

3 OPEN SPACE & CONSERVATION ELEMENT

The Town of Tiburon's open spaces and scenic natural environment are among the most defining and beloved of its characteristics. Consequently, the preservation of additional open space is a primary consideration in the review and approval of new subdivisions. Developers and decision-makers are strongly encouraged to become familiar with this element.

3.1 EXISTING OPEN SPACE & PROTECTED RESOURCES

Tiburon, by virtue of its natural setting as a peninsula extending into San Francisco Bay and the foresight and continued efforts of its citizens and leaders, has a substantial network of open space within its Planning Area. There are over 800 acres of protected open space owned by the Town or other public entity, or private open space that is protected from development by easement or other instrument (see Diagram 3.1-1). Angel Island State Park, a valuable natural and historic resource, is also located within the Planning Area.

The vast open spaces that are the pride and joy of Tiburon residents did not happen accidentally. For over 30 years, the Town has aggressively pursued the preservation of land as open space.

In 1972, the Town passed a \$1.25 million bond measure for the purpose of acquiring land for open space and recreational purposes. The resulting Open Space Bond Fund was primarily used for the acquisition of sensitive ridgeline and shoreline parcels. From 1973 to 1983, the Bond Fund was used to acquire or help acquire approximately 165 acres of land, including Blackie's Pasture, the Richardson

Tiburon Ridge Trail

Over the course of 30 years, the Town has created a Tiburon Ridge Trail by putting together open space purchases, land dedications, public streets, public pedestrian easements, and other sources of acquisition.

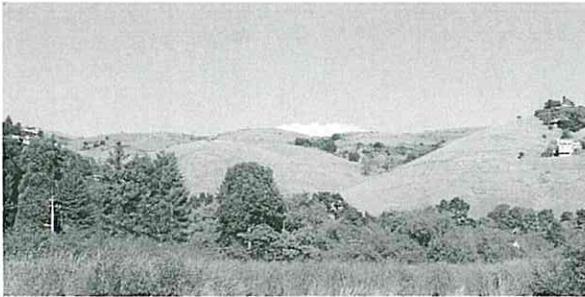
The Ridge Trail has been developed for the enjoyment of Tiburon residents and to provide an alternative connection between neighborhoods.

While not complete, it is now possible to walk from Via Los Altos, past Ring Mountain, to downtown, primarily along the Tiburon Ridge.

The Town will continue to work toward completion of the Tiburon Ridge trail.

Bay Shoreline, and the Middle Ridge.

Spearheaded by the Last Chance Committee, a Community Facilities District made up of all properties south of Trestle Glen Blvd. was formed in 1993. That same year, voters in the District passed a ballot measure authorizing the sale of bonds to purchase open space land at the end of the Tiburon Peninsula. The 1993 Open Space Bond was used to purchase the land which is now the Marin County Open Space District's Old St. Hillary's Open Space Preserve.



In 1995 and 1996, voter approved assessment districts helped the Marin Open Space District purchase the properties that are now the Old St. Hillary's Open Space Preserve.

In addition to these efforts, approximately 160 acres of open space land has been dedicated to the Town over the years by its owners. The Town has also used the development review process to secure approximately 115 acres of private open space, which remains private property but is protected from development by easement or other instrument.

Wildlife Refuges

There are two wildlife refuges in the Planning Area, the Tiburon Audubon Center and Sanctuary and the Mount Tamalpais Game Refuge, which cover Richardson Bay and surrounding areas (see Diagram 3.1-1). The Tiburon Audubon Center and Sanctuary has 11 acres of land and 900 submerged acres which are closed to boating and other public recreational use for six months of the year.

The Mount Tamalpais Game Refuge, which covers portions of Richardson Bay and the Strawberry Peninsula, was established by the State of California. State law prohibits taking or possessing any bird or mammal, or using or possessing any firearm, bow and arrow, or trap within the Game Refuge.

Historic Resources

The Town has several sites which have been listed on the National Register of Historic Places, listed as a California Historic Landmark, or have been designated as Town Historical Landmarks (see Table 3.1-1).

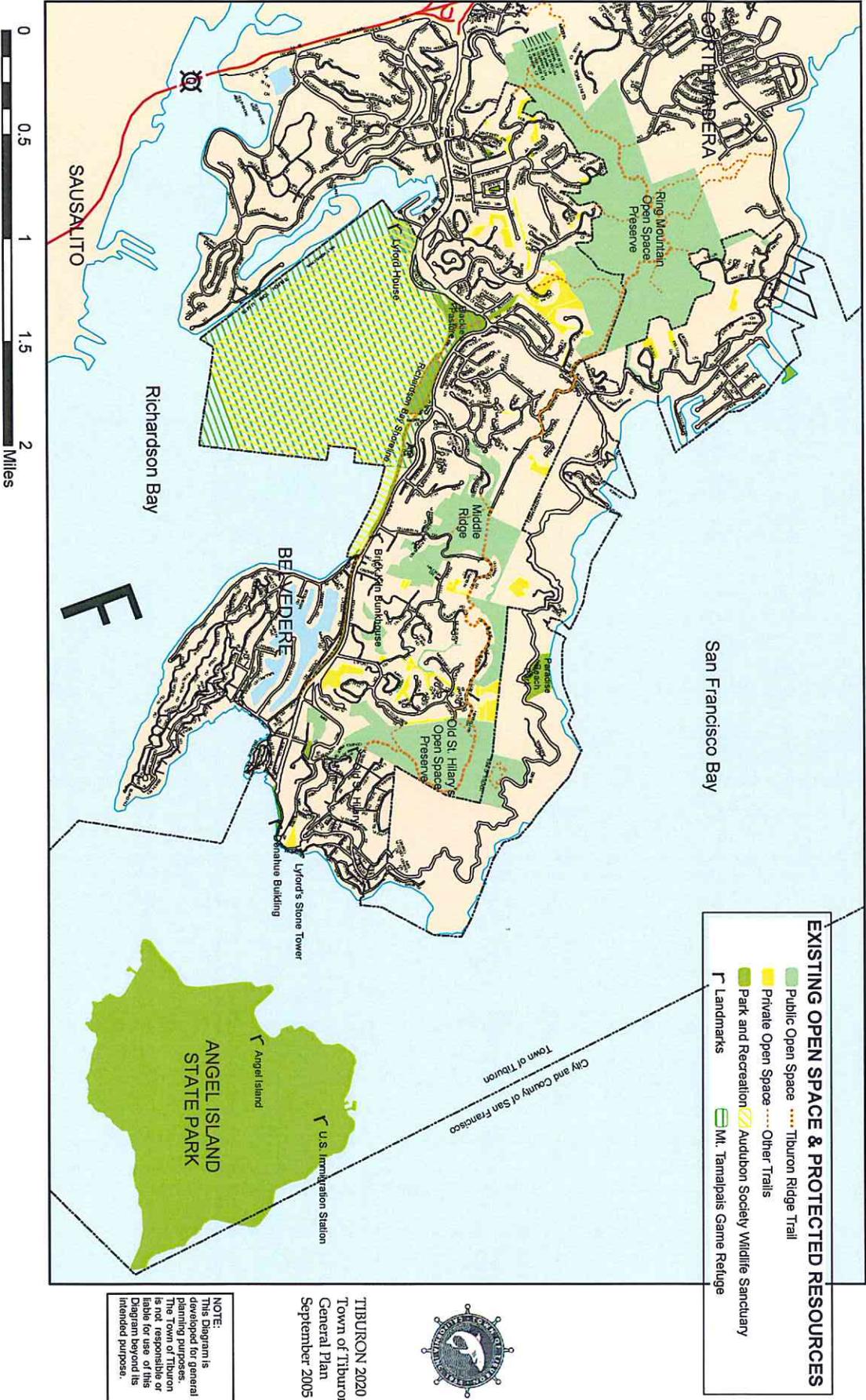


Diagram 3.1-1 Existing Open Space & Protected Resources

While it is considered a prestigious recognition of historic value, listing on the National Register of Historic Places does not alter the property rights of the owner of the property. Unless there is federal government involvement in a project, there is no requirement for federal review of changes to the property. An advantage of listing on the National Register is the eligibility for tax incentives to rehabilitate and conserve properties.

The Town has designated five sites as Historic Landmarks, which serve to remind all citizens and visitors of the Town's history. The Town's Historical Landmarks are protected by the Heritage and Arts Commission, which

Table 3.1-1 Designated Historic Sites, Town of Tiburon

<p>National Register of Historic Places U.S. Immigration Station, Angel Island Donahue Building* Lyford House* Lyford's Stone Tower*</p> <p>California Historical Landmark Angel Island</p> <p>Town of Tiburon Historical Landmark Brick Kiln Bunkhouse Old St. Hilary's Church</p> <p>* - Also a Town Landmark</p>

must approve any alteration, repair, or addition to the Landmarks.

Old St. Hilary's Church, the Donahue Building, and the Brick Kiln Bunkhouse were acquired and are preserved by the Belvedere - Tiburon Landmarks Society, a non-profit organization dedicated to the acquisition and preservation of historic properties.

3.2 OPEN SPACE & CONSERVATION GOALS

- OSC-A:** To maximize, protect, preserve and enhance the Town's unique open space and natural beauty.
- OSC-B:** To provide and permanently preserve as much open space as possible to protect shorelines, open water, wetlands, significant ridgelines, streams, drainageways, riparian corridors, steep slopes, rock outcroppings, special status species and their habitat, woodlands, and areas of visual importance, such as views of and views from open space.
- OSC-C:** To permanently protect to the maximum extent feasible, the unique open space character of the Town which is attributable to its large amounts of undeveloped land and open water.

- OSC-D:** To permanently protect as conservation areas, to the maximum extent feasible, all lands and other areas in the public trust.
- OSC-E:** To manage the Town's open spaces for the benefit of the entire community.
- OSC-F:** To preserve and improve the quality of the environment through resource restoration and conservation, management, and pollution control.

3.3 PRIME OPEN SPACE PRESERVATION

Prime Open Space is open space that is worthy of permanent protection due to its characteristics and attributes. The intent of this section is to permanently protect Prime Open Space through the development review process to the maximum extent feasible.

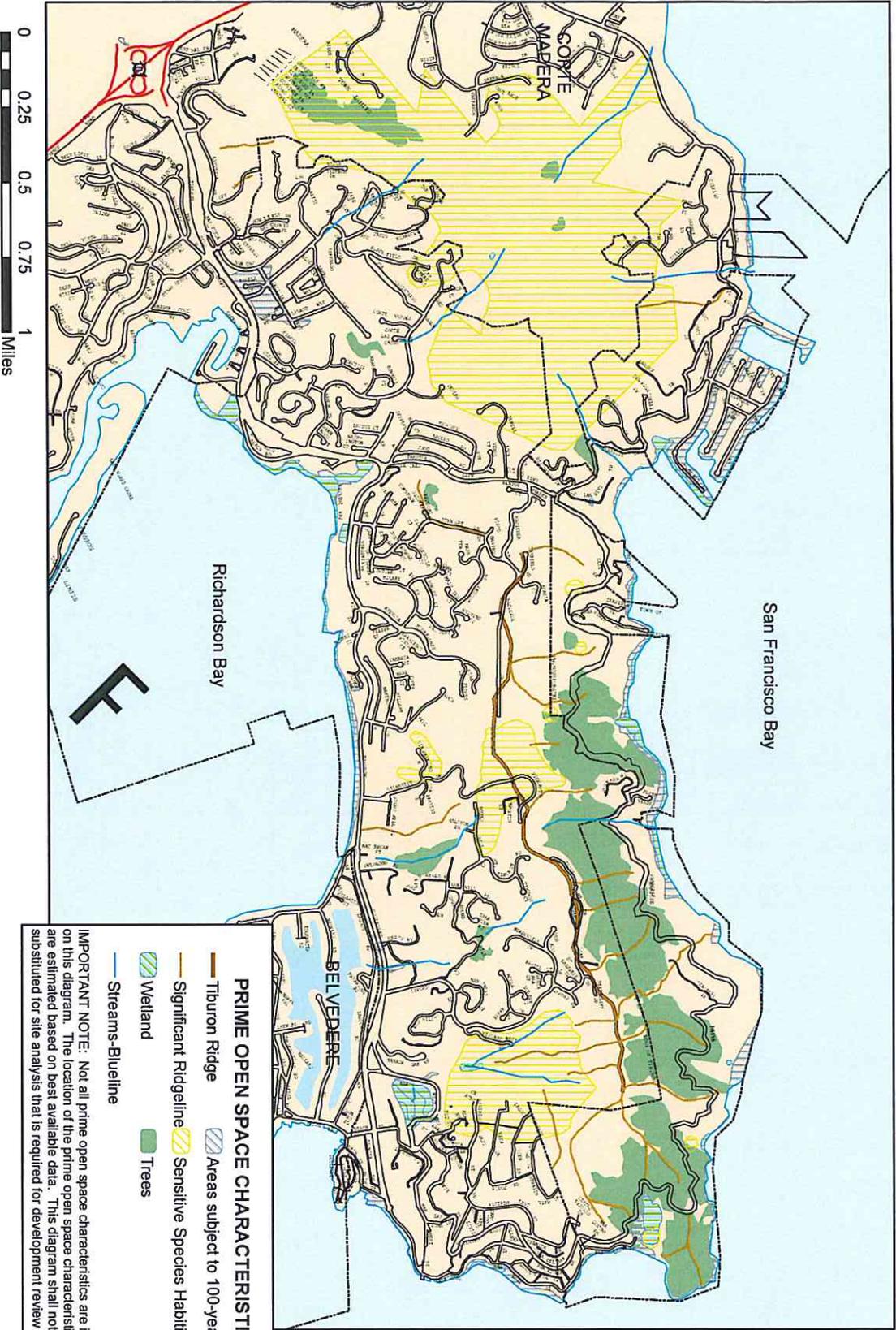
Although they are to be applied to all applications for development, Prime Open Space policies are intended to primarily achieve the objective of

Prime Open Space Characteristics

Ridgelines
 Water and Shoreline Areas
 Wetlands
 Streams and Riparian Corridors
 Flood-Prone Areas
 Wildlife and Wildlife Habitat
 Steep Slopes
 Views
 Trees and Woodlands

preserving the land with the highest open space value on lands subject to subdivision or other development, such as those that are designated Planned Development - Residential in the Land Use Element. Often, when designing a subdivision, a developer's last consideration is what should be preserved as open space. This approach can result in land that has little value to the community being proposed as open space. *Tiburon 2020's* Prime Open Space

policies define which open space is valuable to the community. Developers are strongly encouraged to take into consideration all Prime Open Space policies before laying out roads, lots, and building envelopes within a proposed subdivision. Diagram 3.3-1 provides an overview of the general location of some, but not all, of the Prime Open Space characteristics.



PRIME OPEN SPACE CHARACTERISTICS

- Tiburon Ridge
- Significant Ridgeline
- Wetland
- Streams-BlueLine
- Areas subject to 100-year flood
- Sensitive Species Habitat
- Trees

IMPORTANT NOTE: Not all prime open space characteristics are identified on this diagram. The location of the prime open space characteristics are estimated based on best available data. This diagram shall not be substituted for site analysis that is required for development review applications.

NOTE:
This Diagram is developed for general planning purposes. The Town of Tiburon is not responsible or liable for use of this Diagram beyond its intended purpose.

TIBURON 2020
Town of Tiburon
General Plan
September 2005



Diagram 3.3-1 Overview of Some Prime Open Space Characteristics

General Open Space Preservation Policies

- OSC-1:** The Town shall strive to permanently preserve through setbacks, dedication, purchase, easement, or other appropriate means exceptional structures, sites, open space and sensitive environmental resources. The Town shall strongly encourage the permanent protection of open space through: conveyance of fee title to an appropriate government agency or land trust; by easement; deed restriction; or other appropriate mechanism acceptable to the Town.
- OSC-2:** In considering whether open space land shall be dedicated to the Town or other public entity, the benefits to the community of public ownership shall be weighed against the costs of management efforts and other liabilities associated with owning the land.
- OSC-3:** The Town shall strive to secure, through trail easements that connect to other public trails or through other appropriate mechanisms, public access to those portions of open space land most appropriate for public use.
- OSC-4:** Public or private open space shall be permanently protected. It is the Town's general policy that publicly-owned open space land will not be traded or sold.
- OSC-5:** The Town hereby establishes a goal that a minimum of 50% of the area of lands designated as Planned Development - Residential shall be preserved as permanent open space.
- OSC-6:** The Town prefers clustering of lots in new subdivision design to maximize the preservation of open space to the greatest extent feasible. However, where the Town determines that a project would better conform to the goals and policies of the General Plan, "estate lot" type development (i.e., large homes on large lots) may be considered. Easement, deed restriction, or other appropriate mechanism acceptable to the Town shall be used to preserve open space within common areas or individual lots.

Open Space Continuity Policies

Open spaces have greater value when they are larger and contiguous. Natural communities benefit because larger distances are undisturbed from human development or interference. The scenic quality of the open space is also preserved when there are larger tracts uncluttered by development.

OSC-7: Where possible, land that is proposed for preservation as permanent open space shall be contiguous to existing open space and/or open space areas that may in the future be permanently preserved.

OSC-8: Where appropriate, greenbelts shall be required to separate development areas or to link open space areas.

Ridgeline Policies

Besides water, ridgelines are the most visually defining open space attribute in the Planning Area. Ridgelines also provide the greatest opportunity for community scenic value. Public access to the Tiburon Ridge and Significant Ridgelines allows community members to enjoy the views that make Tiburon a special place. The ridgeline policies establish that ridgelines have the highest value to the community as open space.

In 1992, the Town Council adopted a Resolution (2859) which affirmed that "in balancing open space interests with development interests,



Significant ridgelines, including these at the end of the Tiburon Peninsula, have been identified by the Town and their protection has been given the highest priority.

decision-makers shall consider the protection of ridgelines to the maximum extent feasible to be of the highest priority.” The Resolution also designated other Significant Ridgelines to be subject to General Plan and Zoning Ordinance policies and regulations concerning “ridgelines, significant ridgelines, and secondary ridgelines.” The Significant Ridgelines designated by Town Council Resolution 2859 are shown on Diagram 3.3-1.

OSC-9: Undeveloped ridgelines have overriding visual significance to the Town. In balancing open space interests with development interests, the protection of predominantly undeveloped ridgelines shall have the highest priority.

OSC-10: Development and the construction of buildings and yard improvements associated with development, including landscaping and trees, shall be set back a minimum of 150 horizontal feet of either side of Tiburon Ridge.

OSC-11: Development and the construction of buildings and yard improvements associated with development, including landscaping and trees, shall be set back a minimum of 50 vertical feet of either side of Tiburon Ridge, measured from the highest point of the roofline of a structure or tree.

If strict application of policies OSC-10 and OSC-11 prevents all reasonable use of the property, encroachment into the setbacks may be allowed provided that structures are limited to a maximum 15 feet in height, as defined by the Tiburon Zoning Ordinance, and provided that both horizontal and vertical encroachment are minimized.

OSC-12: Development shall be set back from Significant Ridgelines. Setbacks shall be based on an evaluation of the following characteristics: local

Evaluating Significant Ridgelines

In evaluating **Significant Ridgelines** for protection, all characteristics identified in Policy OSC-12 should not be judged equally. Significant Ridgelines that have a high visual prominence, have the potential to connect to the Tiburon Ridge Trail, or have a distinct ridgeline land form, such as those found at the eastern terminus of the Tiburon Ridge, should be afforded greater protection than those that have low visibility, do not connect to the Tiburon Ridge, or do not have distinct ridgeline land forms.

and regional visual prominence, ability to connect to existing or potential open space, potential to act as a neighborhood separator, views of and views from, length, height, presence of trees, presence of unusual physical characteristics, highly visible open slopes, significant vegetation, sensitive habitat, special silhouette or back-drop features, difficulty of developing or accessing, and integrity of the ridgeline land form.

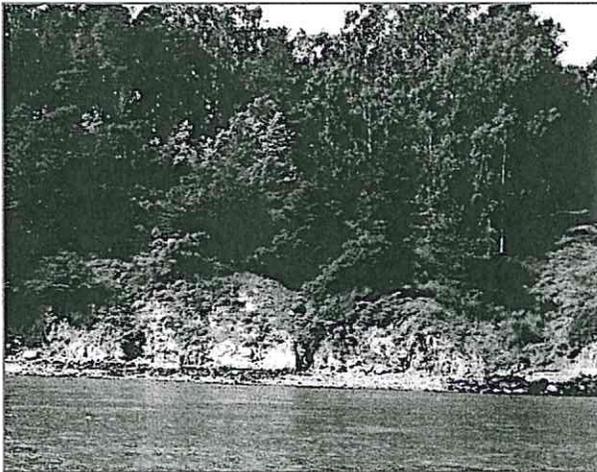
OSC-13: Roads and utilities constructed along or across the Tiburon Ridge or Significant Ridgelines shall be strongly discouraged. If no other vehicular access is viable, crossing of ridges shall be minimized and shall be as near to perpendicular to the ridgeline as possible.

Water and Shoreline Area Policies

Because San Francisco Bay is navigable, it is under the jurisdiction of the U.S. Army Corps of Engineers. The Corps has permit authority for activity within the navigable waterways, and the waters of the United States, including wetlands.

The U.S. Coast Guard, a part of the new Department of Homeland Security, is charged with protecting the public, the environment, and economic interests in the nation's ports and waterways and along the coast.

The Bay Conservation and Development Commission (BCDC) has jurisdiction over bay filling and dredging and shoreline development on the Bay and on a 100 foot band around the Bay. BCDC implements the *San Francisco Bay Plan* by issuing permits for Bay filling and dredging and shoreline development. With respect to shoreline development, the *Plan* calls for BCDC to "ensure that each new shoreline development increases public access to the Bay to the maximum extent feasible."



Water and shoreline areas are one of Tiburon's defining natural features.

- OSC-14:** Use of open water shall be limited to landings for boats; boating, swimming, fishing; and parks.
- OSC-15:** Maintenance and replacement of lawfully existing structures built over San Francisco Bay (bayward of the mean high tide line) may be permitted. However, with the exception of piers, docks, and public access facilities approved by the Bay Conservation and Development Commission (BCDC), expansion of existing structures or construction of new structures that would result in new filling of San Francisco Bay shall be prohibited.
- OSC-16:** The Town shall preserve and enhance the diversity of wildlife and aquatic habitats found in the Planning Area bayfront lands, including tidal marshes, seasonal marshes, lagoons, wetlands, and low-lying grasslands over historical marshlands.
- OSC-17:** Development shall not encroach into sensitive wildlife habitats, limit normal range areas, or create barriers to wildlife that cut off or substantially impede access to food, water, or shelter, or cause damage to fisheries or fish habitats. Access to environmentally sensitive marshland and adjacent habitat shall be restricted, especially during spawning and nesting seasons.
- OSC-18:** Freshwater habitats in the bayfront areas associated with freshwater streams and small former marshes should be preserved and/or expanded so that the circulation, distribution, and flow of the fresh water supply are facilitated.
- OSC-19:** Those areas underlain by deposits of “young muds” should be reserved for water-related recreational opportunities, habitat, open space, or limited development subject to approval by the Corps of Engineers and other trustee agencies.

Wetland Policies

The U.S. Fish and Wildlife Service define wetlands as:

lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the

following three attributes: at least periodically, the land supports predominantly hydrophytes; the substrate is predominantly undrained hydric soil (soil formed under saturated conditions); and the substrate is nonsolid and is saturated with water or covered by shallow water at some time during the growing season of each year.¹

Under this definition swamps; freshwater, brackish water, and saltwater marshes; bogs; vernal pools, periodically inundated saltflats; intertidal mudflats; wet meadows; wet pastures; springs and seeps; portions of lakes, ponds, rivers and streams; and all other areas which are periodically or permanently covered by shallow water, or dominated by hydrophytic vegetation, or in which the soils are predominantly hydric in nature are considered wetlands.

Wetlands are important for habitat; sediment, erosion and pollution control; flood storage; water recharge; recreation and scientific research; and education.

Under Section 404 of the federal Clean Water Act, the U.S. Army Corps of Engineers (Corps) regulates the discharge of fill materials into waters of the United States, including wetlands, by issuing permits. The type of permit needed depends on the amount of acreage and the purpose of the proposed fill, subject to the discretion of the Corps. To simplify the permit review process, nationwide permits cover a number of routine activities such as minor road crossings, utility line crossings, streambank protection, recreational facilities and outfall structures. The Corps has discretionary authority over projects where impacts are considered significant, requiring adequate mitigation and permit approval.

At the state level, the California Department of Fish and Game (CDFG) has jurisdiction over wetland areas. State law states that "an entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream or lake, 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" without notifying the CDFG, incorporating necessary mitigation, and obtaining a streambed alteration agreement.

¹ Cowardin, *Classification of Wetlands and Deepwater Habitats of the United States*; FWS/OBS 79/31; December 1979.

OSC-20: Buffer zones of at least 100 feet shall be provided, to the maximum extent feasible, between development and wetland areas.

OSC-21: Development and construction shall comply with all federal and state regulations regarding jurisdictional waters and wetlands.

Streams and Riparian Corridor Policy

Streams convey, filter, and store sediment and nutrients, and their floodplains are important for recharge of groundwater aquifers and flood prevention. They also provide critical wildlife movement corridors between important habitats for both aquatic and terrestrial species. Ephemeral channels are important for maintaining healthy watersheds. Perennial and intermittent streams provide fish migration routes.



Riparian corridors assist in erosion control, provide areas for flood waters, help maintain water quality, and provide habitat for wildlife.

Riparian vegetation is essential to proper functioning of stream systems and is a critical component of high quality habitat. Woody vegetation provides shade that keeps water temperatures within tolerable ranges for aquatic organisms, stabilizes streambanks and floodplains, and provides protective cover for wildlife.

OSC-22: In its review of applications for development, the Town shall require open space buffers of at least 50 feet on each side of the top of the bank of perennial, intermittent, and ephemeral streams on properties less than five acres and of at least 100 feet on each side of the top of the bank on properties greater than five acres, to minimize disturbance of natural vegetation and maintain the environmental and scenic attributes of the corridor. Where modification of corridors is required for flood control or crossings, such modification shall be made in an environmentally sensitive manner that enhances, replaces or retains vegetation.

Flood-Prone Area Policies

In addition to posing a threat to property and improvements, flooding also presents a threat to the natural environment. Flood waters carry pollutants that would normally be out of the reach of surface water. Additionally, flood plains serve as a natural protection against flooding. Areas within a waterways' natural flood plain are capable of absorbing flood waters. Creation of impervious surfaces reduces this natural function and can create or exacerbate flooding further downstream.

OSC-23: New subdivisions shall avoid construction on lands that are shown to be within the 100-year flood hazard zone as shown on the current FEMA Flood Rate Insurance Map.

OSC-24: Areas defined as floodplain should serve the dual purpose of habitat and flood protection.

Wildlife and Habitat Policies

For planning purposes, special-status species include:

- Species officially designated threatened or endangered or candidates for designation by the U.S. Fish and Wildlife Service (USFWS).
- Species officially designated rare, threatened, or endangered or candidates for designation by the California Department of Fish and Game (CDFG).
- Species which are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those listed in the *Inventory of Rare and Endangered Vascular Plants of California* by the California Native Plant Society.



*The Tiburon Indian paintbrush is a federally listed endangered species.
Photo © 1991
California Native Plant Society*

A number of federal and state laws have been enacted to protect sensitive biological resources. The federal Endangered Species Act is implemented by the USFWS and the National Marine Fisheries Service. At the state level, the CDFG is responsible for the administration of the state Endangered Species Act.

Special-Status Species in Tiburon

The primary information source for the distribution of special-status species is the California Natural Diversity Database (CNDDDB). The CNDDDB is a digital inventory of the locations of the state's special-status plants, animals and natural communities. The CNDDDB records occurrence data are provided by a variety of scientific, academic, and professional organizations. The absence of reported occurrences does not mean that a species does not exist in an area, only that it has not been seen and recorded.

Table 3.3-1 lists the special status species and natural communities that are known to exist in the Planning Area.

Table 3.3-1 Special Status Species and Special Communities Known to Occur within the Planning Area

<i>Common Name (Scientific Name)</i>	<i>Status Federal/State/CNPS¹</i>	<i>General Habitat</i>
AMPHIBIANS/REPTILES		
California red-legged frog (<i>Rana aurora draytonii</i>)	FT/--	Varied habitat along streams and ponds
Northwestern pond turtle (<i>Clemmys marmorata marmorata</i>)	FT / CSC	Streams/ponds/lakes
BIRDS		
Black-crowned night heron (<i>Nycticorax nycticorax</i>) (rookery)	-- / --	Colonial nester in trees/shrubs near marshland
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	--/ ST; FP	Coastal saltmarsh
California clapper rail (<i>Rallus longirostris obsoletus</i>)	FE/SE	Salt and brackish marsh
Cooper's Hawk (<i>Accipiter cooperii</i>) (nesting)	--/CSC	Forest/woodlands/riparian in open areas
Great egret (<i>Ardea alba</i>) (rookery)	-- / --	Colonial nester in large trees
Great blue heron (<i>Ardea Herodias</i>) (rookery)	--/--	Colonial nester in large trees
Northern harrier (<i>Circus cyaneus</i>) (nesting)	-- / CSC	Nesting in marsh and low shrubs
Saltmarsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>) (nesting)	-- / CSC	Salt and brackish water marsh
Snowy egret (<i>Egretta thula</i>) (rookery)	-- / --	Colonial nester in trees, cliff-sides, near marshland
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>) (nesting)	FT / CSC	Nesting along sandy beaches and shorelines

<i>Common Name (Scientific Name)</i>	<i>Status Federal/State/CNPS¹</i>	<i>General Habitat</i>
White-tailed kite (<i>Elanus leucurus</i>) (nesting)	-- / FP	Nesting in grassland/ marshland with trees
Yellow warbler (<i>Dendroica petechia brewsteri</i>) (nesting)	-- / CSC	Nesting in willows and riparian cover
INVERTEBRATES		
Monarch butterfly (<i>Danaus plexippus</i>)	--/--	Overwinters in blue gum eucalyptus
Ricksecker's water scavenger beetle (<i>Hydrochara rickseckeri</i>)	-- / --	Aquatic habitat/pools and ponds
Tiburon micro-blind harvestman (<i>Microcina tiburona</i>)	--/--	Serpentine outcrops near spring/seeps
MAMMALS		
Angel Island mole (<i>Scapanus latimanus isularis</i>)	-- / CSC	Coastal scrub/prairie on Angel Island
Pallid bat (<i>Antrozous pallidus</i>)	-- / CSC	Roosts in protected locations
Salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE / SE; FP	Coastal saltmarsh
Townsend's western big-eared bat (<i>Corynorhinus townsendii townsendii</i>)	-- / CSC	Roosts in protected locations
PLANTS		
Bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	-- / -- / 1B	Coastal bluff scrub/woodland/grassland
Diablo helianthella (<i>Helianthella castanea</i>)	-- / -- / 1B	Forest/chaparral/woodland/coastal scrub/grassland
Fragrant fritillary (<i>Fritillaria lilacea</i>)	SC / -- / 1B	Coastal scrub/prairie/grassland
Hairless popcorn-flower (<i>Plagiobothrys glaber</i>)	-- / -- / 1A	Meadows/seeps/marshes/swamps
Marin knotweed (<i>Polygonum marinense</i>)	SC / -- / 3	Marshes/swamps
Marin western flax (<i>Hesperolinon congestum</i>)	FT/ST/1B	Chaparral/grassland
Napa false indigo (<i>Amorpha californiaca varnapensis</i>)	-- / -- / 1B	Forest/chaparral/woodland
Point Reyes bird's-beak (<i>Cordylanthus maritimus ssp. Palustris</i>)	SC / -- / 1B	Coastal salt marsh
San Francisco gumplant (<i>Grindelia hirsutula var. maritima</i>)	-- / -- / 1B	Coastal bluff scrub/coastal scrub/grassland
San Francisco owl's clover (<i>Triphysaria floribunda</i>)	SC / -- / 1B	Coastal prairie/grassland
Santa Cruz microseris (<i>Stebbinsoseris decipiens</i>)	SC / -- / 1B	Forest/chaparral/coastal prairie/coastal scrub

<i>Common Name (Scientific Name)</i>	<i>Status Federal/State/CNPS¹</i>	<i>General Habitat</i>
Santa Cruz tarplant (<i>Holocarpha macradenia</i>)	FT / SE / 1B	Coastal prairie/coastal scrub/grassland
Showy indian clover (<i>Trifolium amoenum</i>)	FE/--/1B	Grassland/coastal bluff scrub
Soft bird's beak (<i>Cordylanthus mollis</i> spp. <i>mollis</i>)	FE / SR / 1B	Coastal saltmarsh
Sonoma alopecurus (<i>Alopecurus aequalis</i> <i>varsonomensis</i>)	FE / -- / 1B	Freshwater marsh/riparian scrub
Tiburon indian paintbrush (<i>Castilleja affinis</i> ssp. <i>Neglecta</i>)	FE / ST / 1B	Serpentine grassland
Tiburon jewel-flower (<i>Streptanthus niger</i>)	FE / SE / 1B	Grassland on serpentine
Tiburon mariposa lilly (<i>Calochortus tiburonensis</i>)	FT / ST / 1B	Serpentine grassland; narrowly endemic to Ring Mountain
White-rayed pentachaeta (<i>Pentachaeta bellidiflora</i>)	FE / SE / 1B	Grassland on serpentine
NATURAL COMMUNITIES		
Coastal Terrace Prairie	--/--	
Serpentine Bunchgrass	--/--	
1. CNPS - California Native Plant Society		
STATUS DESIGNATIONS		
Federal:		
FE - Listed as "endangered" under the federal Endangered Species Act		
FT - Listed as "threatened" under the federal Endangered Species Act		
PE - Proposed for federal listing as "endangered"		
PT - Proposed for federal listing as "threatened"		
C - A candidate species under review for federal listing.		
SC - Species of Concern; formerly considered a candidate species for listing by the USFWS		
State:		
SE - Listed as "endangered" under the California Endangered Species Act		
SR - Listed as "rare" under the California Endangered Species Act		
ST - Listed as "threatened" under the California Endangered Species Act		
FP - California fully protected species; individual may not be possessed or taken at any time		
CSC - Considered a California Special Concern species by the CDFG; taxa have no formal legal protection but nest sites and communal roosts are generally recognized as significant biotic features		
CNPS:		
1A - Plants of highest priority; Plants presumed extinct in California		
1B - Plants of highest priority; Plants rare, threatened, or endangered in California and elsewhere		
3 - Plants requiring additional information; a review list		
4 - Plants of limited distribution; a watch list		
Sources: Environmental Collaborative, April 2005		

OSC-25: A diversity and abundance of wildlife and marine life shall be protected and maintained. The Town shall strive to preserve and protect to the greatest extent feasible wildlife habitat in the open spaces, shoreline, marshes, mudflats, and other biologically sensitive areas.

OSC-26: To the maximum extent feasible, and as required by federal and state laws, development and construction shall not affect special status species or special communities.

Steep Slope Policy

Unstable soil and steepness tend to be related. For this reason, development of areas with steep slopes can be dangerous, either for the new development or for any existing improvements that may be located downhill or nearby.

OSC-27: The Town shall strongly discourage development on slopes exceeding 40%.

View Policies

Views are among the most important land-based qualities of open space. The views that the community members enjoy from their homes and open spaces are among the most valued characteristics of the community. In addition, views from or across water give the Planning Area a regional open space value.

OSC-28: Principal vistas, view points, and view corridors on land subject to development shall be identified and preserved to the maximum extent feasible.

OSC-29: Open space views from key roadways, including Tiburon Boulevard, Trestle Glen Boulevard, and Paradise Drive, shall be protected through the permitting process.

OSC-30: Development shall be encouraged in areas where it least interferes with views of and views from open space to the maximum extent feasible.

OSC-31: The preservation of visual qualities, views, and the view potential of the natural and built environment shall be a major consideration of the Town in any development project review.

OSC-32: The Town shall protect visual access to the bayfront and scenic vistas of water and distinct shorelines through its land use and development review procedures, to the greatest extent feasible.

Tree Policies

Trees and woodland areas are important natural resources which provide habitat for birds and shaded, protected areas for other animals; and help to stabilize hillsides. Trees and wooded areas also contribute to the visual character of the community.

Trees and woodlands are valued by the Town for their ecological importance, their visual enhancement of the community, and their contribution to residential privacy and quiet.

OSC-33: Protected trees, as defined in the Municipal Code, tree stands, and tree clusters shall be preserved to the maximum extent feasible.

OSC-34: The Town shall protect natural habitat, and natural wooded areas shall be preserved to the maximum extent feasible.

Protected Trees are defined in the Municipal Code as any of the following:

1. **HERITAGE TREE**, meaning any tree which has a trunk with a circumference exceeding 60 inches, measured 24 inches above ground level.
2. **OAK TREE**, including coast live oak, blue oak, California black oak, interior live oak, canyon live oak, Engelmann oak, or valley oak tree.
3. **DEDICATED TREE**, meaning a tree of special significance so designated by resolution of the Town Council.

Grading Policies

Development of land involves grading, which is the process of cutting into land or placing fill onto land in order to achieve a desired topography. Engineering and technology make it possible to achieve nearly any topography from an existing piece of land. However, the Town values the natural contours which exist. Additionally, grading may disturb natural habitats and may affect the flow of water.

- OSC-35:** To the maximum extent feasible, grading shall be kept to a minimum and every effort shall be made to retain the natural features of the land including ridges, rolling landforms, knolls, vegetation, trees, rock outcroppings, and water courses.
- OSC-36:** The Town values the retention of natural landforms. Therefore, site grading that is not required by the Town's Landslide Mitigation Policy is to be avoided to the maximum extent feasible.
- OSC-37:** Where grading is required to stabilize areas of geologic instability, its natural vegetation and habitat shall be restored to the graded area to the maximum extent feasible.
- OSC-38:** Where grading is required, it shall be performed in a manner which minimizes, to the maximum extent feasible, the impact on adjacent properties, water quality, and air quality.
- OSC-39:** Slopes created by grading shall be at a slope angle determined to have long-term stability for the materials being used, not exceeding 30 percent wherever possible. Final contours and slopes shall reflect natural land features, including natural vegetation.
- OSC-40:** The visual impact of retaining walls and similar engineering elements shall be reduced in size and scope to the maximum extent feasible by minimizing their use and requiring appropriate visual screening.

Implementing Programs for Prime Open Space Preservation

- OSC-a:** Applicants shall be required to demonstrate that proposals for development minimize environmental impacts and comply with the General Plan and applicable regulations, ordinances and guidelines. The Town shall require that an assessment of environmental constraints and Prime Open Space characteristics be prepared prior to the submittal of Precise Development Plan applications for large undeveloped parcels.
- OSC-b:** The Town shall review development applications that are submitted to the County and that are within the Town's sphere

of influence and areas of interest in order to encourage conformance with Town policies, including minimizing the visual impact of development on surrounding hills visible from the Town.

OSC-c: The Town shall require an environmental assessment for development proposed on sites that may contain sensitive biological resources, including wetlands, occurrences of special-status species and sensitive natural communities, native wildlife nurseries and nesting locations, and native wildlife movement corridors. The assessment shall be conducted by a qualified professional to determine the presence or absence of any sensitive resources which could be affected by proposed development, shall provide an assessment of the potential impacts, and shall define measures for protecting the resource and surrounding buffer habitat.

OSC-d: Where hillslope stabilization is proposed as part of development proposals, or wherever such stabilization is required by the Town to protect public safety, the Town shall require the project to evaluate all slope repair-related modifications such as the secondary impacts of subsurface drainage on site and watershed ecological communities, including special-status species, sensitive natural communities, and wetlands. In the event impacts are likely, modifications to the proposed project shall be considered. In the event avoidance and project modification are infeasible, appropriate on- or off-site habitat mitigation shall be required prior to project approval, as mandated by the State and federal regulatory agencies.

OSC-e: The Town shall establish a clearinghouse of information for public use related to protection of sensitive biological and wetland resources, maintain contacts for agencies responsible for their protection, and encourage programs dedicated to the restoration and management of the remaining natural area.

OSC-f: The Town shall consider revising and expanding the Tiburon Tree Ordinance to provide protection of both individual trees and native woodlands. Factors to consider in expanding the current ordinance include the importance of protecting smaller sapling trees and balancing their protection against those of

designated “protected trees”, defining critical management guidelines necessary to maintain healthy woodlands, and methods to encourage natural regeneration in woodland habitats.

3.4 OPEN SPACE MANAGEMENT

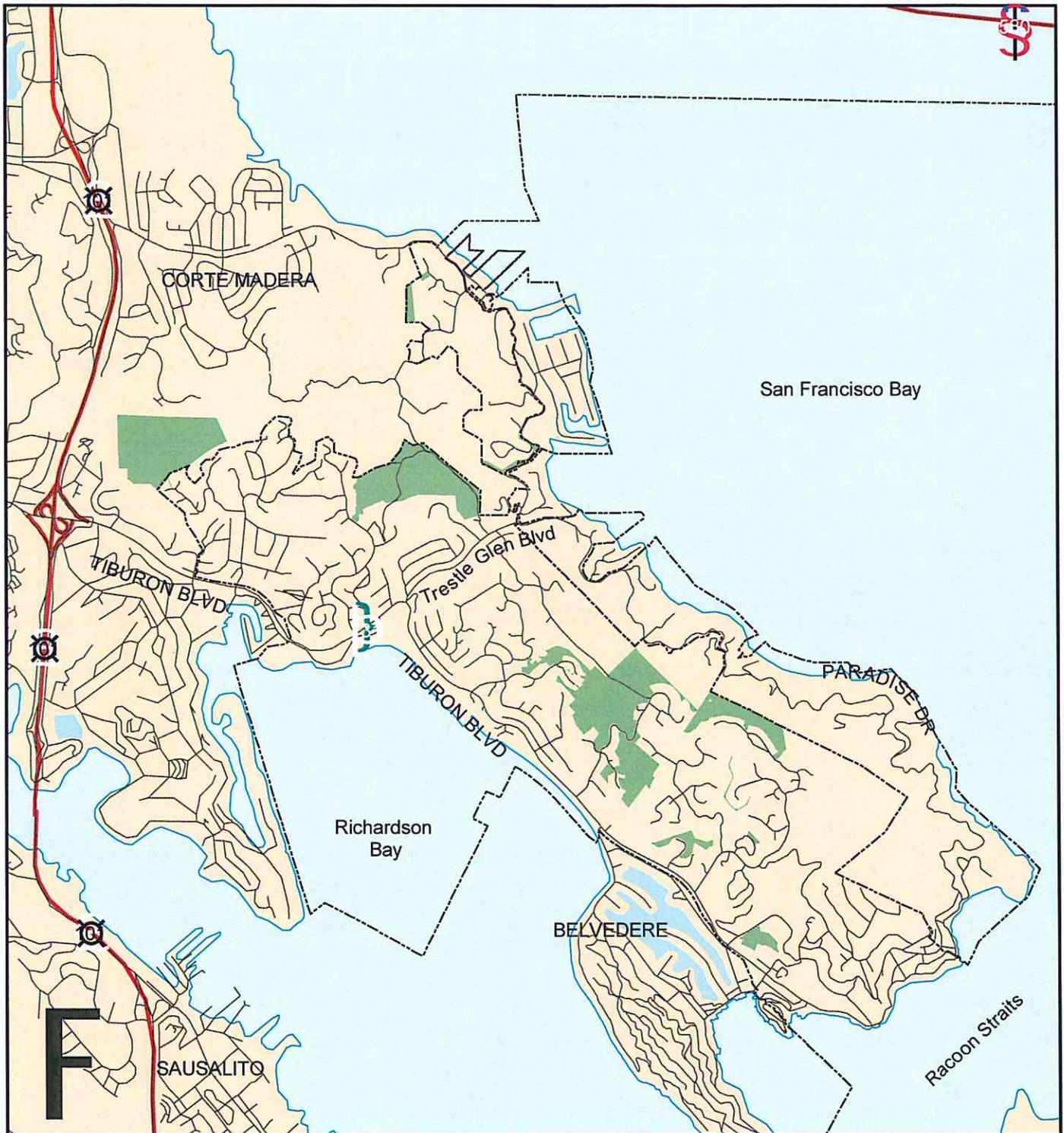
The Town of Tiburon owns and manages approximately 270 acres of open space. These open spaces are depicted on Diagram 3.4-1.

Open spaces, like other property, requires management to maintain them as healthy and valuable. The Town’s Public Works Department has primary responsibility for maintaining the Town’s open spaces, including trails and fire roads.

Open Space Management Policies

- OSC-41:** The Town shall encourage conservation and education uses of its public open space lands.
- OSC-42:** The Town may authorize or provide conservation and education facilities, including nature trails, interpretive exhibits, day camps, nature study areas and other related facilities in areas where the impacts on the natural environment will be minimal.
- OSC-43:** The Town shall encourage and seek agreements with other governmental jurisdictions such as County, State, Federal and other agencies for funding, acquisition, maintenance and use of open space areas.
- OSC-44:** The Town shall encourage and promote cooperation and participation of private groups, organizations, and individuals in the planning, operation and preservation of open space lands as deemed necessary.
- OSC-45:** The Town shall, where desirable, coordinate the use of its open space lands with other public and quasi-public lands that are contiguous or otherwise inter-related to Town open space.
- OSC-46:** The Town may engage in or authorize landscape restoration and/or enhancement programs where the natural landscape has

Diagram 3.4-1 Town-owned Open Space



0 0.25 0.5 0.75 1 Miles



TIBURON 2020
Town of Tiburon
General Plan
September 2005

 Town-Owned Open Space

been altered or degraded and when funding and resources allow on its open space land.

Implementing Program for Prime Open Space Management

OSC-g: The Town shall develop and adopt an Open Space management program that identifies maintenance projects and funding sources.

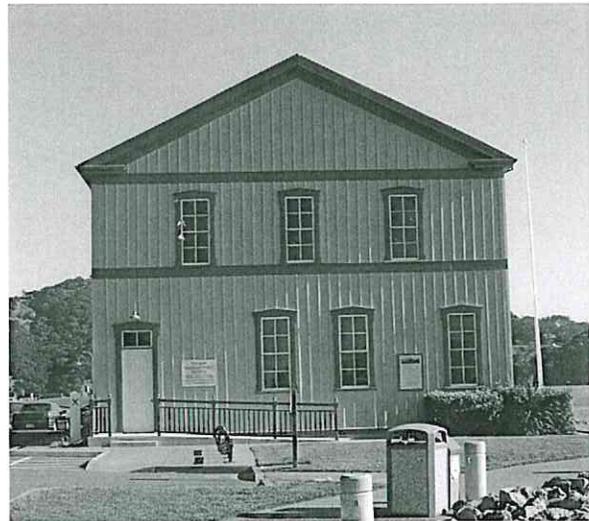
3.5 RESOURCE CONSERVATION

Historical & Cultural Resource Policies

As identified earlier in this Element, the Town has several historic resources that are formally listed by the federal government, state government, and/or the Town.

OSC-47: The Town shall protect significant geological, ecological, archaeological and paleontological resources and historic sites.

OSC-48: The Town shall strive to preserve and protect structures and properties which have historical, cultural, aesthetic or other special character or interest to the Town.



The Donahue Building, operated by the Belvedere – Tiburon Landmarks Society, is both a Tiburon Historical Landmark and is also listed on the National Register of Historic Places.

Water Supply Policies

Water is supplied to the Planning Area by the Marin Municipal Water District (MMWD). MMWD serves the urbanized part of Marin County, excluding Novato, and serves approximately 185,000 people.

As its primary source of water, MMWD maintains seven reservoirs within Marin County, ranging in capacity from 32,985 acre-feet (Kent Lake Reservoir) to 350 acre-feet (Lagunitas Lake Reservoir), with a total storage capacity of 79,566 acre-feet. The average yearly runoff into MMWD's

reservoirs is 66,600 acre-feet. From the local reservoirs, imported water supply and recycled water supply, MMWD has an Operational Yield Goal, the amount of water that can be supplied in all but the driest years, of 29,500 acre-feet.

MMWD imports Russian River water from the Sonoma County Water Agency (SCWA). MMWD has two contracts with SCWA until 2034, one which allows the District to take up 4,300 acre-feet of water per year and one which allows the District to purchase up to an additional 10,000 acre-feet of supply per year. MMWD has exercised its option to purchase 5,000 acre-feet of the second contract. Due to SCWA delivery limitations, MMWD has been taking only 8,300 acre-feet of the 9,300 acre-feet of SCWA supply available. MMWD's supply is mainly off-peak, which means most of the water is imported during the period from October through May. SCWA is projecting continued delivery limitations for the next seven to nine years.

As an alternative water source, MMWD is aggressively pursuing the construction of a desalination plant in San Rafael. The ultimate capacity for the desalination plant will be 15 MGD (million gallons per day), with the initial facility capacity at 10 MGD.

OSC-49: Support the efforts of the Marin Municipal Water District (MMWD) to conserve the use of water through enforcement of the Town's water conservation ordinance requiring implementation of water conservation measures.

OSC-50: The Town shall coordinate planning activities with MMWD to ensure that both the Town and MMWD have the latest information with respect to land use and water supply planning.

OSC-51: Where impervious surface construction and storm drain system installation and/or hillside stabilization (e.g. landslide repair) are proposed as part of development proposals, or wherever such stabilization is required by the Town to protect public safety, the Town shall require project applicants to analyze the impacts of these drainage pattern modifications on groundwater recharge and on downslope water wells and their yields. In the event impacts are likely, modifications to the proposed project, including possible downsizing, should be considered.

Water Quality Policies

Tiburon is part of the Marin County Stormwater Pollution Prevention Program (MCSTOPPP), which is a joint project of the 11 cities and towns of Marin County, the County of Marin, and the Marin County Flood Control District. Formed in 1993, MCSTOPPP is a combined effort to:

- prevent stormwater pollution,
- protect and enhance water quality in creeks and wetlands,
- preserve beneficial uses of local waterways, and
- comply with State and Federal regulations.

Within the Bay Area, the authority to implement both the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act lies with the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) and the State Water Resources Control Board (SWRCB).

The SFRWQCB's master policy document is the *Water Quality Control Plan (Basin Plan)*, the most recent revision of which was adopted in 1995. After two decades of controlling point-source industrial and municipal discharges through administration of the federal National Pollutant Discharge Elimination System program, the 1995 *Basin Plan* states that now "stormwater runoff contributes much of the pollutant loading to rivers, streams, bays, lakes, and lagoons in the San Francisco Bay region." The 1995 *Basin Plan* commits the SFRWQCB to controlling pollution from urban and agricultural runoff, with an emphasis on preventing pollution before it occurs, as opposed to cleaning up pollution after the fact.

OSC-52: Water quality should be maintained or enhanced in order to promote the continued environmental health of natural waterway habitats.

OSC-53: The Town shall continue to be an active member agency of the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) to reduce pollution being conveyed through



Stenciling next to storm drains informs people that the drain system directly impacts the water quality of the Bay.

storm water systems to the Bay and to comply with federal and state water quality regulations.

OSC-54: The Town shall promote the adoption and implementation of *Start at the Source-Design Guidance Manual for Stormwater Quality Protection* and the most recent follow-up publication *Using Site Design Techniques to Meet Development Standards for Stormwater Quality: A Companion Document*, both of which apply to new development and redevelopment projects. These documents stress the incorporation of runoff and other pollutant source controls into the project design process.

Air Quality Policies

Spare the Air

The Spare the Air program was established in 1991 by BAAQMD to educate the public about summer air pollution in the Bay Area and to promote individual behavior changes that improve air quality.

Currently, over 1,700 Bay Area businesses educate their employees about pollution prevention and advise them whenever a Spare the Air day is called.

A Spare the Air day is any day between June and mid-October when air quality in the Bay Area is predicted to exceed the standards set by the U.S. Environmental Protection Agency. On Spare the Air days, people are encouraged to reduce activities which contribute to air pollution. Limiting car trips is the number one way to reduce air pollution. Other ways to reduce air pollution are to: postpone painting jobs; not use gasoline-powered equipment; and refuel vehicles after sundown.

It is the intent of the Spare the Air program to prevent air quality reaching unhealthy conditions by calling for a Spare the Air day.

Source: <http://www.baaqmd.gov>

Criteria air pollutants - carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, PM₁₀, PM_{2.5} (particulate matter), and lead - are those pollutants for which federal and state ambient air quality standards have been set. For those pollutants which have both state and federal standards, the state standards are more stringent.

As of November 2004, the Bay Area is considered a nonattainment area for ground-level ozone at both the state and federal level, and a nonattainment area for PM₁₀ and PM_{2.5} at the state level only. The region currently complies with State and/or federal standards for all other criteria air pollutants.

Data for 2003 compiled at the San Rafael Monitoring Station shows that air quality in Marin

County is good. In 2003, the San Rafael station did not exceed any air quality standards for pollutants for which data is collected.

The Bay Area Air Quality Management District (BAAQMD) is the regional agency with the authority to develop and enforce regulations for the control of air pollution throughout the Bay Area. The *Clean Air Plan* is BAAQMD's plan for reducing the emissions of air pollutants which lead to ozone.

OSC-55: The Town shall participate in efforts to voluntarily reduce activities that pollute on Spare the Air days and help publicize Spare the Air day activities.

OSC-56: The Town shall promote the reduction of particulate matter from construction sites, roads, parking lots, and other sources through best management practices (BMPs).

OSC-57: The Town shall require the use of feasible control measures to reduce PM₁₀, NO_x, and diesel particulate matter related to construction activities.

OSC-58: The Town shall, through implementation of Circulation Element policies, encourage the reduction of the number of single-occupant vehicle trips and cumulative emissions that result from auto use.

Solid Waste and Recycling Policies

In 1989, the state enacted the California Integrated Waste Management Act, which required each city and county to adopt a source reduction and recycling element and to divert 25 percent of its waste stream from landfill disposal by 1995 and 50 percent by 2000. In 2000, the law was amended to require that local governments continue to divert 50 percent after January 1, 2000.

As part of the effort to comply with the law, the Town joined the other local governments within Marin County to adopt a *Multi-Jurisdictional Source Reduction and Recycling Element* in 1992, which served as a guide and plan to meeting the diversion requirements. A hazardous and solid waste joint powers authority (JPA), made up of the 11 cities and towns and the County of Marin, was formed in 1996. The California Integrated Waste Management Board (CIWMB) allows the JPA to report to the state

as one body for the purpose of complying with the diversion requirements. Marin County had a diversion rate of 71 percent in 2000, the last year for which data has been approved by the CIWMB.

In addition to participating in cooperative efforts to reduce waste, Tiburon has also adopted local policies. In 1994, the Town adopted the Recyclables Collection Area Ordinance, which requires new development projects to



The placement of recycling bins next to garbage cans encourages recycling.

provide adequate area for collecting and loading recycling materials. Recently, Tiburon adopted a construction and demolition debris policy which requires that 50 percent of construction and demolition debris be diverted from landfills.

OSC-59: The Town shall continue to meet or exceed waste diversion targets set by the state.

OSC-60: The Town shall require as a condition of approval of use permits that businesses prepare and implement waste management plans to maximize recycling, where appropriate.

Green Building Policies

Within the sustainable development movement is a growing emphasis on “green building.” The U.S. Dept. of Energy identifies five principles of green building:

- Constructing buildings which are more energy efficient and installing energy-efficient equipment and appliances and renewable energy systems,
- Reducing the environmental impact of new construction,
- Conserving resources during the building process,
- Using building materials which are lower in chemicals and toxins, and
- Locating buildings near community services.

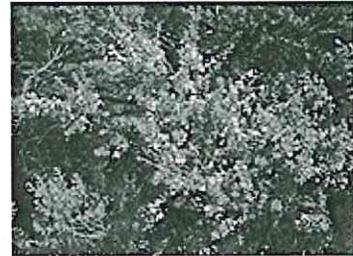
OSC-61: The Town shall continue to pursue opportunities to improve energy efficiency and reduce resource consumption in Town-owned facilities and operations.

OSC-62: The Town shall apply green building principles to the design, construction, and operation of new Town and Town-sponsored facilities to provide long-term cost savings and to serve as an example for the community.

OSC-63: The Town shall integrate energy efficiency, conservation, and other green building incentives into the zoning permit and building permit processes.

Invasive Species Policies

An invasive species is defined by the California Native Plant Society as a plant which is able to proliferate and aggressively alter or displace indigenous biological communities. The most aggressive invasive plants can reduce biological diversity, disrupt ecosystem processes, alter fire frequencies, and threaten endangered species. Common invasive species on the Tiburon Peninsula include broom and pampas grass.



*Broom is a common invasive species found on the Tiburon Peninsula.
Photo © 1995 Saint Mary's College of California*

OSC-64: The use of native plants for landscaping shall be encouraged and the planting of invasive, exotic species shall be discouraged.

OSC-65: The removal of invasive, exotic species, such as broom and pampas grass, shall be required as a condition of approval for new developments.

OSC-66: New developments shall be required to ensure ongoing removal of invasive, exotic species through home owners associations, covenants, conditions and restrictions (CC&Rs), or other appropriate mechanisms.

OSC-67: The Town shall encourage homeowners associations to disseminate information about the harmful affects of invasive exotic species in landscaping.

Implementing Programs for Resource Conservation

- OSC-h:** The Town shall create and adopt an overlay zone for the area containing the Town's Inventory of Local Historical Buildings and adopt additional protection measures for the structures identified in the Inventory.
- OSC-i:** The Town shall either establish an inventory of sites which have known archaeological sites or the possibility of containing archaeological sites; or enter into an agreement with an outside entity which can provide similar services. Where sites have the possibility of containing archaeological resources, project sponsors shall be required to notify contractors to cease construction activities upon encountering archaeological artifacts or human remains until proper authorities have been notified and a mitigation plan is developed.
- OSC-j:** Revise the Town's water conservation ordinance when required by changes in MMWD's water conservation ordinance.
- OSC-k:** Consider the adoption of a wood smoke ordinance to reduce the emission of particulate matter into the air.
- OSC-l:** The Town shall pursue the gradual replacement of the Town's vehicle fleet with zero or low emission vehicles, where appropriate.
- OSC-m:** The Town shall attach BMP conditions to permits that are issued by the Town, as appropriate.
- OSC-n:** Recycling bins shall be placed adjacent to refuse cans on the Town's public property, with special emphasis on high traffic areas, such as Shoreline Park and the Richardson Bay Lineal Park.
- OSC-o:** The Town shall continue to be an example and a resource for the community in recycling by continuing programs such as the construction debris program, household battery program and by reducing the waste of resources in conducting the Town's business.

OSC-p: The Town shall develop an ordinance or guidelines for outlining green building principles.

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