

# CHAPTER IV: ENVIRONMENTAL RESOURCES



## 4.1 ENVIRONMENTAL RESOURCE CONCEPTS

### Context

This chapter identifies the environmental conditions and sensitive resources found in the Plan Area. Goals and policies contained in this Specific Plan shall guide the conservation, protection, or mitigation of existing environmental conditions and sensitive resources. This chapter addresses seven key areas: wetland resources, special-status species, oak and riparian woodlands, water quality and conservation, energy conservation, air quality, and noise.

The existing environmental conditions present in the Plan Area were taken into account during development of the Land Use Plan. The Land Use Plan is designed to protect significant, sensitive resources in open space and to minimize the impacts of urban development on the existing and natural communities in the Plan Area, to the extent feasible. This Specific Plan, however, recognizes and provides off-site mitigation of environmental resources. Through this approach of on- and off-site environmental mitigation, the potential to protect large areas of significant open space is maximized.

**Goal 4.1** Establish a comprehensive approach for the replacement of affected open space and agricultural and habitat areas.

### Placer County Conservation Plan

Placer County is currently preparing a Natural Community Conservation Plan and Habitat Conservation Plan to address the conservation of natural communities, endangered species, and other less sensitive species of native wildlife. At the same time the County is pursuing a California Department of Fish and Game (DFG) Master Streambed Alteration Agreement and Clean Water Act Section 401 water quality certification. Collectively, these activities have been termed the Placer County Conservation Plan (PCCP). The County is also in the process of applying for a Clean Water Act Section 404 Programmatic General Permit through a County Aquatic Resource Permit (CARP).

The purpose of the PCCP will be to encourage and simplify the process of conserving sensitive habitats for special-status species. The Placer County General Plan and the PCCP will set the minimum mitigation ratios needed for the off-site mitigation component of the eventual federal, state, and local mitigation package. All projects designed during the preparation of the current first phase of preparation of the PCCP are to be consistent with the principles and objectives of the conservation process. Because activities related to implementation of the Specific Plan may commence before the approval of Phase 1 of the PCCP, this Specific Plan and the mitigation measures included in the project Environmental Impact Report (EIR) are designed to be implemented before approval of the PCCP.

### Placer Vineyards Open Space Mitigation and Management Plan

The property owners within the Plan Area have developed a strategy and program designed to reduce the impacts of the Specific Plan on open space and biological and agricultural resources. The intent of this mitigation strategy is to provide a single, all-inclusive mitigation measure designed to simultaneously address possible impacts on all biological resources of concern, while also addressing potential impacts on open space and agricultural lands. The goal in devising this strategy is to formulate a biological protection, preservation, and mitigation program that includes measures likely to find their way into the PCCP, while also mitigating impacts to open space and agricultural lands. The mitigation strategy is formulated to simultaneously satisfy the requirements of CEQA, the Placer County General Plan, and other federal, state, and local statutes, regulations, and policies that affect open space, agricultural lands, and biological resources. The program also seeks to strike a reasonable balance between on-site resource avoidance and off-site preservation and restoration.



To address the need for replacement habitat, agriculture, and open space areas, 6 potential off-site mitigation sites have been identified for the project. Placer Vineyards property owners may either choose to acquire land located in the 6 mitigation sites, or alternate mitigation sites may be acquired that would achieve comparable mitigation ratios. All off-site mitigation must be in accordance with the terms of the PCCP, once it is approved, or as permitted by the U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), and DFG.

The property owners' proposal also requires that a combination of one or more mitigation sites establish a core preserve area of approximately 1,000 acres set aside and protected by permanent conservation easement before the initiation of any ground-disturbing activities. The remaining mitigation requirements, beyond the 1,000 acres of open space required to be set aside, are to be addressed on an incremental basis as the development of individual projects proceed. At the time of establishment of the preserves, at the time of additions to preserves, and/or at the time of incremental additions to the geographic scope of a preserve, a management plan for the operation of the preserve lands must be approved by the County.

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Mitigation areas may be discontinuous with one another as a result of land additions to preserve holdings so long as the land holdings meet the minimum acreage and location requirements of mitigation measure 4.4-1 in the Specific Plan EIR. Those requirements include a minimum area of 200 acres and location within the General Plan's Agricultural and Open Space categories. Subsequent Specific Plan projects shall mitigate (for agriculture, wetlands, and/or habitat) through the establishment of preserve areas that, to the extent feasible, are located adjacent to the core preserve or other existing preserve sites.

### **Policy 4.1** *Open Space Mitigation and Management Plans.*

*One acre of open space will be preserved within Placer County for each acre of open space affected within the Specific Plan area. The process through which this will be accomplished will be the approval and implementation of a series of Open Space Mitigation and Management Plans that address the management of a specific property to be preserved for mitigation of lost open space, agricultural land, and habitat. An Open Space Mitigation and Management Plan will be required for each individual development project or grouping of projects within the Specific Plan area.*

## 4.2 WETLAND RESOURCES

Wetland resources include various types of water features such as creeks, drainage basins, lakes, ponds, marshes, and seasonal wetlands. Wetlands can also be perennial and seasonal water features. Wetlands are an important part of the environmental condition because wetlands support a variety of sensitive wildlife and plant species.

Two broad categories of wetlands are identified in the Plan Area: Depressional wetlands and Riverine wetlands. Depressional wetlands include vernal pools, seasonal wetlands, seasonal marshes, seasonal drainage, and ponds. Riverine wetlands include a perennial drainage (Dry Creek) and ephemeral/intermittent drainage.

Other waters also located in the Plan Area are stock ponds, channels, and ditches. Refer to Figure 4.1 for an illustration of the location and extent of existing wetlands. See the Placer Vineyards EIR for a more detailed description and representation of the existing wetlands. Additional detailed analysis will be required for individual project sites with the submittal of development proposals.

### 4.2.1 WETLAND TYPES

Descriptions of wetlands found in the Plan Area are provided below.

#### Depressional Wetlands

##### **Vernal Pools:**

Vernal pools are shallow depressions with an underlying hardpan layer that causes them to inundate. Vernal pools typically support plant species found in the Sacramento Valley.

##### **Seasonal Wetland:**

Seasonally inundated basins are scattered throughout the Plan Area. These areas may be categorized as seasonal wetlands depending on their floristic composition and hydrology. Seasonal wetlands can be found within swales, drainages, or depressions and typically support wetland plants, including grasses, native plants, and nonnative forbs.

##### **Seasonal Marsh:**

Seasonal marshes occur when water remains in an intermittent drainage long enough that marsh vegetation becomes established. Riparian habitat occurs along the southeastern edge of the project adjacent to Dry Creek.

##### **Seasonal Drainage:**

Seasonal drainage conveys water during the rainy season and becomes dry during the remainder of the year. Seasonal drainage is typically inundated during storm events and remains saturated into the vegetation growing season.

##### **Ponds:**

Several large hydrologic features are present in the Plan Area, consisting of bermed swales, natural basins, and artificial, excavated stock ponds. Ponds support little, or a fringe of, perennial vegetation, dominated by cattail, tule, and common rush.

#### Riverine Wetlands

##### **Perennial Drainage:**

Dry Creek runs along the Plan Area's southeastern boundary and has water flowing year round. Vegetation such as Goodding's Willow, Fremont's cottonwood, Valley Oak, and herbaceous species grow along the banks of Dry Creek.

##### **Ephemeral/Intermittent Drainage:**

Two types of ephemeral drainage features are found in the Plan Area: intermittent drainage and drainage swales. Intermittent drainages can be several feet wide and are typically devoid of vegetation because of fast-moving water. Drainage swales are hydrologic linear features and have floristic characteristics similar to seasonal wetlands, including non-native grasses and forbs.

#### 4.2.2 WETLANDS AVOIDANCE AND PRESERVATION

One of the first steps in designing the Land Use Diagram was to identify existing environmentally sensitive areas, including wetlands. Responding to the mapping of sensitive areas, the Land Use Diagram designates sites along natural drainage corridors as open space areas, including wetlands and other environmentally sensitive areas.

The intent of this approach is to preserve the highest quality and most contiguous wetlands within open space areas and at sites along natural drainage corridors. Long-term wetland preservation may also better be achieved in large off-site preserves, which avoid the urban edge effects associated with preserved wetlands in the midst of an urban area.

The final design of wetland corridors and open space areas will be determined during site-specific development proposals and associated site-specific wetland delineations. Although not reflected within the Land Use Diagram, it is anticipated that lands containing off-site wetlands and open space will also be preserved in perpetuity as an element of plan implementation.

**Goal 4.2** Avoid and minimize adverse impacts on wetlands to the extent feasible.

*Policy 4.2 Individual development projects shall, to the extent feasible, develop plans that will preserve and protect existing wetland areas.*

**Goal 4.3** Develop a plan for mitigation of disturbance of on-site wetlands.

*Policy 4.3 Where wetland avoidance is not feasible, a wetland mitigation plan will be developed before site disturbance to mitigate all wetland impacts. Mitigation plans will be prepared in accordance with all state and federal regulations and in conjunction with the request for permits from regulatory agencies.*

*Policy 4.4 Wetland feasibility studies will be prepared to ensure successful establishment of the compensation wetlands in conjunction with the request for permits from regulatory agencies.*

*Policy 4.5 Compensation wetlands will be constructed within designated open space areas of the Plan Area, or wetland mitigation credits will be purchased from the USFWS approved mitigation bank, or land at an off-site location will be purchased to preserve and or construct mitigation wetlands, or a combination of these alternatives will be implemented.*

**Goal 4.4** Establish a maintenance and monitoring program to ensure that wetland compensation areas are protected and mitigation measures are successful.

*Policy 4.6 Maintenance and monitoring of wetland compensation areas will be conducted in accordance with requirements of USACE and pursuant to the issuance of a Section 404 permit.*

*Policy 4.7 Maintenance of wetland compensation areas will be the responsibility of a County Service Agency (CSA) or other funding mechanism satisfactory to USACE and Placer County.*

*Policy 4.8 Monitoring of the efficacy of the mitigation program will comply with federal agency requirements and the California Clean Water Act and DFG Code, Streambed Alteration Agreements, and all DFG provisions.*

*Policy 4.9 Maintenance and monitoring programs will be required for compensation wetlands purchased in mitigation banks.*

**Goal 4.5** Provide development plan features that will ensure the long-term health of wetland areas.

*Policy 4.10 Only passive recreation activities compatible with natural communities will be allowed in wetland preserve areas.*

*Policy 4.11 Hunting, dumping, operation of motorcycles, or any other activities that could be detrimental to the wetland ecosystems are strictly prohibited.*

Figure 4.1 Wetland Diagram



\* Note: Refer to wetland study by ECORP for further delineation of wetland areas.

### 4.3 SPECIAL-STATUS SPECIES

The Plan Area incorporates habitat that support special-status species. The Land Use Plan designed for the Plan Area attempts to avoid potential development impacts on sensitive species by preserving habitat areas, where feasible. Site-specific biological surveys, conducted as part of individual project proposals, will verify existing habitat and species types.

#### 4.3.1 SPECIAL-STATUS SPECIES HABITAT AVOIDANCE

Existing environmentally sensitive areas were identified during the design of the Land Use Plan for the Plan Area. As a result, the Land Use Plan designates numerous open space areas and sites around environmentally sensitive areas.

The overall intent of this approach is to preserve existing on-site sensitive habitat areas, to the extent feasible. However, impacts of development on existing sensitive habitats may be unavoidable, in which case off-site mitigation lands will be provided. The final configuration and design of open space areas to preserve sensitive habitats and the extent of off-site mitigation measures will be determined during site-specific development proposals and associated site-specific biological surveys.

**Goal 4.6** Identify potential special-status species habitat areas and mitigate impacts on these areas.

**Policy 4.12** *Biological surveys will be conducted to identify potentially occurring special-status species before disturbance of habitat areas and in conjunction with requests for permits from regulatory agencies.*

**Policy 4.13** *Where special-status species habitats are indicated, project-specific mitigation measures will be developed in consultation with Placer County, DFG, and/or USFWS.*

**Policy 4.14** *Where state or federally listed special-status species may be adversely affected, required consultation will be conducted and/or appropriate permits obtained before disturbance of habitat areas.*

### 4.4 OAK AND RIPARIAN WOODLANDS

The Plan Area historically involved grazing and dry land farming. Two large stands of valley oaks still remain in the east and central portions of the Plan Area. Oak trees grow along Dyer Lane and riparian woodlands are found along Dry Creek. The Land Use Plan for the Plan Area designates open space uses to preserve the oaks and riparian woodlands.

#### 4.4.1 TREE PRESERVATION

All oaks and riparian woodlands located in the Plan Area are subject to the Placer County Tree Preservation Ordinance and the policies of this Specific Plan. Measures provided in this Specific Plan apply to both private developments and public projects.

**Goal 4.7** Preserve oak trees and riparian woodlands.

**Policy 4.15** *Oaks and other native trees with trunk diameters of 6 inches or greater, measured at breast height, will be preserved wherever feasible.*

**Policy 4.16** *Location and preservation of oaks and other native trees will be indicated on site-specific, tentative maps.*

**Policy 4.17** *Mitigation for trees removed from existing riparian or improved drainage corridors will be accomplished according to the following procedures:*

- ♦ *For each riparian tree removed, one 15-gallon tree, one 2-inch by 10-inch tube container (Deepot 40) seedling for each inch of diameter of the removed tree, and three 1-gallon shrubs will be planted in the riparian or improved drainage corridors.*
- ♦ *For each oak tree greater than 6 inches diameter at breast height that is removed, one 15-gallon tree, one 2-inch by 10-inch tube container (Deepot 40) seedling for each inch of diameter of the removed tree, and three 1-gallon shrubs will be planted.*

**Policy 4.18** *Site-specific design and tree preservation, removal, and mitigation will be identified on an individual project basis and shall conform to the requirements developed in the Mitigation, Monitoring, and Reporting Program.*

**Policy 4.19** *During construction, brightly colored, temporary plastic fencing that is at least 4 feet tall will be erected 1 foot outside the outermost edge of the tree's dripline or around the combined dripline of groves or lines of trees for protection. Signs will be erected in accordance with the Placer County Tree Preservation Ordinance.*

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**Policy 4.20** *Soil disruptions within driplines of existing oaks and other native trees identified for preservation will be avoided where feasible. Paving shall not be placed in the driplines of trees to be preserved.*

**Policy 4.21** Grading and landscaping will be designed to prevent overspray or runoff within tree driplines.

**Policy 4.22** *Irrigation will not occur within the driplines of indigenous oaks, except as prescribed by the project arborist or landscape architect.*

**Policy 4.23** *Plantings within driplines of indigenous oaks will be limited to species that require no irrigation and are tolerant of the natural semiarid habitat of the oaks.*

### 4.5 WATER QUALITY AND CONSERVATION

Development within the Plan Area could potentially have adverse impacts on water quality, including short-term impacts from construction activities and long-term impacts from urban runoff. The Specific Plan minimizes potential water quality impacts through the preservation of existing drainage ways and establishing specific locations for detention and water quality basins and best management practices (BMPs) to contain, retain, and filter storm water runoff.

**Goal 4.8** Reduce water quality impacts within the Plan Area to the maximum extent practicable.

**Goal 4.9** Site-specific development projects should incorporate low-impact development design principles into the site layout.

**Policy 4.24** *Storm water Quality Improvements.*

*Storm water management improvements disbursed through the Plan Area provide treatment to runoff before it enters the natural drainage conveyance systems in open space areas. In addition, by integrating the storm water management system throughout the Plan Area, individual parcels can provide specific storm water management elements that respond to the particular site conditions. This will promote the removal of various potential pollutants from each parcel before they are discharged into the drainage system. The following standards will apply to development projects.*

1. *During construction, BMPs shall be provided to stabilize soils in place and minimize the amount of sediment entering the storm drain system and drainageways. BMPs shall generally consist of a combination of the following measures: minimizing soil disturbance, hydroseeding, fiber rolls, inlet protection, and stabilized construction access.*

2. *After construction, regional water quality facilities identified in the Master Project Drainage Report shall be constructed concurrently with the backbone drainage infrastructure for permanent water quality treatment.*

3. *Development projects shall provide on-site, site-specific post-construction water quality treatment facilities to capture and remove the pollutants before they are discharged from the site. Water quality treatment facilities shall generally consist of a combination of the following measures: vegetated swales, infiltration trenches/basins, filter strips, sand/oil separators, trench drains, and porous pavement.*

**Policy 4.25** *Low-Impact Development Design.*

*To the extent feasible, site-specific development projects shall incorporate low-impact development design strategies that may include:*

1. *Minimizing and reducing impervious surfaces of site development (eg., roadways, sidewalks, driveways, parking areas, and rooftops);*
2. *Breaking up large areas of impervious surface and directing flows from these areas to stabilized vegetated areas; and*

#### 4.5.1 GROUNDWATER RECHARGE

Groundwater supplies are recharged by rainwater that percolates through to the saturated zone of the soil. The principal means of groundwater recharge in the Sacramento Valley is accomplished within the streambeds that cross the valley. The rate and quality of rainwater reaching the saturation zone depends on a number of factors, such as the amount and duration of precipitation, soil type, moisture content of the soil, and vertical permeability of the unsaturated zone. Urban land uses also affect groundwater recharge by reducing the amount of permeable surface, which limits the amount of rainwater able to percolate into the soil. In addition, groundwater levels can be affected by pumping for agriculture and urban uses.

The entirety of the creek system will remain in place and will continue to serve as the principal means of groundwater recharge in this area. The land use design prepared for the Plan Area aims to reduce the effects of urbanization on groundwater recharge by designating 709 acres (13.6% of the Plan Area) as open space and preserving existing drainage ways.

**Goal 4.10** Conserve and preserve water quality within the Placer Vineyards Plan Area.

**Policy 4.26** *Site grading will be undertaken and controlled so that sediment runoff is minimized. In locations approved by the County, detention basins may be located in open space areas so as to minimize increases in peak flows from the site. The basins may facilitate groundwater recharge, but to a limited degree because of the predominance of clay soils in the area. To minimize runoff, paved parking areas will be designed to provide the minimum amount of paving area necessary to meet required parking and circulation standards. The following standards apply to site-specific development projects.*

1. Storm water management plans will be prepared that comply with all standards and requirements of the National Pollutant Discharge Elimination System (NPDES) and the grading, erosion, and improvement standards in the Placer County Storm water Management Plan.
2. Grading plans submitted for Placer County review and approval will contain an erosion and sediment control plan that includes erosion control measures to protect waterways from erosion and debris during and after construction activities.
3. Grading plans will be designed to minimize run-off and the area of disturbance during construction.
4. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented for site-specific projects.
5. Concurrent with construction of site improvements, storm water BMPs will be constructed and maintained in accordance with the SWPPP as approved by the Central Valley Regional Water Quality Control Board.
6. Drainage reports will be prepared for site-specific projects and shall comply with the Placer County Storm Water Management Manual, Land Development Manual, and Placer Vineyards Master Project Drainage Report.

**Policy 4.27 Impacts on Streams and Riparian Areas.**

*Impacts on Curry Creek and Dry Creek shall be avoided through the conveyance of open space buffers and the location of adjacent land uses. A 100-foot setback shall be provided for perennial streams (Curry Creek). The majority of the active floodplain of Dry Creek lies on the opposite bank and not within the reach of Dry Creek adjacent to the Plan Area. Adequate open space protection*

*has been designated in the Specific Plan to mitigate impacts on Dry Creek. Implementation of the Specific Plan will also ensure that there would be no net loss of riparian habitat (see Policy 4.17).*

**Policy 4.28** *Construction of stream crossings or other improvements in the Dry Creek and Curry Creek corridors will be kept to the absolute minimum necessary and will meet the following standards:*

1. A Streambed Alteration Agreement will be obtained from the DFG before commencement of construction of stream crossings.
2. Areas adjacent to finished improvements in Curry Creek and Dry Creek that are disturbed during construction activities will be hydroseeded and revegetated.
3. Disturbed areas in Curry Creek and Dry Creek not actively being developed will be planted, mulched, or otherwise protected by an acceptable means for the duration of the winter.
4. Construction activities will not be permitted within Curry Creek or Dry Creek that would result in disturbed areas being left unprotected between October 15 and March 15.
5. Construction roads crossing creek systems will be used only when necessary and other access routes are not feasible.
6. Construction roads crossing creek systems will incorporate culverts if roads remain in place during the winter season.
7. Erosion control measures will be in place before the onset of the rainy season, but no later than October 15 during construction.
8. Permanent roadway stream crossings will be designed for a 100-year flood event.
9. Stream crossings will be designed with approaches as close to a right angle wherever feasible.
10. Stream crossings will be designed to reduce erosion and stream degradation by the placement of structures.
11. Rock energy dissipaters or other Placer County–approved methods will be used at outflow points of all culverts.

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**Policy 4.29** *Developers shall provide a schedule of construction projects to Placer County. Placer County will provide inspection of construction sites to ensure that erosion control measures are operative through the winter period.*

**Policy 4.30** *Maintenance access easements will be dedicated to Placer County on all portions of open space and stream corridors as identified on the tentative maps of development projects and approved by the County.*

**Policy 4.31** *Maintenance access easements will include areas required for preserving trees, special-status species habitat, and wetland resources.*

**Policy 4.32** *Use of low-water-consumption plant materials and irrigation systems will be encouraged by Placer County and the following standards will be met and implemented by site-specific development projects.*

1. *Where available and feasible, recycled water will be used to irrigate all parks, schools, and public rights-of-way. Irrigation equipment shall be compatible with the use of reclaimed water.*
2. *Low-volume spray irrigation systems shall be utilized for turf and groundcover areas and drip irrigation systems for shrubs and trees.*
3. *Where recycled water is available, water-intensive landscaping may be used.*
4. *Landscaping in improved common areas will incorporate drought-resistant varieties where practical and consistent with Placer County design guidelines.*
5. *Landscaping within medians should be by subsurface drip irrigation systems.*

**Policy 4.33** *Use of currently available water conservation devices will be encouraged by Placer County in all existing development. To accomplish this, Placer County will meter the use of potable water, and new construction must meet the following standards.*

1. *Water-conserving design and equipment will be required in all new construction.*
2. *Recycled water will be used for irrigation where feasible.*

## 4.6 SOILS

Soils in the Plan Area generally consist of clays, loams, and sandy loams. For additional information regarding soil types and characteristics within the Plan Area, refer to the Placer Vineyards Specific Plan EIR Appendix L.

Soils are categorized by the Natural Resources Conservation Service (NRCS) for their potential use as agricultural land. The California Department of Conservation (CDC) Farmland Mapping and Monitoring program uses NRCS categories to prepare “Important Farmland Maps.” Most of the Plan Area, approximately 3,657 acres of farmland, are characterized as of “Local Importance” (3,401 acres) or “State-wide Importance” (256 acres) by the CDC. Specific Plan policies will preserve open space land elsewhere in Placer County to offset development of these lands.

**Goal 4.11** *Minimize impacts on important farmland through the dedication of other open space land.*

**Policy 4.34** *Require the preservation of other open space/agricultural lands elsewhere in Placer County at a ratio of 1 acre of land for each acre of land affected within the Plan Area.*

**Policy 4.35** *No additional agricultural land dedications shall be required beyond the 1:1 open space dedication required under Policy 4.34 so long as a substantial portion, as determined by County staff, of the open space lands acquired are:*

1. *In agricultural production or have the potential to support agriculture;*
2. *Undeveloped and have an NRCS soils classification of the same or greater value than lands being impacted within the Specific Plan project; or*
3. *Undeveloped and have the same or higher value CDC categorization as lands being impacted within the Specific Plan project property at issue.*

*In-kind mitigation is not required for agricultural land developed within the project area.*

## 4.7 ENERGY CONSERVATION

The Specific Plan's land use patterns and transportation systems are designed to encourage efficient energy use through nonmotorized transportation and the close proximity of residential uses to jobs and services.

**Goal 4.12** Encourage efficient energy use and conservation.

**Policy 4.36** *All residential units will be developed in compliance with State of California Title 24 energy conservation measures.*

**Policy 4.37** *Use of passive and active solar devices such as solar collectors, solar cells, and solar heating systems, integrated into the building designs, are encouraged.*

**Policy 4.38** *Building and site design should take into account the solar orientation of buildings during design and construction.*

## 4.8 AIR QUALITY

The Plan Area is located in the jurisdiction of the Placer County Air Pollution Control District (PCAPCD), which is the agency responsible for monitoring and regulating air pollutant emissions from stationary, mobile, and indirect sources within Placer County. Development within the Plan Area could affect air quality in Placer County and the greater Sacramento Valley. Air quality in the Sacramento Valley affects the quality of life for all residents living in the Sacramento region. The primary factors contributing to air quality in the vicinity of the Plan Area include:

- ♦ Climatic variances, temperature inversions, and low wind speeds;
- ♦ Vehicle emissions; and
- ♦ Mobile and stationary pollutants generated by localized urban development.

Vehicle trips are a major contributor to air pollution, and the number of vehicle trips is affected by the spatial design of land uses and destinations within the community. The Specific Plan includes three major features that help reduce or minimize impacts on air quality.

First, the Plan Area includes three centralized mixed-use village cores that provide neighborhood commercial uses to encourage pedestrian/bicycle use between surrounding residential areas and the village core land uses.

Second, the Specific Plan improves the regional balance of housing and jobs. Housing opportunities made available closer to employment encourage fewer long-distance commutes, consistent with the objectives of the SACOG Blueprint Plan. To this end, SACOG has designated the Placer Vineyards Plan Area as a major regional development opportunity to improve the jobs/housing balance.

Third, the land use pattern and transportation system also facilitates the use of alternative transportation choices throughout the Plan Area. The plan provides for a future bus rapid transit route and transit node within the village center along Watt Avenue. The Plan also uses an extensive bike and pedestrian system along roadways and major open space corridors, linking residences to the bus rapid transit system, the village centers and town center, and public facilities. A street pattern of multiple and parallel routes between destinations minimizes traffic congestion and facilitates residents to combine vehicle trips into one route.

**Goal 4.13** Minimize air quality impacts on the Placer Vineyards area and the region.

**Policy 4.39** *Local area source emissions shall be minimized through a variety of strategies:*

1. *Promote low-emission energy use by requiring building design features that accommodate and encourage use of alternative energy sources.*
2. *Promote low-emission energy use by incorporating landscaping conducive to passive solar energy uses:*
  - a. *Buildings that are oriented in a south-to-southwest direction, where feasible;*
  - b. *Deciduous trees that are planted on the west and south sides of structures;*
  - c. *Landscapes with drought-resistant species and groundcovers rather than pavement to reduce heat reflection; and*
  - d. *Maximum parking lot shading at all non-residential developments.*

**Policy 4.40** *Provide, on a project-specific basis, adequate buffers designed to separate emission and nuisance sources from residential uses, consistent with the Placer County General Plan.*

**Policy 4.41** *Construction activities will comply with all requirements of grading permits and PCAPCD.*

**Policy 4.42** *PCAPCD may replace or supplement air pollution control measures for individual projects as new technology and feasible measures become available over the course of the Plan buildout.*

#### 4.9 VECTOR CONTROL AND MOSQUITO ABATEMENT

The purpose of this section is to provide guidelines that prevent new mosquito breeding sources and to apply the necessary measures that support the agencies involved in the surveillance, management, and elimination of mosquito breeding sources. Vector sources such as creeks, wetlands, vernal pools, and other naturally occurring habitat along with artificial sources—agricultural, industrial, and residential sources—will be routinely checked and monitored for mosquito production.

**Goal 4.14** Protect public health and safety by preventing the creation of mosquito breeding areas through proper drainage and routine surveillance of standing water sources for mosquito production.

**Policy 4.43** *Grading shall be performed in a manner to prevent the occurrence of standing water or other areas suitable for the breeding of mosquitoes or other vectors. Water detention and related surface water conveyance features shall also be designed to prevent the breeding of mosquitoes.*

**Policy 4.44** *The Placer Mosquito Abatement District shall be granted access in perpetuity to perform vector control in all common areas, including drainage, open space corridors, and park areas. Such access shall be a condition of approval of all tentative maps approved within the Plan Area.*

#### 4.10 NOISE

A major source of noise affecting the Plan Area is vehicular traffic along arterial roadways. Other local roadways also contribute to noise in the environment. The Specific Plan will allow for development of residential uses (which are considered to be noise-sensitive users) adjacent to highly traveled roadways. As development of residential land uses occurs in the Plan Area, individual projects will be analyzed for potential noise impacts.

In most cases the edge treatments and orientation of buildings along arterial streets will reduce outdoor noise levels to an acceptable level (60 decibel day-night average noise level, community noise equivalent level [60 dB DNL] or less). In those instances where the noise level is in excess of the 60 dB DNL standards, design practices shall be implemented to reduce noise levels in outdoor use areas to less than 60 dB DNL.

To reduce noise levels, sound walls, berms, and other devices need to be constructed to buffer noise created by vehicles on adjacent residential land uses. However, the Placer County General Plan discourages the use of sound walls for noise mitigation. The General Plan encourages the use of setbacks, building orientation, and other alternatives to sound walls. The General Plan further provides that, where noise mitigation measures are required to achieve adopted standards, the emphasis shall be placed upon site planning and project design. The use of noise barriers shall be considered only after all other practical design-related noise mitigation measures have been integrated into the project. The policies of this chapter and of Chapter V, “Transportation and Circulation,” and Chapter VI, “Community Design,” of this Specific Plan provide the means and methods to satisfy these General Plan requirements.

**Goal 4.15** Minimize noise impacts on residential land uses.

**Policy 4.45** *Edge treatments and building orientations along arterial streets will reduce outdoor noise levels to 60 dB DNL or less for residential uses and 70 dB DNL for commercial uses such as offices. In those instances where the noise level is in excess of the standard, design practices shall be implemented to reduce noise levels in outdoor use areas.*

1. *Future residential or sensitive development along arterials and collectors shall not exceed County noise standards. Creative site planning shall be the primary means to achieve a 60 dB DNL noise level at the outdoor use area (i.e., side and rear yards, patios, balconies, decks, or enclosed courtyards). When necessary, building facades and noise barriers may be placed between the arterial roadway and the outdoor use areas (see Policy 6.44, “Edge Treatments for Use in Low- and Medium-Density Residential Area.”)*

2. *Commercial uses along Baseline Road and Watt Avenue and some residential uses along interior arterial streets, may be exposed to excessive noise levels. Where it is not possible to reduce noise in outdoor activity areas to 60 dB DNL or less in residential developments using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB DNL may be allowed, provided that available noise level reductions have been implemented and interior noise levels are not in excess of 45 dB DNL. Acoustical analyses shall be prepared for all uses exposed to levels in excess of “normally acceptable” noise levels to show how both the outdoor uses areas and indoor noise thresholds shall be met in these locations.*
3. *All residences, hotels, motels, churches, nursing homes, and theaters uses exposed to a noise level in excess of 60 dB DNL will require sound-rated windows, added wall insulation, and mechanical ventilation capable of achieving the indoor noise requirements of 45 dB DNL, as determined by an acoustical analysis.*
4. *To determine compliance with noise standards, site specific acoustical analyses shall be required as a part of the Subsequent Conformity Review process, during the submittal of tentative subdivision designs and grading maps. Acoustical analyses shall be used to determine appropriate noise attenuation measures (i.e. setbacks, berms, building orientation, noise walls and other noise mitigation measures within the Placer County General Plan Noise Element and the design guidelines found under Section 6.4.3 “Walls, Fences, and Screening” of this Specific Plan) required to reduce traffic noise to levels that meet County noise level standards.*
5. *“The Landscape Master Plan” that will be subsequently prepared for the project shall include the design of noise attenuating features within the landscape setbacks and landscape corridor lots in the Plan Area, especially along Baseline Road, Watt Avenue, and Dyer Lane, where the greatest noise impacts are anticipated to occur.*

**Policy 4.46** *Impacts of noise-generating uses will be minimized. Noise attenuation strategies shall be incorporated into all potential noise generating uses, and may include the following:*

1. *Outdoor use spaces shall be located behind buildings so that the building mass shields noise-sensitive uses from the noise sources.*
2. *Noise barriers shall be constructed between commercial uses and residences.*

3. *Limitations on hours of operation, maximum sound levels, and types of uses may be placed on the proposed uses of amplified sound at schools, parks, bars, restaurants, clubs, and other events.*
4. *Mechanical equipment noise at commercial and residential areas must be controlled. Methods may include quiet equipment, sound-attenuating enclosures, and noise barriers.*
5. *Full disclosure shall be required for all residential uses that are adjacent to, or directly across from schools, houses of worship, neighborhood parks, playgrounds, nightclubs, bars, and restaurants with live music and entertainment venues. The disclosure should state the typical hours of operation and noises associated with the use.*
6. *Additional acoustical analysis may be required for specific noise-generating activities that have the potential to adversely affect adjacent residences or other noise-sensitive uses (eg., hospitals, retirement homes, day-care centers, and schools) The analysis should identify the potential noise level and the means by which outdoor and indoor noise levels can be controlled to achieve the acceptable standards under the County Noise Ordinance.*

**Policy 4.47** *Construction noise shall be controlled to meet applicable County codes and minimize annoyances on surrounding land uses. Construction noise abatement is critical in later phases of Placer Vineyards development when portions of residential neighborhoods are already in place. Mitigation measures to reduce constructing noise impacts may include the following:*

1. *Construction noise emanating from any construction activities for which a grading and building permit is required is prohibited on Sundays and federal holidays and shall only occur:*
  - a. *Monday through Friday, 6 a.m. to 8 p.m. (during Daylight Savings Time);*
  - b. *Monday through Friday, 7 a.m. to 8 p.m. (during Standard Time); and*
  - c. *Saturday, 8 a.m. to 6 p.m.*
2. *Truck traffic shall be routed through less noise-sensitive areas.*