of Museums/Planning Department
   Time frame: On-going
   Funding: Permit fees/mitigation fees

7. *If, as a result of an archaeological or historical field survey, sites of significance are discovered, the sites should be made known to the Placer County Department of Museums and Placer County Historical Advisory Board. The Board may recommend a listing of the site with the State of California as a National Register nomination, a State Landmark nomination, or a Point of Historical Interest. Furthermore, all known sites should be brought to the attention of the Department of Museums' office whose staff and volunteers are currently conducting a cultural resource inventory throughout Placer County.*

   Responsible Agency/Department: Department of Museums/Planning Department
   Time frame: On-going
   Funding: Permit fees/mitigation fees

8. *In the event that Native American remains and/or associated grave goods are discovered at any time during project review or construction, the project proponent shall stop work (if during construction or excavation) and contact the County Coroner and the Department of Museums.*

   Responsible Agency/Department: Department of Museums/Planning Department
   Time frame: On-going
   Funding: Permit fees/mitigation fees

9. *It is important that all historical sites are protected from destruction or demolition. Therefore, avoidance/protection is preferred over recordation and destruction. The few remaining significant structures in the area should be protected by the existing owners or purchased by the appropriate public agencies.*

   Responsible Agency/Department: Department of Museums/Planning Department
   Time frame: On-going
   Funding: Permit fees/mitigation fees

<u>Mitigation Measure</u>

The following mitigation measure shall be incorporated into the Martis Valley Community Plan as a policy under Goal 8.A of the Martis Valley Community Plan. The following mitigation measure applies to the Proposed Land Use Diagram and Alternatives AA, AB and AC.

MM 4.10.1 The County shall require all new development to suspend construction activities and contact the County when any cultural resources (e.g., structural features, unusual amounts of bone or shell, human remains, artifacts, human remains, architectural remains or significant paleontological resources) are discovered. In the event cultural resources or paleontological resources are discovered, the County shall retain a qualified cultural resource specialist or paleontologist to assess the finds and develop mitigation measures for the protection, recordation, or removal of the cultural resources or paleontological resources. These measures may also include consultation with local Native American communities and the Native American Commission on cultural resource finds. If human remains are discovered, all work must stop in the immediate vicinity of the find, and the County Coroner must be notified, according to Section 7050.5 of California's Health and Safety Code. If the remains are Native American, the coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner appropriate disposition of the remains and any grave goods.

Implementation of the above mitigation measure and the related Community Plan policies and implementation programs would reduce cultural resource impacts to **less than significant**.

Impact 4.10.2 Paleontological Resource Impacts

PP Implementation of the Proposed Land Use Diagram would result in the disturbance of Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units, which have potential to contain paleontological resources. This would be a **potentially significant** impact.

AA Implementation of the existing Martis Valley General Plan Land Use Map would result in the disturbance of Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units, which have potential to contain paleontological resources. This would be a **potentially significant** impact.

AB Implementation of the Alternative 1 Land Use Map would result in the disturbance of Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units, which have potential to contain paleontological resources. This would be a **potentially significant** impact.

AC Implementation of the Alternative 2 Land Use Map would result in the disturbance of Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units, which have potential to contain paleontological resources. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

As previously described above, the northern and central portions of the Plan area are located within the Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units. These geologic units are considered to have a high paleontological resource sensitivity, especially given the discovery of Pleistocene fossil vertebrate specimens approximately eight miles north of the Plan area (Wagner, 2001). As shown in **Figure 3.0-5**, a

majority of the proposed development would be located within the northern and central portions of the Plan area. Potential County roadway improvements (including potential widening of SR 267 to four lanes) and trail extensions could also further contribute to significant impacts to paleontological resources.

AA Existing Martis Valley General Plan Land Use Map

Subsequent development under the Existing Martis Valley General Plan Land Use Map would result in the similar potential impacts to paleontological resources in the Plan area as the Proposed Land Use Diagram. As shown in **Figure 3.0-6**, a majority of the proposed development would be located within the northern and central portions of the Plan area. Potential County roadway improvements and (including potential widening of SR 267 to four lanes) and trail extensions could also further contribute to significant impacts to paleontological resources.

AB Alternative 1 Land Use Map

Subsequent development under the Alternative 1 Land Use Map would result in the similar potential impacts to paleontological resources in the Plan area as the Proposed Land Use Diagram. However, this alternative would avoid major development east of the Northstar-at-Tahoe resort community on the Sierra Pacific property that is currently proposed under the Proposed Land Use Diagram. As shown in **Figure 3.0-7**, a majority of the proposed development would be located within the northern and central portions of the Plan area. Potential County roadway improvements (including potential widening of SR 267 to four lanes) and trail extensions could also further contribute to significant impacts to paleontological resources.

AC Alternative 2 Land Use Map

Subsequent development under the Alternative 2 Land Use Map would result in the similar potential impacts to paleontological resources in the Plan area as the Proposed Land Use Diagram. However, this alternative would avoid major development east of the Northstar-at-Tahoe resort community on the Sierra Pacific property that is currently proposed under the Proposed Land Use Diagram. As shown in **Figure 3.0-8**, a majority of the proposed development would be located within the northern and central portions of the Plan area. Potential County roadway improvements (including potential widening of SR 267 to four lanes) and trail extensions could also further contribute to significant impacts to paleontological resources.

Policies and Implementation Program

The following Martis Valley Community Plan policies and implementation program would reduce potential impacts discussed regarding paleontological resources.

Policy 8.A.2 *The County shall solicit the cooperation of the owners of cultural and paleontological resources, encourage those owners to treat these resources as assets rather than liabilities, and encourage the support of the general public for the preservation and enhancement of these resources.*

Policy 8.A.5 *The County shall require that discretionary development projects identify and protect from damage, destruction, and abuse, important historical, archaeological, paleontological, and cultural sites and their*

contributing environment. Such assessments shall be incorporated into a countywide cultural resource database, to be maintained by the Department of Museums.

Policy 8.A.6 *The County shall require that discretionary development projects are designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance, and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical, or paleontological consultants, depending on the type of resource in question.*

Implementation Programs

1. *Review development projects for compliance with the goals, policies and specific discussions contained in the Cultural Resources Section and throughout the Plan.*

   Responsible Agency/Department: Board of Supervisors, Planning Commission, Land Development Departments
   Time frame: Ongoing
   Funding: Application fees

3. *The County shall develop preservation incentive programs for owners of important cultural and paleontological resources, using such mechanisms as the Mills Act, the Historic Preservation Easement program, the Certified Local Government program, and the Heritage Tourism program.*

   Responsible Agency/Department: Planning Department, Department of Museums, Assessor
   Time frame: Ongoing
   Funding: Grants, General Fund

5. *Because of the moderate to high sensitivity rating for most of the Plan area, it is believed prudent that all future projects which will involve potential ground disturbance be requested to provide a project specific record search as a part of environmental review. Based on the results of the record search, specific recommendations for archaeological or historical field survey, archival research, architectural evaluations, etc., could be made. In most cases, a field survey may be required.*

   Responsible Agency/Department: Department of Museums/Planning Department
   Time frame: On-going
   Funding: Permit fees/mitigation fees

Mitigation Measures

Implementation of Mitigation Measure MM 4.10.1 in addition to the above proposed Community Plan policies and implementation programs would mitigate this impact for the Proposed Land Use Diagram and Alternatives AA, AB and AC to **less than significant**.

4.10.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

SETTING

As identified in the database search conducted by the North Central Information Center (NCIC) for archaeological and cultural studies in the Martis Valley and previous environmental studies associated with development in the area, the Martis Valley area is known to be rich in cultural resources. While many prehistoric and historic sites and resources have been identified, the probability is high that many of these resources remain undiscovered and should be taken under consideration upon any grading, excavation, or construction. In addition to cultural resources, Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units are located throughout the Town of Truckee and Nevada County portions of Martis Valley. As noted in Section 4.10.1 (Existing Setting), paleontological resource discoveries have been made in Martis Valley north of the Truckee River.

Development of proposed projects and planned land uses within the Town of Truckee and Nevada County portions of the Martis Valley area (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**) would contribute to potential conflicts with cultural resources.

IMPACTS AND MITIGATION MEASURES

Impact 4.10.3 Cumulative Impacts to Prehistoric and Historic Resources in the Martis Valley Area

PP Implementation of the Proposed Land Use Diagram in combination with proposed and planned development in the Martis Valley area could contribute to the disturbance of known and undiscovered prehistoric and historic resources in the Martis Valley area. This would be a **cumulative significant** impact.

AA Implementation of the existing Martis Valley General Plan Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the disturbance of known and undiscovered prehistoric and historic resources in the Martis Valley area. This would be a **cumulative significant** impact.

AB Implementation of the Alternative 1 Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the disturbance of known and undiscovered prehistoric and historic resources in the Martis Valley area. This would be a **cumulative significant** impact.

AC Implementation of the Alternative 2 Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the disturbance of known and undiscovered prehistoric and historic resources in the Martis Valley area. This would be a **cumulative significant** impact.

PP Proposed Land Use Diagram

As described under Impact 4.10.1, development under development under the Proposed Land Use Diagram could conflict with existing known cultural resources as well as areas considered cultural sensitive in the Plan area. This would add to potential cultural resource conflicts from development in the Martis Valley (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**), as well as from conceptual ski resort and recreation facility expansions by Northstar-at-Tahoe.

AA Existing Martis Valley General Plan Land Use Map

As described under Impact 4.10.1, development under development under the existing Martis Valley General Plan Land Use Map could conflict with existing known cultural resources as well as areas considered cultural sensitive in the Plan area similar to the Proposed Land Use Diagram. This would add to potential cultural resource conflicts from development in the Martis Valley (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**), as well as from conceptual ski resort and recreation facility expansions by Northstar-at-Tahoe.

AB Alternative 1 Land Use Map

As described under Impact 4.10.1, development under development under the Alternative 1 Land Use Map could conflict with existing known cultural resources as well as areas considered cultural sensitive in the Plan area similar to the Proposed Land Use Diagram. This would add to potential cultural resource conflicts from development in the Martis Valley (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**), as well as from conceptual ski resort and recreation facility expansions by Northstar-at-Tahoe.

AC Alternative 2 Land Use Map

As described under Impact 4.10.1, development under development under the Alternative 2 Land Use Map could conflict with existing known cultural resources as well as areas considered cultural sensitive in the Plan area similar to the Proposed Land Use Diagram. This would add to potential cultural resource conflicts from development in the Martis Valley (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**), as well as from conceptual ski resort and recreation facility expansions by Northstar-at-Tahoe.

Policies and Implementation Programs

Martis Valley Community Plan policies and implementation programs would reduce the Community Plan's contribution to potential cultural resource impacts are identified under Impact 4.10.1.

Mitigation Measure

Implementation of Mitigation Measure MM 4.10.1 in addition to the proposed Community Plan policies and implementation programs would mitigate this cumulative impact for the Proposed Land Use Diagram and Alternatives AA, AB and AC to **less than significant**.

Impact 4.10.4 Cumulative Impacts to Paleontological Resource Impacts in the Martis Valley Area

PP Implementation of the Proposed Land Use Diagram in combination with proposed and planned development in the Martis Valley area could contribute to the loss of paleontological resources in the Martis Valley area. This would be a **cumulative significant** impact.

AA Implementation of the existing Martis Valley General Plan Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the loss of paleontological resources in the Martis Valley area. This would be a **cumulative significant** impact.

AB Implementation of the Alternative 1 Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the loss of paleontological resources in the Martis Valley area. This would be a **cumulative significant** impact.

AC Implementation of the Alternative 2 Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the loss of paleontological resources in the Martis Valley area. This would be a **cumulative significant** impact.

PP Proposed Land Use Diagram

As described under Impact 4.10.2, development under the Proposed Land Use Diagram could result in the loss of paleontological resources in the Plan area as a result of placing development within the Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units. This would add to potential paleontological resource impacts from development in the Martis Valley (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**).

AA Existing Martis Valley General Plan Land Use Map

As described under Impact 4.10.2, development under the existing Martis Valley General Plan Land Use Map could result in the loss of paleontological resources in the Plan area as a result of placing development within the Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units similar to the Proposed Land Use Diagram. This would add to potential paleontological resource impacts from development in the Martis Valley (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**).

AB Alternative 1 Land Use Map

As described under Impact 4.10.2, development under the Alternative 1 Land Use Map could result in the loss of paleontological resources in the Plan area as a result of placing development within the Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units similar to the Proposed Land Use Diagram. This would add to potential paleontological resource impacts from development in the Martis Valley (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**).

AC Alternative 2 Land Use Map

As described under Impact 4.10.2, development under the Alternative 2 Land Use Map could result in the loss of paleontological resources in the Plan area as a result of placing development within the Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units similar to the Proposed Land Use Diagram. This would add to potential paleontological resource impacts from development in the Martis Valley (see **Table 3.0-1** and **Figures 3.0-3** and **3.0-4**).

Policies and Implementation Program

Martis Valley Community Plan policies and implementation programs would reduce the Community Plan's contribution to potential paleontological resources impacts are identified under Impact 4.10.2.

Mitigation Measures

Implementation of Mitigation Measure MM 4.10.1 in addition to the proposed Community Plan policies and implementation programs would mitigate this cumulative impact for Proposed Land Use Diagram and Alternatives AA, AB and AC to **less than significant**.

REFERENCES

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SECTION 4.11
PUBLIC SERVICES

This section of the Draft EIR includes an assessment of public services and an evaluation of potential impacts to public services that could result from implementation of the Martis Valley Community Plan. Public services include: fire protection, emergency medical services, law enforcement, schools, water, wastewater, parks and recreation, and other associated services.

4.11.1 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

4.11.1.1 EXISTING CONDITIONS

The Truckee Fire Protection District (TFPD), the California Department of Forestry and Fire Protection (CDF), and the Northstar Community Services District (CSD) provide fire protection services in the Plan area. The TFPD provides residential fire protection and emergency services to the Plan area from their closest fire station, which is located in the Town of Truckee. The CDF provides wild fire protection to undeveloped forested areas of the Sierra Nevada, including the Plan area. The CDF is largely concerned with the prevention and control of wildland fires, and deterring their spread into developed areas. Although the CDF does not normally respond to structure fires, the Department provides protection to structures threatened by forest fires. The Northstar Community Services District provides fire protection for Northstar. Through a mutual aid agreement, a number of other sources provide fire protection assistance. These other sources include U.S. Forest Service, and North Tahoe F.P.D., among others.

TRUCKEE FIRE PROTECTION DISTRICT (TFPD)

The Truckee Fire Protection District provides services in the areas of fire prevention, fire suppression, emergency medical care and/or transportation, assorted rescue services, and public education. The Plan area is primarily a "dual jurisdiction" with Truckee Fire Department as the primary fire department and CDF providing wildland fire services and structural fire support (Rinella, 2001). TFPD serves an area of approximately 66 square miles, encompassing areas of Placer County, Nevada County, and the Town of Truckee. **Figure 4.11-1** shows the TFPD boundaries that are roughly Donner Summit to Nevada State Line, Highway 89 north to Sierra County Line, Highway 89 south to Cabin Creek, and State Route 267 to Northstar Drive. The Truckee Fire Protection District's service area and sphere of influence do not include the area of Martis Valley east of State Route 267 south of the Truckee-Tahoe Airport, the Northstar-at-Tahoe community, or the areas southwest, south and southeast of Northstar-at-Tahoe, including sections 21, 22, 23, 24, 25,26, 27, 28, 33, 34, and 35 of Township 17 North, Range 17 East; sections 30 and 31 of Township 17 North, Range 18 East; sections 2, 3, 4, 5, 6, 7, 8, and 9 of Township 16 North, Range 17 East; and sections 1, 2, 3, 10, 11, and 12 of Township16 North, Range 16 East. This area is currently undeveloped and therefore would fall within the CDF service area. However, if this area were to be developed, TFPD or CSD would need to expand their service area and sphere of influence to include the area. This action would require approval from LAFCO.

The TFPD consists of six fire stations throughout Placer and Nevada Counties. In total, TFPD has eight engines and four ambulances. The District has 25 full-time staff and 15 part-time staff, of which seven are volunteers. In 2000, TFPD constructed a new station that is located at Truckee-Tahoe Airport Road and Airshow Road within the Plan area. With this advantageous location, response times are typically between 3 and 4 minutes within the Martis Valley Community Plan area (Engler, 2001).

TFPD's new station in Truckee is capable of providing current and future fire protection services within the Plan area and the entire bi-county Fire District. This station was built to accommodate future development allowed under the 1975 Martis Valley General Plan. Currently, the station is manned full-time and operates one engine and one ambulance. TFPD recently updated their sphere of influence with LAFCO and does not anticipate any increase in their service area or require any additional facilities to accommodate future development in their service area (Terwilliger, 2001). Funding for TFPD comes entirely from property tax revenue (Engler, 2001).

NORTHSTAR COMMUNITY SERVICES DISTRICT/NORTHSTAR FIRE DEPARTMENT (CSD)

This Northstar Community Services District (CSD) covers six square miles and has a seasonal service population ranging from 500 to 18,000. The Northstar Fire Department, which is part of CSD, has one fire station. This station is located north of the intersection of Northstar Drive and Big Springs Drive within the Northstar-at-Tahoe resort area and is staffed by eight full-time and 20 part-time personnel. At least 90 percent of the staff is qualified as Emergency Medical Technician I (EMT I). This department operates three pumper trucks and one ladder truck. Response times are typically within four minutes because of its location within Northstar-at-Tahoe. Funding for CSD comes entirely from property tax revenue (Bartolini, 2001).

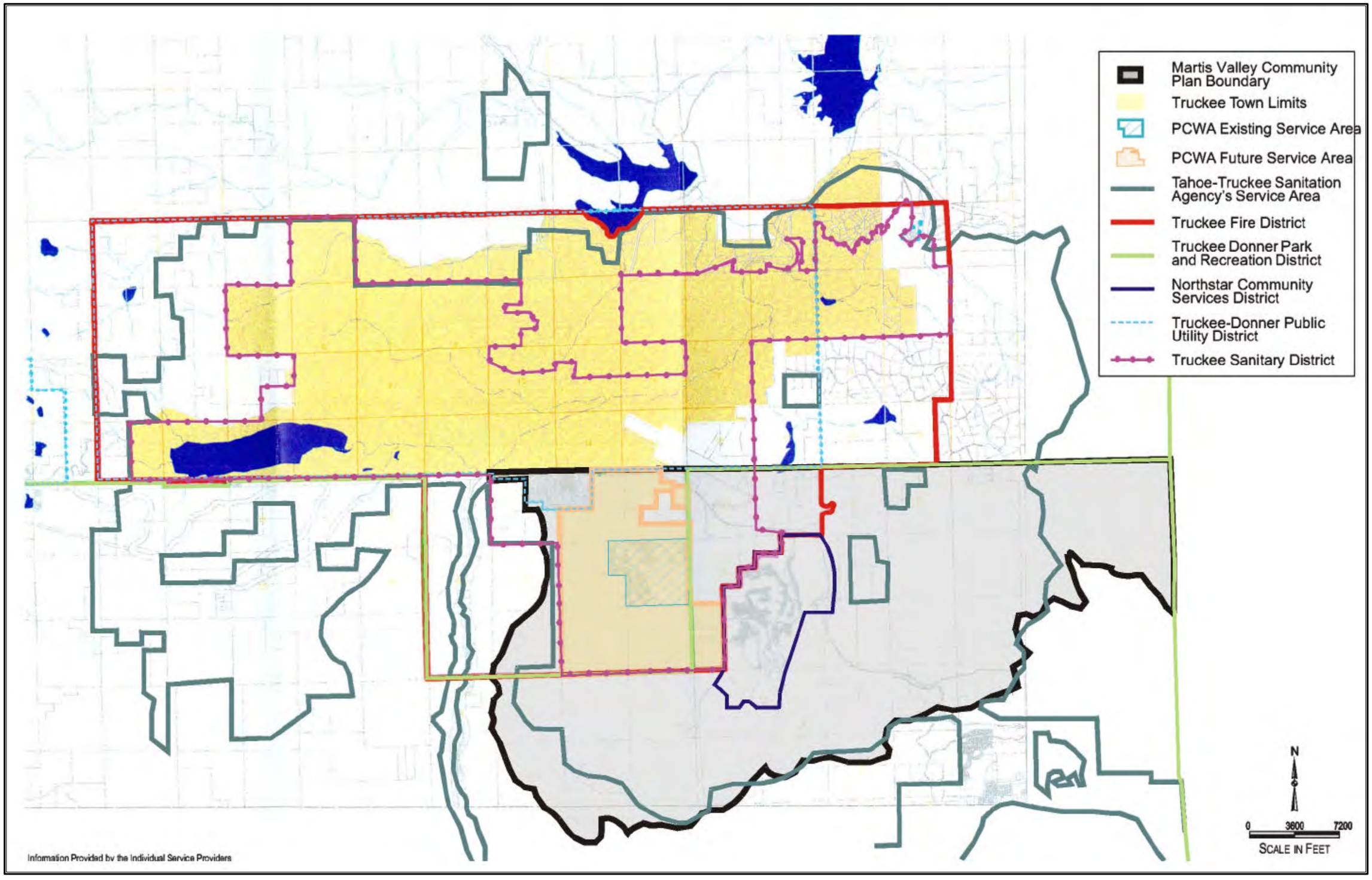
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CDF)

During the fire season (May 15 to November 1), the California Department of Forestry and Fire Protection Services (CDF) maintains two engines at the new Truckee Fire Protection District station, also called the "Martis Valley Fire Station," which is located near the Truckee-Tahoe Airport. The Martis Valley Fire Station currently contains both the CDF station, "Station 50," and the Truckee Fire Department station, "Station 96". CDF primarily deals with wildland fire hazards in the area and the Truckee Fire Department and CSD provide protection for structural fires. CDF also responds to structural fires in emergency situations as part of their mutual aid agreement with TFPD, CSD, and the U.S. Forest Service. From July 1 to October 15, CDF staffs the Lookout for three days a week with volunteers. CDF would ultimately like to provide daily staffing in the Lookout during fire season (Rinella, 2001).

The CDF service area includes Cisco Grove east to the Nevada state line, and the area stretching five miles north of Truckee to the area 10 miles south of Truckee. CFD has four staff members at their Truckee station, including the Battalion Chief who is present at the facility four days a week. Within the Plan area, CDF's response time is five minutes or less. Both fire engines are "type 3" and have a 500 gallon per minute (gpm) flow. One of the engines has 4-wheel drive with a 500-gallon capacity. The second engine has 2-wheel drive with a 650-gallon capacity (Rinella, 2001).

CDF is funded entirely by the State, and does not charge a development fee for the extension of fire protection services. Additionally, CDF can be contracted by the Truckee Fire Department to provide fire protection services throughout the winter (non-fire) season (Rinella, 2001).

CDF recommends several provisions for new development projects, including: 1) implementation and management of a fuel reduction zone along project boundaries; 2) reduction of fuel loading over the entire project; 3) maintenance in perpetuity of the fuel reduction zone; 4) recordation of the fuel reduction zone as property owner's association property; 5) verification by the property owner's association of its responsibility to maintain the fuel reduction zone; 6) use of noncombustible building materials.



PMC

FIGURE 4.11-1
MARTIS VALLEY SERVICE DISTRICTS

4.11.1.2 REGULATORY FRAMEWORK FOR FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

STATE

California Department of Forestry

The state adopted fire protection regulations to establish minimum wildfire protection standards in conjunction with building, construction, and development in state responsibility areas, which includes all of the California Department of Forestry service responsibility areas within the Martis Valley Community Plan area. The regulations do not apply to existing structures, roads, streets, and private lanes, or facilities; however, they do apply to the permitting or approval of new parcels. The regulations include provisions for emergency access, road width, roadway surface, roadway grades and radius, roadway turnarounds, signage, one-way road designs, gate entrances, and emergency fire use and fuel breaks and greenbelts. These requirements reduce the potential for wildland fires, decrease response times, and improve firefighters' chances of extinguishing wildland fires.

Pursuant to California Public Resources Code Section 4125 et seq., commonly known as the State Fire Responsibility Act, the State Board of Forestry classifies all lands within the State of California based on certain factors. Examples of these factors include cover, beneficial use of water from watersheds, probable damage from erosion, and fire risks and hazards. Next, the State Board of Forestry determines those areas for which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the State of California. The prevention and suppression of fires in all areas that are not within a state responsibility area (SRA) becomes primarily the responsibility of the local or federal agencies, as applicable.

State Responsibility Areas include those lands that are:

- Covered wholly or in part by forests or by trees producing or capable of producing forest products.
- Covered wholly or in part by timber, brush, undergrowth, or grass, whether of commercial value or not, which protect the soil from excessive erosion, retard runoff of water or accelerate water percolation, if such lands are sources of water which is available for irrigation or for domestic or industrial use.
- Located in areas principally used or useful for range or forage purposes and are contiguous to the lands described above.

State Responsibility Areas do not include those lands that are:

- Owned or controlled by the federal government or any agency of the federal government.
- Located within the exterior boundaries of any city, except a city and county with a population of less than 25,000 if, at the time the city and county government is established, the county contains no municipal corporations.
- Located within the State but do not come within any of the classes specifically described as being included.

LOCAL

Martis Valley General Plan

The following policy, intended as a guideline and a directive to be used and understood by County staff, legislative bodies, advisory groups, and private citizens, concerns outdoor recreation as it relates to the Martis Valley and the valley's future development:

Community Development and Transportation Policies

Policy 19 A fire safe plan must be prepared on each development to assure protection of both man and the environment. Such a plan must take into consideration the existing fire fighting facilities and the potential of forming an overall fire protection district for the Martis Valley area.

Placer County General Plan

The Placer County General Plan includes policies requiring new development to provide new fire protection services and to incorporate fire resistance and fire hazard reduction measures into their design. These policies also promote increased education and promotion of fire prevention programs, and improvements in fire protection agency service and coordination. Because of physical constraints imposed by the topography and vegetation in high fire hazard areas, as well as inadequate access, some existing and new rural residences located in remote or isolated areas would continue to be exposed to unavoidable risk from wildland fires.

Placer County General Plan Policies

The Placer County General Plan includes the following policies pertaining to fire protection:

Policy 4.I.1 The County shall encourage local fire protection agencies in Placer County to maintain the following minimum fire protection standards (expressed as Insurance Service Organization (ISO) ratings):

- ISO 4 in urban areas
- ISO 6 in suburban areas
- ISO 8 in rural areas

Policy 4.I.2 The County shall encourage local fire protection agencies in the county to maintain the following standards (expressed as average response times to emergency calls):

- 4 minutes in urban areas
- 6 minutes in suburban areas
- 10 minutes in rural areas

Policy 4.I.3 The County shall require new development to develop or fund fire protection facilities, personnel, and operations and maintenance that, at a minimum, maintain the above service level standards.

Policy 4.I.4 The County shall work with local fire protection agencies to identify key fire loss problems and design appropriate fire safety education programs to reduce fire incidents and losses.

Policy 4.I.6 The County shall continue to promote standardization of operations among fire protection agencies and improvement of fire service levels.

Policy 4.I.7 The County shall maintain and strengthen automatic aid agreements to maximize efficient use of available resources.

Policy 4.I.8 The County shall work with local fire protection agencies to maintain a pre-fire planning program with selected high-risk occupancies reviewed at least annually.

Policy 4.I.9 The County shall ensure that all proposed developments are reviewed for compliance with fire safety standards by responsible local fire agencies per the Uniform Fire Code and other County and local ordinances.

Policy 4.I.11 The County shall encourage local fire protection agencies to provide and maintain advanced levels of emergency medical services (EMS) to the public.

The proposed Martis Valley Community Plan policy document contains goals, policies and implementation programs that are generally consistent with the policy provisions of the Placer County General Plan.

4.11.1.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in the following:

1) Increase the demand for additional personnel, equipment, or facilities, and/or results in a negative effect that impairs the ability of the service provider to maintain an acceptable level of service for fire protection and emergency services.

METHODOLOGY

Evaluation of potential fire service impacts of the project was based on consultation with the fire protection and emergency service providers in the Plan area, including the Truckee Fire Protection District, the California Department of Forestry, and the Northstar Community Services District, as well as review of the existing Martis Valley General Plan, Martis Valley Community Plan, and the Placer County General Plan.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 4.11.1.1 Fire Protection and Emergency Medical Services

PP Implementation of the Proposed Land Use Diagram would increase the population of the fire protection and emergency medical services providers' service area. The existing facilities, personnel and equipment are sufficient to accommodate the buildout conditions associated with this land use map. Additionally, the existing funding mechanisms are sufficient to pay for increased impacts on services. However, proposed development associated with the Proposed Land Use Diagram are located outside of Truckee Fire Protection District and the Northstar CSD's service areas. The areas that

would be located outside of the fire protection districts' service areas include: sections 21, 27, 33 and 34 of Township 17 North, Range 17 East. This would result in a **significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would increase the population of the fire protection and emergency medical services providers' service area. The existing facilities, personnel and equipment are sufficient to accommodate the buildout conditions associated with this alternative. Additionally, the existing funding mechanisms are sufficient to pay for increased impacts on services. However, proposed development associated with Alternative AA are located outside of Truckee Fire Protection District and the Northstar CSD's service areas. The areas that would be located outside of the fire protection districts' service areas include: sections 21, 26, 27, 28, 33, 34 and 35 of Township 17 North, Range 17 East; and sections 4, 5, 8 and 9 of Township 16 North, Range 17 East. This would result in a **significant** impact.

AB Implementation of the Alternative 1 Land Use Map would increase the population of the fire protection and emergency medical services providers' service area. The existing facilities, personnel and equipment are sufficient to accommodate the buildout conditions associated with this alternative. Additionally, the existing funding mechanisms are sufficient to pay for increased impacts on services. However, proposed development associated with Alternative AB are located outside of Truckee Fire Protection District and the Northstar CSD's service areas. The areas that would be located outside of the fire protection districts' service areas include sections 21 and 28 of Township 17 North, Range 17 East. This would result in a **significant** impact.

AC Implementation of the Alternative 2 Land Use Map would increase the population of the fire protection and emergency medical services providers' service area. The existing facilities, personnel and equipment are sufficient to accommodate the buildout conditions associated with this alternative. Additionally, the existing funding mechanisms are sufficient to pay for increased impacts on services. However, proposed development associated with Alternative AC are located outside of Truckee Fire Protection District and the Northstar CSD's service areas. The areas that would be located outside of the fire protection districts' service areas include sections 21 and 28 of Township 17 North, Range 17 East. This would result in a **significant** impact.

PP Proposed Land Use Diagram

Implementation of the Proposed Land Use Diagram would result in up to 9,220 residential units, as well as office, commercial and recreational uses and facilities. According to Truckee Fire Protection District, they are equipped for buildout of the Plan area under the Existing Martis Valley General Plan Land Use Map, which has more development potential than the Proposed Land Use Diagram. TFPD has stated, "that there will be no increased impact on the provision of fire services in this region as it pertains to the development of facilities in the region" (Terwilliger, 2001). CDF and Northstar Community Services District (CSD) provide only limited fire protection services within the Plan area. CDF and CSD may experience impacts as a result of development under this scenario; however, it is likely that TFPD would compensate for these potential impacts and deficits as part of their mutual aid agreement. Truckee Fire Protection District has fire protection requirements and standards for new development projects, including fire hydrants, fire flow, access and roadway length, which would mitigate the increased demand for fire protection services. CDF also has development standards such as fuel modification zones. Funding for TFPD comes from property taxes and development mitigation fees, Northstar CSD receives funding from property taxes, and CDF is funded by the state. Some of the money

received from these sources is used to pay for future facilities and equipment as needed. CDF does not provide fire protection for structural fires, except on rare occasions. Therefore, any development located outside of a service area would not receive adequate fire protection and emergency medical services. The following proposed Community Plan policies, existing fees, and capacity of TFPD to serve the developed area would help mitigate the impacts on fire protection and emergency services. The existing funding mechanisms would adequately pay for the increased impacts on the fire and emergency medical service providers; however, the Proposed Land Use Diagram would locate residential uses outside of existing service areas, as shown on **Figure 4.11-1,** including sections 21, 27, 33 and 34 of Township 17 North, Range 17 East (Waddle Ranch and the Sierra Pacific property).

AA Existing Martis Valley General Plan Land Use Map

Implementation of the Existing Martis Valley General Plan Land Use Map would result in up to 11,668 residential units, as well as office, commercial and recreational uses and facilities. Like the Proposed Land Use Diagram, this alternative would increase the demand for fire protection and emergency services in the Plan area. This alternative proposes residential development under this alternative in areas that are outside of the TFPD and CSD's service areas, as shown on **Figure 4.11-1**, including sections 21, 26, 27, 28, 33, 34 and 35 of Township 17 North, Range 17 East (Waddle Ranch, Sierra Pacific property, and the small ownership area east of SR 267); and sections 4, 5, 8 and 9 of Township 16 North, Range 17 East (area along the southern edge of the Plan area, west of SR 267). Alternative AA has a more intense land use pattern than the Proposed Land Use Diagram. The Existing Martis Valley General Plan locates more development outside of the TFPD and CSD service areas in locations that are not currently developed, which would require additional fire and emergency medical services than the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Implementation of Alternative 1 Land Use Map would result in up to 10,311 residential units, as well as office, commercial and recreational uses and facilities. Like the Proposed Land Use Diagram, this alternative would increase the demand for fire protection and emergency services in the Plan area. This alternative would have more of an impact on fire protection services than the Proposed Land Use Diagram because of the increased number of residential units, commercial and recreational uses. The Alternative 1 Land Use Map proposes residential development along State Route 267 in an area that is located outside of the TFPD and CSD service areas. This area includes sections 21 and 28 of Township 17 North, Range 17 East (Waddle Ranch). Currently this area is served by CDF, as the land is undeveloped forest. Because development associated with Alternative AB would be located outside of TFPD and CSD's service areas, additional fire and emergency medical services would be necessary. However, compared with the Proposed Land Use Diagram, this alternative would not result in as much developed land outside of the TFPD and CSD service areas, as this alternative does not propose residential and ski-based/tourism/commercial uses in the Sierra Pacific property.

AC Alternative 2 Land Use Map

Implementation of Alternative 2 Land Use Map would result in up to 7,956 residential units, as well as office, commercial and recreational uses and facilities. This alternative would increase the demand for fire protection and emergency services in the Plan area. Like Alternative AB, this alternative proposes residential development along State Route 267 in an area that is located outside of the TFPD and CSD service areas. This area includes sections 21 and 28 of Township 17 North, Range 17 East (Waddle Ranch). Currently this area is served by CDF, as the land is

undeveloped forest. Because the proposed development would be located outside of a service area, this would require additional fire and emergency medical services. Like the Alternative 1 Land Use Map, this alternative would not result in a residential and commercial (ski-based/tourism) land use along the east side of SR 267 in the Sierra Pacific Property. Therefore, this alternative would have less development located outside of existing service areas than the Proposed Land Use Diagram.

Policies and Implementation Programs

The following Martis Valley Community Plan policies and implementation programs in Section VI (Public Facilities and Services) would assist in reducing potential impacts discussed regarding consistency of the project with planning documents applicable to the Plan area.

Policy 6.H.3 *The County shall require new development to develop or fund fire protection facilities, personnel, and operations and maintenance that, at a minimum, maintains the above service level standards.*

Policy 6.H.4 *The County shall work with the Truckee Fire Protection District, the Northstar Community Services District, and the California Department of Forestry and Fire Protection to identify key fire loss problems and design appropriate fire safety education programs to reduce fire incidents and losses.*

Policy *6.H.5* *The County shall work with the Truckee Fire Protection District, the Northstar Community Services District, and the California Department of Forestry and Fire Protection to implement ordinances to control fire losses and fire protection costs through continued use of automatic fire detection, control, and suppression systems.*

Policy 6.H.7 *The County shall encourage Truckee Fire Protection District and Northstar CSD to maintain and strengthen mutual aid and automatic aid agreements to maximize use of closest available resources.*

Policy 6.H.14 *The County shall refer development proposals in the unincorporated county to the appropriate local fire agencies for review for compliance with fire safety standards. If dual responsibility exists, then both agencies shall review and comment relative to their area of responsibility. If standards and different or conflicting, the more stringent standards shall be applied.*

Implementation Programs

1. *Review development projects for compliance with the goals, policies and specific discussions contained in the Public Facilities and Services section and throughout the Plan.*

   Responsible Agency/Department: Board of Supervisors, Planning Commission, Land Development Departments
   Timeframe: Ongoing
   Funding: Application Fees

2. *The County, in consultation with service providers, shall establish thresholds beyond which new residential development will be restricted until adequate public services and facilities are provided. The extent of development limitations should reflect the severity of the service and facility needs.*

   Responsible Agency/Department: Public Works Department, Facility Services Department, Special Districts, Planning Department
   Timeframe: Ongoing
   Funding: General Fund

4. *The County shall continue to require developers to obtain will-serve letters from all service providers of public facilities and services to new development.*

   Responsible Agency/Department: Project Proponents
   Timeframe: Ongoing (letters to be provided prior to final project approval)
   Funding: N/A

Mitigation Measure

The following mitigation measure would apply to the Proposed Land Use Diagram and Alternatives AA, AB and AC as a new policy in Section VI (Public Facilities and Services) under Goal 6.I in the proposed Community Plan.

MM 4.11.1.1 The County shall require that property currently located outside of the Truckee Fire Protection District or Northstar CSD's service areas be annexed into 1 of the fire districts prior to approval of any entitlement that allows development to occur within these sections.

Implementation of the above mitigation measure and proposed policies and implementation programs would mitigate impacts associated with fire protection and emergency medical services within the Plan area to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB and AC.

Impact 4.11.1.2 Wildland Fire Hazards

PP Implementation of the Proposed Land Use Diagram would locate homes and structures in wooded and diverse terrain, which would expose residents to wildland fire hazards. This would be a **less than significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would locate homes and structures in wooded and diverse terrain, which would expose residents to wildland fire hazards. This would be a **less than significant** impact.

AB Implementation of the Alternative 1 Land Use Map would locate homes and structures in wooded and diverse terrain, which would expose residents to wildland fire hazards. This would be a **less than significant** impact.

AC Implementation of the Alternative 2 Land Use Map would locate homes and structures in wooded and diverse terrain, which would expose residents to wildland fire hazards. This would be a **less than significant** impact.

PP Proposed Land Use Diagram

Implementation of the Proposed Land Use Diagram would result in up to 9,220 residential units under maximum allowable buildout under this alternative. Many of these new residences would be located within wooded and diverse terrain exposing residents to wildland fire hazards. The proposed development associated with this alternative would locate a residential and non-residential development along steep topography in all or portions of sections 21, 27, 28, 33, 34, and 35 of Township 17 North, Range 17 East (Waddle Ranch and Sierra Pacific property), and section 31 of Township 17 North, Range 18 East (Northstar-at-Tahoe). The fire safety of residences depends on their location with respect to topography, the continuity and loading of fuels around them, and the structural design of the residences. The potential for structural damage from wildfires is greater in certain locations because of the nature of fire spread, which results from atmospheric currents (convection). Conduction, convection, and radiation of heat occur simultaneously in a hillside fire, thereby creating long flames that move rapidly upslope. CDF would be primarily responsible for fighting wildfires within the plan area. This would require appropriate access, roadways, water supplies and fire flow to fight wildland fires.

AA Existing Martis Valley General Plan Land Use Map

Implementation of the Existing Martis Valley General Plan Land Use Map would result in up to 11,688 residential units under maximum allowable buildout under this alternative. Many of these new residences would be located within wooded and diverse terrain exposing residents to wildland fire hazards. The proposed development associated with this alternative would locate a residential and ski-resort development along steep topography in all or portions of sections 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, and 35 of Township 17 North, Range 17 East (Waddle Ranch and Sierra Pacific property), sections 2, 3, 4, and 9 of Township 16 North, Range 17 East (southern edge of Plan area), and section 31 of Township 17 North, Range 18 East (Northstar-at-Tahoe). These properties are currently isolated from infrastructure that could provide the necessary access and water supplies to fight wildland fires. The Existing Martis Valley General Plan Land Use Map would be exposed to similar wildland fire risks as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Implementation of Alternative 1 Land Use Map would result in up to 10,311 residential units. Many of these new residences would be located within wooded and varied terrain exposing residents to wildland fire hazards. The proposed development associated with this alternative would locate a residential and ski-resort development along steep topography in all or portions of sections 21 and 28 of Township 17 North, Range 17 East (Waddle Ranch) and section 31 of Township 17 North, Range 18 East (Northstar-at-Tahoe). Similar wildland fire risks would be associated with Alternative 1 Land Use Map as the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Implementation of Alternative 2 Land Use Map would result in up to 7,956 residential units. Many of these new residences would be located within wooded and varied terrain exposing residents to wildland fire hazards. The proposed development associated with this alternative would locate a residential and ski-resort development along steep topography in all or portions of sections 21 and 28 of Township 17 North, Range 17 East (Waddle Ranch and small ownership property east of SR 267), sections 2, 3, 4, and 9 of Township 16 North, Range 17 East, and section 31 of Township 17 North, Range 18 East. Similar fire risks would be associated with Alternative 2 Land Use Map as the Proposed Land Use Diagram.

Policies and Implementation Programs

The following Martis Valley Community Plan policies and implementation programs in Section VI (Public Facilities and Services) would assist in reducing potential impacts discussed regarding wildland fire hazards in the Plan area to less than significant.

Policy 6.H.9 *The County shall ensure that all proposed developments are reviewed for compliance with fire safety standards by responsible local fire agencies per the Uniform Fire Code and other County and local ordinances.*

Policy 6.H.11 *The County shall ensure that development in high-fire-hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable state and county fire standards.*

Policy 6.H.12 *The County shall require that discretionary permits for new development in fire hazard areas be conditioned to include requirements for fire-resistant vegetation, cleared firebreaks, or a long-term comprehensive fuel management program. Fire hazard reduction measures shall be incorporated into the design of development projects in fire hazard areas.*

Policy 6.H.13 *The County shall require that new development meets state, county, and local fire district standards for fire protection.*

Policy 6.H.14 *The County shall refer development proposals in the unincorporated county to the appropriate local fire agencies for review for compliance with fire safety standards. If dual responsibility exists, then both agencies shall review and comment relative to their area of responsibility. If standards and different or conflicting, the more stringent standards shall be applied.*

Policy 6.H.15 *The County shall ensure that existing and new buildings of public assembly incorporate adequate fire protection measures to reduce the potential loss of life and property in accordance with state and local codes and ordinances.*

Policy 6.H.17 *The County shall work with the Truckee Fire Protection District and Northstar Community Services District, the California Department of Forestry and Fire Protection, and the U.S. Forest Service to promote the maintenance of existing fuel breaks and emergency access routes for effective fire suppression.*

Policy 6.H.21 *The County shall continue to work cooperatively with the California Department of Forestry and Fire Protection, the Truckee Fire Protection District and the Northstar Community Services District in managing wildland fire hazards.*

Policy 6.H.22 *The County shall encourage and work with the Truckee Fire Protection District and Northstar CSD to develop coordinated all-hazard disaster response procedures for the following types of disasters: wildfires, flooding, earthquakes, severe winter storms, transportation accidents, acts of terrorism, civil disturbance, and hazardous materials releases.*

Implementation Programs

Permit Fees

24. Require new development plans to be submitted to the local fire district and CDF for review and approval prior to approval and/or issuance of certificates of occupancy, as appropriate.

Responsible Agency/Department: Land Development Departments
Time Frame: On-going
Funding: Permit fees

25. Require land developers to pay in lieu fees, dedicate land, or purchase equipment as necessary to ensure adequate fire protection facilities are available as the Plan area builds out.

Responsible Agency/Department: Servicing Fire Districts
Time Frame: On-going
Funding: Impact fees

26. Continued provision by CDF of wildlands protection of State Responsibility Area lands throughout the Community Plan area, and provision of contract services as needed.

Responsible Agency/Department: Board of Supervisors, California Department of Forestry
Time Frame: On-going
Funding: General Fund

27. Inspect all new construction and remodel projects for fire code compliance prior to issuance of certificates of occupancy.

Responsible Agency/Department: Placer County Building Department /Truckee/Northstar Fire Protection District
Time Frame: On-going
Funding: User fees

28. Inspect and test all automatic fire extinguishing systems in accord with State Fire Marshal regulations and the National Fire Protection Standards.

Responsible Agency/Department: Placer County Building Department/Truckee/Northstar Fire Districts
Time Frame: On-going
Funding: User fees

29. Establish training requirements with fire fighter certification for paid fire fighters and volunteer fire fighter certification for on-call fire fighters.

Responsible Agency/Department: Truckee/Northstar Fire Protection District
Time Frame: On-going
Funding: District funds

The proposed policies and implementation programs would mitigate impacts to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Mitigation Measures

None required.

4.11.1.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

The projected development within the Plan area associated with the buildout conditions under the Proposed Land Used Diagram and Alternatives AA, AB and AC are anticipated to result in substantial increases in the resident population and the existence of non-residential structures. At present, there are several projects that are currently approved or under application with Placer County, the Town of Truckee, and Nevada County (see **Table 3.0-1**). The proposed development within the Plan area associated with the Proposed Land Use Diagram and the three alternatives would change the way emergency situations are handled, requiring additional infrastructure and potentially additional personnel in order to provide the current level of service to residents and businesses in the area for the Truckee Fire Protection District, Northstar CSD and CDF within their service areas.

Buildout of the Plan area would increase the number of homes and other structures currently located within wooded areas and relatively steep terrain. An increased number of structures located in such locations would increase the risk of wildland fire hazards.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.1.3 Cumulative Fire Protection and Emergency Medical Services

PP Implementation of the Proposed Land Use Diagram would result in residential uses outside of local fire district service areas. This would place future residents at risk of a loss resulting from a structural fire and contribute to cumulative fire protection and emergency service demands in the Plan area. This would be a **cumulative significant** impact.

AA Implementation of Alternative AA would result in residential uses outside of local fire district service areas. This would place future residents at risk of a loss resulting from a structural fire and contribute to cumulative fire protection and emergency service demands in the Plan area. This would be a **cumulative significant** impact.

AB Implementation of Alternative AB would result in residential uses outside of local fire district service areas. This would place future residents at risk of a loss resulting from a structural fire and contribute to cumulative fire protection and emergency service demands in the Plan area. This would be a **cumulative significant** impact.

AC Implementation of Alternative AC would result in residential uses outside of local fire district service areas. This would place future residents at risk of a loss resulting from a structural fire and contribute to cumulative fire protection and emergency service demands in the Plan area. This would be a **cumulative significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

If the fire and emergency medical service providers are equipped to handle the future development in the Plan area, the level of service for fire protection and emergency services would remain constant. The Truckee Fire Protection District has stated that they are prepared and staffed to handle the buildout conditions projected under the Existing Martis Valley General Plan Land Use map (Terwilliger, 2001). TFPD receives funding from property taxes and developer impact fees; CDF is funded by the State; and CSD receives funding from property taxes. However, the Proposed Land Use Diagram and Alternatives AA, AB and AC propose residential development outside of fire district service areas. Because CDF would not provide fire protection or emergency protection services to properties after they are developed, the inhabited areas would not receive adequate protection from fires or emergencies.

Policies and Implementation Programs

New development projects in the Plan area would be required to comply with policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation for fire and emergency medical services impacts. The reader is referred to Impact 4.11.1.1 regarding applicable proposed policies and implementation programs.

Mitigation Measure

Mitigation measure MM 4.11.1.1 and proposed policies and implementation programs would mitigate the impacts to a **less than significant** level for the Proposed Land Use Diagram and Alternatives AA, AB and AC under cumulative conditions.

Impact 4.11.1.4 Cumulative Wildland Fire Hazard

PP Development under the Proposed Land Use Diagram would locate additional residences within wildland fire hazard zones under cumulative conditions. Proposed policies and implementation programs in the proposed Community Plan would mitigate potential impacts to **less than significant**.

AA Development under the Existing Martis Valley General Plan Land Use Map would locate additional residences within wildland fire hazard zones under cumulative conditions. Proposed policies and implementation programs in the proposed Community Plan would mitigate potential impacts to **less than significant**.

AB Development under the Alternative 1 Land Use Map would locate additional residences within wildland fire hazard zones under cumulative conditions. Proposed policies and implementation programs in the proposed Community Plan would mitigate potential impacts to **less than significant**.

AC Development under the Alternative 2 Land Use Map would locate additional residences within wildland fire hazard zones under cumulative conditions. Proposed policies and implementation programs in the proposed Community Plan would mitigate potential impacts to **less than significant**.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

The future growth patterns associated with buildout of the Plan area under the Proposed Land Use Diagram and Alternatives AA, AB, and AC would result in new structures located within wildland fire hazard zones, which would increase the risk of wild fires and endanger additional residents and structures. The Martis Valley Community Plan's proposed policies and implementation programs would mitigate potential wildland fire impacts by requiring projects be reviewed for fire safety standards and that they incorporate appropriate design features.

Policies and Implementation Programs

New development projects in the Plan area would be required to comply with policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation for wildland fire hazard impacts. The reader is referred to Impact 4.11.1.2 regarding applicable proposed policies and implementation programs. The proposal policies and implementation programs would mitigate impacts to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Mitigation Measure

None required.

4.11.2 LAW ENFORCEMENT

4.11.2.1 EXISTING CONDITIONS

Placer County Sheriff Coroner-Marshal (Placer County Sheriff) currently provides law enforcement services to the majority of the proposed Martis Valley Community Plan area with some assistance from the Nevada County Sheriff's Department and the Truckee Police Department. The Truckee Police Department, which began its operations in September 2001, provides law enforcement services to the Town of Truckee and provides mutual aid to the Placer County Sheriff's Department and Nevada County Sheriff's Department in the areas surrounding Truckee. Additionally, the California Highway Patrol assists with traffic violations and provides mutual law enforcement assistance to the Placer County Sheriff.

In addition to County and Town of Truckee law enforcement services, both Lahontan and Northstar-at-Tahoe provide private security services for community residents.

Placer County Sheriff's Department

The Placer County Sheriff's Department has a service area of approximately 125 square miles, stretching from Tahoma on the southern boundary, around Lake Tahoe to the state line, north to Truckee, and west to the crest of the Sierra Nevada Mountains. Patrol and investigation services operate out of the Sheriff's headquarters in the DeWitt Center, located in Auburn, and three sub-stations, one of which is located in North Tahoe. Currently the Department has only two beats, an east and a west beat. The resident population within the service area is approximately 10,000. However, the average daily population ranges from 25,000 to 30,000 residents, with a peak seasonal population ranging from 85,000 to 90,000. Currently, the Department has 42 sworn officers at the North Lake Tahoe station, 25 of which are part of the patrol division and five are part of the investigations division. The Plan area falls within the east beat, which includes Kings Beach, Carnelian Bay, Lahontan and Truckee (Hawthorne, 2001).

For planning purposes, the Placer County Sheriff uses a Countywide-staffing ratio of one patrol officer to every 1,000 residents in the unincorporated area. This ratio represents an acceptable national standard often used by other law enforcement agencies. Response times in the proposed Martis Valley Community Plan area can vary from three to 15 minutes in good conditions to 35 minutes in poor conditions. The weather, traffic, and crime conditions in the other communities within the beat can slow response times considerably. Because 90 percent of the calls in the East Beat are for incidents in Kings Beach, the patrol officers spend most of their time outside of the Plan area (Hawthorne, 2001).

The current Placer County Sheriff's Department facility in North Tahoe was constructed in 1959. This station has a Type 1 jail facility, which can hold two inmates for 96 hours. If an inmate needs to be detained longer than 96 hours, they are transferred to the Placer County Jail in Auburn. The existing North Tahoe facility is substandard and is too small for current staffing needs and services. In order to continue providing the same level of service, the Department plans to relocate the Patrol Division to Carnelian Bay and use the Nevada County Regional Jail facility in Truckee instead of its own jail. Short of constructing a new facility, a third beat may eventually be established to better serve the Plan area (Hawthorne, 2001).

Future needs for the Placer County Sheriff's Department include additional staff and a new facility for the North Tahoe area. The proposed regional law enforcement facility in Truckee near the airport would better serve the area. Funds from property taxes, building impact fees, facility impact fees, bonds, and sales tax from Proposition 172 would be used to help pay for the facility. However, it is unlikely that the joint facility would be constructed before the year 2006(Hawthorne, 2001).

Town of Truckee Police Department

The Town of Truckee established its own police force on September 1, 2001 after contracting law enforcement services from the Nevada County Sheriff's Department (NCSD). The Truckee Police Department provides police protection to the Town of Truckee. The NCSD is still under contract with the Town to dispatch for the Truckee Police Department and provide jail services at the Nevada County Sheriff's Office (NCSO) substation. Additionally, NCSD will continue to provide law enforcement and civil services to the unincorporated areas of Nevada County.

The Truckee Police Department consists of 25 officers under the command of Police Chief Dan Boon. Their temporary facilities are comprised of modular units located at the Town Hall. The Town of Truckee is constructing a 7,000 square foot space at the Town Hall to temporarily house the department for a few years. The Police Department would ultimately have a facility located in Downtown Truckee. The Police Department is currently staffed to accommodate the existing population of Truckee. As Truckee continues to grow in size, the police force would need to expand to provide the same level of service. Because the Truckee Police Department was only recently established, no level of service, staffing ratios or response time information is available. Funding for the police department comes from sales tax, property tax and transit occupancy tax (Boon, 2001).

Nevada County Sheriff's Department (NCSD)

The Nevada County Sheriff's Department (NCSD) provides law enforcement and civil service to the unincorporated areas of Nevada County. Within the Plan area the unincorporated areas include the Truckee Airport and the Martis Valley Lake campground. The Department provides dispatch and jail services for Nevada County and the Town of Truckee at their substation in Truckee. They also provide booking services for Placer County Sheriff's Department at their jail

facility. With the recent inception of the Truckee Police Department, the NCSD will reduce their presence in Truckee from 42 to 17 personnel. Of the 17 employees, there are only two patrol officers and 1 sergeant assigned to patrol the unincorporated area of Nevada County within the vicinity of the Plan area. The officers are not on 24-hour coverage due to the recent transfer of power to the Truckee Police Department. Based on this change, response times can be up to 24 hours, unless the event is a major crime (Perea, 2001).

Nevada County Sheriff's Office Substation

In August of 2001, Nevada County and the Town of Truckee finalized an agreement to use the existing Nevada County Sheriff's Office (NCSO) substation, located in the Town of Truckee, to provide round-the-clock jail and dispatch services for the Nevada County Sheriff's Department and Truckee Police Department (Sommer, 2001). Before the agreement is final, the Placer County Board of Supervisors must approve the reallocation of funds for use of the NCSO jail, which includes a $200,000 annual contribution for after hours and weekend use of the jail facility. This contribution will help keep the NCSO jail fully operational. This agreement would greatly improve emergency services in the Plan area. As part of the agreement, Nevada County Sheriff's Department officers will continue to serve the unincorporated area of Nevada County, operating from the substation. Additionally, Nevada County will continue to provide mandated functions including search and rescue, civil process service and coroner.

4.11.2.2 REGULATORY FRAMEWORK FOR LAW ENFORCEMENT

LOCAL

Martis Valley General Plan

The existing Martis Valley General Plan incorporates 1 policy that relates to police protection, including the following:

Community Development and Transportation

Policy 6 Develop a bi-county plan or agreement which indicates who will provide services as police protection, snow removal, and road maintenance before allowing further, major developments.

Placer County General Plan

The Placer County General Plan includes policies and programs that provide for policies and funding programs that would help the County ensure that facility and service standards are maintained.

Placer County General Plan Policies

The Placer County General Plan includes the following policies pertaining to law enforcement:

Policy 4.H.1 ... the County shall strive to maintain the following staffing ratios (expressed as the ration of officers to population):

a. 1:1,000 for unincorporated areas
b. 1:7 for jail population
c. 1:16,000 total county population for court and civil officers

Policy 4.H.2 The County shall strive to maintain the following average response times for emergency calls for service:

a. 6 minutes in urban areas
b. 8 minutes in suburban areas
c. 15 minutes in rural areas
d. 20 minutes in remote rural areas

Policy 4.H.3 ... the County shall provide sheriff facilities (including substation space, patrol, and other vehicles, necessary equipment, and support personnel) sufficient to maintain the above service standards.

Policy 4.H.4 The County shall require new development to develop or fund sheriff facilities that, at a minimum, maintain the above standards.

Policy 4.H.5 The County shall consider public safety issues in all aspects of commercial and residential project design, including crime prevention through environmental design.

The proposed Martis Valley Community Plan policy document contains goals, policies and implementation programs that are generally consistent with the policy provisions of the Placer County General Plan.

4.11.2.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in the following:

1) Increase the demand for additional personnel, equipment, or facilities, and/or results in a negative effect that impairs the ability of the service provider to maintain an acceptable level of service for sheriff and police protection services.

METHODOLOGY

Evaluation of potential sheriff and police protection impacts of the Proposed Land Use Diagram in addition to the Existing Martis Valley General Plan Land Use Map, and Alternatives 1 and 2 was based on consultation with the Truckee Police Department, Placer County Sheriff's Department and Nevada County Sheriff's Department, as well as review of the existing Martis Valley General Plan, proposed Martis Valley Community Plan, and the Placer County General Plan.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 4.11.2.1 Law Enforcement Services

PP Implementation of the Proposed Land Use Diagram would result in an increased demand for sheriff/police protection. This would be considered a **less than significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would result in an increased demand for sheriff/police protection. This would be considered a **less than significant** impact.

AB Implementation of the Alternative 1 Land Use Map would result in an increased demand for sheriff/police protection. This would be considered a **less than significant** impact.

AC Implementation of the Alternative 2 Land Use Map would result in an increased demand for sheriff/police protection. This would be considered a **less than significant** impact.

PP Proposed Land Use Diagram

Implementation of the Proposed Land Use Diagram would result in 9,220 residential units, as well as office, commercial and recreational uses and facilities. Using a worst-case scenario of 2.63 persons per dwelling unit and a permanent resident occupancy rate of 20 percent, this map could result in a permanent population of 4,850 residents. The Proposed Land Use Diagram would increase the demand for sheriff and police protection services in the Plan area and possibly require an additional beat dedicated solely to the Plan area. Based on the Placer County staffing ratio of 1/1,000, the Proposed Land Use Diagram would require approximately four to five additional officers.

The Placer County Sheriff's Department is currently in need of new facilities. The eastern beat, which includes the Plan area, primarily focuses its efforts on crime prevention and response in Kings Beach. Therefore, response times are increased due to driving distances between the two areas. The development that would occur as a result of this plan would have a significant impact on sheriff/police protection provided by Placer County Sheriff's Department in the Plan area. However, Truckee recently established its own police department, which would help provide emergency services to the Plan area. This would alleviate some of the impacts on the Placer County Sheriff's Department. Development under this plan could have a potentially significant impact on the ability of the service providers to maintain an acceptable level of service for sheriff and police protection. Truckee Police Department also anticipates the need for future personnel to accommodate growth. Additionally, Placer County Sheriff's Department receives funding from property taxes, building impact fees, facility impact fees and bonds. The Department may also use sales tax from Proposition 172 to help pay for the facility. Truckee Police Department receives funds from sales tax, property tax and transit occupancy tax. As the Plan area expands in size, the increased population would contribute additional funds, which would pay for the increased impacts on law enforcement.

AA Existing Martis Valley General Plan Land Use Map

Implementation of the Existing Martis Valley General Plan Land Use Map would result in 11,688 residential units, as well as office, commercial and recreational uses and facilities. Using a worst-case scenario of 2.63 persons per dwelling unit and a permanent resident occupancy rate of 20 percent, this map could result in a permanent population of 6,148 residents. This alternative would increase the demand for sheriff and police protection services in the Plan area and possibly require an additional beat dedicated solely to the Plan area. Based on the Placer County staffing ratio of 1/1,000, Alternative AA would require approximately six additional officers, thus having more of an impact than the Proposed Land Use Diagram on police and sheriff protection services. However, Placer County Sheriff's Department receives funding from property taxes, building impact fees, facility impact fees and bonds. The Department may also use sales tax from Proposition 172 to help pay for the facility. Truckee Police Department receives funds from sales tax, property tax and transit occupancy tax. As the Plan area expands

in size, the increased population would contribute additional funds, which would pay for the increased impacts on law enforcement.

AB Alternative 1 Land Use Map

Implementation of Alternative 1 Land Use Map would result in approximately 10,311 residential units, as well as office, commercial and recreational uses and facilities. Using a worst-case scenario of 2.63 persons per dwelling unit and a permanent occupancy rate of 20 percent, this map could result in a permanent population of 5,424 residents. This alternative would require approximately five to six additional officers, thus having more of an impact than the Proposed Land Use Diagram on police and sheriff protection services. However, Placer County Sheriff's Department receives funding from property taxes, building impact fees, facility impact fees and bonds. The Department may also use sales tax from Proposition 172 to help pay for the facility. Truckee Police Department receives funds from sales tax, property tax and transit occupancy tax. As the Plan area expands in size, the increased population would contribute additional funds, which would pay for the increased impacts on law enforcement.

AC Alternative 2 Land Use Map

Implementation of Alternative 2 Land Use Map would result in up to 7,956 residential units, as well as office, commercial and recreational uses and facilities. Using a worst-case scenario of 2.63 persons per dwelling unit and a permanent occupancy rate of 20 percent, this map could result in a permanent population of 4,185 residents. This alternative would require approximately four additional officers, thus having less of an impact on police and sheriff protection services as compared to the Proposed Land Use Diagram. Placer County Sheriff's Department receives funding from property taxes, building impact fees, facility impact fees and bonds. The Department may also use sales tax from Proposition 172 to help pay for the facility. Truckee Police Department receives funds from sales tax, property tax and transit occupancy tax. As the Plan area expands in size, the increased population would contribute additional funds, which would pay for the increased impacts on law enforcement.

Policies and Implementation Programs

The following Martis Valley Community Plan policies and implementation programs in Section VI (Public Facilities and Services) would further assist in reducing service impacts discussed regarding sheriff and police protection in the Plan area.

Policy 6.G.1 *Within the County's overall budgetary constraints, the County shall strive to maintain the following staffing ratios (expressed as the ratio of officers to population):*

a. 1:1,000 for unincorporated areas
b. 1:7 for jail population

Policy 6.G.2 *Within the County's overall budgetary constraints, the County shall provide sheriff facilities (including substation space, patrol, and other vehicles, necessary equipment, and support personnel) sufficient to maintain the above service standards.*

Policy 6.G.3 *The County shall require new development to develop or fund sheriff facilities that maintain appropriate standards for the area.*

Policy 6.G.4 *The County shall consider public safety issues in all aspects of commercial and residential project design, including crime prevention through environmental design.*

Implementation Programs

Law Enforcement

22. The County shall implement the law enforcement goals and policies of the Community Plan designed to reduce response time and maintain sheriff's department staff levels at an acceptable level.

Responsible Agency/Department: County Sheriff's Department/Board of Supervisors / Land Development Departments.
Time Frame: On-going
Funding: General Fund

23. The County shall consult with the Placer County Sheriff's Department during the review of new development plans to ensure that public safety aspects, including adequate lighting, circulation etc., are provided.

Responsible Agency/Department: Land Development Departments /County Sheriff's Department
Time Frame: On-going
Funding: Permit fees

Mitigation Measures

None required.

4.11.2.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

The projected development within the Plan area associated with the buildout conditions under the Proposed Land Use Diagram and Alternatives AA, AB and AC is anticipated to substantially increase the resident population and non-residential uses. This would require additional sheriff and police protection to continue providing the same level of service to the area. Cumulative conditions would require additional sheriff and police personnel and facilities. Currently, the east beat of the Placer County Sheriff's Department, which serves the Plan area, is in need of new facilities and additional staffing. The Placer County Sheriff's Department has a response time ranging from three minutes to 35 minutes depending upon weather conditions and crime conditions in Kings Beach. The Truckee Police Department, which was established in September of 2001, is still in its beginning stages. The Truckee Police Department is staffed to serve the existing population in Truckee and would most likely require additional staffing and expanded facilities under cumulative conditions. The Nevada County Sheriff's Department would have less of a role in police and sheriff protection in cumulative conditions than at present. Overall, the demand for new facilities and additional staff would increase under cumulative conditions.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.2.2 Cumulative Law Enforcement Services

PP Under cumulative conditions, implementation of the Proposed Land Use Diagram would result in an increased demand for sheriff/police protection in the region. This would be considered a **less than significant** impact.

AA Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would result in an increased demand for sheriff/police protection in the region. This would be considered a **less than significant** impact.

AB Under cumulative conditions, implementation of the Alternative 1 Land Use Map would result in an increased demand for sheriff/police protection in the region. This would be considered a **less than significant** impact.

AC Under cumulative conditions, implementation of the Alternative 2 Land Use Map would result in an increased demand for sheriff/police protection in the region. This would be considered a **less than significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

The Proposed Land Use Diagram and Alternatives AA, AB, and AC would increase the demand for sheriff and police protections within the Plan area. The cumulative conditions would translate to new development patterns spread across a larger area, requiring additional staff and facilities to provide the current level of service to residents of the Plan area and Sheriff Department beats. Placer County Sheriff's Department receives funding from property tax, building impact fees, facility impact fees and bonds. The Truckee Police Department receives funding from sales tax, property tax, and transit occupancy tax. The increased population associated with cumulative conditions would also increase the funding sources for law enforcement in the Plan area and surrounding region. The additional funding would pay for service impacts on law enforcement associated with the Propose Land Use Diagram and Alternatives AA, AB and AC.

Policies and Implementation Programs

New development projects in the Plan area would be required to adhere to policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation for impacts on law enforcement services. The reader is referred to the Impact 4.11.2.1 regarding applicable proposed policies and implementation programs.

Mitigation Measure

None required.

4.11.3 PUBLIC SCHOOLS

4.11.3.1 EXISTING CONDITIONS

TAHOE-TRUCKEE UNIFIED SCHOOL DISTRICT

The proposed Martis Valley Community Plan area is served by the Tahoe-Truckee Unified School District (TTUSD), which provides public school services for kindergarten through 12th grade. The TTUSD encompasses 4 planning areas: Town of Truckee; Nevada County; Placer County; and El Dorado County. The District covers an area of roughly 700 square miles, making it one of the geographically largest districts in the state. Transporting students to and from school facilities requires a very large bus fleet. In addition, inclement weather or snow days can extend the school year by as much as 1 to two weeks.

The TTUSD adopted a Facilities Master Plan on July 17, 1999, which identifies major facility issues and detailing information on future school needs, options, and costs. The District recently updated the Master Plan with the Developer Fee Justification Study and School Facilities Needs Analysis in May 2001. The Needs Analysis was prepared pursuant to Senate Bill 50 (SB 50), Chapter 407, Statute 1998, which became effective on November 4, 1998. TTUSD prepared the Needs Analysis in order to evaluate the need for developer mitigation fees and the appropriate amount of such fees to provide educational services and school facilities to new students generated by residential and commercial construction in the District (TTUSD, 2001).

In the 2000-2001 school year, TTUSD had a total enrollment of 4,558 students (Pew, 2001). At present, the District has an estimated total capacity of 5,529 students, with "design" capacity for 2,775 (K-5) elementary students, 1,053 (6-8) middle school students, and 1,701 (9-12) high school students. Based on these numbers, the District is currently under capacity by 434 students (TTUSD, 2001). Current enrollment and existing facility capacity numbers are provided in **Table 4.11-1.**

TABLE 4.11-1
CURRENT ENROLLMENT AND EXISTING CAPACITY

School	Current Enrollment[1]	Existing Capacity[2]	Percentage of the Capacity[2]
Truckee Elementary	683	506	135 percent
Glenshire Elementary	500	391	128 percent
Sierra Mountain Middle School	708	502	141 percent
Tahoe Truckee High School	792	870	91 percent
TOTALS[3]	**2,683**	**2,269**	**118 percent**

Notes: [1] CBEDS Report, 2001.
[2] TTUSD, 2001.
[3] Only includes the 4 schools listed in this table.

Dr. Joel Kirschenstein of the Tahoe Truckee Unified School District has stated that the majority of the schools within the District are currently above capacity. School capacity is based on the standard of 25 students per classroom. The California Department of Education recommends allowing 25 percent more classrooms using portable classrooms. When this number is exceeded, the schools are considered over capacity (Britto, 2001). Based on the recent California Basic Educational Data System (CBEDS) Report for the District and TTUSD's capacity numbers, Truckee Elementary School is operating at 135 percent capacity; Glenshire Elementary is operating at

128 percent capacity; Sierra Mountain Middle School is operating at 141 percent capacity; and Truckee High School is operating at 91 percent (see **Table 4.11-1**). TTUSD uses loading factors of 20 students in Kindergarten through 3rd grade, 33 students in 4th and 5th grades, 30 students in 6th through 8th grades, and 28 students in 9th through 12th grades. Schools can operate above capacity if portable classrooms are brought to the school sites to accommodate the increased number of students. However, by doing so, a school site loses space necessary for playfield, hardcourt, apparatus areas, and sometimes parking (Britto, 2001).

TTUSD uses the current generation rates of 0.309 students per dwelling unit of single-family detached residences and 0.290 students per dwelling unit of single-family attached and mobile homes, to project future enrollment numbers (TTUSD, May 2001). TTUSD anticipates an additional 1,052 students over the next five years, based on projections for 3,485 new dwelling units in the District (TTUSD, 2001).

TTUSD will be constructing a new middle school within the Planned Community 2 (PC-2), which is now called Gray's Station, project site at Alder Drive and Highway 89 North. Approximately 25 acres of this site have been offered to the TTUSD to be used for a new middle school. This school would be designed for a capacity of 1,000 students with a faculty of 40 teachers and 20 other staff members. The facility will include space for classrooms, administrative and other support functions requiring approximately 84,000 square feet in the main building, an additional 12,000 square feet of modular classrooms, and a 10,800 square foot gymnasium. It should be noted that TTUSD is currently conducting an environmental review of the proposed school site for the new middle school (O'Gorman, 2001).

Once the new middle school is constructed, the existing Sierra Mountain Middle School would be converted to an elementary school. This additional school would help reduce overcrowding in the two existing elementary schools and allow for a more even distribution of students among three elementary school facilities. However, the overall capacity of the District would not increase with the addition of a middle school and the conversion of Sierra Mountain to an elementary school (TTUSD, 2001). Additionally, the District anticipates that in five years 618 students would be "unhoused" (without classroom facilities), based on current projections (TTUSD, 2001). Unhoused students would be provided with an education within one of the schools; however, the increased number of students would impact the current conditions of the affected schools, requiring portable classrooms and additional teachers in some instances (Britto, 2001).

Any new development that occurs within the Plan area would contribute students to the Truckee area schools, thus having a significant impact on the schools (Britto, 2001). Based on growth projections, the District anticipates the need for a new elementary school and high school. No potential school sites have been selected at this time. An elementary school requires at least 10 acres and a high school requires 40 acres. School sites need access from one or two directions, a level ground surface and should be outside of the 2-mile airport runway radius (Britto, 2001).

TTUSD owns a vacant 10-acre parcel, which is located within the Kingswood subdivision in the School Facility Improvement District 2. The parcel was dedicated to the District by the subdivision. Additionally, the District is currently involved the following construction projects, which would not increase the District's capacity (TTUSD, 2001:

- Middle School (grades 6-8) – located in Truckee
- Student Activity Center (grades K-5) – located in Kings Beach
- Gymnasium (grades K-5) – located in Truckee

- Gymnasium (high school) – located in Tahoe City
- Future conversion of existing Sierra Mountain Middle School to an elementary school – located in Truckee
- Future Performance Arts Center – located in Tahoe City

Construction of the new middle school is being paid for by bond funds from the General Obligation funds passed in 1999. TTUSD expects that construction of the middle school would consume the entire $35 million bond.

TTUSD is currently on a waiting list with the State to receive bond money from the statewide school bond election, Proposition 1A and the State Facilities Act, in November of 1998. Because TTUSD is waiting for state funding from these bonds, they have been unable to complete planned projects within the District. Additionally, TTUSD has been using bond money to pay for the construction of the new middle school, rather than using the bond money for its intended use on other needed projects. It is not certain when the statewide school bonds will be reinstated, as they have not been placed on the November 2002 ballot (O'Gorman, 2001).

SB 50 and Developer Mitigation Fees

Under Senate Bill 50, school districts can levy three different levels of developer fees from residential construction to pay for school improvements. Government Code Section 65995 allows statutory fees, which cannot exceed $2.08 per square foot of residential construction for K-12 facilities and $0.33 per square foot of commercial/industrial construction. These statutory fees are considered "level one" fees. There are 2 additional levels of developer fees, "level two" fees are allowed under specific circumstances beyond the base statutory fees, and "level three" fees are implemented if the State Allocation Board determines that the State School Facilities Program has run out of bond funding. Level three fees can pay for up to 100 percent of the cost of the school facility or mitigation, minus additional local dedicated school funding.

TTUSD conducted their Needs Analysis in May of 2001 in order to determine which levels of fees could be charged to new construction. The Analysis concluded that the District could charge all three levels of fees. Both Level Two and Three fees are justified under SB 50 because the District has filed a new construction eligibility application with OPSC and is eligible for new construction funding, the District placed a general obligation bond to finance schools on the ballot during the past four years.

Additionally, the Needs Analysis determined that statutory fees for commercial and industrial development were justified and could be levied at a maximum of $0.33 per square foot. Based on the same rationale, the Analysis concluded that residential development could be levied at a rate of $2.08 for Level Two fees and $4.16 for Level Three fees (TTUSD, 2001). Because there are currently no local funding sources for capital improvements, new development within the District would be subject to Alternative fees (e.g., Levels One, Two, and Three developer impact fees).

Pursuant to SB50, the allowable cost of school construction fees is levied at the following rates, with a permitted increase of 15 percent based on geographical location: $6,486 per elementary student (K-5); $6,860 per middle school student (6-8); and $8,980 per high school student (9-12). Because of TTUSD's geographical location, additional building costs for school construction, exceeding the State Grant, are warranted at a rate of: $8,842 per elementary student; $12,195 per middle school student; and $12,289 per high school student. The allowable site acquisition costs per student in TTUSD are: $1,079 per elementary school student; $3,332 per middle school student; and $1,096 per high school student. TTUSD has a provision, however, that if site

acquisition were required for a middle school, the construction costs would be adjusted (TTUSD, 2001).

At present the Tahoe Truckee Unified School District is only charging Level One and Level Two developer impact fees. Level Three fees cannot legally be charged until the State has declared that they are out of money. Once the State makes such a determination, the School Board would first have to approve of the Level Three fees before charging them (O'Gorman, 2001).

Measure A Funds

In addition to developer impact fees, the Tahoe Truckee School District receives parcel taxes from residential parcels within the service area known as Measure A funds. These funds, which are approved by a 2/3 vote, are to be used to enhance school programs and on operational expenses. The cost is $80 per parcel per year, which equates to approximately $2.4 million annually. The tax is based on a four-year cycle and is renewable every four years. Currently, the District is in years 13-16 of Measure A (Folsum, 2001). According to School Superintendent Pat Gemma, the current Measure A funds will be used in the following manner:

1) To keep class sizes at 4th and 5th grade at the 28-1 ratio.
2) To continue to provide increased music staffing at all schools.
3) To provide funds for music equipment and repair.
4) To provide instructional supplies and materials fund to each school at an amount of $65 per pupil.
5) To provide computer lab technicians at each school.
6) To provide vocational education programs at both comprehensive high schools.
7) To provide vocational education supplies and maintenance funds to both high schools.
8) To provide academic enhancement classes at our middle and high school.
9) To provide elementary p.e. specialists at all elementary schools.
10) To provide for physical education supplies and maintenance.
11) To provide ongoing funds for computer replacement and computer lab enhancements.
12) To provide funds for technology repair to include supplies, parts, and labor.
13) To provide counseling staff at the elementary and middle school levels. These counselors supplement the counselors paid for by the District at the high schools and middle schools.
14) To provide a special friends counseling program to all middle schools on top of the regular credentialed counseling.
15) To provide librarians at both comprehensive high schools.
16) To provide another school nurse to better serve the entire district.
17) To provide a bus replacement fund.
18) To provide the cost of Internet access to all schools.
19) To provide science equipment and supplies to all schools (Gemma, 2001).

Measure C Funds

In March 1999, voters approved Measure C that issued a General Obligation Bond for $35 million to pay for the construction of a new middle school (Britto, 2001). This school bond was also intended to alleviate the existing overcrowding in TTUSD elementary and middle schools as well as provide additional facilities such as multi-purpose buildings and gymnasiums. All bond money has been allocated to existing expansion projects and is not available for additional capital improvements (TTUSD, 2001). Due to the rising construction costs in the area, TTUSD anticipates that they may not be able to complete all of the projects listed on the bond's projects list (Britto, 2001).

The District will use Measure C money to pay for the construction of a new middle school. The school will be located on 25 acres off of Alder Drive and Highway 89 North within the PC-2 (Gray's Station) project site. The school will be approximately 100,000 square feet in size and will house 1,000 students. The core facility will include a gym, library, cafeteria, computer lab, stage, and administrative offices. Initially, the school will only have classrooms to accommodate 700 children. The facility is expected to be complete by Summer 2004, in time for the 2004-2005 school year (Koster, 2001).

Currently, Measure C money is being used to construct at 9,600 square foot multi-purpose room for Truckee Elementary School. The facility, which is located at the east end of the school, will include a 5,500 square foot gym, stage, bathrooms, custodial area, offices, storage and a separate after hours entrance. The anticipated completion date is July 2002. The money will also pay for a new administration area, library and media center, which will be located at the east end of the school. These improvements will be completed by January 2002. Truckee Elementary School will also receive new data ports, a phone system with intercom, safety locks on all classroom and office doors, and a roof overlay as part of the Measure C funding). Truckee High School will receive a new cafeteria/multi-use building as part of Measure C. The new building will be located near Surprise Stadium across the parking lot from the existing theater. The construction is expected to commence in 2003 and will take approximately one year to complete (Koster, 2001).

Some of the proposed projects under Measure C have been deferred until TTUSD can receive construction funding from the State. The District is eligible for 50 percent funding from the State for new construction. However, it is expected that this State money will fall short of construction needs due to the cost of construction (Britto, 2001).

Measure D Funds

Measure D is a district-wide school bond that was approved by the voters in 1992. The money was for facility improvements and the construction of a new elementary school. The District has already spent the funds associated with Measure D. However, homeowners are still making payments toward the bond as part of their taxes. The fee is approximately $30 per year per household.

State Funds

TTUSD is eligible to receive 50 percent funding from the State to pay for new construction. However, the high cost of construction in the Tahoe area limits the ability of the school district to utilize the funds to fully pay for projects. TTUSD often has to supplement the money with bond or developer fee money. The District is also eligible for "modernization funds" that can be used to improve existing school facilities. Several of the older schools in the District are currently using this funding to make improvements. The modernization money is awarded through per pupil grants that are based on the total number of school children being housed in the area that would be modernized (Britto, 2001).

Certificate of Participation Funding

TTUSD has decided to take out a Certificate of Participation (C.O.P.) from the State in the amount of $9 million to pay for school facilities improvements and the relocation of a transportation building in Truckee. The C.O.P. will be repaid using Developer Fees over the next 15 years (Britto, 2001).

4.11.3.2 REGULATORY FRAMEWORK FOR PUBLIC SCHOOLS

LOCAL

Martis Valley General Plan

The Existing Martis Valley General Plan states that there is a major problem with locating any new schools within the Plan area, "By state law, no new schools may be built within 2 miles of an airport. This precludes many otherwise suitable sites in the plan area, allowing a school location in only the extreme northern or southern portions. It may become necessary for the district to acquire a new school site outside Martis Valley and transport pupils to it." The Existing Martis Valley General Plan does not contain any policies pertaining to schools.

Placer County General Plan

The Placer County General Plan policies call for the County to coordinate its planning efforts with local school districts to ensure that development under the General Plan does not result in an unmet demand for school facilities.

Placer County General Plan Policies

The Placer County General Plan contains the following policies pertaining to schools:

Policy 4.J.1 The County should continue to assist school districts in providing quality education facilities that will accommodate projected student growth.

Policy 4.J.3 The County shall work cooperatively with school districts in monitoring housing, population, and school enrollment trends and in planning for future school facility needs, and shall assist school districts in locating appropriate sites for new schools.

Policy 4.J.4 The County's land use planning should be coordinated with the planning of school facilities and should involve school districts in the early stages of the land use planning process.

Policy 4.J.5 The County should plan and approve residential uses in those areas that are most accessible to school sites in order to enhance neighborhoods, minimize transportation requirements and costs, and minimize safety problems.

Policy 4.J.6 The County should include schools among those public facilities and services that are considered an essential part of the infrastructure that should be in place as development occurs.

Policy 4.J.7 The County shall consider school district plans in establishing acceptable levels of service for schools, determining school location and land and facility needs, and determining appropriate financing methods. The County should designate existing and designate existing and future school sites in community plans and specific plans to accommodate school district needs.

Policy 4.J.8 The County shall encourage school facility sitting that establishes schools as focal points within the neighborhood and community.

The proposed Martis Valley Community Plan policy document contains goals, policies and implementation programs that are generally consistent with the policy provisions of the Placer County General Plan.

STATE

Leroy F. Greene School Facilities Act of 1998 (SB 50)

The "Leroy F. Greene School Facilities Act of 1998," also known as Senate Bill No. 50 (Stats. 1998, Ch.407), governs a school district's authority to levy school impact fees. This comprehensive legislation, together with the $9.2 billion education bond act approved by the voters in November 1998 as "Proposition 1A" reforms methods of school construction financing in California.

Prior to the Leroy F. Greene School Facilities Act of 1998 (Government Code Sections 65995-65998), case law allowed cities to consider and impose conditions to mitigate impacts of new development on school facilities. The 1998 School Facilities Act suspended this authority, commonly referred to as *Mira* authority.

Government Code Section 65995, as amended by SB 50, establishes the dollar amount school districts may impose on new development. The statute provides that, with limited exceptions, the amount of any fees, charges, dedications, or other requirements may not exceed the following:

1) In the case of residential construction, two dollars and eight cents ($2.08) per square foot of assessable space ... "
2) In the case of any commercial or industrial construction, thirty-three cents ($0.33) per square foot of chargeable covered and enclosed space ... " (Gov. Code Section 65995, subd. (b)).

These amounts will be adjusted for inflation in the year 2000, and every two years thereafter (Id., subd. (b)(3)).

Under specified circumstances, school districts may impose alternative fees pursuant to Government Code Sections 65995.5 and 65995.7 (Level 2 and/or Level 3 fees, respectively). If State funding expires at any time, school districts may impose up to 100 percent of the State average cost of school facilities on new development (alternative Level 3 fees). However, in 2006, if a State bond measure fails, *Mira* authority is partially restored to the extent that a city could deny an application but could not condition the project to pay fees above the fee set by the State.

California Government Code Section 65995(e) states that a city does not have the ability to condition any land use approval, whether legislative or adjudicative, on the need for school facilities. In addition, Government Code Section 65995(f) prohibits a city or county from imposing a requirement to participate in a Community Facilities District ("CFD," also known as Mello-Roos district). Government Code Section 65995(g)(1) further states that a developer's refusal to participate in a CFD cannot be a factor in considering a "legislative or adjudicative" act. However, Government Code Section 65995(g)(2) further states that a "person can voluntarily elect" to pay a fee through a CFD.

Government Code Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the

amount specified in Section 65995 and, if applicable, any amounts specified in Section 65995.5 or 65995.7 are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities.

Section 65996 (b) states that the provisions of this chapter are hereby deemed to provide full and complete school facilities mitigation and, notwithstanding Section 65858, or Division 13 (commencing with Section 21000) of the Public Resources Code, or any other provision of state or local law, a state or local agency may not deny or refuse to approve a legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property or any change in governmental organization or reorganization, as defined in Section 56021 or 56073, on the basis that school facilities are inadequate.

4.11.3.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in any of the following:

1) Increased demand for additional personnel, equipment, or facilities, and/or results in a negative effect that impairs the ability of the service provider to maintain an acceptable level of service for public schools that would result in a physical impact on the environment.

METHODOLOGY

The analysis of school impacts was based on correspondence with the Tahoe-Truckee Unified School District, TTUSD's Developer Fee Justification Study and School Facilities Needs Analysis (Proposition 1A/Senate Bill 50) dated May 2001, direction provided in SB 50, as well as review of the existing Martis Valley General Plan, proposed Martis Valley Community Plan, and the Placer County General Plan.

Impact 4.11.3.1 Impacts on School Services

PP Implementation of the Proposed Land Use Diagram would increase student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the growing population. The impacts on schools services would be **less than significant**.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would increase student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the growing population. The impacts on schools services would be **less than significant**.

AB Implementation of the Alternative 1 Land Use Map would increase student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require

additional schools to serve the growing population. The impacts on schools services would be **less than significant**.

AC Implementation of the Alternative 2 Land Use Map would increase student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the growing population. The impacts on schools services would be **less than significant**.

PP Proposed Land Use Diagram

Based on TTUSD generation rates (0.309 students per single-family residential use and 0.29 per multi-family residential use), approximately 552 students (292 students from single-family residential uses and 260 students from multi-family residential uses) would be generated by the buildout associated with the Proposed Land Use Diagram, all of which would be within the Tahoe Truckee Unified School District. These numbers are based on a 20 percent permanent occupancy rate in the Plan area. Due to the current conditions in the District, any additional increase in students would require new school facilities, personnel and equipment, as existing schools within TTUSD are already at or above capacity. Additional school facilities would need to be to be provided to accommodate the increased student population under buildout conditions in the District. This would require portable classrooms in the interim and new schools in the long-term. TTUSD has already determined the need for an additional elementary school and high school to serve the increasing student population. No potential school sites have been selected at present. As such, there is a need for new school sites. It is not likely that the schools would be located within the Placer County portion of the Martis Valley due to the District's criteria that recommends schools are located at least two miles from the Truckee Tahoe Airport's runway radius. Additionally, TTUSD requires a 10-acre site for an elementary school and a 40-acre site for a high school. As a result of SB 50, Placer County has no jurisdiction over the location of future school sites.

The commercial and office uses associated with the Proposed Land Use Diagram could contribute additional students to the District from employees that may not reside within the Plan area.

Portable classrooms could result in environmental effects, based on their location within the school site. If a portable classroom were located on a previously disturbed site (e.g., parking lot or playground), the environmental impacts would be negligible as they would have already occurred and/or been evaluated. Whereas, if the portable classroom were located within a sensitive area of the school site (e.g., wetlands), environmental effects would likely occur. New schools would contribute environmental impacts through increased traffic, noise, potential habitat loss, air quality, water service, water quality wastewater, solid waste, public services, etc. However, TTUSD would be required to do an environmental analysis of a new school's environmental impacts.

TTUSD charges developer fees equal to $2.08 per square foot of residential development and $0.33 per square foot of commercial and industrial uses for school facility impacts. Additionally, TTUSD receives funding through the various voter-approved bond measures and from the State of California to pay for the construction of new facilities, improvements to existing facilities, equipment and personnel. The existing funding mechanisms under SB 50, bond measures within the school district, and compliance with the proposed Martis Valley Community Plan policies and implementation programs would fully mitigate the impacts of future development on TTUSD per California Government Code Section 65995(h), which states "the payment or satisfaction of

a fee, charge, or other requirement levied or imposed… [is] deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities." Additionally, Section 65996(b) states that the provisions of this chapter [Sections 65995-65998] are hereby deemed to provide full and complete school facilities mitigation.

AA Existing Martis Valley General Plan Land Use Map

Based on TTUSD generation rates (0.309 students per single-family residential use and 0.29 per multi-family residential use), approximately 694 students (251 students from single-family residential uses and 443 students from multi-family residential uses) would be generated by the buildout associated with the Existing Martis Valley General Plan Land Use Map, all of which would be within the Tahoe Truckee Unified School District. The impacts associated with the Existing Martis Valley General Plan Land Use Map would be fully mitigated by the existing funding mechanisms under SB 50, bond measures within the school district, and compliance with the proposed Martis Valley Community Plan policies and implementation programs would fully mitigate the impacts of future development on TTUSD per California Government Code Sections 65995(h) and 65996(b).

AB Alternative 1 Land Use Map

Based on TTUSD generation rates (0.309 students per single-family residential use and 0.29 per multi-family residential use), approximately 630 students (523 students from single-family residential uses and 107 students from multi-family residential uses) would be generated by the buildout associated with the Alternative 1 Land Use Map, all of which would be within the Tahoe Truckee Unified School District. Impacts associated with Alternative 1 would be fully mitigated by the existing funding mechanisms under SB 50, bond measures within the school district, and compliance with the proposed Martis Valley Community Plan policies and implementation programs would fully mitigate the impacts of future development on TTUSD per California Government Code Section 65995(h) and 65996(b).

AC Alternative 2 Land Use Map

Based on TTUSD generation rates (0.309 students per single-family residential use and 0.29 per multi-family residential use), approximately 474 students (214 students from single-family residential uses and 260 students from multi-family residential uses) would be generated by the buildout associated with the Alternative 2 Land Use Map, all of which would be within the Tahoe Truckee Unified School District. Impacts associated with Alternative 2 would be fully mitigated by the existing funding mechanisms under SB 50, bond measures within the school district, and compliance with the proposed Martis Valley Community Plan policies and implementation programs would fully mitigate the impacts of future development on TTUSD per California Government Code Section 65995(h) and 65996(b).

<u>Policies and Implementation Programs</u>

The following Martis Valley Community Plan policies and implementation programs in Section VI (Public Facilities and Services) that would provide mitigation for school facility impacts in the Plan area.

Policy 6.I.3 *The County shall work cooperatively with school districts in monitoring housing, population, and school enrollment trends and in planning for future school facility needs, and shall assist school districts in locating appropriate sites for new schools.*

Policy 6.I.4 *The County shall include school among those public facilities and services that are considered an essential part of the infrastructure that should be in place as development occurs.*

Policy 6.I.5 *The County shall consider school district plans in determining school location and land and facility needs.*

Policy 6.I.6 *The provision of adequate school facilities is a community priority. The County and school districts will work closely to secure adequate funding for new school facilities and, where legally feasible, the County shall provide a mechanism which, along with state and local sources, requires development projects to satisfy an individual school district's financing program based upon the individual development project's impacts.*

Policy 6.I.7 *The County and residential developers shall coordinate with the school districts to ensure that needed school facilities are available for use in a timely manner. The County, to the extent possible, shall require that new school facilities are constructed and operating prior to the occupation of the residences, which the schools are intended to serve.*

Policy 6.I.8 *The County shall support enactment of state legislation to finance the construction of new schools and shall support the modification of state laws and regulations to improve the funding of new school sites and facilities.*

Policy 6.I.9 *Before a residential development, which includes a proposed general plan amendment, rezoning or other legislative review can be approved by the Planning Commission or Board of Supervisors, it shall be demonstrated to the satisfaction of the hearing body that adequate school facilities shall be provided when the need is generated by the proposed development.*

Implementation Programs

Public Education

30. *School districts shall have primary responsibility for ensuring that school facilities exist, or will exist in a timely manner, to accommodate projects student populations of new residential development projects in compliance with established service level standards. The County will assist the school districts by requiring will-serve letters from affected school districts for each new residential land use project. [6.D.]*

Responsible Agency/Department: Planning Department/Office of Education
Time Frame: On-going

Funding: Permit fees

Mitigation Measures

None required.

4.11.3.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

The increased population associated with the cumulative conditions would result in an increased student population requiring schooling within the Tahoe Truckee Unified School District. According to the Needs Analysis conducted by TTUSD, buildout conditions of the Plan area would translate to 4,000 students between grades kindergarten and 12th (TTUSD, 2001). Many of these students would be unhoused in current school facilities. Based on a 20 percent permanent occupancy rate in the Plan area and TTUSD's generation rates for students, the maximum number of students associated with the proposed Martis Valley Community Plan would be approximately 694.

New development within the Plan area is largely representative of second homes, which would not contribute as many students to the Tahoe Truckee Unified School District as the Town of Truckee. It is anticipated that this trend will continue, especially within the existing and proposed resort developments in the area. Environmental impacts of future school sites would be evaluated individually by TTUSD for immediate and cumulative impacts as required by CEQA.

SB 50 enables School Districts to levy Levels One, Two, and Three developer impact fees of new residential, commercial and industrial development. At present, the Tahoe Truckee Unified School District only levies the Level One and Two fees. TTUSD would only be able to levy Level Three funds after the State of California declares that they are out of school funding and after approval from TTUSD's School Board. The District plans to continue using bond money, developer impacts fees, parcel tax, and school construction fees to pay for facilities improvements and new school facilities. Bond measures, such as Measure A, are renewable every four years. Currently, TTUSD is in years 13 through 16 of the Measure A bond. This trend of bond renewal is expected to continue. Funding is currently available for the District through a variety of different bonds and fees. TTUSD has not received their statewide school bond money from the passage of Proposition 1A on November 4, 1998. This has forced the TTUSD to use different funding sources to pay for planned facility improvements and the construction of the new middle school. Because the District has not yet received the statewide school bond money, they have had to postpone the construction of other planned school facilities. Even with their current sources of funding, the District is not able to pay for the necessary improvements or construction of new school facilities to accommodate the growing student population within TTUSD.

New schools planned within the Plan area would provide additional capacity to accommodate existing and future enrollment. The District is currently over capacity and in need of a new elementary school and high school to serve the projected development in the Plan area. New schools and additional portable classrooms have the potential to create environmental effects, such as increased traffic, noise, potential loss of habitat, water service, water quality, wastewater, solid waste, etc. However, the District would conduct an environmental analysis to determine the environmental impacts of a new school.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.3.2 Cumulative Impacts on School Services

PP Implementation of the Proposed Land Use Diagram would contribute to a cumulative increase in student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's school facilities and would require additional schools to serve the student population under cumulative conditions. The cumulative impacts on schools services would be **less than significant.**

AA Implementation of the Existing Martis Valley General Plan Land Use Map would contribute to a cumulative increase in student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's school facilities and would require additional schools to serve the student population under cumulative conditions. The cumulative impacts on schools services would be **less than significant.**

AB Implementation of the Alternative 1 Land Use Map would contribute to a cumulative increase in student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the student population under cumulative conditions. The cumulative impacts on schools services would be **less than significant.**

AC Implementation of the Alternative 2 Land Use Map would contribute to a cumulative increase in student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the student population under cumulative conditions. The cumulative impacts on schools services would be **less than significant.**

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Development associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC would contribute to the increase in student populations under cumulative conditions and would be subject to mitigation consistent with payment of fees as established between the school district, the State, and the local jurisdictions. Under cumulative conditions, the Tahoe Truckee Unified School District would require additional school sites, school facilities and funding to accommodate the needs of the increased student population. However, state law restricts local jurisdictions from imposing additional impact fees (per the Leroy F. Greene School Facilities Act of 1998). Construction of new school facilities would result in physical impacts. New development within the school district would be requested to provide school sites to the District, with a developer impact fee reduction as an incentive. Pursuant to state law, payment of statutory fees represents full and complete school facilities mitigation. Per California Government Code Sections 65995(h) and 65996(b), the existing fee mechanisms in addition to the proposed Martis Valley Community Plan policies and implementation programs would fully mitigate the environmental effects of the student population associated with cumulative conditions under the Existing Martis Valley General Plan Land Use Map.

Policies and Implementation Programs

New development projects in the Plan area would be required to adhere with policies and implementation programs in the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide mitigation for school services impacts. The reader is referred to Impact 4.11.3.1 regarding applicable proposed policies and implementation programs.

Mitigation Measure

None required.

4.11.4 WATER SERVICE

4.11.4.1 EXISTING CONDITIONS

Water service in the Plan area is provided by three agencies: the Placer County Water Agency (PCWA), the Truckee-Donner Public Utility District (TDPUD), and the Northstar Community Services District (CSD). However, new development in the Plan area would be served by PCWA. Both PCWA and TDPUD extract groundwater for their source of potable water and do not currently rely on surface water sources. Northstar CSD uses a combination of surface water sources from springs, which are located within the Northstar development, and groundwater. The reader is referred to Section 4.7 (Hydrology and Water Quality) regarding surface and groundwater resources in Martis Valley.

PLACER COUNTY WATER AGENCY

The Placer County Water Agency (PCWA) was created in 1957 by a special act of the State Legislature, entitled "Placer County Water Agency Act." This Act gives PCWA special Countywide authority, with a broad Agency-wide powers associated with water. The boundary of PCWA encompasses over 1,500 square miles and is identical in territory to the County of Placer. PCWA is also designated as a local agency and an independent "special district" encompassing all of Placer County.

PCWA has a service area in the Plan area, which is called Zone 4, located south of Truckee and east of the Truckee River. Zone 4 includes the existing Lahontan I development and the areas approximately 4½ square miles around Lahontan I and II, including the proposed Hopkins Ranch, Eaglewood, Siller Ranch, and Waddle Ranch.

The Placer County Water Agency has contracted with the TDPUD for water system operations and maintenance in the Lahontan subdivision. PCWA provides the domestic water service to this subdivision. The Zone 4 system includes two wells, a storage tank and a pipeline distribution system. The Zone 4 system was installed by the Lahontan development and dedicated to PCWA.

PCWA's Zone 4 System

Zone 4 Pumping Facility

PCWA's Lahontan system provides water from two wells. The domestic production well has a current pumping capacity of 500 gallons per minute (gpm) and the irrigation well currently has a 1,000 gpm pumping capacity. Both wells are located along the western edge of Lahontan. The domestic well is approximately 900 feet deep with a 17.5-inch gravel packed bore and a 12-inch steel casing. This well also has a 100-foot sanitary seal. The domestic well does not have an automatic pump to waste system, which contributes to colored water problems from the well casing and water quality problems due to the steel casing. The existing domestic well is capable of serving the built out conditions of Lahontan, including Phases 1 and 2.

The second well is used as a backup domestic water source as well as for irrigating the Lahontan golf course. The backup well is also approximately 900 feet deep, with a 26-inch gravel packed bore, an 18-inch steel casing, and 100-foot sanitary seal. The pumping capacity of this well is 1,000 gpm.

Zone 4 Storage Facility

Onsite storage facilities include a welded steel storage tank with 500,000 gallons of storage capacity, which is located west of the Lahontan 1 development. The tank is sufficient to accommodate the full development of Lahontan 1 and 2. However, it will be slightly undersized in that buildout requires 530,000 gallons of storage (Toy, 2002). The storage tank includes a telemetry system that controls the wells. Because of the current lack of storage facilities, PCWA would design future water systems to include 2 storage tanks in each pressure zone (PCWA, 2001).

Zone 4 Treatment Facility

The water treatment system includes separate chlorination facilities, which treat the well water before discharging it directly into the distribution system. The facilities contribute to fluctuations in chlorine residuals in the treated water for those services closest to the wells.

Zone 4 Distribution System

The distribution system is comprised of approximately 60,000 linear feet of pipelines. The pipes range in size from 6 to 12 inches. The distribution system is designed to provide maximum daily water demand to the 2 phases of Lahontan as well as provide a 2,100 gpm fire flow at the golf course clubhouse.

Placer County Water Agency's Draft Water System Facilities Plan for Martis Valley

PCWA issued a draft document entitled "Draft Water System Facilities Plan for Placer County Water Agency, Martis Valley Service Area (Zone 4)," dated April 26, 2001. This report discusses the current water capacity and demand within the Plan area, storage capacity, existing well system, existing distribution, water requirements including water system demands, production requirements and storage requirements for the study area, which is limited to Zone 4 in Placer County. The report states that Hopkins Ranch, Eaglewood, Lahontan II, Siller Ranch, and Waddle Ranch developments would likely be served by PCWA. Because of the future water system demand, PCWA is interested in developing a facilities plan that would provide for orderly water development of the Plan area (PCWA, 2001). The Agency foresees that the above listed

proposed developments in combination with Lahontan I, would have a total water system demand equal to 4,474 gallons per minute during a peak hour.

In order to provide water service to the proposed projects within Zone 4, the system may need to contain several wells in order for each development to have its own system. This would include a domestic well and a backup well for each development. The other alternative would be a coordinated system with fewer and larger wells in strategic locations. PCWA would prefer a coordinated system of wells with a transmission and distribution system. A coordinated system would be more efficient to operate and maintain. The new wells will possibly require on-site treatment or treatment at a centralized facility to remove arsenic and radon.

The expanded system would need to have three storage components, including operational (25 percent of maximum daily flow), fire (2100 gpm fire flow for 2 hours), and emergency reserve (25 percent of maximum daily flow). At present, the Zone 4 system has only one storage facility. PCWA proposes that there should be at least two storage tanks in each pressure zone. The Draft Water System Facilities Plan also calls for operation, fire, and emergency reserve storage components to be provided for each pressure zone. The location of the storage tanks would be based on base elevation for the individual pressure zone and the topography of the area.

In addition to the necessary expansion of the Zone 4 water system, the Agency has determined that it would need additional acreage and permanent facilities in the Plan area order to adequately serve these proposed developments. PCWA anticipates that it would need approximately three acres and a 4,000 to 5,000 square foot building in which to run their Martis Valley operations. The new building would need to include:

- Office facility for administrative and operations and maintenance staff.
- Vehicle and equipment storage area.
- Indoor storage for water system components.
- Indoor shop for equipment repair area.
- Staff and customer parking.
- Water system telemetry control.
- Vehicle and equipment wash down area.
- Outdoor storage for pipe and materials.

Supervisory Control and Data Acquisition (SCADA)

The Zone 4 water system includes a computerized Supervisory Control Data Acquisition (SCADA) system to aid in system operation. The SCADA system allows operators to remotely check system status, collect and store important system data and operate the system from PCWA and TDPUD computer workstations or in the field using portable computer equipment. The system uses radio communication between water system facilities and the SCADA control center. Virtually all water system facilities are connected to the SCADA system including wells, pumps, and storage tanks. Operators can access information in real time such as which wells and booster pumps are in operation and the water level in each of the tanks.

TRUCKEE-DONNER PUBLIC UTILITY DISTRICT

The District acquires its water from aquifers hundreds of feet deep all within the Truckee groundwater basin area. The water is transported to Truckee's higher elevations through a series of pump stations and is stored in water tanks strategically placed throughout the community. The Truckee-Donner Public Utility District's (TDPUD) water system is comprised of three components that include source, storage, and distribution.

There are approximately 7,000 water customers served by the District. However, this includes only a small number of customers in the Plan area. As **Figure 4.11-1** shows, only two subdivisions, Ponderosa Palisades and Martiswoods Estates, in the northwestern most portion of the Plan area are located within the TDPUD boundary. In addition, the TDPUD and PCWA have a formal contract where by the TDPUD provides water maintenance and billing for the Lahontan subdivision in exchange for a fee from the PCWA.

As **Table 4.11-2** shows, presently there are approximately 8,366 equivalent dwelling units (edu) served by the TDPUD's water system. In addition, **Table 4.11-2** shows at buildout, the TDPUD estimates that there will be 20,593 edu's including existing service areas and potential new service areas within and outside the current TDPUD service boundaries. TDPUD is currently negotiating the acquisition of the Donner Lake Utility Company and the Glenshire system. These acquisitions will effectively expand TDPUD's existing system.

TABLE 4.11-2
TDPUD PROJECTED WATER SYSTEM DEMAND (EDU)

Year	Residential Dwelling Units	Commercial Equivalent Dwelling Units	Total Equivalent Dwelling Units
1996	5807	1650	7457
2000	6511	1855	8366
2005	7475	2174	9649
2010	8595	2448	11043
2015	9620	2706	12326
Buildout	13522	7061	20583

Source: TDPUD, 1997

The TDPUD currently has a maximum daily demand of 6,337 gallons per minute (gpm). In 1999 this figure was 5,299 gpm. The source demand is estimated to be approximately 12,255 gpm at buildout. The TDPUD currently has potable water source capacity of 9,480 gpm; however, due to limitations in pumping and transmission, only approximately 7,800 gpm are available to the water system. One additional well has been constructed since the 1997 Water System Masterplan was printed. This additional well has increased the District's potable water source capacity by approximately 1,601 gpm (Kaufman, 2001).

The 1997 Water System Masterplan proposed a new service area, Area 5, which would have provided water service to a small area within the Placer County side of Martis Valley, including Lahontan I and II, as well as areas of Eaglewood and Hopkins Ranch. Area 5 would have required the construction of the proposed Placer Well and water distribution system. The 2001 Water System Masterplan has removed all mention of Area 5 and the proposed Placer Well. At present, TDPUD has no plans to build wells outside of the service area or within the Placer County side of Martis Valley. TDPUD is currently involved in discussions with PCWA regarding water service provision to the entire Martis Valley area. No agreements have been finalized at this time (Kaufman, 2001).

Pumping Facilities

The TDPUD utilizes groundwater exclusively as its source of water supply. Historically, the TDPUD used a series of springs for water, but due to water quality concerns, these springs are no longer in active service. The TSPUD currently has twelve wells in service. In addition, the TDPUD utilizes a number of pumping facilities to serve the various pressure zones throughout the TDPUD water

supply boundaries. There are 27 pump stations with a total of 66 pumps, including: 12 well pumps; 40 booster pumps; and 14 hydropneumatic system pumps.

Storage Facilities

There are 26 storage tanks in the TDPUD water system with a total capacity of approximately 6,235,000 gallons. All of the tanks, except one, are constructed of steel, either welded or bolted. The Airport Tank is constructed of concrete. In addition, there is one elevated tank that sits about 60 feet above the ground on a steel tower.

Treatment Facilities

Since the TDPUD relies solely on generally high quality groundwater sources, extensive treatment is not required. With one exception, the only treatment process used is chlorine disinfection. Most of the TDPUD's sources include chlorination facilities though some are makeshift installations located in the well buildings. All but one of the chlorination installations uses liquid sodium hypochlorite solution with one gas chlorine installation.

NORTHSTAR COMMUNITY SERVICES DISTRICT

Northstar Community Services District (CSD) provides domestic water service to the Northstar-at-Tahoe resort community. The water sources originate from two natural springs, Sawmill Flat and Big Spring, and one manmade reservoir with 180 acre-feet (af) of storage. The total spring production for low water years is estimated to be 638 acre-feet-annually (afa), based on minimum recorded spring flows. The springs located within Northstar-at-Tahoe discharge directly to the surface whether or not the water is used for domestic purposes. Existing spring sources have declined in response to below normal precipitation patterns. Additionally, Northstar-at-Tahoe has two wells located within the golf course. The second well was drilled in the summer of 2001 and is not yet in operation. The residential, commercial, golf course and ski hill (snowmaking) uses in Northstar require water. The golf course is on its own separate well system, which is located within the golf course. The new well is located in the 7th fairway of the golf course (MacKenzie, 2001).

CSD has 2 280,000-gallon storage tanks in Reservoir C, which are located in the Ski Trails Condominium area at an approximate elevation of 6,500 feet. Additionally, there are two 1-million gallon storage tanks in Reservoir D, which is located above the Big Springs development at approximate elevation of 6,700 feet. CSD also has one 180-acre storage reservoir that they use for fire fighting, snow making, and emergency water supplies (MacKenzie, 2001).

All water used within the Northstar is treated through the existing CSD treatment plant, with the exception of the snowmaking water, which is used directly from the reservoir and/or Big Springs.

The use of pressure reducing valves establishes several pressure zones. This provides system pressures in the range of 60 to 120 psi. Existing distribution storage is located to the south of the Ski Trail Condominiums, and consists of two steel tanks with a total capacity of two million gallons. Most transmission and distribution mains are located along Big Springs Drive.

Future Infrastructure

New development within the resort community of Northstar-at-Tahoe will be served by existing water supplies, wells and pumps. Existing supply lines are sized to accommodate planned development. New pipes will be installed along road rights-of-way to supply the future

development areas within the community, including the Northstar Village expansion, employee housing and future residential development.

Future plans include an upgrade to the existing water treatment plant, a third well at the north edge of the development along State Route 267, and a new storage tank to remediate the water pressure problems in Unit 7 (Overlook Place). The storage tank is planned for construction in summer 2002. The exact location of the storage tank has not yet been determined (MacKenzie, 2001).

Historical Water Usage

Historical water usage is summarized in **Table 4.11-3.** These calculations include water lost through leaks or breaks.

TABLE 4.11-3
NORTHSTAR HISTORICAL WATER USE (1988 – 1990)

	Average Use	Maximum Use
Domestic and Commercial	199 AF	232 AF (1989)
Golf Course	219 AF	245 AF (1988)
Snowmaking	72 AF	122 AF (1990)
TOTAL	**490 AF**	

Source: Northstar CSD (Lochridge, 2001)

4.11.4.2 REGULATORY FRAMEWORK FOR WATER SERVICES

STATE

Drinking Water Standards

Drinking water standards are defined in various chapters of Title 22 of the California Code of Regulations (CCR). Several revisions are currently proposed and under review that would bring the CCR into compliance with the Federal Interim Enhanced Surface Water Treatment Rule (IESWTR) and the Stage 1 Disinfectants and Disinfection Byproducts Rule (DBPR). These regulations are administered by the California Department of Health Services (DHS).

Senate Bill (SB) 610 and Assembly Bill (AB) 901

During the 2001 regular session of the State Legislature, SB 610 and AB 910 – Water Supply Planning were signed and became effective January 1, 2002. SB 610 amends Public Resources Code section 21151.9, requiring any EIR, negative declaration, or mitigated negative declaration for a qualifying project to include consultation with affected water supply agencies (current law applies only to NOPs). SB 610 also amends the following: Water Code 10656 and 10657 to restrict state funding for agencies that fail to submit their urban water management plan to the Department of Water Resource; Water Code section 10910 to describe the water supply assessment that must be undertake for projects referred under PRC section 21151.9, including an analysis of groundwater supplies. Water agencies would be given 90 days from the start of consultation in which to provide a water supply assessment of the CEQA lead agency; Water Code section 10910 would also specify the circumstances under which a project for which a water supply assessment was once prepared would be required to obtain another assessment. AB 910 amends Water Code section 10631, expanding the contents of the urban

water management plans to include further information on future water supply projects and programs and groundwater supplies.

Senate Bill (SB) 221

SB 221 adds Government Code section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within 5 days of the subdivision application being accepted as complete for processing by the city or county. It adds Government Code section 66473.7, establishing detailed requirements for establishing whether a "sufficient water supply" exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring a sufficient water supply to be available. Proof of availability must be requested of and provided by the applicable public water system. If there is no public water system, the city or county must undertake the analysis described in section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

LOCAL

Martis Valley General Plan

The existing Martis Valley General Plan incorporates policies pertaining to groundwater.

Environmental Resource

Policy 5 Maintain sufficient groundwater recharge areas to allow the groundwater source to be perpetually available for domestic use.

Policy 7 A determination must be made of the effect of high intensity uses on the underground water level of Martis Valley, including usage and water quality, before any extensive development, which may affect the groundwater, occurs.

Community Development and Transportation

Policy 7 The counties should establish or designate a single controlling entity within the valley for water and sewage disposal services. A timetable of development for both water and sewer facilities prepared by this entity would be included in the guidelines for the county on all future approvals of development. Further development cannot proceed until an effective sewer and water system is funded and under way for each development project.

Placer County General Plan

The Placer County General Plan includes policies and programs that require new development to occur only when there is a demonstrated long-term reliable water supply, promote the maintenance of state water quality standards in domestic water supplies, and promote efficient use of water and water conservation in new and existing development. In addition, the policies and programs under Goal 4.B of the General Plan address funding of public facilities and services.

Placer County General Plan Policies

The Placer County General Plan includes the following policies pertaining to domestic water supplies:

Policy 4.C.1 The County shall require proponents of new development to demonstrate the availability of a long-term, reliable water supply. The County shall require written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy. Where the County will approve groundwater as the domestic water source, test wells, appropriate testing, and/or reports(s) from qualified professionals will be required substantiating the long-term availability of suitable groundwater.

Policy 4.C.2 The County shall approve new development based on the following guidelines for water supply:

a. Urban and suburban development should rely on public water systems using surface supply.
b. Rural communities should rely on public water systems. In cases where parcels are larger than those defined as suburban and no public water system exists or can be extended to the property, individual wells may be permitted.
c. Agricultural areas should rely on public water systems where available, otherwise individual water wells are acceptable.

Policy 4.C.6 The County shall promote efficient water use and reduced water demand by:

a. Requiring water-conserving design and equipment in new construction;
b. Encouraging water-conserving landscaping and other conservation measures;
c. Encouraging retrofitting existing development with water-conserving devices; and
d. Encouraging water-conserving agricultural irrigation practices.

Policy 4.C.7 The County shall promote the use of reclaimed wastewater to offset the demand for new water supplies.

Policy 4.C.8 When considering formation of new water service agencies, the County shall favor systems owned and operated by a governmental entity over privately- or mutually-owned systems. The County will continue to authorize new privately- or mutually-owned systems only if system revenues and water supplies are adequate to serve existing and projected growth for the life of the system. The County shall ensure this through agreements or other mechanisms setting aside funds for long term capital improvements and operation and maintenance.

Policy 4.C.11 The County shall protect the watersheds of all bodies of water associated with the storage and delivery of domestic water by limiting grading, construction of impervious surfaces, application of fertilizers, and development of septic systems within these watersheds.

Policy 4.C.12 The County shall limit the annual rate of growth to three percent in areas where domestic water is supplied by individual or community wells.

The proposed Martis Valley Community Plan policy document contains goals, policies and implementation programs that are generally consistent with the policy provisions of the Placer County General Plan.

4.11.4.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in any of the following:

1) Result in the need for new systems, or a substantial expansion or alteration to the local or regional water treatment or distribution facilities; local or regional water supplies that would result in a physical impact to the environment.

METHODOLOGY

Analysis of potential water service impacts of the Proposed Land Use Diagram and Alternatives AA, AB and AC was based on consultation with the Placer County Water Agency (PCWA), Truckee Donner Public Utility District (TDPUD), and a review of reports produced by PCWA and TDPUD. Review of the Placer County General Plan, the Existing Martis Valley General Plan, and the proposed Martis Valley Community Plan were also used in this analysis. The reader is referred to Section 4.7 (Hydrology and Water Quality) regarding the evaluation of groundwater resource and hydrological impacts of increased groundwater usage. This impact focuses on potential environmental impacts associated with development of the water distribution system for planned growth.

Impact 4.11.4.1 Water Facilities and Distribution Systems

PP Implementation of the Proposed Land Use Diagram would increase the demand for water facilities and distribution systems in the Plan area, including new systems, supplies, and infrastructure. This would be a **significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would increase the demand for water facilities and distribution systems in the Plan area, including new systems, supplies, and infrastructure. This would be a **significant** impact.

AB Implementation of the Alternative 1 Land Use Map would increase the demand for water facilities and distribution systems in the Plan area, including new systems, supplies, and infrastructure. This would be a **significant** impact.

AC Implementation of the Alternative 2 Land Use Map would increase the demand for water facilities and distribution systems in the Plan area, including new systems, supplies, and infrastructure. This would be a **significant** impact.

PP Proposed Land Use Diagram

Implementation of the Proposed Land Use Diagram would result in up to 9,220 residential units as well as additional commercial and office uses. This would increase the demand for water supply

as well as new systems, supplies and facilities. Buildout under this land use map would increase the current population and extend development patterns into the Plan area. The Proposed Land Use Diagram includes residential development along the southern edge of the Plan area west of State Route 267, residential and ski-based commercial uses east of State Route 267 across from the Northstar-at-Tahoe resort community, and residential and ski-based commercial uses to the northwest of Northstar-at-Tahoe. These proposed developments would require additional infrastructure in order to receive potable water.

PCWA is prepared to accommodate the development in the Plan area. Their technical studies have determined that the water is available to serve the projected buildout of the area. However, PCWA's current facilities and infrastructure are not large enough to handle the anticipated increase in water volume or demand. In order to provide the same level or service to their customers, PCWA would require approximately three additional acres of land and a new 4,000 to 5,000 square foot permanent facility in the Plan area to adequately serve the proposed development. PCWA would also require office facility for administrative and operations and maintenance staff, vehicle and equipment storage area, indoor storage for water system components, indoor shop for equipment repair area, staff and customer parking, water system telemetry control, and a vehicle and equipment wash down area. In order for PCWA to provide water to the Plan area, excluding Northstar, they would need to expand their service area to include the proposed development areas associated with the Proposed Land Use Diagram, additional storage tanks, wells, distribution lines, and potentially pumps. PCWA and TDPUD are currently in negotiations regarding water service distribution in the Plan area. Truckee Donner Public Utility District (TDPUD) does not currently have the capacity to serve the buildout of the Plan area and PCWA wants to expand their service area. It is anticipated that PCWA would be the main purveyor of potable water in the Plan area, with Northstar CSD providing water only to the community of Northstar-at-Tahoe. New development would be required to meet the fire departments and water agencies' fire flow standards, requiring a minimum of 1,000 gallons per minute (gpm) fire flow for residential uses and 1,500 gpm for commercial uses sustained over a 2-hour period. This would likely require water storage tanks to provide fire protection, necessary pressure regulation and diurnal supply. At present no sites or rights-of-way have been secured for the future water storage tanks, office facility, wells, or water distribution lines. The potential exists for environmental impacts to result from the construction of the necessary administrative center for PCWA, new well sites, storage tanks, and other infrastructure. Most likely the pipelines would be located within existing rights-of-way. This would eliminate the risk of environmental impacts resulting from new pipelines. The wells and storage tanks would likely be located on land purchased by PCWA or on future development sites within the Plan area.

Planned development within the Northstar-at-Tahoe resort community would also require new pipelines, wells and storage facilities. An additional storage tank is also planned within an existing development area called Unit 7. The Northstar Village expansion, employee housing project and future residential developments would require additional water distribution lines within Northstar-at-Tahoe as well. The new water lines would utilize the existing supply lines that were sized to accommodate future growth and would be located within road and utility rights-of-way. CSD's existing system has adequate capacity and would not require new pumps, tanks, or wells to serve the Northstar Village expansion project (Auerbach, 2001). The planned water distribution system expansion within Northstar-at-Tahoe is expected to occur mainly within developed and disturbed areas. This would reduce the potential for environmental impacts. Implementation of the Proposed Land Use Diagram would increase the demand on the PCWA and Northstar CSD's water systems, requiring new wells, distribution lines, storage tanks and facilities within their service areas.

The reader is referred to Section 4.7 (Hydrology and Water Quality) for the water supply discussion.

AA Existing Martis Valley General Plan Land Use Map

Implementation of the Existing Martis Valley General Plan Land Use Map would result in up to 11,688 residential units and additional commercial and office uses. This would increase the demand for water supply as well as new systems, supplies and facilities. Buildout under this alternative would increase the current population and extend development patterns into the Plan area. The Existing Martis Valley General Plan Land Use Map includes residential development along the southern edge of the Plan area west of State Route 267, residential and ski-based commercial uses east of State Route 267 across from the Northstar-at-Tahoe resort community, and residential and ski-based commercial uses to the northwest of Northstar-at-Tahoe. These proposed developments would require additional infrastructure in order to receive potable water. Alternative AA would have greater impacts on water distribution than the Proposed Land Use Diagram as a result of increased development potential.

AB Alternative 1 Land Use Map

Implementation of the Alternative 1 Land Use Map would result in up to 10,311 residential units and additional commercial and office uses. This increase would impact the water supply, by increasing the demand for potable water, which would require new systems, supplies and facilities. Buildout under Alternative 1 would increase the current population and extend development patterns into the Plan area. The Alternative 1 Land Use Map proposes residential uses east of State Route 267 across from the Northstar-at-Tahoe resort community. This proposed development would require additional infrastructure in order to receive potable water. Alternative AB would have greater impacts on water distribution than the Proposed Land Use Diagram as a result of increased development potential.

AC Alternative 2 Land Use Map

Implementation of the Alternative 2 Land Use Map would result in 7,956 residential units and additional commercial and office uses. This increase would impact the water supply, by increasing the demand for potable water, which would require new systems, supplies and facilities. Buildout under Alternative 2 would increase the current population and extend development patterns into the Plan area. The Alternative 2 Land Use Map proposes residential uses east of State Route 267 across from the Northstar-at-Tahoe resort community. This proposed development would require additional infrastructure in order to receive potable water. Alternative AC would have fewer impacts on water distribution than the Proposed Land Use Diagram.

<u>Policies and Implementation Programs</u>

The following Martis Valley Community Plan policy and implementation programs in Section VI (Public Facilities and Services) would reduce potential impacts discussed regarding water distribution in the Plan area.

Policy 6.C.1 *The County shall require proponents of new development to demonstrate the availability of a long-term, reliable and adequate supply of pure, wholesome, healthful, and potable water as well as any necessary water for irrigation or other purposes. The County shall require written certification from the service provider that either*

existing services are available or needed improvements will be made prior to occupancy. Where the County will approve groundwater as the domestic water source, test wells, appropriate hydrologic testing, and/or report(s) from qualified professionals will be required substantiating the long-term availability of sufficient and suitable groundwater.

Policy 6.C.7 *When considering formation of new water service agencies, the County shall favor systems owned and operated by a public managing entity. The County will authorize new privately owned systems only if the system can demonstrate complete TMF capacity as required by the California Health and Safety Code.*

Implementation Programs

Water Supply and Delivery

9. *In situations where the County has review authority, require mitigation for impacts resulting from new water system facilities.*

   Responsible Agency/Department: Department of Public Works
   Time Frame: On-going
   Funding: Permit Fees

10. *Before allowing individual wells to be the domestic water source in new land developments, require, as part of the environmental review process, demonstration through test wells, water quality analyses, and where appropriate through groundwater pumping and modeling, that the groundwater be a reliable and adequate source of potable water to each user.*

    Responsible Agency/Department: Division of Environmental Health
    Time Frame: On-going
    Funding: Permit Fees

Mitigation Measure

The following mitigation measure is required as an additional policy in the proposed Martis Valley Community Plan under Goal 6.C of the Public Facilities and Services Section. This mitigation measure applies to the Existing Martis Valley General Plan Land Use Map (AA), Alternative 1 Land Use Map (AB) and Alternative 2 Land Use Map (AC).

MM 4.11.4.1 The County shall require subsequent projects to demonstrate that adequate water distribution systems and connections to existing systems will be available and will be able to provide adequate flow and water quality consistent with local, state, and federal standards.

Implementation of the above mitigation measure and proposed policies and implementation programs would reduce the impacts on water distribution systems in the Plan area for the Proposed Land Use Diagram and Alternatives AA, AB and AC to **less than significant**. These measures would ensure that future planned development does not occur without adequate water infrastructure and distribution systems in place.

4.11.4.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

The increased population associated with the cumulative conditions would increase the resident population and non-residential uses in the Plan area and would expand development into areas that are currently without water distribution infrastructure. PCWA and Northstar CSD would provide potable water to the Plan area in cumulative conditions. Northstar CSD would only serve development within the Northstar-at-Tahoe resort community. PCWA would serve the rest of the plan area. The cumulative setting for the projected PCWA service area includes all of the Plan area, except for the Northstar CSD and its sphere of influence. PCWA would be required to expand their service area to encompass the proposed development areas associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC, excluding the Northstar-at-Tahoe resort community. Additionally, further development within Zone 4 would likely require additional infrastructure, including wells, storage tanks, distribution pipelines and treatment facilities.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.4.2 Cumulative Impacts on Water Facilities and Distribution Systems

PP Under cumulative conditions, implementation of the Proposed Land Use Diagram would not increase the demand for water facilities and distribution systems outside of the Plan area, including new systems, supplies, and infrastructure. This would be a **less than significant** impact.

AA Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would not increase the demand for water facilities and distribution systems outside of the Plan area, including new systems, supplies, and infrastructure. This would be a **less than significant** impact.

AB Under cumulative conditions, implementation of the Alternative 1 Land Use Map would not increase the demand for water facilities and distribution systems outside of the Plan area, including new systems, supplies, and infrastructure. This would be a **less than significant** impact.

AC Under cumulative conditions, implementation of the Alternative 2 Land Use Map would not increase the demand for water facilities and distribution systems outside of the Plan area, including new systems, supplies, and infrastructure. This would be a **less than significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

The water suppliers in the area are not currently equipped to supply water to the areas outside of the Plan area under cumulative conditions. PCWA does not currently have adequate facilities, wells, storage tanks or distribution systems to provide water service to the entire Martis Valley area (outside of the Plan area). New water facilities and distribution systems would be required to accommodate buildout under cumulative conditions if water service was required outside of the Plan area. However, development associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC would not have a significant impact on water facilities and distribution systems in the Plan area under cumulative conditions.

Policies and Implementation Programs

New development projects in the area would be required to comply with policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation on water services. The reader is referred to Impact 4.11.4.1 regarding applicable proposed policies and implementation programs.

Mitigation Measures

None required.

4.11.5 WASTEWATER SERVICE

4.11.5.1 EXISTING CONDITIONS

Wastewater service in the Plan area is provided by 3 entities: Tahoe-Truckee Sanitation Agency, Truckee Sanitation District, and Northstar Community Services District. However, Tahoe-Truckee Sanitation Agency collects wastewater from the other 2 and conveys it to treatment facilities east of Truckee.

TAHOE-TRUCKEE SANITATION AGENCY

In 1972, after a decade of debate and concern regarding the impact that numerous wastewater discharges were creating on the water quality of Lake Tahoe, 1 regional entity, Tahoe-Truckee Sanitation Agency (T-TSA), became responsible for collecting and treating wastewater from communities located along the northern and western shore of Lake Tahoe and the Town of Truckee and its environs. In 1978, the original wastewater treatment facilities began operation.

T-TSA provides sewage collection services to Truckee, the Plan area, Kings Beach, Tahoe City, Squaw Valley, and development along the western edge of Lake Tahoe. The T-TSA currently collects wastewater from 5 member sewage collection agencies and conveys it to the treatment facilities located east of the Town of Truckee. After treatment, the facilities discharge effluent to a land disposal area via subsurface leach field system. The treated effluent then migrates through the soil northward approximately 1 mile, where it eventually enters the Truckee River and the lower reaches of Martis Creek. The member agencies served by T-TSA facilities include:

- Tahoe City Public Utility District
- North Tahoe Public Utility District
- Alpine Springs County Water District
- Squaw Valley Public Service District
- Truckee Sanitary District (TSD)

In addition, T-TSA facilities serve the Northstar Community Services District through an agreement with TSD.

Existing Capacity and Treatment Facilities

Tahoe-Truckee Sanitation Agency operates a 7.4 million gallon per day (mgd) treatment facility east of Truckee. The T-TSA's Water Reclamation Plant (WRP) facilities provide tertiary-level

treatment of wastewater. The mainstream treatment processes consist of raw sewage screening, grit removal, primary sedimentation, pure oxygen activated sludge, biological phosphorous removal, filtration, ion exchange ammonia removal, and chlorination. Organic sludges are anaerobically digested and then dewatered and transported to an existing landfill in Lockwood, Nevada.

The T-TSA's facilities consist of 6 major systems that compose the wastewater treatment process which include:

- Primary and secondary treatment
- Phosphorous removal
- Advanced wastewater treatment
- Effluent disposal and final soil treatment
- Organic sludge digestion
- Solids dewatering

The T-TSA WRP is sized primarily to treat the maximum sewage flows that occur during summer periods with the influx of seasonal residents and visitors. While winter periods actually show larger seasonal populations in the T-TSA service area, the character and activities of the summer visitors result in greater sewage loadings on the treatment facility.

The WRP is currently operating at about 80 percent of its design capacity of 7.4 million gallons per day (mgd) during peak summer-flow periods based on seven day average flow, with approximately 1.5 mgd remaining in unutilized capacity. The plant was operating at the same capacity in 1999 when the service area population was 90,190 (T-TSA, 1999). However, based on current estimates of planned population growth, peak wastewater flows would exceed the capacity of the plant near the year 2004.

T-TSA uses a wastewater generation rate of 200 gallons per day (gpd) per single-family residential dwelling unit or single-family units (sfu's). Rates for commercial and other land uses are based on sfu's. One sfu is equal to two toilets and two laboratories or sinks. Lodging units are each equivalent to 1/3 sfu, swimming pools are equal to ½ sfu, and ten restaurant seats are equal to one sfu. Ski resorts in the area, such as Northstar-at-Tahoe, could equate to 235 sfu's including the ski runs and the commercial uses associated with the Village-at-Northstar (Beals, 2001). Wastewater volumes produced by non-residential land uses are calculated by multiplying the equivalent sfu by the 200 gallon per day rate. T-TSA's service charges are based upon these values (Beals, 2001).

The WRP is currently in the environmental review stages for a planned expansion of the current facility to a capacity of 9.6 mgd. The planned WRP expansion would also include improvements to the Truckee River Interceptor (TRI) and the existing TSD sewage treatment lagoons. The TRI, which is a gravity sewer, runs from Tahoe City to the WRP collecting raw sewage from five member districts. The TRI includes pipes with diameters ranging from 24 to 42 inches. Most likely, new sewer lines would connect to the existing siphon line along State Route 267 and would be located within road rights-of-way. As part of the WRP expansion, selected manholes along the TRI would be reconstructed to increase the capacity of the TRI. An increased capacity would allow the TRI to operate in a pressurized condition along various segments of the pipeline route in order to accommodate future populations. T-TSA anticipates that the expansion will cost $50,000,000 and will most likely be paid for by money in the Wastewater Capital Reserve Fund and possibly from a State Revolving Fund loan. Otherwise, T-TSA may float a bond issue in order to pay for the planned expansion. T-TSA anticipates that the facility would be constructed by 2005 (Beals, 2002). The Lahontan Regional Water Quality Control Board recently issued T-TSA's

permits for the WRP expansion. Additional sewer trunk lines would also be necessary to serve new development areas. The planned expansion to the WRP is expected to accommodate projected development in the Plan area within T-TSA's service area (Woods, 2001). A 9.6 mgd capacity would accommodate buildout conditions in the entire T-TSA service area (based on a projected population of 143,000 people), assuming a peak summer seven day average flow in the year 2015 (T-TSA, 1999).

T-TSA is funded by property tax revenue, service charges and connection charges. Property tax revenue is used for administration and overhead expenses of T-TSA. Service charges pay for operation and maintenance costs of the facility, and connection charges pay for capital outlay and expansion costs. Connection charges, 4,000 dollars per equivalent dwelling unit, are paid as development occurs. In 2001, T-TSA's budgeted capital expenses are projected to be $3,867,295. T-TSA's budget also includes $945,900 in property tax and $5,954,534 in service charges (Woods, 2001).

Wastewater Conveyance Facilities in the Martis Valley Community Plan Area

There are currently wastewater conveyance pipelines and facilities located along Schaffer Mill Road and within the Northstar-at-Tahoe resort community. These facilities connect into the siphon line along State Route 267, maintained by TSD. This siphon line extends from the T-TSA Water Reclamation Plant to Northstar. There are approximately 20 miles of sewer line than run from the T-TSA treatment plant to Tahoe City along the Truckee River.

Petition filed against Tahoe-Truckee Sanitation Agency by Reno, et al.

The EIR for the proposed expansion of the T-TSA treatment facility was challenged by the City of Reno, City of Sparks, and the Lake Paiute Tribe in 1998 because of concerns over the adequacy of the environmental analysis of the WRP expansion and the potential for the expanded facility with a 9.6mgd capacity to dramatically increase pollutant loadings in the Truckee River and Pyramid Lake, which could impact 2 fish species protected under the Endangered Species Act. A settlement was reached in January 2002 with an agreement that T-TSA would construct an enhanced wastewater treatment system utilizing biological nitrogen removal technology. The upgraded plant is anticipated to reduce salt loading by 22 percent, thus preventing approximately 26 million pounds of salt from entering the Truckee River over the next 30 years (DeLong, 2002). Additionally, nitrogen and chlorine pollution would be significantly reduced, by 34 percent and 30 percent respectively, thereby reducing chlorides by 3,000 pounds per day (City of Reno, 2002). The biological nitrogen removal technology would cost approximately $15 million dollars in addition to the $59 million dollars required to expand the facility (DeLong, 2002; City of Reno, 2002).

TRUCKEE SANITATION DISTRICT

Formed in 1906, the Truckee Sanitary District (TSD) currently operates under the Sanitary District Act of 1923. The TSD operates and maintains a wastewater collection system of over 300 miles of sewer pipelines and related appurtenances in an area of approximately 38 square miles. The boundaries for the TSD are depicted in **Figure 4.11-1**. Wastewater is transported to the Tahoe-Truckee Sanitation Agency's (T-TSA) Water Reclamation Plant (WRP) which is located south of Glenshire Drive and the Truckee River, and north of the Truckee Airport.

NORTHSTAR COMMUNITY SERVICES DISTRICT

Sewage is currently collected primarily by gravity flow throughout the Northstar development, and is transported through a siphon line along State Route 267 to the Truckee Sanitary District (TSD) main in Airport Road. The Northstar CSD and the TSD have an agreement whereby the TSD conveys this sewage to the Tahoe Truckee Sanitation Agency (T-TSA) regional sewage treatment plant located along the Truckee River.

Seasonal population variations result in a broad range of sewage flows. During some parts of the year such as specific holiday weekends during the summer, peak flows may be as high as 400,000 gallons per day (gpd). Weekend ski season flows may be as high as 250,000 gpd. A typical daily average is about 120,000 gpd. Existing wastewater conveyance facilities are designed to provide adequate capacity for the transmission of wastewater flows from approximately 3,700 residential dwelling units.

4.11.5.2 REGULATORY FRAMEWORK FOR WASTEWATER SERVICE

LOCAL

Martis Valley General Plan

The following policy, intended as a guideline and a directive to be used and understood by County staff, legislative bodies, advisory groups, and private citizens, concern outdoor recreation as it relates to the Plan area and the valley's future development.

Community Development and Transportation Policies

Policy 7 The counties should establish or designate a single controlling entity within the valley for water and sewage disposal services. A timetable of development for both water and sewer facilities prepared by this entity would be included in the guidelines for the county on all future approvals of development. Further development cannot proceed until an effective sewer and water system is funded and under way for each development project.

Placer County General Plan

The Placer County General Plan includes policies that provide for new development only where it can be served by adequate wastewater treatment systems, promote water conservation to reduce the need for unnecessary wastewater facility capacity, promote water improvements in existing wastewater treatment systems including improvements to areas which currently have failing onsite systems. These policies also limit new onsite sewage treatment and disposal to areas where the soils and other characteristics would allow for such facilities without threatening surface or groundwater and where such facilities can meet all other County requirements and standards.

Placer County General Plan Policies

The Placer County General Plan includes the following policies pertaining to wastewater:

Policy 4.D.1 The County shall limit the expansion of urban communities to areas where community wastewater treatment systems can be provided.

Policy 4.D.2 The County shall require proponents of new development within a sewer service area to provide written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy.

Policy 4.D.3 The County shall discourage extension of sewer service outside of city spheres of influence and community plan areas, except in limited circumstances to resolve a public health hazard resulting from existing development, or where there is a substantial overriding public benefit.

Policy 4.D.4 The County shall promote efficient water use and reduced wastewater system demand by:

a. Requiring water-conserving design and equipment in new construction;
b. Encouraging retrofitting with water-conserving devices; and
c. Designing wastewater systems to minimize inflow and infiltration to the extent economically feasible.

Policy 4.D.5 The County shall encourage pretreatment of commercial and industrial wastes prior to their entering community collection and treatment systems.

Policy 4.D.6 The County shall promote functional consolidation of wastewater facilities.

Policy 4.D.7 The County shall permit on-site sewage treatment and disposal on parcels where all current regulations can be met and where parcels have the area, soils, and other characteristics that permit such disposal facilities without threatening surface or groundwater quality or posing any other health hazards.

Policy 4.D.8 The County shall require that the on-site treatment, development, operation, and maintenance of disposal systems comply with the requirements and standards of the County Division of Environmental Health.

Policy 4.D.9 The County requires septic tank maintenance by a public entity as a condition of tentative map approval for major subdivisions in which septic tanks are to be used.

Policy 4.D.10 The County shall continue use of current technically based criteria in review and approval of septic tank/leachfield systems for rural development.

Policy 4.D.11 The County shall facilitate extension of septic tank effluent pumping (STEP) service or conventional wastewater collection service to areas with failing on-site systems.

The proposed Martis Valley Community Plan policy document contains goals, policies and implementation programs that are generally consistent with the policy provisions of the Placer County General Plan.

Town of Truckee

TRUCKEE SANITARY DISTRICT CODE

Standards for construction of sanitary sewer facilities are found in the Truckee Sanitary District Code, currently Ordinance 1-98. The TSD Code outlines TSD policy, provisions and regulations, fees, and charges, installation, inspection, and maintenance of sanitary sewer facilities.

Typically, the TSD requires large developments to design, fund, and install the sanitary sewer system necessary to service the proposed development in accordance with the TSD Code. If the installed sanitary sewer system meets TSD specifications, the developer may choose to dedicate said facilities to the TSD, whereby the TSD takes over the responsibility for operation and maintenance of the system.

4.11.5.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in any of the following:

1) Result in the need for new systems or supplies, or a substantial expansion or alteration to the wastewater treatment and disposal systems.

2) Result in a substantial increase in wastewater flows over current conditions and treatment capacity.

METHODOLOGY

Evaluation of potential impacts on wastewater facilities and services was based on consultation with Tahoe-Truckee Sanitation Agency, Tahoe Sanitation Agency, and Northstar Community Services District, review of the Tahoe-Truckee Sanitation Agency Water Reclamation Plant Expansion Project Draft EIR (April 1999), and County and Martis Valley documents and policies.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 4.11.5.1 Wastewater Service

PP Implementation of the Proposed Land Use Diagram would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. This would be a **less than significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. This would be a **less than significant** impact.

AB Implementation of the Alternative 1 Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. This would be a **less than significant** impact.

AC Implementation of the Alternative 2 Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. This would be a **less than significant** impact.

PP Proposed Land Use Diagram

Implementation of the Existing Martis Valley General Plan Land Use Map would result in up to 9,220 residential units, as well as commercial and recreational uses. The residential domestic flow associated with this alternative would generate approximately 1.8 million gallons of wastewater per day, assuming full-time occupancy of the residences. Based on a 20 percent full-time occupancy, the Proposed Land Use Diagram would generate approximately 0.37 mgd of wastewater. This volume is based on T-TSA's wastewater generation rate of 200 gallons per day per residential dwelling unit (gpd/du), which does not include commercial and recreation uses or peak use periods (Beals, 2001). Based on current wastewater generation rates in the Plan area, reasonable estimates for non-residential uses would be one sfu for an 18-hole golf course, five sfu's for commercial uses, 20 sfu's for a 200-seat restaurant, 100 sfu's for a 300-room hotel, and 235 sfu's for a ski resort. Wastewater generation rates for non-residential uses are based upon the specific uses and the size of the use. Therefore, it is difficult to assess the impacts of the commercial, office, and recreation uses associated with the Proposed Land Use Diagram. T-TSA's existing Water Reclamation Plant (WRP) is currently operating at 80 percent of its 7.4 mgd capacity, which is approximately 5.9 mgd. The residential uses associated with the Proposed Land Use Diagram would increase the amount of wastewater treated in the WRP to 8.2 mgd. T-TSA anticipates their service area population to reach 143,000 by the year 2015. The entire Martis Valley Community Plan area is included within the T-TSA service area, except for the federally owned lands that are scattered throughout the plan area. The proposed expansion of the WRP would accommodate the projected wastewater flows associated with buildout of their service area, assuming a seven day peak population of 143,000 (T-TSA, 1999). The expanded WRP with a capacity of 9.6 mgd would adequately accommodate buildout of the Plan area under the Proposed Land Use Diagram. The expansion of the WRP is scheduled for 2005 and the Lahontan Regional Water Quality Control Board recently approved discharges permits for the expansion.

The Proposed Land Use Diagram would require the extension of sewer trunk lines to provide wastewater collection service to the new development areas in the Plan area. The Tahoe-Truckee Sanitation Agency pays for facility improvements and expansions through connection charges, service charges, and tax revenue. Developers pay connection charges ($4,000 per equivalent dwelling unit) at the time development occurs. Therefore, the existing fee program mitigates the financial impacts on the wastewater treatment system. The planned WRP expansion would also include improvements to the Truckee River Interceptor (TRI) and the existing TSD sewage treatment lagoons. The TRI, which is a gravity sewer, runs from Tahoe City to the WRP collecting raw sewage from five member districts. The TRI includes pipes with diameters ranging from 24 to 42 inches. As part of the WRP expansion, selected manholes along the TRI would be reconstructed to increase the capacity of the TRI by allowing it to operate in a pressurized condition along various segments of the pipeline route. This would accommodate future populations. Additional sewer trunk lines would be necessary to serve new development areas. The majority of the sewer trunk lines would be located within road rights-of-way. As such, extensions to sewer trunk lines and new lines would not result in new environmental impacts. However, if any lines would be located outside of road rights-of-way, the project could

potentially result in environmental impacts. Such impacts are addressed in the other sections of this EIR relating to land uses and biological resources.

AA Existing Martis Valley General Plan Land Use Map

Implementation of the Existing Martis Valley General Plan Land Use Map would result in up to 11,688 residential units as well as commercial and recreational uses. The residential domestic flow associated with this alternative would generate approximately 2.3 million gallons of wastewater per day. Based on a 20 percent full-time occupancy rate, Alternative AA would generate approximately 0.47 mgd of wastewater. This volume is based on T-TSA's wastewater generation rate of 200 gallons per day per residential dwelling unit (gpd/du), which does not include commercial and recreation uses or peak use periods (Beals, 2001). Like the Proposed Land Use Diagram, this alternative would require additional infrastructure to accommodate buildout conditions. The Existing Martis Valley General Plan Land Use Map would have the same impacts on wastewater service as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Implementation of this alternative would result in 10,311 residential units, as well as commercial and recreational uses. The residential domestic flow associated with the Alternative 1 Land Use Map would generate approximately 2.1 million gallons of wastewater per day. Based on a 20 percent full-time occupancy rate, Alternative AB would generate approximately 0.41 mgd of wastewater. This volume is based on T-TSA's wastewater generation rate of 200 gallons per day per residential dwelling unit (gpd/du), which does not include commercial and recreation uses or peak use periods (Beals, 2001). Like the Proposed Land Use Diagram, this alternative would require additional infrastructure to accommodate buildout conditions. Alternative AB would have the same impacts on wastewater service as the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Implementation of this alternative would result in 7,956 residential units, as well as commercial and recreational uses. The residential domestic flow associated with the Alternative 2 Land Use Map would generate approximately 1.6 million gallons of wastewater per day. Based on a 20 percent full-time occupancy rate, Alternative AC would generate approximately 0.32 mgd of wastewater. This volume is based on T-TSA's wastewater generation rate of 200 gallons per day per residential dwelling unit (gpd/du), which does not include commercial and recreation uses or peak use periods (Beals, 2001). Like the Proposed Land Use Diagram, this alternative would require additional infrastructure to accommodate buildout conditions. The Alternative 2 Land Use Map would have the same impacts on wastewater service as the Proposed Land Use Diagram.

<u>Policies and Implementation Programs</u>

The following Martis Valley Community Plan policies and implementation programs in Section VI (Public Facilities and Services) would assist in minimizing impacts on the T-TSA wastewater treatment facility and collection system in the Plan area.

Policy 6.D.1 *The County shall limit the expansion of all but large lot (10 acres+) developments to areas where community wastewater treatment systems can be provided.*

Policy 6.D.2 *The County shall require proponents of new development within a sewer service area to provide written certification from the service provider that either existing facilities are available or needed improvements will be made prior to occupancy.*

Policy 6.D.3 *The County shall promote efficient water use and reduced wastewater system demand by:*

a. Requiring water-conserving design and equipment in new construction.
b. Encouraging retrofitting with water-conserving devices; and
c. Designing wastewater systems to minimize inflow and infiltration to the extent feasible.

Policy 6.D.4 *The County shall require the pretreatment of commercial and industrial wastes prior to their entering community collection and systems where they are found to be detrimental to the community treatment system and in conformance with the requirements of the federal Clean Water Act, federal General Pretreatment Regulations, related State laws, and the Tahoe-Truckee Sanitation Agency Ordinances.*

Policy 6.D.5 *The County shall permit on-site sewage treatment and disposal on parcels larger than 1 acre where access to a wastewater treatment facility is not available and all current County and State regulations can be met, parcels have the area, soils, and other characteristics that permit such disposal facilities without threatening surface or groundwater quality or posing any other health hazards. Where the County will approve individual on-site sewage treatment and disposal, appropriate hydrologic/geologic testing and reporting by a qualified professional, will be required.*

Policy 6.D.6 *The County shall require that the on-site treatment, development, operation, and maintenance of disposal systems comply with the requirements and standards of the County Division of Environmental Health and the Lahontan Regional Water Quality Control Board.*

Policy 6.D.7 *The County shall facilitate the extension of septic tank effluent pumping (STEP) service or conventional wastewater collection service to areas with failing on-site systems.*

Implementation Programs

Sewage Collection, Treatment and Disposal

14. Pursuant to County Ordinance (Chapter 4, Subchapter 1, Section 4.45), require that as part of the environmental review process, each new development proposing to use onsite sewage disposal systems be required to provide appropriate soils testing and study, and be required to provide acceptable preliminary onsite sewage disposal system designs.

Responsible Agency/Department: Division of Environmental Health
Time frame: On-going
Funding: Permit fees

15. *Where testing cannot establish acceptable onsite sewage system designs, require reduced density by elimination of lots which cannot sustain onsite sewage disposal systems.*

    Responsible Agency/Department: Division of Environmental Health
    Time frame: On-going
    Funding: Permit fees

Mitigation Measure

None required.

4.11.5.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

Under cumulative conditions, the Tahoe-Truckee Sanitation Agency's service area would be the same as at present and would include the communities of Truckee, Kings Beach, Tahoe City, the Plan area, the western shore of Lake Tahoe, and Squaw Valley. T-TSA service area currently includes the entire Plan area, with the exception of federally owned properties. It is anticipated that unless federally owned properties are purchased by private entities, these properties would continue to be excluded from T-TSA's service area. Under cumulative conditions, T-TSA would continue to provide service either directly or through contracts with the Northstar CSD, or the Truckee Sanitation District (TSD) to all the developed areas of the Plan area. The current T-TSA wastewater treatment facility is operating at 80 percent of its 7.4 million gallons per day (mgd) capacity. The expanded capacity will accommodate the projected service area population of 143,000 in the year 2015. All proposed development associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC falls within T-TSA's service area. Cumulative conditions associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC require the WRP to have an increased capacity. T-TSA is currently expanding the WRP to a capacity of 9.6 mgd. The expanded facility, which is scheduled to be constructed by the year 2005, will include an enhanced wastewater treatment system utilizing biological nitrogen removal technology.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.5.2 Cumulative Wastewater Service

PP Under cumulative conditions, implementation of the Proposed Land Use Diagram would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. This would be a **less than significant** impact.

AA Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. This would be a **less than significant** impact.

AB Under cumulative conditions, implementation of Alternative 1 Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. This would be a **less than significant** impact.

AC Under cumulative conditions, implementation of Alternative 2 Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. This would be a **less than significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Cumulative conditions associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC and buildout of the Plan area would require additional capacity in the T-TSA wastewater treatment plant. The current 7.4 mgd facility is not large enough to accommodate the projected growth in the Plan area. TSA projected a buildout population of 143,000 people within their service area in the year 2015. Using the existing wastewater generation numbers in addition to predictions for reasonably foreseeable projects located within the Plan area (as listed in **Table 3.0-1**), it can be deduced that the cumulative conditions in the Martis Valley Community Plan area would generate approximately 1.15 million gallons of effluent per day. This number is based on projected development associated with the proposed and approved projects in the entire Martis Valley, including the Plan area, Placer County, Nevada County and the Town of Truckee. T-TSA's wastewater generation rates for residential uses are 200 gallons per day. In order to calculate cumulative conditions for non-residential uses, single-family unit equivalency factors that were provided by T-TSA were multiplied by the wastewater generation rate for a single-family residential unit (200 gpd). Based on these calculations, cumulative conditions would increase the operational level of the current 7.4 mgd facility to 95 percent of its current capacity. A 95 percent operational capacity would be unacceptable due to the seasonal fluxes in wastewater flow. Furthermore, these calculations do not include the communities outside of the Plan area that are located within T-TSA's service area. T-TSA anticipates that the WRP will be upgraded and expanded to a capacity of 9.6 mgd by 2005. The 9.6 mgd capacity of the expanded WRP facility would accommodate T-TSA's service area under cumulative conditions (Woods, 2001; Beals, 2002).

Cumulative conditions in the Plan area under the Proposed Land Use Diagram and Alternatives AA, AB, and AC would require the extension of sewer trunk lines to serve new development areas, the expansion of T-TSA's current facility, or alternative wastewater treatment methods such as septic systems. As part of the EIR for the WRP expansion, T- T-TSA is funded by property tax revenue, service charges and connection charges equal to $4,000 per equivalent dwelling unit. The planned expansion to the treatment facility would likely be paid for with money in the Wastewater Capital Reserve Fund, a State Revolving Fund loan, or a bond. Additionally, as the population size increases, the funding sources would also increase. The increased funding in addition to current funding sources would pay for impacts associated with cumulative conditions in the Plan area and T-TSA's service area. The impacts associated with the extension of infrastructure are addressed in other sections of this EIR.

<u>Policies and Implementation Programs</u>

New development projects in the area would be required to comply with policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation for impacts on

wastewater services. The reader is referred to Impact 4.11.5.1 regarding applicable proposed policies and implementation programs.

Mitigation Measures

None required.

4.11.6 SOLID WASTE SERVICE

4.11.6.1 EXISTING CONDITIONS

TAHOE-TRUCKEE SIERRA DISPOSAL (TTSD)

Tahoe-Truckee Sierra Disposal (TTSD) provides waste removal services for the Lake Tahoe area, including the Plan area. TTSD's service area is generally bordered by Emerald Bay, Crystal Bay, Colfax, Floriston, and Truckee. TTSD is comprised of two separate entities, Tahoe Truckee Disposal and Eastern Regional Landfill Material Recovery Facility (MRF). Tahoe Truckee Disposal is responsible for collecting household waste and recyclables. The Eastern Regional Landfill Material Recovery Facility is located 2 miles south of Interstate 80 on Cabin Creek Road in Placer County, between Truckee and Squaw Valley, west of the Truckee River. The land where the MRF is located is owned by Placer County, resulting from a land trade between the Forest Service and Placer County. TTSD leases the land from Placer County. The MRF is a recycling center for household and construction materials. It also doubles as a transfer station for household waste. All incoming solid waste is recycled or transported to the Lockwood Regional Landfill in Storey County, Nevada. The Lockwood Regional Landfill is comprised of 1,535 acres, which accepts municipal solid waste. At the present rate, the landfill has a 60-year capacity to accommodate the buildout projections for TTSD's service area. Tahoe-Truckee Sierra Disposal and MRF have an 80-year contract with the Lockwood Regional Landfill for disposal services. Currently, they are in year 5 of the contract. The landfill has 200 years of permitted capacity at the site (Ratto, 2001).

The Material Recovery Facility, which was built in 1994-1995, handles household recyclables, including: plastics, aluminum, tin, glass, cardboard, newspaper, carpet, and computers. Additionally, the facility recycles "white goods" such as refrigerators and freezers, and waste wood, which includes dimensional wood (construction remnants) and lot clearing debris. The MRF accepts all the waste for processing. Grinding operations (wood and rubble) occur at the site. The residue is then landfilled in Lockwood, Nevada. In the year 2000, 23,232 tons of material were recovered from the MRF (Johnston, 2001). The MRF also accepts household and small business hazardous waste. Residents may dispose of hazardous waste at the MRF on two Saturdays a month between March and November by appointment. The service is free-of-charge to residents. Businesses are charged a small fee for the service.

The collection arm of TTSD is Tahoe Truckee Disposal (TTD). TTD uses a combination of pickup trucks equipped with large rear mounted bins, and regular front loader garbage trucks to collect waste within the service area. The pickup trucks are used mostly for single-family residences and low-density areas, while the front loaders are used in commercial and multi-family areas. In total, TTD operates close to 40 vehicles.

Funding for solid waste collection comes from collection fees. Residential fees are approximately $13 per can per residence and $16 for two cans per residence. The rates are based on TTSD's contract with Placer County and are increased according to the Consumer Price Index.

Tahoe Truckee Sierra Disposal currently employs 90 people, including both the Eastern Regional MRF and Tahoe Truckee Disposal. These positions include administrative personnel, staff at the shop, MRF and transfer station, as well as truck operators. TTSD increases their workforce by approximately two employees every four years.

At present, TTSD handles approximately 60,000 tons of waste per year and is operating at 75 percent of their capacity. Their total current capacity is 80,000 tons per year. TTSD is planning an expansion of the transfer station and MRF during the summer of 2002. This expansion would increase their capacity by 100 percent (Ratto, 2001). TTSD will continue to expand their services to accommodate the growth and increasing needs of their service area (Ratto, 2001).

Solid Waste Source Reduction Programs in Placer County

The Placer County Solid Waste Management Division manages the Western Placer Waste Management Authority (WPWMA), which works with municipalities and unincorporated areas in the western portion of Placer County. The eastern half of Placer County has only a recycling program that encourage businesses to recycle office paper and the household hazardous waste recycling center which operates from the Eastern Regional Landfill Material Recovery Facility (MRF) in Truckee. Placer County does not currently have a formal solid waste reduction program for the eastern county area, which includes the Plan area.

4.11.6.2 REGULATORY FRAMEWORK FOR SOLID WASTE SERVICES

STATE

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000. They must promote (in order of priority): source reduction, recycling and composting, and environmentally safe transformation and land disposal.

LOCAL

Martis Valley General Plan

The Martis Valley General Plan provides no goals or policies regarding solid waste services.

Placer County General Plan

The Placer County General Plan policies and programs promote safe waste collection, reduction, and recycling and ensure the development of solid waste facilities to serve the needs of Placer County in appropriate locations and sites and designed to minimize the effects of such facilities on adjoining land uses. In addition, the Draft Source Reduction and Recycling Element identifies cost effective diversion programs for Placer County to maximize the life of the existing landfills by means of source reduction, recycling, composting, and environmentally safe transformation and landfill disposal.

Placer County General Plan Policies

The Placer County General Plan contains the following policies pertaining to solid waste:

Policy 4.G.1 The County shall require waste collection in all new urban and suburban development.

Policy 4.G.2 The County shall promote maximum use of solid waste source reduction, recycling, composting, and environmentally safe transformation of wastes.

Policy 4.G.7 The County shall require that all new development complies with applicable provisions of the Placer County Integrated Waste Management Plan.

4.11.6.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in any of the following:

1) Result in the need for new systems or supplies, or a substantial expansion or alteration to the solid waste materials recovery or disposal.

2) Substantially affect the County's ability to comply with solid waste source reduction programs.

METHODOLOGY

Evaluation of potential solid waste impacts of the Proposed Land Use Diagram, the Existing Martis Valley General Plan Land Use Map (AA), the Alternative 1 Land Use Map (AB) and Alternative 2 (AC) was based on consultations with the Placer County Waste Management Division and the Tahoe-Truckee Sierra Disposal (TTSD), review of current waste reduction and recycling programs, information provided on the California Integrated Waste Management Board website, the Placer County General Plan, existing Martis Valley General Plan, and proposed Martis Valley Community Plan. Projected development in the Plan area would produce household waste, construction waste, and hazardous waste. Additionally, economics, Placer County and Truckee policies, and State regulations would dictate how solid waste is disposed of and recycled. Market factors would impact the ability of TTSD to continue providing recycling services. The amount of waste that is recycled would impact the amount of solid waste disposed of in landfills. Based on Placer County and MRF standards, solid waste generation rates were assumed to be nine pounds per day per person and construction waste generation rates were assumed to range from two to seven tons per single-family detached house during the course of construction.

Impact 4.11.6.1 Solid Waste Disposal

PP The Proposed Land Use Diagram would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. The Proposed Land Use Diagram would result in **less than significant** impacts on solid waste disposal services.

AA The Existing Martis Valley General Plan Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is

capable of accommodating buildout of the Plan area. Alternative AA would result in **less than significant** impacts on solid waste disposal services.

AB Alternative 1 Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. Alternative AB would result in **less than significant** impacts on solid waste disposal services.

AC Alternative 2 Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. Alternative AC would result in **less than significant** impacts on solid waste disposal services.

PP Proposed Land Use Diagram

Implementation of the Proposed Land Use Diagram would result in up to 9,220 residential units, 6 acres of office uses and 39 acres of general commercial uses under maximum allowable buildout. At buildout this Land Use Map would generate approximately 43,647 pounds per day, which equates to 7,966 tons of solid waste annually, not including construction waste. This number is based on Placer County's solid waste generation rate of 9 pounds per day per person (Johnston, 2001) and 2.63 persons per household, assuming a 20 percent full-time occupancy rate. Placer County's generation rate, which is based on residential numbers, takes into account all land uses. However, these numbers do not include construction waste. Based upon the construction generation rates of solid waste, two to seven tons per single-family detached house, it can be assumed that the development associated with the Proposed Land Use Diagram would generate between 18,438 tons and 64,533 tons of construction waste. Construction waste is temporary in nature and only occurs once for each structure. Much of the construction waste would be recycled at the MRF. The remaining construction waste would be ground and then transported to the Lockwood Regional Landfill for disposal. Tahoe-Truckee Sierra Disposal (TTSD) provides solid waste disposal services for the Plan area. TTSD's recycling program (Material Recovery Program) at the MRF dramatically reduces the amount of residential and construction waste to be disposed of in landfills. TTSD has a long-term contract (200 years) with a landfill in Lockwood, Nevada where they dispose of residential and commercial solid waste. The Nevada landfill has a 60-year capacity based on the total buildout calculations for TTSD's service area. The increase in population associated with the Proposed Land Use Diagram would not have a significant impact on the Lockwood Regional Landfill's capacity. However, the increase would eventually require additional vehicles and trips to the landfill to dispose of the waste. This could potentially have an environmental impact on air quality and traffic. Such impacts are addressed in Sections 4.4 (Traffic and Circulation) and 4.6 (Air Quality). Implementation of the Proposed Land Use Diagram would have a less than significant impact on the solid waste services in the Plan area.

AA Existing Martis Valley General Plan Land Use Map

Implementation of the Existing Martis Valley General Plan Land Use Map would result in up to 11,688 residential units and 26 acres of general commercial uses under maximum allowable buildout. At buildout this alternative would generate approximately 55,331 pounds per day, which equates to 10,098 tons of solid waste annually, not including construction waste. This number is based on Placer County's solid waste generation rate of nine pounds per day per person (Johnston, 2001) and 2.63 persons per household, assuming a 20 percent full-time occupancy rate. Placer County's generation rate takes into account all land uses. However, these numbers do not include construction waste. Based upon the construction generation

rates of solid waste, two to seven tons per single-family detached house, it can be assumed that the development associated with the Existing Martis Valley General Plan would generate between 23,112 tons and 80,892 tons of construction waste. This alternative would result in similar impacts as the Proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Implementation of the Alternative 1 Land Use Map would result in up to 10,311 residential units, one acre of office space and 22 acres of general commercial uses under maximum allowable buildout. At buildout this alternative would generate approximately 48,812 pounds per person, which equates to 8,908 tons per year, not including construction waste. Based upon the construction generation rates of solid waste, two to seven tons per single-family detached house, it can be assumed that the development associated with Alternative AB would generate between 21,162 tons and 74,067 tons of construction waste. This alternative would result in similar impacts as the Proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Implementation of the Alternative 2 Land Use Map would result in up to 7,956 residential units, 12 acres of office space and 29 acres of general commercial uses. At buildout this alternative would generate approximately 37,664 pounds of solid waste per day, which equates to 6,874 tons annually, not including construction waste. Based upon the construction generation rates of solid waste, two to seven tons per single-family detached house, it can be assumed that the development associated with Alternative AC would generate between 15,810 tons and 55,335 tons of construction waste. This alternative would result in similar impacts as the Proposed Land Use Diagram.

Policies and Implementation Programs

The proposed Community Plan does not contain policies or implementation programs pertaining to solid waste service and disposal. It refers to the Placer County General Plan Section 4, Goals & Policies 4.G 1 through 4, 6, and 11.

Mitigation Measure

None required.

4.11.6.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

The service area of the Tahoe-Truckee Sierra Disposal Company (TTSD) encompasses the greater Lake Tahoe area. Specifically, TTSD's service area is bordered by Emerald Bay, Crystal Bay, Colfax, Floriston, and Truckee. The population within TTSD's service area would likely exceed 140,000 by the year 2015. Under cumulative conditions, TTSD would expand their services to provide solid waste disposal service to developed areas within their service area. Assuming TTSD's planned expansion of the transfer station and MRF during the summer of 2002 is successful, the current MRF would have an increased capacity of 160,000 tons per year. TTSD will continue to expand their services to accommodate the growth and increasing needs of their service area (Ratto, 2001). TTSD has a guaranteed 60-year capacity at the Lockwood Regional Landfill and an 80-year contract. Additionally, the landfill has 200 years of permitted capacity. If necessary TTSD could revise or renew their contract to dispose additional solid waste in the

Lockwood Regional Landfill. The solid waste collection service is paid through collection fees, which range from $13 to $16 per residence. Collection fees are based on a contract with Placer County and are occasionally increased in accordance with the Consumer Price Index.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.6.2 Cumulative Solid Waste Disposal

PP Under cumulative conditions, the Proposed Land Use Diagram would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. The Proposed Land Use Diagram would result in **less than significant** impacts on solid waste disposal services.

AA Under cumulative conditions, the Existing Martis Valley General Plan Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. Alternative AA would result in **less than significant** impacts on solid waste disposal services.

AB Under cumulative conditions, Alternative 1 Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. Alternative AB would result in **less than significant** impacts on solid waste disposal services.

AC Under cumulative conditions, Alternative 2 Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. Alternative AC would result in **less than significant** impacts on solid waste disposal services.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Based on population projections, cumulative conditions in the Plan area associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC would generate between 6,874 and 10,098 tons of solid waste per year. Assuming a population exceeding 140,000 in the year 2015, TTSD's entire service area would generate more than 230,000 tons of waste per year, not including construction waste. Construction waste in the Plan area associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC would contribute between 15,810 and 80,892 tons of construction waste to the MRF. The generation of construction waste would be temporary in nature, whereas the household solid waste would be continuous. The Lockwood landfill has a 60-year capacity for buildout conditions of the TTSD service area. Tahoe Truckee Sierra Disposal has 75 years left on an 80-year contract with the landfill. The additional solid waste associated with cumulative conditions would require additional personnel and equipment at the MRF and additional trips to Lockwood Regional Landfill in Storey County, Nevada to dispose of the solid waste. TTSD's funding from service charges could be used to pay for an expansion of their current facilities and operations. Such money could also be used to invest in state-of-the-art equipment for collection, grinding, recycling, and transport of the solid waste. TTSD would continue to implement source reduction principles and practices through their Material Recovery Program as part of the State's AB 939 requirements. TTSD provides household and construction recycling at their MRF near Truckee. Additionally, they plan to expand their recycling capabilities at the MRF.

Potential impacts on air quality and traffic are discussed in Sections 4.4 and 4.6 of this EIR.

Policies and Implementation Programs

The proposed Community Plan does not contain policies or implementation programs pertaining to solid waste service and disposal. It refers to the Placer County General Plan Section 4, Goals & Policies 4.G 1 through 4, 6, and 11.

Mitigation Measures

None required.

4.11.7 ELECTRICAL, NATURAL GAS, AND TELEPHONE SERVICES

4.11.7.1 EXISTING CONDITIONS

ELECTRICAL AND NATURAL GAS SERVICE

The Sierra Pacific Power Company currently provides electric service to the plan area. The Sierra Pacific Power Company is a regulated utility in Nevada and is currently required to serve projects in its service area. The Sierra Pacific Power Company serves the plan area from a substation in Truckee. This arrangement would be sufficient to supply a small increment in area development provided the load is in close proximity to the areas including the Northstar and Lahontan developments. Additional load would require the construction of a new electrical substation or substation and transmission line in the vicinity of the 115 KV transmission line located within the Lahontan development area. The additional transmission line would be required if no location for a new substation were available near the Lahonton transmission line. Alternatively the existing substation would be expanded and the distribution lines from the substation to the proposed development area would be constructed if the load increase would be small.

The Sierra Pacific Power Company generates approximately 80 percent of the power it supplies. The remaining supplies are purchased as needed. Provided that electricity is available for purchase, no shortfall in electrical energy supply is anticipated.

The Truckee Donner Public Utility District (TDPUD), which in turn receives electricity from Idaho Power has been discussing provision of power to the plan area with the Sierra Pacific Power Company. The TDPUD operates an electrical substation in the Plan area that is used mainly for backup supply. The TPUD indicates that they have sufficient power and resources to provide power to the plan area if an agreement to do so can be reached with the Sierra Pacific Power Company.

The California electrical industry was deregulated in March 1998. Since the summer of 2000, the State has been experiencing a shortage of electrical generation. This shortage has been caused by several factors including, but not limited to, substantial statewide population and industry growth, complications associated with deregulation, increases in power and natural gas costs, decreases in power generation capacity of the Pacific Northwest (Oregon and Washington), and inadequate power generation capacity within the State.

There have been short-term shortages of electrical energy on the California transmission grid during peak use times and rolling blackouts in 2001. The California Energy Commission has been accelerating the approval and construction of additional electrical generation facilities and the California Public Utilities Commission has been working to improve the transmission grid. There

remains a threat of power shortages during peak period demand in the next year as many of the new facilities are not yet available but will be in the next year or two.

The availability of electrical energy from the electrical grid in California has been of concern since deregulation of electrical utilities (while Sierra Pacific Power Company is not a part of the area governed by the Independent System Operator in California it is linked to the California transmission grid with a 115 KV line in the vicinity of the proposed plan area and would be able to use power supplied from the California grid).

Much of the new additional electrical generating capacity uses natural gas as the source of energy. There have been problems since deregulation getting sufficient supplies to California to meet demand during peak usage periods forcing up the price of natural gas. This situation is expected to diminish as other transmission facilities are constructed to transport natural gas from Texas and Canada. Supplies of natural gas are expected to be adequate for the planning period.

Currently natural gas service is available in some portions of the Plan area including the Northstar-at-Tahoe area from Southwest Gas. There is an existing high-pressure transmission line located in the State Route 267 right-of-way.

The cost of installing new pipelines and pressure reduction equipment is generally considered too high to be feasible for small amounts of development. Tapping into the high pressure main costs an estimated $250,000.00 and installing pipe and pressure reduction equipment could cost an estimated $1,000,000.00. There is a high-pressure transmission line along State Route 267 that could supply gas to the Plan area and has sufficient capacity for the amount of development proposed.

Propane, also known as liquefied petroleum gas, consumption totals approximately 18.4 billion gallons per year in the USA. Residential uses account for approximately 36 percent of domestic propane consumption. Ninety percent of US consumption of propane is produced in the US with the bulk of the imports from Mexico and Canada. Propane is an approved alternative clean fuel listed the 1990 Clean Air Act and National Energy Policy Act of 1992. Propane is produced from natural gas (53 percent) and refining of crude oil (47 percent). Propane is not subject to any price control and is available to those willing to pay the price. The price of natural gas has been related to the price of oil and has historically tracked crude oil prices.

TELEPHONE SERVICE

The Plan area is located within the service area of Pacific Bell Telephone Company that provides telephone service to the area. Pacific Bell has indicated that telephone service can be extended to serve new development provided that sufficient lead-time and details of development locations are provided to ensure that facilities are properly located in anticipation of pending development projects.

4.11.7.2 REGULATORY FRAMEWORK FOR UTILITY SERVICES

LOCAL

Martis Valley General Plan

The existing Martis Valley General Plan does not contain any goals or policies regarding utility services.

Placer County General Plan

The Placer County General Plan does not contain any goals or policies regarding utility services.

4.11.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in any of the following:

1) Result in the need for new systems or supplies, or a substantial expansion or alteration to power or natural gas that results in a physical impact on the environment.

METHODOLOGY

Evaluation of potential impacts on electrical, natural gas and telephone services resulting from the 3 alternatives was based on consultation with the service providers, review of California Energy Commission policies, State standards, the Placer County General Plan, existing Martis Valley General Plan, and proposed Martis Valley Community Plan.

Impact 4.11.7.1 Availability of Electrical Energy

PP Development associated with the Proposed Land Use Diagram would increase the demand for electricity. However, it would have a **less than significant** impact on electrical supplies.

AA Development associated with the Existing Martis Valley General Plan Land Use Map would increase the demand for electricity. However, it would have a **less than significant** impact on electrical supplies.

AB Development associated with Alternative 1 Land Use Map would increase the demand for electricity. However, it would have a **less than significant** impact on electrical supplies.

AC Development associated with Alternative 2 Land Use Map would increase the demand for electricity. However, it would have a **less than significant** impact on electrical supplies.

PP Proposed Land Use Diagram

Development associated with the Proposed Land Use Diagram would permit up to 9,220. Projected total daily average electrical demand under the Proposed Land Use Diagram is estimated to be approximately 188,752 Kwh (153,052 Kwh for residential uses and 35,700 Kwh for office and commercial uses), assuming full-time occupancy, or 37,750 Kwh, assuming 20 percent full-time occupancy. This is based upon the average consumption of electrical energy, which is 16.6 Kwh per day per residential unit and 0.03 Kwh for every square foot of commercial and office use.

Electrical supplies are available to serve the proposed Martis Valley Community Plan area currently and into the future. Although there have been recent short-term constraints on

electrical energy supplies, this situation is expected to change and new generation facilities will be available in California to supply project needs in the time frame that the development would occur in the Plan area. Even though Sierra Pacific Power Company, a Nevada-based company, would serve the Plan area, the energy situation in California is relevant to development in the Tahoe-Truckee area. The California Energy Commission (CEC) has estimated that during peak power use conditions, the State could be as short as 3,050 megawatts (CEC, 2001). The Plan area is currently served by Nevada, which is outside of the California transmission grid. Based on the current situation with the CEC, it is expected that adequate power supplies will be available to serve California. Electrical distribution lines in the project area would need to be extended and improved to Sierra Pacific Power Company standards. Any short-term energy shortages would be limited, temporarily and would create an inconvenience. The Plan area obtains power from Nevada that has not experienced the temporary energy shortages experienced in California in the last year. These services are operated for profit at this time and electrical generation would be expanded to meet the demand as development in the area occurs. As the price of energy rises, the tendency to waste it will be reduced. Project use of electricity would indirectly result in increased use of natural gas (see natural gas supply discussion for more discussion). Since the development within the Plan area would obtain electricity from available supplies in Nevada, potential project energy supply impacts would be considered less than significant.

AA Existing Martis Valley General Plan Land Use Map

Development associated with the Existing Martis Valley General Plan Land Use Map would permit up to 11,688 residential units. Projected total daily average electrical demand under this Alternative is estimated to be 244,451 Kwh (194,021 Kwh for residential uses and 50,430 Kwh for office and commercial uses), assuming full-time occupancy, or 48,890 Kwh, assuming 20 percent full-time occupancy. This alternative would have similar impacts as the Proposed Land Use Diagram on electrical energy supplies.

AB Alternative 1 Land Use Map

Development associated with the Alternative 1 Land Use Map would permit up to 10,311 residential units. Projected total daily average electrical demand under this alternative is estimated to be 207,763 Kwh (171,163 Kwh for residential uses and 36,600 Kwh for office and commercial uses), assuming full-time occupancy, or 41,553 Kwh, assuming 20 percent full-time occupancy. This alternative would have simislar impacts as the Proposed Land Use Diagram on electrical energy supplies.

AC Alternative 2 Land Use Map

Development associated with the Alternative 2 Land Use Map would permit up to 7,956 residential units. Projected total daily average electrical demand under this alternative is estimated to be 167,260 Kwh (132,070 Kwh for residential uses and 35,190 Kwh for office and commercial uses), assuming full-time occupancy, or 33,452 Kwh, assuming 20 percent full-time occupancy. This alternative would have similar impacts as the Proposed Land Use Diagram on electrical energy supplies.

Policies and Implementation Programs

The following Martis Valley Community Plan policy and implementation programs in Section IV (Community Design) and implementation programs in Section VI (Public Facilities and Services) would provide mitigation for impacts on electricity service in the Plan area.

Section IV

Policy 2.B.5 *The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.*

Implementation Programs

Section IV

1. *New development projects shall be reviewed for consistency with the Community Design Section goals and policies contained herein, the Design/Development Standards, and the County's Design and Landscape Design Guidelines available under separate cover at the Planning Department.*

   Responsible Agency/Department: Principally the Planning Department, but may involve other Land Development Departments
   Time frame: Ongoing
   Funding: General Fund

Section VI (General)

2. *The County, in consultation with service providers, shall establish thresholds beyond which new residential development will be restricted until adequate public services and facilities are provided. The extent of development limitations should reflect the severity of the service and facility needs.*

   Responsible Agency/Department: Public Works, Facility Services Department, Special Districts, Planning Department
   Timeframe: Ongoing
   Funding: General Fund

5. *The County shall establish a program, which creates underground conversion districts and establishes priorities for the undergrounding of utilities within specified scenic corridors. This program shall also adopt an ordinance for the payment of in-lieu fees where it is infeasible to underground.*

   Responsible Agency/Department: Public Works Department
   Timeframe: Ongoing
   Funding: General Fund, Permit Fees

Section VI (Utilities)

31. *Review projects for compliance with the EMF doctrine of prudent avoidance.*

    Responsible Agency/Department: Division of Environmental Health
    Timeframe: Ongoing
    Funding: Permit Fee

Mitigation Measure

None required.

Impact 4.11.7.2 Increased Demand for Natural Gas

PP Development associated with the Proposed Land Use Diagram would increase the demand for natural gas. However, it would have a **less than significant** impact on natural gas supplies.

AA Development associated with the Existing Martis Valley General Plan Land Use Map would increase the demand for natural gas. However, it would have a **less than significant** impact on natural gas supplies.

AB Development associated with Alternative 1 Land Use Map would increase the demand for natural gas. However, it would have a **less than significant** impact on natural gas supplies.

AC Development associated with Alternative 2 Land Use Map would increase the demand for natural gas. However, it would have a **less than significant** impact on natural gas supplies.

PP Proposed Land Use Diagram

The Proposed Land Use Diagram would permit up to 9,220 residential units. Therefore, it would contribute an estimated average total natural gas demand of 2,147,990 cubic feet per day (2,046,840 cubic feet per day for residential uses and 101,150 cubic feet per day for commercial and office uses), assuming full-time occupancy, or 429,598 cubic feet per day, assuming 20 percent full-time occupancy. This is based on the average consumption of 222 cubic feet of natural gas per household per day and 0.085 cubic feet of natural gas per day per square foot of commercial development.

Supplies of natural gas to power plants are expected to meet demand for the next 50 years based on studies by the California Energy Commission. Natural gas is used to generate more than 30 percent of electrical energy and at current consumption rates no significant indirect impacts associated with use of natural gas for power generation at other locations are anticipated.
If propane were used by development because natural gas services were not available the project would use approximately eight percent more propane or approximately 240 cubic feet per household per day and 0.92 cubic feet of propane per square foot of commercial development.

AA Existing Martis Valley General Plan Land Use Map

The Existing Martis Valley General Plan Land Use Map would permit up to 11,688 residential units. Therefore, the Existing Martis Valley General Plan Land Use Map (AA) would have an estimated average total natural gas demand of 2,737,621 cubic feet per day (2,594,736 cubic feet per day for residential uses and 142,885 cubic feet per day for commercial and office use), assuming full-time occupancy, or 547,524 cubic feet per day, assuming 20 percent full-time occupancy. This alternative would result in similar impacts as the proposed Land Use Diagram.

AB Alternative 1 Land Use Map

Development associated with the Alternative 1 Land Use Map would permit up to 10,311 residential units. Therefore, the Alternative 1 Land Use Map (AB) would have an estimated average total natural gas demand of 2,392,742 cubic feet per day (2,289,042 cubic feet per day for residential uses and 103,700 cubic feet per day of commercial and office uses), assuming full-time occupancy, or 478,548 cubic feet per day, assuming 20 percent full-time occupancy. This alternative would result in similar impacts as the proposed Land Use Diagram.

AC Alternative 2 Land Use Map

Development associated with the Alternative 2 Land Use Map would permit up to 7,956 residential units. Therefore, the Alternative 2 Land Use Map (AC) would have an estimated average total natural gas demand of 1,865,937 cubic feet per day (1,766,232 cubic feet per day for residential uses and 99,705 for commercial and office uses), assuming full-time occupancy, or 373,187 cubic feet per day, assuming 20 percent full-time occupancy. This alternative would result in similar impacts as the proposed Land Use Diagram.

Policies and Implementation Programs

The following Martis Valley Community Plan policy and implementation programs in Section IV (Community Design) and implementation programs in Section VI (Public Facilities and Services) would provide mitigation for impacts on natural gas service in the Plan area.

Section IV

Policy 2.B.5 *The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.*

Implementation Programs

Section IV

1. *New development projects shall be reviewed for consistency with the Community Design Section goals and policies contained herein, the Design/Development Standards, and the County's Design and Landscape Design Guidelines available under separate cover at the Planning Department.*

   Responsible Agency/Department: Principally the Planning Department, but may involve other Land Development Departments
   Time frame: Ongoing
   Funding: General Fund

Section VI (General)

2. *The County, in consultation with service providers, shall establish thresholds beyond which new residential development will be restricted until adequate public services and facilities are provided. The extent of development limitations should reflect the severity of the service and facility needs.*

Responsible Agency/Department: Public Works, Facility Services Department, Special Districts, Planning Department
Timeframe: Ongoing
Funding: General Fund

5. The County shall establish a program, which creates underground conversion districts and establishes priorities for the undergrounding of utilities within specified scenic corridors. This program shall also adopt an ordinance for the payment of in-lieu fees where it is infeasible to underground.

Responsible Agency/Department: Public Works Department
Timeframe: Ongoing
Funding: General Fund, Permit Fees

Section VI (Utilities)

31. Review projects for compliance with the EMF doctrine of prudent avoidance.

Responsible Agency/Department: Division of Environmental Health
Timeframe: Ongoing
Funding: Permit Fee

Mitigation Measure

None required.

Impact 4.11.7.3 Extension of Electrical, Natural Gas and Telephone Infrastructure

PP The Proposed Land Use Diagram would result in the extension of substantial electrical, natural gas and telephone infrastructure that may impact the environment. This would be a **potentially significant** impact.

AA The Existing Martis Valley Land Use Plan would result in the extension of substantial electrical, natural gas and telephone infrastructure that may impact the environment. This would be a **potentially significant** impact.

AB Alternative 1 Land Use Map would result in the extension of substantial electrical, natural gas and telephone infrastructure that may impact the environment. This would be a **potentially significant** impact.

AC Alternative 2 Land Use Map would result in the extension of substantial electrical, natural gas and telephone infrastructure that may impact the environment. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

Implementation of the Proposed Land Use Diagram would require the extension of electrical, natural gas and telephone infrastructure within the Plan area. Electrical service infrastructure extensions would be required to serve proposed developments that may include an electrical sub-station, distribution lines and transmission lines. A new substation may be required or the existing substation would be reinforced. A new substation would require a transmission line to

serve the substation. Use of the existing substation would require reconductoring of existing transmission routes. Use of the new substation would also require new transmission poles and lines and both options would require varying amounts of distribution facilities. Implementation of the Proposed Land Use Diagram would require the extension of natural gas infrastructure within the Plan area. Some areas of the Plan area are not easily served with pipeline natural gas because of the cost of tapping into the high pressure main along State Route 267. Natural gas infrastructure would be extended to proposed development when sufficient development to pay the costs for hooking into the locally available infrastructure is proposed. Typically natural gas pipelines are located within road or utility rights-of-ways. Locating them within existing rights-of-way would eliminate potential environmental impacts resulting from new trenches. Implementation of the Proposed Land Use Diagram would require the extension of telephone infrastructure within the Plan area. Substantial areas of the Plan area are currently without telephone service and would require new telephone lines. For the most part, new phone lines would be located underground and along rights-of-way. However, there are no infrastructure plans to determine where new telephone lines would be located within the Plan area.

Policies in the proposed Martis Valley Community Plan require that land use patterns encourage energy efficiency, conserve energy requiring less extension of infrastructure, and project approval is granted only when facilities are available or it can be demonstrated that the applicant can arrange to pay for and extend infrastructure. These policies would reduce project infrastructure requirements. Distribution lines would be installed underground avoiding the visual impacts associated with views of these facilities.

AA Existing Martis Valley General Plan Land Use Map

Implementation of this Alternative would also require the extension of electrical, natural gas and telephone infrastructure within the Plan area. This alternative would have similar impacts as the Proposed Land Use Diagram. Policies contained in the proposed Martis Valley Community Plan would reduce project infrastructure requirements. Distribution lines would be installed underground avoiding the visual impacts associated with views of these facilities.

AB Alternative 1 Land Use Map

Implementation of this Alternative would require the extension of electrical, natural gas and telephone infrastructure within the Plan area. This alternative would have similar impacts as the Proposed Land Use Diagram. Policies contained in the proposed Martis Valley Community Plan would reduce project infrastructure requirements. Distribution lines would be installed underground avoiding the visual impacts associated with views of these facilities.

AC Alternative 2 Land Use Map

Implementation of this Alternative would require the extension of electrical, natural gas and telephone infrastructure within the Plan area. This alternative would have similar impacts as the Proposed Land Use Diagram. Policies contained in the proposed Martis Valley Community Plan would reduce project infrastructure requirements. Distribution lines would be installed underground avoiding the visual impacts associated with views of these facilities.

Policies and Implementation Programs

The following Martis Valley Community Plan policy and implementation programs in Section IV (Community Design) and implementation programs in Section VI (Public Facilities and Services) would provide mitigation for impacts on electricity infrastructure in the Plan area.

Section IV

Policy 2.B.5 *The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.*

Implementation Programs

Section IV

1. *New development projects shall be reviewed for consistency with the Community Design Section goals and policies contained herein, the Design/Development Standards, and the County's Design and Landscape Design Guidelines available under separate cover at the Planning Department.*

   Responsible Agency/Department: Principally the Planning Department, but may involve other Land Development Departments
   Time frame: Ongoing
   Funding: General Fund

Section VI (General)

2. *The County, in consultation with service providers, shall establish thresholds beyond which new residential development will be restricted until adequate public services and facilities are provided. The extent of development limitations should reflect the severity of the service and facility needs.*

   Responsible Agency/Department: Public Works, Facility Services Department, Special Districts, Planning Department
   Timeframe: Ongoing
   Funding: General Fund

5. *The County shall establish a program, which creates underground conversion districts and establishes priorities for the undergrounding of utilities within specified scenic corridors. This program shall also adopt an ordinance for the payment of in-lieu fees where it is infeasible to underground.*
   Responsible Agency/Department: Public Works Department
   Timeframe: Ongoing
   Funding: General Fund, Permit Fees

Section VI (Utilities)

31. *Review projects for compliance with the EMF doctrine of prudent avoidance.*

    Responsible Agency/Department: Division of Environmental Health
    Timeframe: Ongoing
    Funding: Permit Fee

Mitigation Measure

The following mitigation measure would apply to the Proposed Land Use Diagram and Alternatives AA, AB and AC in Section VI (Public Facilities and Services).

MM 4.11.7.3 The County shall require new utility infrastructure and extensions for electrical, natural gas and telephone services avoid sensitive natural resources (e.g., wetlands, riparian habitat, sensitive habitats), be located so as to not be visually obtrusive, and, if possible, be located within roadway rights-of-ways or existing utility easements. Infrastructure siting shall comply with the policy and implementation programs set forth in Sections IV, VI, VIII, IX, and X of the Community Plan.

Implementation of the above mitigation measure and proposed policies and implementation programs would mitigate potential impacts on sensitive resources resulting from infrastructure extension to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB and AC.

4.11.7.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

ELECTRICAL ENERGY SETTING

Under cumulative conditions, the Plan area would be provided with electrical energy by either the current provider, the Nevada-based Sierra Pacific Power Company, or Truckee Donner Public Utility District (TDPUD). Both Sierra Pacific Power Company and TDPUD have stated that they would have adequate supplies of electrical energy to provide to the plan area under existing and cumulative conditions (Hosler, 2001; Holzmeister, 2001). Sierra Pacific Power has a substation located in Truckee. They would need additional power lines to supply electrical energy to new development areas in the Plan area. Most likely they would also need to reconductor the existing power lines, upgrade or add additional substations and add additional distribution lines. There is also a possibility that Sierra Pacific Power Company would purchase additional electrical energy supplies from the California transmission grid. TDPUD has a backup supply substation located in the Plan area. They too would likely require an additional substation in order to provide electrical supplies to the Plan area in cumulative conditions. TDPUD would also require additional power lines to provide service to new development areas in the Plan area. Currently, Sierra Pacific Power Company is the sole provider of electrical energy in the Plan area. Unless they sign a contract with TDPUD, Sierra Pacific Power Company would continue to provide power to the area.

The California electrical industry was deregulated in March 1998. Since the summer of 2000, the State has been experiencing a shortage of electrical generation. This shortage has been caused by several factors including, but not limited to, substantial statewide population and industry growth, complications associated with deregulation, increases in power and natural gas costs, decreases in power generation capacity of the Pacific Northwest (Oregon and Washington), and inadequate power generation capacity within the State. Based on the current situation with the California Energy Commission, it is expected that power supplies will be available to serve California.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.7.4 Cumulative Availability of Electrical Energy

PP Under cumulative conditions, development associated with the Proposed Land Use Diagram would increase the demand for electricity. However, it would have a **less than significant** impact on electrical supplies.

AA Under cumulative conditions, development associated with the Existing Martis Valley General Plan Land Use Map would increase the demand for electricity. However, it would have a **less than significant** impact on electrical supplies.

AB Under cumulative conditions, development associated with Alternative 1 Land Use Map would increase the demand for electricity. However, it would have a **less than significant** impact on electrical supplies.

AC Under cumulative conditions, development associated with Alternative 2 Land Use Map would increase the demand for electricity. However, it would have a **less than significant** impact on electrical supplies.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

The Proposed Land Use Diagram and Alternatives AA, AB and AC would increase the demand for electrical energy under cumulative conditions. The developments recently approved and for which applications have been submitted in the Plan area including the Town of Truckee, Placer County, and Nevada County would utilize an estimated 183,725 Kwh of electricity per day. Sierra Pacific Power Company has an adequate supply of electricity to serve the Plan area under cumulative conditions (Hosler, 2001). Additionally, if TDPUD were to take over electric service within the Plan area, they would also have adequate supplies to serve future residential, commercial and office uses associated with the Propose Land Use Diagram and Alternatives AA, AB and AC (Holzmeister, 2001).

Policies and Implementation Programs

New development projects in the area would be required to comply with policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation for impacts on electrical service. The reader is referred to Impact 4.11.7.1 regarding applicable proposed policies and implementation programs.

Mitigation Measure

None required.

NATURAL GAS SETTING

Under cumulative conditions, Southwest Gas would continue to provide natural gas service to the Plan area. Southwest Gas has a high-pressure transmission line along the right-of-way of State Route 267. Developments receive natural gas service from smaller gas lines that connect to the main transmission line. In order for future development areas to receive natural gas service, they would need to tap into the main transmission line and construct separate distribution gas lines that would extend into each development. Additional pressure reduction

equipment and pressure regulators would also be required to provide adequate gas pressure to all future Southwest Gas customers.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.7.5 Cumulative Demand for Natural Gas

PP Under cumulative conditions, development associated with the Proposed Land Use Diagram would increase the demand for natural gas. However, it would have a **less than significant** impact on natural gas supplies.

AA Under cumulative conditions, development associated with the Existing Martis Valley General Plan Land Use Map would increase the demand for natural gas. However, it would have a **less than significant** impact on natural gas supplies.

AB Under cumulative conditions, development associated with Alternative 1 Land Use Map would increase the demand for natural gas. However, it would have a **less than significant** impact on natural gas supplies.

AC Under cumulative conditions, development associated with Alternative 2 Land Use Map would increase the demand for natural gas. However, it would have a **less than significant** impact on natural gas supplies.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Development associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC would increase the demand for natural gas within the Plan area. The developments recently approved and for which applications have been submitted in the entire Martis Valley including the Plan area, Town of Truckee, Placer County, and Nevada County would utilize an estimated 1,578,229 cubic feet per day of natural gas per day. Southwest Gas would have sufficient natural gas to supply cumulative development in its service area (Svensson, 2001).

Policies and Implementation Programs

The proposed Martis Valley Community Plan does not contain any policies or implementation programs pertaining to natural gas service.

Mitigation Measure

None required.

4.11.8 PARKS AND RECREATION

4.11.8.1 EXISTING CONDITIONS

Outdoor recreation within the greater Martis Valley area is diverse because of the natural setting of the area. Camping, hiking, skiing, mountain biking, hunting, and fishing are a few examples of recreational opportunities available in Martis Valley. The Truckee River to the west of the valley also provides water activities and additional passive recreational activities.

Northstar-at-Tahoe, which offers skiing in the winter, golf in the summer, is a year round vacation destination and has become one of the primary mountain bike venues during summer months.

The Truckee River offers rafting, fishing and passive recreation, while the surrounding mountains attract skiers in the winter and hikers, campers and backpackers in the summer. Lake Tahoe, located approximately fifteen minutes from the Plan area, offers all forms of recreation and is a premier vacation destination. The Martis Creek Lake Recreation Area, under the jurisdiction of the U.S. Army Corps of Engineers, provides regional recreational opportunities. This recreation area is intended to serve the recreational needs of the regional population.

The Truckee Donner Recreation and Park District (TDRPD) provides recreational facilities and programs in Truckee and Nevada County. Although TDRPD only includes small portions of the Plan area, many Martis Valley residents utilize the TDRPD parks and services located in and around Truckee.

The Martis Valley currently has a comprehensive trail system that connects the Town of Truckee with Martis Peak to the east, Northstar-at-Tahoe to the south, areas adjacent to State Route 267 south of Brockway Summit to the southeast of Truckee, and along the western and southwestern edges of the Plan area. Three proposed trails in the Plan area would provide a connection to the Truckee trail network near the Martis Creek Recreation Area and from the southern edge of Truckee near the proposed Eaglewood project. The Truckee trail system provides access out of town to the north, east, south, and west. The Town of Truckee's Trails Master Plan was recently approved. The Trails Master Plan includes existing and proposed trails within and throughout the Town limits to provide a contiguous connection from the Prosser Recreation area north of Truckee to south of the Plan area as well as an east-west connection from areas west of Donner Lake to areas south and east of Dry Lake. The Town of Truckee's trails and recreation areas are shown on **Figure 4.11-2.** The Plan area trails and recreation areas are shown on **Figure 3.0-9**.

Truckee Donner Recreation and Park District

In operation since 1962, the Truckee Donner Recreation and Park District (TDRPD) provides park and recreation facilities and programs within the Plan area. The TDRPD provides a variety of recreational programs for youth and adults. These programs include youth programs such as preschool and after school programs, special classes, seasonal camps, sports, and field trips; teen programs include activity drop-in center, trips, special events, sports, special classes, and leadership; adult programs include classes, sports and clubs; and aquatics programs include classes, training, and recreational and lap swimming. The TDRPD does not operate any facilities within the Martis Valley Community Plan area.

The recreational facilities located in and around the Town of Truckee include:

- Donner Lake Recreation Park
- Truckee River Regional Park
- Billy Rose Park
- Meadow Park
- Veteran's Hall
- Community Center

The entire TDRPD encompasses approximately 220 square miles; however, less than one-tenth of this area has experienced significant development. The boundaries of the TDRPD are shown in **Figure 4.11-1**. The population within the Truckee Donner Recreation and Park District is approximately 15,000. The populated area of the District is referred to as the "urban corridor". The USFS and private landowners own the lands surrounding the urban corridor. The other 90 percent of the land within the District is natural forests (Mitchell, 2001).

In 1991, the Truckee Donner Recreation and Park District annexed 12.16 square miles of property in the Plan area in order to provide expanded park and recreation services. It should be noted that the Truckee Donner Recreation and Park District is located within Nevada County, except where it crosses into Placer County to include Donner Lake, Sierra Meadows, and Ponderosa Palisades (Mitchell, 2001).

Currently, TDRPD funding comes from property taxes, fees, charges, special assessments, grants and mitigation fees. There are two mitigation-funding mechanisms to address growth. The first is the Quimby Act fee, which provides the District with $1,375 for each newly created parcel (Kimbril, 2001). The second is the AB 1600 fee, which is a building square footage fee of $0.42 per square foot for all new construction (Mitchell, 2001). Park dedication fees have been required from the Lahontan I and II development projects. These park fees have been used to mitigate impacts to recreation and provide public recreational facilities.

In 1994, the County of Placer held a series of meetings in order to establish Park Dedication Fees for projects within the Martis Valley Community Plan area. In 1996, the Martis Valley Parks and Recreation Evaluation and Park Dedication Fee Expenditure Plan was approved and adopted. This Community Plan is the basis for allocating Park Dedication Fees collected from development within the Placer County portion of the Martis Valley.

4.11.8.2 REGULATORY FRAMEWORK FOR PARKS AND RECREATION

LOCAL

Martis Valley General Plan

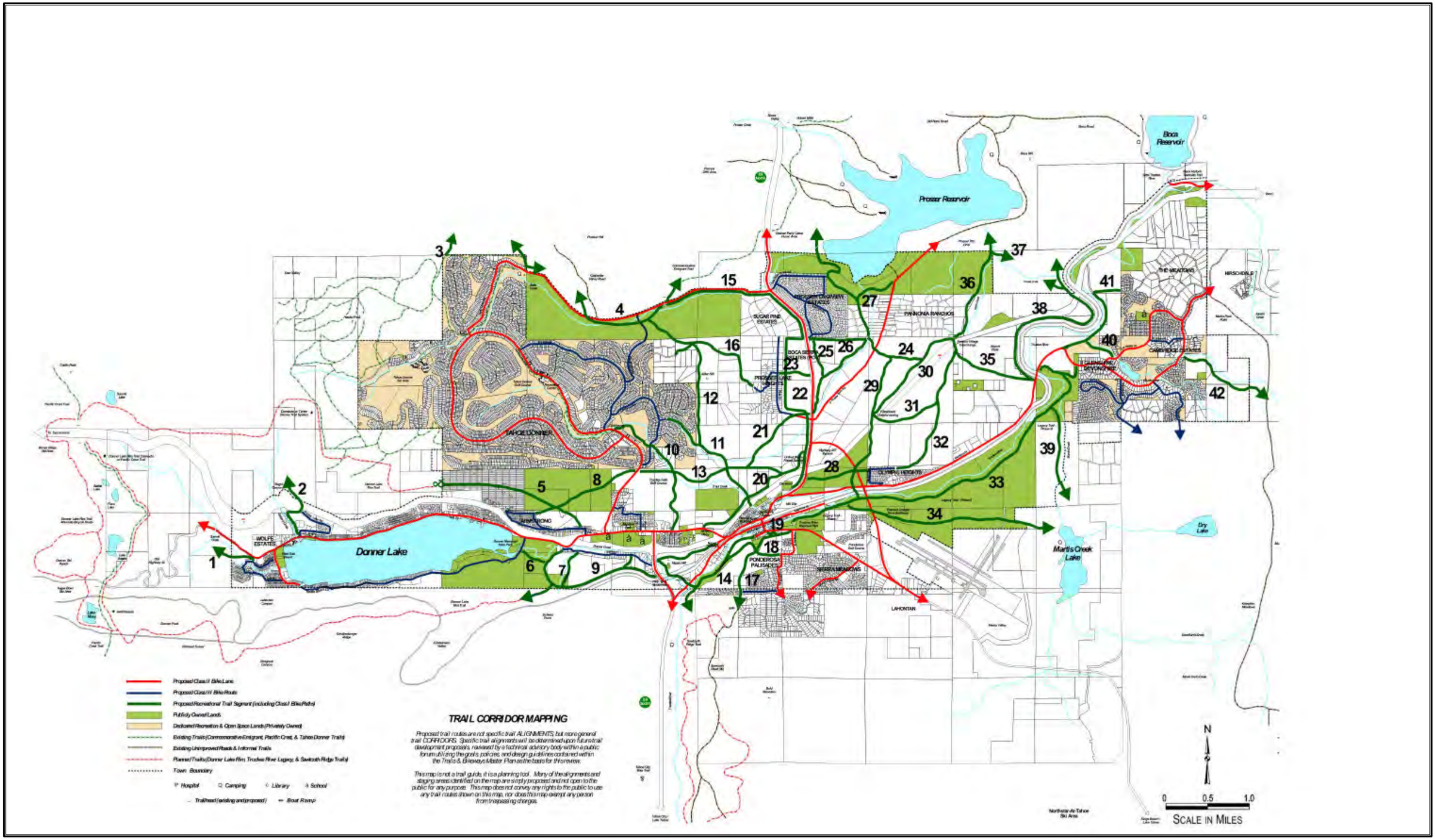
The existing Martis Valley General Plan incorporates policies that pertain to outdoor recreation. These polices include the following:

Environment Resource

Policy 14 Retention and enhancement of the area's outstanding outdoor recreation potential should be carried on.

Community Development and Transportation

Policy 5 Encourage the expansion of public park and recreation facilities for local primary residents and to compliment private recreational amenities.



PMC
PACIFIC MUNICIPAL CONSULTANTS

SOURCE: TRUCKEE PLANNING DEPARTMENT, 2001

FIGURE 4.11-2
TRUCKEE TRAILS AND BIKEWAYS MASTER PLAN
DRAFT LOCAL MAP

Placer County General Plan

While the Placer County General Plan states the eastern county subregion contains "the most abundant and heavily used recreation facilities in the County," the Plan notes only two recreational facilities within the Plan area, the Martis Creek Lake Recreation Area and the Northstar-at-Tahoe ski areas and golf course. All typical active recreation facilities (typical parks, sports fields, etc.) are located at Lake Tahoe. The Placer County General Plan policies establish park and park facility standards and require new development to dedicate land or funding to meet these standards. These policies also provide for the location of these facilities where they are needed while minimizing environmental impacts and conflicts with other uses. The policies and programs call for the creation of new recreation districts and county service areas where needed to provide and maintain recreational facilities. Policies and programs promote a countywide trail system and require new development to contribute to a trail system.

Placer County General Plan Policies

The following Placer County General Plan policies pertain to recreation and parks.

Policy 5.A.1 The County shall strive to achieve and maintain a standard of 5 acres of improved parkland and 5 acres of passive recreation area or open space per 1,000 population.

Policy 5.A.2 The County shall strive to achieve the following park facility standards:

a. 1 tot lot per 1,000 residents
b. 1 playground per 3,000 residents
c. 1 tennis court per 6,000 residents
d. 1 basketball court per 6,000 residents
e. 1 hardball diamond per 3,000 residents
f. 1 softball/little league diamond per 3,000 residents
g. 1 mile of recreational trail per 1,000 residents
h. 1 youth soccer field per 2,000 residents
i. 1 adult field per 2,000 residents
j. 1 golf course per 50,000 residents

Policy 5.A.3 The County shall require new development to provide a minimum of 5 acres of improved parkland and 5 acres of passive recreation area for every 1,000 new residents of the area covered by the development.

Policy 5.A.4 The County shall consider the use of the following open space areas as passive parks to be applied to the requirement of 5 acres of passive park area for every 1,000 residents.

a. Floodways
b. Protected riparian corridors
c. Protected wildlife corridors
d. Greenways with the potential for trail development
e. Open water (e.g., ponds, lakes, and reservoirs)
f. Protected woodland areas
g. Protected sensitive habitat areas providing that interpretive displays are provided (e.g., wetlands and habitat for rare, threatened or endangered species.)

Policy 5.A.5 The County shall require the dedication of land and/or payment of fees, in accordance with state law (Quimby Act) to ensure funding for the acquisition and development of public recreation facilities.

Policy 5.A.8 The County shall strive to maintain a well-balanced distribution of local parks, considering the character and intensity of present and planned development and future recreation needs.

Policy 5.A.9 The County shall give priority to early acquisition of park sites in newly-developing areas through many means including the use of public financing or land dedication.

Policy 5.A.23 The County shall require that park and recreation facilities required in conjunction with new development be developed in a timely manner so that such facilities are available concurrently with new development.

Policy 5.C.1 The County shall support development of a countywide trail system designed to achieve the following objectives:

a. Provide safe, pleasant, and convenient travel by foot, horse, or bicycle;
b. Link residential areas, schools, community buildings, parks, and other community facilities within residential developments. Whenever possible, trails should connect to the countywide trail system, regional trails, and the trail or bikeways plans of cities;
c. Provide access to recreation areas, major waterways, and vista points;
d. Provide for multiple uses (i.e., pedestrian, equestrian, bicycle);
e. Use public utility corridors such as power transmission line easements, railroad rights-of-way, irrigation district easements, and roadways;
f. Whenever feasible, be designed to separate equestrian trails from cycling paths, and to separate trails from the roadway by the use of curbs, fences, landscape buffering, and/or spatial distance;
g. Connect commercial areas, major employment centers, institutional uses, public facilities, and recreational areas.

The proposed Martis Valley Community Plan policy document contains goals, policies and implementation programs that are generally consistent with the policy provisions of the Placer County General Plan.

4.11.8.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in any of the following:

1) Increased demand for additional personnel, equipment, or facilities, and/or results in a negative effect that impairs the ability of the service provider to maintain an acceptable level of service for maintenance of public facilities that results in a physical impact on the environment.

METHODOLOGY

The 3 alternatives were evaluated for their impacts parks and recreational services based on consultation with Placer County, the Truckee Donner Recreation and Park District, review of the Martis Valley Parks and Recreation Evaluation and Park Dedication Fee Expenditure Plan, the Placer County General Plan, existing Martis Valley General Plan, and the proposed Martis Valley Community Plan.

Impact 4.11.8.1 Parks and Recreation Facilities

PP Implementation of the Proposed Land Use Diagram would increase the demand for parks and recreation facilities. This would be a **potentially significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would increase the demand for parks and recreation facilities. This would be a **potentially significant** impact.

AB Implementation of the Alternative 1 Land Use Map would increase the demand for parks and recreation facilities. This would be a **potentially significant** impact.

AC Implementation of the Alternative 2 Land Use Map would increase the demand for parks and recreation facilities. This would be a **potentially significant** impact.

PP Proposed Land Use Diagram

Assuming a worst-case scenario, implementation of the Proposed Land Use Diagram, at full buildout, would result in a population of approximately 24,249. The population with a 20 percent full-time occupancy rate would result in approximately 4,850 residents, which would result in an increased demand for parks and recreational facilities, personnel and equipment. Although there are currently large recreation areas within the vicinity of the Plan area, a public trail system connecting the Plan area with the Town of Truckee's trail system and the public trails within the Northstar-at-Tahoe resort community, and winter sports at nearby ski areas, the project would require additional parks and recreation facilities to accommodate the increased population. Using the Placer County parkland standard of five acres of improved and passive parkland or open space per 1,000 persons, the proposed Land Use Diagram would require approximately 121 acres of parkland and recreational facilities (24 acres assuming a 20 percent full-time occupancy). The Proposed Land Use Diagram proposes 3,704 acres of open space, which does not specify the acreage of recreational uses. However, as shown in **Figure 3.0-9**, the County has conceptually identified three future park site options within the Plan area.

The proposed Martis Valley Community Plan policies specify that land be dedicated or fees paid to provide public recreation facilities. The proposed Martis Valley Community Plan policies also specify that new subdivisions would be included in financing districts to pay for the operation and maintenance of new park facilities in the area. Currently the Truckee Donner Recreation and Park District is coordinating with Placer County to receive funding as part of the Martis Valley Parks and Recreation Evaluation and Park Dedication Fee Expenditure Plan. The Proposed Land Use Diagram would increase the population and thus increase the need for additional parkland, recreational equipment and personnel. However, development associated with the Proposed Land Use Diagram may be required to pay recreation impact fees and/or dedicate parkland. Additionally, the TDRPD receives property tax revenue from development within its service area.

There are several funding mechanisms in place to fund parks and recreation facilities in the Plan area. TDRPD receives funding from property taxes, fees, charges, special assessments, grants and mitigation fees. There are two mitigation funding mechanisms to address growth, including the Quimby Act fee, which provides the District with $1,375 for each newly created parcel, and AB 1600 fee, which is a building square footage fee of $0.42 per square foot for all new construction. Additionally, TDRPD receives park dedication fees from some developments located within the Plan area. In 1996, the Martis Valley Parks and Recreation Evaluation and Park Dedication Fee Expenditure Plan was approved and adopted. The proposed Martis Valley Community Plan is the basis for allocating Park Dedication Fees collected from development within the Placer County portion of the Martis Valley. Therefore, impacts on parks and recreation facilities in the Plan area would be paid for by existing funding mechanisms. However, there is there is currently no mechanism in place that would solidify the transfer of parkland from the developments to the TDRPD.

AA Existing Martis Valley General Plan Land Use Map

Assuming a worst-case scenario, implementation of the Existing Martis Valley General Plan Land Use Map, at full buildout, would result in a population of approximately 30,739 residents. The population, assuming a 20 percent full-time occupancy, would be 6,148, which would result in an increased demand for parks and recreational facilities, personnel and equipment. Using the Placer County parkland standard of five acres of improved and passive parkland or open space per 1,000 persons, this alternative would require approximately 154 acres of parkland and recreational facilities (31 acres assuming 20 percent full-time occupancy). The Existing Martis Valley General Plan Land Use Map includes 130 acres of recreation. Development associated with this Alternative may be required to pay recreation impact fees and/or dedicate parkland. This alternative would have similar impacts on parks and recreation as the Proposed Land Use Diagram. Existing funding mechanisms would mitigate impacts on parks and recreation facilities within the Plan area. Additionally, there is there is currently no mechanism in place that would solidify the transfer of parkland from the developments to the TDRPD.

AB Alternative 1 Land Use Map

Assuming a worst-case scenario, implementation of the Alternative 1 Land Use Map, at full buildout, would result in a population of approximately 27,118 residents. Assuming a 20 percent full-time occupancy, the population would be approximately 5,424, which would result in an increased demand for parks and recreational facilities, personnel and equipment. Using the Placer County parkland standard of five acres of improved and passive parkland or open space per 1,000 persons, this alternative would require approximately 135 acres of parkland and recreational facilities (27 acres assuming 20 percent full-time occupancy). The Alternative 1 Land Use Map includes 6,584 acres of open space, which does not identify the acreage of recreational uses. Development associated with the Alternative 1 Land Use Map may be required to pay recreation impact fees and/or dedicate parkland. This alternative would have similar impacts on parks and recreation as the Proposed Land Use Diagram. Additionally, there is there is currently no mechanism in place that would solidify the transfer of parkland from the developments to the TDRPD.

AC Alternative 2 Land Use Map

Assuming a worst-case scenario, implementation of the Alternative 2 Land Use Map, at full buildout, would result in a population of approximately 20,924 residents. Assuming a 20 percent full-time occupancy, this alternative would result in 4,185 residents, which would result in an increased demand for parks and recreational facilities, personnel and equipment. Using the

Placer County parkland standard of five acres of improved and passive parkland or open space per 1,000 persons, this alternative would require approximately 105 acres of parkland and recreational facilities (21 acres assuming 20 percent full-time occupancy). The Alternative 2 Land Use Map includes 3,370 acres of open space, which does not identify the acreage of recreational uses. Development associated with the Alternative 2 Land Use Map may be required to pay recreation impact fees and/or dedicate parkland. This alternative would have similar impacts on parks and recreation as the Proposed Land Use Diagram. Additionally, there is there is currently no mechanism in place that would solidify the transfer of parkland from the developments to the TDRPD.

Policies and Implementation Programs

The following Martis Valley Community Plan policies and implementation programs in Section VII (Recreation and Trails) would provide mitigation for the potential impacts on parks and recreation facilities.

Policy 7.A.1 *The County and TDRPD shall strive to achieve and maintain a standard of 5 acres of improved parkland and 5 acres of passive recreation area or open space per 1,000 population. Such parkland shall be suitable to generally meet the following standards as well.*

a. 1 tennis court per 6,000 residents
b. 1 tot lot per 1,000 residents
c. 1 playground per 3,000 residents
d. 1 softball/little league field per 3,000 residents
e. 1 hardball field per 3,000 residents
f. 1 basketball court per 6,000 residents
g. 1 mile of recreation trail per 1,000 residents
h. 1 youth soccer field per 2,000 residents
i. 1 adult soccer field per 2,000 residents
j. 1 golf course per 50,000 residents

It is recognized that the area will continue to have a large percentage of second homes and the above standards may be modified, or added to, in order to reflect local conditions and needs.

Policy 7.A.2 *The County shall require the dedication of land and/or payment of fees, in accordance with state law (Quimby Act), to ensure funding for the acquisition and development of public recreation facilities. The fees are to be set and adjusted as necessary to provide for a level of funding that meets the actual cost to provide for all of the public parkland and park development needs generated by new development.*

Policy 7.A.3 *The County and TDRPD shall ensure that park design is appropriate to the recreation needs, and, where feasible, provides access capabilities to all residents and visitors of Placer County.*

Policy 7.A.4 *The County shall not become involved in the operation of organized, activity-oriented recreation programs especially where TDRPD provides those services.*

Policy 7.A.5 *The County shall require the inclusion of new subdivision lands in a type of financing district (such as a County Service Area or a Landscape and Lighting District) to generate sufficient funds to operate and maintain new public park facilities provided in the area.*

Policy 7.B.1 *Provide future park facilities in accordance with park standards and location guidelines as set forth in this Plan and the Countywide General Plan. The County shall work with developers and TDRPD to identify community park sites. Factors, which should be considered in evaluating sites for acquisition, are:*

a. The highest priority shall be the acquisition of 1 large 30-acre parcel within the Plan area that can serve as an active community park site.
b. Higher priority shall be given to sites that are more centrally located to existing and proposed developments.
c. The site shall be easily accessible.
d. The site should allow for multi-purpose use.
e. The site should be within the TDRPD annexed area.
f. The site should be located so as to minimize potential conflicts between neighboring uses and park activities.
g. Where possible, park(s) should be located adjacent to other open space, or public facilities.
h. The park(s) should be usable as trail staging areas and provide connections to regional trails.

Policy 7.B.2 *The County shall work with TDRPD to provide community park facilities that do not duplicate existing facilities. The TDRPD has existing and planned facilities that will serve the Plan area residents. Placer County shall confer with TDRPD to determine a "needs analysis" for the area.*

Policy 7.B.3 *The County shall cooperate with TDRPD, volunteer groups, and organizations that can assist with providing recreation.*

Policy 7.B.4 *The County shall encourage the formation of an agreement for TDRPD to operate County facilities in the Plan area.*

Policy 7.B.5 *In addition to traditional recreation activities, the County shall encourage the development of indoor recreation and winter oriented activities at the community park site. When evaluating sites for the location of high-density recreation activities, the County shall take into account the Truckee/Tahoe Airport Comprehensive Land Use Plan.*

Policy 7.C.1 *The County and TDRPD shall encourage development of private recreation facilities to reduce the demands on public agencies.*

Implementation Programs

1. *Review development projects for compliance with the goals, policies, and specific discussions contained in the Recreation Element and throughout the Plan.*

Responsible Agency/Department: Parks Department, TDRPD, North Tahoe Region Advisory Council, Planning Commission, & Board of Supervisors
Time Frame: Ongoing
Funding: Application fees

2. *The County shall work with local, state, and federal agencies to maintain a comprehensive inventory of all parks and recreation areas and services in the County and to identify other areas suitable for park acquisition and development. A 1994 inventory of existing parks and recreation areas is contained in the Placer County General Plan background report Volume II.*

   Responsible Agency/Department: Parks Department
   Time Frame: Ongoing
   Funding: General Fund

3. *The potential park sites shown on the Plan map will serve as the most desirable sites to meet the future needs of the Martis Valley Community Plan area. As development occurs acquisition of these sites will be considered. This policy does not preclude the acceptance/acquisition of other worthy sites that may become available.*

   Responsible Agency/Department: Parks Department
   Time Frame: Ongoing
   Funding: Various

Mitigation Measure

The following mitigation measure would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC. Mitigation measure MM 4.11.8.1 shall be incorporated into the Community Plan as a policy in Section VII (Recreation and Trails) under Goal 7A.

MM 4.11.8.1 Placer County and the Tahoe Donner Recreation and Park District shall establish a mechanism for transferring parkland and recreational facilities within the Plan area to TDRPD.

Implementation of the above mitigation measure would mitigate potential impacts on park and recreation facilities to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

4.11.8.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

The TDRPD and Placer County would continue to provide public recreation areas and facilities in the Plan area. Many future developments would be required to provide parkland and/or recreation facilities to meet the needs of the population in cumulative conditions. TDRPD's fee program and tax revenue and Placer County's Park Dedication Fees would pay for much of the improvements and additions to the existing facilities and parks in the Plan area.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.8.2 Cumulative Impact on Parks and Recreational Facilities

PP Under cumulative conditions, implementation of the Proposed Land Use Diagram would increase the demand for parks and recreation facilities. This would be a **cumulative significant** impact.

AA Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would increase the demand for parks and recreation facilities. This would be a **cumulative significant** impact.

AB Under cumulative conditions, implementation of the Alternative 1 Land Use Map would increase the demand for parks and recreation facilities. This would be a **cumulative significant** impact.

AC Under cumulative conditions, implementation of the Alternative 2 Land Use Map would increase the demand for parks and recreation facilities. This would be a **cumulative significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Implementation of the Proposed Land Use Diagram and Alternatives AA, AB and AC in cumulative conditions in the Plan area would result in an increased need for additional parks and recreational facilities to serve the area's population. The Proposed Land Use Diagram and the 3 alternatives would provide some recreational facilities and open space, which would help meet the demand for additional parks and recreation facilities. However, the Placer County standard of 5 acres of parkland for every 1,000 persons would be applied to development associated with the Proposed Land Use Diagram and Alternatives AA, AB and AC. Future development would be required to pay park dedication fees to pay for additional parks and recreational facilities. TDRPD would continue to receive funding from property taxes, charges, special assessments, and grants as well. Therefore, impacts on parks and recreation facilities in the Plan area would be paid for by existing funding mechanisms.

Policies and Implementation Programs

New development projects in the Plan area would be required to adhere to policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation for impacts on parks and recreation facilities. The reader is referred to the Impact 4.11.8.1 regarding applicable proposed policies and implementation programs.

Mitigation Measure

Implementation of mitigation measure MM 4.11.8.1 would mitigate cumulative impacts on park and recreation facilities to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

4.11.9 ROADWAY MAINTENANCE AND SNOW REMOVAL

4.11.9.1 EXISTING CONDITIONS

Placer County maintains the majority of public roadways within Zone 4 (State Route 267 corridor), which includes the subdivisions of Kings Beach, Brockway and Ponderosa, the Plan area, Northstar-at-Tahoe (under contract with Northstar CSD), and all Kingswood subdivisions (Compton, 2001). The County also provides snow removal services for County-maintained roads in the North Lake Tahoe region. Road maintenance is paid for through the County's Road Maintenance Budget, which is currently $13.6 million. Of the $13.6 million, more than $3 million comes from the general fund, $1.6 million came from a one-time general fund in the year 2000, and the rest comes from state and federal sources such as gas taxes (Placer County, 2001). In addition to repair and maintenance of 1,000 miles of County roads, this budget pays for roadside tree and vegetation control, repair and maintenance of 125 bridges, repair and maintenance of 200 miles of guardrail, issuance of encroachment permits (to do work on County roads), issuance of transportation permits (oversize loads, etc.), maintenance of signs, striping, and traffic signals, and snow removal on 235 miles of roadway in established zones (Placer County, 2001).

However, some property owners have entered into maintenance agreements with Placer County to maintain their private roads in the Plan area. In such cases, the County bills the property owners to provide road maintenance, snow removal, street lighting, etc. Some roads within the Plan area are maintained by individual developments. The Lahontan Home Owners Association currently maintains Schaffer Mill Road (Compton, 2001).

The California Department of Transportation (Caltrans) provides road maintenance and snow removal services on all state highways including State Route 267. As part of the California Spending Plan 2000-2001, a total of $2 billion is available for the Traffic Congestion Relief Program, which includes roadway maintenance. This $2 billion figure includes $1.5 billion from the General Fund and $500 million in state gasoline sales tax revenues. Local governments will receive $400 million, based on a specified formula, for street and road maintenance and rehabilitation. The second largest support category under the State's Spending Plan is for the highway maintenance program, for which the budget appropriates $768 million (Legislative Analyst's Office, 2001).

4.11.9.2 REGULATORY FRAMEWORK FOR ROAD MAINTENANCE AND SNOW REMOVAL

LOCAL

Existing Martis Valley General Plan

The existing Martis Valley General Plan incorporates one policy that pertain to roadway maintenance and snow removal.

<u>Community Development and Transportation</u>

Policy 6 Develop a bi-county plan or agreement which indicates who will provide services as police protection, snow removal, and road maintenance before allowing further, major developments.

Placer County General Plan

The Placer County General Plan includes the following policies pertaining to the long-range planning and development of the county's roadway system to ensure the safe and efficient movement of people and goods.

Placer County General Plan Policies

Policy 3.A.12 The County shall require an analysis of the effects of traffic from all land development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements that provide benefits to others.

Policy 3 A.14 The County shall assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system. Exceptions may be made when new development generates significant public benefits (e.g., low income housing, needed health facilities) and when alternative sources of funding can be identified to offset foregone revenues.

4.11.9.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in any of the following:

1) Increased demand for additional personnel, equipment, or facilities, and/or results in a negative effect that impairs the ability of the service provider to maintain an acceptable level of service for maintenance of roads.

METHODOLOGY

Evaluation of potential impacts on roadway maintenance and snow removal was based on consultation with Placer County Planning Department and Public Works Department staff, review of the State's Legislative Analyst's Office website for funding information on state roadways, and County policies.

Impact 4.11.9.1 Road Maintenance and Snow Removal

PP Implementation of the Proposed Land Use Diagram would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. This would be a **less than significant** impact.

AA Implementation of the Existing Martis Valley would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. This would be a **less than significant** impact.

AB Implementation of Alternative 1 Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. This would be a **less than significant** impact.

AC Implementation of Alternative 2 Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. This would be a **less than significant** impact.

PP Proposed Land Use Diagram

Implementation of the Proposed Land Use Diagram would result in 9,220 residential units, six acres of office uses and 39 acres of general commercial. At buildout this alternative would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. The roadways within the Plan area are primarily owned by Placer County. Placer County provides roadway maintenance and snow removal services for County roads within Zone 4 (State Route 267 corridor), which includes the Plan area. The County also provides maintenance and snow removal services for many private roads, as part of a reimbursement agreement between the road owner and Placer County. Caltrans provides road maintenance and snow removal for all state highways, including State Route 267. Placer County receives funding from the County's General Fund and from state and federal gas taxes to provide roadway maintenance and snow removal services. Caltrans receives funding from the state's General Fund and state gasoline sales tax revenues. Additionally, the increased population would pay for such services through gas, property and sales taxes. Existing funding mechanisms and the increased funding sources due to a larger population size would pay for roadway impacts in the Plan area resulting from the Proposed Land Use Diagram.

AA Existing Martis Valley General Plan Land Use Map

Implementation of the Alternative 1 Land Use Map would result in 11,688 residential units, and 26 acres of commercial uses, which would require additional roadways within the plan area. This alternative would result in similar impacts as the Proposed Land Use Diagram. Existing funding mechanisms and the increased funding sources due to a larger population size would pay for roadway impacts in the Plan area resulting from the Existing Martis Valley General Plan Land Use Map.

AB Alternative 1 Land Use Map

Implementation of the Alternative 1 Land Use Map would result in 10,311 residential units, one acre of office and 22 acres of general commercial uses, which would require additional roadways within the plan area. This alternative would result in similar impacts as the Proposed Land Use Diagram. Existing funding mechanisms and the increased funding sources due to a larger population size would pay for roadway impacts in the Plan area resulting from the Alternative 1 Land Use Diagram.

AC Alternative 2 Land Use Map

Implementation of the Alternative 2 Land Use Map would result in 7,956 residential units, 12 acres of office and 29 acres of general commercial uses, which would require additional roadways within the plan area. This alternative would result in similar impacts as the Proposed Land Use Diagram. Existing funding mechanisms and the increased funding sources due to a larger population size would pay for roadway impacts in the Plan area resulting from the Alternative 2 Land Use Diagram.

Policies and Implementation Programs

The Martis Valley Community Plan does not contain any policies regarding roadway maintenance and snow removal.

Mitigation Measures

None required.

4.11.9.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

Under cumulative conditions, the Plan area would contain additional public and private roadways. Placer County would continue to maintain the majority of public roads in the area, with Caltrans providing maintenance and snow removal services on State highways. Some of the private roads would continue to contract road maintenance services from Placer County.

IMPACTS AND MITIGATION MEASURES

Impact 4.11.9.2 Cumulative Road Maintenance and Snow Removal

PP Under cumulative conditions, implementation of the Proposed Land Use Diagram would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. This would be a **less than significant** impact.

AA Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. This would be a **less than significant** impact.

AB Under cumulative conditions, implementation of Alternative 1 Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. This would be a **less than significant** impact.

AC Under cumulative conditions, implementation of Alternative 2 Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services. This would be a **less than significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Implementation of the Proposed Land Use Diagram and Alternatives AA, AB and AC in combination with approved and proposed projects in the Plan area would result in an increased need for increased road maintenance and snow removal to serve the area. Under cumulative conditions, Placer County would continue to receive funding from the County's General Fund and from state and federal gas taxes to provide roadway maintenance and snow removal services. Caltrans would continue to receive funding from the state's General Fund and state gasoline sales tax revenues. Additionally, the increased population would pay for such services through gas, property and sales taxes. Existing funding mechanisms and the increased funding sources due to a larger population size would pay for roadway impacts in the Plan area resulting from the Proposed Land Use Diagram and Alternatives AA, AB and AC.

Policies and Implementation Programs

The Martis Valley Community Plan does not contain any policies regarding roadway maintenance and snow removal.

Mitigation Measure

None required.

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SECTION 4.12
VISUAL RESOURCES/LIGHT AND GLARE

This section of the EIR describes the existing visual resources of the Martis Valley Community Plan Area (Plan area), summarizes the landscape characteristics of the surrounding area, describes current planning activities in the area, and discusses the impacts associated with implementation of the three land use plan options. The analysis focuses on the anticipated alteration of the landscape characteristics of the Plan area.

4.12.1. EXISTING SETTING

VISUAL CHARACTERISTICS OF THE AREA

Located in the north central Sierra Nevada mountain range, the Plan area consists of a combination of publicly and privately held lands. Martis Valley itself encompasses approximately 70 square miles that fall within Placer and Nevada Counties. The Plan area includes the portion of Martis Valley located in Placer County. The terrain of Martis Valley in the Plan area ranges from gently sloping within the Valley center to steep ridges to the south, east and west.

The visual character of Martis Valley may be characterized into three primary landform types: 1) mountains (mountainsides, slopes, ridges and peaks); 2) forests (gently sloping forestlands); and, 3) valley (open meadow within the valley floor). Both the mountain and the valley classifications are visually sensitive areas with regard to development potential. The forest portions of the Martis Valley have significant potential to accommodate hidden development.

The ability to "hide" development within forested areas is affected by the proximity of viewing locations (areas where the public will have views such as overlooks, recreation areas, and roadways), and the density of the trees within the forest. Density of the forest tends to increase with distance from Valley floor and is generally greatest in the southern portion of the Plan area in the vicinity of Northstar.

Photo 4.12-1 – Northstar development viewed from an adjacent hillside.

While the Martis Valley is a highly scenic area, with vistas of open meadows and surrounding ridges and peaks, there are no designated scenic routes within the planning area. State Route 267 (SR 267) has been considered for designation as a Scenic Corridor, but Placer County has not implemented such a designation.

In addition to SR 267, Schaffer Mill Road is generally considered a scenic corridor with expansive views of the open valley area. This road provides access to the Lahontan project and will ultimately serve additional projects in the vicinity of Lahontan. Schaffer Mill Road is currently a

private road, however, it is anticipated this road will be dedicated to the County. Both SR 267 and Schaffer Mill Road merit consideration for scenic corridor status.

Photo 4.12-2 – Forests along Schaffer Mill Road

In general, the dominant scenic/visual features within Martis Valley are the open valley floor and the surrounding ridges and peaks. Views of these resources are most available from roads located low in the valley where there are no trees or where forest growth is more open. Within the open valley, small streams and perennial creeks are among the most significant visual features. Mt. Pluto within Northstar and the peaks above Donner Lake are among the most striking mountain features viewed from within the valley.

Photo 4.12-3 – Northstar ski area (left), Donner Summit (right) in background and the Martis Valley floor

Photo 4.12-4 – Dry Lake, in the northeast portion of Martis Valley

The 1974 Martis Valley General Plan – Visual Analysis

An analysis of the visual resources within Martis Valley was prepared in conjunction with the 1974 Martis Valley General Plan. This analysis considered resources within both Nevada and Placer Counties and is valid for the Placer County area of the Martis Valley. The 1974 analysis categorized land within the Valley on a basis of visual sensitivity. The determination of an areas visual sensitivity is based on a variety of factors, including whether scenic features such as lakes, streams, or mountain peaks are present; whether unique vegetation, rock outcroppings, or similar resources exist; and the number of people that are typically within view of the visual resource.

The previous analysis appears to have been both thorough and relatively accurate. The analysis was prepared utilizing USGS map for topographic data and field analysis from 32 viewing locations within the Valley. Since the preparation of the 1974 visual analysis, the visual character of the Plan area has been largely preserved and the analysis remains valid today.

Among the products of the 1974 study was a Visual Quality Standards map that designated the level of visual modification that should be allowed within the Valley. The categories applied to Martis Valley on this map include Retention, Partial Retention, Modification, and Maximum Modification. The designations of the 1974 map have been overlayed on the current Martis Valley base map and is presented as **Figure 4.12-1**. The categories of Modification and Maximum Modification have been combined on **Figure 4.12-1**. The 1974 visual analysis proposed that uses within each of these designations should be limited as follows:

Retention: Activities should blend completely into the natural environment. Development or changes to the natural environment should generally not be apparent to the average viewer.

Partial Retention: Development may be evident to the average viewer. However, landscape modifications should be few in number and small in scale. Landscape modifications resulting from development should be rehabilitated within two years.

Modification: Land use developments may be visible to the average viewer and may become visually dominant in the landscape. Landscape modifications should not overwhelm or eliminate the natural character of the landscape.

The intent of the above classifications has generally been maintained by development within Martis Valley. The development associated with Northstar effectively blends into the natural setting, with the exception of the blue metal roofs installed on some earlier structures. The Lahontan development has been integrated within the natural setting and generally does not detract from public views of the Plan area.

Visual Resource Capability

The 1974 Martis Valley visual analysis summarizes the physical circumstances that affect the visual sensitivity of an area. These guidelines on the ability of a site to accommodate development without impacting the visual character of Martis Valley remain valid.

Existing levels of modification: Visual impacts of development are cumulative and the existing development in a natural setting should not be considered a valid reason for further visual impacts.

Perceptual sensitivity: Visual modifications to the foreground of a scenic vista result in greater impacts than more distant modifications.

Visual absorptive capacity: The impact of landscape modifications increases with slope due to the greater visibility of high ground and the inability of tree and vegetation to provide screening. Slope of 50 percent or greater are highly sensitive to visual impacts. Visual absorptive capacity is greatest in areas of dense vegetation such as coniferous forests. Open meadows and sagebrush flats have very low capacity and the visual character of such areas is easily impacted.

Nighttime Lighting Conditions

At nighttime, the Plan area has two areas with distinct lighting. The northwestern portion of the Plan area has a generally low ambient light level, consistent with a rural residential area, and high ambient brightness at the Truckee-Tahoe Airport site. Lighting at the airport site also causes upward lighting, illuminating the night sky above the airport site, and spill light immediately adjacent the airport. South of the Shaffer Mill Road and the airport, nighttime views of the Plan area are largely of intrinsically dark landscape. The Martis Creek Lake Area is unlit at night and the Northstar-at-Tahoe residential areas have resulted in minimal outdoor lighting. The entrance to Northstar-at-Tahoe is well lit, but the lighting effects are local and do not result in significant light pollution to the surrounding area.

4.12.2. REGULATORY FRAMEWORK

LOCAL

Martis Valley General Plan

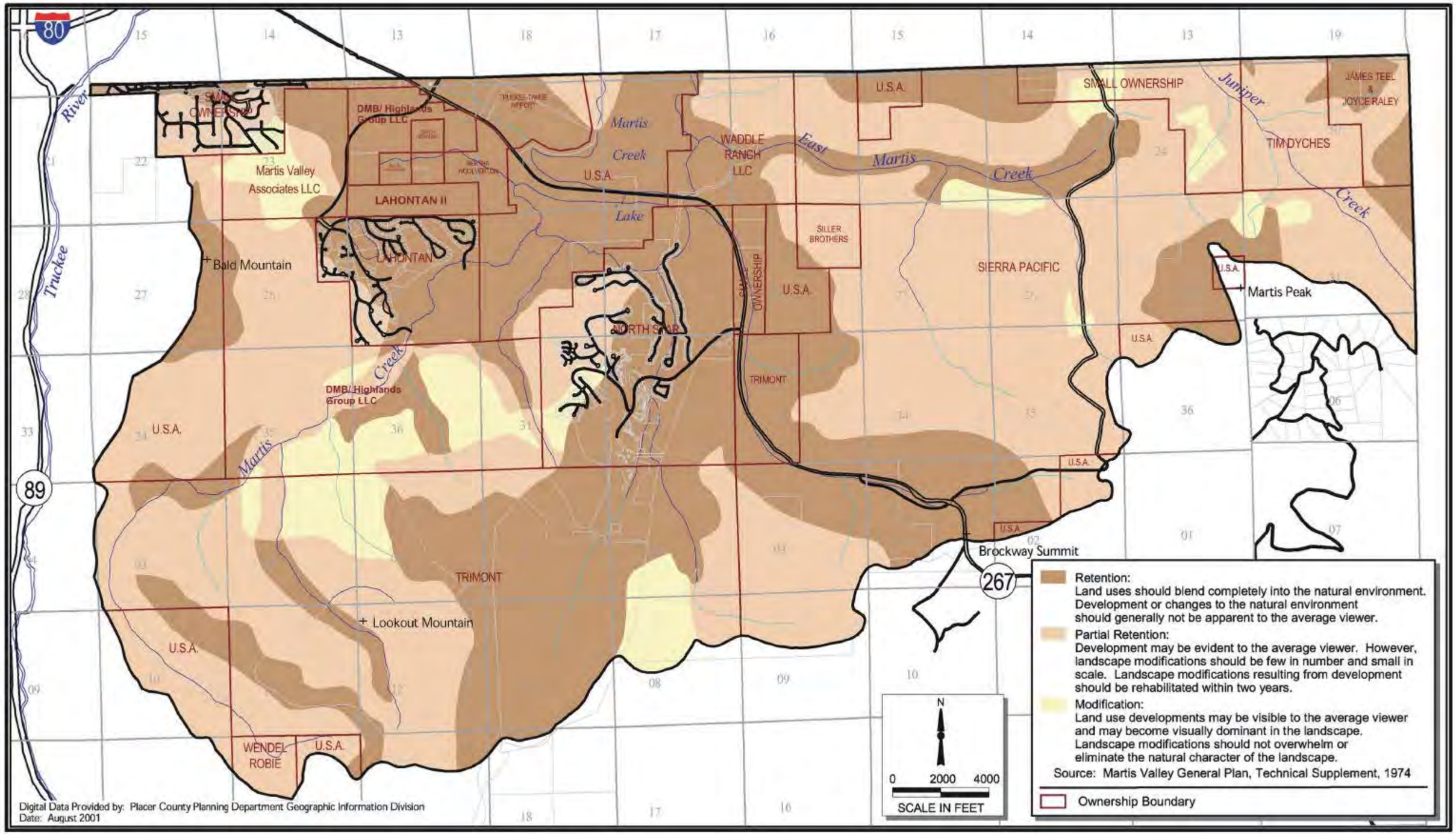
The Martis Valley General Plan states that the visual resources and scenic values of Martis Valley "are of utmost importance in maintaining the quality of life there." Given the reliance of the local economy on tourism, an industry based on the natural resources, and scenic beauty of the area, visual resources also play a fundamental role in the region's economy.

The Martis Valley General Plan notes that a visual analysis was performed by the staff of the Tahoe National Forest. It appears that the results of the National Forest visual analysis provided the basis for the discussion of visual resources contained within the Martis Valley General Plan Technical Supplement and EIR that is discussed above.

The existing Martis Valley General Plan incorporates the following policy that pertains to visual resources:

<u>Environmental Resource</u>

Policy 12 Retention of high quality open space and visual resources is of utmost importance to the future quality of life in Martis Valley.



PMC

FIGURE 4.12-1
VISUAL QUALITY STANDARDS

Placer County General Plan

The Placer County General Plan land use designations within the Martis Valley planning area are predominantly Agriculture/Timberland and Open Space, with nearly 75 percent of the planning area designated for these uses.

Placer County General Plan Policies

The Placer County General Plan includes the following policies regarding visual resources, light and glare:

Policy 1.K.1 The County shall require that new development in scenic areas (e.g., river canyons, lake watersheds, scenic highway corridors, ridgelines, and steep slopes) is planned and designed in a manner which employs design, construction, and maintenance techniques that;

a. Avoids locating structures along ridgelines and steep slopes;

b. Incorporates design and screening measure to minimize the visibility of structures and graded areas;

c. Maintains the character and visual quality of the area.

Policy 1.K.2 The County shall require that new development in scenic areas be designed to utilize natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes.

Policy 1.K.3 The County shall require that new development in rural areas incorporates landscaping that provides a transition between the vegetation in developed areas and adjacent open space or undeveloped areas.

Policy 1.K.4 The County shall require that new development incorporates sound soil conservation practices and minimizes land alterations. Land alterations should comply with the following guidelines:

a. Limit cuts and fills;

b. Limit grading to the smallest practical area of land;

c. Limit land exposure to the shortest practical amount of time;

d. Replant graded areas to ensure establishment of plant cover before the next rainy season; and

e. Create grading contours that blend with the natural contours on site or with contours on property immediately adjacent to the area of development.

Policy 1.K.5 The County shall require that new roads, paring, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.

Policy 1.K.6 The County shall require that new development on hillsides employ design, construction, and maintenance techniques that;

a. Ensure that development near or on portions of hillsides doe not cause or worsen natural hazards such as erosion, sedimentation, fire, or water quality concerns;

b. Include erosion and sediment control measures including temporary vegetation sufficient to stabilize disturbed areas;

c. Minimize risk to life and property from slope failure, landslides, and flooding; and

d. Maintain the character and visual quality of the hillside.

Policy 1.L.1 The County shall designate scenic routes within the county in order to preserve outstanding scenic quality within the different geographical settings.

Policy 1.L.3 The County shall protect and enhance scenic corridors through such means as design review, sign control, underground utilities, scenic setbacks, density limitations, planned unit developments, grading and tree removal standards, open space easements, and land conservation contracts.

Policy 1.L.4 The County shall provide for landscaping and/or landscaped mounding along designated scenic corridors where desirable to maintain and improve scenic qualities and screen unsightly views.

Policy 1.L.5 The County shall encourage the development of trails, picnicking, observation points, parks, and roadside rests along scenic highways.

Policy 1.L.8 The County shall include aesthetic design considerations in road construction, reconstruction, or maintenance for all scenic routes under County jurisdiction.

The proposed Martis Valley Community Plan policy document contains goals, policies, and implementation programs that are generally consistent with the policy provisions of the Placer County General Plan.

Placer County Rural Design Guidelines

The Placer County Rural Design Guidelines were adopted in 1997 with the goals to 1) identify and document the area's rural characteristics, 2) establish the guidelines for any future development, and 3) preserve and protect the unique rural qualities of the area for future generations. These guidelines have goals and implementation programs directed at open space, planned residential developments (PDs), lighting, lot design, preservation of scenic areas, fences, subdivision entrance features, rural roadways, agriculture, and recreation facilities.

4.12.3. IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

An aesthetic or visual resources impact is considered significant if implementation of the project would result in any of the following:

- Substantially affect scenic resources or scenic views, including trees, rock outcroppings, or historic buildings within a State Scenic Highway, designated County Scenic Roadway, Scenic River Corridor, roadway eligible for listing as a scenic roadway/highway or other public vantage point locally known for its scenic qualities.
- Substantial or demonstrable negative aesthetic alteration to the existing character of the area. A substantial alteration is characterized by a negative "sense of loss" of character or unique resources or a change that is an obvious and disharmonious modification of the overall scene, to the extent that it clearly dominates the view.
- Introduction of physical features that are substantially out of character with the area.
- Create adverse daytime glare or nighttime light effects.
- Inconsistency with adopted Placer County visual policies.

METHODOLOGY

The visual resource analysis is based on field review of the Plan area; review of topographic conditions; and review of the Martis Valley Community Plan Update and land use map options. The visual quality standards of the Martis Valley General Plan are compared to the 3 land use plans and the acreage of development types in each visual quality area is estimated. PMC staff performed a visual field study of the project area and surrounding roadways from several vantage points within the Plan area and public view areas outside of the Plan area. This analysis is based on anticipated changes in landform from implementation of the four land use map options as well as other anticipated development in the Plan area.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 4.12.1 Alteration of Views from Highways Outside the Plan Area

PP Implementation of the Proposed Land Use Diagram would not result in an alteration of views from highways outside of the Plan area. This would be a **less than significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map would not result in an alteration of views from highways outside of the Plan area. This would be a **less than significant** impact.

AB Implementation of the Alternative 1 Land Use Map would not result in an alteration of views from highways outside of the Plan area. This would be a **less than significant** impact.

AC Implementation of the Alternative 2 Land Use Map would not result in an alteration of views from highways outside of the Plan area. This would be a **less than significant** impact.

PP Proposed Land Use Diagram

Development patterns associated with the Proposed Land Use Diagram would not result in an alteration of views from highways located outside of the Martis Valley Community Plan area. Views of the Plan area from scenic and other highways in the vicinity are limited by intervening topography, vegetation and existing development located outside of the Plan area. A field reconnaissance of views of Martis Valley from nearby scenic highways, including the Yuba Donner Scenic Byway portion of Interstate 80 and State Route 89 (SR 89), was conducted on September 17, 2001. The field reconnaissance found that only a small portion of the eastern Plan area, designated Forest, was viewable from Interstate 80 or SR 89 and that the areas proposed for substantial development were not visible from any of the viewing locations. The Martis Valley is shielded from view by the mountains on its west border and slopes outside of the Plan area obscure views into the Plan area from the north. The portion of SR 267 located within Truckee has limited views of the Plan area, including existing development along SR 267 and the undeveloped lands on the valley floor. Development associated with the Proposed Land Use Diagram would not result in significant impacts from this viewing area. Additionally, development associated with the Proposed Land Use Diagram would result in no impact to the Yuba Donner Scenic Bypass.

AA Existing Martis Valley General Plan Land Use Map

Development patterns associated with the Existing Martis Valley General Plan Land Use Map would not result in an alteration of views from highways located outside of the Martis Valley Community Plan area, including Interstate 80, State Route 89, and the small portion of State Route 267 north of the Plan area in Truckee, similar to the Proposed Land Use Diagram. Additionally, development associated with the Existing Martis Valley General Plan Land Use Map would result in no impact to the Yuba Donner Scenic Bypass.

AB Alternative 1 Land Use Map

Development patterns associated with the Alternative 1 Land Use Map would not result in an alteration of views from highways located outside of the Martis Valley Community Plan area, including Interstate 80, State Route 89, and the small portion of State Route 267 north of the Plan area in Truckee, similar to the Proposed Land Use Diagram. Additionally, development associated with the Alternative 1 Land Use Map would result in no impact to the Yuba Donner Scenic Bypass.

AC Alternative 2 Land Use Map

Development patterns associated with the Alternative 2 Land Use Map would not result in an alteration of views from highways located outside of the Martis Valley Community Plan area, including Interstate 80, State Route 89, and the small portion of State Route 267 north of the Plan area in Truckee, similar to the Proposed Land Use Diagram. Additionally, development associated with the Alternative 2 Land Use Map would result in no impact to the Yuba Donner Scenic Bypass.

Policies and Implementation Programs

The following Martis Valley Community Plan policies and implementation programs in Section IV (Community Design) would assist in reducing any potential impacts on highways located outside of the Plan area. Additionally, the design guidelines and development standards contained in

the Martis Valley Community Plan would reduce potential impacts on highways located outside of the Plan area.

Policy 2.B.1 *The County shall require that new development in scenic areas (e.g., riparian corridors, lake watersheds, scenic highway corridors, ridge lines and steep slopes) is planned and designed in a manner which employs design, construction, and maintenance techniques that:*

a. Incorporate design and screening measures to minimize the visibility of structures and graded areas;

b. Maintain the character and visual quality of the area.

Policy 2.B.2 *The County shall require that new development in scenic areas be designed to use natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes.*

Policy 2.B.4 *The County shall require that new development incorporates sound soil conservation practices and minimizes land alterations. Land alterations should comply with the following guidelines:*

a. Limit cuts and fills;

b. Limit grading to the smallest practical area required by the development;

c. Limit land exposure to the shortest practical amount of time;

d. Replant graded areas to ensure establishment of plant cover before the next rainy season; and

e. Create grading contours that blend with the natural contours on site or with contours on property immediately adjacent to the area of development.

Policy 2.B.5 *The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.*

Policy 2.B.6 *The County shall require that new development on hillsides employ design, construction, and maintenance techniques that:*

a. Ensure that development near or on portions of hillsides do not cause or worsen natural hazards such as erosion, sedimentation, fire, or water quality concerns;

b. Include erosion and sediment control measures, including temporary vegetation, sufficient to stabilize disturbed areas;

c. Minimize risk to life and property from slope failure, landslides, avalanches, and flooding; and

d. Maintain the character and visual quality of the hillside.

Policy 2.B.8 *The County shall require that roads, trails, and paths be designed and constructed to minimize erosion and other disturbances to the natural terrain and vegetation. Such facilities shall be designed for economical maintenance.*

Policy 2.B.9 *Each community or major development area should have a well-defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.*

Implementation Program

1. New development projects shall be reviewed for consistency with the Community Design Section goals and policies contained herein, the Design/Development Standards, and the County's Design and Landscape Design Guidelines available under separate cover at the Planning Department.

Responsible Agency/Department: Principally the Planning Department, but may involve other Land Development Departments
Time frame: Ongoing
Funding: General Fund

Mitigation Measure

None required.

Impact 4.12.2 Alteration of Public and Private Views

PP As viewed from viewpoints in and surrounding the Plan area, implementation of the Proposed Land Use Diagram would substantially alter the existing landscape characteristics in the Plan area and result in impacts to both public and private views. This would be a **significant** impact.

AA As viewed from viewpoints in and surrounding the Plan area, implementation of the Existing Martis Valley General Plan Land Use Map would substantially alter the existing landscape characteristics in the Plan area and result in impacts to both public and private views. This would be a **significant** impact.

AB As viewed from viewpoints in and surrounding the Plan area, implementation of the Alternative 1 Land Use Map would substantially alter the existing landscape characteristics in the Plan area and result in impacts to both public and private views. This would be a **significant** impact.

AC As viewed from viewpoints in and surrounding the Plan area, implementation of the Alternative 2 Land Use Map would substantially alter the existing landscape characteristics in the Plan area and result in impacts to both public and private views. This would be a **significant** impact.

Public Views

PP Proposed Land Use Diagram

Development of the Plan area under the Proposed Land Use Diagram would result in the alteration of existing landscape features, as viewed from SR 267 (within the Plan area), the Martis Creek Lake Recreation Area, public roads and trails, to rural and urban features resulting in a reduction of scenic resources. Most notably, development of the Plan area would result in the addition of structures, including residential dwellings and commercial buildings, along with roads and road improvements, golf courses, and recreational trails to areas that are currently forested or within the open valley. The addition of structures and the loss of vegetation would result in visual impacts when viewed from public places within the Plan area.

Much of the Plan area is covered with dense forest canopy. Future development associated with this land use map option would primarily occur within the forested portions of the Plan area and not in the open valley. However, some development and associated facilities (e.g., golf courses, infrastructure facilities, recreation trails) may be placed in the open valley.

Since there are no designated scenic routes within the Plan area, views from SR 267, Shaffer Mill Road, and Northstar Drive are not currently afforded the protection associated with the scenic corridor designation. However, the proposed Martis Valley Community Plan includes a policy (2.C.1) regarding the designation of SR 267, Schaffer Mill Road, and Northstar Drive as scenic routes, and the possible future designation of the Waddle Ranch access road. If designated as scenic routes, SR 267, Schaffer Mill Road and Northstar Drive would be afforded protection from development impacts through implementation of the design review process, regulation of the design and placement of signs, undergrounding of utilities, maintenance of scenic setbacks, and other such measures, as identified in proposed Policies 2.C.2 through 2.C.7 of the Community Plan. In addition, the majority of the open valley is designated open space from the airport to the Martis Creek Lake Recreation area ending just to the north of Northstar-at-Tahoe. This open space designation would protect much of the area identified on **Figure 4.12-2** for retention or partial retention. Areas that would be impacted by the Proposed Land Use Diagram are shown on **Figure 4.12-2**.

The proposed Eaglewood and Hopkins Ranch project sites have some trees that would serve to shield development, but are not heavily forested and may result in a significant alteration to public views from SR 267 when developed. The Waddle Ranch property may include a small component of residential uses visible from SR 267, however the majority of its development, including residential and commercial is not expected to be visible from SR 267 but may be visible from the Martis Creek Lake Recreation Area. The Waddle Ranch property includes large stands of trees, except for the portion in the valley adjacent SR 267, that could be preserved to shield the majority of the development allowed under the Plan. Development on the Martis Ranch site would be visible from SR 267, however this site is heavily forested and has moderately sloping hillsides adjacent SR 267 with moderate to steep slopes within its site; this site could be designed to avoid much visibility. Development of the proposed Siller Ranch site would be largely shielded by forest canopy. In densely forested areas, development may be located closer to a road without being visually prominent. In areas where forest growth is thin, development may need to be setback 300 to 400 feet or more to avoid visual impacts.

Development proposed within the residential and commercial land use categories of the Proposed Land Use Diagram could result in the disturbance of up to approximately 4,300 acres of land in the Plan area.

Other potential activities in the Plan area would contribute to visual impacts on the public that are not part of the Martis Valley Community Plan Update. These activities include the widening of SR 267, development of additional ski areas at the proposed Siller Ranch, conceptual Northstar-at-Tahoe ski terrain expansions, future golf courses (proposed and conceptual), and development of recreation trails.

AA Existing Martis Valley General Plan Land Use Map

Development of the Plan area under the Existing Martis Valley General Plan Land Use Map would result in the alteration of existing landscape features, as viewed from SR 267, the Martis Creek Lake Recreation Area, public roads and trails, to rural and urban features resulting in a reduction of scenic resources. Most notably, development of the Plan area would result in the addition of structures, including residential dwellings and commercial buildings, along with roads and road improvements, golf courses, and recreational trails to areas that are currently forested or within the open valley. The addition of structures and the loss of vegetation would result in visual impacts when viewed from public places within the Plan area. Development proposed within the residential and commercial land use categories of the Existing Martis Valley General Plan Land Use Map could result in the disturbance of up to approximately 4,900 acres of land in the Plan area. This open space designation would protect much of the area identified on **Figure 4.12-3** for retention or partial retention. The Existing Martis Valley General Land Use Map would impact more land area than the Proposed Land Use Diagram, potentially resulting in more impacts on visual resources as well (see **Figure 4.12-3**).

Other potential activities in the Plan area would contribute to visual impacts on the public that are not directly included in the Martis Valley Community Plan Update. These activities include the widening of SR 267, development of additional ski areas at the proposed Siller Ranch, conceptual Northstar-at-Tahoe ski terrain expansions, future golf courses (proposed and conceptual), and development of recreation trails.

AB Alternative 1 Land Use Map

While development under the Alternative 1 Land Use Map would be less intense than development under the Existing Martis Valley General Land Use Map, it would result in a development pattern similar to Alternative AA and thus have a comparable impact on public views. Similar to Alternative AA, this alternative would place the majority of development in forested areas with uses such as golf courses, infrastructure facilities, and recreational trails potentially occurring in the open valley. Under this alternative, the Martis Ranch site would not be designated for residential or commercial development resulting in less of an impact to views east of SR 267. Development proposed within the residential and commercial land use categories under the Alternative 1 Land Use Map could result in the disturbance of approximately 3,700 acres of land. The Alternative 1 Land Use Map would impact slightly less land area than the Proposed Land Use Diagram, potentially resulting in similar impacts on visual resources (see **Figure 4.12-4**).

Other potential activities in the Plan area would contribute to visual impacts on the public that are not directly included in the Martis Valley Community Plan Update. These activities include the widening of SR 267, development of ski trails associated with the proposed Siller Ranch, conceptual Northstar-at-Tahoe ski terrain expansions, future golf courses (proposed and conceptual), and development of recreation trails.

AC Alternative 2 Land Use Map

Development under the Alternative 2 Land Use Map would result in more open space corridors than the Proposed Land Use Diagram and Alternatives AA and AB. Similar to Alternative AA, this alternative would place the majority of development in forested areas with uses such as golf courses, infrastructure facilities, and recreational trails potentially occurring in the open valley. However, the development pattern would be similar to the Proposed Land Use Diagram with the exception of the Martis Ranch site, the Siller Ranch property, and the Northstar-at-Tahoe site. The Martis Ranch site would be designated forest under this alternative and would have less of an impact on public views east of SR 267. The Northstar-at-Tahoe site would include a high-density residential component located southwest of the intersection of Northstar Drive and SR 267. This development would be visible from SR 267. The Siller Ranch property proposed additional development under this scenario, and would include rural residential, low density residential, tourist/resort commercial, and open space; Siller Ranch is not expected to be very visible from public viewing areas such as SR 267 and trails in the vicinity of the SR, however it may be visible from the terminus of Shaffer Mill Road. This site contains trees that could be used to shield some of the development from public view.

Development proposed within the residential and commercial land use categories of AC would result in the disturbance of an estimated 3,500 acres of land as depicted on **Figure 4.12-5**. The Alternative 2 Land Use Map would impact less land area than the Proposed Land Use Diagram and the other two alternatives, potentially resulting in similar impacts on visual resources (see **Figure 4.12-5**).

Other potential activities in the Plan area would contribute to visual impacts on the public that are not directly included in the Martis Valley Community Plan Update. These activities include the widening of SR 267, development of ski trails associated with the proposed Siller Ranch, conceptual Northstar-at-Tahoe ski terrain expansions, future golf courses (proposed and conceptual), and development of recreation trails.

Private Views

PP Proposed Land Use Diagram

Development under the Proposed Land Use Diagram would result in the alteration of existing landscape features, as viewed from existing subdivisions and private developments within and adjacent to the Plan area, to rural and urban features resulting in a reduction of scenic resources. Most notably, development of the Plan area would result in the addition of structures, including residential dwellings and commercial buildings, roads, golf courses, and recreational trails to the Plan area. These structures would impact private views, primarily from residential areas, that currently look out on forested places or open valley. Areas that would be impacted by the Proposed Land Use Diagram are shown on **Figure 4.12-2**.

Views from the Town of Truckee would not be significantly impacted, as the Plan area bordering Truckee is currently developed. Views from the Nevada County portion of the Plan area (northeast corner) would be altered by development in the Plan area. This Plan area contains sufficient trees to shield development from private view, if designed appropriately.

Within the Plan area, the existing residences in the northwest portion and Lahontan that border the proposed developments of Eaglewood and Hopkins Ranch would have a change in view from an open space with some trees to residential. Some of the residences along the northern

edge of Northstar-at-Tahoe may experience an alteration of views changing from open space and forest areas to residential and commercial development. Residences in the southern portion of Lahontan would experience an alteration of their view of the Siller Ranch property that would be developed with residential uses.

Other potential activities in the Plan area would contribute to impacts on private views that are not directly included in the Martis Valley Community Plan Update. These activities include the widening of SR 267, development of additional ski areas at the proposed Siller Ranch, conceptual Northstar-at-Tahoe ski terrain expansions, future golf courses (proposed and conceptual), and development of recreation trails.

AA Existing Martis Valley General Plan Land Use Map

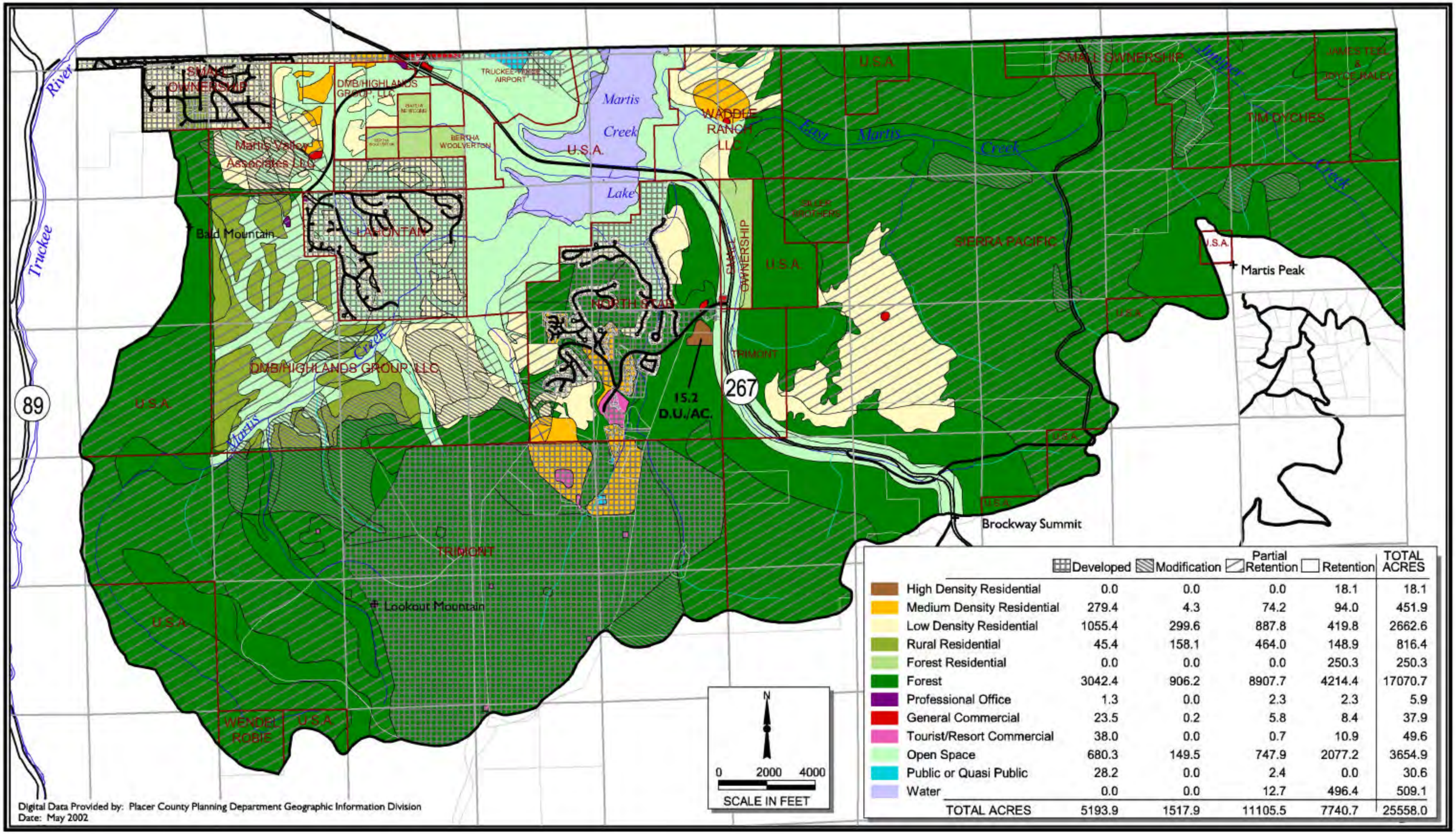
Development proposed within the residential and commercial land use categories of the Existing Martis Valley General Plan Land Use Map could result in the disturbance of up to approximately 4,900 acres of land in the Plan area, which would impact the views from existing subdivisions and private developments within and adjacent to the Plan area, to rural and urban features resulting in a reduction of scenic resources. Most notably, development of the Plan area would result in the addition of structures, including residential dwellings and commercial buildings, roads, golf courses, and recreational trails to the Plan area. These structures would impact private views, primarily from residential areas, that currently look out on forested places or open valley. The Existing Martis Valley General Plan Land Use Map would result in a more intense land use pattern than the Proposed Land Use Diagram, which would translate to increased potential for impacts on private views. The Existing Martis Valley General Land Use Map would impact more land area than the Proposed Land Use Diagram, potentially resulting in more impacts on visual resources as well (see **Figure 4.12-3**).

Other potential activities in the Plan area would contribute to impacts on private views that are not directly included in the Martis Valley Community Plan Update. These activities include the widening of SR 267, development of additional ski areas at the proposed Siller Ranch, conceptual Northstar-at-Tahoe ski terrain expansions, future golf courses (proposed and conceptual), and development of recreation trails.

AB Alternative 1 Land Use Map

Development of the Plan area under the Alternative 1 Land Use Map would result in similar impacts to private views as would occur under the other three alternatives.

Other potential activities in the Plan area would contribute to impacts on private views that are not directly included in the Martis Valley Community Plan Update. These activities include the widening of SR 267, development of additional ski areas at the proposed Siller Ranch, conceptual Northstar-at-Tahoe ski terrain expansions, future golf courses (proposed and conceptual), and development of recreation trails. The Alternative 1 Land Use Map would impact many of the same areas as the Proposed Land Use Diagram, potentially resulting in similar impacts on visual resources as well (see **Figure 4.12-4**).

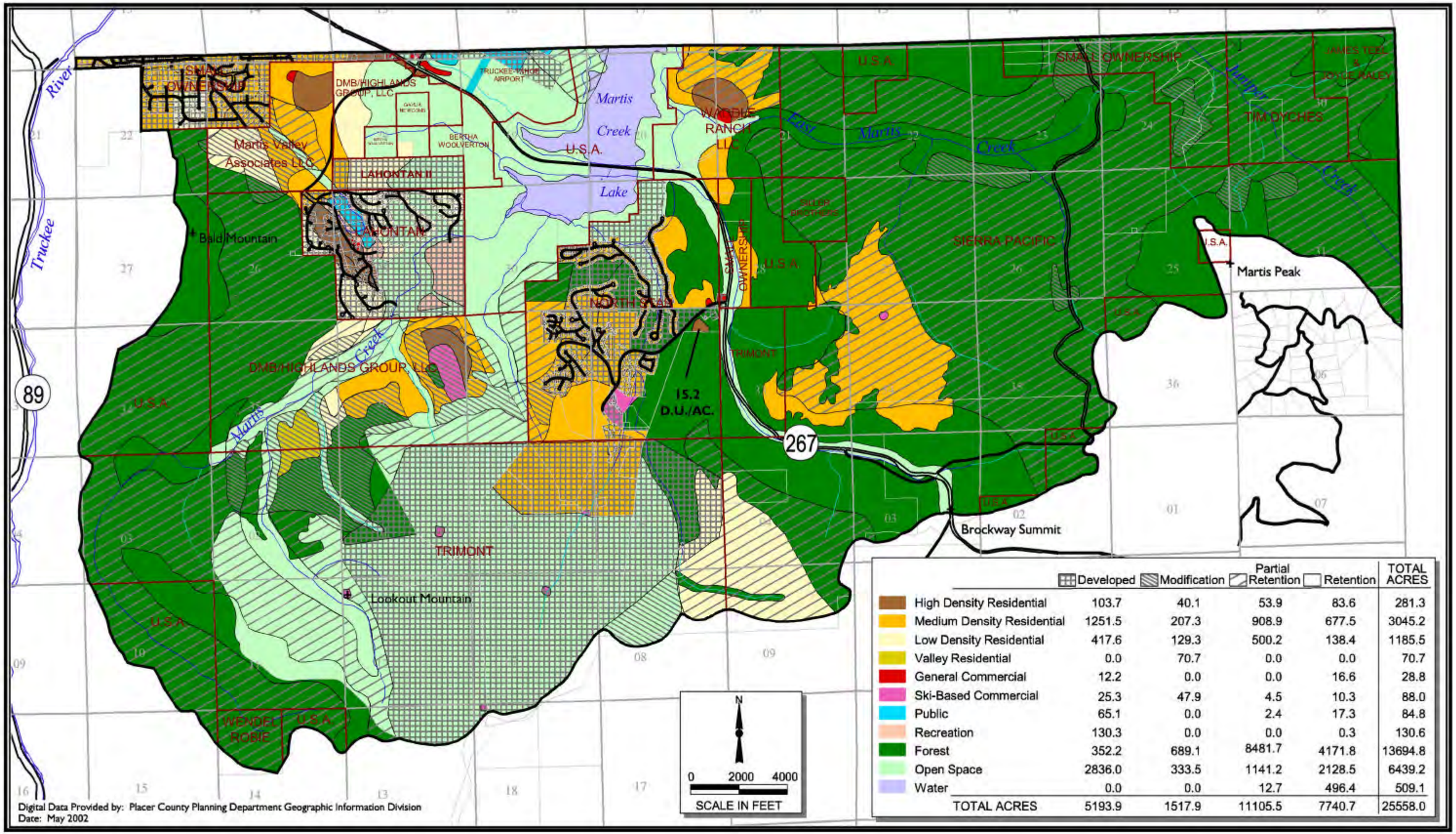


Digital Data Provided by: Placer County Planning Department Geographic Information Division
Date: May 2002

	Developed	Modification	Partial Retention	Retention	TOTAL ACRES
High Density Residential	0.0	0.0	0.0	18.1	18.1
Medium Density Residential	279.4	4.3	74.2	94.0	451.9
Low Density Residential	1055.4	299.6	887.8	419.8	2662.6
Rural Residential	45.4	158.1	464.0	148.9	816.4
Forest Residential	0.0	0.0	0.0	250.3	250.3
Forest	3042.4	906.2	8907.7	4214.4	17070.7
Professional Office	1.3	0.0	2.3	2.3	5.9
General Commercial	23.5	0.2	5.8	8.4	37.9
Tourist/Resort Commercial	38.0	0.0	0.7	10.9	49.6
Open Space	680.3	149.5	747.9	2077.2	3654.9
Public or Quasi Public	28.2	0.0	2.4	0.0	30.6
Water	0.0	0.0	12.7	496.4	509.1
TOTAL ACRES	5193.9	1517.9	11105.5	7740.7	25558.0

PMC

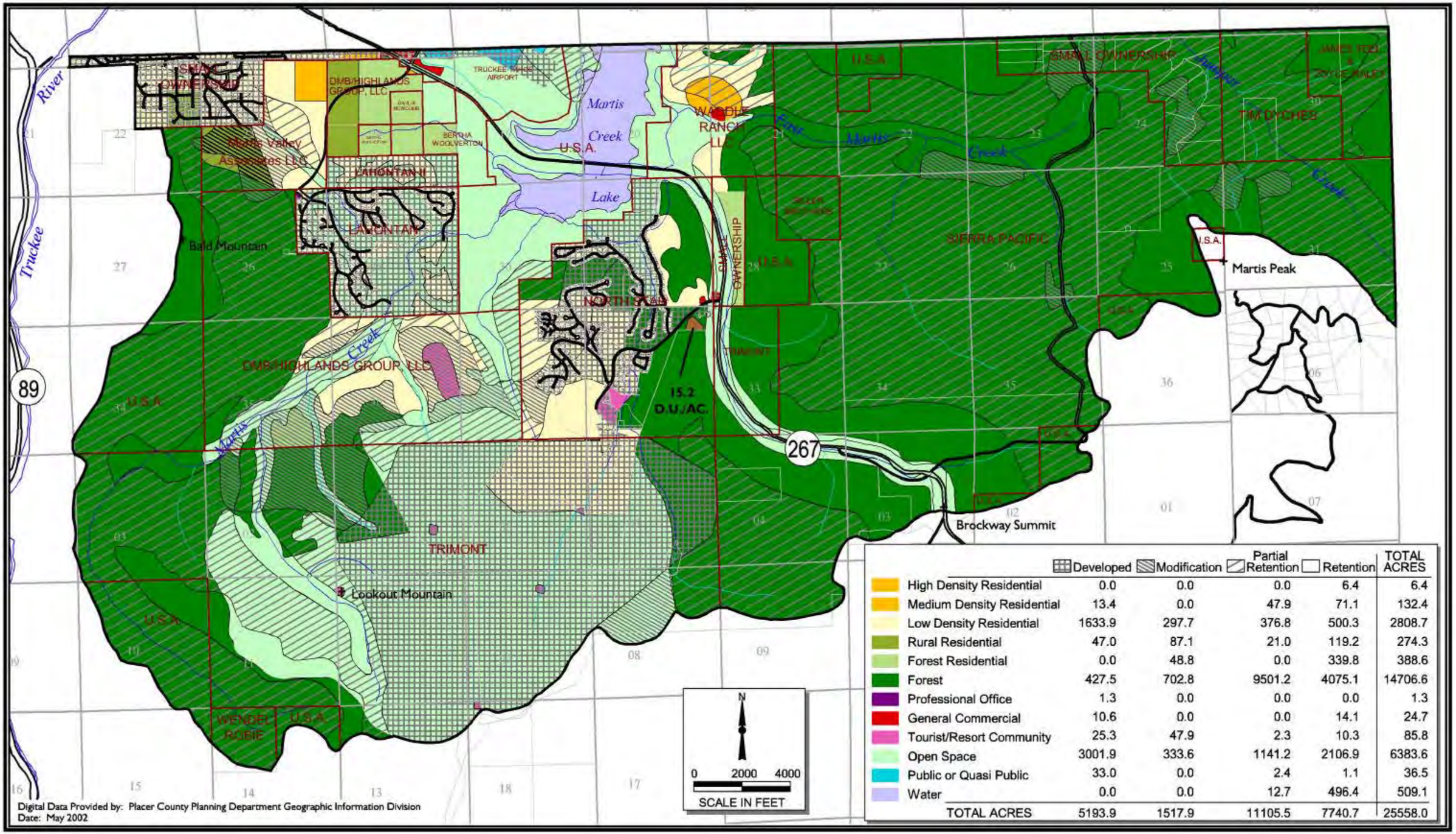
FIGURE 4.12-2
VISUAL IMPACTS OF PROPOSED LAND USE



	Developed	Modification	Partial Retention	Retention	TOTAL ACRES
High Density Residential	103.7	40.1	53.9	83.6	281.3
Medium Density Residential	1251.5	207.3	908.9	677.5	3045.2
Low Density Residential	417.6	129.3	500.2	138.4	1185.5
Valley Residential	0.0	70.7	0.0	0.0	70.7
General Commercial	12.2	0.0	0.0	16.6	28.8
Ski-Based Commercial	25.3	47.9	4.5	10.3	88.0
Public	65.1	0.0	2.4	17.3	84.8
Recreation	130.3	0.0	0.0	0.3	130.6
Forest	352.2	689.1	8481.7	4171.8	13694.8
Open Space	2836.0	333.5	1141.2	2128.5	6439.2
Water	0.0	0.0	12.7	496.4	509.1
TOTAL ACRES	5193.9	1517.9	11105.5	7740.7	25558.0

PMC

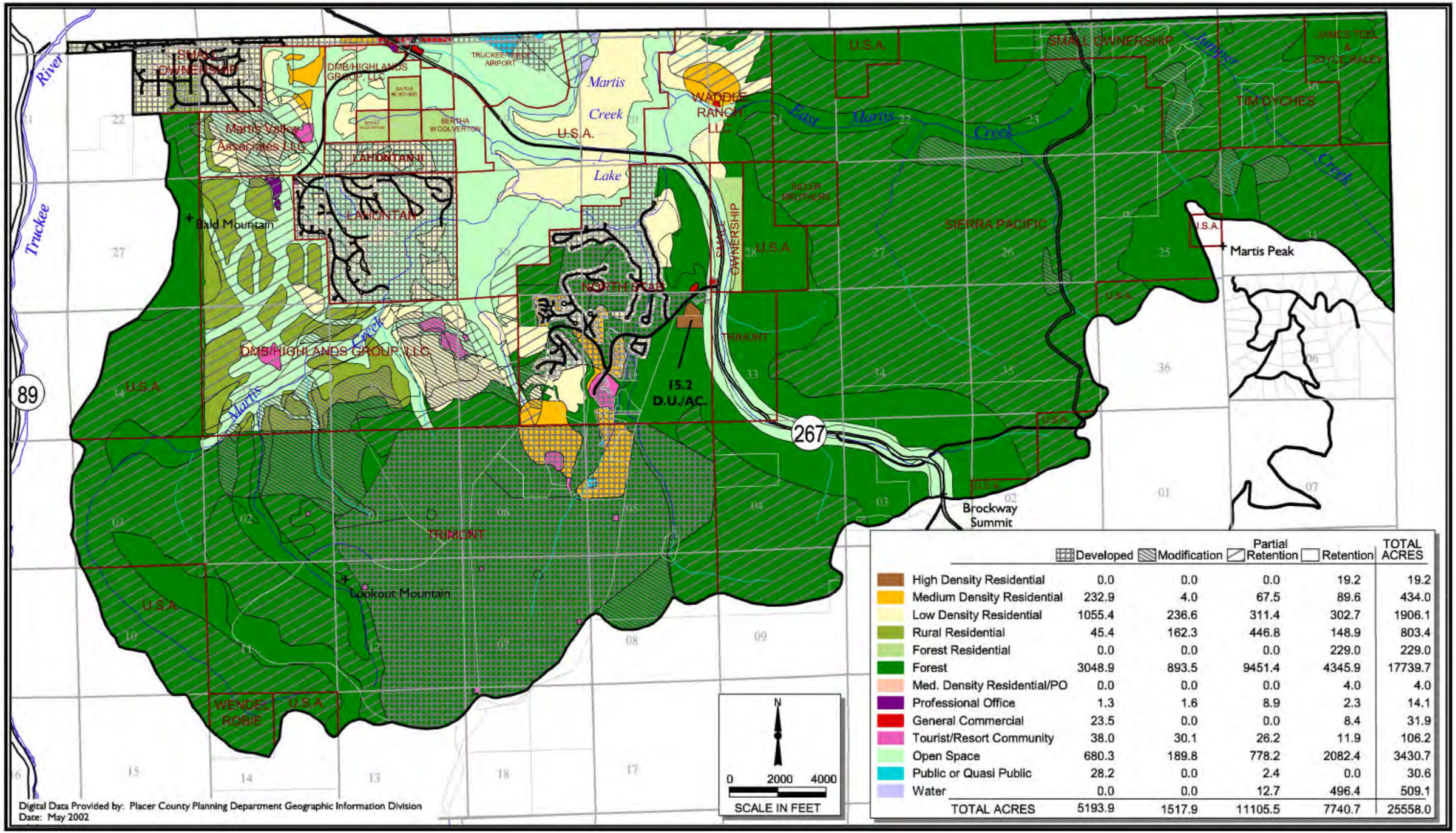
FIGURE 4.12-3
VISUAL IMPACTS OF EXISTING COMMUNITY PLAN



	Developed	Modification	Partial Retention	Retention	TOTAL ACRES
High Density Residential	0.0	0.0	0.0	6.4	6.4
Medium Density Residential	13.4	0.0	47.9	71.1	132.4
Low Density Residential	1633.9	297.7	376.8	500.3	2808.7
Rural Residential	47.0	87.1	21.0	119.2	274.3
Forest Residential	0.0	48.8	0.0	339.8	388.6
Forest	427.5	702.8	9501.2	4075.1	14706.6
Professional Office	1.3	0.0	0.0	0.0	1.3
General Commercial	10.6	0.0	0.0	14.1	24.7
Tourist/Resort Community	25.3	47.9	2.3	10.3	85.8
Open Space	3001.9	333.6	1141.2	2106.9	6383.6
Public or Quasi Public	33.0	0.0	2.4	1.1	36.5
Water	0.0	0.0	12.7	496.4	509.1
TOTAL ACRES	5193.9	1517.9	11105.5	7740.7	25558.0

PMC

FIGURE 4.12-4
VISUAL IMPACTS OF LANDUSE ALTERNATIVE 1



	Developed	Modification	Partial Retention	Retention	TOTAL ACRES
High Density Residential	0.0	0.0	0.0	19.2	19.2
Medium Density Residential	232.9	4.0	67.5	89.6	434.0
Low Density Residential	1055.4	236.6	311.4	302.7	1906.1
Rural Residential	45.4	162.3	446.8	148.9	803.4
Forest Residential	0.0	0.0	0.0	229.0	229.0
Forest	3048.9	893.5	9451.4	4345.9	17739.7
Med. Density Residential/PO	0.0	0.0	0.0	4.0	4.0
Professional Office	1.3	1.6	8.9	2.3	14.1
General Commercial	23.5	0.0	0.0	8.4	31.9
Tourist/Resort Community	38.0	30.1	26.2	11.9	106.2
Open Space	680.3	189.8	778.2	2082.4	3430.7
Public or Quasi Public	28.2	0.0	2.4	0.0	30.6
Water	0.0	0.0	12.7	496.4	509.1
TOTAL ACRES	5193.9	1517.9	11105.5	7740.7	25558.0

PMC

FIGURE 4.12-5
VISUAL IMPACTS OF LAND USE ALTERNATIVE 2

AC Alternative 2 Land Use Map

Under the Alternative 2 Land Use Plan, impacts to private views would be similar to the other three alternatives. However, the Alternative 2 Land Use Map proposes additional residential development on the Siller Ranch site that would border residential units on the west side of the proposed Eaglewood project. This site is well forested and could be shielded from the view of adjacent residences. The Alternative 2 Land Use Map would impact less land area than the Proposed Land Use Diagram and the other two alternatives, potentially resulting in similar impacts on visual resources (see **Figure 4.12-5**).

Other potential activities in the Plan area would contribute to impacts on private views that are not directly included in the Martis Valley Community Plan Update. These activities include the widening of SR 267, development of additional ski areas at the proposed Siller Ranch, conceptual Northstar-at-Tahoe ski terrain expansions, future golf courses (proposed and conceptual), and development of recreation trails.

Policies and Implementation Programs

The following Martis Valley Community Plan policies and implementation programs in Section IV (Community Design) would assist in reducing potential impacts on highways located outside of the Plan area. Additionally, the design guidelines and development standards contained in the Martis Valley Community Plan would reduce potential impacts on public and private views.

Policy 2.A.1 *The County shall require all new development (including major remodeling, reconstruction and redevelopment) to be designed in compliance with applicable provisions of the Placer County Design Guidelines Manual, and the Design/Development Standards contained herein.*

Policy 2.A.2 *The County shall require that specific plans include design guidelines for all types of development within the area covered by the plan.*

Policy 2.A.3 *The County shall require that commercial and residential site layouts be designed with the intent to encourage human interaction and to be compatible with the surrounding environment.*

Policy 2.A.4 *The County shall require that all new development be designed to be compatible with the scale and character of the area. Structures, especially those outside commercial centers, should be designed and located so that:*

a. They do not silhouette against the sky above the ridgelines or hilltops;

b. Roof lines and vertical architectural features blend and do not detract from the natural background;

c. They fit the natural terrain, and;

d. They use building materials, colors, and textures that blend with the natural landscape, thereby avoiding high contrasts.

Policy 2.A.5 *Materials and methods of construction should be specific to the region, exhibiting continuity of history and culture and compatibility with the climate to encourage the development of local character and community identity.*

Policy 2.A.6 *The County shall require that new rural development be designed to preserve and maintain the rural character and quality of the area.*

Policy 2.A.7 *The County shall require that mixed-use areas include focal points to serve as gathering and/or destination points. Examples of focal points include parks, fountains, monuments, and street vistas. On-site natural features, such as wetlands and streams, can also function as focal points.*

Policy 2.A.8 *Landscaping, whether done for decoration or functional purposes, shall be properly maintained at all times and shall emphasize the use of native plants. Use of non-native plant materials is strongly discouraged.*

Policy 2.A.9 *The County shall prohibit the use of outdoor lighting that shines unnecessarily onto adjacent properties or into the night sky.*

Policy 2.B.1 *The County shall require that new development in scenic areas (e.g., riparian corridors, lake watersheds, scenic highway corridors, ridge lines and steep slopes) is planned and designed in a manner which employs design, construction, and maintenance techniques that:*

a. Incorporate design and screening measures to minimize the visibility of structures and graded areas;

b. Maintain the character and visual quality of the area.

Policy 2.B.2 *The County shall require that new development in scenic areas be designed to use natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes.*

Policy 2.B.3 *The County shall require that new development incorporates landscaping that provides a transition between vegetation in developed areas and adjacent open space or undeveloped areas.*

Policy 2.B.4 *The County shall require that new development incorporates sound soil conservation practices and minimizes land alterations. Land alterations should comply with the following guidelines:*

a. Limit cuts and fills;

b. Limit grading to the smallest practical area required by the development;

c. Limit land exposure to the shortest practical amount of time;

d. Replant graded areas to ensure establishment of plant cover before the next rainy season; and

e. Create grading contours that blend with the natural contours on site or with contours on property immediately adjacent to the area of development.

Policy 2.B.5 *The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.*

Policy 2.B.6 *The County shall require that new development on hillsides employ design, construction, and maintenance techniques that:*

a. Ensure that development near or on portions of hillsides do not cause or worsen natural hazards such as erosion, sedimentation, fire, or water quality concerns;

b. Include erosion and sediment control measures, including temporary vegetation, sufficient to stabilize disturbed areas;

c. Minimize risk to life and property from slope failure, landslides, avalanches, and flooding; and

d. Maintain the character and visual quality of the hillside.

Policy 2.B.7 *The County shall require the number and extent of roadway cuts and fills required in construction, reconstruction, and road maintenance be kept to a minimum consistent with standard design practices.*

Policy 2.B.8 *The County shall require that roads, trails, and paths be designed and constructed to minimize erosion and other disturbances to the natural terrain and vegetation. Such facilities shall be designed for economical maintenance.*

Policy 2.B.9 *Each community or major development area should have a well-defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.*

Policy 2.C.1 *Scenic routes designated in the Plan area shall include SR 267, Schaffer Mill Road, and Northstar Drive. Future designations may occur with future development such as the access road into the Waddle Ranch site.*

Policy 2.C.2 *The County shall protect and enhance scenic corridors through such means as implementation of the design review process, regulation of the design and placement of signs, undergrounding of utilities, maintenance of scenic setbacks, density limitations, vegetative screening, clustering developments, grading and tree removal standards, open space easements, and land conservation contracts.*

Policy 2.C.3 *The County shall provide for landscaping and/or landscaped mounding along designated scenic corridors where desirable to maintain and improve scenic qualities and screen unsightly views.*

Policy 2.C.4 *The County shall include aesthetic design considerations in road construction, reconstruction, or maintenance for all scenic routes under County jurisdiction.*

Policy 2.C.5 *The County shall support anti-litter, beautification and cleanup programs along scenic routes.*

Policy 2.C.6 *The County shall coordinate scenic route programs among local, regional, and state jurisdictions, recognizing that scenic routes are a resource of more than local importance.*

Policy 2.C.7 *Along scenic routes designated in the Plan area, ski runs will be visible. The visual impact of the tree removal required for such uses shall be minimized through the use of an approved re-vegetated cover and other available mitigation measures.*

Implementation Programs

Population and Housing

7. *Placer County will continue to implement the policies and requirements of the Placer County Design Guidelines Manual and community design elements of the Martis Valley Community Plan.*

   Responsible Agency/Department: Planning Department
   Time frame: Ongoing
   Funding: General Fund

Community Design

1. *New development projects shall be reviewed for consistency with the Community Design Section goals and policies contained herein, the Design/Development Standards, and the County's Design and Landscape Design Guidelines available under separate cover at the Planning Department.*

   Responsible Agency/Department: Principally the Planning Department, but may involve other Land Development Departments
   Time frame: Ongoing
   Funding: General Fund

2. *The County shall identify and formally designate through the adoption of this Plan, a system of scenic routes in Martis Valley to include SR 267, Schaffer Mill Road, and Northstar Drive.*

   Responsible Agency/Department: Planning Department
   Time frame: [FY 02]: With Plan adoption
   Funding: General Fund

Mitigation Measures

The following mitigation measures would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC as new policies in Section IV (Community Design) under Goals 2A, 2B, and 2C.

MM 4.12.2a New hardscape features, such as parking lots and ball courts, and new non-native softscape features, such as golf courses, turf areas, and trails, shall be screened from public views from the open valley, SR 267, and public roadways.

MM 4.12.2b All public and private subsequent projects shall be required to submit detailed architectural renderings, site plans, landscaping plans, and visual simulations demonstrating project consistency with the applicable Martis Valley Community Plan policies and other applicable design guidelines, development standards and policies.

MM 4.12.2c Plans for fences/walls shall be submitted to the Placer County Planning Department for review during project application processing. Fencing within the Plan area shall follow these guidelines:

a. All fencing shall be open fencing that provides adequate spacing for wildlife passage, in consultation with California Department of Fish and Game;

b. Use of retaining walls shall be limited to the maximum extent possible and shall be screened with native vegetation;

c. Walls and fences shall not be visible along the open valley, SR 267, or other public roadways.

Mitigation measures MM 4.12.2a-c, in combination with the proposed policies and implementation programs of the Martis Valley Community Plan, would partially mitigate visual impacts on public and private viewsheds for the Proposed Land Use Diagram and Alternatives AA, AB, and AC. However, implementation of the Proposed Community Plan under the Proposed Land Use Diagram and Alternatives AA, AB, and AC would still result in substantial alteration of the landscape characteristics, of the views from the open valley, and designated scenic corridors (SR 267, Schaffer Mill Road, and Northstar Drive) from development of residential and recreational land uses as well as widening of SR 267 to 4 lanes. This would be a **significant and unavoidable** impact of the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Impact 4.12.3 Daytime Glare

PP Implementation of the Proposed Land Use Diagram could introduce new sources of daytime glare into the Plan area. This would be a **significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map could introduce new sources of daytime glare into the Plan area. This would be a **significant** impact.

AB Implementation of the Alternative 1 Land Use Map could introduce new sources of daytime glare into the Plan area. This would be a **significant** impact.

AC Implementation of the Alternative 2 Land Use Map could introduce new sources of daytime glare into the Plan area. This would be a **significant** impact.

PP Proposed Land Use Diagram

Development under the Proposed Land Use Diagram could result in the development of approximately 4,300 acres within the Plan area. Associated with this development would be elements of improvements that could create daytime glare by reflecting sunlight to heavily traveled vantage points on SR 267 and public roadways and to area views.

AA Existing Martis Valley General Plan Land Use Map

Development under the Existing Martis Valley General Plan Land Use Map could result in the development of approximately 4,900 acres within the Plan area. The Existing Martis Valley General Plan Land Use Map has the potential to result in more daytime glare than the Proposed Land Use Diagram due to its more intense land use patterns and development area.

AB Alternative 1 Land Use Map

Development under the Alternative 1 Land Use Map could result in the development of approximately 3,700 acres within the Plan area. This alternative would result in comparable impacts to daytime light and glare as the Proposed Land Use Diagram.

AC Alternative 2 Land Use Plan

Development under the Alternative 2 Land Use Map could result in the development of approximately 3,500 acres within the Plan area. This alternative would result in comparable impacts to daytime light and glare as the Proposed Land Use Diagram.

Policies and Implementation Programs

The following Martis Valley Community Plan policies and implementation programs in Section IV (Community Design) would assist in reducing potential impacts discussed regarding daytime glare. Additionally, the design guidelines and development standards contained in the Martis Valley Community Plan would reduce potential impacts regarding daytime glare.

Policy 2.A.1 *The County shall require all new development (including major remodeling, reconstruction and redevelopment) to be designed in compliance with applicable provisions of the Placer County Design Guidelines Manual, and the Design/Development Standards contained herein.*

Policy 2.A.2 *The County shall require that specific plans include design guidelines for all types of development within the area covered by the plan.*

Policy 2.A.8 *Landscaping, whether done for decoration or functional purposes, shall be properly maintained at all times and shall emphasize the use of native plants. Use of non-native plant materials is strongly discouraged.*

Policy 2.B.1 *The County shall require that new development in scenic areas (e.g., riparian corridors, lake watersheds, scenic highway corridors, ridge*

lines and steep slopes) is planned and designed in a manner which employs design, construction, and maintenance techniques that:

a. Incorporate design and screening measures to minimize the visibility of structures and graded areas;

b. Maintain the character and visual quality of the area.

Policy 2.B.2 *The County shall require that new development in scenic areas be designed to use natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes.*

Policy 2.B.3 *The County shall require that new development incorporates landscaping that provides a transition between vegetation in developed areas and adjacent open space or undeveloped areas.*

Policy 2.B.5 *The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.*

Policy 2.B.9 *Each community or major development area should have a well-defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.*

Policy 2.C.2 *The County shall protect and enhance scenic corridors through such means as implementation of the design review process, regulation of the design and placement of signs, undergrounding of utilities, maintenance of scenic setbacks, density limitations, vegetative screening, clustering developments, grading and tree removal standards, open space easements, and land conservation contracts.*

Policy 2.C.3 *The County shall provide for landscaping and/or landscaped mounding along designated scenic corridors where desirable to maintain and improve scenic qualities and screen unsightly views.*

Implementation Programs

Population and Housing

7. Placer County will continue to implement the policies and requirements of the Placer County Design Guidelines Manual and community design elements of the Martis Valley Community Plan.

Responsible Agency/Department: Planning Department
Time frame: Ongoing
Funding: General Fund

Community Design

1. New development projects shall be reviewed for consistency with the Community Design Section goals and policies contained herein, the Design/Development

Standards, and the County's Design and Landscape Design Guidelines available under separate cover at the Planning Department.

Responsible Agency/Department: Principally the Planning Department, but may involve other Land Development Departments
Time frame: Ongoing
Funding: General Fund

2. *The County shall identify and formally designate through the adoption of this Plan, a system of scenic routes in Martis Valley to include SR 267, Schaffer Mill Road, and Northstar Drive.*

Responsible Agency/Department: Planning Department
Time frame: [FY 02]: With Plan adoption
Funding: General Fund

Mitigation Measure

The following mitigation measure would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC as an additional policy under Section IV (Community Design) under Goal 2.A in the Martis Valley Community Plan.

MM 4.12.3 Development within the Plan area shall use non-reflective surfaces on the exterior of structures.

Implementation of the above mitigation measure in combination with the Community Plan policies and implementation programs identified above would ensure that glare impacts would be mitigated to **less than significant** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

Impact 4.12.4 Increase Nighttime Lighting

PP Implementation of the Proposed Land Use Diagram could introduce sources of nighttime light into the Plan area. This would be a **significant** impact.

AA Implementation of the Existing Martis Valley General Plan Land Use Map could introduce sources of nighttime light into the Plan area. This would be a **significant** impact.

AB Implementation of the Alternative 1 Land Use Map could introduce sources of nighttime light into the Plan area. This would be a **significant** impact.

AC Implementation of the Alternative 2 Land Use Map could introduce sources of nighttime light into the Plan area. This would be a **significant** impact.

PP Proposed Land Use Diagram

Development under the Proposed Land Use Diagram could result in the development of approximately 4,230 acres within the Plan area. Lighting would be added for safety and security around proposed development. Potential light sources would include street lighting, lighting of residences, commercial areas, and parking lots, lit sport parks, golf course driving ranges with evening hours, and nighttime ski areas. Such light sources have the potential to create lighting of the night sky creating a glow over the area and glare at nearby uses. As previously identified,

the Plan area currently minimal and is limited to the Truckee-Tahoe Airport and minor lighting associated with existing rural residential uses.

AA Existing Martis Valley General Plan Land Use Map

Development under the Existing Martis Valley General Plan Land Use Map could result in the development of approximately 4,900 acres within the Plan area. Lighting would be added for safety and security around proposed development. Potential light sources would include street lighting, lighting of residences, commercial areas, and parking lots, lit sport parks, golf course driving ranges with evening hours, and nighttime ski areas. Such light sources have the potential to create lighting of the night sky creating a glow over the area and glare at nearby uses. The Existing Martis Valley General Plan has the potential to create the most nighttime lighting due to its intense land use patterns and increased development areas, as compared to the Proposed Land Use Diagram and Alternatives AB and AC.

AB Alternative 1 Land Use Map

Development under the Alternative 1 Land Use Map could result in the development of approximately 3,700 acres in the Plan area. Lighting would be added for safety and security around proposed development. Potential light sources would include street lighting, lighting of residences, commercial areas, and parking lots, lit sport parks, golf course driving ranges with evening hours, and nighttime ski areas. Such light sources have the potential to create lighting of the night sky creating a glow over the area and glare at nearby uses. This alternative would result in similar nighttime lighting impacts as the Proposed Land Use Diagram, due to their similar land use pattern and intensity.

AC Alternative 2 Land Use Plan

Development under the Alternative 2 Land Use Map could result in the development of approximately 3,500 acres in the Plan area. Lighting would be added for safety and security around proposed development. Potential light sources would include street lighting, lighting of residences, commercial areas, and parking lots, lit sport parks, golf course driving ranges with evening hours, and nighttime ski areas. Such light sources have the potential to create lighting of the night sky creating a glow over the area and glare at nearby uses. This alternative would result in similar nighttime lighting impacts as the Proposed Land Use Diagram, due to their similar land use pattern and intensity.

<u>Policies and Implementation Programs</u>

The following Martis Valley Community Plan policies and implementation programs in Section IV (Community Design) would assist in reducing potential impacts of nighttime lighting.

Policy 2.A.1 *The County shall require all new development (including major remodeling, reconstruction and redevelopment) to be designed in compliance with applicable provisions of the Placer County Design Guidelines Manual, and the Design/Development Standards contained herein.*

Policy 2.A.2 *The County shall require that specific plans include design guidelines for all types of development within the area covered by the plan.*

Policy 2.A.3 *The County shall require that commercial and residential site layouts be designed with the intent to encourage human interaction and to be compatible with the surrounding environment.*

Policy 2.A.9 *The County shall prohibit the use of outdoor lighting that shines unnecessarily onto adjacent properties or into the night sky.*

Policy 2.B.5 *The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.*

Policy 2.C.2 *The County shall protect and enhance scenic corridors through such means as implementation of the design review process, regulation of the design and placement of signs, undergrounding of utilities, maintenance of scenic setbacks, density limitations, vegetative screening, clustering developments, grading and tree removal standards, open space easements, and land conservation contracts.*

Implementation Programs

Population and Housing

7. *Placer County will continue to implement the policies and requirements of the Placer County Design Guidelines Manual and community design elements of the Martis Valley Community Plan.*

   Responsible Agency/Department: Planning Department
   Time frame: Ongoing
   Funding: General Fund

Community Design

1. *New development projects shall be reviewed for consistency with the Community Design Section goals and policies contained herein, the Design/Development Standards, and the County's Design and Landscape Design Guidelines available under separate cover at the Planning Department.*

   Responsible Agency/Department: Principally the Planning Department, but may involve other Land Development Departments
   Time frame: Ongoing
   Funding: General Fund

2. *The County shall identify and formally designate through the adoption of this Plan, a system of scenic routes in Martis Valley to include SR 267, Schaffer Mill Road, and Northstar Drive.*

   Responsible Agency/Department: Planning Department
   Time frame: [FY 02]: With Plan adoption
   Funding: General Fund

Mitigation Measures

Mitigation measures MM 4.12.4a through MM 4.12.4e would apply to the Proposed Land Use Diagram and AA, AB, and AC as additional policies in Section IV (Community Design) of the Martis Valley Community Plan. Mitigation measure MM 4.12.4f would apply to the Proposed Land Use Diagram and Alternatives AA, AB, and AC as an implementation program in the Section IV (Community Design) under Goal 2.A of the Martis Valley Community Plan.

MM 4.12.4a Outdoor light fixtures for subsequent non-residential areas (such as commercial and recreation areas) shall be low-intensity, shielded and/or directed away from residential areas and the night sky. All light fixtures shall be limited in height and shall be installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. High-intensity discharge lamps, such as mercury, metal halide and high-pressure sodium lamps shall be prohibited. Lighting plans shall be provided as part of improvement plans to the County with supporting documentation that adjacent residential areas will not be adversely affected and that offsite illumination will not exceed 1-foot candles from project sources.

MM 4.12.4b Outdoor light fixtures shall be designed to be turned off when not in use where security and safety is not a concern. This requirement shall be included in lighting plans submitted to the County as part of improvement plans.

MM 4.12.4c Street light fixtures shall be restricted to roadway intersections and shall be installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. High-intensity discharge lamps, such as mercury, metal halide and high-pressure sodium lamps shall be prohibited. Offsite illumination shall not exceed 1-foot candles due to lighting sources.

MM 4.12.4d The County shall require that subsequent residential project design guidelines and/or project CC&Rs shall restrict residences from utilizing flood and/or spot lighting fixtures. All resident light fixtures shall use low-pressure sodium lamps or other similar lighting fixture and shall be shielded away from adjoining residents and the night sky.

MM 4.12.4e Nighttime lighting shall not be allowed for golf course driving ranges, sports fields, and ski terrain.

MM 4.12.4f Project design guidelines and/or project CC&Rs shall be submitted by each project applicant to the Placer County Planning Department for review and approval to verify that lighting standards are in place.

Responsible Agency/Department: Planning Department
Time frame: Ongoing
Funding: Permit fees

Implementation of the above mitigation measures in combination with the proposed policies and implementation programs in the Martis Valley Community Plan would reduce the project's adverse light and glare effects on existing and planned uses in the Plan area. However, nighttime lighting impacts would be **significant and unavoidable** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

4.12.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative area for visual impacts is the entire Martis Valley, which includes both Placer County and Nevada County portions of the valley and the Town of Truckee. The northern portion of Martis Valley can be viewed from segments of Interstate 80, while portions of SR 267 has views of the western and southern areas in Martis Valley.

Approved and pending development projects listed in Section 3.0 (Project Description), along with development anticipated under the Martis Valley Community Plan Update, Town of Truckee General Plan and Nevada County General Plan, would contribute to visual impacts.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.12.5 Cumulative Visual Impacts

PP Under cumulative conditions, implementation of the Proposed Land Use Diagram could result in visual impacts, including alteration of viewsheds, increased daytime glare and nighttime lighting. This would be a **cumulative significant** impact.

AA Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map could result in visual impacts, including alteration of viewsheds, increased daytime glare and nighttime lighting. This would be a **cumulative significant** impact.

AB Under cumulative conditions, implementation of the Alternative 1 Land Use Map could result in visual impacts, including alteration of viewsheds, increased daytime glare and nighttime lighting. This would be a **cumulative significant** impact.

AC Under cumulative conditions, implementation of the Alternative 2 Land Use Map could result in visual impacts, including alteration of viewsheds, increased daytime glare and nighttime lighting. This would be a **cumulative significant** impact.

PP-AC Proposed Land Use Diagram and Alternatives AA through AC

Implementation of the Proposed Land Use Diagram, Alternative AA, AB or AC in combination with other reasonably foreseeable projects in the vicinity would introduce new development projects into a largely undeveloped area that is mostly open space and forested area. Cumulative impacts from these projects would include the conversion of vacant to urban or rural uses, increased land use intensity, additional light sources, and building materials, which may cause daytime glare. Under cumulative conditions, the loss of vacant undeveloped land as viewed from the public roadways and private views would result in impacts to existing viewsheds. Additionally, The amount of visible natural vegetation would also be reduced as a result of development within the Plan area. Nighttime illumination and daytime glare would also be increased in the plan area as a result of cumulative project development. Primarily, residents and visitors to the Plan area would be impacted by the cumulative visual impacts associated with the implementation of the Proposed Land Use Diagram and Alternatives AA, AB and AC.

Although the proposed Martis Valley Community Plan includes policies and implementation programs related to visual resources, the Placer County General Plan considered the development of the Plan area at a level similar to that proposed by the four land use map options, and mitigation measures contained in this section would reduce some cumulative

impacts on visual resources, the impacts on public and private views in the area, increased light and glare during the daytime, and nighttime lighting would remain.

Policies and Implementation Programs

New development projects in the Plan area would be required to comply with policies and implementation programs of the Martis Valley Community Plan. Compliance with these Plan policies and implementation programs would provide some mitigation to visual impacts. The reader is referred to Impacts 4.12.1, 4.12.2, 4.12.3, and 4.12.4 regarding applicable proposed policies and implementation programs.

Mitigation Measures

Mitigation measures MM 4.12.2a through c, MM 4.12.3, and MM 4.12.4a through f would help reduce cumulative impacts on visual resources, light and glare, and nighttime lighting; however, the impacts would be **significant and unavoidable** for the Proposed Land Use Diagram and Alternatives AA, AB, and AC.

REFERENCES

Pacific Municipal Consultants. *Martis Valley Community Plan Background Report*. June, 2000.

Placer County. *Placer County General Plan*. 1975.

Placer County. *Rural Design Guidelines*. July 1997.

Placer and Nevada County Planning Departments. *Environmental Impact Report and Technical Supplement for the Martis Valley General Plan*. August 1974.