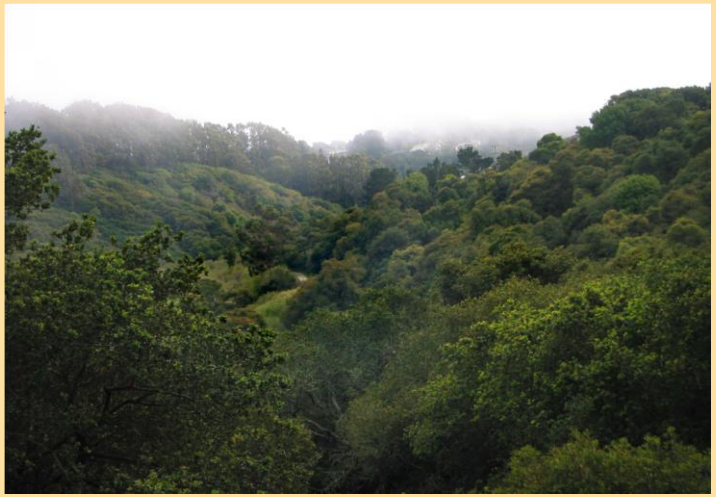


6

ENVIRONMENTAL RESOURCES AND CONSERVATION ELEMENT

The City of San Bruno extends from the lowland areas near the San Francisco Bay, westward to and across the ridgeline of the Santa Cruz Mountains. This variation in elevation, and concomitant variation in temperature and precipitation patterns, endows San Bruno with a diversity of natural resources.

The Environmental Resources and Conservation Element provides policies for biological resources and habitat, water resources and quality, and air quality and greenhouse gas reduction. Historical resources, generally clustered along the historic El Camino Real corridor, are also addressed for conservation.

6-1 VISION

The Environmental Resources and Conservation Element seeks to ensure preservation of Crestmoor Canyon, natural canyons within the western neighborhoods, and surrounding Golden Gate National Recreation Area lands as habitat for grasslands species. No public open space lands are proposed to be converted to other uses, and the General Plan policies regarding biological and water resources will enhance natural resources on public lands and waters within the city and surroundings. The element also seeks to preserve the wetlands areas along the San Francisco Bay margins as habitat for aquatic species. The element reiterates San Bruno's commitment to the reduction of water pollutants collected in surface runoff, and reduction in transportation-related air pollutants and emissions related to global climate change.

Finally, the element provides a framework for preservation of historical resources, and placement of signage to identify California historical landmarks.

6-2 BIOLOGICAL RESOURCES AND HABITAT

Although urbanization has removed much of the city's original vegetation, it is still found in scattered, discrete areas. Several distinctive vegetative communities found in San Bruno include:

- *Freshwater wetlands.* Freshwater wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. This transitional habitat occurs between terrestrial and aquatic systems where water tables are near the surface or land is covered by shallow water. Grass-like plants, which emerge from the water, form a dense canopy. Seasonal and permanent wetlands in eastern San Bruno include coastal freshwater marsh. This habitat is one of the most productive habitats for wildlife because it offers water, food, and shelter. Reptiles, amphibians, birds, small mammals, and bats are found in wetlands areas.
- *Willow riparian.* Willow riparian habitat is low shrubby tree structure that can cover an entire watercourse with an impenetrable understory, and can include fallen limbs and other debris. Willow scrub community is a broad-leaved, winter-deciduous streamside thicket, dominated by any of several willow species, usually as small trees or shrubs. Birds, reptiles, amphibians, and small mammals are found in riparian areas.
- *Mixed oak woodland.* Mixed oak woodlands are dominated by any of several oak species, with an understory consisting of shrubs, non-native grasses, and wildflowers. Woodlands provide foraging, nesting, shelter, and migrating corridors for a variety of wildlife species. Birds, small and large mammals, and amphibians utilize this habitat.
- *Non-native annual grassland.* Non-native grassland consists of annual grasses associated with a variety of broadleafed herbs and perennial grasses. Reptiles, small and large mammals, and foraging birds are often found in grassland areas.

Areas within San Bruno that feature potential biological resources are illustrated in Figure 6-1. Despite their separation and relatively small size, these areas potentially contain a number of legally sensitive plant and animal species. Although the California Natural Diversity Database (California Department of Fish and Game, 2001) shows no sensitive plant species within the city limits, there are a number of relatively inaccessible areas in the higher elevations of the city, and it is possible that these have never been comprehensively surveyed for sensitive plants.

Sensitive Species and Habitats

Located in central San Mateo County, the Peninsula Watershed encompasses 23,000 acres of the San Francisco peninsula, hosts a variety of habitats and supports the highest concentration of rare, threatened and endangered species in the entire Bay Area. The Watershed includes three reservoirs—San Andreas, Crystal Springs, and Pilarcitos. Though no part of San Bruno physically drains into this watershed, Skyline Boulevard marks an eastern edge, and a sensitive boundary for these species.

Within the central portion of the city (generally along the El Camino Real corridor), urban development is too intense for vegetation other than ornamental. However, as the terrain rises to the west, larger areas of natural vegetation and topography are found within the matrix of development, some of it within inaccessible sites that have not been surveyed thoroughly. Additionally, the Bay margins along the city's eastern edge provide habitat areas for a variety

of wetlands species. In particular, current maps from the US Fish and Wildlife Wetlands Online Mapper indicate that there are small areas of freshwater emergent wetland near the southwest corner of the intersection of I-380 and US 101 near 7th and Walnut Park, and small areas of freshwater emergent wetland and freshwater forested/shrub wetland a little further south along the western side of US 101, adjacent to Lion's Field. While their general location indicates they are quite close to the city limits, without a field survey it is difficult to know the precise boundaries of these wetlands resources. While the City is not responsible for the condition of wetlands outside city boundaries, the proximity of these wetlands to San Bruno development suggests that City land management and development decisions could impact the wetlands through changing nearby levels of human activity, rates of stormwater runoff, and populations of domestic animals adjacent to this habitat. Conversely, maintenance of these areas directly impacts the flooding potential in the eastern areas of San Bruno.

The State of California recognizes some plant communities as sensitive or significant communities if they are uncommon, regionally declining, or vulnerable. Among these communities are coast live oak forest, freshwater seeps, and freshwater marshes. All three may be present within the city boundaries.

Two endangered or threatened animal species have been reported within city limits: the California red-legged frog (*Rana aurora draytonii*, federally listed as threatened and a State species of special concern) and the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*, listed as endangered by both the State and federal governments). Both have occurrences reported in Lion's Field, east of El Camino Real and south of Crystal Springs Road (Environmental Science Associates, 1999). In addition, the U.S. Fish and Wildlife Service indicated that some areas east of Skyline College may provide suitable habitat for both species (U.S. Fish and Wildlife Service, 2000).

San Bruno contains a variety of natural habitats and special status species. Among these are mixed woodlands and grasslands in the western hills (Crestmoor neighborhood, top), and mature Eucalyptus trees along Sneath Lane (bottom).

However, for species such as these that may be collected or captured relatively easily, precise locations are usually not reported or mapped for the safety of the species.

A third legally sensitive species, the western pond turtle (*Clemmys marmorata*, a State species of special concern) might be found at Lion's Field and at other wetland areas, such as the stream area in Crestmoor Canyon, even though no occurrences have been reported. Two sensitive plants have been reported at Lion's Field: Dudley's lousewort (*Pedicularia dudleyi*, a federally-listed species of concern and State rare species) and stink bell (*Fritillaria agrestis*, California Native Plant Society Category 4 species).

A number of raptor species could nest within the city. Some of these, like the Cooper's hawk (*Accipiter cooperii*, a State species of special concern), are specifically listed as sensitive, and all are protected while nesting by Fish and Game Code Section 3503.5. The large trees present in some areas also provide potential habitat for legally sensitive bat species, including the pallid bat (*Antrozous pallidus*, a State species of special concern).

The California Natural Diversity Database shows two locations for the Mission blue butterfly (*Icaricia icarioides missionensis*) near Skyline College: one just southwest of the College at the boundary between Sharp Park and the Coast Guard reservation, and one north in the Milagra Range area near Highway 35.

Figure 6-1: Vegetative Communities and Special Species Habitat

6-3 WATER RESOURCES

The City of San Bruno contains three parallel watersheds—Crystal Springs, Huntington Creek, and San Bruno Creek—which flow west to east, with riparian woodlands in the upper reaches and willow riparian habitat in the lower, slower-moving reaches. The Health and Safety Element (Chapter 7) provides further discussion of the local watersheds, San Bruno's stormwater drainage system, and flooding hazards.

Water Quality

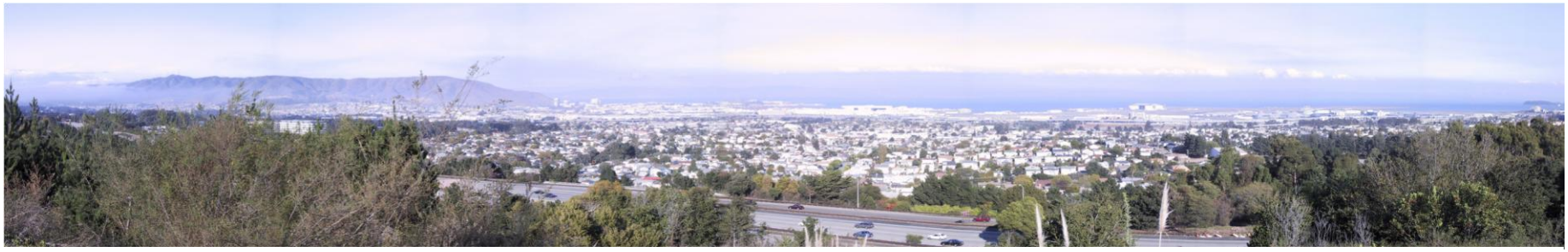
The San Francisco Bay Regional Water Quality Control Board (RWQCB) has no industrial dischargers registered in San Bruno, but city residents generate approximately 3.4 million gallons per day of sewage. This effluent is pumped to the jointly owned South San Francisco-San Bruno Water Quality Control Facility, located on Belle Air Road in the City of South San Francisco, just north of the San Francisco International Airport. The effluent is dechlorinated, and then discharged into lower San Francisco Bay. The combination of point source (wastewater treatment plant) and non-point source (surface runoff) pollutants result in deteriorated water quality levels within San Bruno.

San Bruno's storm drain system prevents flooding by channeling stormwater runoff into San Mateo County Flood Control District channels, which then funnel the water to the San Francisco Bay. However, this runoff is not treated, and can deliver pollutants to the Bay from any impermeable surface within the city. Stormwater runoff accounts for up to 80 percent of the pollution entering San Francisco Bay, and can contain the following pollutants: oil, grease, or antifreeze from leaking cars or trucks; paint or paint products; leaves or yard waste; pesticides; herbicides, or fertilizers from yards and gardens; solvents and household chemicals; animal wastes, litter, or sewer leakage; and construction debris such as fresh concrete, mortar, or cement.

Stormwater runoff accounts for up to 80 percent of the pollution entering San Francisco Bay.

Federal regulations authorize the issuance of systemwide municipal permits by the RWQCB. The RWQCB regulates municipalities for control of stormwater runoff pollution under the National Pollution Discharge Elimination System (NPDES). Participants in the program are responsible for development and implementation of stormwater management plans to prevent the pollution of surface runoff. Discharge of stormwater from the City of San Bruno is permitted through a Municipal Storm Water NPDES Permit issued to the City/County Association of Governments of San Mateo County. The permit incorporates specific requirements to limit stormwater pollutant discharges associated with certain new development and significant redevelopment projects. The requirements apply to the City of San Bruno as the Discharger of stormwater, the City/ County Association of Governments as the permit holder, and specific new development and redevelopment projects.

San Bruno is part of the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) implemented by the San Mateo County Health Services Agency, Environmental Health Division. In compliance with NPDES permit requirements, SMCWPPP has a Stormwater Management Plan (SWMP) that describes the framework for management of stormwater discharges throughout San Mateo County, the program's goals and objectives, and contains performance standards for five different stormwater management components including (1) municipal maintenance activities, (2) industrial and illicit discharge controls, (3) public information/participation, (4) new development and construction controls, and (5) watershed and monitoring. The State of California periodically amends the NPDES permit orders that apply to municipalities and counties. Projects seeking approval will be required to meet all requirements in place at the time of application.



The city's varied topography illustrates San Bruno's placement at the north-western edge of the San Francisco Peninsula Air Basin. Several Interstate highways (I-280 shown) contribute to high air pollutant levels within the Air Basin.

6-4 AIR QUALITY

Atmospheric conditions such as wind speed, wind direction, and air temperature interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. San Bruno lies in the northern portion of the Bay Area's peninsula climatological subregion. The Santa Cruz Mountains extend up the center of the San Francisco Peninsula, with elevations ranging from 500 feet to 2,000 feet.

The largest gap in the Santa Cruz Mountains is the San Bruno Gap, which extends from Fort Funston on the Pacific Ocean to SFO on San Francisco Bay. Because the gap is oriented in the same northwest-to-southwest direction as the prevailing winds, and because elevations in the gap are below 200 feet, marine air is easily able to flow through the gap in the direction of the Bay. Within the peninsula subregion, air pollution potential is highest along the southeastern portions (i.e. Redwood City vicinity), which is the area that is most protected from the high winds and that receives the most pollution transported from upwind urban areas. Pollution emissions are generally high in the San Bruno area, especially from traffic congestion, but winds are generally strong enough to carry the pollutants away.

Air Pollutants

The federal Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to establish national standards for the "criteria air pollutants", which include: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (PM-10 and PM-2.5), and lead.

California has adopted more stringent air quality standards, as well as standards for additional pollutants. The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network that measures the ambient concentrations of these six criteria air pollutants. The San Francisco Bay Area is considered "attainment" for the carbon monoxide, nitrogen dioxide, and sulfur dioxide standards. However, the Bay Area is "nonattainment" or "unclassified" for ozone and PM-10 standards.

Regulation of toxic air contaminants (TACs) is achieved through federal and State controls on individual sources. TACs are air pollutants with short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects. The current list of toxic air contaminants includes approximately 200 compounds. According to the BAAQMD, diesel combustion emissions are the TAC responsible for most excess cancer deaths in the Bay Area. TAC sources include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and some agricultural activities.

Unlike regulations concerning criteria air pollutants, there are no ambient air quality standards for evaluation of TACs based on the amount of emissions. Instead, TAC emissions are evaluated based on the degree of health risk that could result from exposure to these pollutants.

The Bay Area's air quality is influenced largely by automobile use. Automobile ownership and use is increasing at a faster rate than population growth; however, the trend toward newer, cleaner vehicles will serve to counteract some of the negative air quality impacts associated with increased vehicle use. Overall, projections indicate a net reduction in the emissions of ozone precursors and carbon monoxide, while total PM-10 emissions are expected to increase in the future with total miles traveled within the region.

Table 6-1: Policies Related to Climate Change and Sustainability

Element	Section (Topics Addressed)	Polices related to Climate Change & Sustainability
Land Use and Urban Design	Residential Development (infill, pedestrian movement)	LUD-6, LUD-9
	BART and Caltrain Station Areas (pedestrian movement)	LUD-26 through LUD-28
	San Bruno Avenue (TOD infill)	LUD-47
Transportation	Alternative Modes	T-1, T-3, T-4, T-5
	Transportation System Management (HOV)	T-20
	BART and Caltrain Station Areas (access, safety, increase use)	T-43, T-46, T-47, T-52
	Bus Transit (access to alternative transportation options)	T-57 through T-68
	Bicycle (alternative transport)	T-69 through T-74
Open Space and Recreation	Open Space (preserving natural habitats, hydrology)	OSR-24 through OSR-39
Environmental Resources and Conservation	Conservation (preserving natural areas)	ERC-1, ERC-3, ERC-4
	Biological Resources (preserving habitats and species)	ERC-5 through ERC-18
	Water Resources (water quality, stormwater runoff)	ERC-19 through ERC-24
	Air Quality (reducing VMT, greenhouse gas reduction, regional coordination)	ERC-25 through ERC-34
Health and Safety	Emergency Preparedness and Evacuation	HS-1.1 to HS 1.30
	~~Natural,~~ Geologic~~,~~ and Seismic Hazards ~~(damage prevention)~~	HS-2.1 through HS-2.11~~12~~
	Flooding ~~(damage prevention)~~	HS-~~13~~ 3.1 through HS-~~22~~3.13
	Emergent Groundwater	HS-4.1 to HS-4.2
	Wildfire	HS-5.1 to HS-5.12
	Hazardous Materials	HS-6.1 to HS-6.5
	Noise	HS-7.1 to HS-7.16
	Airport Operations	HS-8.1 to HS-8.3
	Extreme Heat	HS-9.1 to HS-9.6
	Other Hazards	HS-10.1 to HS-10.6

Table 6-1: Policies Related to Climate Change and Sustainability		
Element	**Section (Topics Addressed)**	**Polices related to Climate Change & Sustainability**
Public Facilities and Services	Water Supply (education, conservation and new sources)	PFS-8 through PFS-19
	Solid Waste (recycling implementation and education)	PFS-22 through PFS-25
	Fire Protection and Services	PFS-26 through PFS-42
	Utilities (energy conservation, green design, retrofitting, incentives)	PFS-63 through PFS-75
Housing	Environmental Justice Element (reducing pollution exposure and health risks) Capital Improvement Program Equity Prioritization (access to alternative transportation options, open space access)	Program 17 Program 16a

6-5 GLOBAL CLIMATE CHANGE

Global climate change (GCC) is currently one of the most important and widely debated scientific, economic, and political issues in the United States. GCC is a change in the average weather of the earth that may be measured by wind patterns, storms, precipitation, and temperature. The baseline by which these changes are measured originates in historical records identifying temperature changes that have occurred in the distant past, such as during previous ice ages.

~~Although GCC is widely accepted as a concept, the extent of the change or the exact contribution from human sources remains in debate. Furthermore, the connection between local land use decisions and GCC is poorly understood and therefore is not yet reflected in climate modeling. The United Nations Intergovernmental Panel on Climate Change (IPCC) predicts that global mean temperature change from 1990-2100, given six scenarios, could range from 2.0 to 4.5 degrees Celsius (IPCC, 2001). Regardless of methodology, global average temperature and mean sea level are expected to rise under all six scenarios (IPCC, 2001).~~

Greenhouse Gases

Gases that that trap heat in the Earth's atmosphere are called greenhouse gases (GHGs). These gases play a critical role in determining the Earth's surface temperature. Part of the solar radiation that enters Earth's atmosphere from space is absorbed by the Earth's surface. The Earth reflects this radiation back toward space, but GHGs absorb some of the radiation. As a result, radiation that otherwise would have escaped back into space is retained, resulting in a warming of the atmosphere. Without natural GHGs, the Earth's surface would be about 61°F cooler (CCAT, 2006). This phenomenon is known as the greenhouse effect. However, many scientists believe that emissions from human activities, such as electricity generation and vehicles, have elevated the concentration of these GHGs in the atmosphere beyond naturally-occurring concentrations.

To date, the State has not imposed any requirements on local agencies to help achieve GHG emissions reductions. Because the generation of GHGs is, for the most part, related to growth, policies that contribute to a reduction in energy consumption and fuel usage rates can have positive results. In addition to promoting development patterns that will reduce vehicle miles traveled per capita, there are a number of other actions that San Bruno can take to reduce energy consumption and related GHG emissions.

Policies which address GHG emissions are dispersed throughout this General Plan, along with policies that address sustainable development overall. Table 6-1 provides a list of the majority of those policies, their general subject matter, and where in the Plan they may found.

Discussions regarding climate change effects on city hazards and policies to address these impacts associated with climate change are included in Chapter 7, *Health and Safety.*

The intersection at El Camino Real and San Mateo Avenue shortly after its groundbreaking (left) and the Tanforan racetrack (right), now the location of the regional retail center The Shops at Tanforan.

6-6 HISTORICAL AND CULTURAL RESOURCES

Cultural resources include prehistoric or historic archeological sites, properties of historic or cultural significance, or paleontological sites. At the time of Euro-American contact, the Native Americans in the region tended to live along the alluvial terraces and along historic Bay margins. Because of San Bruno's location along the San Francisco Bay, potential exists for existence of Native American cultural resources within the city.

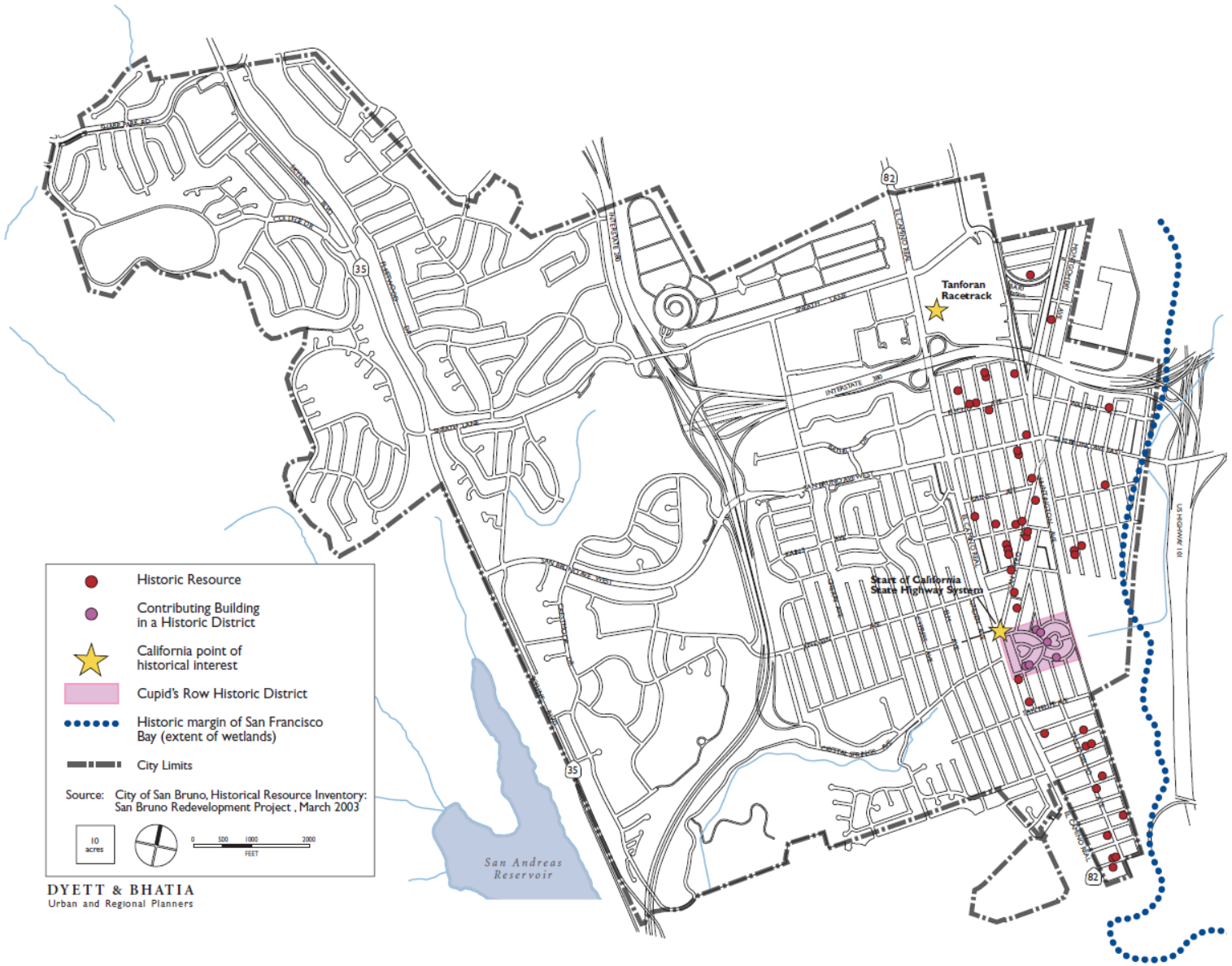
Development of San Bruno's Downtown had begun by the late 1880s. The USGS map of San Mateo County indicated that six buildings, the Southern Pacific Railroad grade, and two roadways (El Camino Real and San Mateo Avenue) were established by 1896.

The City of San Bruno contains few historical resources identified by the State of California. The Intersection of El Camino Real and San Mateo Avenue has been identified as a California Point of Historical Interest because it was the historic beginning of the California State Highway System, where ground was broken in August 1913. The site of the former Tanforan Racetrack, located on the northeast corner of the Interstate 380/El Camino Real intersection, has been identified as a California Historical Landmark. The racetrack, which opened in November 1899, was the site of several aviation milestones in the early 1900s, and was also used for military purposes in World Wars I and II. The racetrack burned down in 1964, and the site is now the location of the regional retail center The Shops at Tanforan.

In March 2003, the City conducted a Historic Resources Inventory of the Redevelopment Project Area, as identified in Figure 6-2. A combination of historical research and property evaluation resulted in 52 properties designated as historical resources, six of which contribute to the Cupid's Row Historic District. A historic resource is a structure, site, or feature which is representative of a historic period or building type but is not of landmark quality (having significance to the region and intangible elements of association). Modifications of a historic resource, including change of use, additions, and so on, are acceptable as long as the resource retains the essential elements which make it historically valuable.

A historic district is a geographically definable area with a significant concentration of buildings, structures, sites, spaces, or objects unified by past events, physical development, design, setting, materials, workmanship, sense of cohesiveness, or related historical and aesthetic associations. Bounded by Mastick, Taylor, Florida, Huntington, Georgia, and Chapman avenues, Cupid's Row Historic District contains housing units built between 1909 and 1951. Designed on a curvilinear heart-shaped novelty street pattern, Cupid's Row is set in the San Bruno Park 3rd Addition area; it is an excellent example of an early San Francisco peninsula railroad/streetcar and automobile suburb.

Figure 6-2: Location of Identified Cultural Resources



6-7 ENVIRONMENTAL RESOURCES AND CONSERVATION POLICIES

Guiding Policies

ERC-A Preserve open space essential for the conservation of San Bruno's natural resources—including vegetation, wildlife, soils, water, and air.

ERC-B Protect the natural environment, including wildlife, from destruction during new construction or redevelopment within San Bruno.

ERC-C Recognize areas of overlapping jurisdiction with respect to open space and environmental resources, and coordinate the City's actions with efforts of surrounding cities, agencies, and San Mateo County.

ERC-D Reduce pollution levels within the surface water that San Bruno discharges into the San Mateo County Flood Control District, then into San Francisco Bay.

ERC-E Contribute to regional attainment by improving ambient air quality levels within San Bruno.

ERC-F Preserve and enhance historic and cultural resources within the city, particularly within the historic Downtown area.

Implementing Policies

Conservation

ERC-1 Preserve as open space those lands which are identified, through environmental review, as sensitive habitat areas. Require setbacks to development as buffer areas, as appropriate.

ERC-2 Preserve as open space those portions of property which have significant value to the public as scenic resources, aesthetic, or recreation purposes.

ERC-3 Protect natural vegetation in park, open space, and scenic areas as wildlife habitat, to prevent erosion, and to serve as noise and scenic buffers.

ERC-4 Encourage the use of Best Management Practices in conserving the city's valuable water supply sources.

Biological Resources

ERC-5 Preserve critical habitat areas and sensitive species within riparian corridors, hillsides, canyon areas, tree canopies, and wetlands that are within the City's control (Figure 6-1). Protect declining or vulnerable habitat areas from disturbance during design and construction of new development.

ERC-6 Preserve wetland habitat in the San Francisco Bay Margins along the eastern edge of city land as permanent open space (Figure 6-1). Where jurisdiction allows, establish buffer zones at the edge of wetland habitats and identify buffer zones as areas to restrict development. Environmental concerns should be addressed during stormwater maintenance activities.

ERC-7 Ensure that construction adjacent to open canyon areas is sensitive to the natural environment. Preserve the natural topography and vegetation.

ERC-8 If development occurs adjacent to a wetlands area, ensure that a qualified biologist has conducted a wetlands delineation in accordance with federal and State guidelines.

ERC-9 Preserve mature trees and vegetation, including wildflowers, within open canyon areas and along the city's scenic roadways.

ERC-10 Require incorporation of native plants into landscape plans for new development as feasible—especially in areas adjacent to natural areas, such as canyons or scenic roadways (Figure 6-1). Require preservation of mature trees, as feasible, during design and construction.

ERC-11 Prohibit the use of any new non-native invasive plant species in any landscaped or natural area. Develop a program for abatement of non-native invasive species in open space or habitat areas.

ERC-12 Balance the need for fire safety and invasive plant species management with new considerations along the city's scenic corridors. Encourage buildings to be locked outside of the tree's drip-line or 12 feet from the tree trunk, whichever is greater, and/or incorporating special techniques to minimize root damage, etc.

ERC-13 Through environmental review, assure that all projects affecting resources of regional concern (e.g., the San Francisco garter snake habitat, water and air quality, the San Francisco Fish and Game Reserve) satisfy regional, State and federal laws.

ERC-14 Preserve wetlands habitat and associated species in compliance with the federal "no net loss" policy using mitigation measures such as:

- Avoidance of sensitive habitat areas;
- Clustering of development away from wetlands;
- Transfer of development rights for preservation of existing sensitive lands; and/or
- Compensatory in-kind mitigation, such as restoration or creation.

ERC-15 Consult with the California Department of Fish and Game to determine significant habitat areas. Identify priorities for acquisition or maintenance of open space areas based on biological or environmental concerns.

ERC-16 Conduct presence/absence biological surveys for sensitive plant and animal species in natural areas prior to any construction activities proposed adjacent to or within identified natural areas (Figure 6-1). If no special status species are detected during these surveys, then construction-related activities may proceed. If listed special status species are found with the construction zone, then avoid these species and their habitat or consult with U.S. Fish and Wildlife Service and/or California Department of Fish and Game.

ERC-17 If construction activities, including tree removal activities, are required adjacent to or within natural areas (Figure 6-1), then avoid activities during March through June unless a bird survey is conducted to determine that the tree is unused during the breeding season by avian species that are protected under California Fish and Game Codes 3503, 3503.5, and 3511.

General Plan policies seek to preserve the city's natural resources, including mature tree stands, grasslands (Junipero Serra Park, top), canyons, and creek corridors (Crestmoor Canyon, bottom).

ERC-18 Coordinate efforts with the San Mateo County Flood Control District, Caltrans, Golden Gate National Recreation Area, San Francisco Airport, Peninsula Watershed lands, and Junipero Serra County Park to develop or preserve and manage interconnecting wildlife movement corridors.

Water resources

Please note that policies within Chapter 8: Public Facilities and Services address water supply, distribution, conservation, and recycling.

ERC-19 Regulate new development—specifically industrial uses—as well as construction and demolition practices to minimize pollutant and sediment concentrations in receiving waters and ensure waterbodies within San Bruno and surface water discharged into San Francisco Bay meets or exceeds relevant regulatory water quality standards.

ERC-20 Require implementation of Best Management Practices to reduce accumulation of non-point source pollutants in the drainage system originating from streets, parking lots, residential areas, businesses, and industrial operations.

ERC-21 Continue programs to inform residents of the environmental effects of dumping household waste, such as motor oil, into storm drains that eventually discharge into San Francisco Bay.

ERC-22 Regularly measure and monitor water quality in San Bruno's surface water to ensure maintenance of high quality water for consumption by humans and other species throughout the region.

ERC-23 Regulate new development to minimize stormwater runoff rates and volumes generated by impervious surfaces, and maximize recharge of local groundwater aquifers when feasible. Utilize the recommendations provided in the Bay Area Stormwater Management Agency's *Start at the Source Design Guidance Manual for Stormwater Quality Protection.*

ERC-24 Require that new development incorporate features into site drainage plans that reduce impermeable surface area and surface runoff volumes. Such features may include:

- Additional landscaped areas including canopy trees and shrubs;
- Reducing building footprint;

- Removing curbs and gutters from streets and parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
- Permeable paving and parking area design;
- Stormwater detention basins to facilitate infiltration; and
- Building integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.

Air Quality

Please note that policies within Chapter 4: Transportation encourage transportation alternatives, such as walking, bicycling, carpooling, transit-ridership, and flex-scheduling, which reduce transportation-related air pollutants.

ERC-25 Maintain and improve air quality by requiring project mitigation, such as Transportation Demand Management (TDM) techniques, where air quality impacts are unavoidable.

ERC-26 Require dust abatement actions for all new construction and redevelopment projects.

ERC-27 Budget for alternative-fuel vehicles in the City's long-range capital expenditure plans, to replace and improve the existing fleet of gasoline- and diesel-powered vehicles.

ERC-28 Incorporate air quality beneficial programs and policies into local planning and development activities, with a particular focus on subdivision, zoning, and site design measures that reduce the number and length of single-occupant automobile trips.

ERC-29 Promote demonstration projects to develop new strategies to reduce motor vehicle emissions. Projects may include low emission vehicle fleets and LEV refueling infrastructure.

ERC-30 Encourage new residential developments to incorporate measures such as shuttle services to major employment centers, commercial areas and transit areas, and provision of adequate transit facilities.

ERC-31 Prepare a Greenhouse Gas Emissions Reduction Plan, focusing on feasible actions the City can take to minimize the adverse impacts of Plan implementation on climate change and air quality. The Plan will include but will not be limited to:

- An inventory of all known, or reasonably discoverable, sources of greenhouse gases (GHGs) that currently exist in the City and sources that existed in 1990. In determining what is a source of GHG emissions, the City may rely on the definition of "greenhouse gas emissions source" or "source" as defined in section 38505 of the California Global Warming Solutions Act ("AB 32") or its governing regulations. The inventory may include estimates of emissions drawing on available information from State and regional air quality boards, supplemented by information obtained by the City.
- A projected inventory of the new GHGs that can reasonably be expected to be emitted in the year 2025 due to the City's discretionary land use decisions pursuant to the 2025 General Plan Update, as well as new GHGs emitted by the City's internal government operations. The projected inventories will include estimates, supported by substantial evidence, of future emissions from planned land use and information from state and regional air quality boards and agencies.

- A target for the reduction of those sources of future emissions reasonably attributable to the City's discretionary land use decisions under the 2025 General Plan and the City's internal government operations, and feasible GHG emission reduction measures whose purpose shall be to meet this reduction target by regulating those sources of GHG emissions reasonably attributable to the City's discretionary land use decisions and the City's internal government operations.

ERC-32 Coordinate air quality planning efforts with local, regional, and State agencies. Support the Bay Area Air Quality Management District's efforts to monitor and control air pollutants from stationary sources.

ERC-33 Require all large construction projects to mitigate diesel exhaust emissions through use of alternate fuels and control devices.

ERC-34 Require that adequate buffer distances be provided between odor sources and sensitive receptors, such as schools, hospitals, and community centers.

Historical and Cultural Resources

Please note that policies within Chapter 8: Public Facilities and Services address preservation of existing buildings following a natural disaster.

ERC-35 Develop criteria for designation of local historic or cultural resources. Designation may not be based solely on the age of a resource, but rather special qualities, detailing, people, or events associated with it. Resources may also include special signage and/or landmarks known to city residents.

ERC-36 Preserve historic structures and resources during reuse and intensification within the city's older neighborhoods.

ERC-37 Designate the vicinity of Taylor Avenue, San Mateo Avenue, and El Camino Real as the beginning of the State Highway System as a historic landmark with a marker (Figure 6-2).

ERC-38 Work cooperatively with the owners of The Shops at Tanforan to preserve the historic marker on site (Figure 6-2).

ERC-39 Continue to protect archaeological sites and resources from damage. Require that areas found to contain significant indigenous artifacts be examined by a qualified archaeologist for recommendations concerning protection and preservation.

ERC-40 Ensure that new development adjacent to historic structures is compatible with the character of the structure and the surrounding neighborhood.

ERC-41 Educate citizens about San Bruno's past by creating a brochure describing the city's history and resources for distribution to community groups and public schools.

ERC-42 If demolition of a historical building is necessary for safety reasons, attempt to preserve the building façade for adaptive reuse during reconstruction. Offer funding through the Redevelopment Agency for façade preservation projects.

ERC-43 Conduct a thorough study of the historic and cultural resources within San Bruno, in coordination with the city's centennial anniversary in 2014.

ERC-44 Rehabilitation, renovation, or reuse of historic resources will be implemented in coordination with the standards of the Secretary of the Interior and the Office of Historic Preservation.

ERC-45 If, prior to grading or construction activity, an area is determined to be sensitive for paleontological resources, retain a qualified paleontologist to recommend appropriate actions. Appropriate action may include avoidance, preservation in place, excavation, documentation, and/ or data recovery, and shall always include preparation of a written report documenting the find and describing steps taken to evaluate and protect significant resources.