



# CONSERVATION ELEMENT



*“We cannot command nature except by obeying her.”* —Francis Bacon

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## INTRODUCTION

### PURPOSE OF ELEMENT

The Conservation Element defines conservation goals, policies, and strategies for the conservation and utilization of natural resources, and protection of the aesthetic qualities of the community. Residents should be aware of both local and regional opportunities and environmental issues in order to maintain and enhance the natural quality of the natural environment.

Following the Introduction, the Conservation Element includes a “Definitions” section and “Updates Since 1988”. The Element then includes a “Natural Resource Inventory”, which describes the specific attributes of Woodside’s air quality, watershed, water resources, and flora and fauna. The Natural Resource Inventory is followed by a discussion of “Conservation Regulation”, which describes a number of governmental regulations and agencies which safeguard natural resources, including federal, State, and regional governance. The last section contains the Conservation Element “Goal, Policies, and Strategies”, which seek to preserve, protect, and enhance the natural features, resources, and wildlife of the Town and Planning Area.



**The Western Hills.**

The unique natural setting of Woodside is the primary characteristic of quality of life in Town. The steep, tree covered slopes and deeply incised canyons of the Santa Cruz Mountains provide the watershed, land form and backdrop for the westerly portion of the Town. When viewed from scenic corridors in the suburban valleys below, these western foothills provide the first impression of the community. The wooded slopes and stream corridors within the Town provide a spacious, natural and rural quality.

The central area of the Town contains the gentle oak and grassland foothills, flatter valley areas, valley stream corridors containing riparian habitat, flood plains, ground water aquifers and seismic rift zones. The portion of Town east of Interstate 280 is predominantly mixed oak woodland.

The Town is endowed with a variety of landforms and environmental resources, creating a mosaic of natural features and aesthetic qualities that are unusual within this urban region. The preservation of these natural features represents the single most important community conservation value.



**Open lands in Woodside provide space for many important habitats.**

The open lands surrounding Woodside also play important roles in conserving natural resources. The system of water, wildlife, geological and visual resources crosses political boundaries, and it should be maintained on a regional scale. Stanford lands, including the Jasper Ridge Biological Preserve, San Francisco Watershed lands, and lands west of Skyline contain many prominent natural features, such as streams, lakes, and wildlife habitat (also see the Open Space Element).

Since its incorporation, the Town of Woodside has affected a careful stewardship of its resources through the utilization of land use policies and implementation programs which reflect strong conservation goals.

Woodside residents historically have been committed to maintaining the Town’s rural atmosphere and residential character. The conservation of natural resources is a foundation of the Town planning efforts and land use regulations. For the purposes of truly effective conservation, development and utilization of natural resources, however, there is a need for a more widespread understanding of how the ecosystem functions. This Conservation Element is intended to contribute to this understanding. The Conservation Element, along with the Open Space and Sustainability Elements, set forth strategies for conservation actions.



**Through conservation efforts, Woodside has protected its natural resources and maintained its rural character.**



**Flora (plant life).**



**Fauna (animal life) in Woodside. (San Francisco dusky-footed woodrat).**

*Photo by Rob Schell.*

## DEFINITIONS

**Amphibian:** Any of a class of cold-blooded vertebrates (e.g., frogs, toads, or salamanders) intermediate in many characters between fishes and reptiles and having gilled aquatic larvae and air-breathing adults.

**Aquifer:** A water-bearing stratum of permeable rock, sand, or gravel.

**Biodiversity:** Biological diversity in an environment as indicated by numbers of different species of plants and animals.

**Conservation:** The planned management of a natural resource to prevent exploitation, destruction, or neglect.

**Dark Skies Initiative:** An initiative aimed at reducing excessive outdoor lighting with the goals of: reducing light pollution, reclaiming the view of the night sky and astral bodies, reducing energy consumption, increasing public health by protecting the natural day night light cycle, and protecting nocturnal species that rely on dark night skies for migration and predation.

**Ecology:** The totality or pattern of relations between organisms and their environment.

**Fauna:** Animal life, especially the animals characteristic to a region or special environment.

**Feral:** Having escaped from domestication and become wild.

**Flora:** Plant life, especially such life characteristic to a region or special environment.

**Habitat:** The place or environment where a plant or animal naturally or normally lives and grows.

**Habitat Connectivity:** The physical pattern of habitat and potential connections between areas of habitat within the landscape, and the actual movement of individual organisms through the landscape and the degree to which each landscape facilitates or impedes this movement.

**Lacey Act:** A conservation law signed in 1900, and still in effect, which protects both plants and wildlife by creating civil and criminal penalties for a wide array of violations, and most notably prohibits trade in wildlife, fish, and plants that have been illegally taken, transported or sold. It was the first federal law protecting wildlife, although today it is primarily used to prevent the importation or spread of potentially dangerous non-native species.

**Marsh:** A tract of low wet land, often treeless and periodically inundated, generally characterized by a growth of grasses, sedges, cattails, and rushes.

**Microclimate:** The essentially uniform local climate of a usually small site or habitat.

**Pathogen:** A specific causative agent (e.g., a bacterium or virus) of disease.

**Pond:** A body of water smaller than a lake, sometimes artificially formed, as by damming a stream.

**Riparian Corridor:** The geomorphic, vegetative, and hydrological zone adjacent to a creek or stream.

**Seismic Rift Zone:** An elongated system of crustal fractures associated with an area that has undergone ground spreading due to earthquake activity.

**Spring:** A flow of water from the ground, often a water source for a stream or pond.

**Stream, Ephemeral:** A stream which flows for a very short time.

**Stream, Intermittent:** A stream which comes and goes at intervals, not continuous.

**Stream, Perennial:** A stream present at all seasons of the year.

**Tributaries:** A stream feeding a larger stream or a lake.

**Water System:** A portion of the hydrological system referring to surface and ground waters in its many forms, including the following:

**Wetland:** An area of land whose soil is saturated with moisture either permanently or seasonally. Such areas may also be covered partially or completely by shallow pools of water. Wetlands include swamps, marshes, and bogs, among others. Wetlands are considered the most biologically diverse of all ecosystems.

**Watershed:** An area of land which ultimately drains to the same stream, creek, or waterway.

**Wildlife Corridor:** Contiguous areas of land that allow for the movement of wildlife species between areas of core habitat.



**Riparian corridor.**



**Wildlife corridors allowing deer to move throughout Woodside.**

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## CHANGES SINCE 1988

Since adoption of the last General Plan (1988), the following changes related to conservation have occurred:

- Listing of flora and fauna species has increased;
- The regulation of wetlands has narrowed;
- Sudden Oak Death Syndrome (SODS) became a local threat;
- Invasive flora and fauna species have increased; and,
- Climate change has become of increasing concern.

### INCREASE IN LISTING OF SPECIES

Due to habitat loss or degradation, competition with non-native species, and other factors, the number of plant and animal species with special-status (e.g., Rare, Threatened, or Endangered) has increased since 1988. These animal and plant species are listed federally under the Federal Endangered Species Act (FESA) and in California under the California Environmental Species Act (CESA). Important plant and animal species documented to occur in and around Woodside that have been listed as Threatened or Endangered since 1988 include the following:

**Table CV1: Threatened or Endangered Species in Woodside.**

Common Name	Scientific Name	Status
California red-legged frog	<i>Rana draytonii</i>	Threatened (FESA 1996)
California tiger salamander	<i>Ambystoma californiense</i>	Threatened (FESA 2004)
Central California coast steelhead	<i>Oncorhynchus mykiss irideus</i>	Threatened (FESA 1997)
fountain thistle	<i>Cirsium fontinale var. fontinale</i>	Endangered (FESA 1995)
white-rayed pentachaeta	<i>Pentachaeta bellidiflora</i>	Endangered (CESA 1992) and (FESA 1995)

Species listed as Threatened or Endangered under FESA or CESA (as well as other special-status species such as California Department of Fish and Game Species of Special Concern and California Native Plant Society List 1 and 2 plants) can have significant implications for site planning and land use in areas where the species may be present.

### REGULATION OF WETLANDS

Wetlands and other waters of the United States (such as lakes and streams) have been regulated under Section 404 of the Federal Clean Water Act (CWA) since 1972. Work, such as placement of fill material, conducted in jurisdictional wetlands or other waters normally requires a permit (often including mitigation requirements to compensate for wetland loss) from the U.S. Army Corps of Engineers (the program is

jointly administered by the U.S. Environmental Protection Agency). Since 1988, the U.S. Supreme Court has narrowed the definition of waters of the U.S. to exclude “isolated” wetlands and other waters and wetlands and other waters adjacent to non-navigable and ephemeral tributaries where there is no “significant nexus” to a navigable water in hydrologic or ecologic terms. Therefore, some “isolated” wetlands that were formerly regulated under the CWA are no longer regulated at the federal level, but may still be regulated by the State of California via the Regional Water Quality Control Boards. There is currently some uncertainty regarding the exact jurisdictional status of isolated wetlands (such as seasonal wetlands in closed depressions) and some tributaries, with implications for land use and permitting requirements where these resources are present.



**Wetlands are an important part of the ecosystem in Woodside.**

### SUDDEN OAK DEATH SYNDROME (SODS)

Sudden Oak Death is caused by the pathogen *Phytophthora ramorum*, and can quickly kill susceptible tree species, including:

- tanoak (*Lithocarpus densiflorus*)
- coast live oak (*Quercus agrifolia*)
- black oak (*Quercus kelloggii*)

Of these, tanoak is the species most susceptible to mortality.

Sudden Oak Death Syndrome (SODS) first appeared in California in 1995, and has since spread throughout coastal counties in central and northern California, including San Mateo County.

The pathogen can also result in adverse (though usually non-lethal) effects (such as leaf or twig dieback) to other species common in Woodside, including:

- redwood (*Sequoia sempervirens*)
- Douglas-fir (*Pseudotsuga menziesii*)
- California bay (*Umbellularia californica*)
- evergreen huckleberry (*Vaccinium ovatum*)

Even if not killed or substantially affected, these species can act as hosts for the pathogen, contributing to the spread of Sudden Oak Death in a forest. California bay, in particular, is a significant host contributing to the spread of SODS in central and northern California. There is currently no cure for infected trees, but there are treatments which can help to prevent infection in uninfected trees or in some cases slow or inhibit disease progression in recently infected trees (Source: California Oak Mortality Task Force).



**Sudden Oak Death.**

Source: [http://www.nps.gov/pore/naturescience/diseases\\_sod.htm](http://www.nps.gov/pore/naturescience/diseases_sod.htm)



**Blackberry is considered a highly invasive exotic plant according to the California Native Plant Council.** Photo by Doreen L. Smith.



**A Woodside invasive exotic animal.** *Lepomis macrochirus*, common name **bluegill**. Photo by John White.

## INCREASE IN INVASIVE SPECIES

### Invasive Plant Species

The establishment and spread of invasive exotic plant species in California, including Woodside, has profound implications for native species and habitats. The knowledge and awareness of the negative impacts of invasive species on native ecosystems has grown significantly since 1988. The California Invasive Plant Council (Cal-IPC) (formerly the California Exotic Pest Plant Council), which formed in 1992, has developed a list of invasive plant species present in California, along with rankings of the potential negative ecological impact of each species (ranked as High, Moderate, and Limited) and techniques for controlling and eradicating invasive species. Examples of highly invasive exotic plants (i.e., those ranked as High on the Cal-IPC list) present in Woodside include:

- French broom (*Genista monspessulana*);
- English ivy (*Hedera helix*);
- Himalayan blackberry (*Rubus discolor*);
- Pampas grass;
- Slender false brome; and,
- Vinca.

### Invasive Animal Species

The negative effects of introduced wildlife have been well-documented since 1988, particularly exotic aquatic predators that become established in ponds, impoundments, and reservoirs, some of which may spread into riparian systems. Examples of invasive exotic animals present in Woodside include:

- American bullfrogs (*Lithobates catesbeianus*);
- Some fishes, such as: largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), and Asian carp;
- Red-eared sliders (*Trachemys scripta*) – turtles; and,
- Feral cats

## CLIMATE CHANGE

Since 1988, there has been considerable study and increased scientific knowledge regarding the potential for climate change resulting from human activities. Changes in climate and weather patterns could have significant consequences for native ecosystems in Woodside and throughout California. For instance, the distribution of redwood forests, including those in Woodside, is linked to rainfall patterns as well as the timing and location of coastal fog and stratus. Any changes in these patterns could result in adverse effects on redwood forests and other vegetation types, with consequences such as changes in forest composition and structure, impacts to wildlife habitat, and changes to fire frequency. Refer to the Sustainability Element for more in-depth discussion of climate change.

## TOWN NATURAL RESOURCES

California Government Code Section 65302(d) defines a purpose of a conservation element as the conservation of natural resources, including: water, forests, soils, water bodies, fisheries, wildlife, and other natural resources. The Town's conservation strategies are related to the components of the Woodside environment, their fragile characteristics, their interrelationships, and required actions for environmental protection. This Element discusses of the following Town resources:

- Air Quality
- Watershed
- Water Resources
- Habitats

Soils and geology are discussed in the Natural Hazards and Safety Element. Although the natural resource categories are described separately, they are viewed as part of the interrelated system as much as possible.

## AIR QUALITY

The problem of air pollution continues to be a major environmental concern. Air pollution is associated with major respiratory diseases and extensive economic losses associated with it have been widely documented. The Town's direct involvement with air quality regulation primarily involves mitigating the temporary impacts associated with construction. The Bay Area Air Quality Management District (BAAQMD) requires notification prior to the commencement of any demolition or renovation, and the Town attaches conditions of approval during the permit process outlining best management practices for protecting air quality on certain planning entitlements. Diesel backup generators produce emissions of regional concern. A more in depth discussion of air quality regulation is in the Conservation Regulation section.

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## WATERSHED AND WATER RESOURCES

Retention of vegetation within watershed areas is critical to help prevent soil erosion, protect water quality, provide habitat areas for native plants and animals, and serve as a scenic backdrop of the region. Reference Map CV1, Watersheds and Streams Map.

A watershed is an area of land which ultimately drains to the same stream, creek, or other waterway. Topographic maps with contour elevation data are the basis for determining watershed areas and drainage divides. Retention of vegetation within watershed areas is critical to help prevent soil erosion, protect water quality, provide habitat areas for native plants and animals, and serve as a scenic backdrop of the region.

The conservation of the natural drainage system in the Woodside Planning Area is certainly one of the most important tasks before the Town. The tributary system of San Francisquito Creek drains much of the area. Redwood Creek drains most of the remainder. Reference Map CV1, Watersheds and Streams Map. The major streams in Woodside that are part of this system and are of regional significance are: Alambique, Bear Gulch, Dry Creek, and West Union. Other streams in Woodside of local significance include tributaries of the major creeks. Control of the upstream portions of this drainage system is important to both Woodside and the downstream communities of the Midpeninsula. Appropriate land use and control of development is essential to prevent widespread damage in the lower reaches of the streams through siltation (from upstream erosion), flooding, and loss of flow in the stream in the dry seasons.

Another element of the natural water system found in the Planning Area is the freshwater marsh near Searsville Lake. An extremely diverse population of birds, insects, and amphibians is supported by the marsh, and other animals rely upon it as a source of food. Water and green plant material are found in the marsh during the summer season. The marsh is maintained by water flow from San Francisquito Creek tributaries fed, to a large extent, by lands in Woodside. Therefore, the maintenance of the

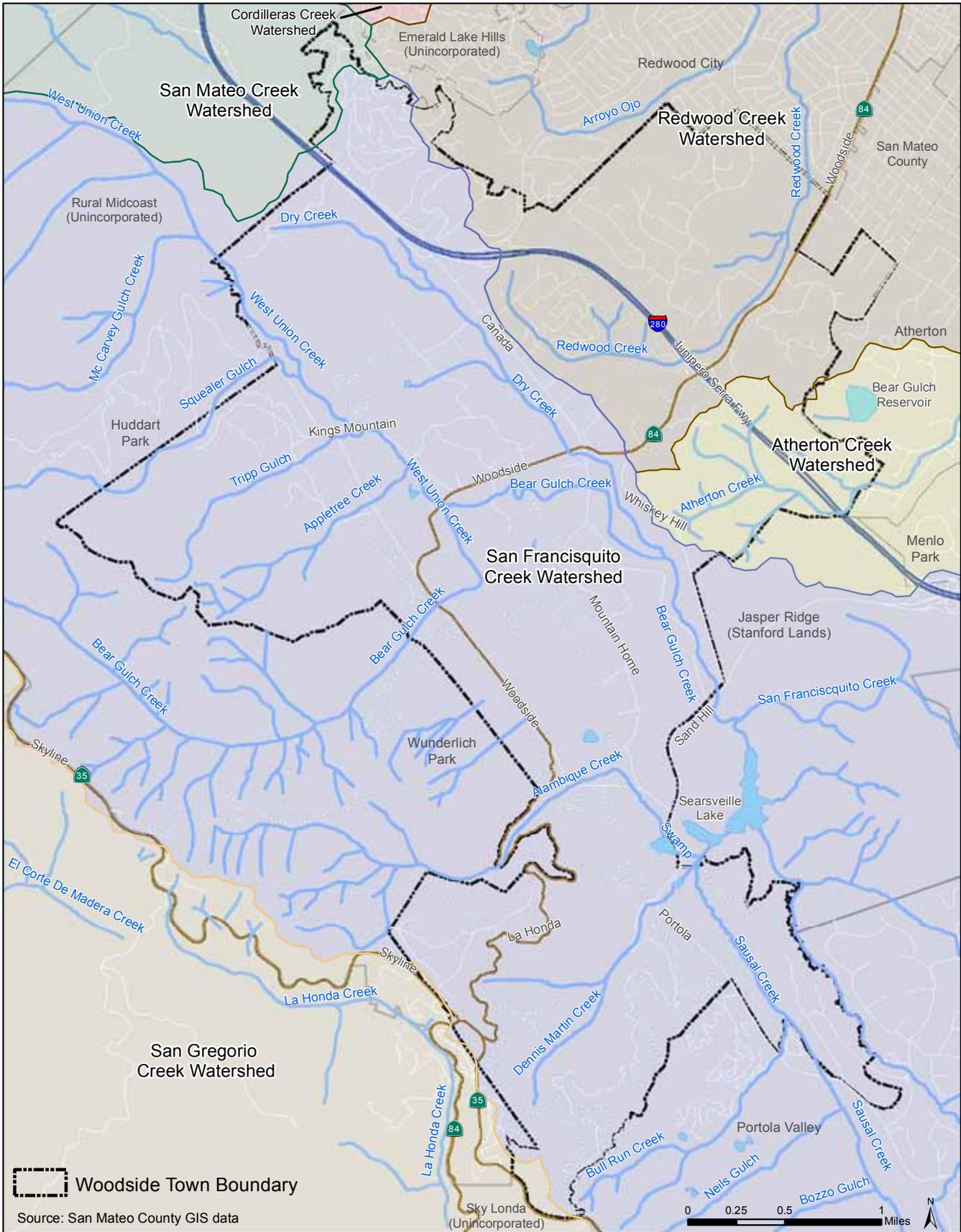
natural drainage system is also important for protection of the marsh.

Drainage impacts the health of the watershed. As part of the 1972 Clean Water Act, Congress established the National Pollution Discharge Elimination System (NPDES) permitting system to regulate the discharge of pollutants from municipal sanitary sewers and industries. The NPDES was expanded in 1987 to incorporate permits for storm water discharges as well. To comply with these requirements, the Town of Woodside participates in the San Mateo Countywide Water Pollution Prevention Program (Program). The Program is operated under the auspices of the City/County Association of Governments (C/CAG), which consists of the twenty San Mateo County cities and San Mateo County. All of the municipalities are listed as co-permittees in a municipal storm water National Pollutant Discharge Elimination System (NPDES) permit adopted by the Regional Water Quality Control Board (RWQCB). The Program implements common tasks and assists the municipalities to implement their local storm water pollution prevention programs.

Any alterations to the drainage system that would significantly change the natural flow of water could also affect wildlife species that are dependent on the riparian community for survival. It is, therefore, imperative that lands be protected to ensure the maintenance of the natural water flow and water quality essential for protection of the riparian community.

Reference the Public Utilities Element for a discussion of water supply and demand.

### Map CV1: Watersheds and Streams



## HABITATS

### California Floristic Province

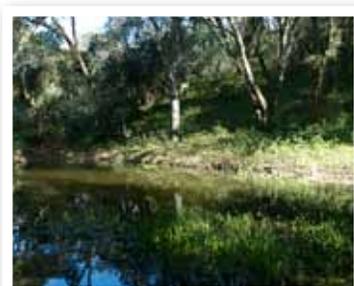
Woodside is located within the California Floristic Province (CFP). The CFP is a world biodiversity hotspot, as defined by Conservation International, due to an unusually high concentration of endemic plants. The CFP is one of the five biodiversity hotspots globally, with a Mediterranean climate, and is characterized by hot, dry summers and cool, wet winters. The CFP is situated along the Pacific Coast of North America, and includes about 70% of the State of California west of the Sierras, northern Baja California, and southwestern Oregon. While in other geographic areas habitat remains unchanged over large expanses, Woodside is indicative of the diversity of the CFP in that the existence of microclimates and wide variations in topography and soils make it possible to experience habitats from deep redwood forests to open grassland within very short distances.

## TOWN HABITATS

The four general habitat zones in Woodside are: Mixed Oak Woodland, Redwood-Mixed Evergreen Forest, Grassland, and Chaparral. Reference Map CV2. Descriptions of each habitat follow and describe the flora and fauna in each, although the species discussed can reside in multiple habitat areas.

### WETLANDS AND RIPARIAN CORRIDORS

Embedded within each of Woodside's four general habitat areas are wetlands and riparian corridors which, though often small in size, offer important habitat for both common and special-status plants and wildlife. These corridors provide other important ecosystem functions including water purification, groundwater recharge, and flood flow reduction. The following Table CV2 lists flora and fauna which occurs in the Wetland and Riparian Corridor habitat:



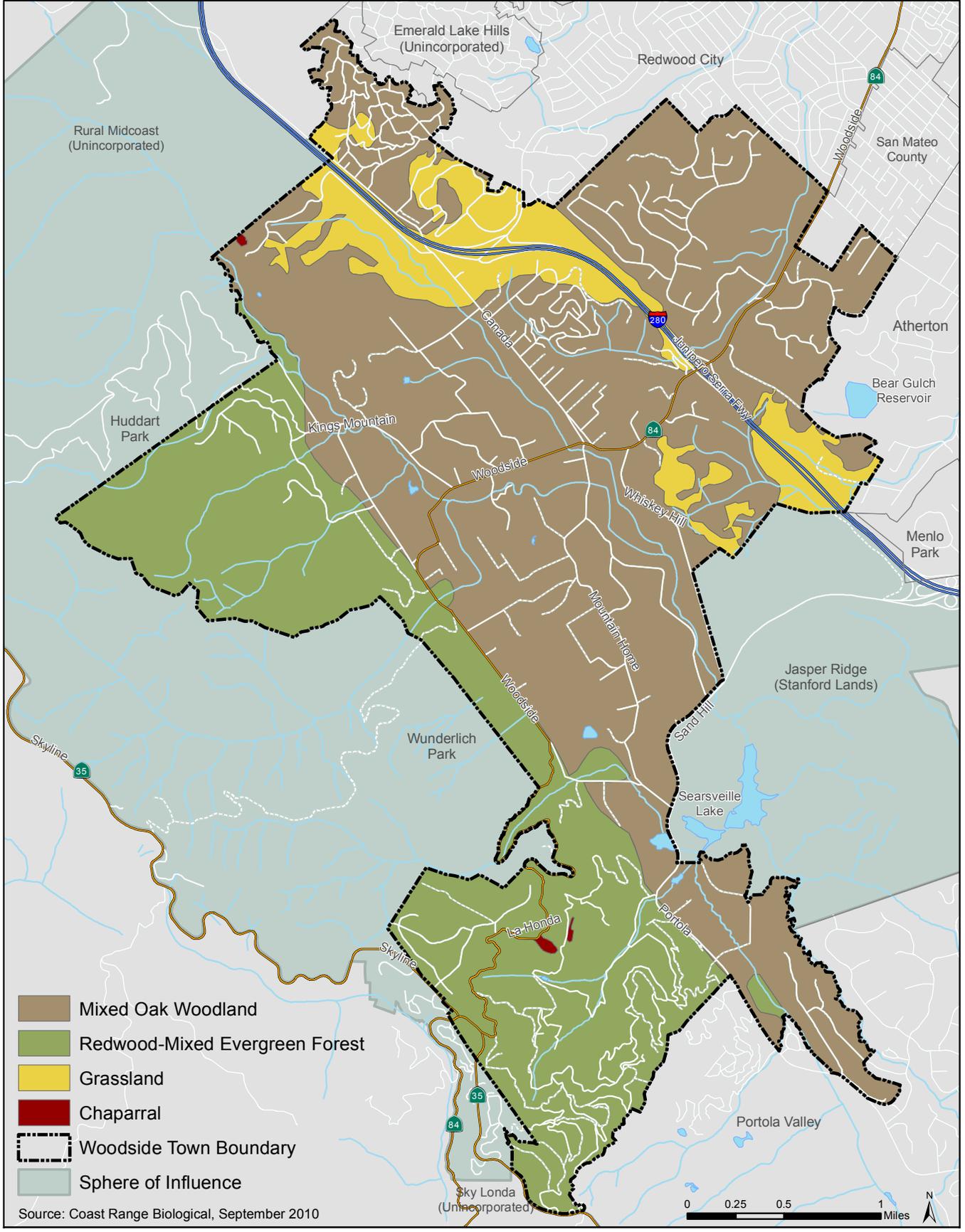
Wetland and riparian area.

Table CV2: Wetlands and Riparian Corridor Habitat

Category	Common Name	Scientific Name
Flora	western leatherwood	<i>Dirca occidentalis</i>
Fauna	California red-legged frog	<i>Rana draytonii</i>
	western pond turtle	<i>Actinemys marmorata</i>
	San Francisco garter snake	<i>Thamnophis sirtalis tetrataenia</i>
	great blue heron	<i>Ardea herodias</i>

Source: Coast Range Biological, September 2010

Map CV2: General Woodside Habitats



Source: Coast Range Biological, September 2010



**Mixed Oak Woodland.**

## MIXED OAK WOODLAND

Mixed Oak Woodland occurs primarily on lower slopes and on rolling hills in central and eastern areas of Woodside. Oaks dominate the canopy, along with other trees, such as bay and buckeye. Shrubs, native grasses, and forbs are also common. Native and non native herbaceous species characteristic of Grassland habitat are present in canopy openings. Due to the abundance of food (e.g., acorns) and other habitat components (e.g., snags and cavity-bearing trees), oak woodlands are some of the most productive and diverse wildlife habitats in California. Characteristic wildlife species that use oak woodlands include mammals, such as deer, mountain lion, foxes, mice, rats, and numerous bat species; a large number of birds, such as hawks, woodpeckers, and owls; and reptiles and amphibians. The following Table CV3 lists flora and fauna which occurs in the Mixed Oak Woodland habitat:

**Table CV3: Mixed Oak Woodland Habitat**

Category	Type	Common Name	Scientific Name
Flora	Trees	coast live oak	<i>Quercus agrifolia</i>
		valley oak	<i>Quercus lobata</i>
		blue oak	<i>Quercus douglasii</i>
		black oak	<i>Quercus kelloggii</i>
		California bay	<i>Umbellularia californica</i>
		California buckeye	<i>Aesculus californica</i>
	Shrubs	California coffeeberry	<i>Rhamnus californica</i>
		poison oak	<i>Toxicodendron diversilobum</i>
		blue blossom	<i>Ceanothus thyrsiflorus</i>
	Grasses and Forbs	blue wildrye	<i>Elymus glaucus</i>
bracken fern		<i>Pteridium aquilinum</i>	
miner's lettuce		<i>Claytonia perfoliata</i>	
Fauna	Mammals	black-tailed deer	<i>Odocoileus hemionus</i>
		mountain lion	<i>Puma concolor</i>
		gray fox	<i>Urocyon cinereoargenteus</i>
		San Francisco dusky-footed woodrat	<i>Neotoma fuscipes annectens</i>
		oak titmouse	<i>Baeolophus inornatus</i>
	Birds	red-tailed hawk	<i>Buteo jamaicensis</i>
		Cooper's hawk	<i>Accipiter cooperii</i>
		acorn woodpecker	<i>Melanerpes formicivorus</i>
		great horned owl	<i>Bubo virginianus</i>
	Reptiles and Amphibians	western fence lizard	<i>Sceloporus occidentalis</i>
California newt		<i>Taricha torosa</i>	
western toad		<i>Bufo boreas</i>	

Source: Coast Range Biological, September 2010

## REDWOOD-MIXED EVERGREEN FOREST

Redwood-Mixed Evergreen Forest occurs primarily in the western portion of Woodside in the foothills and eastern slopes of the Santa Cruz Mountains. Redwood is dominant in lower slopes, drainages, and other areas with deeper soils and higher soil moisture. A variety of trees, shrubs, and herbs grow in the deep shade of the redwood canopy, including a diverse mix of broadleafed evergreen trees. Native shrubs are common, along with herbaceous species. Common wildlife in Redwood-Mixed Evergreen Forest includes birds, squirrels, raccoon, skunks, and reptiles and amphibians. Redwood-Mixed Evergreen Forest can be observed at Thornewood Open Space Preserve and Wunderlich Park and many neighborhoods in the Western Hills. The following Table CV4 lists flora and fauna which occurs in the Redwood-Mixed Evergreen Forest habitat:



**Redwood-Mixed Evergreen Forest.**

**Table CV4: Redwood-Mixed Evergreen Forest Habitat**

Category	Type	Common Name	Scientific Name
Flora	Trees	redwood	<i>Sequoia sempervirens</i>
		Douglas-fir	<i>Pseudotsuga menziesii</i>
		tanoak	<i>Lithocarpus densiflorus</i>
		big-leaf maple	<i>Acer macrophyllum</i>
		coast live oak	<i>Quercus agrifolia</i>
		California bay	<i>Umbellularia californica</i>
		madrone	<i>Arbutus menziesii</i>
	Shrubs	evergreen huckleberry	<i>Vaccinium ovatum</i>
		swordfern	<i>Polystichum munitum</i>
		western trillium	<i>Trillium ovatum</i>
		California hazelnut	<i>Corylus cornuta var. californica</i>
		California Blackberry	<i>Rubus ursinus</i>
		snowberry	<i>Symphoricarpos albus</i>
		Douglas iris	<i>Iris douglasiana</i>
		wood fern	<i>Dryopteris arguta</i>
wood strawberry	<i>Fragaria vesca</i>		
Fauna	Mammals	western gray squirrel	<i>Sciurus griseus</i>
		northern raccoon	<i>Procyon lotor</i>
		striped skunk	<i>Mephitis mephitis</i>
	Birds	brown creeper	<i>Certhia americana</i>
		Steller's jay	<i>Cyanocitta stelleri</i>
		common raven	<i>Corvus corax</i>
	Reptiles and Amphibians	California slender salamander	<i>Batrachoseps attenuatus</i>
		ring-necked snake	<i>Diadophis punctatus</i>

Source: Coast Range Biological, September 2010



**Grassland.**

## GRASSLAND

Grasslands occur primarily in northern and eastern portions of Woodside adjacent to Interstate 280. Grasslands are generally in areas subject to past disturbance, such as grazing. Native grasslands in California have been greatly altered from their original condition, and grasslands in Woodside are composed primarily of non-native grasses and forbs, with occasional native species. Grasslands support a rich and varied wildlife population, including deer, squirrels, and gophers, which, along with abundant invertebrates, offer food sources to bird and mammal predators, such as hawks and coyotes. Grasslands in the Woodside area underlain by certain soil types, such as serpentine, are unique habitats and often contain rare plant and insect species. The following Table CV5 lists flora and fauna which occurs in the Grasslands habitat.

**Table CV5: Grassland Habitat**

Category	Type	Common Name	Scientific Name
Flora	Grasses and Forbs	wild oats	<i>Avena spp</i>
		ripgut brome	<i>Bromus diandrus</i>
		soft chess	<i>Bromus hordeaceus</i>
		Italian ryegrass	<i>Lolium multiflorum</i>
		California poppy	<i>Eschscholzia californica</i>
		purple needlegrass	<i>Nassella pulchra</i>
		lupine	<i>Lupinus spp.</i>
		blue-eyed grass	<i>Sisyrinchium bellum</i>
		white-rayed pentachaeta	<i>Pentachaeta bellidiflora</i>
Fauna	Mammals	black-tailed deer	<i>Odocoileus hemionus</i>
		California ground squirrel	<i>Spermophilus beecheyi</i>
		California vole	<i>Microtus californicus</i>
		Botta's pocket gopher	<i>Thomomys bottae</i>
		coyote	<i>Canis latrans</i>
	Birds	red-tailed hawk	<i>Buteo jamaicensis</i>
		white-tailed kite	<i>Elanus leucurus</i>
		American kestrel	<i>Falco sparverius</i>
Insects	Bay checkerspot butterfly	<i>Euphydryas editha bayensis</i>	

Source: Coast Range Biological, September 2010

## CHAPARRAL

Chaparral is a dense shrub community usually occurring in dry areas, particularly in the western portions of Woodside on steep slopes and ridges, and/or areas with thin or rocky soils. Chaparral is dominated by native shrubs. Chaparral is adapted to frequent fires and many plant species survive and/or reproduce after fires via resprouting and/or germination of dormant seeds in the soil seed bank. Wildlife species common in chaparral include birds, rabbits, bobcats, and reptiles. Chaparral can be observed at the Thornewood Open Space Preserve. The following Table CV6 lists flora and fauna which occurs in the Chaparral habitat:



**Chaparral.**

**Table CV6: Chaparral Habitat**

Category	Type	Common Name	Scientific Name
Flora	Grasses and Forbs	poison oak	<i>Toxicodendron diversilobum</i>
		coyote brush	<i>Baccharis pilularis</i>
		chamise	<i>Adenostoma fasciculatum</i>
		manzanita	<i>Arctostaphylos spp.</i>
		sticky monkeyflower	<i>Mimulus aurantiacus</i>
		toyon	<i>Heteromeles arbutifolia</i>
Fauna	Mammals	brush rabbit	<i>Sylvilagus bachmani</i>
		bobcat	<i>Lynx rufus</i>
	Birds	turkey vulture	<i>Cathartes aura</i>
		western scrub-jay	<i>Aphelocoma californica</i>
		Bewick's wren	<i>hryomanes bewickii</i>
		wrentit	<i>Chamaea fasciata</i>
		California quail	<i>Callipepla californica</i>
	Reptiles and Amphibians	yellow-bellied racer	<i>Coluber constrictor mormon</i>
		gopher snake	<i>Pituophis catenifer</i>

Source: Coast Range Biological, September 2010



**The diverse flora in Woodside provides aesthetic and environmental benefits.**



**Native plants require low-maintenance and rarely become invasive.**



**Native plants provide food and shelter for Wildlife.**

## TOWN CONSERVATION APPROACH

### FLORA CONSERVATION

As previously described in the foregoing Natural Resource Inventory section, the Town has diverse populations of flora. This vegetative cover contributes to the beauty of the area, aids in erosion control, and is an important element of the wildlife habitat. It also helps maintain air quality through reoxygenation, and reduces noise impact.

### Urban/Wildland Interface

Preserving lands in natural state (without development) protects habitat and maintains rural character. The preservation of lands in natural state should, however, be balanced with reasonable provisions for the eradication of invasive species and the selective reduction of fuel load for fire safety. The Woodside Planning Area is an Urban/Wildland Interface area: an area where human development meets, or intermingles with, undeveloped wildland. There is a need for a delicate, environmental and safety balancing act between maintaining wildland habitat, and protecting life, property, and habitat from catastrophic wildland fires. The Natural Hazards and Safety Element includes an in-depth discussion of the Urban/Wildland Interface.

### Native Landscaping

Native landscaping can preserve and enhance the rural character of the Town. Using plant species which have traditionally evolved within this specific environment has several compelling advantages.

### Native Plants:

- Have evolved and adapted to local conditions;
- Are vigorous and hardy;
- Require no irrigation or fertilization, once established;
- Are naturally resistant to most pests and diseases; and,
- Tend to be low-maintenance;

The Woodside Library Native Plant Garden (located behind the library building), is a demonstration garden installed and maintained by the Woodside Atherton Garden Club. It provides an excellent opportunity to learn more about a wide variety of California plant species.

## FAUNA CONSERVATION

As described in the Natural Resource Inventory section above, the Town has diverse populations of fauna. Much of Woodside area is relatively undisturbed and serves as the habitat of a diverse wildlife population. Conservation of this habitat is not only important for protection of wildlife, but also for conservation of the rural atmosphere of Woodside. Some development has occurred in the Planning Area without considering the conservation of wildlife habitats, with the result being that natural species are sometimes driven out. Other species have been introduced into the ecosystem that may have significant and often adverse effects upon both the native animal and plant populations of a given area.

### Wildlife Habitat and Corridors

In order to maintain and enhance wildlife habitat, special attention should be given to maintaining clear passage through wildlife corridors, preserving riparian areas, and leaving portions of property undeveloped. Non-wildlife friendly fencing fragments habitats, alters migration patterns, forces wildlife on roadways, and makes previously populated habitat areas inaccessible. Clearing riparian and natural state areas reduces or eliminates wildlife food and shelter. The loss of protective cover also leaves species open to increased predation.



**Maintained clear passage of wildlife corridor.**



**Preserved riparian areas.**



**Portions of property left in their natural state.**

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## CONSERVATION REGULATION REVIEW

Some environmental issues can be dealt with successfully on a local level, but many are subject to regulation by a number of federal, State, and regional governmental agencies and mandates.

### FEDERAL AGENCIES AND MANDATES

#### **National Environmental Policy Act (NEPA)**

The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental considerations into their decision making processes by evaluating the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet NEPA requirements, federal agencies prepare a detailed statement known as an Environmental Impact Statement (EIS). The Environmental Protection Agency (EPA) reviews and comments on EISs prepared by other federal agencies, maintains a national filing system for all EISs. It assures that its own actions comply with NEPA. An EIS includes an analysis of the impact of a proposed project on any adjacent open space.

State or local agency projects may also trigger the need for NEPA review. The three broad project triggers for NEPA review are:

- Federal funding is involved;
- A federal permit is required; and/or,
- Federal property will be used.

The Town of Woodside may need to prepare an EIS if, for instance, undertaking a project which is funded with federal monies or grants such as the construction of, or improvements to, roads and bridges which will have environmental impacts), or entitling a project which requires a U.S. Fish and Wildlife Service and/or U.S. Army Corps of Engineer permit, (such as restoration of a large pond on private property).

#### **Clean Water Act (CWA)**

The Clean Water Act (CWA) is the cornerstone of surface water quality protection in the United States. The Act does not deal directly with ground water or with water quality issues. It does however employ a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The Clean Water Act is implemented by the National Pollutant Discharge System (NPDES) program. The EPA has authorized 40 states to administer the NPDES program. In San Mateo County, the authorized implementing agency is the San Francisco Bay Water Board.

#### **U.S. Fish & Wildlife Service**

The U.S. Fish and Wildlife Service (USFWS) is the government agency dedicated to the conservation, protection, and enhancement of fish, wildlife and plants and their habitats. It is the only agency in the federal government whose primary responsibility is management of these important natural resources for the American public.

The Service is responsible for implementing and enforcing some of our Nation's most important environmental laws, such as the Endangered Species Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, North American Wetlands Conservation Act, and Lacey Act. The Service fulfills these and other statutory responsibilities through a diverse array of programs, activities, and offices that function to: protect and recover threatened and endangered species, monitor and manage migratory birds, restore nationally significant fisheries, enforce federal wildlife laws and regulate international wildlife trade, conserve and restore wildlife habitat such as wetlands, help foreign governments conserve wildlife through

international conservation efforts, and distribute hundreds of millions of dollars to states, territories and tribes for fish and wildlife conservation projects.

The USFWS requirement most likely to occur in the Town of Woodside is the need for an “incidental take permit”, as described below:

Section 10 of the Endangered Species Act (ESA) is designed to regulate a wide range of activities affecting plants and animals designated as endangered or threatened, and the habitats upon which they depend. With some exceptions, the ESA prohibits activities affecting these protected species and their habitats unless authorized by a permit from USFWS. “Incidental take permits” are required when non-Federal activities will result in “take” of “threatened” or “endangered” species (as designated by USFWS). “Take” is defined in Section 3(18) of the Federal Endangered Species Act as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

A habitat conservation plan (HCP) must accompany an application for an incidental take permit. The habitat conservation plan associated with the permit ensures that the effects of the authorized incidental take are adequately minimized and mitigated. In Woodside a project that would require an incidental take permit through USFWS would be construction of a bridge within a riparian area that could impact a “threatened” or “endangered” species (as designated by USFWS), or its habitat.

**U.S. Army Corps of Engineers**

The U.S. Army Corps of Engineers (USACE) is responsible for investigating, developing and maintaining the nation’s water, and related environmental resources.

Through the Clean Water Act, Section 404, the USACE regulates dredging or placement of fill below the ordinary high water mark within navigable waters and within wetland areas. USACE administers the Section 404 day-to-day program, including individual permit decisions and jurisdictional determinations; develops policy and guidance; and enforces Section 404 provisions.

In Woodside a project that would require a Section 404 permit through USACE would be restoration of a pond or wetland that involves bank reconstruction. Additionally, if a project is occurring near a wetland, the applicant would first have a biologist prepare a biotic assessment to determine the wetland delineation, which would be reviewed by USACE to determine if it has permitting jurisdiction.

**Federal/State Listing**

Federal and State listings, under the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA) respectively, include:

- Endangered: A species in danger of extinction throughout all or a significant portion of its range.



*Pentachaeta bellidiflora*, **common name, white-rayed pentachaeta. (Endangered Federal and California Status).**

*Photo by Doreen Smith.*



*Rana aurora draytonii*, **common name, California red-legged frog. (Threatened Federal Status).**

*Photo by Pierre Fidenci.*



*Thamnophis sirtalis tetrataenia*, **common name, San Francisco garter snake. (Fully Protected DFG Status).**

*Photo by Sam Murray.*

- Threatened: A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
- Candidate: A species under consideration for official listing for which there is sufficient information to support listing.

(also see Table CV7 and CV8)

## STATE AGENCIES AND MANDATES

### California Environmental Quality Act

The California Environmental Quality Act (CEQA), enacted in 1970, sets forth Regulations governing environmental planning in the State. Environmental review in Woodside is prepared pursuant to CEQA. The first step in the process is to determine if the proposal is considered a “project” under CEQA. If the proposal qualifies for exemption under CEQA, no further environmental reporting preparation is needed. If the project does not qualify for an exemption, an Initial Study is prepared. An Initial Study answers a list of specific and standardized questions in the following categories:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology & Soils
- Hazards & Hazardous Materials
- Hydrology & Water Quality
- Land Use & Planning
- Mineral Resources
- Noise
- Population & Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities & Service

### CEQA Tiers of Review

CEQA review has three tiers:

#### Negative Declaration:

If the project has “no impacts”, or if all impacts are determined to be “less than significant”, a Negative Declaration is prepared and filed.

#### Mitigated Negative Declaration:

If all impacts can be reasonably determined to be less than significant, with mitigation incorporated, a Mitigated Negative Declaration is prepared and filed, which requires specific mitigation measures and the preparation and implementation of a Mitigation Measure Monitoring Plan. A mitigation measure could be the specific conditions established by the project biologist to safeguard listed species and their habitat during the course of construction.

#### Environmental Impact Report:

If impacts are identified as “potentially significant”, the next stage of review is triggered. The preparation of an Environmental Impact Report (EIR) is required. This is a more in-depth and technical report on the impacts, prepared by biologists, geotechnical engineers, traffic engineers, or other specialists.

Projects in Woodside which may be subject to environmental review include subdivisions, development near or within riparian corridors, and impacts to protected species and historic resources. The most common triggers for CEQA review in the Town of Woodside are impacts to: biological resources, such as trenching under a stream for installation of underground utilities or development in or near an area of listed biological resources, and cultural resources, such as the discretionary review of the proposed alteration or demolition of a historic structure.

### California Department of Fish and Game

The California Department of Fish and Game (CDFG) was formed in 1909 to manage and protect the State’s diverse fish, wildlife, plant resources, and native habitats. CDFG is also responsible for the diversified use of fish and wildlife including recreational, commercial, scientific and educational uses. The Department of Fish and Game divides the State into seven

management regions. San Mateo County is part of the Bay Delta Region, which also includes Alameda, Contra Costa, Marin, Napa, Sacramento, Santa Clara, Santa Cruz, San Francisco, San Joaquin, Solano, Sonoma and Yolo Counties.

The Town of Woodside primarily interacts with the CDFG under two specific circumstances: when a development project potentially impacts riparian areas or impacts listed species.

### **Impacts on Riparian Areas:**

Fish and Game Code Section 1602 requires any person, State or local governmental agency, or public utility to notify the Department before beginning any activity that will do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream or lake; and/or,
- Substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; and/or,
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. The Town routes applications with potential riparian impacts to CDFG for review and comment. In some cases, a Lake or Streambed Alteration Agreement between CDFG and a property owner may be required if resources are adversely impacted. The Agreement includes reasonable conditions necessary to protect those resources and must comply with the California Environmental Quality Act (CEQA).

A project in Woodside that would require a Streambed Alteration Agreement is the installation of a buttressing wall within a stream bed to stabilize a stream bank.

### **Impacts on CDFG:**

CDFG has developed listings of animal species that the agency protects through State regulations and procedures, including the California Environmental

Quality Act. CDFG consults with the Town of Woodside when listed species are potentially impacted, and provides the requisite biological expertise to assist in the CEQA process.

If a listed threatened, endangered, or candidate species is negatively impacted by a proposed project, then the California Endangered Species Act (CESA) allows CDFG to authorize the project through the issuance of an Incidental Take Permit. State law spells out specific criteria that must be met in order for the Incidental Take Permit to be issued. The terms and conditions of the permit are determined by CDFG and usually require the permittee to prepare and submit a mitigation plan. Other pertinent requirements and limitations are included in the State Fish and Game Code.

A project in Woodside that would require an incidental take permit through CDFG would be construction activity within a habitat area of a species that is either listed as “fully protected” or “a species of special concern”. In 2010, an example of a State listed “species of special concern” is the San Francisco dusky-footed woodrat.

### **California Natural Diversity Database (CNDDDB)**

The California Natural Diversity Database (CNDDDB) is a program within the California Department of Fish and Game’s Biogeographic Data Branch. The CNDDDB’s mission is to track the location and condition of California’s many species of rare and sensitive plants, animals, and natural communities. The CNDDDB includes in its computerized inventory all federally and State listed plants and animals, all species that are candidates for listing, all species of special concern, and those species that are considered “sensitive” by government agencies and the conservation community.

Because of the nature and organization of the CNDDDB, the smallest area for which CDFG will perform a data retrieval is approximately forty-one to forty-nine square miles. It should be noted that special status species may still be present in an area even if not listed in the CNDDDB. It thus only provides a first layer of review data.

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## REGIONAL AGENCIES AND MANDATES

### **Regional Water Quality Control Board (RWQCB)**

The California Legislature established the State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards (Regional Water Boards) in 1949. Operating under the provisions of the California Water Code. The State and Regional Boards' joint actions constitute a comprehensive program for managing water quality in California, as well as for effective State administration of federal water pollution control laws.

The State Water Board administers water rights, water pollution control, and water quality functions for the State as part of the California Environmental Protection Agency (Cal/EPA). It provides policy guidance and budgetary authority to the Regional Water Boards, which conduct planning, permitting, and enforcement activities. The State and Regional Water Boards share authority for implementation of the federal Clean Water Act and the State of California's Porter-Cologne Water Quality Control Act.

The San Francisco Bay Regional Water Quality Control Board regulates surface water and groundwater quality in the region. The area under the Water Board's jurisdiction comprises all of the San Francisco Bay segments extending to the mouth of the Sacramento-San Joaquin Delta. The Town is required by the Regional Board to comply with the Municipal Regional Stormwater Permit. The Town is a member of the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) which assists its members in meeting the various water permit requirements. This program is described in more depth in the Public Utilities Element.

### **Bay Area Air Quality Management District (BAAQMD)**

Air quality is regulated by the Bay Area Air Quality Management District (BAAQMD) in all nine of the San Francisco Bay Area counties. The most common interface with BAAQMD in Woodside is the required notification of the BAAQMD prior to the commencement of any demolition or renovation. This requirement exists when asbestos has been used extensively in residential, commercial and industrial construction. However, a ten day notice prior to start of work is required for demolition even when no asbestos is expected to be present.

The BAAQMD also requires permits for devices that release pollutants of concern into the atmosphere. In Woodside diesel generators are an emission source that requires a permit.

Additionally, Town projects requiring certain planning entitlements are required to comply with best management practices for protecting air quality, such as:

- Use dust-proof chutes for loading construction debris into trucks;
- Water, or cover, stockpiles of debris, soil, and other material that can be blown by the wind;
- Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard;
- Sweep daily (with water sweepers) all paved roads, parking areas, and staging areas at the construction site;
- Sweep adjacent public roads daily (with water sweepers) if soil material is visible, as directed by the Town Engineer;
- Enclose, cover, water twice daily, or apply non-toxic soil stabilizers to exposed stockpiles of dirt, sand, and other materials;
- Install erosion control measures to prevent runoff from the project site, from October 15th to April 15th; and,
- Limit grading.

OTHER AGENCIES AND ORGANIZATIONS

**California Native Plant Society (CNPS)**

The California Native Plant Society (CNPS) is a California not-for-profit organization that seeks to increase understanding of California’s native flora and to preserve that flora. The CNPS is divided into chapters covering the entire State. The organization works largely through the various chapters, which conduct regular field trips and are involved in advocacy and conservation of sensitive areas and rare plants in their regions. The CNPS developed the Inventory of Rare and Endangered Vascular Plants of California with the guidance of botanist and evolutionary biologist G. Ledyard Stebbins. The Inventory is published every three to five years and is enforced by the State and federal, governments for conservation planning.



*Lessingia arachnoidea*, **common name, Crystal Springs lessingia, (1B.2 CNPS Status).**

*Photo by Neal Kramer.*



*Lessingia hololeuca*, **common name, woolly-headed lessingia. (3 CNPS Status).**

*Photo by Doreen L. Smith.*



*Ranunculus lobbii*, **common name, Lobb’s aquatic buttercup. (4.2 CNPS Status).**

*Photo by Doreen L. Smith.*

**Table CV7: Special-Status Flora by USGS Quadrangle in and near Woodside**

Quadrangle	Common Name	Scientific Name	Federal Status	California Status	California Native Plant Society List
Woodside	Brewer's calandrinia	<i>Calandrinia breweri</i>	None	None	4.2
	California bottle-brush grass	<i>Elymus californicus</i>	None	None	4.3
	Crystal Springs lessingia	<i>Lessingia arachnoidea</i>	None	None	1B.2
	Franciscan onion	<i>Allium peninsulare</i> var. <i>franciscanum</i>	None	None	1B.2
	Lobb's aquatic buttercup	<i>Ranunculus lobbii</i>	None	None	4.2
	Oakland star-tulip	<i>Calochortus umbellatus</i>	None	None	4.2
	San Francisco wallflower	<i>Erysimum franciscanum</i>	None	None	4.2
	San Mateo thorn-mint	<i>Acanthomintha duttonii</i>	Endangered	Endangered	1B.1
	serpentine leptosiphon	<i>Leptosiphon ambiguus</i>	None	None	4.2
	white-rayed pentachaeta	<i>Pentachaeta bellidiflora</i>	Endangered	Endangered	1B.1
	woolly-headed lessingia	<i>Lessingia hololeuca</i>	None	None	3
Palo Alto	Brewer's calandrinia	<i>Calandrinia breweri</i>	None	None	4.2
	California androsace	<i>Androsace elongata</i> ssp. <i>acuta</i>	None	None	4.2
	fountain thistle	<i>Cirsium fontinale</i> var. <i>fontinale</i>	Endangered	Endangered	1B.1
La Honda	Kings Mountain manzanita	<i>Arctostaphylos regismontana</i>	None	None	1B.2
Mindego Hill	Brewer's calandrinia	<i>Calandrinia breweri</i>	None	None	4.2
	Lobb's aquatic buttercup	<i>Ranunculus lobbii</i>	None	None	4.2
	western leatherwood	<i>Dirca occidentalis</i>	None	None	1B.2

Source: California Department of Fish and Game Website, dated September 3, 2010

Note: The CNDDDB list is a dynamic list. Reference the California Department of Fish and Game's website for the current list.

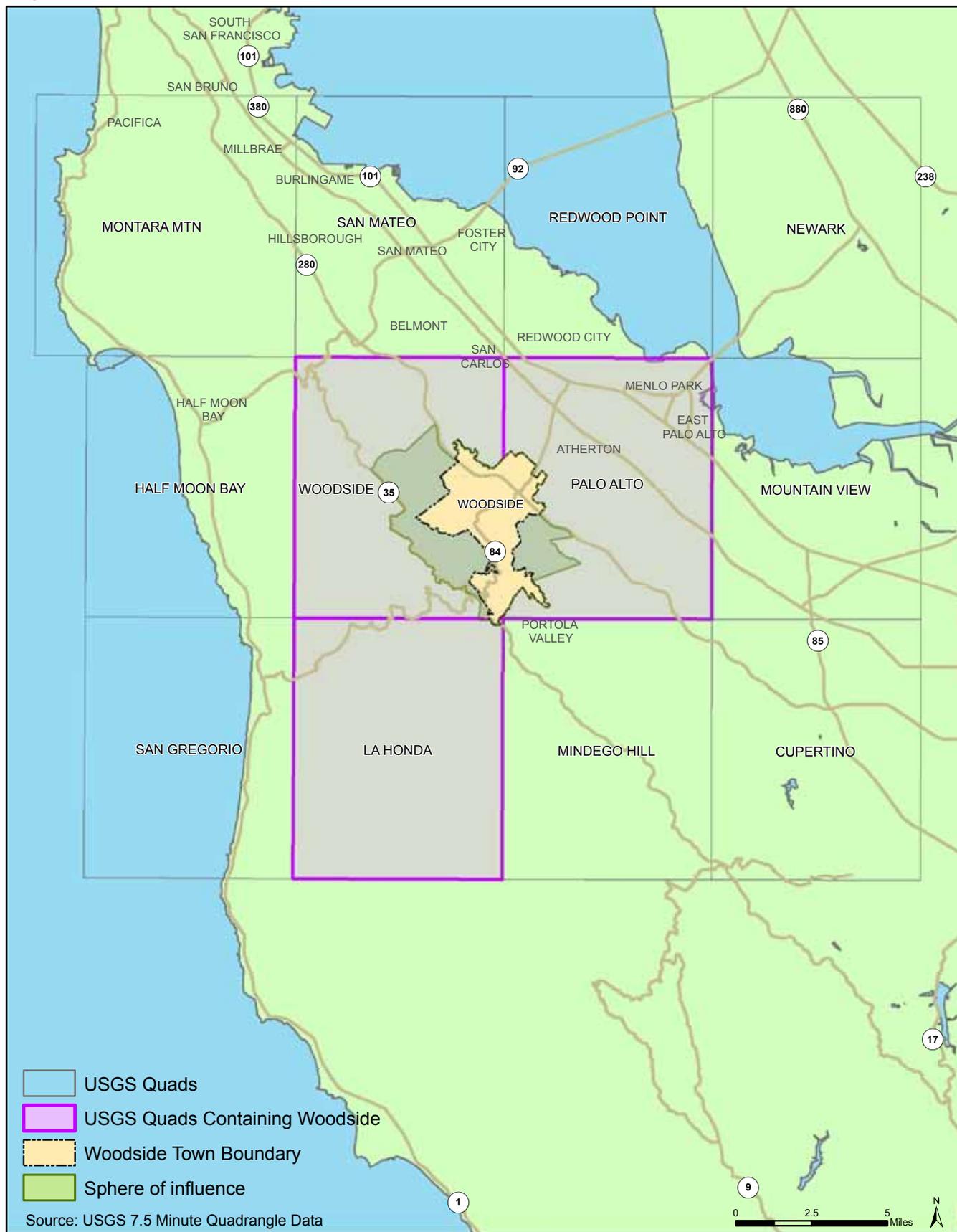
**Table CV8: Special-Status Fauna by USGS Quadrangle in and near Woodside**

Quadrangle	Common Name	Scientific Name	Federal Status	California Status	Department of Fish and Game Status
Woodside	California red-legged frog	<i>Rana draytonii</i>	Threatened	None	SSC
	Edgewood blind harvestman	<i>Calicina minor</i>	None	None	Unknown
	San Francisco dusky-footed woodrat	<i>Neotoma fuscipes annectens</i>	None	None	SSC
	San Francisco garter snake	<i>Thamnophis sirtalis tetrataenia</i>	Endangered	Endangered	FP
	steelhead - central California coast DPS	<i>Oncorhynchus mykiss irideus</i>	Threatened	None	Unknown
	western pond turtle	<i>Emys marmorata</i>	None	None	SSC
Palo Alto	Alameda song sparrow	<i>Melospiza melodia pusillula</i>	None	None	SSC
	burrowing owl	<i>Athene cucularia</i>	None	None	SSC
	California clapper rail	<i>Rallus longirostris obsoletus</i>	Endangered	Endangered	FP
	California tiger salamander	<i>Ambystoma californiense</i>	Threatened	Threatened	SSC
	saltmarsh common yellowthroat	<i>Geothlypis trichas sinuosa</i>	None	None	SSC
	San Francisco garter snake	<i>Thamnophis sirtalis tetrataenia</i>	Endangered	Endangered	FP
	western snowy plover	<i>Charadrius alexandrinus nivosus</i>	Threatened	None	SSC
La Honda	San Francisco garter snake	<i>Thamnophis sirtalis tetrataenia</i>	Endangered	Endangered	FP
	western pond turtle	<i>Emys marmorata</i>	None	None	SSC
	yellow warbler	<i>Dendroica petechia brewsteri</i>	None	None	SSC
Mindego Hill	San Francisco garter snake	<i>Thamnophis sirtalis tetrataenia</i>	Endangered	Endangered	FP
	steelhead - central California coast DPS	<i>Oncorhynchus mykiss irideus</i>	Threatened	None	Unknown
	western pond turtle	<i>Emys marmorata</i>	None	None	SSC

Source: California Department of Fish and Game Website, dated September 3, 2010

Note: The CNDDDB list is a dynamic list. Reference the California Department of Fish and Game's website for the current list.

Map CV3: 7.5 Minute USGS Quads



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# GOAL CV1

Maintain a healthy natural environment.

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The goal of the Conservation Element is to preserve, protect, and enhance the natural features, resources, and wildlife of the Town and Planning Area, which is essential to maintaining the health and quality of the natural environment within the Town and the broader ecosystem.

## POLICY CV1.1 – PLAN DEVELOPMENT TO BE SENSITIVE TO PRESERVATION OF NATURAL FEATURES AND LANDSCAPE

1. The natural features of a site proposed for development shall be the primary planning factor determining the scope and magnitude of development, and appropriateness of site use. Conservation of the natural landscape shall be an overriding consideration in the design of any land development or land division project, paying particular attention to its protection and the preservation of natural features and existing native vegetation.

2. Those areas rich in wildlife, or of a fragile ecological nature (e.g. areas of rare, endangered, or threatened species, riparian areas, etc.), shall be avoided in land development.

3. All projects that may have significant impact on the Woodside environment shall be reviewed by qualified professionals. The results of such review should be analyzed and, where necessary, mitigation measures implemented to insure against significant alteration or damage to the natural environment.

### Strategies:

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#### **a. Design Review**

Update the Residential Design Guidelines to stress conservation of the natural landscape in the site planning and design of residential projects.

#### **b. Preliminary Concept Review**

Consider requirements for preliminary concept review of site plans at an early stage in the review of development proposals to ensure that development intensity and the type and location of the proposed use are sensitive to the conservation of natural features.

#### **c. Biotic Report**

For development projects with the potential for impacts to species of concern or riparian habitat, the Town shall consult with CDFG to identify appropriate action. Additionally, where habitat (e.g., wetlands) or evidence of the presence of species of concern is identified, the Town shall require preparation of biotic reports and pre-construction surveys by a professional biological consultant in order to identify and mitigate potential impacts.

#### **d. Environmental Review**

Review and update the Town's environmental review procedures to ensure compliance with the California Environmental Quality Act (CEQA.) Consider adopting Town CEQA Guidelines to establish and communicate Town environmental procedures for requiring technical studies, biotic reports, and procedures for monitoring and reporting programs.

## POLICY CV1.2 – PROTECT RIPARIAN CORRIDORS AND WATER QUALITY

Particular attention shall be given to protection of the natural water regimen in the planning, environmental review, and completion of all land development, land divisions, or land alteration projects. Potential impacts from chemical discharges, animal waste, on-site septic systems, and surface water runoff shall be thoroughly considered.

## Strategies:

### a. Town Regulations

Review the adequacy of current Town regulations governing riparian setbacks.

### b. Riparian Setbacks

Enforce riparian setbacks to maintain and buffer the riparian corridor in the review of projects.

### c. Water Sediment

Continue to enforce erosion control requirements to minimize sedimentation of water bodies through the grading moratorium and inspection program.

### d. Residential Design Guidelines

Update the Residential Design Guidelines to specifically address the site design of projects near and impacting riparian corridors. Establish guidelines for setbacks that are sensitive to geomorphic, vegetative, and hydrological conditions, for appropriate siting of leach fields and drainage outlets, and for fencing sensitive to wildlife corridors.

### e. Construction Management

Develop and continuously update standard conditions for construction best management project practices to minimize impacts to water quality in compliance with the requirements of the Regional Water Quality Control Board.

### f. Chemical Discharges

Review methods for reducing the potential impacts of potentially toxic discharges from swimming pool chemicals, animal waste, septic system effluent, and surface water runoff swimming pool chemical when processing discretionary applications. Make information available to the public regarding ways to reduce the use and impacts of pesticides and fertilizers.

## POLICY CV1.3 – RETAIN AND RESTORE NATIVE FLORA AND FAUNA HABITAT AND POPULATIONS

Consider and minimize project impacts on native flora and fauna habitat and populations in compliance with State and federal law. Retain and restore native flora and fauna habitat and populations to the extent feasible.

1. Minimize the removal of vegetation. Where removal is necessary, replanting should be required to maintain soil stability, prevent erosion, maximize reoxygenation and retain the aesthetic qualities of the community. Emphasis should be placed upon maintenance of fauna habitat to preserve nesting areas and cover from predators.

2. Use native and fire resistant plants. In landscaping of individual sites, and replanting where original vegetation has been destroyed or removed, the emphasis shall be on use of native rather than exotic plants. Preference should be given to exotic plants with high fire resistance characteristics in areas of high fire risk.

3. Avoid topsoil destruction. Topsoil destruction through overuse by motor vehicles or horses should be considered in environmental impact review and preventive measures should be required where necessary. In those areas where topsoil has been destroyed, remedial measures should be initiated and pursued.

4. Avoid impacts to habitat and wildlife corridor. Structures and fences should be sited to avoid fragmentation of habitat areas, obstructions to linear wildlife corridors, and other adverse impacts.

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Strategies:

**a. Retain and Restore Listed Flora and Fauna Habitat and Populations**

Refine the Town's CEQA procedures to develop triggers for requiring biotic reports to facilitate mitigation of impacts to the habitat and populations of listed flora and fauna in accordance with State and federal law.

**b. Retain and Restore Non-listed Flora Habitat and Populations**

Update the Residential Design Guidelines and Municipal Code to include procedures for minimizing impacts to the habitat and populations of non-listed flora.

**c. Retain and Restore Non-listed Fauna Habitat, Wildlife Corridors, and Populations**

Update the Residential Design Guidelines to include procedures for minimizing impacts to the habitat, wildlife corridors, and populations of non-listed fauna.

**POLICY CV1.4 – CONSIDER FIRE PREVENTION IN MAINTAINING NATIVE LANDSCAPE**

Efforts to retain, restore, or enhance the native landscape should be balanced with the fire prevention requirements of an urban/wildland interface community.

Strategies:

**a. Promote Native and Fire Resistant Plants**

Update the Residential Design Guidelines and/or zoning regulations to encourage and/or require the use of fire resistant plants in landscape and site design.

**b. Coordinate Habitat Conservation and Fire Safety Regulations**

Update the Residential Design Guidelines to recognize, incorporate, and coordinate habitat conservation and fire safety requirements, including defensible space regulations applicable to designated Very High Fire Severity Hazard Zones.

**c. Public Information on Native and Fire Resistant Plants**

Provide the public with sources of information on native and fire resistant plants.

**d. Promote Guidelines for Selective Fuel Reduction**

Develop handouts and Town website pages which inform the public about the Town's urban/wildland interface characteristics and provide guidelines for selective fuel reduction. Coordinate this effort with the Woodside Fire Protection District and adjoining municipalities. Direction should balance habitat and environmental resource protection with fire safety.

## POLICY CV1.5 - PROTECT AIR QUALITY

Particular attention should be given to air quality in environmental, entitlement, and permitting reviews for land development and grading to ensure compliance with the requirements of the Bay Area Air Quality Management District.

### Strategies:

#### a. Construction Management

For projects requiring a Site Development Permit and involving grading or excavation, or involving significant demolition of structures or portions thereof, the following best management practices (BMPs) shall continue to be required:

- Use dust-proof chutes for loading construction debris into trucks;
- Water, or cover, stockpiles of debris, soil, and other material that can be blown by the wind;
- Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard;
- Sweep daily (with water sweepers) all paved roads, parking areas, and staging areas at the construction site;
- Sweep adjacent public roads daily (with water sweepers) if soil material is visible, as directed by the Town Engineer;
- Enclose, cover, water twice daily, or apply non-toxic soil stabilizers to exposed stockpiles of dirt, sand, and other materials;
- Install erosion control measures to prevent runoff from the project site, from October 15th to April 15th; and,
- Limit grading.

## POLICY CV1.6 – PURSUE COLLABORATIVE CONSERVATION EFFORTS

The Town will participate in, or support, conservation efforts of other jurisdictions, agencies or organizations that are of mutual benefit.

### Strategies:

#### a. Cooperation with Conservation Efforts

Participate in, or support, conservation efforts of other governmental and local agencies.

## POLICY CV1.7 – REVIEW REGULATIONS TO IMPLEMENT CONSERVATION POLICIES

The Town shall review and assess existing Town regulations and update as needed to conserve the resources of the Woodside Planning Area.

### Strategies:

#### a. Update Regulations

Review, update, and coordinate the Town's land use, site development, and land division regulations to conserve natural resources. The emphasis of these regulations is to draw attention to soils, geology, drainage, wildlife, vegetation, fire and other factors in stages of project review. The regulations should strive to:

1. Ensure that a full range of environmental concerns is addressed before major decisions are made; establish more uniform procedures for administration of regulations; and provide applicants with a single, unified source of information regarding Town requirements for conservation and development.
2. Address specific issues of concern:
  - construction, maintenance, and resulting habitat of manmade bodies of water;
  - the impact of fences on wildlife corridors;
  - expanded natural state requirements;
  - new landscape water efficiency laws; and,
  - Dark Skies Initiative.

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## POLICY CV1.8 – COLLECT BIOLOGICAL AND GEOLOGICAL DATA

The Town should refine its inventory of important natural resources, such as streams, bodies of water, wildlife habitat, vegetation, and geological features, so that they may be more easily identified during project review and specific measures can be designed for their protection.

### Strategies:

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#### **a. Town Reports**

##### 1. Geologic/Geotechnical Reports

Electronically file all site specific technical reports, geotechnical (soil characteristics) and geological (bedrock structure, faults, land instability) reports, and update the Town Geologic Map accordingly.

##### 2. Biological Reports

Electronically file all site specific biological reports.

#### **b. Native Plants**

Maintain a link on the Town's website to current CDFG flora and fauna data by USGS Quad.

#### **c. Habitat Map**

Refine and update the General Woodside Habitat Map.

#### **d. Streams and Bodies of Water Map**

Refine and update the Streams and Bodies of Water Map.

## POLICY CV1.9 – PROMOTE EDUCATION AND CONSERVATION ACTIONS

The Town shall institute or participate in education and information programs which aid the community in preserving, protecting, and enhancing natural resources.

### Strategies:

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#### **a. Community Outreach**

Institute, or participate in, and publicize relevant community education and information programs. Potential topics include reduction of fire risk, pest control and pesticides, measures to prevent erosion, positive soil husbandry practices, care of vegetation, and invasive species removal.

#### **b. Online Education**

Create a Conservation page on the Town website as a forum for disseminating conservation information.

#### **c. Cooperative Efforts**

Cooperate with other jurisdictions, agencies, or organizations in providing community education and information programs.

#### **d. Individual Initiative**

Promote and encourage individual initiative by local residents and property owners to carry out specific efforts for the protection of the environment, such as:

- Composting;
- Replanting to prevent erosion;
- Control, or elimination, of exotic weed species;
- Use of limited and appropriate pesticides and herbicides;
- Removal of selective vegetation to reduce fire hazard;
- Replacement of highly flammable vegetation with less flammable materials;
- Use of native plants in preference to exotics in replanting;
- Treatment, or removal, of diseased trees;
- Protection of streamside vegetation; and,
- Use of wildlife friendly fencing.

#### **e. Community Action**

Promote and encourage cooperative or coordinated efforts to carry out specific projects for the protection of the environment where the problem involves an area larger than individual properties. Such projects might include the removal of any long standing obstruction to natural drainage or restoration of stream banks.