



### 3.9 HYDROLOGY AND WATER QUALITY

This section provides a discussion of the regional hydrology, flooding, and water quality in the Planning Area and provides an analysis of potential impacts associated with implementation of the General Plan 2040. Potential impacts are identified and mitigation measures to address potentially significant impacts are recommended, as necessary.

The discussion of water and storm drainage infrastructure is located in Section 3.15, Utilities and Service Systems.

Information in this section is based, in part, on statements, data, and figures provided by the following reference materials:

- Create Tiburon 2040: Existing Conditions Report; and
- Tiburon Municipal Code.

Four comments were received during the NOP Comment period in regards to hydrology and water quality impacts. One comment received by the California Geologic Survey (CGS) is concerned with tsunami hazards areas (THAs) within the Planning Area. The comment provides information that the Planning Area contains a Tsunami Design Zone within the California Building Code (CBC). The CGS urges the Town to consider discussing the Tsunami Design Zone in this DEIR. Three comments were received by Dorene Curtis, Julie and Seth Jacobs, and Kathy and Gerry Silverfield expressing concern about housing located within tsunami hazard zones.

#### 3.9.1 EXISTING SETTING

##### *Regional Hydrology*

The Planning Area is located in the Angel Island-San Francisco Bay Estuaries, Arroyo Corte Madera Del Presido-Frontal San Francisco Bay Estuaries, Larkspur Creek-Frontal San Francisco Bay Estuaries, Redwood Creek-Frontal Pacific Ocean, and Richardson Bay-San Francisco Bay watersheds. Elevations on the peninsula range from sea level to about 650 feet, and it is drained by multiple small watersheds on the north and south sides. Raccoon Strait is present to the southeast of the peninsula (separating it from Angel Island), Richardson Bay lies to the west and southwest, Belvedere Lagoon and Cove to the South, and San Francisco Bay to the northeast.

##### *Climate*

The Tiburon peninsula is located in the Mediterranean-type climate zone typical of coastal central California. This zone is characterized by cool, wet winters and warm, dry summers, with almost all rain falling between the months of October and April. The mean annual

precipitation in the region ranges from up to 50 inches at the highest points of Mount Tamalpais to roughly 24 inches near the Town of Bolinas, with an average value of about 23 inches near Tiburon.

### **Watersheds**

A watershed is a region that is bound by a divide that drains to a common watercourse or body of water. Watersheds serve an important biological function, oftentimes supporting an abundance of aquatic and terrestrial wildlife including special-status species and anadromous and native local fisheries. Watersheds provide conditions necessary for riparian habitat.

The State uses a hierarchical naming and numbering convention to define watershed areas for management purposes. This means that boundaries are defined according to size and topography, with multiple sub-watersheds within larger watersheds.

### **Hydrologic Region**

Tiburon is located in the San Francisco Bay Hydrologic Region. The San Francisco Bay Hydrologic Region covers approximately 2.88 million acres (4,500 square miles) and includes all of San Francisco and portions of Marin, Sonoma, Napa, Solano, San Mateo, Santa Clara, Contra Costa, and Alameda counties.<sup>1</sup> Significant geographic features include the Santa Clara, Napa, Sonoma, Petaluma, Suisun-Fairfield, and Livermore valleys; the Marin and San Francisco peninsulas; San Francisco, Suisun, and San Pablo bays; and the Santa Cruz Mountains, Diablo Range, Bolinas Ridge, and Vaca Mountains of the Coast Range.

### **Hydrologic Unit**

The north lobe of San Francisco Bay is brackish and is known as San Pablo Bay. It is surrounded by Marin, Sonoma, Napa, and Solano counties. Suisun Marsh is between San Pablo Bay and the Delta and is the largest contiguous brackish marsh on the West Coast of North America, providing more than 10 percent of California's remaining natural wetlands.

### **Hydrologic Area**

Within the San Pablo Bay hydrologic unit, the town is located within two hydrologic areas: the Corte Madera Creek-Frontal San Francisco Bay Estuaries hydrologic area and the San Francisco Bay hydrologic area.

### **Local Watersheds (Hydrologic Sub-Areas)**

Within the San Francisco Bay Hydrologic Region, the Planning Area is located in the Angel Island-San Francisco Bay Estuaries, Arroyo Corte Madera Del Presido-Frontal San Francisco

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<sup>1</sup> California Department of Water Resources (DWR), 2003. California's Groundwater: Bulletin 118 – Update 2003. Available: [https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/Statewide-Reports/Bulletin\\_118\\_Update\\_2003.pdf](https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/Statewide-Reports/Bulletin_118_Update_2003.pdf). Accessed: January 31, 2023.

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Bay Estuaries, Larkspur Creek-Frontal San Francisco Bay Estuaries, Redwood Creek-Frontal Pacific Ocean, and Richardson Bay-San Francisco Bay watersheds as shown on **Figure 3.9-1, Watersheds Map**.

### ***Creeks and Flood Control Facilities***

The Tiburon Department of Public Works is responsible for the maintenance and improvement of all public infrastructure owned and managed by the Town. In addition to normal maintenance operations, they are a key agency in responding to emergencies involving the Town's infrastructure as well as weather related events and other disasters that have the potential for adverse impacts to public health or the environment. Tiburon is responsible for maintaining the flood control system within the incorporated area. In the unincorporated parts of the Planning Area, responsibility for storm drain maintenance lies with the Marin County Flood Control and Water Conservation District.

The developed portions of the Planning Area are primarily within three major watersheds: Angel Island-San Francisco Bay Estuaries, Arroyo Corte Madera Del Presidio-Frontal San Francisco Bay Estuaries, and Larkspur Creek-Frontal San Francisco Bay Estuaries. The Town is drained by multiple small watersheds on the north and south sides of the Peninsula. Primarily, water drains to the Town stormwater drainage system that runs under Tiburon Boulevard and outlets to Raccoon Strait near the Ferry Terminal, or the secondary outlet which drains south to Belvedere Lagoon. Other portions of Tiburon drain to Railroad Marsh, a pond/marsh feature that serves as a flood control feature.

Tiburon's creeks are also a key part of the Town's open space network. They are valuable physical, aesthetic, recreational, and ecological assets. Protection of creeks not only preserves surface water quality, but also reduces flood risks, preserves biodiversity and habitat, minimizes erosion of stream banks, and prevents downstream siltation.

### ***Groundwater***

According to the California Department of Water Resource's Groundwater Basin Boundary Assessment Tool, there are no groundwater basins identified within the Planning Area.<sup>2</sup> Therefore, the Planning Area is not considered a groundwater recharge area. The nearest groundwater basin to the Planning Area is the Ross Valley Groundwater Basin located approximately 0.5 miles northwest of Ring Mountain.

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<sup>2</sup> California Department of Water Resources (DWR), 2019. Groundwater Basin Boundary Assessment Tool. Available: <https://gis.water.ca.gov/app/bbat/>. Accessed: January 31, 2023.

## *Floodplain Mapping*

### **FEMA Flood Zones**

The FEMA mapping provides important guidance for the Town in planning for flooding events and regulating development within identified flood hazard areas. The FEMA's National Flood Insurance Program is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). The FEMA FIRM for the Planning Area is shown on **Figure 3.9-2**.

Areas that are subject to flooding are indicated by a series of alphabetical symbols, indicating anticipated exposure to flood events:

- **Zone A:** Subject to 100-year flooding with no base flood elevation determined. Identified as an area that has a one percent chance of being flooded in any given year.
- **Zone AE:** Subject to 100-year flooding with base flood elevations determined.
- **Zone AH:** Subject to 100-year flooding with flood depths between one- and three-feet being areas of ponding with base flood elevations determined.
- **500-year Flood Zone:** Subject to 500-year flooding. Identified as an area that has a 0.2 percent chance of being flooded in a given year.

Figure 3.9-2, FEMA Flood Zone Designations, identifies the areas within the Planning Area with a FEMA flood zone designation. The Planning Area is subject to flooding problems along the shoreline and waterfront areas. The primary flood hazards are the low-lying areas adjacent to the San Francisco Bay, Belvedere Cove, Belvedere Lagoon, and Richardson Bay. The low-lying areas along the Planning Area shorelines are subject to occasional flooding.

The 100-year floodplain is largely confined to the Boardwalk Shopping Center and Downtown Tiburon area adjacent to the Belvedere lagoon, as well as various portions along the coast, including near Keil Cove, Richardson Bay, and Paradise Cay. Additionally, various portions of land along the coast are designated within the 100-year flood zone with additional stormwater wave hazard. These areas are typically located near land designated within the 100-year flood zone, such as land adjacent to the Boardwalk Shopping Center, Paradise Cay and Richardson Bay. Similarly, the 500-year floodplain is typically located adjacent to land designated within the 100-year flood zone, including land within the Boardwalk Shopping Center, Paradise Cay, and land north of Richardson Bay. Additionally, land adjacent to Tiburon Boulevard near downtown is designated within the 500-year flood zone.

### **Dam Inundation**

Earthquakes centered close to a dam are typically the most likely cause of dam failure. Dam Inundation maps have been required in California since 1972, following the 1971 San Fernando Earthquake and near failure of the Lower Van Norman Dam. The Planning Area is not within a dam inundation zone.



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### *Tsunami*

A tsunami is a series of waves in a water body caused by the displacement of a large volume of water, generally in an ocean or a large lake due to earthquakes, volcanic eruptions, and other underwater explosions. Depending on the location of an incident, a tsunami can reach the California coast in as little as ten minutes, for a local-source earthquake, or take from five to 14 hours, for a distant-source earthquake. The Great Alaskan earthquake of 1964 generated a tsunami that killed 12 people and destroyed 30 blocks in Crescent City, California.

**Figure 3.9-3** identifies portions of the Planning Area located within a tsunami inundation zone. As shown in Table R-1 of the Marin County Multi-Jurisdiction Local Hazard Mitigation Plan, a tsunami has the potential to destroy/damage the ferry landing and a total of 170 structures within Tiburon, including 53 single-family structures, 72 multi-family structures, and 45 commercial structures.<sup>3</sup> As previously mentioned, numerous residences, businesses, and yacht clubs on the Tiburon Peninsula are waterfront properties and are located within tsunami inundation areas. Specifically, all the residences adjacent to the Paradise Cay, Boardwalk Shopping Center, and the majority of the eastern coast are located within a tsunami inundation area. Additionally, many recreational areas such as beaches, shoreline park, Angel Island, Paradise Park, and the multiuse path or along the shoreline and are at risk from tsunamis.

### *Surface Water Quality*

Potential hazards to surface water quality include the following nonpoint pollution problems: high turbidity from sediment resulting from erosion of improperly graded construction projects, concentration of nitrates and dissolved solids from agriculture or surfacing septic tank failures, contaminated street and lawn run-off from urban areas, and warm water drainage discharges into cold water streams.

The most critical period for surface water quality is following a rainstorm which produces significant amounts of drainage runoff into streams at low flow, resulting in poor dilution of contaminants in the low flowing stream. Such conditions are most frequent during the fall at the beginning of the rainy season when stream flows are near their lowest annual levels. Besides the greases, oils, pesticides, litter, and organic matter associated with such runoff, heavy metals such as copper, zinc, and cadmium can cause considerable harm to aquatic organisms when introduced to streams in low flow conditions.

Urban stormwater runoff was managed as a non-point discharge (a source not readily identifiable) under the Federal Water Pollution Control Amendments of 1972 (PL 92-500,

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<sup>3</sup> Marin County, 2018. Marin County Multi-Jurisdiction Local Hazard Mitigation Plan. Available: <https://marinflooddistrict.org/documents/marin-county-multi-jurisdiction-local-hazard-mitigation-plan-2018>. Accessed: January 30, 2023.

Section 208) until the mid-1980's. However, since then, the Federal Environmental Protection Agency has continued to develop implementing rules which categorize urban runoff as a point source (an identifiable source) subject to NPDES permits. Rules now affect medium and large urban areas, and further rulemaking is expected as programs are developed to meet requirements of Federal water pollution control laws.

Surface water pollution is also caused by erosion. Excessive and improperly managed grading, vegetation removal, quarrying, logging, and agricultural practices all lead to increased erosion of exposed earth and sedimentation of watercourses during rainy periods. In slower moving water bodies these same factors often cause a buildup of siltation, which ultimately reduces the capacity of the water system to percolate and recharge groundwater basins, as well as adversely affecting both aquatic resources and flood control efforts.

### **303(d) Impaired Water Bodies**

Section 303(d) of the federal Clean Water Act requires States to identify waters that do not meet water quality standards or objectives and thus, are considered "impaired." Once listed, Section 303(d) mandates prioritization and development of a Total Maximum Daily Load (TMDL). The TMDL is a tool that establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby the basis for the States to establish water quality-based controls. The purpose of TMDLs is to ensure that beneficial uses are restored and that water quality objectives are achieved.

The Planning Area's surface water resources include the San Francisco Bay (Central) and the Richardson Bay. Both the San Francisco Bay (Central), with 70,405 assessed acres, and Richardson Bay, with 2,439 assessed acres, are listed by the San Francisco Bay Regional Water Quality Control Board as having limited water quality, as required by the Clean Water Act, Section 303(d). Table 3.9-1 identifies each pollutant identified for San Francisco Bay (Central) and Richardson Bay, along with the final listing decision, TMDL status, expected TMDL completion date, U.S. EPA TMDL approval date (for approved TMDLs), and potential sources. Pollutants within the Planning Area include Chlordane, a synthetic viscous toxic compound used as an insecticide; DDT (Dichlorodiphenyltrichloroethane), another a synthetic viscous toxic compound used as an insecticide; Dieldrin, another a synthetic viscous toxic compound used as an insecticide; Mercury, a naturally-occurring chemical element used in the production of other chemicals; Selenium, a mineral found in the soil; Invasive Species, an organism that causes ecological or economic harm in a new environment where it is not native; Dioxin Compounds, a group of highly toxic chemical compounds that are harmful to health; Furan Compounds, a heterocyclic organic compound used in the creation of other chemicals that can be harmful to the immune system and reproductive development; and PCBs (Polychlorinated biphenyls), which are highly toxic industrial compounds that pose serious health risks to fetuses, babies and children, who may suffer developmental and neurological problems from prolonged or repeated exposure.

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TABLE 3.9-1: PLANNING AREA IMPAIRED WATER BODIES

POLLUTANT	FINAL LISTING DECISION	TMDL STATUS <sup>1</sup>	EXPECTED TMDL COMPLETION <sup>2</sup>	USEPA TMDL APPROVAL DATE <sup>3</sup>	POTENTIAL SOURCES
<b>San Francisco Bay (Central)</b>					
Chlordane	Do Not Delist from 303(d) list	5A	2013		Unknown
DDT (Dichlorodiphenyl trichloroethane)	Do Not Delist from 303(d) list	5A	2013		Unknown
Dieldrin	Do Not Delist from 303(d) list	5A	2013		Unknown
Mercury	Do Not Delist from 303(d) list (USEPA approved TMDL)	5B		2008-02-12	Atmospheric Deposition, Industrial Point Sources, Municipal Point Sources, Natural Sources, Nonpoint Sources, Resource Extraction
Selenium	Do Not Delist from 303(d) list (USEPA approved TMDL)	5B		2016-08-23	Unknown
Invasive Species	List on 303(d) list	5A	2019		Unknown
Dioxin compounds (including 2,3,7,8-TCDD)	List on 303(d) list	5A	2019		Unknown
Furan Compounds	List on 303(d) list	5A	2019		Unknown
PCBs (Polychlorinated biphenyls)	Do Not Delist from 303(d) list (USEPA approved TMDL)	5B		2010-03-29	Unknown
PCBs (Polychlorinated biphenyls) (dioxin-like)	List on 303(d) list	5B		2010-03-29	Unknown
Trash	List on 303(d) list	5A	2021		Unknown
<b>Richardson Bay</b>					
Chlordane	List on 303(d) list	5A	2013		Unknown
DDT (Dichlorodiphenyl trichloroethane)	List on 303(d) list	5A	2013		Unknown
Dieldrin	List on 303(d) list	5A	2013		Unknown
Dioxin compounds	List on 303(d) list	5A	2019		Unknown

(including 2,3,7,8-TCDD)					
Furan Compounds	List on 303(d) list	5A	2019		Unknown
PCBs (Polychlorinated biphenyls)	List on 303(d) list (being addressed by USEPA approved TMDL)	5B		2010-03-29	Unknown
PCBs (Polychlorinated biphenyls) (dioxin-like)	List on 303(d) list (being addressed by USEPA approved TMDL)	5B		2010-03-29	Unknown
Invasive Species	List on 303(d) list	5A	2019		Unknown
Indicator Bacteria	List on 303(d) list (being addressed by USEPA approved TMDL)	5B		2009-12-18	Unknown
Mercury	List on 303(d) list (being addressed by USEPA approved TMDL)	5B		2008-02-29	Unknown

**NOTES:**

1. *Total Maximum Daily Load (TMDL)*
2. *Determination the loading capacity of the waterbody and allocation of load among different pollutant sources.*
3. *Approved TMDL wasteload allocations generally become implemented through EPA's National Pollutant Discharge Elimination System (NPDES) permits under CWA section 402.*

SOURCE: California State Water Resources Control Board (SWRCB), 2022. 2020-2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report). Available: [https://www.waterboards.ca.gov/water\\_issues/programs/water\\_quality\\_assessment/2020\\_2022\\_integrated\\_report.html](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html). Accessed January 31, 2023.

### 3.9.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the water resources of the state and nation including the Federal Emergency Management Agency (FEMA), the U.S. Environmental Protection Agency (EPA), the State Water Resources Board, and the Regional Water Quality Control Board (RWQCB). The following is an overview of the federal, State and local regulations that are applicable to the proposed project.

#### **Federal**

##### **Clean Water Act**

The Clean Water Act (CWA), initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

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The CWA establishes the basic structure for regulating the discharges of pollutants into the waters of the United States and gives the Environmental Protection Agency (EPA) the authority to implement pollution control programs. The statute's goal is to regulate all discharges into the nation's waters and to restore, maintain, and preserve the integrity of those waters. The CWA sets water quality standards for all contaminants in surface waters and mandates permits for wastewater and stormwater discharges.

The CWA also requires states to establish site-specific water quality standards for navigable bodies of water and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The following CWA sections assist in ensuring water quality for the water of the United States:

- CWA Section 208 requires the use of best management practices (BMPs) to control the discharge of pollutants in stormwater during construction;
- CWA Section 303(d) requires the creation of a list of impaired water bodies by states, territories, and authorized tribes; evaluation of lawful activities that may impact impaired water bodies; and preparation of plans to improve the quality of these water bodies. CWA Section 303(d) also establishes Total Maximum Daily Loads (TMDLs), which is the maximum amount of a pollutant that a water body can receive and still safely meet water quality standard; and
- CWA Section 404 authorizes the U.S. Army Corps of Engineers to require permits that will discharge dredge or fill materials into waters in the United States, including wetlands.

In California, the EPA has designated the SWRCB and its nine RWQCBs with the authority to identify beneficial uses and adopt applicable water quality objectives.

The SWRCB is responsible for implementing the CWA and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges (individual permits and general permits).

### **Coastal Zone Management Act**

The Coastal Zone Management Act (CZMA) was passed in 1972. This act, administered by the National Oceanic and Atmospheric Administration, provides for the management of the nation's coastal resources, including the Great Lakes. The goal is to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."

The CZMA outlines three national programs: the National Coastal Zone Management Program, the National Estuarine Research Reserve System, and the Coastal and Estuarine Land Conservation Program (CELCP). The National Coastal Zone Management Program aims to balance competing land and water issues through state and territorial coastal management programs, the reserves serve as field laboratories that provide a greater

understanding of estuaries and how humans impact them, and CELCP provides matching funds to state and local governments to purchase threatened coastal and estuarine lands or obtain conservation easements.

### **Federal Emergency Management Agency**

FEMA's primary mission is to reduce the loss of life and property and protect from all hazards, including flooding, among others. FEMA advises on building codes and flood plain management; teaches people how to get through a disaster; helps equip local and State emergency preparedness; coordinates the federal response to a disaster; makes disaster assistance available to states, communities, businesses and individuals; trains emergency managers; supports the nation's fire service; and administers the national flood and crime insurance programs.

Flood is a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties. The term "100-year flood" is defined by FEMA, as the flood elevation that has a one percent chance of being equaled or exceeded each year. A "500-year flood" is one which has a 0.2 percent chance of occurring each year. A 500-year flood event would be slightly deeper and cover a greater area than a 100-year flood event.

Flood zones are geographic areas that FEMA defines, based on studies of flood risk. The zone boundaries are shown on flood hazard maps, also called Flood Insurance Rate Maps (FIRM). High Risk Zones or Special Flood Hazard Areas (SFHA or Zone A) are high-risk flood areas where special flood, mudflow, or flood-related erosion hazards exist, and flood insurance is mandatory. SFHAs are those areas subject to inundation by a 100-year flood. Low-to-Moderate Risk Zones or Non-Special Flood Hazard Areas (Zones B, C, X) are areas that are not in any immediate danger from flooding caused by overflowing rivers or hard rains. Insurance purchase is not required in these zones.

FEMA is responsible for administering the National Flood Insurance Program (NFIP), which enables property owners in participating communities to purchase insurance as protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of Zone A, which are communities subject to a 100-year flood event. In addition to providing flood insurance and reducing flood damages through floodplain management regulations, the NFIP identifies and maps the nation's floodplains on FIRMs.

FEMA is mandated by the Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 to evaluate flood hazards and provide FIRMs for local and regional planners to further promote safe floodplain development. Flood risk data presented on FIRMs are based on historic, hydrologic, hydraulic, and meteorological data, as well as flood control works, open-space conditions, and development. To prepare a FIRM that illustrates the extent of flood hazards in flood-prone communities, FEMA conducts an engineering study referred to

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as Flood Insurance Study. Using information collected in these studies, FEMA engineers and cartographers delineate SFHAs on FIRMs.

### **Flood Control Act**

The Flood Control Act (1917) established survey and cost estimate requirements for flood hazards in the Sacramento Valley. All levees and structures constructed per the Act were to be maintained locally but controlled federally. All rights of way necessary for the construction of flood control infrastructure were to be provided to the Federal government at no cost.

Federal involvement in the construction of flood control infrastructure, primarily dams and levees, became more pronounced upon passage of the Flood Control Act of 1936.

### **Flood Disaster Protection Act**

The Flood Disaster Protection Act (FDPA) of 1973 was a response to the shortcomings of the NFIP, which were experienced during the flood season of 1972. The FDPA prohibited federal assistance, including acquisition, construction, and financial assistance, within delineated floodplains in non-participating NFIP communities. Furthermore, all Federal agencies and/or federally insured and federally regulated lenders must require flood insurance for all acquisitions or developments in designated SFHAs in communities that participate in the NFIP.

Improvements, construction, and developments within SFHAs are generally subject to the following standards:

- All new construction and substantial improvements of residential buildings must have the lowest floor (including basement) elevated to or above the base flood elevation (BFE).
- All new construction and substantial improvements of non-residential buildings must either have the lowest floor (including basement) elevated to or above the BFE or dry-floodproofed to the BFE.
- Buildings can be elevated to or above the BFE using fill, or they can be elevated on extended foundation walls or other enclosure walls, on piles, or on columns.
- Extended foundation or other enclosure walls must be designed and constructed to withstand hydrostatic pressure and be constructed with flood-resistant materials and contain openings that will permit the automatic entry and exit of floodwaters. Any enclosed area below the BFE can only be used for the parking of vehicles, building access, or storage.

### **National Flood Insurance Program (NFIP)**

Per the National Flood Insurance Act of 1968, the NFIP has three fundamental purposes: better indemnify individuals for flood losses through insurance; reduce future flood damages through State and community floodplain management regulations; and reduce federal expenditures for disaster assistance and flood control.



While the Act provided for subsidized flood insurance for existing structures, the provision of flood insurance by FEMA became contingent on the adoption of floodplain regulations at the local level.

### **National Pollutant Discharge Elimination System (NPDES)**

NPDES permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 *et seq.*).

The RWQCB issues these permits in lieu of direct issuance by the EPA, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the CWA and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the CWA's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also WDRs issued under the authority of the CWA.

NPDES permitting authority is administered by the SWRCB and its nine RWQCBs. The SWRCB has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the San Francisco Bay Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB. The Planning Area is in a watershed administered by the San Francisco Bay RWQCB.

The SWRCB and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters. In 2003, smaller (less than 100,000 population) municipalities and unincorporated counties were required to obtain coverage under a statewide NPDES Municipal General Stormwater Permit (Phase II Permit) issued by the State Water Resources Control Board. In Marin County, the County and all Marin's municipalities, including Tiburon, are subject to the conditions of the regulations described in the current 2013 Phase II Permit. The Marin County Permittees are currently subject to National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000004, issued by Order No. WQ 2018-0007-EXEC on March 13, 2019, which pertains to stormwater runoff discharge from storm drains and watercourses within their jurisdictions.

Individual projects in the Planning Area that disturb more than one acre would be required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (General Construction Permit). The General Construction Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) describing BMPs the discharger would use to

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prevent and retain storm water runoff. The SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

### **Rivers and Harbors Appropriation Act of 1899**

One of the country’s first environmental laws, this Act established a regulatory program to address activities that could affect navigation in Waters of the United States.

### **Water Pollution Control Act of 1972**

The Water Pollution Control Act established a program to regulate activities that result in the discharge of pollutants to waters of the United States.

## ***State***

### **California Fish and Wildlife Code**

The California Department of Fish and Wildlife (CDFW) protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Section 1600 to 1616 of the California Fish and Game Code. The California Fish and Game Code establishes that “an entity may not substantially divert or obstruct the natural flow or substantially change 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” (Fish and Game Code Section 1602(a)) without notifying the CDFW, incorporating necessary mitigation and obtaining a streambed alteration agreement. The CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

### **California Code of Regulations**

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminants levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

### **California Government Code**

Relevant sections of the California Government Code are identified below.

Section 65302: Revised safety elements must include maps of any 200-year flood plains and levee protection zones within the Planning Area.

Section 65584.04: Any land having inadequate flood protection, as determined by FEMA or DWR, must be excluded from land identified as suitable for urban development within the Planning Area.

Section 8589.4: Commonly referred to as the Potential Flooding-Dam Inundation Act, requires owners of dams to prepare maps showing potential inundation areas in the event of dam failure. A dam failure inundation zone is different from a flood hazard zone under the NFIP. NFIP flood zones are areas along streams or coasts where storm flooding is possible from a 100-year flood. In contrast, a dam failure inundation zone is the area downstream from a dam that could be flooded in the event of dam failure due to an earthquake or other catastrophe. Dam failure inundation maps are reviewed and approved by the California Office of Emergency Services. Sellers of real estate within inundation zones are required to disclose this information to prospective buyers.

### **California Department of Health Services**

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for Methyl tertiary-butyl ether and other oxygenates.

### **California Water Code**

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

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### **State Water Resources Control Board (State Water Board) Storm Water Strategy**

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the State Water Board's role in storm water resources management and evolve the Storm Water Program by: a) developing guiding principles to serve as the foundation of the storm water program; b) identifying issues that support or inhibit the program from aligning with the guiding principles; and c) proposing and prioritizing projects that the Water Boards could implement to address those issues.

The State Water Board staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the Water Board's Storm Water Program.

### **Sustainable Groundwater Management Act**

The Sustainable Groundwater Management Act (SGMA) established a framework for sustainable, local groundwater management. SGMA requires groundwater-dependent regions to halt overdraft and bring basins into balanced levels of pumping and recharge. With passage of the SGMA, the Department of Water Resources launched the Sustainable Groundwater Management (SGM) Program to implement the law and provide ongoing support to local agencies around the state. The SGMA defines "sustainable groundwater management" and requires that a Groundwater Sustainability Plan be adopted for the most important groundwater basins in California as a means to empower local agencies to manage basins sustainably. The SGMA establishes basic requirements for the Groundwater Sustainability Plans as well as a timetable for the adoption of the plans.

### **Local**

#### **Water Quality Control Plan for the San Francisco Bay Basin**

The Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met,

plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

### **San Francisco Bay Conservation and Development Commission (BCDC) San Francisco Bay Plan (Bay Plan)**

The San Francisco Bay Conservation and Development Commission (BCDC) is a State planning and regulatory agency with regional authority over the San Francisco Bay, the Bay's shoreline band, and the Suisun Marsh. BCDC was created in 1965 and is the nation's oldest coastal zone agency.

Its mission is to protect and enhance San Francisco Bay and to encourage the Bay's responsible and productive use for this and future generations. State law requires sponsors of projects that propose to fill or extract materials from the Bay to apply for a BCDC permit. In addition to minimizing any fill required for an appropriate project and ensuring that the project is compatible with the conservation of Bay resources, BCDC is tasked with requiring maximum feasible public access within the Bay's 100-foot shoreline band. In addition, BCDC leads the Bay Area's ongoing multi-agency regional effort to address the impacts of rising sea level on shoreline communities and assets.

The San Francisco Bay Plan (Bay Plan) was completed and adopted by the BCDC in 1968 and has been updated regularly with the most recent revisions approved by BCDC in 2019. Essential parts of the Bay Plan include policies to guide future uses of the Bay and shoreline, and the maps that apply these policies to the present Bay and shoreline. The Bay Plan addresses the following matters as specifically required by the law:

1. The results of the Commission's detailed study of the Bay;
2. The comprehensive plan adopted by the Commission for the conservation of the water of San Francisco Bay and the development of its shoreline;
3. The Commission's recommendation of the appropriate agency to maintain and carry out the Bay Plan;
4. The Commission's estimate of the approximate amount of money that would be required to maintain and carry out the provisions of the Plan for the Bay;
5. Other information and recommendations the Commission deemed desirable.

The Bay Plan includes findings and policies related to hydrology/ water quality. The hydrology/ water quality section of the Bay Plan includes polices the implementation of programs for controlling pollution, including stormwater management plans, Total Maximum Daily Load implementation plans, construction site stormwater runoff and erosion, sediment controls, establishing best management practices, such as site planning or structural controls, new technologies, project siting criteria, and operating methods.

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### **Bay Area Stormwater Management Agencies Association Post-Construction Manual**

The Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual provides low impact development (LID) guidelines for applicable projects in Marin, Sonoma, Napa, and Solano Counties. The manual is intended to ensure compliance with the requirements of Permit Provision E.12 of the National Pollutant Discharge Elimination System (NPDES) General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems (Phase II Small MS4 Permit) reissued by the California State Water Resources Control Board in 2013.

### **Marin County Flood Control and Water Conservation District**

The purpose of the Marin County Flood Control and Water Conservation District (Flood Control District) is to reduce the risk of flooding for the protection of life and property while utilizing sustainable practices.<sup>4</sup> The Flood Control District's core work is the operation and maintenance of flood facilities within eight flood control zones. Each zone addresses specific watershed flooding problems. The designated flood control zones do not cover the entire County and are mostly concentrated in the County's eastern urbanized corridor. Seven of the County's 14 major watersheds contain flood control zones, including: the Bolinas Lagoon; Gallinas Creek; Novato Creek; Richardson Bay; Ross Valley; Rush Creek; and Tomales Bay and Lagunitas watersheds.<sup>5</sup> Watersheds with flood control zones have funding from ad-valorem taxes, fees and/or assessments; advisory boards; and projects and maintenance. The County's remaining watersheds do not have flood control zones.

### **Marin County Stormwater Pollution Prevention Program**

Municipal stormwater discharges in Marin County are regulated under the statewide National Pollutant Discharge Elimination System (NPDES) General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems (Phase II Small MS4 Permit). Formed in 1993, the Marin Countywide Stormwater Pollution Prevention Program (MCSTOPPP) provides for the coordination and consistency of approaches between the County's local stormwater programs.<sup>6</sup> MCSTOPPP is a joint effort of Marin's cities, towns and unincorporated areas. The goal is 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. Though the County and each of the eleven cities and towns carry out their own individual stormwater pollution prevention programs, each member agency funds the countywide MCSTOPPP. The MCSTOPPP staff implements permit compliance tasks, tracks stormwater regulations on behalf of the member agencies, and documents their efforts in annual reports. These reports include information on illegal

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<sup>4</sup> Marin County Flood Control and Water Conservation District, 2023. About. Available: <https://marinflooddistrict.org/about/>. Accessed: February 3, 2023.

<sup>5</sup> Marin County Flood Control and Water Conservation District, 2023. Watersheds. Available: <https://marinflooddistrict.org/watersheds/>. Accessed: February 3, 2023.

<sup>6</sup> Marin Countywide Stormwater Pollution Prevention Program (MCSTOPPP), 2023. About. Available: <https://mcstoppp.org/about/>. Accessed: February 2, 2023.



discharges, street cleaning efforts, creek maintenance, new development, and other issues of concern. Resources are also provided for construction projects, including the MCSTOPPP Erosion and Sediment Control Plan Applicant Package, which must be submitted to the applicable municipality for review and approval prior to the start of construction. Minimum control measures for small (less than one acre) construction projects are provided.<sup>7</sup> Post-construction stormwater requirements are also provided at MCSTOPPP's website, which includes projects that create and/or replace more than 2,500 square feet of impervious area. While MCSTOPPP provides guidance for compliance with NPDES permitting, permit compliance is administered by the specific municipality in which the project is proposed.

### **Marin County Multi-Jurisdiction Local Hazard Mitigation Plan**

Hazard mitigation is the use of long-term and short-term policies, programs, projects, and other activities to alleviate the death, injury, and property damage that can result from a disaster. Marin County and its partners developed the 2018 Multi-Jurisdictional Local Hazard Mitigation Plan (2018 LHMP) to assess risks posed by natural hazards and to develop a mitigation strategy for reducing the County's risks. The County prepared the 2018 LHMP in accordance with the requirements of the Disaster Mitigation Act of 2000 (DMA 2000). Additionally, the plan complies with federal and state hazard mitigation planning requirements to establish eligibility for funding under the FEMA grant programs. The 2018 LHMP replaced the County LHMP that was approved by FEMA on August 29, 2013 and serves as the current Local Hazard Mitigation Plan for all participating jurisdictions.

The Town is a participating jurisdiction of the 2018 LHMP, which includes jurisdiction-specific mitigation actions that are designed to reduce or eliminate losses resulting from natural hazards. The Town approved and adopted the 2018 LHMP on March 6, 2019. The 2018 LHMP identifies risks associated with earthquake, flood, fire, tsunami, landslide, and dam inundation events and assesses the vulnerability of the Town's structures and its transportation, communications, power, and water/sewage systems due to such events. The 2018 LHMP also includes an evaluation of the previous hazard mitigation plans to determine which actions have been completed or should be retained.

### **Town of Tiburon Municipal Code**

Title IV, Chapter 13, Article II, *Technical Codes*, adopts various technical construction codes with modifications into the Municipal Code, including, but not limited to, the California Building Code. The California Building Code contains minimum building and structure standards for the protection of life, limb, health, property, safety and welfare of the general public.

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<sup>7</sup> Marin Countywide Stormwater Pollution Prevention Program (MCSTOPPP), 2023. Minimum Control Measures for Small Construction Projects. Available: <https://hx96b8.a2cdn1.secureserver.net/wp-content/uploads/2020/09/esc-measures-for-small-construction-projects.pdf>. Accessed: February 2, 2023.



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Title IV, Chapter 13D, *Flood Damage Prevention*, contains the Tiburon Flood Damage Prevention Ordinance. The Flood Damage Prevention Ordinance outlines specific requirements for new developments within floodplain areas that serve to minimize public and private losses due to flood conditions. In order to accomplish its purposes, the ordinance includes methods and provisions for:

1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
4. Controlling filling, grading, dredging and other development which may increase flood damage; and
5. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

Title IV, Chapter 13D, Article III, *Standards of Construction*, provides additional development standards required in all areas of special flood hazards, including floodways and coastal high hazard areas.

Title IV, Chapter 13E, *Water Efficient Landscape*, provides for water-efficient landscape requirements and monitoring of water usage for irrigation for certain new construction, remodel, and rehabilitation projects that include landscape and irrigation improvements, as mandated under State Government Code Section 65595(c). Chapter 13E adopts and incorporates the most current Marin Municipal Water District (Marin Water) Ordinance No. 430 (Water Conservation) and designates Marin Water to implement, enforce, and monitor its requirements. The ordinance contains provisions that include but are not limited to, the following:

1. The application and monitoring of a "maximum applied water allowance" that is established for applicable projects.
2. The review of required landscape and irrigation plans, specifications and supportive documents prepared for applicable projects for compliance with water-efficient landscape restrictions, including limitations on the type and amount of landscape materials and plant species.
3. The review, inspection and approval of landscape and irrigation that is installed for applicable projects to ensure compliance with the approved landscape and irrigation plans and specifications.
4. The post-installation monitoring of water usage for irrigation by applicable projects.

Title IV, Chapter 14A, *Drainage Areas*, establishes a planned local drainage facilities fund to defray the actual or estimated costs of constructing planned drainage facilities for the removal of surface and storm waters from local or neighborhood drainage areas. Section 14A-3, *Belveron Watershed*, designates a local drainage area, the Belveron Watershed, and establishes a drainage fee to be paid for development within the local drainage area.

Title V, Chapter 17, *Harbor and Waterways*, establishes additional standards and regulations related to zoning, parks and recreation and the obstruction, diverting, etc., of watercourses within the Town.

Title VI, Chapter 20A, *Urban Runoff Pollution Prevention*, contains the Town's Urban Runoff Pollution Prevention Ordinance. The ordinance requires that every development project that is subject to the development requirements in the Town's NPDES permit is required to also submit and implement a stormwater control plan (SCP) that meets the criteria in the most recent version of the Bay Area Stormwater Management Agencies (BASMAA) Post Construction Manual. The ordinance aims to protect and enhance the water quality of Tiburon's watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Clean Water Act, the Porter-Cologne Water Quality Control Act (California Water Code section 13000 *et seq.*), and the Phase II Stormwater Permit by:

1. Minimizing discharges other than storm runoff to storm drains or watercourses to the maximum extent practicable;
2. Responding to the discharge of spills, preventing and controlling the discharge of spills to storm drains or watercourses and prohibiting dumping or disposal of materials other than stormwater;
3. Reducing pollutants in stormwater discharges to the maximum extent practicable;
4. Requiring operators of construction sites, new or redeveloped land, and industrial and commercial facilities to install, implement, or maintain appropriate best management practices ("BMPs");
5. Requiring development projects to maintain or reduce the volume, velocity, peak flow rate and duration of runoff as compared to the pre-development stormwater runoff and preventing stormwater pollution whenever possible, through stormwater management controls and ensuring that these management controls are properly maintained; and
6. Authorizing the town to take the foregoing and all other actions specified by Section E.6.a of the Phase II Small Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System Permit (Water Quality Order No. 2013-0001 – DWQ, General Permit No. CAS000004) and subsequent revisions and amendments thereto.

The Town's Urban Runoff Pollution Prevention Ordinance requires that development projects maintain or reduce the volume, velocity, peak flow rate and duration of runoff as compared to the pre-development stormwater runoff and preventing stormwater pollution whenever possible, through stormwater management controls and ensuring that these

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management controls are properly maintained. Practicable measures to reduce pollutants include, but are not limited to:

- Control of littering;
- Maintenance of parking lots and similar structures;
- Use of construction-phase BMPs, including erosion and sediment controls and pollution prevention practices;
  - The Town has the authority to review designs and proposals for construction activities to determine whether adequate BMPs will be installed, implemented, and maintained during construction and after final stabilization (post-construction). When required by the Phase II Stormwater Permit or by the authorized enforcement official, a project shall have an erosion and sediment control plan (ESCP) that addresses erosion and sediment control and pollution prevention during the construction phase as well as final stabilization control measures. For applicable projects, applicants must prepare the ESCP in accordance with the MCSTOPPP Erosion and Sediment Control Plan Applicant Package, and the ESCP must be submitted and approved by the authorized enforcement official. For projects subject to the State's General Construction Permit project applicants may submit a storm water pollution prevention plan (SWPPP) developed pursuant to the CGP in lieu of submitting an ESCP. Prior to and/or during construction, the authorized enforcement official may establish controls on the volume and rate of stormwater runoff from new developments and redevelopments as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site hydrology. These controls may include limits on impervious area or provisions for detention and retention of runoff on site. The authorized enforcement official may also require, as a condition of project approval, permanent structural controls designed for the removal of sediment and other pollutants and for control on the volume and rate of stormwater runoff from the project's added or replaced impervious surfaces.
- Permanent stormwater controls for new development and redevelopment;
  - Where required by the Phase II Stormwater Permit Provision E.12, or where required by the nature and extent of a proposed project and where deemed appropriate by the agency, every applicant shall develop, submit and implement a stormwater control plan (SCP) in general accordance with the BASMAA Post Construction Manual, and the Phase II Stormwater Permit. The SCP requires the project to incorporate site design measures and/or treatment facilities that minimize imperviousness, minimize or detain stormwater, slows runoff rates, and reduces pollutants in post-development runoff.
- Notification of intent to comply with general permits; and
- Compliance with best management practices.

### 3.9.3 THRESHOLDS OF SIGNIFICANCE

According to CEQA Guidelines Appendix G, except as provided in Public Resources Code Section 21099, the proposed project will have a significant impact related to hydrology and water quality if it would :

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - result in substantial erosion or siltation on- or off-site;
  - substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
  - create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and/or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

### 3.9.4 ANALYSIS, IMPACTS, AND MITIGATION MEASURES

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**Impact 3.6-1      Development facilitated by the Project has the potential to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.**

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#### **Construction**

Grading, excavation, removal of vegetation cover, and loading activities associated with future construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion impacts that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

In compliance with NPDES Permit regulations, the State of California requires that any construction activity disturbing one acre or more of soil comply with the General Construction Permit. The permit requires development and implementation of a SWPPP and monitoring plan, which must include erosion-control and sediment-control BMPs that would

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meet or exceed measures required by the General Construction Permit to control stormwater quality degradation due to potential construction-related pollutants. The MCSTOPP also provides minimum control measure guidelines for small (less than one acre) construction projects. In addition, the Town's Urban Runoff Pollution Prevention Ordinance requires the use of construction-phase BMPs, including erosion and sediment controls and pollution prevention practices. When required by the Phase II Stormwater Permit or by the authorized enforcement official, applicable projects would be required to prepare an ESCP that addresses erosion and sediment control and pollution prevention during the construction phase. Erosion control BMPs may include, but are not limited to, scheduling and timing of grading activities, timely revegetation of graded areas, the use of hydroseed and hydraulic mulches, and installation of erosion control blankets. Sediment control may include properly sized detention basins, dams, or filters to reduce entry of suspended sediment into the storm drain system and watercourses, and installation of construction entrances to prevent tracking of sediment onto adjacent streets. Pollution prevention practices may include designated washout areas or facilities, control of trash and recycled materials, tarping of materials stored on site and proper location of and maintenance of temporary sanitary facilities.

The General Plan 2040 sets policies and actions for build-out of the Town, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. However, each future project must include detailed project specific drainage plans that control storm water runoff and erosion, both during and after construction. The RWQCB would require a project-specific SWPPP to be prepared for each future project that disturbs an area one acre or larger. The SWPPPs would include project-specific best management measures that are designed to control drainage and erosion. The Town's Urban Runoff Pollution Prevention Ordinance would require the use of construction-phase BMPs, including erosion and sediment controls and pollution prevention practices.

### **Operation**

New development and redevelopment under the proposed General Plan 2040 could introduce constituents into the storm water that are typically associated with urban runoff. These constituents include sediments, petroleum hydrocarbons, pesticides, fertilizers, and heavy metals such as lead, zinc, and copper. The amount and type of runoff generated by the various future projects could be greater than under existing conditions, due to increases in impervious surfaces. NPDES permit requirements and the Town's Municipal Code prevent illicit discharges into drains, waterways and wetlands.

The Town may require, as a condition of project approval, permanent controls designed to remove sediment and other pollutants and to mimic the pre-project site hydrology by controlling the flow rates and/or the volume of stormwater runoff from the project's added and/or replaced impervious surfaces. These controls may include limits on impervious area.

Pursuant to the Phase II Stormwater Permit and Town's Urban Runoff Pollution Prevention Ordinance, qualifying new development and redevelopment projects are required to prepare a SCP or similar demonstration of post-construction BMPs to mitigate downstream impacts to flooding and water quality. The SCP would require the project to incorporate site design measures and/or treatment facilities that minimize imperviousness, minimize or detain stormwater, slows runoff rates, and reduces pollutants in post-development runoff. Where required by the authorized enforcement official, as a condition precedent to the issuance of a building permit, project applicants are required to submit a preliminary stormwater facilities operation and maintenance plan (O&M plan). The approval of the O&M plan by the agency is required prior to final inspection and approval of building permit closure. The SCP must also include a statement accepting responsibility to maintain the stormwater treatment facilities until that responsibility is transferred to the project operator or owner or another responsible party.

The General Plan 2040 Conservation Chapter and Safety and Resilience Chapter include goals, policies, and programs to address water quality associated with development, as further described below.

The Marin County Flood Control District is responsible for regional flood control planning within the County. Provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. General Plan 2040 Conservation Chapter and Safety and Resilience Chapter goals, policies, and programs aim to enhance stormwater quality and infiltration as well as ensure development projects are reviewed to identify potential stormwater and drainage impacts and require development to include measures to confirm off-site runoff is not increased beyond pre-development levels. Conservation Chapter Policy C-20 aims to maintain and enhance water quality to promote the continued environmental health of natural waterway habitats. Program C-g directs the Town to continue to be an active member agency of the MCSTOPPP to implement BMPs and to comply with federal and state water quality regulations to reduce pollution being conveyed through storm water systems to the Bay. Safety and Resilience Chapter Policy SR-15 ensures new development mitigates storm drainage impacts and potential increases in runoff through a combination of measures, including improvement of local storm drainage facilities. Program SR-dd utilizes on-site detention of stormwater runoff to ensure that post-development peak flow rates from a site resulting from both the two-year and 100-year design rainstorms are not increased by new subdivisions or other permitted development projects. Program SR-ff utilizes Stormwater Runoff Impact Fees to upgrade, enhance, and/or rehabilitate the Town's public storm drain system to offset the increased demand on the capacity, operation, and sustainability of the Town storm drain system. Program SR-gg requires project applicants for new development to prepare a hydraulic and geomorphic assessment of on-site and downstream drainageways that are affected by project area runoff. In the event existing channel instabilities are noted, the applicant may either propose their own channel stabilization program or defer to the mitigations generated during the Town's environmental review. Any proposed stabilization measures shall anticipate any project-related changes to



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the drainageway flow regime. Program SR-hh evaluates potential measures to more sustainably manage stormwater and erosion and improve water quality associated with urban runoff. This includes improvements such as rain gardens and permeable pavement, which attenuate flooding downstream and provide ecological benefits.

Existing regulatory requirements that manage water quality include requirements to obtain approval from the RWQCB for NPDES permits, other discharge permits, SCPs, ESCPs, SWPPPs, and to implement BMPs. These regulatory requirements are intended to ensure that water quality does not degrade to levels that would violate water quality standards. Through implementation of the General Plan 2040 policies and programs, implementation of the Municipal Code requirements identified above, compliance with mandatory federal and State regulations, future development projects associated with implementation of the General Plan 2040 would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, the impact would be **less than significant**.

### Mitigation Measures

None required.

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#### **Impact 3.6-2      Development facilitated by the Project would not decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.**

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There are no identified groundwater basins within the Planning Area, and the Planning Area is not considered a groundwater recharge area. The nearest groundwater basin to the Planning Area is the Ross Valley Groundwater Basin located approximately 0.5 miles northwest of Ring Mountain.

As discussed in detail in Section 3.15 of this DEIR, the Planning Area is served by the Marin Municipal Water District (Marin Water). As indicated in the Marin Water 2020 Urban Water Management Plan (UWMP), Marin Water's water supplies come from a combination of local surface water supplies, imported water from Sonoma County Water Agency, and recycled water.<sup>8</sup> Marin Water does not pump groundwater and does not plan to use groundwater as a supply source in the future.

Future development and redevelopment projects in the Planning Area would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge in those areas. Infiltration rates vary depending on the overlying soil types. In general, sandy soils have higher infiltration rates and can contribute to significant amounts of ground water recharge; clay soils tend to have lower percolation potential; and impervious surfaces such as pavement significantly reduce infiltration capacity and increase surface water runoff.

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<sup>8</sup> EKI Environment and Water, Inc, 2021. 2020 Urban Water Management Plan for Marin Municipal Water District. Available: <https://www.marinwater.org/sites/default/files/2021-06/Draft%20MMWD%20UWMP%202020-1.pdf>. Accessed: February 3, 2023.



Projects located in urban areas would have less of an impact than projects involving the conversion of open lands and spaces. The Town evaluates individual projects as they are proposed to ensure that they would not result in a significant interference with recharge.

The General Plan 2040 Conservation Chapter includes goals, policies, and programs intended to reduce the risk of groundwater supply depletion, while encouraging groundwater recharge. Policy C-18 supports the efforts of Marin Water to conserve the use of water through enforcement of the Town's water conservation ordinance requiring implementation of water conservation measures. For development projects proposing impervious surface construction, storm drain system installation, and/or hillside stabilization, Program C-e requires project applicants to analyze the impacts of 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 implemented to the extent feasible. Program C-f ensures continued implementation of the Town's water conservation ordinance through the review of new development proposals involving new landscaping. Policy C-19 directs the Town to coordinate planning activities with Marin Water to ensure that both the Town and Marin Water have the latest information with respect to land use and water supply planning.

Future development projects would be required to be consistent with the proposed General Plan 2040 and General Plan Land Use Map. The implementation of the policies and programs contained in the General Plan 2040 Conservation Chapter are intended to ensure that development in the Planning Area protects local groundwater resources through a continued effort to reduce water use, while also promoting groundwater recharge. Additionally, the Town does not pump groundwater and does not plan to use groundwater as a supply source in the future. Implementation of the General Plan 2040 policies and programs would further ensure that future development anticipated by the General Plan 2040 would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge, and the impact would be **less than significant**.

### Mitigation Measures

None required.

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**Impact 3.6-3**      **Development facilitated by the Project has the potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.**

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### Erosion and Siltation

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Implementation under the General Plan 2040 would result in new development projects which may increase the area of impervious surfaces and/or result in alteration of existing drainage patterns. Substantial erosion or siltation is known to result during construction and/or during the post-construction phase if erosion control measures are not used. Erosion or siltation can also occur in the post-construction phase if runoff is not captured and conveyed appropriately.

As stated above, future development under the General Plan 2040 would be subject to NPDES permit requirements that address the control of erosion and siltation. This includes the General Construction Permit, which requires a SWPPP and the effective implementation of erosion control measures for projects greater than one acre in size (or part of a larger plan of development). The MCSTOPP also provides minimum control measure guidelines for small (less than one acre) construction projects. In addition, the Town's Urban Runoff Pollution Prevention Ordinance requires the use of construction-phase BMPs, including erosion and sediment controls and pollution prevention practices. When required by the Phase II Stormwater Permit or by the authorized enforcement official, applicable projects would be required to prepare an ESCP that addresses erosion and sediment control and pollution prevention during the construction phase. Erosion control BMPs may include, but are not limited to, scheduling and timing of grading activities, timely revegetation of graded areas, the use of hydroseed and hydraulic mulches, and installation of erosion control blankets. Sediment control may include properly sized detention basins, dams, or filters to reduce entry of suspended sediment into the storm drain system and watercourses, and installation of construction entrances to prevent tracking of sediment onto adjacent streets. Pollution prevention practices may include designated washout areas or facilities, control of trash and recycled materials, tarping of materials stored on site and proper location of and maintenance of temporary sanitary facilities. Post-construction BMPs would also be implemented. Pursuant to the Phase II Stormwater Permit and Town's Urban Runoff Pollution Prevention Ordinance, qualifying new development and redevelopment projects are required to prepare a SCP or similar demonstration of post-construction BMPs to mitigate downstream impacts to flooding and water quality. The SCP would require the project to incorporate site design measures and/or treatment facilities that minimize imperviousness, minimize or detain stormwater, slows runoff rates, and reduces pollutants in post-development runoff.

Further, the General Plan 2040 Conservation and Safety and Resilience Chapters include goals, policies, and programs that address erosion and siltation from the addition of impervious surfaces and alteration of existing drainage patterns. For development projects proposing impervious surface construction, storm drain system installation, and/or hillside stabilization, Conservation Chapter Program C-e requires project applicants to analyze the impacts of 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 implemented to the extent feasible. Program C-f ensures continued implementation of the Town's water conservation ordinance

through the review of new development proposals involving new landscaping. Safety and Resilience Chapter Program SR-hh evaluates potential measures to more sustainably manage stormwater and erosion and improve water quality associated with urban runoff. This includes improvements such as rain gardens and permeable pavement, which attenuate flooding downstream and provide ecological benefits. Through implementation of the General Plan 2040 policies and existing regulations, erosion/siltation impacts from changes to the existing drainage patterns and increasing impervious surfaces would be less than significant and no mitigation is required.

### **Surface Runoff**

Future development under the General Plan 2040 has the potential to result in changes to the existing drainage patterns and could exceed the capacity of stormwater drainage systems and/or cause flooding on- or off-site of a project. Flooding can occur from an increase in impervious surfaces, which increases the volume and speed of runoff. When the volume and speed of runoff are increased, drainage facilities can be unable to handle the flows and capacity could be exceeded.

As previously described, the Marin County Flood Control District is responsible for regional flood control planning within the County. Provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. As specified in the Town's Urban Runoff Pollution Prevention Ordinance and Phase II Stormwater Permit, qualifying new development and redevelopment projects are required to prepare a SCP or similar demonstration of post-construction BMPs to mitigate downstream impacts to flooding and water quality. The SCP would require the project to incorporate site design measures and/or treatment facilities that minimize imperviousness, minimize or detain stormwater, slows runoff rates, and reduces pollutants in post-development runoff.

The General Plan 2040 contains goals, policies, and programs to provide adequate stormwater infrastructure for flood control and to reduce run-off quantity. Conservation Chapter Policy C-9 requires 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. Policy C-20 directs the Town to maintain or enhance water quality to promote the continued environmental health of natural waterway habitats. Program C-g directs the Town to continue to be an active member agency of the MCSTOPPP to implement best management practices and to comply with federal and state water quality regulations to reduce pollution being conveyed through storm water systems to the Bay. Safety and

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Resilience Chapter Policy SR-15 ensures new development mitigates storm drainage impacts and potential increases in runoff through a combination of measures, including improvement of local storm drainage facilities. Program SR-cc directs the Town to design drainage facilities within new subdivisions to accommodate a 100-year storm. Program SR-dd utilizes on-site detention of stormwater runoff to ensure that post-development peak flow rates from a site resulting from both the two-year and 100-year design rainstorms are not increased by new subdivisions or other permitted development projects. Program SR-ee directs the payment of fair-share improvements to existing stormwater drainage systems for subdivisions responsible for exceeding capacity. Program SR-ff utilizes Stormwater Runoff Impact Fees to upgrade, enhance, and/or rehabilitate the Town's public storm drain system to offset the increased demand on the capacity, operation, and sustainability of the Town storm drain system. Program SR-gg requires project applicants for new development to prepare a hydraulic and geomorphic assessment of on-site and downstream drainageways that are affected by project area runoff. In the event existing channel instabilities are noted, the applicant may either propose their own channel stabilization program or defer to the mitigations generated during the Town's environmental review. Any proposed stabilization measures shall anticipate any project-related changes to the drainageway flow regime. Program SR-hh evaluates potential measures to more sustainably manage stormwater and erosion and improve water quality associated with urban runoff. This includes improvements such as rain gardens and permeable pavement, which attenuate flooding downstream and provide ecological benefits. Through implementation of the General Plan 2040 Plan goals, policies, and programs and existing federal, State, and local regulations discussed above, runoff would not exceed the capacity of drainage systems, provide substantial additional sources of polluted runoff, or cause flooding impacts from changes to the existing drainage patterns and increased impervious surfaces. Therefore, impacts would be less than significant and no mitigation is required.

### **Flood Flows**

As described above and shown in Figure 3.9-2, FEMA Flood Zone Designations, several portions of the Planning Area are subject to the 100-year flood and 500-year FEMA flood zone. Based on FEMA mapping, coastal areas along the perimeter of the Tiburon Peninsula are generally within a mapped portion of the 100-year or 500-year FEMA flood zone.

The General Plan 2040 sets policies for buildout of the City, but does not envision or authorize any specific development project. The proposed Conservation Chapter Policy C-10 avoids 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. Policy C-11 directs the use of areas defined as floodplain for habitat and flood protection. The proposed Safety and Resilience Chapter Policy SR-10 is aimed at reducing the risk of loss of life, personal injury, and property

damage resulting from flooding by properly maintaining storm drainage systems, natural flood control channels, and waterways and regulating runoff from new construction and development projects. Policy SR-11 integrates flooding and sea level rise projections into policies and regulations to inform the public of the future hazard areas, assess and address potential impacts to future development, inform future planning and building requirements, plan for opportunity areas for adaptation, and inform funding and financing decisions about short- and long-term adaptation projects. Program SR-p directs the Town to prepare and update, at least every five years, a Flooding and Sea Level Rise Projection Map as a reference for town policies and regulations and as a publicly accessible tool for tracking flooding and sea level rise hazards. Program SR-r directs the Town to prepare and adopt an adaptation plan addressing increased flooding and sea level rise. Program SR-y require new development and/or construction, where feasible, to be outside Special Flood Hazard Areas. Program SR-t directs the Town to continue to comply with the federal National Flood Insurance Program by maintaining a flood management program and flood plain management regulations. Policy SR-14 ensures new development is resilient to flooding and sea level rise. Program SR-z requires structures constructed adjacent to areas subject to the 100-year tidal flood to be protected from destructive wave action. Program SR-aa requires new development, including substantial alterations, to consider and address increased flooding and sea level rise impacts and to integrate resilience and adaptation measures into project design as warranted. Program SR-bb directs the Town to study an amendment of the Town's Flood Damage Prevention Ordinance to establish a minimum finished floor elevation requirement of three feet above the FEMA 100-year flood elevation to protect new development against future sea level rise. Policy SR-15 ensures new development mitigates storm drainage impacts and potential increases in runoff through a combination of measures, including improvement of local storm drainage facilities. Program SR-cc directs the Town to design drainage facilities within new subdivisions to accommodate a 100-year storm. Program SR-dd utilizes on-site detention of stormwater runoff to ensure that post-development peak flow rates from a site resulting from both the two-year and 100-year design rainstorms are not increased by new subdivisions or other permitted development projects. Program SR-ee directs the payment of fair-share improvements to existing stormwater drainage systems for subdivisions responsible for exceeding capacity. Program SR-ff utilizes Stormwater Runoff Impact Fees to upgrade, enhance, and/or rehabilitate the Town's public storm drain system to offset the increased demand on the capacity, operation, and sustainability of the Town storm drain system. Program SR-gg requires project applicants for new development to prepare a hydraulic and geomorphic assessment of on-site and downstream drainageways that are affected by project area runoff. In the event existing channel instabilities are noted, the applicant may either propose their own channel stabilization program or defer to the mitigations generated during the Town's environmental review. Any proposed stabilization measures shall anticipate any project-related changes to the drainageway flow regime. Program SR-hh evaluates potential measures to more sustainably manage stormwater and erosion and improve water quality associated with

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urban runoff. This includes improvements such as rain gardens and permeable pavement, which attenuate flooding downstream and provide ecological benefits.

As described above, the Tiburon Flood Damage Prevention Ordinance provides land use and development regulations to all land within flood-prone or flood-related erosion areas, including review of development permits to ensure adherence to federal, State, and local flood-related regulations as well as additional standards applicable to all areas of special flood hazards in the Town. Future development projects would be reviewed by the Town to determine if a project site is located within areas of special flood hazards and thus subject to additional standards set forth in Title IV, Chapter 13D, Article III. Additionally, construction of storm drainage improvements would occur as part of an overall development or infrastructure project, and would be considered in the environmental review associated with the specific project being proposed. With implementation of General Plan 2040 goals, policies, and programs and compliance with existing regulations, the General Plan 2040 would not impede or redirect flood flows; impacts would be **less than significant** and no mitigation is required.

### Mitigation Measures

None required.

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#### **Impact 3.6-4      Development facilitated by the Project has the potential to risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone.**

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As described above and shown in Figure 3.9-2, FEMA Flood Zone Designations, several portions of the Planning Area are subject to the 100-year flood and 500-year FEMA flood zone. Based on FEMA mapping, coastal areas along the perimeter of the Tiburon Peninsula are generally within a mapped portion of the 100-year or 500-year FEMA flood zone. Should structures proposed under the General Plan 2040 become inundated during a future flood event, there is a risk of pollutants being released inadvertently into the environment.

Tsunamis and seiches are standing waves that occur in the ocean or relatively large, enclosed bodies of water that can follow seismic, landslide, and other events from local sources (California, Oregon, Washington coast) or distant sources (Pacific Rim, South American Coast, Alaska/Canadian coast). A tsunami is a series of waves in a water body caused by the displacement of a large volume of water, generally in an ocean or a large lake due to earthquakes, volcanic eruptions, and other underwater explosions. Seiches are changes or oscillations of water levels within a confined water body caused by fluctuation in the atmosphere, tidal currents, or earthquakes. The effect of this phenomenon is a standing wave that would occur when influenced by external causes. The Planning Area is located in close proximity to the San Francisco Bay and Richardson Bay (semi-confined water bodies), which could pose a significant risk from a seiche similar to that of a tsunami threat. Should structures proposed under the General Plan 2040 become inundated during a future



tsunami or seiche event, there is a risk of pollutants being released inadvertently into the environment.

Figure 3.9-3 identifies portions of the Planning Area located within a tsunami inundation zone. As previously mentioned, numerous residences, businesses, and yacht clubs on the Tiburon Peninsula are waterfront properties and are located within tsunami inundation areas. Specifically, all the residences adjacent to the Paradise Cay, Boardwalk Shopping Center, and the majority of the eastern coast are located within a tsunami inundation area. Additionally, many recreational areas such as beaches, shoreline park, Angel Island, Paradise Park, and the multiuse path or along the shoreline and are at risk from tsunamis.

The Tiburon Flood Damage Prevention Ordinance provides land use and development regulations to all land within flood-prone or flood-related erosion areas, including review of development permits to ensure adherence to federal, State, and local flood-related regulations as well as additional standards applicable to all areas of special flood hazards in the Town. Future development projects would be reviewed by the Town to determine if a project site is located within areas of special flood hazards, including floodways and coastal high hazard areas, and thus subject to additional standards set forth in Title IV, Chapter 13D, Article III. Further, the General Plan 2040 includes goals, policies, and programs to reduce the risk of flooding and ensure compliance with regulatory requirements. Conservation Chapter Policy C-10 avoids 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. Policy C-11 directs the use of areas defined as floodplain for habitat and flood protection. The proposed Safety and Resilience Chapter Policy SR-10 is aimed at reducing the risk of loss of life, personal injury, and property damage resulting from flooding by properly maintaining storm drainage systems, natural flood control channels, and waterways and regulating runoff from new construction and development projects. Policy SR-11 integrates flooding and sea level rise projections into policies and regulations to inform the public of the future hazard areas, assess and address potential impacts to future development, inform future planning and building requirements, plan for opportunity areas for adaptation, and inform funding and financing decisions about short- and long-term adaptation projects. Program SR-p directs the Town to prepare and update, at least every five years, a Flooding and Sea Level Rise Projection Map as a reference for town policies and regulations and as a publicly accessible tool for tracking flooding and sea level rise hazards. Program SR-r directs the Town to prepare and adopt an adaptation plan addressing increased flooding and sea level rise. Program SR-y require new development and/or construction, where feasible, to be outside Special Flood Hazard Areas. Program SR-t directs the Town to continue to comply with the federal National Flood Insurance Program by maintaining a flood management program and flood plain management regulations. Policy SR-14 ensures new development is resilient to flooding and sea level rise. Program SR-z requires structures constructed adjacent to areas subject to the 100-year tidal flood to be protected from destructive wave action. Program SR-aa requires new development, including substantial alterations, to consider and address increased flooding and sea level rise impacts and to integrate resilience and adaptation



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measures into project design as warranted. Program SR-bb directs the Town to study an amendment of the Town's Flood Damage Prevention Ordinance to establish a minimum finished floor elevation requirement of three feet above the FEMA 100-year flood elevation to protect new development against future sea level rise. Policy SR-15 ensures new development mitigates storm drainage impacts and potential increases in runoff through a combination of measures, including improvement of local storm drainage facilities. Program SR-cc directs the Town to design drainage facilities within new subdivisions to accommodate a 100-year storm. Program SR-dd utilizes on-site detention of stormwater runoff to ensure that post-development peak flow rates from a site resulting from both the two-year and 100-year design rainstorms are not increased by new subdivisions or other permitted development projects. Program SR-ee directs the payment of fair-share improvements to existing stormwater drainage systems for subdivisions responsible for exceeding capacity. Program SR-ff utilizes Stormwater Runoff Impact Fees to upgrade, enhance, and/or rehabilitate the Town's public storm drain system to offset the increased demand on the capacity, operation, and sustainability of the Town storm drain system. Program SR-gg requires project applicants for new development to prepare a hydraulic and geomorphic assessment of on-site and downstream drainageways that are affected by project area runoff. In the event existing channel instabilities are noted, the applicant may either propose their own channel stabilization program or defer to the mitigations generated during the Town's environmental review. Any proposed stabilization measures shall anticipate any project-related changes to the drainageway flow regime. Program SR-hh evaluates potential measures to more sustainably manage stormwater and erosion and improve water quality associated with urban runoff. This includes improvements such as rain gardens and permeable pavement, which attenuate flooding downstream and provide ecological benefits.

Although existing flood impacts would remain present, the General Plan 2040 has been developed to include goals, policies, and programs that, when implemented, would reduce flood hazard throughout the Project Area. The policies include numerous requirements that would reduce the potential for General Plan 2040 implementation to result in increased impacts related to flooding and pollution runoff. The implementation of these policies and programs would ensure that implementation of the General Plan 2040 would have a **less-than-significant** impact relative to this environmental topic.

### Mitigation Measures

None required.

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**Impact 3.6-5**      **Development facilitated by the Project has the potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.**

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As described above, the local water quality control plan (Basin Plan) is maintained by the San Francisco Bay RWQCB. The Basin Plan specifies the State's water quality standards (i.e.,

beneficial uses, water quality objectives, and implementation measures) and serves as the basis for the RWQCB's regulatory programs. When permittees and projects comply with the provisions of applicable NPDES permits and water quality permitting, they are consistent with the Basin Plan. Adherence to the Phase II Stormwater Permit, BASMAA Post-Construction Manual, and Tiburon Municipal Code would ensure that surface and groundwater quality are protected from erosion and pollution. As a result, site soils would not be adversely impacted during the construction and operation of future development projects anticipated under the General Plan 2040. Further, the General Plan 2040 includes policies and programs to protect watershed and recharge areas, implement NPDES requirements, and enforce said regulations, such as: Conservation Chapter Policy C-20, which aims to maintain and enhance water quality to promote the continued environmental health of natural waterway habitats; and Program C-g directs the Town to continue to be an active member agency of the MCSTOPPP to implement BMPs and to comply with federal and state water quality regulations to reduce pollution being conveyed through storm water systems to the Bay. Furthermore, future development within the Planning Area would be located within the Marin Water service area, which relies solely on surface water supply and recycled water. Groundwater is not currently used or planned to be used as a municipal water supply source by Marin Water, and future projects would not conflict with the sustainable management of the groundwater basins. Therefore, through implementation of existing regulations and the General Plan 2040 policies and actions, implementation of the General Plan 2040 would not conflict with or obstruct a water quality control plan. Impacts would be **less than significant**.

### Mitigation Measures

None required.

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**Impact 3.6-6      Development facilitated by the Project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to hydrology and water quality.**

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Cumulative hydrology and water quality impacts associated with implementation of the General Plan 2040 are analyzed based on development within the Planning Area and development served by facilities under the jurisdiction of the Marin County Flood Control and Water Conservation District. The General Plan 2040 does not propose site-specific development and would not significantly impact drainage courses and hydrologic flows throughout the Town.

Construction of the individual development projects allowed under the land use designations of the proposed General Plan 2040 has the potential to result in construction-related water quality impacts and operational-related impacts to local waterways, and cause flooding, erosion, or siltation from the alteration of drainage patterns. Individual projects would be evaluated on a project-by-project basis to ensure compliance with the General Plan

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2040 policies and programs, as well as federal, State, and local regulations to reduce hydrology and water quality impacts.

Subsequent development projects under the General Plan 2040 would result in new impervious surfaces and could increase stormwater runoff volumes; however, the General Plan 2040 would not appreciably add to the volume of impervious surfaces in the Planning Area. As individual projects are constructed, the General Plan 2040 policies and actions, as well as federal, State, and local regulations, would substantially reduce potential cumulative impacts. Considering the protection granted by local, State, and federal agencies and their permit and monitoring requirements, as discussed above, and with implementation of the policies and actions included within the General Plan 2040, the overall cumulative impact would not be significant. As a result, the General Plan 2040's incremental contribution to cumulative hydrology impacts would be less than cumulatively considerable, and the cumulative impact would be **less than significant**.

### Mitigation Measures

None required.

Figure 3.9-1. Watersheds Map

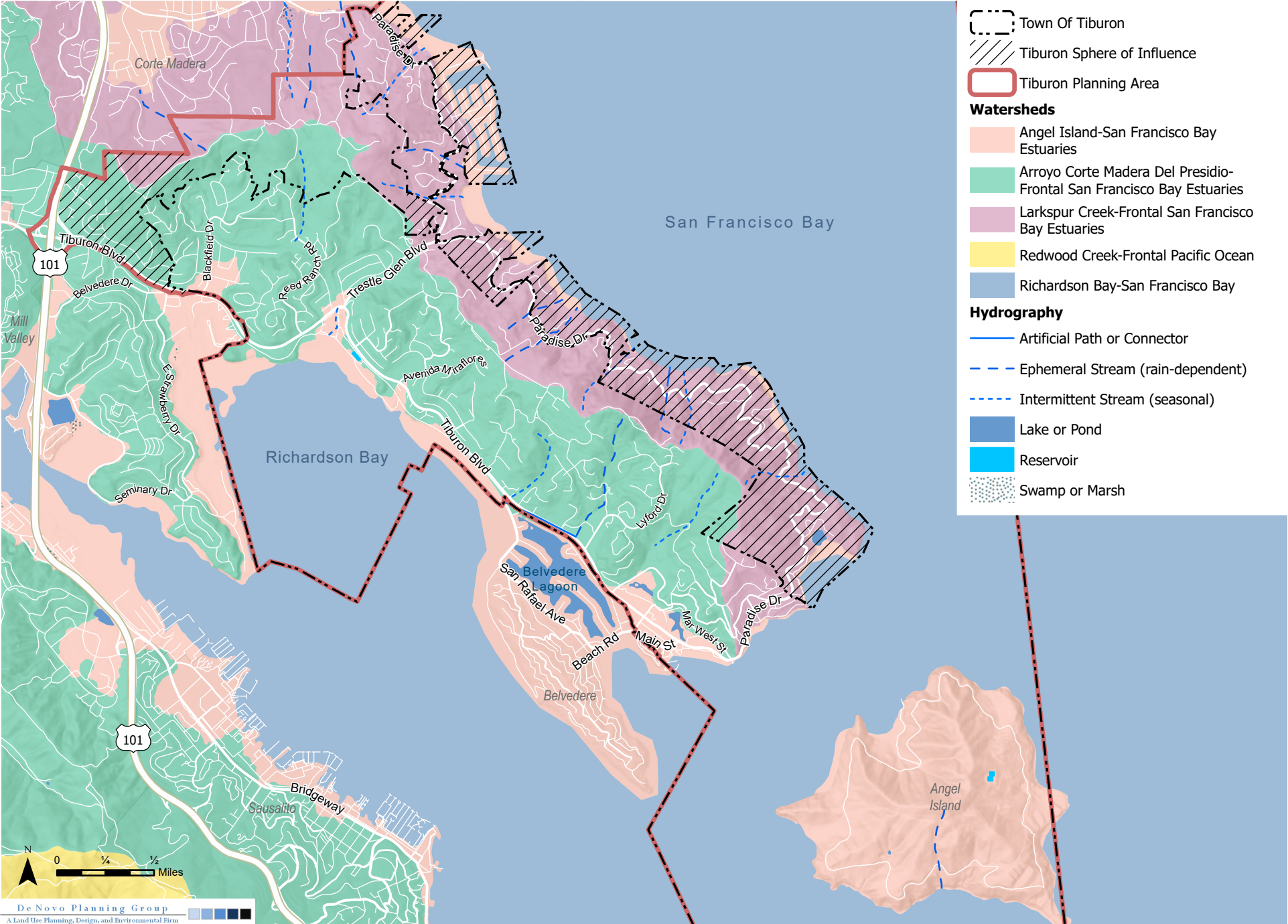




Figure 3.9-2. FEMA Flood Zone Designations

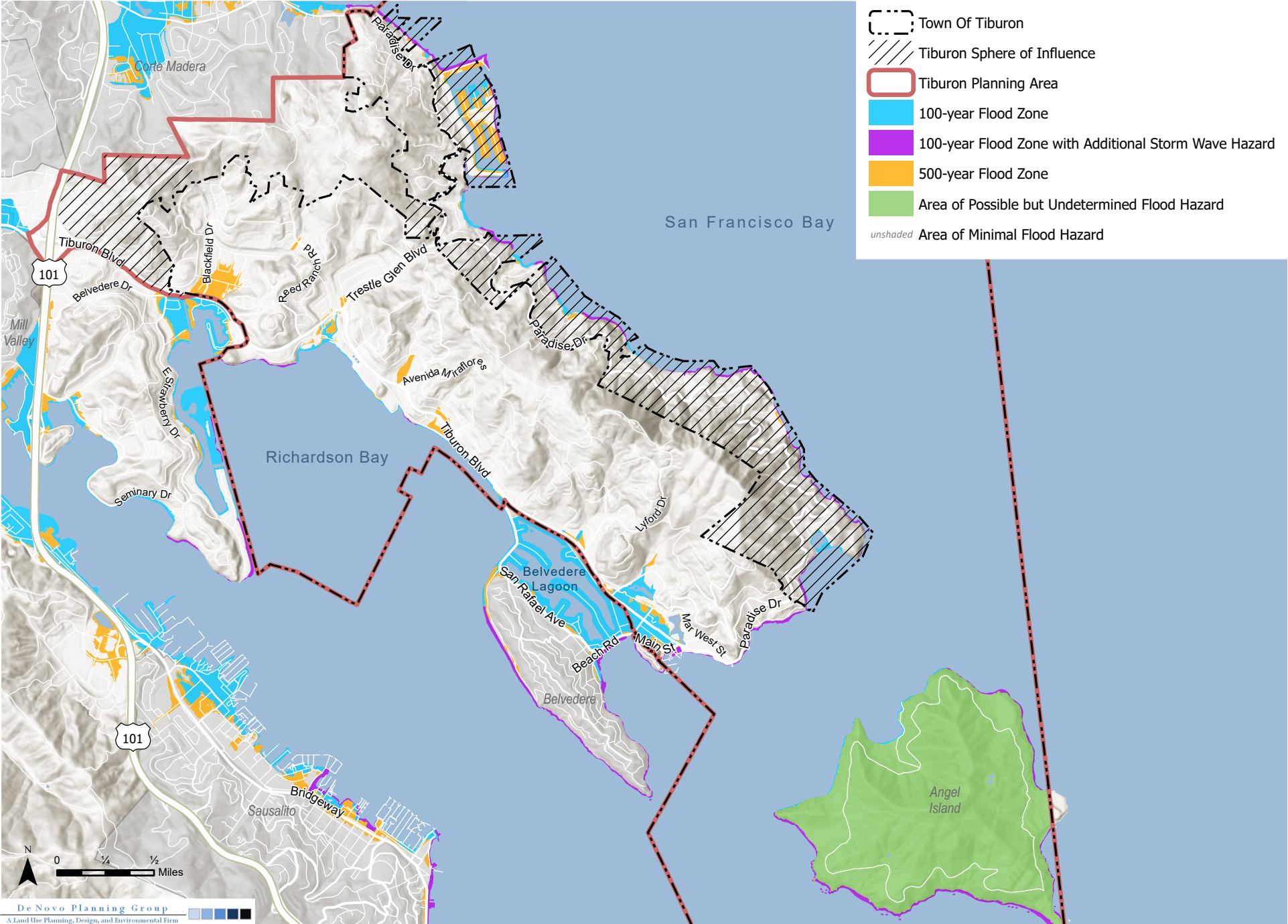
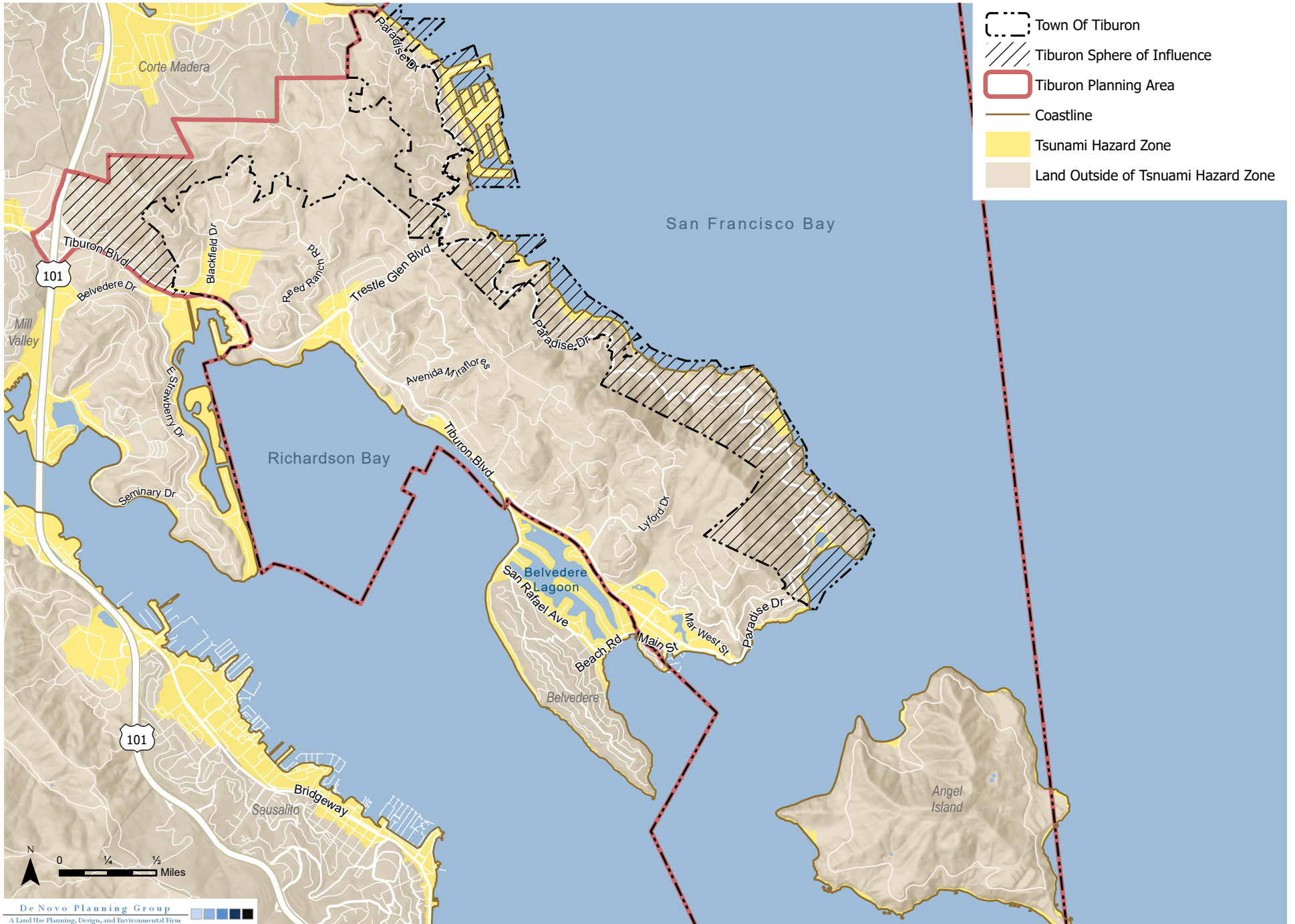


Figure 3.9-3. Tsunami Inundation Zones





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### 3.10 LAND USE AND PLANNING

This section of the Draft EIR (Draft EIR) describes the Planning Area related to land use and addresses the consistency of the General Plan with any land use plan, policy, or regulation, which has been adopted for the purpose of avoiding or mitigating an environmental effect. Future discretionary projects facilitated by the General Plan will be evaluated for project-specific impacts to land use at the time they are proposed.

General Plan policies associated with other specific environmental topics (aesthetics, air quality, biological resources, cultural and tribal cultural resources, energy, geology/soils, greenhouse gas (GHG) emissions, hazards, hydrology/water quality, noise, population and housing, public services and recreation, transportation, and utilities) are discussed in their relevant sections of this Draft EIR.

#### *Key Terms*

**Town Limits:** The Town limits include the area within the Town's corporate boundary, over which the Town exercises land use authority and provides public services.

**Sphere of Influence:** A Sphere of Influence (SOI) is the probable physical boundary and service area of a local agency, as adopted by a Local Agency Formation Commission (LAFCO). An SOI includes both incorporated and unincorporated areas within which a Town or special district will have primary responsibility for the provision of public facilities and services.

**Planning Area:** For the purposes of the Tiburon General Plan Update, the Planning Area is defined as all lands within the Town limits and Tiburon SOI, as well as the Highway 101 Tiburon Boulevard/East Blithedale Avenue interchange west of the northwestern SOI boundary and the open space land to the north of the northern SOI boundary on Ring Mountain.

Figure 3.10-1 shows the existing Tiburon Town Limits, the adopted SOI, and the General Plan Planning Area.

#### 3.10.1 EXISTING SETTING

##### *Land Use*

Table 3.10-1 summarizes the Town's General Plan land use designations for areas within the Town limits, SOI, and Planning Area by acreage. Land use designations on the adopted General Plan Land Use Map, as amended through January 2021, are shown on Figure 3.10-1. A brief description of each of the adopted General Plan land use designations is provided below.

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TABLE 3.10-1: TOWN OF TIBURON LAND USE DESIGNATIONS IN TOWN LIMITS, SOI, AND PLANNING AREA

Land Use	Acreages			
	Town Limits	SOI	Planning Area (Other)	Planning Area Total
Low Density Residential	3.8	15.1	0.0	18.9
Medium Low Density Residential	264.3	75.6	0.0	339.9
Medium Density Residential	545.6	36.7	0.0	582.3
Medium High Density Residential	247.4	106.4	0.0	353.8
High Density Residential	51.8	7.9	0.0	59.7
Very High Density Residential	99.9	9.6	0.0	109.5
Planned Development Residential	130.0	313.1	0.0	443.1
Neighborhood Commercial	20.9	0.0	0.0	20.9
Shopping Commercial	0.0	3.3	0.0	3.3
Village Commercial	6.9	0.0	0.0	6.9
Office	1.4	0.0	0.0	1.4
Open Space	404.1	84.7	308.6	797.5
Public/Quasi-Public	810.7	41.4	0.0	852.1
Park	64.7	12.2	0.0	76.9
Marine	6,781.0	150.3	0.0	6,931.3
Right-of-Ways	0.2	0.0	0.0	0.2
<b>Total</b>	<b>9,432.7</b>	<b>856.2</b>	<b>308.6</b>	<b>10,597.5</b>
<i>Affordable Housing Overlay</i>	7.6	1.2	0.0	8.8

Sources: Town of Tiburon, 2021; De Novo Planning Group, 2021.

*Low Density Residential* – The Low Density Residential (L) designation is intended for single-family residential units built at a density of up to 0.5 units per acre. Land designated L is typically zoned Residential Planned Development (RPD), which is intended to protect and preserve open space land as a limited and valuable resource without depriving owners of a reasonable use of their property for residential purposes. The regulations of the zone are designed to ensure, to the extent feasible, the conservation of natural resources and the retention of land in its natural or near natural state in order to, among other things, assist in the containment of urban sprawl and protect the community from the hazards of fire, flood, seismic and other catastrophic activity, and to otherwise implement the goals and policies of the general plan.

*Medium Low Density Residential* – The Medium Low Density Residential (ML) designation is intended for single-family residential units built at a density of up to 1.1 units per acre. Land designated ML is typically zoned Residential Open-40,000 square feet (RO-1), which is intended to promote and encourage the maintenance of a suitable environment for low-density, single-family development on larger lots with a minimum lot size of 40,000 square feet.

*Medium Density Residential* – The Medium Density Residential (M) designation is intended for single-family residential units built at a density of up to 3.0 units per acre. Land designated

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M is typically zoned Residential Open-20,000 square feet (RO-2), which is intended to promote and encourage the maintenance of a suitable environment for low-density, single-family development on larger lots with a minimum lot size of 20,000 square feet.

*Medium High Density Residential* – The Medium High Density Residential (MH) designation is intended for single-family residential units built at a density of up to 4.4 units per acre. Land designated MH is typically zoned Single Family Residential (R-1), which is intended to promote and encourage the maintenance of a suitable environment for suburban family living on smaller single-family residential lots (minimum lot size of 10,000 square feet) in older developed areas of the town.

*High Density Residential* – The High Density Residential (H) designation is intended for two-family residential uses built at a density of up to 11.6 units per acre. Land designated H is typically zoned Two-Family Residential (R-2), which is intended to promote and encourage the establishment and maintenance of a suitable environment for suburban family living in areas appropriate by location and character for single-family and two-family dwellings on smaller lots (minimum lot size of 7,500 square feet or 3,750 square feet per dwelling).

*Very High Density Residential* – The Very High Density Residential (VH) designation is intended for two-family and multi-family residential developments built at a density of up to 12.4 units per acre. However, VHDR designations located within the Affordable Housing Overlay are limited to multi-family residential uses at a density of up to 18.4 units per acre (24.8 units per acre with density bonus). Land designated VH is typically zoned Multi-Family Residential (R-3) or Residential Multiple Planned (RMP). The R-3 zone is intended to promote and encourage the establishment and maintenance of a suitable environment for residence in areas appropriate by location and character for multifamily dwellings with a minimum lot size of 10,000 square feet or 3,500 square feet per dwelling unit. The RMP zone is intended to protect and preserve open space land as a limited and valuable resource without depriving owners of a reasonable use of their property for residential purposes and specific regulations are established by adopted master/precise plan, precise development plan, or condominium plan for development.

*Planned Development Residential* – The Planned Development Residential (PD-R) designation are reserved for properties that are generally undeveloped or underdeveloped and have the greatest site challenges for development. Site challenges for these properties range from natural constraints to development, such as steep slopes and the presence of landslide deposits or the likelihood of future slope instability, to the presence of a wide variety of land-based resources that are valued by the community, such as ridgelines, water and shoreline areas, wildlife and wildlife habitat, views, and trees and woodlands. Maximum densities for PD-R designations are considered by the Town to be achievable only if the applicants for development of these properties demonstrate compliance and consistency with policies of the General Plan, including policies of the Open Space & Conservation and Safety Elements.

*Neighborhood Commercial* – The Neighborhood Commercial (NC) designation typically allows, subject to specific zoning regulations, resident-serving commercial uses and offices, and

mixed (commercial/residential or office/residential) uses with tourist-oriented uses strongly discouraged. The maximum allowable FAR is 0.37 for land designated NC; however, NC land within the Affordable Housing Overlay has a maximum allowable FAR of 0.31 for the commercial component only.

*Shopping Commercial* – The Shopping Commercial (SC) designation typically allows, subject to specific zoning regulations, general retail and service uses, service stations and auto-related sales and service uses, and office uses. Land designated SC has a maximum allowable FAR of 0.5.

*Village Commercial* – The Village Commercial (VC) designation typically allows, subject to specific zoning regulations, resident-serving commercial and office uses, tourist-oriented uses, and mixed (commercial/residential or office/residential) uses. Land designated VC has a maximum allowable FAR of 0.28.

*Office* – The Office (O) designation is strictly limited to office uses with no retail components. Land designated O has a maximum allowable FAR of 1.0.

*Open Space* – The Open Space (OS) designation is for lands which are set aside for natural resource protection, public health and safety, scenic qualities, and for passive recreation (such as hiking trails). Land designated OS is for areas of the Planning Area that will remain undeveloped.

*Public/Quasi-Public* – The Public/Quasi-Public (P) designation typically allows educational facilities, governmental and quasi-public building or facilities, utility facilities, and similar facilities owned or operated by public/non-profit agencies. Land designated P has a maximum allowable FAR of 1.0.

*Park* – The Park designation is intended to allow the development for recreational purposes. Land designated P has a maximum allowable FAR of 0.1.

*Marine* – The Marine designation is intended to allow water-related activities subject to specific regulations contained within the Marine (M) zone classification of the zoning ordinance. Land designated Marine has a maximum allowable FAR of 0.1 for existing buildings and no new buildings area allowed.

*Right-of-Way* – The Right-of-Way (ROW) designation is intended to designate land dedicated for infrastructure, new roads, and/or improvements to existing transportation infrastructure.

### **Marin County General Plan**

The County's General Plan establishes allowed land uses within the Town's SOI, the Planning Area, and the unincorporated areas surrounding the Town, SOI, and Planning Area. While

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the Town’s General Plan Land Use Map identifies planned land uses within the SOI and unincorporated Planning Area, Marin County has ultimate land use planning and project approval authority within the SOI and Planning Area unless the lands are annexed to the Town. The County’s land use designations for areas within the SOI and Planning Area are summarized in Table 3.10-2 and the County’s land use designations for the unincorporated area within the SOI, Planning Area, and around the Town are shown on Figure 3.10-2.

TABLE 3.10-2: MARIN COUNTY LAND USE DESIGNATIONS IN PLANNING AREA AND SOI

Land Use	Acreage	
	SOI	Planning Area (Other)
Single Family Residential	479.33	0.0
Multiple Family Residential	38.55	0.0
Planned Residential	296.11	0.0
Neighborhood Commercial/Mixed Use	1.19	0.0
Office Commercial/Mixed Use	2.92	0.0
Open Space	38.13	308.62
<b>Total</b>	<b>856.23</b>	<b>308.62</b>

Source: Marin County, 2021; De Novo Planning Group, 2021.

### Land Use Patterns

When discussing land use, it is important to distinguish between planned land uses and existing land uses. The General Plan land use designations identify the long-term planned use of land but do not present a complete picture of existing land uses. The Marin County Assessor’s office maintains a database of existing land uses on individual parcels, which is used as the basis for property tax assessments. The acreages for each assessed land use within the Town, SOI, and Planning Area are summarized in Table 3.10-3 and depicted on Figure 3.10-3.

TABLE 3.10-3: ASSESSED LAND USES BY ACREAGE- TOWN OF TIBURON

Assessed Land Use	Acreage			
	Town Limits	SOI	Planning Area (Other)	Planning Area Total
<b>Commercial</b>				
Commercial – Improved	50.6	16.8	0.0	67.5
Commercial – Unimproved	8.8	0.0	0.0	8.8
<i>Commercial Sub-Total</i>	<i>59.4</i>	<i>16.8</i>	<i>0.0</i>	<i>76.3</i>
<b>Residential</b>				
Single Family Attached	16.9	1.40	0.0	18.3
Single-Residence – Improved	1,121.3	295.5	0.0	1,416.8
Single Residence – Unimproved	192.5	308.6	0.0	501.1
Multiple-Residential – Improved	78.0	55.9	0.0	133.9
Multiple-Residential – Unimproved	2.7	0.1	0.0	2.8
<i>Residential Sub-Total</i>	<i>1,411.4</i>	<i>661.5</i>	<i>0.0</i>	<i>2,072.9</i>

Assessed Land Use	Acreage			
	Town Limits	SOI	Planning Area (Other)	Planning Area Total
<b>Industrial</b>				
Industrial – Unimproved	10.7	0.0	0.0	10.7
<i>Industrial Sub-Total</i>	<i>10.7</i>	<i>0.0</i>	<i>0.0</i>	<i>10.7</i>
<b>Open Space</b>				
Open Space – Improved	0.1	0.0	0.0	0.1
<i>Open Space Sub-Total</i>	<i>0.1</i>	<i>0.0</i>	<i>0.0</i>	<i>0.1</i>
<b>Non-Taxable / Miscellaneous</b>				
Common Area	98.9	3.5	0.0	102.4
Valued by State Board of Equalization	0.4	0.0	0.0	0.4
Subject to Exemption – Improved	50.8	1.6	0.0	52.4
Subject to Exemption – Vacant	99.8	11.7	0.0	111.5
Tax Exempt	7,701.1	161.1	308.6	8,170.2
<i>Non-Taxable / Miscellaneous Sub-Total</i>	<i>7,951.0</i>	<i>177.9</i>	<i>308.6</i>	<i>8,437.5</i>
<b>Total</b>	<b>9,432.7</b>	<b>856.2</b>	<b>308.6</b>	<b>10,597.5</b>

Source: Marin County Assessor's Office, 2021; De Novo Planning Group, 2021.

Existing land uses refer to the existing built environment, which may be different from the land use or zoning designations applied to land for planning purposes. Existing land uses are based on data provided by the County Assessor and are described below.

### Commercial

The predominant type of commercial land use, based on the percent of total acres, is improved commercial land, which accounts for 67.4 acres of the Planning Area (including the Town limits and SOI) while vacant commercial land accounts for 8.8 acres. As shown on Figure 3.10-3, the Town's commercial uses are located in and around the downtown, waterfront areas, and east of the Belvedere Lagoon, as well as along Tiburon Boulevard and Highway 131 near the Highway 101 interchange.

### Residential

Residential uses in Tiburon include single family attached, single-family, and multiple-family developments.

*Single Family Attached* refers to parcels that contain attached single-family residential housing units on parcels. The Tiburon Planning Area contains 18.3 acres of *Single Family Attached* uses.

*Single Residence* refers to parcels that contain one housing unit per parcel. The Tiburon Planning Area contains 1,917.9 acres of *Single Residence* uses. Single family residential land uses are generally located throughout the Town, as shown on Figure 3.10-3. The majority of single family residential units are typical single family residences, with one residence located on one parcel.



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*Multiple-Residential* refers to parcels that contain more than one housing unit, including duplexes, triplexes, fourplexes, condominiums, townhomes, and apartment buildings. The Tiburon Planning Area contains 136.7 acres of *Multiple-Residential* uses, which accounts for 1.3 percent of the Planning Area. Multifamily uses are generally located near major roadways and commercial areas, as shown on Figure 3.10-3.

### **Industrial**

Industrial uses accounts for only 0.1 percent of the Planning Area (10.7 acres). As shown on Figure 3.10-3, the industrial uses are located in and around the waterfront area in the northeast corner of the Planning Area on a parcel located on the San Francisco Bay within the Town limits.

### **Open Space**

The open space category accounts for 0.13 acres of the Planning Area (including the Town limits and SOI).

### **Non-Taxable / Miscellaneous**

The non-taxable / miscellaneous category includes residential and commercial common areas, tax exempt land, land subject to exemption, and land valued by the State Board of Equalization. Planning Area contains 8,437.5 acres of non-taxable uses. The large acreage of this category, relative to the other assessed use categories, is primarily due to the water areas in Richardson Bay and San Francisco Bay that are tax exempt. It is also noted that the only parcel in the Planning Area that is located outside of the Town and SOI limits is in this category (308.6 acres that are tax exempt).

### ***Surrounding Land Uses***

The land uses within the Cities of Belvedere and Corte Madera and unincorporated Marin County that surround the Town of Tiburon to the north, south, and west are described below.

#### **City of Belvedere**

Figure 3.10-4 shows the City of Belvedere land use map. As shown in the figure, the land uses adjacent southwest of the Tiburon Planning Area include Park/Public Facility, Medium Density Single Family, High Density Single Family, Medium Density Multi-Family, High Density Multi-Family, Commercial, and Private Recreation uses.

#### **City of Corte Madera**

Figure 3.10-5 shows the City of Corte Madera land use map. As shown in the figure, the land uses adjacent to the Tiburon Planning Area include Low Density Residential, Medium Density Residential, Open Residential, Hillside Residential, and Hillside Open Space uses.

#### **Unincorporated Marin County**

Figure 3.10-2 shows the land uses of the unincorporated Marin County within and outside of the Planning Area. As shown in the figure, the land uses adjacent to the Tiburon Planning

Area in the unincorporated County include Open Space, Single Family, Multi Family, Public Facility/Singe Family, General Commercial/Mixed Use, Office Commercial, and Office Commercial/Mixed Use.

### 3.10.2 REGULATORY SETTING

#### **State**

##### **California General Plan Law**

California Government Code Section 65300 *et seq.* requires all counties and cities in the State to prepare and maintain a General Plan for the long--term growth, development, and management of the land within the jurisdiction's planning boundaries. The General Plan acts as a "constitution" for development and is the city's lead legal document in relation to growth, development, and resource management issues. Development regulations (e.g., zoning and subdivision standards and public improvement plans and projects, such as a Capital Improvement Program) are required by law to be consistent with the General Plan.

General Plans must address a broad range of topics, including, at a minimum, the following mandatory seven elements: land use, circulation, housing, conservation, open space, noise, and safety. At the discretion of each jurisdiction, the General Plan may combine these elements and may add optional elements relevant to the physical features of the jurisdiction.

The California Government Code also requires that a General Plan be comprehensive, internally consistent, and plan for the long term. Accordingly, the General Plan should be clearly written, easy to administer, and readily available to the public.

##### **Regional Housing Needs Plan**

California General Plan law requires each city and county to have land designated and zoned to accommodate a fair share of the regional housing need. The share is known as the Regional Housing Needs Allocation (RHNA). The Association of Bay Area Governments (ABAG) is the lead agency for developing the RHNA for the nine-county Bay Area region that includes Marin County and the Town of Tiburon. Tiburon's fair share of the 2023-2031 RHNA is summarized in Table 3.10-4.

The Town of Tiburon is not required to ensure that adequate development to accommodate the RHNA occurs; however, the Town must facilitate housing production by ensuring that land is available and that unnecessary development constraints have been removed. The Town's Housing Element, as well as the Land Use Map provides for the accommodation of the RHNA that has been assigned to Tiburon. As part of the region's planning efforts, ABAG and the Metropolitan Transportation Commission (MTC) must allocate housing units within the region consistent with the development pattern included in the Sustainable Communities Strategy (Plan Bay Area 2050).

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TABLE 3.10-4: 2023-2031 REGIONAL HOUSING NEEDS ALLOCATION

Very Low Income	Low Income	Moderate Income	Above Moderate Income	Total
193	110	93	243	639

Source: Association of Bay Area Governments Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031.

### Regional Transportation Plan/Sustainable Communities Strategy

MTC and the Association of Bay Area Governments (ABAG) adopted the Final Plan Bay Area 2050 in October 3032. After years of public discussion and technical work, the Final Plan Bay Area 2050 is an updated long-range Regional Transportation Plan and Sustainable Communities Strategy for the nine-county San Francisco Bay Area. The plan charts a course for transportation investment, land-use priorities, distribution of housing and jobs, and regional approaches to planning for equity and diversity and addressing climate adaption..

### California Environmental Quality Act

The California Environmental Quality Act (CEQA) was developed to protect the quality of the environment and the health and safety of persons from adverse environmental effects. Discretionary projects are required to be reviewed consistent with the requirements of CEQA to determine if there is potential for the project to cause a significant adverse effect on the environment. Depending on the type of project and its potential effects, technical traffic, noise, air quality, biological resources, and geotechnical reports may be needed. If potential adverse effects can be mitigated to less than significant levels, a mitigated negative declaration may be adopted. If potentially adverse effects cannot be mitigated to less than significant levels, an environmental impact report is required. These documents have mandated content requirements and public review times.

### Subdivision Code

A subdivision is any division of land for the purpose of sale, lease, or finance. The State of California Subdivision Map Act (Government Code Section 66410) regulates subdivisions throughout the state. The goals of the Subdivision Map Act are as follows:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of a subdivision with proper consideration of its relationship to adjoining areas.
- To ensure that areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community.
- To protect the public and individual transferees from fraud and exploitation.

## **Regional**

### **Association of Bay Area Governments and Metropolitan Transportation Commission Plan Bay Area 2050**

Plan Bay Area 2050 was jointly adopted by MTC and ABAG) in October 2021 and is the region's Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). Plan Bay Area 2050 is a long-range regional plan for the nine-county San Francisco Bay Area, encompassing housing, economic, transportation, and environmental strategies designed to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges.

Plan Bay Area 2050 is composed of 35 integrated strategies across the four elements that provide a blueprint for how the Bay Area can accommodate future growth and make the region more equitable and resilient in the face of unexpected challenges and achieve regional GHG emissions reduction targets established by CARB, pursuant to SB 375.

In summary, Plan Bay Area 2050:

- Details housing and economic strategies (“land use”) to invest \$702 billion in expected revenues to accommodate 2.7 million new persons, 1.4 million new households, 1.5 million new forecasted housing units, and 1.4 million new jobs between 2015 and 2050;
- Details transportation strategies to invest \$579 billion in expected revenues from federal, State, regional, and local sources over the next 30 years;
- Details environmental strategies to invest \$102 billion in expected revenues to protect the region from at least two feet of future permanent sea level rise inundation, reduce climate emissions, and maintain and expand the region's parks and open space system; and
- Complies with Senate Bill (SB) 375, the State's SCS law, which requires integration of land use and transportation planning to reduce per-capita passenger vehicle GHG emissions by 2035 and provide adequate housing for the region's forecast of 2.7 million new persons and 1.4 million new households.

### **San Francisco Bay Conservation and Development Commission**

The San Francisco Bay Conservation and Development Commission (BCDC), established to both protect and direct development of the Bay and its shoreline, is a commission which regulates development along the waters of the Bay. Altogether, the Commission is charged with:

- Regulating all filling and dredging in San Francisco Bay (which includes San Pablo and Suisun Bays, sloughs and certain creeks and tributaries that are part of the Bay system, salt ponds and certain other areas that have been diked-off from the Bay);

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- Protecting the Suisun Marsh, the largest remaining wetland in California, by administering the Suisun Marsh Preservation Act in cooperation with local governments;
- Regulating new development within the first 100 feet inland from the Bay to ensure that maximum feasible public access to the Bay is provided;
- Minimizing pressure to fill the Bay by ensuring that the limited amount of shoreline area suitable for high priority water-oriented uses is reserved for ports, water-related industries, water-oriented recreation, airports, and wildlife areas.
- Pursuing an active planning program to study Bay issues to ensure that Commission plans and policies are based upon the best available current information.
- Leading regionwide adaptation planning in light of rising sea level;
- Administering the federal Coastal Zone Management Act within the San Francisco Bay segment of the California coastal zone to ensure that federal activities reflect Commission policies.
- Participating in the regionwide program to administer a Long Term Management Strategy (LTMS) to ensure appropriate dredging and dredged materials disposal in San Francisco Bay; and,
- Participating in California's oil spill prevention and response planning program.

### *San Francisco Bay Plan*

The San Francisco Bay Plan (Bay Plan) guides BCDC's planning and actions for the area within its jurisdiction. The Bay Plan includes two primary parts: the policies to guide future uses of the Bay and shoreline, and the maps that apply these policies to the present Bay and shoreline. The Bay Plan addresses the following matters as specifically required by the law:

1. The results of the Commission's detailed study of the Bay;
2. The comprehensive plan adopted by BCDC for the conservation of the water of San Francisco Bay and the development of its shoreline;
3. BCDC's recommendation of the appropriate agency to maintain and carry out the Bay Plan;
4. BCDC's estimate of the approximate amount of money that would be required to maintain and carry out the provisions of the Plan for the Bay; and
5. Other information and recommendations BCDC deemed desirable.

BCDC has jurisdiction over five areas: the San Francisco Bay, a 100-foot shoreline band, salt ponds, managed wetlands, and certain waterways. The provisions of the Bay Plan pertaining to areas outside of the 100-foot shoreline band are advisory. In the Tiburon Planning Area, the Bay Plan applies to activities within San Francisco Bay and activities along the 100-foot shoreline band. The provisions of the Bay Plan pertaining to areas outside of the 100-foot shoreline band are advisory. There are no salt ponds, managed wetlands, or waterways under BCDC's jurisdiction in the Tiburon Planning Area.

Permit requirements are detailed in Title 7.2 of the California Government Code and Title 14, Division 5 of the California Code of Regulations. BCDC has the authority to approve projects with conditions that must be carried out as a part of the authorized project. According to BCDC's website, typical permit conditions include requirements to construct, guarantee, and maintain public access to the Bay, plan review requirements that must be met before construction can begin, and mitigation requirements to offset the adverse environmental impacts of proposed projects.

The Bay Plan establishes seven policies regulating future development to ensure conservation of the Bay's tidal resources and native species and specifically address placement of fill and sediment. The Tiburon Planning Area is located within the area addressed by Plan Map 4, which refers to the area as Central Bay North area. The Bay Plan establishes the following policies which apply to specific areas within the Planning Area:

30. Richardson Bay Special Area Plan - See Special Area Plan for detailed planning policies for the water area and shoreline north of a line drawn between Cavallo Point and Point Tiburon.
31. Angel Island State Park - Use only for camping, picnicking, water-oriented recreation. Access by boat only. Preserve boat slips and mooring buoys at Ayala Cove. No commercial uses except for convenience needs of park visitors. Preserve and interpret cultural, historical and natural features of the island. Protect harbor seal haul-out and pupping site where harbor seals rest, give birth and nurse their young. Projects allowed only if protective of harbor seals and other sensitive wildlife.
32. Romberg Tiburon Center for Environmental Studies - If and when not needed by San Francisco State University, acquire, and develop for park. Expansion of Romberg Tiburon Center should be compatible with park use. Romberg Tiburon Center lands outside of the shoreline band should be developed consistent with recreation policy 4-b. Provide public access through the site to the shoreline.

### **Richardson Bay Special Area Plan**

Richardson Bay, situated in southern Marin County, provides a wide range of aquatic and wildlife habitats for abundant and diverse populations of fish and wildlife. Five local governments have jurisdiction over its waters and shoreline: Marin County and the cities/towns of Sausalito, Mill Valley, Tiburon, and Belvedere, as does the state BCDC. Marin County and the jurisdictions of Belvedere, Mill Valley, Sausalito, and Tiburon formed the Richardson Bay Regional Agency through a joint powers agreement to maintain and implement the provisions of the Richardson Bay Special Area Plan (RBSAP).

The RBSAP recommends uniform policies and regulations for each participating jurisdiction as the agency's specific policy for Richardson Bay and establish standards for development along the shores of Richardson Bay. Policies within the RBSAP related to land use and regulating future development include:



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### Aquatic and Wildlife Resources Policies

2. Future shoreline developments adjacent to mud flats or tidal or diked marshes should provide a natural landscaped buffer area between the development and the shoreline. The buffer area should be a minimum of 20 to 40 feet wide, depending on the sensitivity of the wildlife and the density and intensity of development, and should be planted with native shrubs and trees such as coyote brush, toyon, and coast live oak.
5. Any development within Richardson Bay should avoid destruction of marshes, mud flats, shellfish beds, and eelgrass beds. If such losses are unavoidable, the project should be authorized only if the minimum amount of habitat disturbance necessary to accomplish the purpose of the project occurs and the habitat loss is mitigated to the fullest extent. Mitigation should be within Richardson Bay, preferably at the development site, or if that is not feasible, at a site identified in the Tidal Restoration and Marsh Enhancement section of the Special Area Plan.

### Public Access, Views, and Vistas Policies

1. A continuous unified public access system should be provided around the entire periphery of Richardson Bay.
2. Maximum feasible public access to and along the Richardson Bay shoreline should be provided as part of each shoreline or water area development consistent with the project. Such areas would include continued development of the pedestrian promenade on the Bay side of existing buildings in downtown Tiburon. The access areas should be connected to existing adjacent public access areas, public park, and open space facilities, and public rights-of-ways; be related to the adjacent uses; and be designed, constructed, and maintained to indicate their public nature. If there is no public access on adjacent land, but could reasonably be expected to be provided in the future as part of a development, the public access design should provide for connection to the future adjacent access area. In cases where public access at the project site would be inconsistent because of public safety considerations or significant use conflicts access should be provided off-site, in nearby areas.

Special consideration should be given in the design of public access areas in marinas where houseboats and live-aboards will be moored to assure that the private residential use does not interfere with the public access use of the marina shoreline.

4. Public access areas should be landscaped and appropriate amenities such as seating, lighting, trash containers, drinking fountains, and restrooms should be provided where appropriate. These facilities should be maintained as part of the project and clear and visible signing of the public access area should be provided. Adequate public parking and access facilities for the handicapped should be provided for public use of the access area.
5. Pedestrian and bicycle paths should be separated wherever possible. Access paths for pedestrian use only should be a minimum of six feet in width, and paths designed

for bicycle use only should be a minimum of ten feet in width wherever such widths are feasible. Paths designed for joint pedestrian and bicycle use should be 13 feet in width wherever possible.

9. All local, regional, and state agencies should work together to provide new public access and parks, especially to link the existing shoreline parks and public access areas to the extent feasible without additional filling in the Bay or adversely affecting natural resources.
10. In all shoreline development, the siting and height of all buildings and placement of landscaping should maintain views and vistas of Richardson Bay, Mount Tamalpais and San Francisco through the project from major roadways, vista points, and the shoreline. All development should be subject to design review processes.
12. New shoreline development should be built in clusters, leaving open space around or through the buildings to provide views of the Bay. Areas designated as view corridors within these projects should not be blocked by parked cars, high vegetation or other obstructions that restrict Bay views. Building colors and materials should complement the natural setting.
13. Publicly owned lands which provide views or vistas of the Bay, such as streets, walkways, and rights-of-way, should be designated as view corridors.
12. Marin County and the cities abutting Richardson Bay participating in the implementation of the Richardson Bay Special Area Plan should, as part of their current and future planning procedures, identify locations affording or potentially affording views of Richardson Bay and San Francisco Bay and make provisions in their current and future planning and development processes to safeguard important existing and potential view corridors and vista points of the water from land and the land from the water, whenever such sites are proposed for development, redevelopment, alterations or additions. Planning departments of the County, cities, and BCDC should work jointly to identify short and long-range views and vista goals and a uniform implementation policy.

### **Marin County Local Agency Formation Commission**

Marin LAFCo is a State-mandated local agency established to oversee the boundaries of cities and special districts and charged with the responsibilities of encouraging orderly development, discouraging urban sprawl, and preserving agricultural and open space lands. Marin LAFCo is a seven-member body with two County Members, one Public Member, two Special Districts Members, and two Cities/Town Members. There are also four alternate members. State law requires LAFCo's to consider agricultural land and open space preservation in all decisions related to expansion of urban development.

### **Marin County Airport Land-Use Commission**

The Airport Land-Use Commission (ALUC) was established to provide for appropriate development of areas surrounding public airports in Marin County. It is intended to minimize

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the public's exposure to excessive noise and safety hazards, and to ensure that the approaches to airports are kept clear of structures that could pose an aviation safety hazard.

The Marin Airport Land Use Commission has adopted Comprehensive Airport Land Use Compatibility Plan (ALUCP) for the San Gness Field Airport. The Plan is intended to be used to safeguard the general welfare of the inhabitants within the vicinity of an airport.

The ALUCP regulates land use in three major areas: safety zones, noise zones, and height restrictions. It provides land use compatibility guidelines for lands near the airport, to avert potential safety problems and to ensure unhampered airport operations. Under California Government Code Section 65302.3(a), general plans must be consistent with any airport land use plan adopted pursuant to Public Utilities Code Section 21675. Lands within the Town of Tiburon Planning Area are not located within any of the airport influence areas identified in the ALUCP.

### **Marin County General Plan**

Marin County adopted its General Plan (the Marin Countywide Plan) in November 2007 and has amended the plan from time to time. The most recent amendments to the Marin Countywide Plan include adoption of an updated Housing Element and Safety Element in January 2023. The County's General Plan provides a comprehensive set of goals, policies, and implementation measures to guide the County's growth.

The County's General Plan establishes allowed land uses within the unincorporated areas in the County, including the Town's SOI, the Planning Area, and the unincorporated areas surrounding the Town, SOI, and Planning Area.

### **Local**

#### **Tiburon General Plan**

The Town's current General Plan was last comprehensively updated in 2006, and an update to the Housing Element was completed in 2016. During the preparation of the current General Plan, the community expressed a broad consensus that Tiburon is a unique and special place because:

- The Town possess some of the best views available anywhere in the world.
- The Town is, at heart, a small town with a village character, a residential refuge from the City of San Francisco and the more urbanized parts of Marin County.
- The Town has a vast network of open space, including most of the peninsula's backbone, the Tiburon Ridge, which provides a unique community resource that can be enjoyed by residents and visitors alike.

The intent of the current General Plan is to plan for the future while preserving these key characteristics of Tiburon. Land uses in Tiburon have been developed based on the Land Use Map, goals, and policies established by the Town's General Plan. The Town's General Plan includes broad goals that guide land use and planning decisions within the Town.

### **Tiburon Municipal Code**

The Tiburon Municipal Code is the primary tool that implements the General Plan by regulating physical development and development standards in the Planning Area. The Municipal Code contains all ordinances for the Town, and identifies land use categories, site development regulations, and other general provisions that ensure consistency between the General Plan and proposed development projects. The Municipal Code contains all ordinances for the Town and is organized by Title, Chapter, and Section. The current Municipal Code is codified through Ordinance No. 597 N.S., passed May 18, 2022. (Supp. No. 33, 9-22).

Chapter 14 (Subdivisions) supplements and implements the State Subdivision Map Act and implements the goals and policies of the General Plan and any applicable specific plan.

Chapter 16 (Zoning) sets forth the Town's Zoning Ordinance. The zoning ordinance is adopted to protect and promote the public health, safety, and general welfare. More specifically, the zoning ordinance is adopted in order to achieve the following objectives:

- A. To provide a framework for the physical development of the town in such a manner as to preserve its essential residential character consistent with the general plan;
- B. To foster a harmonious, convenient, and workable relationship among land uses;
- C. To promote the stability of existing land uses that conform with the general plan and to protect them from inharmonious influences and harmful intrusions;
- D. To ensure that public and private lands ultimately are used for the purposes that are most appropriate and most beneficial to the town as a whole;
- E. To prevent excessive population densities and overcrowding of the land with structures;
- F. To promote a safe, effective traffic circulation and transportation management system;
- G. To require the provision of adequate off-street parking and loading facilities;
- H. To facilitate the appropriate location of community facilities;
- I. To permit office and commercial activities in appropriate locations in compliance with the general plan in order to strengthen the town's economic base and to provide services for the community;
- J. To preserve the natural beauty of the town's setting and to ensure conservation of its scenic, historic, recreational, and wildlife resources;
- K. To ensure that uses and structures enhance their sites and harmonize with the surrounding area;
- L. To ensure that new development will not overtax existing utilities systems or community facilities or services or, alternatively, that provision is made to

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supplement existing facilities or services where needed to accommodate new development;

M. To provide a framework for implementation of the town's adopted general plan elements; and

N. To preserve and enhance the quality of the human and natural environment.

### Other Adopted Plans of the Town of Tiburon

- Bicycle Pedestrian Master Plan (2016)
- Climate Action Plan (2022)
- Open Space Resource Management Plan (2010)
- Marin County Multi-Jurisdiction Local Hazard Mitigation Plan (2018)

### 3.10.3 THRESHOLDS OF SIGNIFICANCE

According to the California Environmental Quality Act (CEQA) Guidelines Appendix G, the General Plan will have a significant impact related to land use if it would:

- Physically divide an established community; or
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### 3.10.4 ANALYSIS, IMPACTS, AND MITIGATION MEASURES

Impacts related to land use resulting from implementation of the General Plan are discussed below. The impact analysis is based on potential buildout as detailed in Chapter 2.0 (Project Description). Impacts related to land use are assessed using the significance criteria established by the CEQA Guidelines.

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#### **Impact LUP-1      Development facilitated by the General Plan would not physically divide an established community.**

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The physical division of an established community typically refers to the construction of a physical feature (such as a wall, interstate highway, or railroad tracks) or the removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. The General Plan does not contemplate or authorize any such physical changes to the community.

New development consistent with the General Plan would represent an incremental increase in new residential uses throughout the Town. General new development would be limited to vacant and/or underutilized existing parcels and would primarily occur in infill development locations. Development under the General Plan is expected to be primarily in developed

portions of the Town in areas where existing infrastructure (including highways and local roadways) are already in place.

The General Plan's Land Use Map along with policies and programs are intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth, or promote incompatible development or development that could physically divide a community. Therefore, population and housing growth associated with the proposed General Plan would result a **less than significant** impact related to this environmental topic.

### Level of Significance before Mitigation

Less than Significant

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**Impact LUP-2      Implementation of the General Plan would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.**

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The General Plan was prepared in conformance with State laws and guidelines associated with the preparation of General Plans. A discussion of the General Plan's consistency with State regulations, plans, and policies associated with specific environmental issues (e.g., air quality, GHG emissions, transportation, water quality, etc.) is provided in the relevant sections of this Draft EIR. As discussed throughout this Draft EIR, the General Plan is found to be consistent with State plans, policies, and regulations. The State would continue to have authority over any State-owned lands in the vicinity of the Planning Area and the General Plan would not conflict with continued application of State land use plans, policies, and regulations adopted to avoid or mitigate environmental effects. Similarly, BCDC would continue to have authority over lands under its jurisdiction and the General Plan would not conflict with continued application of State land use plans, policies, and regulations adopted to avoid or mitigate environmental effects.

The proposed General Plan accommodates future growth including new businesses, expansion of existing businesses, and new residential uses as described in detail in Chapter 2.0 (Project Description). The proposed General Plan is intended to accommodate the Town's fair share of statewide housing needs, as identified in the Final RHNA Plan and planned for in Plan Bay Area 2050.

The proposed General Plan includes policies and actions that minimize environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality effects. Chapters 3.1 through 3.16 and 4.0 provide a discussion of environmental effects associated with development allowed under the proposed General Plan. Each of these EIR chapters include relevant policies and action items that would minimize potential environmental impacts associated with growth, to the greatest extent feasible.



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With implementation of General Plan policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds, beyond those disclosed and analyzed throughout this EIR.

Applicable regional and local plans and regulations include Plan Bay Area 2050, Bay Area Air Quality Management District (BAAQMD) 2017 Clean Air Plan, Marin BayWAVE Plan, Tiburon's Climate Action Plan, San Francisco Bay Plan, San Francisco Bay Regional Water Quality Control Board's (RWQCB) Water Quality Control Plan (Basin Plan), Marin County Stormwater Pollution Prevention Program (MCSTOPPP) Stormwater Program, Marin County Integrated Waste Management Plan, Marin County Transportation Authority plans, and the Marin County General Plan. A discussion of the consistency with regional and local regulations, plans, and policies associated with specific environmental issues (e.g., air quality, GHG emissions, transportation, water quality, etc.) is provided in the relevant sections of this Draft EIR. As discussed throughout this Draft EIR, the General Plan was found to be consistent with regional and local plans, policies, and regulations.

As set forth by state law, the General Plan serves as the primary planning document for the Town and all subordinate documents and plans are required to be consistent with the General Plan. Subsequent development would be required to be consistent with the General Plan, including policies and programs adopted to address environmental impacts. These subsequent projects would be reviewed for consistency with the Town's development standards set forth in the Municipal Code and other relevant planning documents as part of the review process.

The General Plan includes the following goals, policies, and programs to support agency coordination related to land use issues and would support regional goals for population, housing, and the environment while promoting land use compatibility.

### **Goal LU-A**

Manage growth and land use changes to preserve the health, safety, welfare, and natural beauty of the community.

### **Goal LU-B**

Ensure that new development is sensitive to on-site and surrounding environmental resources and hazards and can be adequately served by public infrastructure.

### **Goal LU-C**

Address regional issues, such as transportation, infrastructure, housing, and adaptation to climate change, in coordination with neighboring cities, the county, and other governmental entities.

### **Program LU-a Implementation of Land Use Map**

Implement the Land Use Map (Figure LU-1) and associated Land Use Designations (Table LU-2) by approving new development and conservation projects consistent with the adopted land use definitions, densities, and intensities. Ensure consistency between the General Plan, Zoning Ordinance, and other land use regulations.

**Program LU-b Allowable Land Uses**

Use the Zoning Ordinance to specify uses allowed in each zoning district, consistent with Table LU-2.

**Program LU-c Density and Intensity of Development**

Allow development at any density or intensity within the range shown by the Land Use Map (Figure LU-1) and Land Use Designations (Table LU-2) provided applicable objectives, policies, and programs of all chapters of the General Plan are met.

**Program LU-d Municipal Code Consistency**

Revise the Zoning Map and the Municipal Code to reflect the goals, policies, densities, intensities, and land use designations of the General Plan.

**Program LU-e Infrastructure Capacity**

Analyze project impacts on infrastructure capacity and services as part of CEQA review and require mitigation measures as needed in consultation with provider agencies.

**Program LU-g Public Infrastructure Planning**

Coordinate growth projections and infrastructure planning with urban service providers such as Marin Municipal Water District and the sanitary districts to ensure sufficient capacity to serve existing and future development.

**Policy LU-6 Residential Neighborhoods**

Maintain and enhance the residential character of neighborhoods. Require that new development, remodels, and additions be of a scale, intensity and design that integrates with the immediate neighborhood and natural surroundings.

**Policy LU-13 Coordinated Planning**

Coordinate the Town's land use and zoning plans with the County of Marin, Strawberry Community, the City of Belvedere, Town of Corte Madera, LAFCO, and other agencies and jurisdictions to provide for more effective comprehensive planning.

**Program LU-n LAFCO Planning Area**

Encourage LAFCO to update and adopt Urban Service Area and annexation policies for the Tiburon Planning Area that are consistent with General Plan policies.

**Program LU-o Development in the Sphere of Influence**

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Work with the County of Marin to approve projects within the Tiburon Sphere of Influence that are consistent with the Town's policies and compatible with nearby land uses in Tiburon.

### **Policy LU-14 Angel Island**

Encourage and support the State in the management of Angel Island State Park to protect the natural character and preserve the historic resources of the island.

The General Plan would not remove or directly conflict with local, regional, or state policies or measures that are intended for environmental protection, and the General Plan would promote consistency with other planning documents and program, and supports interagency coordination with area agencies. For these reasons, this impact would be ***less than significant***.

### **Level of Significance before Mitigation**

Less than Significant

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**Impact LUP-3      Development facilitated by the General Plan, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to the potential to physically divide an established community.**

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This analysis evaluates whether the impacts of the Project, together with the impacts of cumulative development, could result in a cumulatively significant impact with respect to land use. This analysis then considers whether incremental contribution of impacts associated with the implementation of the General Plan would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of significance. The geographic context for the analysis of cumulative impacts related to land use includes the incorporated and unincorporated lands surrounding the Planning Area.

Cumulative development is likely to continue occurring in the surrounding Cities, and most of this development would take place in urbanized areas as in-fill development and not require significant land use changes that would create land use conflicts, nor would they divide existing communities.

The land uses allowed under the General Plan provide opportunities for cohesive new growth in vacant and underutilized existing parcels within developed areas. As discussed under Impacts LUP-1 implementation of the General Plan would not physically divide an established community

There is no significant cumulative impact associated with land use to the potential to physically divide an established community. Projects that could have the effect of physically dividing an established community—such as a major new road, highway, or similar infrastructure—tend to have a singular rather than cumulative impact. Additionally, the

population growth would be occurring primarily through infill development. Further, the General Plan does not approve or entitle any development and does not approve the construction or development of any new roadways, walls, bridges, major infrastructure, or other features that would divide existing neighborhoods within the cumulative analysis areas. As such, the General Plan update's contribution is considered **less than significant** and **less than cumulatively considerable**.

#### Level of Significance before Mitigation

Less than Significant / less than cumulatively considerable

#### Mitigation Measures

None Required

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**Impact LUP-4      Development facilitated by the General Plan, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.**

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This analysis evaluates whether the impacts of the Housing Element, together with the impacts of cumulative development, could result in a cumulatively significant impact with respect to land use. This analysis then considers whether incremental contribution of impacts associated with the implementation of the General Plan would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of significance. The geographic context for the analysis of cumulative impacts related to land use includes the incorporated and unincorporated lands surrounding the Planning Area.

Impacts from plans and projects in the region that could conflict with existing plans, including habitat conservation plans, are generally not cumulative in nature. However, potential impacts related to population and housing can be cumulative in nature. Population growth, by itself, is not an environmental impact; however, the direct and indirect effects, such as housing and infrastructure needs that are related to population growth, can lead to physical environmental effects.

Cumulative development is likely to continue occurring in the surrounding unincorporated area and cities and towns in the region. However, most of this development would take place in urbanized areas as in-fill development and not require significant land use changes that would create land use conflicts. Further, the unincorporated lands adjacent to the Planning Area are subject to the land use plans, policies, and regulations of Marin County. As such, development within unincorporated Marin County is not likely to create significant land use conflicts.

Land use plans that regulate growth and have been adopted to avoid or mitigate an environmental effect, including plans adopted by other agencies such as Plan Bay Area 2050, the San Francisco Bay Plan, and Richardson Bay Special Area Plan, would continue to be

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implemented and applied. The General Plan, when considered along with cumulative growth, would not conflict with any of these land use plans.

For these reasons cumulative impacts with respect to land use would be less than significant.

The land uses allowed under the General Plan provide opportunities for cohesive new growth in vacant and underutilized existing parcels within developed areas, as well as limited new development areas within the Planning Area to accommodate regional housing needs. As discussed under Impact LUP-2, implementation of the General Plan would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As such, development anticipated under the Housing Element would not create substantial land use impacts. Further, the General Plan Update does not allow or entitle any development project. Accordingly, cumulative impacts with respect to land use would be considered ***less than significant*** and ***less than cumulatively considerable***.

### Mitigation Measures

None Required



Figure 3.10-1. Existing General Plan Land Use Map

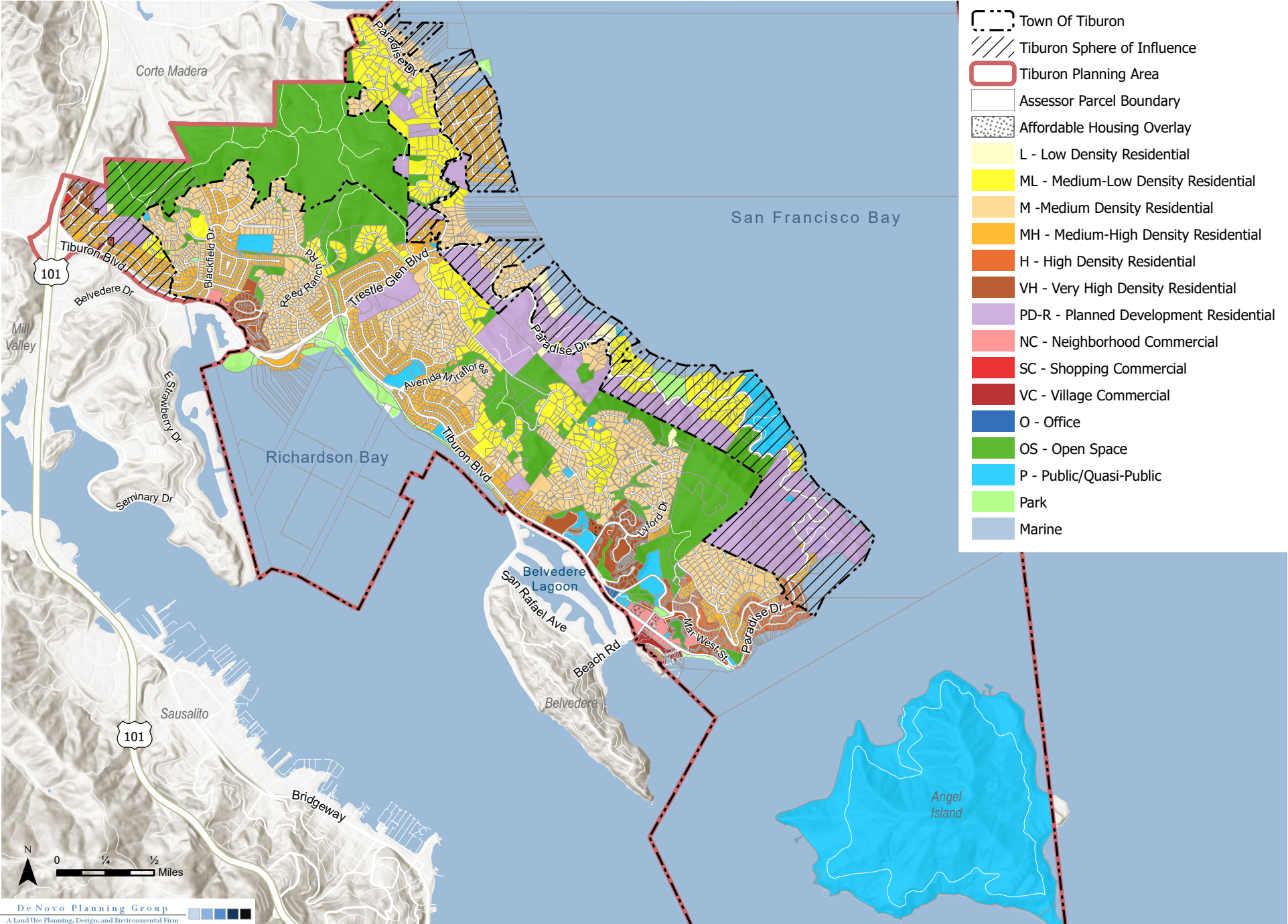




Figure 3.10-2. Marin County General Plan Land Use Map

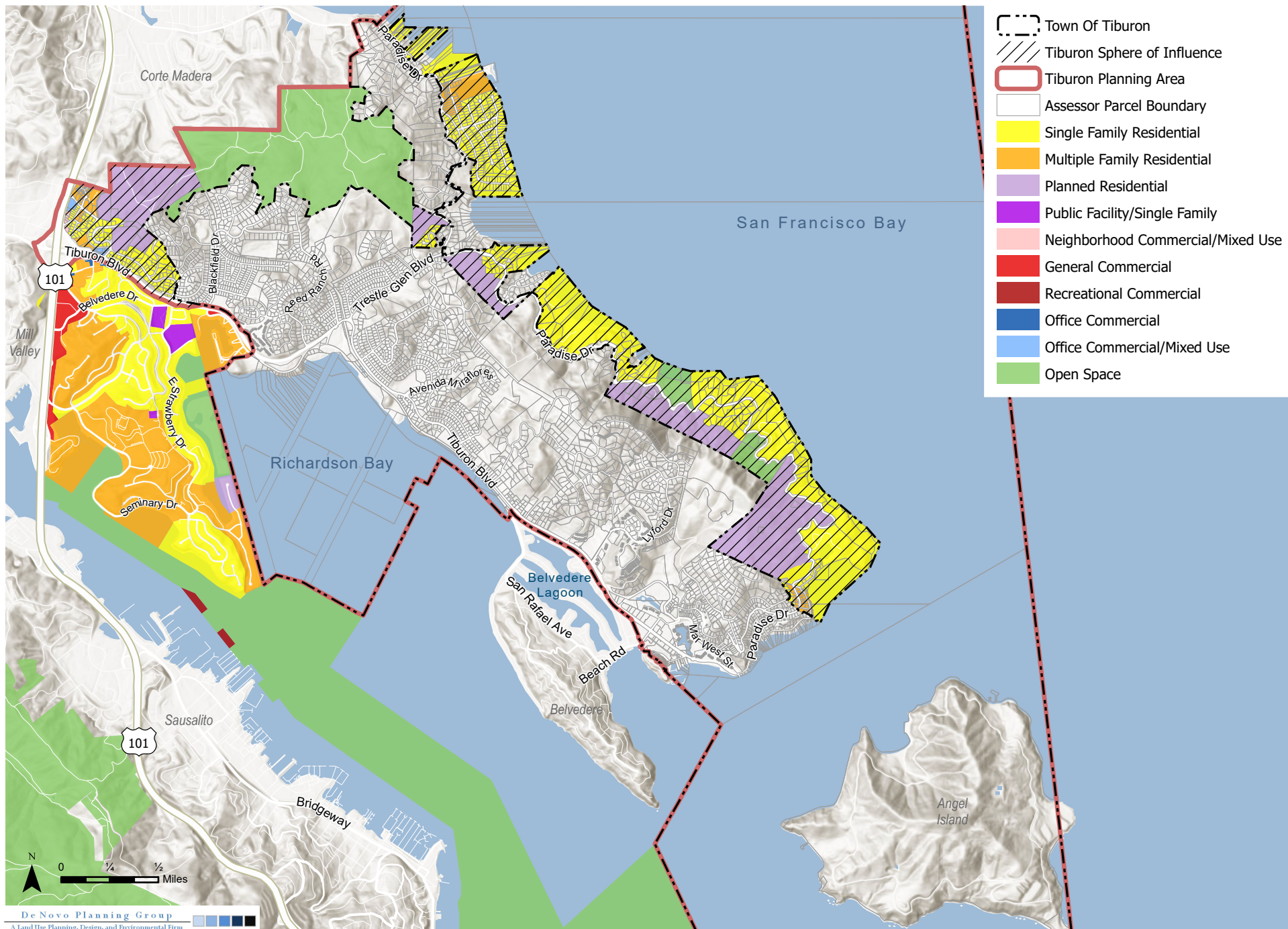
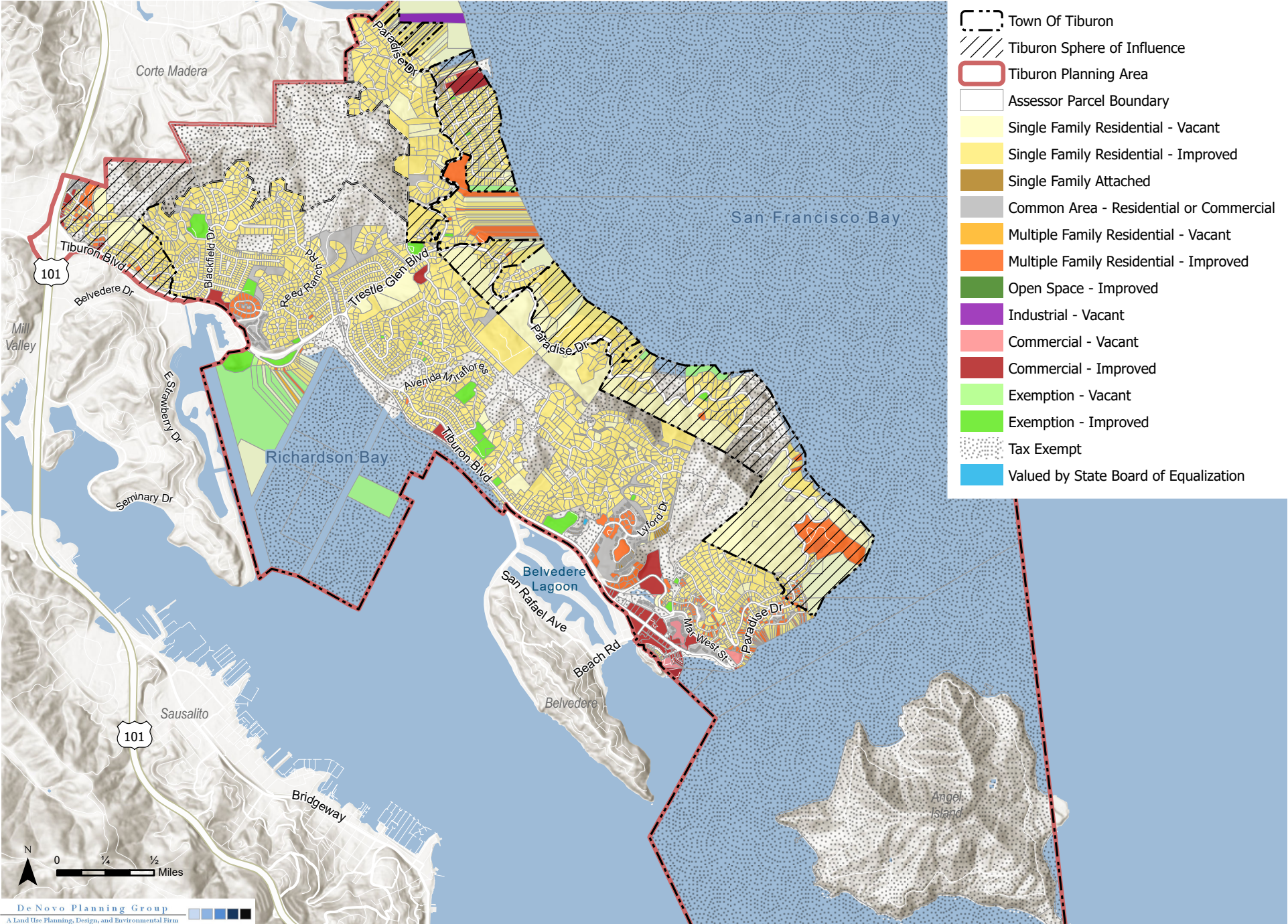




Figure 3.10-3. Assessed Uses



Sources: ArcGIS Online World Hillshade Map Service; Marin County GIS; Marin County Assessor's Office. Map date: March 14, 2023.

Figure 3.10-4. Belvedere General Plan Land Use Map

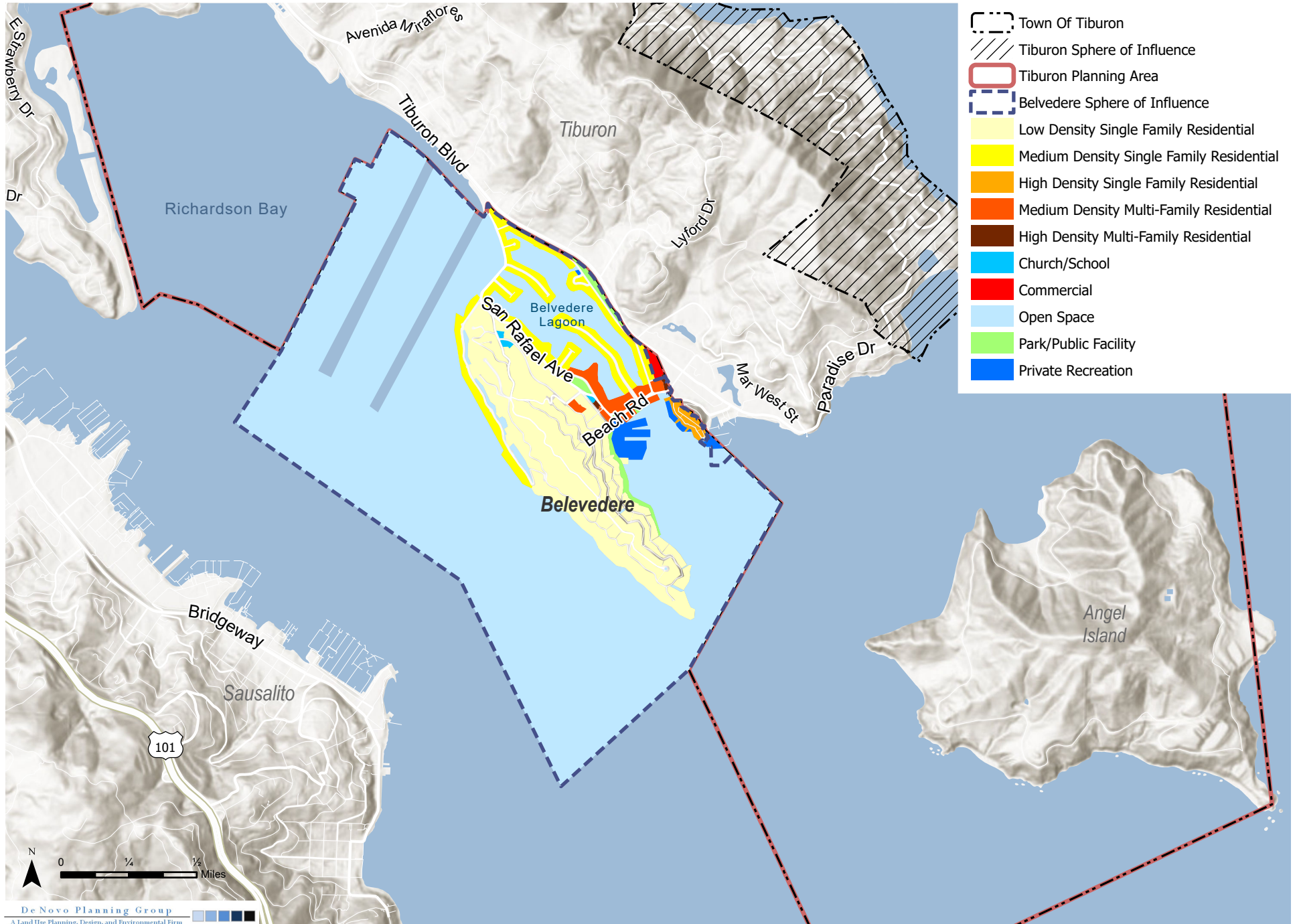
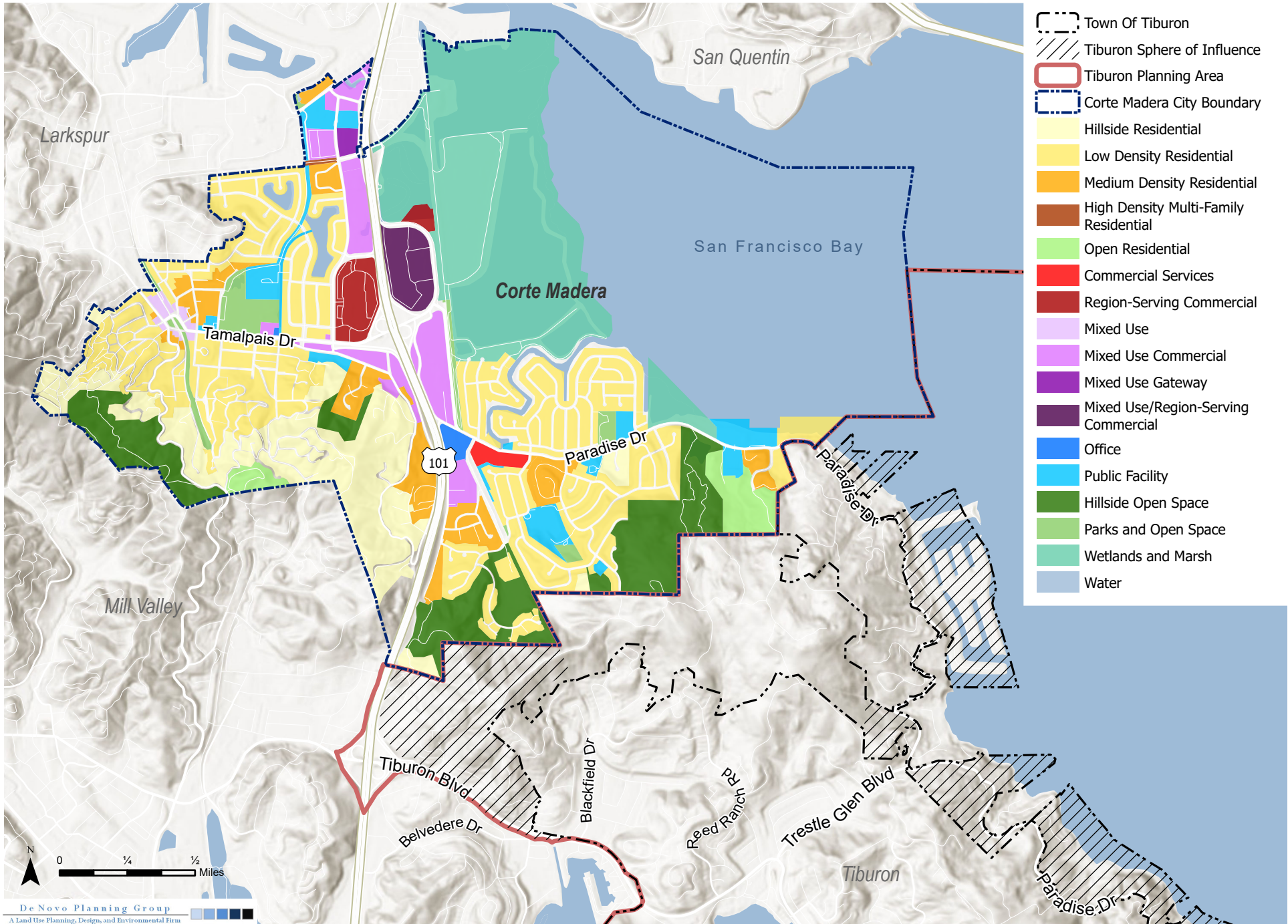




Figure 3.10-5. Corte Madera General Plan Land Use Map





### 3.11 NOISE

This Chapter of the Draft EIR describes the existing noise environment in the Tiburon Planning Area and evaluates impacts anticipated to occur from the implementation of the General Plan 2040. Future discretionary projects facilitated by the General Plan 2040 will be evaluated for project-specific impacts to noise at the time they are proposed.

The following resources were identified to inform and support this Chapter:

- California Department of Transportation, various technical manuals;
- Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

#### 3.11.1 EXISTING SETTING

##### **Key Terms**

<b>Acoustics</b>	The science of sound.
<b>Ambient Noise</b>	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
<b>Attenuation</b>	The reduction of noise.
<b>A-Weighting</b>	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
<b>Decibel or dB</b>	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared. All dB levels used in this report are A-weighted values, unless otherwise stated.
<b>CNEL</b>	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by + 5 dB and nighttime hours weighted by +10 dB. Typically, 1 dB higher than Ldn for transportation noise sources.
<b>Frequency</b>	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
<b>Impulsive</b>	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
<b>L<sub>dn</sub></b>	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

<b><i>L<sub>eq</sub></i></b>	Equivalent or energy-averaged sound level.
<b><i>L<sub>max</sub></i></b>	The highest root-mean-square (RMS) sound level measured over a given period of time.
<b><i>L(n)</i></b>	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50 percent of the time during the one hour period.
<b><i>Loudness</i></b>	A subjective term for the sensation of the magnitude of sound.
<b><i>Noise</i></b>	Unwanted sound.
<b><i>SEL</i></b>	A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event

### **Noise Fundamentals**

Noise is defined as unwanted sound and is usually objectionable due to its disturbing or annoying nature. Environmental noise is a component of modern society and is produced by a variety of sources including automobiles, machinery, and people. Sounds that are considered desirable to some, may be considered objectionable to others.

Table 3.11-1 includes a list of terms used throughout this Chapter.

TABLE 3.11-1: DEFINITION OF ACOUSTICAL TERMS

NOISE DESCRIPTOR	DEFINITION
<b>DECIBEL (DB)</b>	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
<b>FREQUENCY, HZ</b>	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
<b>A-WEIGHTED SOUND LEVEL (dBA)</b>	The sound pressure level in dBs as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
<b>EQUIVALENT NOISE LEVEL, L<sub>EQ</sub></b>	The average A-weighted noise level during the measurement period.
<b>L<sub>MAX</sub>, L<sub>MIN</sub></b>	The maximum and minimum A-weighted noise level during the measurement period.
<b>L<sub>01</sub>, L<sub>10</sub>, L<sub>50</sub>, L<sub>90</sub></b>	The A-weighted noise levels that are exceeded 1 percent, 10 percent, 50 percent, and 90 percent of the time during the measurement period.
<b>DAY/NIGHT NOISE LEVEL, L<sub>DN</sub> OR DNL</b>	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 dB to levels measured in the night between 10:00 p.m. and 7:00 a.m.



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NOISE DESCRIPTOR	DEFINITION
<b>COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)</b>	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 dB in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 dB to sound levels measured in the night between 10:00 p.m. and 7:00 a.m.
<b>AMBIENT NOISE LEVEL</b>	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
<b>INTRUSIVE</b>	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

*Source: Data Compiled by FCS 2020.*

### Characteristics of Sound

#### *Amplitude*

Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels (dB). The dB is a logarithmic unit that expresses the ratio of the sound pressure level being measured to a standard reference level. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. An increase of 10 dB represents an increase in acoustic energy of 10 times, where 20 dB is 100 times more intense, 30 dB is 1,000 times more intense, and so on. While there are several methods used to characterize sound, the A-weighted decibel (dBA) is most used as it gives greater weight to those frequencies which are audible to the human ear. For reference, a list of A-weighted noise levels associated with common noise sources are listed in Table 3.11-2. Ambient sounds generally range from 30 to 100 dBA. A change in sound of 3 dBA is considered the minimum change detectable to the human ear, where 5 dBA is detectable to most people in an exterior setting.

#### *Frequency*

Frequency is defined as the number of complete pressure fluctuations per second above and below atmospheric pressure and is measured in Hertz (Hz). Sound waves that are below 16 Hz and above 15,000 Hz are not typically perceptible to the human ear.

TABLE 3.11-2: TYPICAL NOISE LEVELS IN THE ENVIRONMENT

COMMON OUTDOOR ACTIVITIES	NOISE LEVEL DBA	COMMON INDOOR ACTIVITIES
	<b>110 dBA</b>	Rock concert
Jet fly-over at 1,000 feet		
	<b>100 dBA</b>	
Gas lawn mower at 3 feet		
	<b>90 dBA</b>	
Diesel truck traveling at 50 mph at 50 feet		Household blender at 3 feet
	<b>80 dBA</b>	Garbage Disposal at 3 feet
Noisy urban area, daytime		
	<b>70 dBA</b>	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	<b>60 dBA</b>	
		Large business office
Quiet urban area, daytime	<b>50 dBA</b>	Dishwasher running in the next room
Quiet urban area, nighttime	<b>40 dBA</b>	
Quiet suburban area, nighttime		
	<b>30 dBA</b>	Library
Quiet rural nighttime		Bedroom at night
	<b>20 dBA</b>	Whispering at 5 feet
		Broadcast/recording studio
	<b>10 dBA</b>	Normal breathing
Threshold of hearing	<b>0 dBA</b>	Threshold of hearing

*Source: Adapted From: California Department of Transportation (Caltrans) Technical Noise Supplement 2013, Table 2-5, page 2-20; Center for Hearing and Communication, Common Environmental Noise Levels.*

**Temporal Effects**

Noise impacts are measured for both instantaneous events as well as noise measurements over an extended period. The longer the duration of sound, the more likely it is to be an annoyance or cause direct physical or environmental stress. The noise metric used to account for both duration and sound level is the equivalent noise level ( $L_{eq}$ ).  $L_{eq}$ , as defined in Table 3.11-1, is the single steady A-weighted level that is equivalent to the amount of energy contained in the average noise level. Generally,  $L_{eq}$  is totaled over a one-hour period.

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The period in which noise occurs is also an important factor to consider as it relates to impacts on people since nighttime noise tends to disturb people more than daytime noise. The day-night average ( $L_{dn}$ ) and the Community Noise Equivalent Level (CNEL) are noise metrics which account for the greater sensitivity to noise during the nighttime. With the  $L_{dn}$  metric, nighttime sensitivity is accounted for by adding 10 dB to the nighttime period (10:00 p.m. to 7:00 a.m.). The CNEL metric is identical to the  $L_{dn}$ , except that it also adds 5 dB to the evening period (7:00 p.m. to 10:00 p.m.). Since  $L_{dn}$  and CNEL levels typically do not differ by more than 1 dBA, they are often used interchangeably. This analysis has utilized the CNEL noise metric to analyze noise impacts.

### *Sound Propagation*

Noise dissipates as distance from the source increases. The manner in which noise reduces with an increase in distance depends on geometric spreading, ground absorption, atmospheric impacts, and shielding by natural and man-made features. Sound produced by a point source travels uniformly away from the source in a spherical pattern and drops off at a rate of 6 dBA for each doubling of distance.

### *Psychological and Physiological Effects of Noise*

Noise is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels can impact the entire human system. Noise exposure above 75 dBA increases body tensions, and thereby affects blood pressure, functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent hearing damage. Based on these known adverse effects of noise, the federal government, State of California, and local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

### **Groundborne Vibration**

Vibration is a trembling, quivering, or oscillating motion of the earth and is typically of a frequency that is felt rather than heard.

### *Types of Vibration*

Vibration can be produced naturally, such as in the form of earthquakes, volcanic eruptions, sea waves, or landslides, or man-made such as from explosions, or the operation of heavy machinery or heavy vehicles such as trains. Both natural and man-made vibration may be continuous or transient. Vibration is transmitted through propagation. Propagation of earth borne vibrations is dependent upon the physical environment and is therefore complicated and difficult to predict. The following are three main types of vibration propagation:

- **Surface waves** travel along the ground's surface carrying most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water.

- **Compression waves**, also known as P waves, are body waves where particles are displaced parallel to the wave direction.
- **Shear waves**, also known as S waves, are body waves where particles are displaced perpendicular to the wave direction.

As vibration waves propagate from a source, the energy is spread over an increasing area reducing the energy level with increased distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance because of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

*Amplitude*

Amplitude may be characterized in three ways: displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position and for the purposes of soil displacement is typically measured in inches or millimeters. Particle Velocity is the rate of speed at which soil particles move in inches per second or millimeters per second. Particle acceleration is the rate of change in Velocity with respect to time and is measured in inches per second or millimeters per second. Typically, particle Velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration. Table 3.11-3 presents the human reaction to various levels of peak particle Velocity (PPV).

TABLE 3.11-3: HUMAN REACTION TO TYPICAL VIBRATION LEVELS

VIBRATION PPV (IN/SEC)	VIBRATION VELOCITY LEVEL (V <sub>dB</sub> )	HUMAN REACTION	EFFECT ON BUILDINGS
0.006-0.019	64-74	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	86	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	88	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings
0.20	94	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling-houses with plastered walls and ceilings
0.40-0.60	100-104	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

*Source: California Department of Transportation (Caltrans). 2013. Transportation- and Construction-Induced Vibration Guidance Manual. June*

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### *Frequency*

Vibrations also vary in frequency which affects perception. Typical construction vibrations are between 10 to 30 Hz and usually occur at 15 Hz. Traffic vibrations exhibit a similar range of frequencies; however, due to their suspension systems, buses often generate frequencies around 3 Hz at high vehicle speeds. It is less common, but possible, to measure traffic frequencies above 30 Hz.

### **Existing Noise Sources**

#### **Boats and Ferry**

Boat and ferry noise is created by engines, cavitation<sup>1</sup> from propellers, and activities associated with loading and unloading of vessels.

#### **Aircraft**

The California Division of Aeronautics is in charge of enforcing airport noise regulations for all airports within the state. The noise standards require that no residences, schools, hospitals or places of worship be within a Noise Impact Area. The Noise Impact Area is a line around an airport within which the noise level is at or exceeds 65 dB CNEL.

At the request of County of Marin, San Francisco International Airport has conducted noise measurements at Tiburon, Bolinas and Pt. Reyes to quantify aircraft overflight noise. The studies have shown that noise generated by individual jets reach maximum overflight noise levels of 45 to 70 dBA at these locations. The aircraft generated CNEL ranged from 19 to 44 dB in Tiburon.

#### **Existing Traffic Noise Levels**

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop  $L_{dn}$  (24-hour average) noise contours for all highways and major roadways in the Planning Area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model predicts hourly  $L_{eq}$  values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict  $L_{dn}$  values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Existing traffic volumes were obtained from the traffic modeling performed for the Planning Area. Day/night traffic distributions were based upon continuous hourly noise measurement data and Saxelby Acoustics file data for similar roadways. Caltrans vehicle truck counts were obtained for SR-131. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions. Table 3.11-4 shows the results of this analysis. Figure 3.11-2 show the town wide traffic noise contours.

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<sup>1</sup> Cavitation is the forming of gas bubbles in a liquid, caused by changes in pressure.

TABLE 3.11-4: EXISTING ROADWAY NOISE CONTOURS

ROAD	SEGMENT	NOISE LEVEL AT CLOSEST RECEPTORS (DB, L <sub>DN</sub> )	DISTANCE – CENTERLINE TO 60 DBA NOISE CONTOUR, L <sub>DN</sub> (FEET)
<b>Tiburon Blvd</b>	E of US 101/W of Frontage Rd	63.4	287
<b>Tiburon Blvd</b>	W of Blackfield Dr	69.6	329
<b>Tiburon Blvd</b>	W of Trestle Glen	68.0	274
<b>Tiburon Blvd</b>	E of Trestle Glen Blvd	69.3	208
<b>Tiburon Blvd</b>	W of Avenida Miraflores	67.0	191
<b>Tiburon Blvd</b>	W of Rock Hill Rd	67.6	193
<b>Tiburon Blvd</b>	W of Lyford Dr	58.7	122
<b>Tiburon Blvd</b>	W of Main St	62.3	85
<b>Tiburon Blvd</b>	E of Main St	55.9	70
<b>Trestle Glen Blvd</b>	N of Tiburon Blvd	59.2	71
<b>Paradise Dr</b>	E of Trestle Glen Blvd	53.5	18

*Notes: Distances to traffic noise contours are measured in feet from the centerlines of the roadways.  
Source: TJKM, Caltrans, Saxelby Acoustics, 2023.*

Traffic noise levels are predicted at the sensitive residential receptors located at the closest typical setback distance along each Planning Area roadway segment. In some locations, sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Planning Area roadway segments analyzed in this report.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported in Table 3.11-4 are generally considered to be conservative estimates of noise exposure along roadways in the Town of Tiburon.

**Fixed Noise Sources**

The production of noise is a result of many industrial processes, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by Federal and State employee health and safety regulations (OSHA and Cal-OSHA), but



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exterior noise levels may exceed locally acceptable standards. Commercial, recreational, and public service facility activities can also produce noise which affects adjacent sensitive land uses. These noise sources can be continuous and may contain tonal components which have the potential to annoy individuals who live nearby. In addition, noise generation from fixed noise sources may vary based upon climatic conditions, time of day, and existing ambient noise levels.

In Tiburon, fixed noise sources typically include parking lots, loading docks, parks, schools, and other commercial/retail use noise sources (HVAC, exhaust fans, etc.)

From a land use planning perspective, fixed-source noise control issues focus upon two goals:

1. To prevent the introduction of new noise-producing uses in noise-sensitive areas, and
2. To prevent encroachment of noise sensitive uses upon existing noise-producing facilities.

The first goal can be achieved by applying noise level performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses in near proximity to noise-producing facilities include mitigation measures that would ensure compliance with noise performance standards.

Fixed noise sources which are typically of concern include but are not limited to the following:

- HVAC Systems
- Pump Stations
- Steam Valves
- Generators
- Air Compressors
- Conveyor Systems
- Pile Drivers
- Drill Rigs
- Welders
- Outdoor Speakers
- Chippers
- Loading Docks
- Cooling Towers/Evaporative Condensers
- Lift Stations
- Steam Turbines
- Fans
- Heavy Equipment
- Transformers
- Grinders
- Gas or Diesel Motors
- Cutting Equipment
- Blowers
- Cutting Equipment
- Amplified Music and Voice

The types of uses which may typically produce the noise sources described above include, but are not limited to: wood processing facilities, pump stations, industrial/agricultural facilities, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and special events such as concerts and athletic fields.

Typical noise levels associated with various types of stationary noise sources are shown in Table 3.11-5.

TABLE 3.11-5: TYPICAL STATIONARY SOURCE NOISE LEVELS

USE	NOISE LEVEL AT 100 FEET, LEQ 1	DISTANCE TO NOISE CONTOURS, FEET			
		50 DB LEQ (NO SHIELDING)	45 DB LEQ (NO SHIELDING)	50 DB LEQ (WITH 5 DB SHIELDING)	45 DB LEQ (WITH 5 DB SHIELDING)
<b>AUTO BODY SHOP</b>	56 dB	200	355	112	200
<b>AUTO REPAIR (LIGHT)</b>	53 dB	141	251	79	141
<b>BUSY PARKING LOT</b>	54 dB	158	281	89	158
<b>CABINET SHOP</b>	62 dB	398	708	224	398
<b>CAR WASH</b>	63 dB	446	792	251	446
<b>COOLING TOWER</b>	69 dB	889	1,581	500	889
<b>LOADING DOCK</b>	66 dB	596	1,059	335	596
<b>LUMBER YARD</b>	68 dB	794	1,413	447	794
<b>MAINTENANCE YARD</b>	68 dB	794	1,413	447	794
<b>OUTDOOR MUSIC VENUE</b>	90 dB	10,000	17,783	5,623	10,000
<b>PAINT BOOTH EXHAUST</b>	61 dB	355	631	200	355
<b>SCHOOL PLAYGROUND / NEIGHBORHOOD PARK</b>	54 dB	158	281	89	158
<b>SKATE PARK</b>	60 dB	316	562	178	316
<b>TRUCK CIRCULATION</b>	48 dB	84	149	47	84
<b>VENDOR DELIVERIES</b>	58 dB	251	446	141	251

<sup>1</sup> Analysis assumes a source-receiver distance of approximately 100 feet, no shielding, and flat topography. Actual noise levels will vary depending on site conditions and intensity of the use. This information is intended as a general rule only, and is not suitable for final site-specific noise studies.

Source: j.c. brennan & associates, Inc. 2017.

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### Community Noise Survey

A community noise survey was conducted to document ambient noise levels at various locations throughout the town. Short-term noise measurements were conducted at nine locations throughout the town on December 9<sup>th</sup>, 2020. In addition, five continuous 24-hour noise monitoring sites were also conducted to record day-night statistical noise level trends from December 9<sup>th</sup> to 10<sup>th</sup>, 2020. The data collected included the hourly average ( $L_{eq}$ ), median ( $L_{50}$ ), and the maximum level ( $L_{max}$ ) during the measurement period. Noise monitoring sites and the measured noise levels at each site are summarized in Table 3.11-6 and Table 3.11-7.

TABLE 3.11-6: EXISTING CONTINUOUS 24-HOUR AMBIENT NOISE MONITORING RESULTS

SITE	LOCATION	LDN (DBA)	MEASURED HOURLY NOISE LEVELS, DBA LOW-HIGH (AVERAGE)					
			DAYTIME (7:00 AM - 10:00 PM)			NIGHTTIME (10:00 PM - 7:00 AM)		
			LEQ	L50	LMAX	LEQ	L50	LMAX
LT-1	HIGHWAY 131 AT LYFORD DRIVE	69	69	62	84	59	37	78
LT-2	WATER TREATMENT CENTER EAST	64	63	61	77	55	48	75
LT-3	WATER TREATMENT CENTER WEST - BY GENERATOR	54	53	52	63	46	43	60
LT-4	TRESTLE GLEN BOULEVARD	59	59	51	77	48	31	65
LT-5	HIGHWAY AT NUGGET MARKET	68	68	66	79	59	47	74

Source: Saxelby Acoustics, 2020.

TABLE 3.11-7: EXISTING SHORT-TERM COMMUNITY NOISE MONITORING RESULTS

SITE	LOCATION	TIME <sup>1</sup>	MEASURED SOUND LEVEL, DB			NOTES
			LEQ	L50	LMAX	
ST-1	VISTAZO STREET WEST	11:50 a.m.	43	43	50	Secondary noise sources from ambient nature, vehicle traffic and neighborhood construction sounds.
ST-2	INTERSECTION AT BEACH ROAD AND TIBURON BLVD	12:18 p.m.	63	60	76	Primary noise source is traffic on Tiburon Blvd and secondary noise source is traffic on Beach Rd and some construction noises.
ST-3	MAR WEST STREET	12:41 p.m.	58	47	74	Primary noise source is vehicle traffic on Mar W St. Secondary noise source is light construction noises.
ST-4	LYFORD DRIVE AT REED ELEMENTARY SCHOOL	1:02 p.m.	62	54	78	Primary noise source is vehicle traffic on Lyford Dr. Secondary noise source is from Reed Elementary School.
ST-5	ROCK HILL DRIVE	2:24 p.m.	56	51	69	Primary noise source is Highway 131/Tiburon Blvd. Secondary noise source is from traffic on Rock Hill Drive.
ST-6	AVENIDA MIRAFLORES AT DEL MAR MIDDLE SCHOOL	2:43 p.m.	52	48	66	Primary noise source is traffic on Avenida Miraflores. Secondary noise source is from Del Mar Middle School.
ST-7	TRESTLE GLEN BOULEVARD	3:15 p.m.	65	60	79	Primary noise source is traffic on Trestle Glen Blvd. Secondary noise source is from traffic on Turtle Rocks Court.
ST-8	REED RANCH ROAD	3:25 p.m.	61	48	75	Primary noise source is traffic on Reed Ranch Road. Secondary noise source is traffic on Highway 131/Tiburon Blvd.
ST-9	BLACKFIELD DRIVE	3:51 p.m.	61	55	72	Primary noise source is traffic on Blackfield Drive. Secondary noise source is from traffic on Cecelia Way.

<sup>1</sup> - All Community Noise Measurement Sites have test durations of 10:00 minutes.  
Source: Saxelby Acoustics, 2020.

Community noise monitoring equipment included Larson Davis Laboratories (LDL) Model 812, 820, and 831 precision integrating sound level meters equipped with LDL ½" microphones. The measurement systems were calibrated using an LDL Model CAL200 acoustical calibrator before and after testing. The measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

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The results of the community noise survey shown in Tables 3.11-6 and 3.11-7 indicate that existing transportation noise sources were the major contributor of noise observed during daytime hours, especially during vehicle passbys.

### 3.11.2 REGULATORY SETTING

#### *Federal*

##### **United States Department of Transportation**

The United States Department of Transportation (USDOT) is a federal department responsible for maintaining and developing the nation's transportation and infrastructure. The Federal Aviation Administration (FAA), FHWA, Federal Railroad Administration (FRA), and Federal Transit Administration (FTA) address specific areas of the transportation network and have regulatory authority related to noise impacts.

The FAA has prepared guidelines for acceptable noise exposure in its Federal Aviation Regulations Part 150 Noise Compatibility Planning program for airports. The program aims to balance the operational needs of airports while also considering impacts on surrounding communities. The purpose of the program is to reduce noise impacts on existing incompatible land uses and prevent the introduction of new incompatible land uses in areas impacted by aircraft noise. The program establishes standard noise methodologies and metrics, identifies land uses normally compatible with various levels of airport noise, and provides for voluntary development and submission of noise exposure maps and noise compatibility programs by airport operators.

Through regulations in 23 Code of Federal Regulations Part 772, the FHWA, FRA, and FTA have established recommendations to conduct thorough noise and vibration assessments for any highway, high-speed railroad, or mass transit project that would be constructed proximate to residential areas. These recommendations apply to projects that are federally funded or that require federal review.

##### **United States Department of Housing and Urban Development**

New residential developments that qualify for United States Department of Housing and Urban Development (HUD) financing and are proposed in high noise areas (exceeding 65 dBA  $L_{dn}$ ) are required to incorporate noise attenuation features to maintain acceptable interior noise levels. Attenuation requirements are intended to achieve a level of 45 dBA  $L_{dn}$  or less. It is assumed that standard construction will provide sufficient attenuation to achieve this goal if the exterior noise level is 65 dBA  $L_{dn}$  or less. Approvals in a "normally unacceptable noise zone" (exceeding 65 dBA but not exceeding 75 dBA) require a minimum of 5 dBA additional noise attenuation if the  $L_{dn}$  is greater than 65 dBA, but not exceeding 70 dBA. A minimum of 10 dBA additional noise attenuation is required if the  $L_{dn}$  is greater than 70 dBA but does not exceed 75 dBA.

### **United States Environmental Protection Agency**

The United States Environmental Protection Agency (EPA) has determined that over a 24-hour period, a  $L_{eq}$  of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior noise levels remain at or below a  $L_{eq}$  of 55 dBA and interior levels at or below 45 dBA. Although these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

The EPA has set 55 dBA  $L_{dn}$  as the basic goal for residential environments. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of achieving a goal of 55 dBA  $L_{dn}$ , have generally agreed on the 65 dBA  $L_{dn}$  level as being appropriate for residential uses. At 65 dBA  $L_{dn}$  activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can be realistically achieved.

### **State**

#### **California Government Code Section 65302(f)**

California Government Code Section 65302(f) requires that all General Plans include a Noise Element to address noise problems in the community. The State Office of Planning and Research has established guidelines for the content of the Noise Element. A noise element shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control and shall analyze and quantify to the extent practicable current and projected noise levels for all the following sources:

- Highways and freeways.
- Primary arterials and major local streets.
- Passenger and freight on-line railroad operations and ground rapid transit systems.
- Commercial, general aviation, heliport, and military airport operations, aircraft flyovers, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.
- Local industrial plants, including, but not limited to, railroad classification yards.
- Other stationary ground noise sources identified by local agencies as contributing to the community noise environment.

#### **State of California Code of Regulations**

The State's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Standards Code (CBC). These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise



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sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

### California Department of Transportation Vibration Guidance

Construction vibration is regulated in accordance with standards established by the Transportation and Construction-Induced Vibration Guidance Manual, issued by the California Department of Transportation (Caltrans). Transient sources create a single, isolated vibration event, such as blasting or drop-ball impacts. Continuous/frequent intermittent sources include multiple impacts from pile drivers, the use of vibratory compaction equipment, and other construction equipment that creates vibration other than in single events. Table 3.11-8 provides guidelines for vibration damage potential to existing structures and Table 3.11-9 provides guidelines for vibration annoyance potential criteria.

TABLE 3.11-8: GROUND BORNE VIBRATION EXPOSURE STANDARDS

STRUCTURE AND CONDITION	MAXIMUM PPV (INCHES/SECOND)	
	TRANSIENT SOURCES	CONTINUOUS/FREQUENT INTERMITTENT SOURCES
Extremely fragile historic building, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and older residential structures with plaster walls and ceilings	0.50	0.25
New residential structures with gypsum board walls and ceilings	1.00	0.50
Modern commercial and industrial buildings	2.00	0.50

Source: California Department of Transportation. 2004.

TABLE 3.11-9: GROUNDBORNE VIBRATION ANNOYANCE POTENTIAL CRITERIA

HUMAN RESPONSE	MAXIMUM PPV (INCHES/SECOND)	
	TRANSIENT SOURCES	CONTINUOUS/FREQUENT INTERMITTENT SOURCES
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation. 2004.

### California Noise Land Use Compatibility Matrix

The State Department of Health Services, Office of Noise Control establishes compatibility of land uses relative to existing and future ambient noise levels. Appendix D of the State of California General Plan Guidelines, prepared by the Governor’s Office of Planning and Research and reproduced below as 10, identifies noise level acceptability for each land use type from ‘normally acceptable’, to ‘clearly unacceptable’. Normally acceptable indicates new standard construction can occur with no special noise reduction requirements.

TABLE 3.11-10: PROPOSED LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

LAND USE TYPE	EXTERIOR NOISE EXPOSURE (L <sub>DN</sub> OR CNEL, DB)					
	55	60	65	70	75	80
Residential, Hotels and Motels						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Churches, Personal Care, Meeting Halls						
Office Buildings, Business Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						
Industrial, Manufacturing, Utilities and Agriculture						
<i>Key:</i>						
	<i>Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</i>					

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EXTERIOR NOISE EXPOSURE (L <sub>DN</sub> OR C <sub>NEL</sub> , DB)						
LAND USE TYPE	55	60	65	70	75	80
	<i>Conditionally Acceptable: Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.</i>					
	<i>Unacceptable: New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.</i>					

### Local

#### Tiburon General Plan

The Town of Tiburon 2020 General Plan Noise Element establishes goals and policies, as well as criteria for evaluating the compatibility of individual land uses with respect to noise exposure.

#### *Town of Tiburon Noise Element:*

##### Goals

- N-A: To ensure that residential areas are quiet and that noise levels in public and commercial areas remain within acceptable limits.
- N-B: To eliminate or reduce unnecessary, excessive and offensive noises from all sources.
- N-C: To minimize the exposure of community residents to noise through the careful placement of land uses that may cause noise impacts.
- N-D: To minimize current noise impacts from Tiburon Boulevard and other high-volume roads on adjacent land uses that are sensitive to noise.

##### Policies

- N-1: The Town shall use the Noise and Land Use Compatibility Guidelines contained herein to determine where noise levels in the community are acceptable or unacceptable.
- N-2: The Town should use the Noise and Land Use Compatibility Guidelines to determine acceptable uses, and to require noise attenuation methods in noise-impacted areas.
- N-3: Environmental reviews (environmental impact reports, initial studies/negative declarations) of projects within the Tiburon Planning Area will be required to, where appropriate, include an acoustical analysis of the project's potential to cause a noise impact.

- N-4: If the projected noise environment for a project exceeds the standards identified in the Noise and Land Use Guidelines, the Town shall require an acoustical analysis so that noise mitigation measures can be incorporated into the project design.
- N-5: Motorized recreational vehicles (including trail motorcycles) shall be prohibited in off-road areas in the Tiburon Planning Area.
- N-6: Hours of use of recreation and commercial facilities should be regulated to minimize offensive noise to ensure compatibility between such facilities and nearby residential areas.
- N-7: Noise walls, sound walls or any form of solid barrier shall be aesthetically compatible with the surrounding neighborhood.
- N-8: The Town, in conjunction with the County of Marin and other cities and towns, shall attempt to reduce aircraft noise over the Tiburon Planning Area by working with the appropriate regulatory agencies.
- N-9: New projects in Downtown shall, through site and building design and the use of the best available building technology, minimize the potential noise conflicts between commercial and residential uses, on mixed-use and adjacent residential properties.
- N-10: Standard quiet construction methods shall be used where feasible and when construction activities take place within 500 feet of noise sensitive areas.

#### **Implementing Programs for Noise**

- N-a: The Town should periodically assess the noise environment to identify noise sources that should be regulated to reduce excessive or offensive noise.
- N-b: The Town should contact the appropriate regulatory agencies to ensure that they are aware of the Town's policy discouraging aircraft flyovers of the Tiburon Planning Area.

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
Land Use Category	Community Noise Exposure, Ldn or CNEL, in dB						
	55	60	65	70	75	80	85
Residential (interior noise levels not to exceed 45 dBA Ldn)	Diagonal lines	Diagonal lines	Light gray	Light gray	Dark gray	Dark gray	Dark gray
Transient Lodging, Motels, Hotels	Diagonal lines	Diagonal lines	Light gray	Light gray	Dark gray	Dark gray	Dark gray
Schools, Libraries, Churches, Hospitals, Nursing Homes	Diagonal lines	Diagonal lines	Light gray	Light gray	Dark gray	Dark gray	Dark gray
Auditoriums, Concert Halls, Amphitheaters	Light gray	Light gray	Light gray	Light gray	Dark gray	Dark gray	Dark gray
Sports Arenas, Outdoor Spectator Sports	Light gray	Light gray	Light gray	Light gray	Dark gray	Dark gray	Dark gray
Playgrounds, Neighborhood Parks, Tennis Courts, Outdoor Recreation	Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines	Dark gray	Dark gray	Dark gray
Water Recreation, Riding Stables, Golf Courses, Cemeteries	Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines	Dark gray	Dark gray	Dark gray
Office Buildings, Business, Commercial & Professional	Diagonal lines	Diagonal lines	Diagonal lines	Light gray	Light gray	Dark gray	Dark gray
Industrial, Manufacturing, Utilities, Agriculture	Diagonal lines	Diagonal lines	Diagonal lines	Diagonal lines	Light gray	Dark gray	Dark gray
	<b>Normally Acceptable:</b> Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.						
	<b>Conditionally Acceptable:</b> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.						
	<b>Normally Unacceptable:</b> New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.						
	<b>Clearly Unacceptable:</b> New construction or development clearly should not be undertaken.						

EXHIBIT 3.11-1: TOWN OF TIBURON GENERAL PLAN NOISE AND LAND USE COMPATIBILITY GUIDELINES

### 3.11.3 IMPACTS AND MITIGATION MEASURES

#### *Thresholds of Significance*

Consistent with Appendix G of the CEQA Guidelines, the project will have a significant impact related to noise if it will result in:

- a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Generate excessive groundborne vibration or groundborne noise levels?
- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions.

#### TRANSPORTATION NOISE INCREASE CRITERIA

Table 3.11-12 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the  $L_{dn}$ .



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TABLE 3.11-12: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

AMBIENT NOISE LEVEL WITHOUT PROJECT, L <sub>DN</sub>	INCREASE REQUIRED FOR SIGNIFICANT IMPACT
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Based on Table 3.11-12 data, an increase in the traffic noise level of 1.5 dB or more would be significant where the pre-project noise level exceeds 65 dB L<sub>dn</sub>. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 75 dB L<sub>dn</sub>. The rationale for the Table 3.11-12 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

### NON-TRANSPORTATION NOISE INCREASE CRITERIA

Stationary and Non-Transportation Noise Sources - A significant impact will occur if the project results in an exceedance of the noise level standards contained in the Noise and Land Use Compatibility Guidelines of the General Plan Noise Element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.

### Vibration Standards

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The Town does not have specific policies pertaining to vibration levels. However, vibration levels associated with construction activities and railroad operations are addressed as potential noise impacts associated with project implementation.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of

perceived vibration events. Table 3.11-13 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle Velocity in inches per second (in/sec p.p.v).

TABLE 3.11-13: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

PEAK PARTICLE VELOCITY		HUMAN REACTION	EFFECT ON BUILDINGS
MM/SEC.	IN./SEC.		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic but would cause "architectural" damage and possibly minor structural damage.

*Source: Caltrans. Transportation Related Earthborn Vibrations. TAV-02-01-R9601 February 20, 2002.*

Construction activities may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams, pile drivers) are used. Construction activities often include demolition of existing structures, excavation, site preparation work, foundation work, and new building framing and finishing.

For structural damage, the California Department of Transportation uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV) for buildings structurally sound and designed to modern engineering standards.

Table 3.11-14 presents typical vibration levels that could be expected from construction equipment at a distance of 25-100 feet. The highest levels of vibration typically occur from pile driving operations. Pile driving vibrations are typically below 0.5 in/sec, PPV at distances of 50 feet or more.

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TABLE 3.11-14: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	P.P.V. @ 25 FEET (INCHES/SECOND)	P.P.V. @ 50 FEET (INCHES/SECOND)	P.P.V. @ 75 FEET (INCHES/SECOND)	P.P.V. @ 100 FEET (INCHES/SECOND)
PILE DRIVE (IMPACT)	0.644	0.226	0.124	0.080
PILE DRIVE (SONIC)	0.170	0.060	0.033	0.021
LARGE BULLDOZER	0.089	0.031	0.017	0.011
LOADED TRUCKS	0.076	0.027	0.015	0.010
SMALL BULLDOZER	0.003	0.001	0.000	0.000
AUGER/DRILL RIGS	0.089	0.031	0.017	0.011
JACKHAMMER	0.035	0.012	0.006	0.004
VIBRATORY HAMMER	0.070	0.025	0.0135	0.009
VIBRATORY COMPACTOR/ROLLER	0.210	0.074	0.040	0.026

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006

### Impact 3.11-1 General Plan 2040 implementation may result in exposure to significant traffic noise sources (Less-Than-Significant)

The traffic noise contours with buildout of the General Plan 2040 were calculated through use of the FHWA-RD-77-108 model and the traffic volumes provided in the Tiburon General Plan 2040 EIR traffic report. Table 3.11-15, shows each roadway segment's noise level at the closest noise sensitive receptors as well as the distance to the 60 dBA L<sub>dn</sub> noise contour.

TABLE 3.11-15: GENERAL PLAN 2040 BUILDOUT ROADWAY NOISE CONTOURS

ROAD	SEGMENT	NOISE LEVEL AT CLOSEST RECEPTORS (DB, L <sub>DN</sub> )	DISTANCE - CENTERLINE TO 60 DBA NOISE CONTOUR, L <sub>DN</sub> (FEET)
Tiburon Blvd	E of US 101/W of Frontage Rd	63.4	287
Tiburon Blvd	W of Blackfield Dr	69.6	329
Tiburon Blvd	W of Trestle Glen	68.0	274
Tiburon Blvd	E of Trestle Glen Blvd	69.3	208
Tiburon Blvd	W of Avenida Miraflores	67.0	191
Tiburon Blvd	W of Rock Hill Rd	67.6	193
Tiburon Blvd	W of Lyford Dr	58.7	122

# Town of Tiburon

## General Plan 2040 EIR

ROAD	SEGMENT	NOISE LEVEL AT CLOSEST RECEPTORS (DB, L <sub>DN</sub> )	DISTANCE - CENTERLINE TO 60 DBA NOISE CONTOUR, L <sub>DN</sub> (FEET)
Tiburon Blvd	W of Main St	62.3	85
Tiburon Blvd	E of Main St	55.9	70
Trestle Glen Blvd	N of Tiburon Blvd	59.2	71
Paradise Dr	E of Trestle Glen Blvd	53.5	18

*Notes: Distances to traffic noise contours are measured in feet from the centerlines of the roadways.  
Source: TJKM, Caltrans, Saxelby Acoustics., 2023.*

The General Plan 2040's traffic noise impacts have been analyzed for the Baseline and the with General Plan 2040 Buildout conditions. Table 3.11-16 presents a comparison between the Without General Plan Buildout and the With General Plan 2040 Buildout scenarios, and the FHWA model printouts are provided in Appendix E.

TABLE 3.11-16: GENERAL PLAN 2040 BUILDOUT TRAFFIC NOISE CONTRIBUTIONS

ROADWAY	SEGMENT	DBA L <sub>DN</sub> AT 50 FEET			INCREASE THRESHOLD
		BASELINE	WITH GENERAL PLAN BUILDOUT	CHANGE	
TIBURON BLVD	E of US 101/W of Frontage Rd	63.4	63.7	0.3	>3 dBA
TIBURON BLVD	W of Blackfield Dr	69.6	70.0	0.4	>1.5 dBA
TIBURON BLVD	W of Trestle Glen	68.0	68.5	0.5	>1.5 dBA
TIBURON BLVD	E of Trestle Glen Blvd	69.3	69.7	0.4	>1.5 dBA
TIBURON BLVD	W of Avenida Miraflores	67.0	67.5	0.5	>1.5 dBA
TIBURON BLVD	W of Rock Hill Rd	67.6	68.1	0.5	>1.5 dBA
TIBURON BLVD	W of Lyford Dr	58.7	59.2	0.5	>5 dBA
TIBURON BLVD	W of Main St	62.3	62.7	0.4	>3 dBA
TIBURON BLVD	E of Main St	55.9	56.4	0.5	>5 dBA
TRESTLE GLEN BLVD	N of Tiburon Blvd	59.2	60.2	1.0	>5 dBA
PARADISE DR	E of Trestle Glen Blvd	53.5	54.3	0.8	>5 dBA

*Source: TJKM, Saxelby Acoustics 2023.*

# Town of Tiburon

## General Plan 2040 EIR

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Table 3.11-16 shows that at General Plan 2040 Buildout, noise generated by traffic along study area roadway segments would be expected to increase by 0.3 to 1.0 dBA Ldn above the baseline conditions. Table 3.11-16 also shows that the General Plan 2040's permanent roadway noise increases to the nearby sensitive receptors from the generation of additional vehicular traffic would not exceed any of the thresholds detailed above. Therefore, impacts associated with the General Plan 2040 would be ***less than significant***.

### Level of Significance before Mitigation

Therefore, implementation of the General Plan 2040 would not result in a temporary or permanent increase in ambient noise levels above established standards and will have a ***less than significant*** impact.

### Level of Significance before Mitigation

Less than Significant

### Mitigation Measures

None Required

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### Impact 3.11-2      **Development facilitated by the General Plan 2040 would not generate excessive groundborne vibration or groundborne noise levels.**

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Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Construction activities and the operation of heavy trucks, buses and trains can produce vibration that may be felt by adjacent uses. New development under the General Plan 2040 could result in up to 916 new residential units, and a reduction of 129,682 square feet commercial uses within the Tiburon Planning Area. The Town contains several historic structures that have been identified in Figure DT-3 of the General Plan 2040 and have the potential of being damaged from exposure to substantial vibration levels. The short-term and long-term groundborne vibration impacts associated with construction and operations are discussed separately below.

### Construction-Related Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 3.11-17 gives approximate vibration levels from various construction equipment. The data in Table 3.11-12 provides a reasonable estimate for a wide range of soil conditions.

TABLE 3.11-17: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

EQUIPMENT	PPV (INCHES/SECOND)	APPROXIMATE VIBRATION LEVEL AT 25 FEET
<b>PILE DRIVER (IMPACT)</b>	1.518 (upper range)	112
	0.644 (typical)	104
<b>PILE DRIVER (SONIC)</b>	0.734 (upper range)	105
	0.170 (typical)	93
<b>CLAM SHOVEL DROP (SLURRY WALL)</b>	0.202	94
<b>HYDROMILL (SLURRY WALL)</b>	0.008 (in soil)	66
	0.017 (in rock)	75
<b>VIBRATORY ROLLER</b>	0.210	94
<b>HOE RAM</b>	0.089	87
<b>LARGE BULLDOZER</b>	0.089	87
<b>CAISSON DRILL</b>	0.089	87
<b>LOADED TRUCKS</b>	0.076	86
<b>JACKHAMMER</b>	0.035	79
<b>SMALL BULLDOZER</b>	0.003	58

*Source: Federal Transit Administration. 2018.*

Since the Town does not have a quantitative vibration standard in the General Plan 2040 or Tiburon Municipal Code, this analysis has utilized guidance provided by Caltrans, which identifies a standard for historical structures of 0.12 inch per second PPV for transient sources (see Table 3.11-5). As shown in Table 3.11-17, potential vibration levels from representative construction equipment that occur in close proximity to an existing historic structure, could potentially damage the structure.

Since development facilitated by the General Plan 2040 may result in construction activities that occur immediately adjacent to existing historical structures, there is a possibility that vibration from construction equipment would exceed the 0.12 inch per second PPV threshold. Therefore, groundborne vibration impacts from construction activities could result in a **significant impact**.

The General Plan 2040 includes Policy N-6 which requires that potential vibration from demolition and construction projects is considered and measures are taken to mitigate potential impacts.



# Town of Tiburon

## General Plan 2040 EIR

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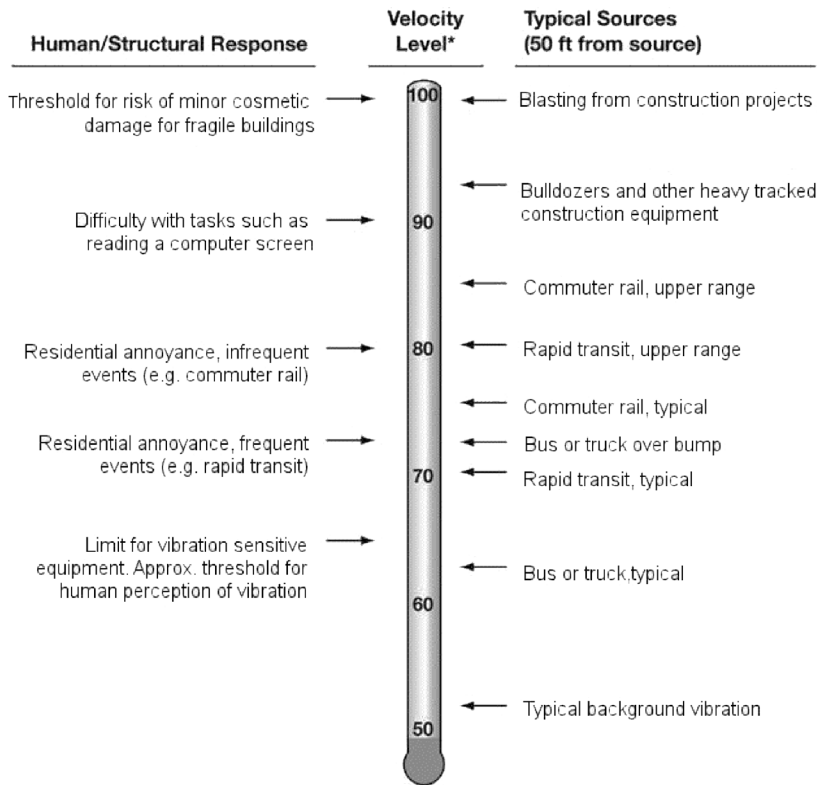
Projects that have the potential to impact historical structures during construction activities include those that will either: (1) conduct pile driving within 150 feet; or (2) utilize mobile construction equipment within 50 feet of any existing structure with sensitive receptors. As shown in Table 3.11-12, there are alternative types of pile drivers, such as sonic pile drivers that are capable of performing pile driving functions at much lower vibration levels. Table 3.11-12, also shows that there are similar pieces of earthmoving equipment, that while may not be as efficient, such as using a small dozer in place of large dozer, can be used to reduce vibration levels in vibration sensitive areas. This is considered a potentially significant impact. Mitigation Measure 3.11-2 is added to reinforce the requirements of Program HS-3.6.1. Therefore, with implementation of Mitigation Measure 3.11-2 and Program HS-3.6.1, construction-related vibration impacts would not expose persons to excessive vibration and will have a ***less than significant*** impact.

### *Operation-Related Vibration*

The primary source of vibration created from on-going operation of development facilitated by the General Plan 2040 would be from additional vehicle and truck trips on the Town roadways. Since, the Town does not have a quantitative vibration standard in the General Plan 2040 or Tiburon Municipal Code, this analysis has utilized guidance provided by Caltrans in Table 3.11-5 for historical structures of 0.12 inch per second PPV for transient sources.

The FTA Transit Noise and Vibration Impact Assessment Manual includes typical levels of groundborne vibration from various sources. As shown in Exhibit 3.11-1, the threshold for human perception of vibration is below many source levels including transportation and construction sources. Other factors impacting groundborne vibration from transportation sources include the condition of the roadbed, vehicle speed, suspension, and wheel condition and type.

EXHIBIT 3.11-2: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



\* RMS Vibration Velocity Level in VdB relative to  $10^{-6}$  inches/second

As detailed in Exhibit 3.11-2, a bus or truck over a bump may create a vibration level as high as 72 VdB (0.015 inch per second PPV), with typical bus and truck vibration in the range of 62 VdB (0.005 inch per second PPV). Both the typical and maximum vibration levels created from a bus or truck operating on a Town roadway would be within the Caltrans threshold for historical structures of 0.12 inch per second PPV for transient sources. As such, any operational vibration impacts from increased vehicle traffic are expected to be less than significant. While development envisioned by General Plan 2040 would result in an incremental increase in development in the Planning Area, future development would be required to comply with requirements of the General Plan 2040. Therefore, operation-related vibration impacts would not expose persons to excessive vibration and impacts will be **less than significant**.

### Level of Significance before Mitigation

Potentially Significant

### Mitigation Measures

**MM 3.11-2 Construction Vibration.** Prior to issuance of grading permits for any project that is located within 150 feet of a historic structure that is depicted in Figure DT-3 of the

# Town of Tiburon

## General Plan 2040 EIR

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General Plan and, if construction activities will require either: (1) pile driving within 150 feet; or (2) utilization of mobile construction equipment within 50 feet of the historic structure, the property owner/developer shall retain an acoustical engineer to prepare a vibration plan for Town review and approval. The vibration plan shall determine the vibration levels created by construction activities at the historic structure. If necessary, the vibration plan shall require the developer to implement specific measures to reduce the vibration levels to meet Caltrans thresholds.

### Level of Significance after Mitigation

Less than Significant

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**Impact 3.11-3      Implementation of the General Plan 2040 would not result in cumulatively substantial increases in ambient noise levels and vibration in excess of standards established by the local general plan, noise ordinance, or applicable standards of other agencies.**

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The geographic context for the analysis of cumulative impacts related to noise includes the incorporated and unincorporated lands comprising the Tiburon Planning Area. This analysis evaluates whether the impacts of the General Plan 2040, together with the impacts of cumulative development, could result in a cumulatively significant impact related to noise, or result in a cumulatively significant impact related to noise. This analysis then considers whether the incremental contribution of the impacts associated with the implementation of the General Plan 2040 would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of significance.

Cumulative development would be required to comply with the design review regulations directing the siting, design, and insulation of new development and all applicable noise policies to ensure that noise impacts are less than significant. In addition, construction noise and vibration are typically localized and temporary in nature. For these reasons, cumulative impacts to noise would be ***less than significant***.

Moreover, the Project's incremental contribution to less than significant cumulative impacts would not be significant. As discussed above, development resulting from buildout of the General Plan 2040 is largely located at infill locations and will be subject to policies and programs to reduce noise impacts. . As the Town receives development applications for subsequent development under the General Plan 2040, those applications will be reviewed by the Town of Tiburon for compliance with the policies and programs of the General Plan 2040 related to noise. Consistency with the Town's Municipal Code, which implements the Town's General Plan 2040, would be required during the design review process to ensure that projects comply with all policies designed to reduce noise impacts to below a level of significance. Accordingly, development consistent with the General Plan 2040 would result in development that would be compatible with the noise environments in which they are located. Therefore, the scope and scale of the construction and other activities envisioned

by the General Plan 2040 will not contribute to a cumulative noise impact. Moreover, the General Plan 2040 policies and programs will result in additional noise and vibration reduction requirements than what would occur without adoption of the General Plan 2040. Therefore, the General Plan's contribution to cumulative impacts would be considered ***less than significant***.

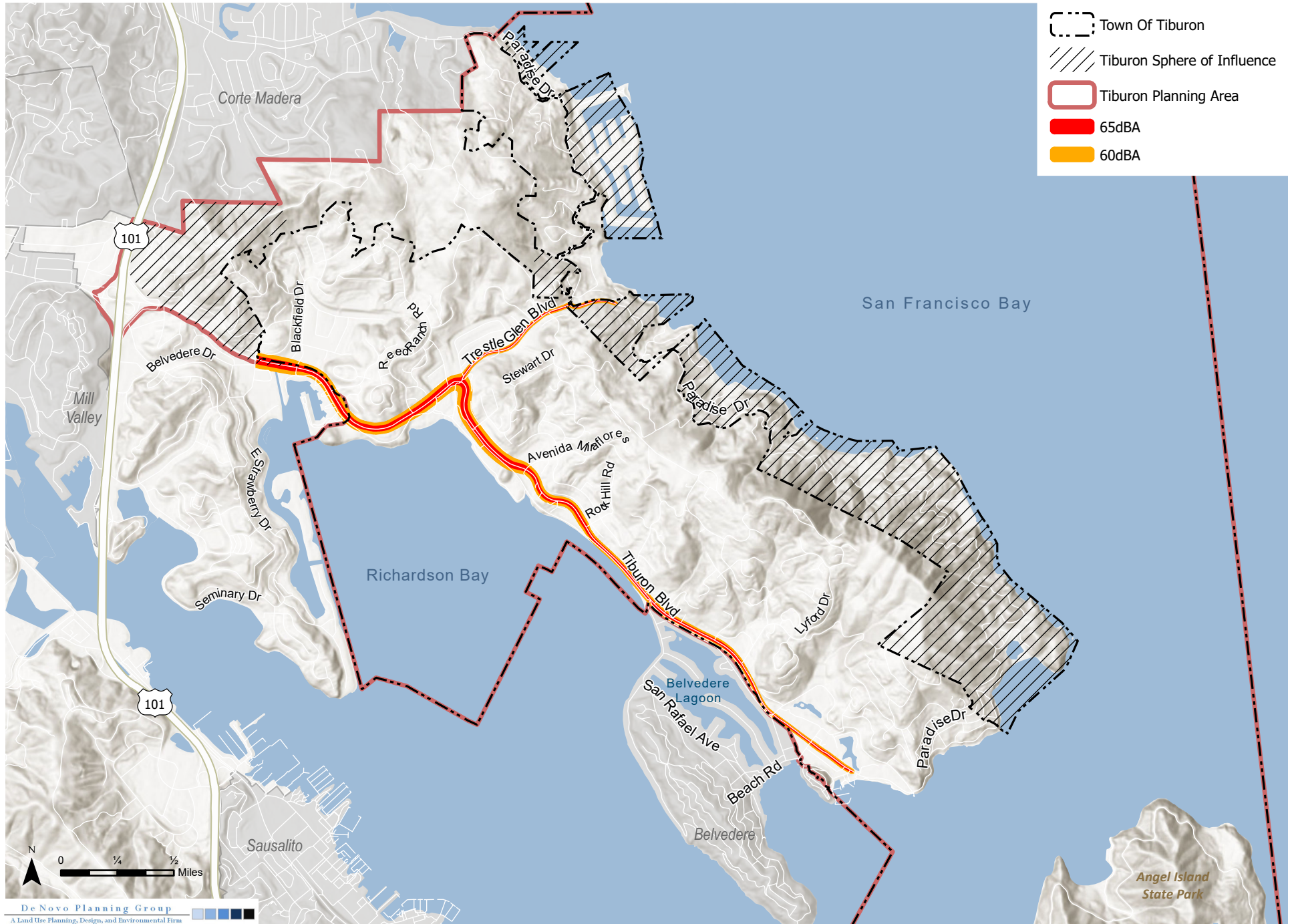
**Level of Significance before Mitigation**






Less than Significant

**Mitigation Measures**

None Required

Figure 3.11-1. Existing Noise Contours

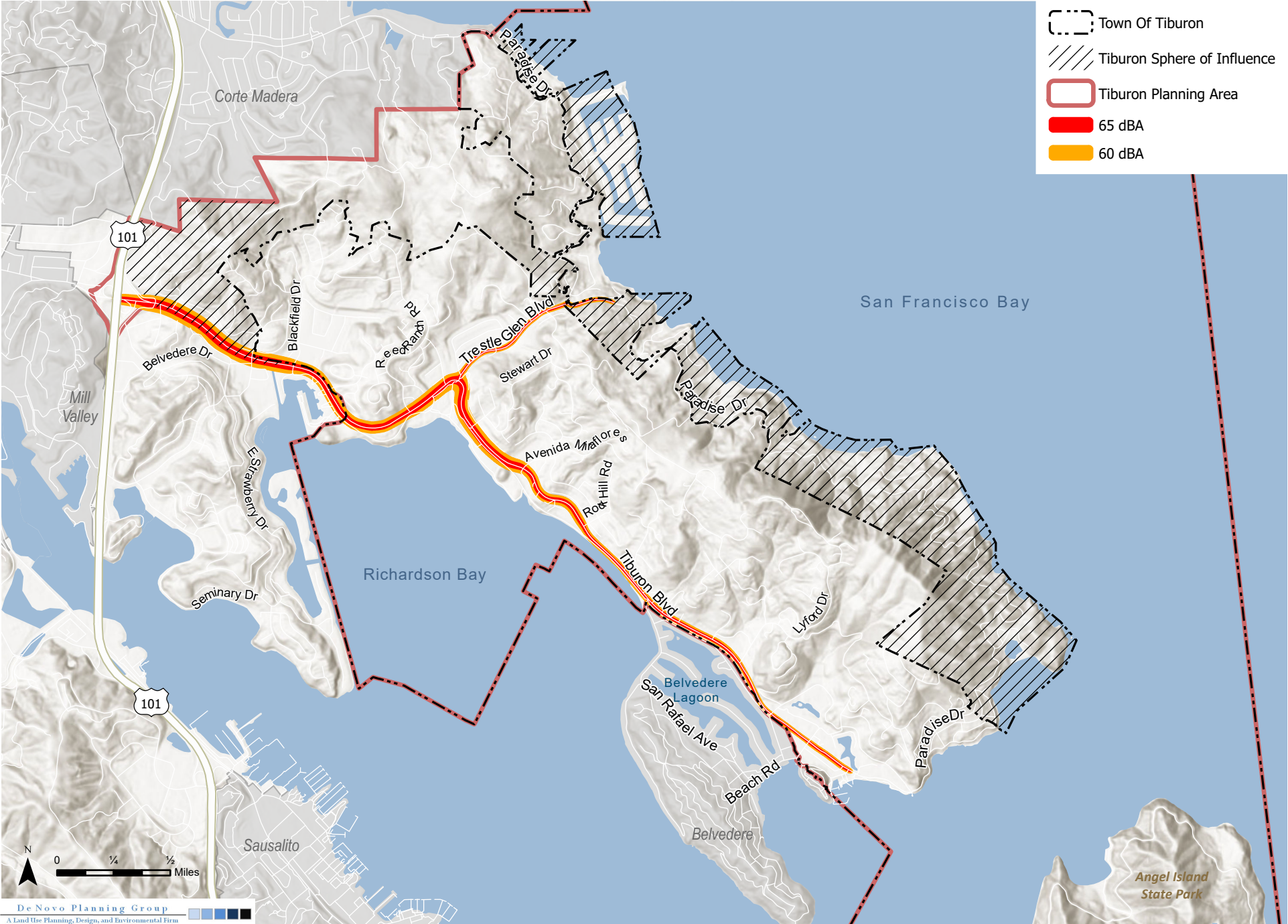


-  Town Of Tiburon
-  Tiburon Sphere of Influence
-  Tiburon Planning Area
-  65dBA
-  60dBA

N  
0 1/4 1/2 Miles



Figure 3.11-2. Future Noise Contours







### 3.12 POPULATION AND HOUSING

This section of the Draft Environmental Impact Report (Draft EIR) describes the existing population and housing characteristics in the Planning Area and evaluates the potential environmental consequences from development that could occur by adopting and implementing the General Plan 2040 (Project). Future discretionary projects facilitated by the General Plan 2040 will be evaluated for project-specific impacts to population, housing, and employment at the time they are proposed.

Information in this section is based on information provided by the following reference materials:

- Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031, Association of Bay Area Governments, adopted December 2021;
- Plan Bay Area 2050, Association of Bay Area Governments, Metropolitan Transportation Commission, adopted October 2021.
- Plan Bay Area 2050, Marin County Factsheet, no date;
- Town of Tiburon 2015-2023 Housing Element, adopted August 20, 2014;
- E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2019, California Department of Finance, May 2019; and
- E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2020-2021, California Department of Finance, May 2021; and
- E-8 Historical Population and Housing Estimates for Cities, Counties, and the State, 2000-2010, California Department of Finance, November 2012.

#### 3.12.1 EXISTING SETTING

##### *Population and Households*

Table 3.12-1 summarizes the population and household data for Tiburon and Marin County from 1980 through 2020.

# Town of Tiburon

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TABLE 3.12-1: POPULATION AND HOUSEHOLD GROWTH

	1980	1990	2000	2010	2020	1980-2000 CHANGE	2000-2020 CHANGE	AVG. ANNUAL CHANGE
<b>TIBURON</b>								
<b>POPULATION</b>	6,685	7,532	8,666	8,962	9,540	29.6%	10.0%	0.89%
<b>HOUSEHOLDS</b>	2,628	3,253	3,712	3,729	3,893	41.2%	4.9%	0.98%
<b>PERSONS PER HOUSEHOLD</b>	2.52	2.30	2.31	2.39	2.44	-8.3%	5.5%	-0.08%
<b>MARIN COUNTY</b>								
<b>POPULATION</b>	222,568	230,096	247,289	252,409	260,831	11.1%	5.5%	0.40%
<b>HOUSEHOLDS</b>	88,702	95,233	100,650	103,210	104,975	13.5%	4.3%	0.42%
<b>PERSONS PER HOUSEHOLD</b>	2.43	2.33	2.34	2.36	2.40	-3.7%	2.5%	-0.03%

Source: Bay Area Census; U.S. Census QuickFacts; California DOF, Report E-5, 2020.

The area which currently contains the Town of Tiburon began to grow with the establishment of a railroad line in 1884 between Tiburon Point and San Rafael with a ferry connection to San Francisco, which brought a number of commercial and industrial industries to the peninsula. In the 1940s, World War II brought more people to Tiburon due to the presence of the Navy; however, the major development and expansion of Tiburon did not get under way until after the end of the war.

In the 1950s, Tiburon began its evolution as a bedroom suburb of San Francisco with the population increasing to a little more than 2,000 residents and residential and commercial development heavily increasing. In the 1960s, development continued into the hills and adjacent to existing developments and the population increased to a little more 3,000 residents. Additionally, the Town was officially incorporated in June. By 1970, the Town had developed the majority of land and the population almost doubled in size with the US Census Bureau recording a population of 6,209.<sup>1</sup>

From 1980 to 2000, the Town's population increased by 29.6 percent from 6,685 to 8,666 persons. During the 2000s and 2010s, Tiburon experienced a population growth increasing by approximately 10 percent from 8,666 in 2000 to 9,540 in 2020 while Marin County's total population increased by approximately 5.5 percent from 247,289 in 2000 to 260,831 in 2020. Between 1980 and 2020, Tiburon's population growth rate averages 0.89 percent per year, while that of Marin County was about half with an average of 0.4 percent per year.

Prior to the 2000s, households in Tiburon increased at a higher rate than the population. Households increased by approximately 41.2 percent between 1980 and 2000 (compared to 29.6 percent for the population); however, during the 2000s and 2010s households in Tiburon increased by about half the rate of the population. Between 2000 and 2020,

<sup>1</sup> Bay Area Census. Town of Tiburon 1970 – 1990 Decennial Census Data. Available at: <http://www.bayareacensus.ca.gov/cities/Tiburon70.htm>

# Town of Tiburon

## General Plan 2040 EIR

households in Tiburon increased by 4.9 percent while the population increased by 10 percent. The sharp decrease in the overall growth of households in Tiburon is highlighted by the lack of developable land for new households to occupy. As shown in Figure 4, very little development has occurred between 2000 to 2019 when compared to the development between 1980 to 1999.

Over the years, the average household size has fluctuated over time with a high of 2.52 in 1980 followed by a low of 2.30 in 1990. In recent years, household size has increased slightly with an average of 2.39 persons per household in 2010 and 2.44 persons per household in 2020.

### Housing

As shown in Table 3.12-2, the number of housing units in Tiburon has increased at rates lower than the population. In 2020, there were 4,049 housing units in the Town. From 2000 to 2010, housing units increased from 3,893 to 4,025, an approximately 3.4 percent increase.

TABLE 3.12-2: HOUSING UNITS

JURISDICTION	YEAR			2000-2010 CHANGE	2010-2020 CHANGE	AVERAGE ANNUAL CHANGE
	2000	2010	2020			
TIBURON	3,893	4,025	4,049	3.4%	0.6%	0.2%
MARIN COUNTY	104,990	111,214	112,516	5.9%	1.2%	0.3%

Source: Bay Area Census; U.S. DOF, Report E-5, 2020.

The U.S. Census Bureau defines a “household” as all persons living in a single housing unit, whether or not they are related. One person living alone is considered a household, as is a group of unrelated people living in a single housing unit. The U.S. Census Bureau defines “family” as related persons living within a single housing unit.<sup>2</sup>

### Household Size

Small households (one to two persons/household) commonly reside in units with zero to two bedrooms; family households (three to four persons/household) normally reside in units with three to four bedrooms. Large households (five or more persons/household) typically reside in units with four or more bedrooms. However, the number of units in relation to the household size may also reflect preference and economics. Many small households obtain larger units, and some large households live in small units for economic reasons.

Over the years, the average household size has fluctuated over time with a high of 2.52 in 1980 followed by a low of 2.30 in 1990. In recent years, household size has increased slightly

<sup>2</sup> United States Census Bureau. 2019. Subject Definitions. August 7. Website: <https://www.census.gov/programs-surveys/cps/technical-documentation/subject-definitions.html>. Accessed March 1, 2023.

with an average of 2.39 persons per household in 2010 and 2.44 persons per household in 2020.

**Employment**

Tiburon is near regional employment centers and major transportation thoroughfares. Two types of employment data are described below: total jobs within the community; and employed residents, including the number of residents of working age who actively participate in the civilian labor force. A comparison of these data can indicate commute patterns (i.e., whether significant out-commuting or in-commuting occurs).

The civilian labor force includes those who are employed (except in the armed forces) and those who are unemployed but actively seeking employment. Those who have never held a job, stopped looking for work, or have been unemployed for a long period of time are not considered to be in the labor force.

**Total Jobs**

In the Town, the top industries in 2021 as tabulated by the U.S. Census were professional, scientific, and management, and administrative and waste management services.<sup>3</sup> The town has limited opportunities for extensive employment growth because there are few remaining vacant parcels in the Planning Area.

Table 3.12-3 shows job growth in Tiburon and the County from 2002 to 2019. The number of jobs in Tiburon decreased from 1,536 in 2002 to 1,363 in 2019, representing a 11.3 percent decrease. The County grew from 105,571 jobs in 2002 to 113,255 jobs in 2019, representing a 7.3 percent increase. From 2002 to 2019, Tiburon’s number of jobs comprised an average of approximately 1.3 percent of the County’s total jobs.<sup>4</sup>

TABLE 3.12-3: JOBS 2002 - 2019

JURISDICTION	YEAR			2002-2019 CHANGE
	2002	2010	2019	
<b>TIBURON</b>	1,536	1,244	1,363	-11.3%
<b>MARIN COUNTY</b>	105,571	101,475	113,255	7.3%
<b>TIBURON SHARE OF COUNTY</b>	1.5%	1.2%	1.2%	1.3%

*Sources: United States Census Bureau. 2019. OnTheMap Version 6.7.*

<sup>3</sup> United States Census Bureau, Center for Economic Studies. 2021. American Community Survey: DP03 – Selected Economic Characteristics. Website: <https://data.census.gov/table?q=Tiburon+town,+California&t=Employment&y=2021&tid=ACSDP5Y2021.DP03>. Accessed March 2, 2023.

<sup>4</sup> United States Census Bureau, Center for Economic Studies. 2019. OnTheMap Version 6.7: Work Area Profile Analysis. August 29. Website: <https://onthemap.ces.census.gov/>. Accessed March 2, 2023.

# Town of Tiburon

## General Plan 2040 EIR

### Employed Residents

Table 3.12-4 shows employment growth in Tiburon from 2010 to 2022, and in the County from 2000 to 2022. Employed residents in Tiburon totaled 3,537 in 2010 and grew to 3,982 in 2022. Employed residents in the County fell from 140,700 in 2000 to 126,500 in 2022, representing a 10.1 percent decrease. However, employment grew 11.5 percent in the County from 2010 to 2022. During this same period, the number of employed residents in Tiburon comprised an average of approximately 3.0 percent of the County’s total employed residents. Note that employment in the County dropped from 2000 to 2010 as a result of the recession that lasted from 2007 to 2009.

TABLE 3.12-4: EMPLOYMENT 2000 – 2022

JURISDICTION	YEAR			2010-2022 CHANGE
	2000	2010	2022	
TIBURON	N/A	3,537	3,982	12.6%
MARIN COUNTY	140,700	122,100	126,500	3.6%
TIBURON SHARE OF COUNTY	N/A	2.9%	3.1%	3.0%

Source: California Employment Development Department (EDD). 2019. Local Area Unemployment Statistics. December 1.

### Jobs to Housing Ratio

The jobs-to-housing ratio is used to evaluate whether a community has an adequate number of jobs available to provide employment for residents seeking employment. The jobs-to-housing ratio can be useful in understanding interconnections among housing affordability, traffic flows, congestion, and air quality within a city and larger region.

However, the jobs-to-housing ratio is best analyzed at the sub-regional or regional level due to the tendency of people to commute to jobs outside of their community. A jobs-to-housing ratio of 1.5 takes into account residents who do not participate in the labor force (e.g., those who are retired, disabled, or students) and indicates that a community has an adequate number of jobs to meet its residents’ demand for employment.

### Jobs to Employed Resident Ratio

Another helpful indicator is the relationship between the number of jobs provided to the number of employed residents within a community. An ideal jobs-to-employed residents’ ratio is 1.0, which implies that there is a job in the community for every employable resident. A jobs-to-employed residents’ ratio greater than 1.0 indicates that the community provides more jobs than it has employable residents. In this situation, the community is likely to experience traffic congestion associated with employees travelling to jobs from outside the area, as well as intensified pressure for additional residential development to house the labor force. A jobs-to-employed residents’ ratio of less than 1.0 indicates that a community has fewer jobs than employable residents, and that many residents would need to commute

outside of the community for employment. The resulting commuting patterns can also lead to traffic congestion and affect both local and regional air quality.

Table 3.12-6 shows the jobs-to-housing ratio as well as the jobs-to-employed residents' ratio in Tiburon and the County from 2000 to 2019. Tiburon's average jobs-to-housing ratio from 2000 to 2019 was 0.47. The Town's jobs-to-employed residents ratio for the same period was approximately 0.46, which indicates that the town has fewer jobs than employed residents, and that many people commute out of the town for employment and that there is enough housing for the labor force.

The County's average jobs-to-housing ratio from 2000 to 2019 was approximately 1.0, which indicates that there are a relatively adequate number of jobs in the County to meet its residents' demand for employment. The County's average jobs-to-employed residents' ratio for the same time period was 0.8, which indicates that there are not enough jobs in the County for every employable resident.

TABLE 3.12-1: JOBS HOUSING COMPARISONS

	YEAR		
	2000	2010	2019
<b>TIBURON</b>			
<b>HOUSING UNITS</b>	3,893	4,025	4,189
<b>JOBS</b>	2,004 <sup>a</sup>	1,734	1,941
<b>EMPLOYED RESIDENTS</b>	4,294	3,537	4,464
<b>JOBS-TO-HOUSING RATIO</b>	0.5	0.4	0.5
<b>JOBS-TO-EMPLOYED RESIDENTS</b>	0.5	0.5	0.4
<b>MARIN COUNTY</b>			
<b>HOUSING UNITS</b>	104,990	111,214	112,394
<b>JOBS</b>	105,571 <sup>a</sup>	101,475	113,755
<b>EMPLOYED RESIDENTS</b>	140,700	122,100	137,900
<b>JOBS-TO-HOUSING RATIO</b>	1.0	0.9	1.0
<b>JOBS-TO-EMPLOYED RESIDENTS</b>	0.8	0.8	0.8

Notes:

<sup>a</sup> 2002 Value

Sources: California Department of Finance. 2019; California Employment Development Department. 2019; United States Census Bureau. 2000, 2019; United States Census Bureau. 2019. OnTheMap Version 6.7.



# Town of Tiburon

## General Plan 2040 EIR

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### ***Future Housing Needs***

In December 2021, the Association of Bay Area Governments (ABAG) established the Regional Housing Needs Allocation (RHNA) for each town, city, and county within its jurisdiction for 2023-2031 through adoption of the Final Regional Housing Needs Allocation (RHNA) Plan. Tiburon received an allocation of 639 units.

### ***Projections***

ABAG plans for regional growth through the Plan Bay Area process. While Plan Bay Area 2050 does not address growth at the Town-level, it does project that Countywide households will increase from approximately 109,000 in 2015 to 146,000 in 2050, an increase of 35%. Plan Bay Area 2050 anticipates declining employment in the area, with Countywide employment decreasing from 136,000 to 118,000 (-13%).

## **3.12.2 REGULATORY SETTING**

### ***State***

#### **State Housing Element Statutes**

State housing element statutes (Government Code Sections 65580-65589.9) mandate that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law recognizes that for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development. As a result, State housing policy rests largely upon the effective implementation of local general plans and in particular, housing elements. Additionally, Government Code Section 65588 dictates that housing elements must be updated at least once every eight years. The Town's General Plan Housing Element is described under the Local Subsection below.

#### **Senate Bill 375**

Senate Bill (SB) 375, adopted in October 2008, calls upon each of California's Metropolitan Planning Organizations (MPOs) to develop an integrated transportation, land use, and housing plan known as a Sustainable Communities Strategy (SCS). This SCS must demonstrate how the region will reduce greenhouse gas emissions through long-range planning. It also requires the Regional Housing Needs Allocation, which anticipates housing need for local jurisdictions, to conform to the SCS, which is an opportunity to advocate for increased access to and distribution of affordable housing across the region.

### 2019 Housing Bills

Governor Gavin Newsom signed 18 bills in October 2019 to address the Statewide housing crisis.<sup>5</sup> The Bills incentivize affordable housing, make ADUs easier to build, and streamline permitting and approvals to address the California housing crisis. The Governor signed SB 113 by the Committee on Budget and Fiscal Review, which will enable the transfer of \$331 million in State funds to the National Mortgage Special Deposit Fund, and establishes the Legislature's intent to create a trust to manage these funds to provide an ongoing source of funding for borrower relief and legal aid to vulnerable homeowners and renters.

The Governor signed the following bills to remove barriers and boost housing production:

- SB 330 by Senator Nancy Skinner (D-Berkeley) establishes the Housing Crisis Act of 2019, which will accelerate housing production in California by streamlining permitting and approval processes, ensuring no net loss in zoning capacity and limiting fees after projects are approved.
- AB 1763 by Assembly Member David Chiu (D-San Francisco) creates more affordable housing by giving 100 percent affordable housing developments an enhanced density bonus to encourage development.
- AB 116 by Assembly Member Philip Ting (D-San Francisco) removes the requirement for Enhanced Infrastructure Financing Districts to receive voter approval prior to issuing bonds.
- AB 1485 by Assembly Member Buffy Wicks (D-Oakland) will build on existing environmental streamlining law and encourage moderate-income housing production.
- AB 1255 by Assembly Member Robert Rivas (D-Hollister) requires cities and counties to report to the State an inventory of its surplus lands in urbanized areas. The Bill then requires the State to include this information in a digitized inventory of State surplus land sites.
- AB 1486 by Assembly Member Philip Ting (D-San Francisco) expands Surplus Land Act requirements for local agencies, requires local governments to include specified information relating to surplus lands in their housing elements and annual progress reports, and requires the State Department of Housing and Community Development to establish a database of surplus lands, as specified.
- SB 6 by Senator Jim Beall (D-San Jose) requires the State to create a public inventory of local sites suitable for residential development, along with State surplus lands.
- SB 751 by Senator Susan Rubio (D-Baldwin Park) creates the San Gabriel Valley Regional Housing Trust to finance affordable housing projects for homeless and low-income populations and address the homelessness crisis in the region.

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<sup>5</sup> Office of Governor Gavin Newsom, Governor Gavin Newsom Signs 18 Bills to Boost Housing Production. October 9, 2019. Website: <https://www.gov.ca.gov/2019/10/09/governor-gavin-newsom-signs-18-bills-to-boost-housing-production/>. Accessed May 23, 2020.

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- AB 1483 by Assembly Member Tim Grayson (D-Concord) requires local jurisdictions to publicly share information about zoning ordinances, development standards, fees, exactions, and affordability requirements. The Bill also requires the Department of Housing and Community Development to develop and update a 10-year housing data strategy.
- AB 1010 by Assembly Member Eduardo Garcia (D-Coachella) will allow duly constituted governing bodies of a Native American reservation or Rancheria to become eligible applicants to participate in affordable housing programs.
- AB 1743 by Assembly Member Richard Bloom (D-Santa Monica) expands the properties that are exempt from community facility district taxes to include properties that qualify for the property tax welfare exemption, and limits the ability of local agencies to reject housing projects because they qualify for the exemption.
- SB 196 by Senator Jim Beall (D-San Jose) enacts a new welfare exemption from property tax for property owned by a Community Land Trust and makes other changes regarding property tax assessments of property subject to contracts with Community Land Trusts.

The construction of ADUs can also help cities meet their housing goals and increase the State's affordable housing supply. The Governor signed the following Bills to eliminate barriers to building ADUs:

- AB 68 by Assembly Member Philip Ting (D-San Francisco) makes major changes to facilitate the development of more ADUs and address barriers to building. The Bill reduces barriers to ADU approval and construction, which will increase production of these low-cost, energy-efficient units and add to California's affordable housing supply.
- AB 881 by Assembly Member Richard Bloom (D-Santa Monica) removes impediments to ADU construction by restricting local jurisdictions' permitting criteria, clarifying that ADUs must receive streamlined approval if constructed in existing garages, and eliminating local agencies' ability to require owner-occupancy for 5 years.
- AB 587 by Assembly Member Laura Friedman (D-Glendale) provides a narrow exemption for affordable housing organizations to sell deed-restricted land to eligible low-income homeowners.
- SB 13 by Senator Bob Wieckowski (D-Fremont) creates a tiered fee structure that charges ADUs more fairly based on their size and location. The Bill also addresses other barriers by lowering the application approval timeframe, thereby creating an avenue to get unpermitted ADUs up to code, and enhancing an enforcement mechanism allowing the State to ensure that localities are following ADU statute.
- AB 671 by Assembly Member Laura Friedman (D-Glendale) requires local governments' housing plans to encourage affordable ADU rentals and requires the State to develop a list of State grants and financial incentives for affordable ADUs.

## **Regional**

### **Regional Housing Needs Plan**

A Regional Housing Needs Plan is required under California Government Code Section 65584 to enable regions to address housing issues and meet housing needs based on future growth projections for the area. The State determines the number of total housing units needed for each region. ABAG allocates housing needs among cities and counties in the nine-county ABAG region for each jurisdiction to use in drafting its housing element. The allocation comes after projection modeling based on current general plan policies, land use designations, and zoning. The allocations are based on “smart growth” assumptions in the modeling and aim to shift development patterns from historical trends (suburban sprawl) toward a better jobs/housing balance, increased preservation of open space, and development of mixed-use, transit-accessible areas. The regional housing need allocations are based on an analysis of the available housing stock and vacancy rate in each community, any existing unmet needs for housing, the projected growth in the number of households (population growth and household formation rate), the local and regional distribution of income, and the need for housing generated by local job growth.

ABAG adopted the Final RHNA Plan for 2023 through 2031 in December 2021 and the State Department of Housing and Community Development approved the plan in January 2022.

### **Plan Bay Area 2050**

ABAG is the official comprehensive planning agency for the San Francisco Bay region, which is composed of the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma, and contains 101 jurisdictions. In October 2021, ABAG and the Metropolitan Transportation Commission (MTC), which is the region’s MPO, jointly adopted Plan Bay Area 2050, an integrated housing, economy, transportation and environment strategy through 2050 that meets the requirements of SB 375.<sup>6</sup> Working in collaboration with towns, cities, and counties, Plan Bay Area 2050 advances initiatives to expand housing and transportation choices, promote equity, create healthier communities, adapt to a changing climate, and build a stronger regional economy while accommodating anticipated growth in the Bay Area region. Plan Bay Area 2050 was developed to accommodate the Bay Area RHNA.

To achieve the ABAG and MTC sustainable vision for the Bay Area and advance equity throughout the region, future growth and development scenarios referred to as “Futures” were developed for the Plan Bay Area 2050 effort. Each Future varied in terms of economic vibrancy, population growth rates, severity of natural hazards like sea level rise and earthquakes, and adoption rates for telecommuting or autonomous vehicles, among other forces. The 35 strategies included in Plan Bay Area 2050 proved effective across multiple Futures or respond to challenges that remained unaddressed after the conclusion of the

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<sup>6</sup> Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2017. Plan Bay Area 2040. July 26.

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Horizon effort. To best capture the impacts of these strategies and the financial capacity available to implement them, updated growth assumptions were developed for Plan Bay Area 2050. The revised Final Regional Growth Forecast anticipated 146,000 households and 118,000 jobs in Marin County in 2050, with 50,000 households and 40,000 jobs located in the Southern Marin subarea that includes Tiburon.

### *Local*

#### **Tiburon General Plan**

The existing General Plan includes policies that assist in reducing or avoiding impacts related to population and housing. These policies can be found in the Land Use Element and the Housing Element of the existing General Plan 2020.

#### **Tiburon Municipal Code**

The Tiburon Municipal Code includes several provisions to address the location and design of new housing units. Section 16-52.100 regulates ADUs and junior ADUs and Section 16-25.020 addresses site plan and senior architectural review.

### **3.12.3 THRESHOLDS OF SIGNIFICANCE**

According to the CEQA Guidelines Appendix G, the proposed project would have a significant impact related to population and housing if it would:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

### **3.12.4 ANALYSIS, IMPACTS, AND MITIGATION MEASURES**

Impacts related to a substantial increase in or displacement of population and housing resulting from implementation of the General Plan 2040 are discussed below.

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**Impact 3.12-1**      **Development facilitated by the General Plan would not induce substantial unplanned population growth either directly or indirectly (for example, through extension of roads or other infrastructure) and would not displace a substantial number of people requiring the construction of new housing. This impact is less than significant.**

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The General Plan 2040 does not propose specific policies, programs or development that would lead to unplanned population growth. To the contrary, the fundamental purpose of the General Plan 2040 is to appropriately plan for future growth within the town. The General Plan 2040 accommodates increases in new residential and employment uses, with a focus

on accommodating growth in the Downtown area. The potential growth in both residential and non-residential uses is primarily infill development that would occur within the fabric of already developed areas throughout the Town.

As described in Section 2.0, Project Description, full buildout under the General Plan 2040 would represent an incremental increase of 916 units, which would result in a population increase of approximately 2,235 based on 2.44 persons per household in 2020 at buildout. This would be a population increase of 23% at buildout.

As discussed previously, ABAG projects that from 2015 through 2050, Marin County households will increase by 38,000 housing units (or approximately 91,200 persons based on the County average household size of 2.40 persons in 2020). Further, ABAG allocated 639 housing units to Tiburon to accommodate its share of planned housing growth from 2023 through 2031. Accordingly, the General Plan 2040 accommodates Tiburon's share of the regional growth, including accommodating the shorter-term growth anticipated from 2023 through 2031 as well as longer term growth anticipated by Plan Bay Area 2050. The population and housing growth that would result from the General Plan 2040 would not exceed growth planned for the region.

The land uses allowed under the proposed General Plan 2040 provide opportunities for cohesive new growth in the Planning Area, and would not induce substantial unplanned population growth. The proposed General Plan 2040 does not include any new roadways, infrastructure, or other features that would induce substantial unplanned population growth. Moreover, with implementation of General Plan 2040 policies and implementation measures intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan 2040, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds.

The General Plan 2040 identifies areas for future residential development and includes a range of policies and programs would not induce substantial unplanned population growth either directly or indirectly. General Plan 2040 policies and programs ensure that new development is consistent with the General Plan 2040 and that infrastructure is planned consistent with the growth envisioned by the General Plan 2040. Program LU-1c requires projects to be consistent with the land use map, land use definitions, densities, and intensities. Program LU-1c allows land use densities and intensities within the range shown by the land use map and land use designations. Program LU-g addresses coordinating growth projections and infrastructure planning with urban service providers to ensure sufficient capacity to serve existing and future development.

Based on the Land Use Map and the Housing Element Inventory of Residential Sites, the majority of locations identified for growth are infill lots in the Downtown that have existing commercial and non-residential uses. In addition, residential sites are identified for potential to accommodate additional housing units.



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Development envisioned by the General Plan 2040 would not result in the need to construction new replacement housing elsewhere as the General Plan 2040 envisions intensification and additional housing on sites with capacity for additional development. The Housing Element includes policies and programs to preserve the existing housing stock and address the potential for displacement. Policy H-C1 supports housing conservation and rehabilitation, Policy H-C3 ensures that affordable housing provided through government subsidies and deed restrictions remains affordable, H-C6 provides for reconstruction of existing housing that is damaged or destroyed by a disaster, H-C7 prohibits and regulates the conversion of residential units to other uses to the extent permitted by law, Program H-aa addresses tenant protection strategies, including exploring rent stabilization, a rental registry, relocation assistance, right to purchase, right to return, and tenant bill of rights, to reduce the potential for displacement.

The General Plan 2040 would preserve existing housing and would not convert residential areas to other uses. Therefore, the General Plan 2040 would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The fundamental purpose of the General Plan 2040 is to plan for the Town's future growth. It would not directly or indirectly induce unplanned growth and it does not authorize any development that would displace residents and require the construction of new housing. Additionally, future development would be required to comply with requirements of the General Plan 2040 and Tiburon Municipal Code protecting against substantial unplanned growth and displacement of existing residential uses. Therefore, there would be a ***less than significant impact***.

### Mitigation Measures

None Required

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**Impact 3.12-2      Development facilitated by the General Plan would not cumulatively induce substantial unplanned population growth either directly or indirectly and would not cumulatively displace a substantial number of people requiring the construction of new housing. This impact is less than significant.**

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The geographic context for analysis of cumulative impacts related to population and housing includes Marin County. This analysis evaluates whether impacts of the General Plan 2040, together with impacts of cumulative development, would result in a cumulatively significant impact with respect to population and housing. This analysis then considers whether incremental contribution of the impacts associated with implementation of the General Plan 2040 would be significant. Both conditions must apply for cumulative effects to rise to the level of significance.

Cumulative development anticipated in the region may result in impacts to residents and housing, including substantial population growth, housing construction, and displacement. Subsequent projects implemented under the Town's General Plan 2040 would be required

to be consistent with the policies and programs of the General Plan 2040, including those described under Impact 3.12-1.

As described above, ABAG projects that population of Marin County will increase from approximately 35% to 109,000 in 2015 to 146,000 in 2050, an increase of approximately 91,200 people based on the County average household size of 2.40 persons. The General Plan 2040 anticipates the Town to increase by about 916 housing units or 2,235 people at buildout, representing a 23% increase in population. This increase in population would result in a rate of increase within the planned countywide rate. The limited number of remaining available sites to accommodate additional housing and population growth within the Town indicates that much of the planned regional growth will continue to occur in other parts of the region.

The general plans and other planning documents prepared by the adjacent cities and counties would be required to develop a land use plan that would accommodate their fair share of forecasted population growth, including each jurisdiction's RHNA, similar to Tiburon's General Plan 2040. Consistent with State law, these planning documents would be required to include provide adequate housing to accommodate forecasted numbers of people within the jurisdiction, and displaced persons and housing, if any, would be replaced primarily within the jurisdiction. Because cumulative projects would comply with all applicable land use plans to provide adequate development within a jurisdiction, a significant cumulative impact would not occur.

As described under Impact 3.12-1, the General Plan 2040 would not result in substantial unplanned population growth either directly or indirectly and would not displace a substantial number of people requiring construction of new housing. Therefore, adoption of the General Plan 2040 would not result in any policies or physical improvements that would result in direct or indirect or cumulative impacts to regional growth or result in substantial displacement of people or the need to construct additional housing and therefore would not contribute to a cumulative impact.

Therefore, cumulative impacts would be ***less than significant*** and the General Plan 2040 would not have a cumulatively considerable contribution to cumulative population and housing impacts.

### Mitigation Measures

None Required

### 3.13 PUBLIC SERVICES AND RECREATION

This section of the Draft EIR (Draft EIR) describes the existing fire protection services, police services, schools, and libraries and the environmental effects of implementation of the General Plan 2040 (Project). This section also includes an overview of existing parks, recreational facilities, and open space areas and identifies potential impacts to town parks and recreational facilities, County parks, national parks, and open space areas from implementation of the General Plan 2040. Future discretionary projects facilitated by the General Plan 2040 will be evaluated for project-specific impacts to public services and recreation at the time they are proposed.

See Section 3.16, Wildfire, for a complete description of existing wildfire conditions in the Planning Area, regulatory framework, and an evaluation of the possible impacts related to wildfire that could result from implementation of the General Plan 2040. Figures related to wildfire risk are also contained within Section 3.16, Wildfire.

The following resources were used to inform and support this section:

- Town of Tiburon General Plan;
- Town of Tiburon General Plan EIR;
- Town of Tiburon Parks Division;
- Southern Marin Fire Protection District Ordinance;
- 2016 Marin County Community Wildfire Protection Plan;
- 2016 Southern Marin Fire Protection District Deployment Analysis.
- Marin County Fire Department Strategic Plan 2017-2020;
- California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone Maps; and
- Golden Gate National Recreation Area Fire Management Plan.

#### 3.13.1 EXISTING SETTING

##### *Fire Protection Services*

Fire protection and emergency medical services in Tiburon are provided by the Tiburon Fire Protection District (TFPD) and the Southern Marin Fire Protection District (SMFPD). As shown on **Figure 3.13-1**, the TFPD serves approximately 75 percent of the Planning Area while the SMFPD provides fire-related services to approximately 25 percent of residents located in the northwest corner of the Planning Area.

The TFPD's current response time goal is to maintain an overall response time of 8 minutes or less, 90 percent of the time. Under normal conditions, there are six full time professional emergency responders that can be deployed for an emergency within the boundaries of the District. As shown in Table 3.13-1, the TFPD's average response time excluding mutual aid is

below 8 minutes for all incident types; however, TFPD's average response time when mutual aid is included exceeds 8 minutes for fire, hazardous materials, and severe weather/natural disaster incidents. According to the TFPD Comprehensive Annual Financial Report Fiscal Year 2019-2020, 72 percent of all the calls in the fiscal year were responded to in under 8 minutes and 61 percent were responded to in under 7 minutes.

The Insurance Service Office (ISO), an advisory organization, classifies fire service in communities from 1 to 10, indicating the general adequacy of coverage. Communities with the best systems for water distribution, fire department facilities, equipment and personnel and fire alarms and communications, receive a rating of 1. The TFPD has been awarded a Public Protection Classification (PPC) Class of 1 by the ISO, putting the TFPD among the top 0.3 percent of communities nationwide.<sup>1</sup>

#### *Tiburon Fire Protection District*

As previously stated, the TFPD was established in April of 1941 and provides structural fire and emergency medical response services to the Town of Tiburon, the City of Belvedere, and unincorporated residential and wildland areas on the peninsula, as well as parts of the San Francisco Bay to Angel Island State Park. Within the boundaries of TFPD are large single-family homes, multi-family residential complexes, numerous small businesses, public facilities, open space, and trails.<sup>2</sup>

The TFPD provides a full range of services to the Tiburon peninsula, including:

- Community Risk Reduction Bureau – Code enforcement, plan reviews, annual business inspections, and summer defensible space program for homeowners;
- Public Education – Fire and burn prevention programs in schools, CPR, First Aid, and Community Disaster Preparedness classes;
- Emergency Medical Services;
- Fire Protection;
- Hazardous Materials Response;
- Fire Investigation; and
- Participation in Marin County and California Mutual Aid System.

As of June 30, 2020, TFPD has thirty-two employees (24 career safety, 3 administrative personnel, 2 prevention personnel and 3 firefighter trainees) staffing two stations, which include structure engines, wildland engines and support units. The Fire Chief oversees the general operations of the District in accordance with the policy direction of the Board of Directors. The Fire Chief is supported by a Deputy Fire Marshal, a Finance Officer, an

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<sup>1</sup> Tiburon Fire Protection District. 2020 Comprehensive Annual Financial Report. Available at: <https://www.tiburonfire.org/wp-content/uploads/2020/12/CAFR-2020.pdf> [page xi]

<sup>2</sup> Tiburon Fire Protection District. 2020 Comprehensive Annual Financial Report. Available at: <https://www.tiburonfire.org/wp-content/uploads/2020/12/CAFR-2020.pdf>

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Executive Assistant, and three Battalion Chiefs, each serving as the District’s Training, Logistics, or Operations Officers (TFPD, 2020).

The TFPD is a member of the Southern Marin Emergency Medical Paramedic System Joint Powers Authority, which provides emergency medical care and paramedic services to southern Marin County through a joint effort with five other member agencies. Currently, the TFPD has a total of eight paramedics with one paramedic at both stations 24/7. If needed, additional ambulances, paramedics or rescue services are requested through the Countywide Mutual Aid System.<sup>3</sup> Additionally, the TFPD is a member of the Marin Emergency Radio Authority (MERA) which is a countywide public safety and emergency radio system that allows emergency response agencies to communicate effectively with each other.

The TFPD owns, operates, and maintains two fire stations with one concurrently used as its administrative building within the Tiburon Planning Area (Fire Station 10 and 11). TFPD fire station locations within Tiburon are shown in Figure 3.13-1. Each fire station has personnel covering three shifts over a 24-hour period. Incident call types include fire, overpressure rupture, rescue/emergency medical response, hazardous materials/condition, service calls, good intention calls, false alarm, severe weather/natural disaster, and other calls. Table 3.13-1 identifies the total number of incidents and average response time of TFPD per incident.

TABLE 3.13-1: TIBURON FIRE PROTECTION DISTRICT – EMERGENCY RESPONSE BY INCIDENT TYPE

INCIDENT TYPE	NUMBER OF CALLS	AVERAGE RESPONSE TIME (EXCLUDES MUTUAL AID)	AVERAGE RESPONSE TIME (INCLUDES MUTUAL AID)
Fire	58	6:09	8:57
Overpressure/Rupture	3	5:21	2:48
Rescue/EMS Call	1,597	5:17	7:20
Hazardous Materials/Condition	49	5:38	7:31
Service Call	261	5:28	5:35
Good Intent	51	5:20	5:27
False Alarm	200	5:54	5:58
Severe Weather/Natural Disaster	2	12:28	12:28
Other Types of Incidents	3	3:28	3:28
<b>Total Calls</b>	<b>2,224</b>	--	--

SOURCE: Tiburon Fire Protection District Comprehensive Annual Financial Report Fiscal Year 2019-2020

The Insurance Service Office (ISO), an advisory organization, classifies fire service in communities from 1 to 10, indicating the general adequacy of coverage. Communities with the best systems for water distribution, fire department facilities, equipment and personnel and fire alarms and communications, receive a rating of 1. The TFPD has been awarded a

<sup>3</sup> Tiburon Fire Protection District. 2022 Comprehensive Annual Financial Report. Available at: <https://www.tiburonfire.org/wp-content/uploads/2023/01/ACFR-2022.pdf>

Public Protection Classification (PPC) Class of 1 by the ISO, putting the TFPD among the top 0.3 percent of communities nationwide.<sup>4</sup>

### **TFPD Fire Stations**

Fire Station 10 is located at 4301 Paradise Drive in Tiburon and provides emergency medical and fire protection/suppression services to Tiburon and surrounding unincorporated areas along Paradise Drive. Fire Station 10 contains a variety of apparatuses that serve the community ranging from support vehicles to paramedic trucks, including one Type 1 Fire Engine, one ambulance, one reserve ambulance, and one 4x4 utility pickup truck.

Fire Station 11 is located at 1679 Tiburon Boulevard in Tiburon and provides emergency medical and fire protection/suppression services to Belvedere, Tiburon, and unincorporated areas within the Tiburon Planning Area. Fire Station 11 serves as an alternate Emergency Operations Center (EOC) location for the Town of Tiburon and the City of Belvedere. During a major emergency or disaster, the EOC provides a central location of authority and information with face-to-face coordination among personnel. Fire Station 11 also contains a variety of apparatuses that serve the community ranging from support vehicles to paramedic trucks, including one Reserve Type 1 Engine, one Type 3 Engine, one Type 3 Reserve Engine, 1 Medium-Duty Rescue Unit, one B/C Command Vehicle, one Prevention Vehicle, one Fire Chief SUV, one Utility 4x4 Pickup Truck, and one Staff Car.

### ***Southern Marin Fire Protection District***

As previously stated, the SMFPD is an independent fire district that provides fire protection and emergency medical services to the City of Sausalito, Tamalpais Valley, Homestead Valley, Almonte, Alto Bowl, Strawberry, the western 1/4 of the Town of Tiburon (Bel Aire/Blackfield/Reed Heights), and the National Park areas of Fort Baker and the Marin Headlands.<sup>5</sup> The SMFPD divides their operational service area into three zones: Zone 1 (City of Sausalito, Golden Gate National Recreation Area Headlands) served by Southern Marin Fire Station 1, Zone 4 (Tamalpais Valley and Homestead Valley) served by Southern Marin Fire Station 4, and Zone 9 (Alto/Strawberry/Tiburon Area) served by Southern Marin Fire Station 9. Each of these zones are protected by one type I engine with each of the zones cross-staffing at least one specialty piece of equipment such as a Rescue, Fire Boat, and Ladder Truck.

The SMFPD has 63.5 full time employees including a Fire Chief, a Deputy Fire Chief, a Fire Marshal, 2 Battalion Chiefs, 9 Fire Captains, 13 Paramedic Engineers, 5 Firefighter Paramedics, 16 Firefighter Engineers, 4 Firefighters, 1 HR Manager, 1 Finance Manager, 1 Payroll Specialist, 1 Communications Coordinator, 1 IT Coordinator, 1 Administrative Aide, 3 (2 full-time and 2 part-time) Fire Inspectors, 1 Fire Prevention Specialist, and 1 Vegetation

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<sup>4</sup> Tiburon Fire Protection District. 2022 Comprehensive Annual Financial Report. Available at: <https://www.tiburonfire.org/wp-content/uploads/2022/01/ACFR-2022.pdf> [page xii]

<sup>5</sup> Southern Marin Fire Protection District. 2022. Final Budget Fiscal Year 2022/2023. Available at: <https://www.smfd.org/our-district/finance/financials-budget>



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Management Specialist.<sup>6</sup> The SMFPD operates out of three stations with a minimum staffing of 15 personnel on duty at all times, as well as an administrative office where administrative and prevention staff are organized. Incident call types include fire, overpressure rupture, rescue/emergency medical response, hazardous materials/condition, service calls, good intention calls, false alarm, severe weather/natural disaster, and other calls. Table 3.13-2 identifies the total number of calls per incident in the SMFPD service area.

TABLE 3.13-2: SOUTHERN MARIN FIRE PROTECTION DISTRICT – TOTAL INCIDENTS

INCIDENT TYPE	NUMBER OF CALLS	PERCENT OF TOTAL
Fire	70	1.58%
Overpressure Rupture, Explosion – No Fire	2	0.05%
Rescue and Emergency Medical Service	2,581	58.42%
Hazardous Materials/Condition (No Fire)	170	3.85%
Service Call	484	10.96%
Good Intent Call	730	16.52%
False Alarm/False Call	361	8.17%
Severe Weather/Natural Disaster	17	0.38%
Other/Special Incident Type	14	0.32%
<b>Total Calls</b>	<b>4,429</b>	<b>100%</b>

SOURCE: Southern Marin Fire Protection District Preliminary Budget Fiscal Year 2020/2021

In 2016, the SMFPD conducted a Fire and Emergency Medical Services Deployment Analysis to assist in setting service delivery objectives according to National Fire Protection Association (NFPA) Standard 1710. One recommendation included adoption of deployment measure policies. These policies addressed distribution of fire stations, multiple-unit effective response force for serious emergencies, hazardous materials responses, and technical rescue.<sup>7</sup> Each policy contained the following standards:

1. **Distribution of Fire Stations** – First-due unit arrives within 9 minutes and 30 seconds of receipt of call 90 percent of the time.
2. **Effective Response Force** – Minimum response of one ladder truck, four engines, one medic unit, and one Battalion Chief arrive within 11 minutes and 30 seconds from receipt of 9-1-1 call 90 percent of the time.
3. **Hazardous Materials Response** – First unit’s travel time is 6 minutes or less 90 percent of the time.

<sup>6</sup> Southern Marin Fire Protection District. District Overview. Available at: <https://www.smfd.org/our-district/district-overview>

<sup>7</sup> Southern Marin Fire Protection District 2016 Fire and Emergency Medical Services Deployment Analysis. Available at: <https://www.southernmarinfire.org/admin/document-library/file/deployment-analysis/Vol%201%20-%20So%20Marin%20FPD%20Executive%20Summary%20Final%20%2809-22-16%29.pdf>

4. **Technical Rescue** – First unit arrives in 8 minutes or less 90 percent of the time and initiates rescue within a total response time of 11 minutes and 30 seconds, 90 percent of the time.

In 2017, 2018, and 2019, the SMFPD met these standards 100 percent of the time.<sup>8</sup> Additionally, according to the findings of the SMFPD’s 2016 Fire and Emergency Medical Services Deployment Analysis, the current locations for the SMFPD’s fire engines and stations are adequate to meet the needs of the District and relocating or adding a fire station in the service area is not necessary or a cost-effective investment. However, the study did recommend that the SMFPD focus on reducing crew turnout times to fall consistently below 2 minutes. Compliance reports for 2017-2019 show that the SMFPD has achieved this objective.

As previously stated, ISO routinely conducts assessments of each fire agency in the United States, with a goal to re-assess fire agencies once every five years. In 2016, the District received the findings from the ISO, which awarded them a PPC Class of 1 putting the SMFPD among the top 0.3 percent of communities nationwide.

#### SMFPD Fire Stations

Southern Marin Fire Station #9 is located at 308 Reed Boulevard in Mill Valley and provides emergency medical and fire protection/suppression services to the Strawberry area, the Alto Bowl, and the northwestern corner of Tiburon Planning Area. The Southern Marin Fire Station #9 serves as the Battalion Chief offices and contains a variety of apparatus that serve the community ranging from support vehicles to paramedic trucks, including an Engine, Paramedic Medium Rescue, and a California RTF Swift Water Rescue Unit. Five personnel operate from this station.

Southern Marin Fire Station #1 is located at 333 Johnson Street in downtown Sausalito and primarily provides emergency medical and fire protection/suppression services to the City of Sausalito, Golden Gate National Recreation Area, and unincorporated Marin County. The Southern Marin Fire Station #1 contains a variety of apparatus that serve the community ranging from support vehicles to paramedic trucks, including an Engine, a Paramedic Ambulance, and our Dive Tender Unit. The crews there cross-staff the Fireboat, an Inflatable Rescue Boat, and are members of the Dive Team. Five personnel operate from this station daily.

Southern Marin Fire Station #4 is located at 309 Poplar Avenue in Mill Valley provides emergency medical and fire protection/suppression services to the unincorporated Tamalpais Valley and Homestead Valley communities in Marin County. The Southern Marin Fire Station #4 contains a variety of apparatus that serve the community ranging from support vehicles to paramedic trucks, including a Type 1 (all risk) Engine, a Type 3 (Wildland)

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<sup>8</sup> City of Sausalito. 2020. City of Sausalito Revised General Plan EIR [page 3.13-4].

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Engine, Ladder Truck, and a Paramedic Ambulance. Five personnel operate from this station daily.

### ***Police Protection Services***

The Tiburon Police Department (TPD) is responsible for providing law enforcement services in the Town, including patrol, administration, support personnel, investigations, training, parking enforcement and crime prevention program. The TPD is located at 1155 Tiburon Boulevard, as shown on **Figure 3.13-2**.

Similar to other cities and towns, the TPD relies on the Marin Sheriff's Office for search and rescue services and long-term holding facilities and County Animal Control for animal service. Additionally, the TPD also contracts with the Sheriff's Office for dispatch services. The TPD's 2020/21 budget is approximately \$3.75 million.

### *Organization*

The TPD consists of two divisions: The Department Services Division and the Police/Emergency Operation Center Facility Division.<sup>9</sup> In total, the TPD consists of 17 full time employees, including 13 sworn members and four civilian personnel, who are supported by four part-time Reserve Police Officers and volunteers. In addition to the Chief, the team is comprised of four Sergeants, eight Police Officers, one Emergency Services Coordinator, and three Police Service Aides.<sup>10</sup> The TPD's 13 sworn police officers served approximately 8,956 Tiburon Residents<sup>11</sup> in 2022, or approximately 1 sworn officer for every 688 residents. It is noted that Tiburon plans to double spending toward infrastructure, expand the police force and formally reorganize Town Hall under a \$22.92-million budget proposal as officials remain optimistic about the town's continued recovery from the economic impacts of the pandemic.<sup>12</sup>

### *Department Services Division*

The Department Services Division includes patrol, administration, support personnel, investigations, training, parking enforcement and crime prevention program. TPD coordinates with other Town departments, government agencies and has developed a partnership with the community in planning and implementing safe school programs, neighborhood and business awareness, safe pedestrian and traffic flow on Tiburon's streets and emergency preparedness programs. TPD promotes community-oriented policing and understands that it is the community itself that can best say what it needs from its Police

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<sup>9</sup> Town of Tiburon. 2022. Municipal Budget Fiscal Year 2022-23. [page 45]

<sup>10</sup> Town of Tiburon. December 2020. Chief of Police Job Announcement Brochure. [page 5]

<sup>11</sup> California Department of Finance. May 2022. E-5 Report

<sup>12</sup> The Ark Newspaper. June 7, 2022. "Tiburon set to expand police, double spending on infrastructure". Available at: <https://www.thearknewspaper.com/single-post/tiburon-set-to-expand-police-double-spending-on-infrastructure#:~:text=The%20preliminary%20fiscal%202023%20budget,for%20a%20surplus%20of%20%2450%2C783.>

Department and the Police and the community must work together to accomplish jointly set goals through cooperative efforts. Table 3.13-3 identifies miscellaneous statistics for the Department Services Division, including the total number of parking tickets, traffic violations, and calls for service from 2020 to 2022.

TABLE 3.13-3: TOTAL CALLS FOR SERVICE – TIBURON POLICE DEPARTMENT

	2020	2021	2022
Parking Tickets	1,444	1,249	1,104
Traffic Violations/Stops	69	109	142
Calls for Service	10,238	11,012	11,394

SOURCE: Tiburon Police Department Criminal/Incident Statistics 2020, 2021, 2022

The Department Services Division also is responsible for ensuring the safety of our community who use Tiburon roadways by enforcing both the California Vehicle Code (CVC) and the Tiburon Municipal Code. Table 3.13-4 identifies the traffic collision/accident statistics in the TPD service area for 2018 and 2019 (most recent reporting years).

TABLE 3.13-4: TIBURON POLICE DEPARTMENT TRAFFIC UNIT STATISTICS

TRAFFIC COLLISION STATISTICS	2018	2019	% CHANGE
Non-Injury Accidents	19	20	5.3%
Injury Accidents	9	13	44.4%
Fatality Traffic Accidents	0	0	--
Hit and Run – Non-Injury	9	0	-100.0%
Hit and Run – Injury	1	9	800.0%
DUI Injury/Fatality	0	0	--
<b>Total Number of Accidents</b>	<b>38</b>	<b>42</b>	<b>10.5%</b>
Total Persons Injured	11	13	18.2%

SOURCE: Tiburon Police Department Criminal/Incident Statistics 2019

### Police/Emergency Operation Center Facility Division

The Police/Emergency Operations Center Facility Division serves as the primary Emergency Operations Center for the entire Tiburon Peninsula. Belvedere contributes 12.5 percent of the funds needed to maintain this function.

### FBI Crime Statistics

The FBI Uniformed Crime Reporting (UCR) Program encompasses approximately 14,000 law enforcement agencies nationwide. Participating agencies voluntarily provide crime data to the Department of Justice to generate a standardized and reliable set of crime statistics. The Tiburon Police Department is committed to providing accurate crime statistics to the DOJ and maintains criminal/incident statistics for each year which contains a breakdown of the total amount of Part 1 and Part 2 crimes occurred within the service area each year. By FBI definition, Part 1 Crime is comprised of the following violent and property crimes: Murder, Rape, Robbery, Aggravated Assault, Burglary, Larceny, Vehicle Theft and Arson. Part 2 crimes are less serious in nature and are tracked, however; only arrest information for these crimes

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is reported to the Federal Bureau of Investigations. Table 3.13-5 identifies the total Part 1 crimes in the Tiburon Planning Area.

TABLE 3.13-5: TIBURON PART 1 CRIME STATISTICS (2020-2022)

CATEGORY/CRIME	2020	2021	2022
Homicide	0	0	0
Rape	0	3	2
Robbery	1	1	0
Assault/Battery	10	6	4
Domestic Violence	7	6	7
Assaulting Police	0	0	0
Subtotal Violent Crimes	18	16	13
Burglary	12	15	15
Motor Vehicle Theft	2	4	5
Larceny	60	39	46
Arson	0	3	1
Subtotal Property Crimes	74	61	67
<b>Total Part 1 Crimes</b>	<b>92</b>	<b>77</b>	<b>80</b>

SOURCE: Tiburon Police Department Criminal/Incident Statistics 2020, 2021, 2022

As shown in Table 3.13-5, total Part 1 Crimes reported has slightly decreased by approximately 13.0 percent from 92 in 2020 to 80 in 2022. The majority of Part 1 Crimes committed in Tiburon consist of property crimes with an average of 48 larceny and 14 burglary crimes reported each year between 2020 to 2022. Violent crimes in Tiburon typically make up only 14 to 20 percent of the total Part I Crimes reported with an average of 7 assault/battery charges and 7 domestic violence crimes reported each year between 2020 to 2022. From 2020 to 2022, Tiburon experienced an 9.5 percent decrease in total property crimes from 74 in 2020 to 67 in 2022.

Table 3.13-6 identifies the total Part 2 crimes, as reported by the TPD Criminal/Incident Statistic Reports for 2020 to 2022.

As shown in Table 3.13-6, total Part 2 Crimes reported has decreased by approximately 23.9 percent from 113 crimes reported in 2020 to 86 in 2022. The most common Part 2 Crimes reported in Tiburon each year are miscellaneous CVC violations, fraud, vandalism, identity theft, miscellaneous misdemeanors, and DUIs.

TABLE 3.13-6: TIBURON PART 2 CRIME STATISTICS (2020-2022)

CATEGORY/CRIME	2020	2021	2022
Child Abuse/Neglect	0	1	0
Defraud Innkeeper	2	0	0
Disturbing the Peace	1	1	3
Forgery	1	1	0
Fraudulent Documents/Checks	1	0	0
Fraud	12	23	13
Harassment/Harassing Calls	0	0	1
Identity Theft	6	12	12
Indecent Exposure	1	0	1
Public Intoxication	2	4	5
Juvenile Problem	0	0	0
Narcotics Violation	8	3	4
Prowler	1	0	0
Sex Offenses	4	0	3
Threats	4	0	3
Town Ordinances	1	1	1
Trespassing	0	0	3
Vandalism	15	13	11
Warrants	7	13	3
Weapons	0	0	1
DUI	4	8	10
Driving on a Suspended License	6	0	2
Miscellaneous Misdemeanor	12	2	7
Miscellaneous Felony	0	1	1
Miscellaneous CVC Violation	25	39	15
<b>Total Part 2 Crimes</b>	<b>113</b>	<b>99</b>	<b>86</b>

SOURCE: Tiburon Police Department Criminal/Incident Statistics 2020, 2021, 2022

## Schools

The Town of Tiburon is served by the Reed Union School District (RUSD) and the Tamalpais Union High School District (TUSD).

### Reed Union School District

As previously stated, the RUSD is an elementary district serving the southern Marin communities of Belvedere, Tiburon, and a portion of east Corte Madera. Its three school sites are located in Tiburon, including Reed Elementary School (Kindergarten – Second Grade); Bel Aire Elementary School (Third Grade – Fifth Grade); and Del Mar Middle School (Sixth Grade – Eighth Grade). Table 3.13-7 shows the student enrollment at the RUSD schools during the 2018-201 through 2020-2021 school years and Figure 3.13-2 shows the locations of the RUSD schools.



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TABLE 3.13-7: RUSD STUDENT ENROLLMENT

SCHOOL	2018 – 2019 STUDENT ENROLLMENT	2019 – 2020 STUDENT ENROLLMENT	2020-2021 STUDENT ENROLLMENT
Reed Elementary School	363	330	310
Bel Aire Elementary School	459	429	396
Del Mar Middle School	540	543	410
<b>Total RUSD Enrollment</b>	<b>1,362</b>	<b>1,320</b>	<b>1,116</b>

SOURCES: RUSD School Accountability Report Card, 2020, 2021; DataQuest, 2022

RUSD schools share the services of a psychologist, a speech and language therapist, an Information Services Coordinator and assistant, part-time aides for limited English-speaking students, a part time school nurse, and a district health specialist. Instructional Aides provide assistance in the elementary classrooms at Reed and Bel Aire Elementary Schools. Each school is assigned a Special Education Resource Specialist, art, music, and P.E. teachers, as well as a technology facilitator. Bel Aire and Reed Elementary Schools have Reading Specialists to oversee intervention literacy programs and work collaboratively with the Resource Teachers in the Learning Center to provide services for all students in need. Additionally, Spanish is taught in Grades 3-8 and parent-paid school bus transportation is available to and from all three sites.

Once students graduate from Del Mar Middle School, RUSD graduates attend high school in the Tamalpais Union High School District, as well as private schools in Marin County and San Francisco.

### Tamalpais Union High School District

As previously stated, the TUHSD provides 9-12 education to 19 different communities in southern Marin County, including the Town of Tiburon. The TUHSD operates three comprehensive high schools (Tamalpais, Redwood, and Sir Francis Drake) and two continuation high schools (San Andreas and Tamiscal). Redwood High School serves the Town residents, which is located at 395 Doherty Drive in Larkspur.

#### *Redwood High School*

Redwood High School is a 57-acre campus which has 74 classrooms, 5 portable buildings, a student center (multipurpose room), a library, an administration building, two gym buildings, a theater, an arts/technology building, swimming pool, and athletics fields. The original campus was built in 1960. Redwood High School recently modernization improvements from 2003 through 2007. Table 3.13-8 shows the student enrollment at Redwood High School during the 2018-2019 and 2019-2020 school years.

TABLE 3.13-8: REDWOOD HIGH SCHOOL STUDENT ENROLLMENT

GRADE LEVEL	2018 – 2019 STUDENT ENROLLMENT	2019 – 2020 STUDENT ENROLLMENT	2020-2021 STUDENT ENROLLMENT
Grade 9	543	522	507
Grade 10	497	534	512
Grade 11	441	468	508
Grade 12	447	423	459
<b>Total</b>	<b>1,928</b>	<b>1,947</b>	<b>1,986</b>

SOURCES: Redwood High School Accountability Report Card, 2020 and 2021; DataQuest, 2022

### **Public Library**

The Belvedere – Tiburon Library is owned and operated by the Belvedere-Tiburon Library Agency and is a branch of the Marin County Library system. The existing 10,500 square foot (11,990 square feet including a mechanical mezzanine area) Belvedere – Tiburon Library opened up in 1997 and is located at 1501 Tiburon Boulevard in Tiburon.<sup>13</sup> As of January 2021, the Belvedere – Tiburon Library had over 107,800 items in its collection.<sup>14</sup> The library offers a variety of programming for all ages particularly children, teens, and senior citizens. Additionally, the library houses adult and children's Spanish language materials, and bilingual staff are on hand. The library contains items in a variety of formats, including book, e-books, large print books, audiobooks, DVDs, blue-ray discs, video cassettes, streaming videos, magazines and journals, newspapers, and music CDs. Access to the internet is also available.

In June 2010, the Town of Tiburon released a Draft Environmental Impact Report (EIR) for the expansion of the Belvedere – Tiburon Library. The project expanded the existing Belvedere-Tiburon Public Library through the construction of a two-story addition. The existing 10,500 square foot (sf) Library (11,990 sf including a mechanical mezzanine area) was expanded to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. The project also included lighting and landscaping improvements, including the installation of a Town Plaza and Zelinsky Promenade/Garden Plaza extending from Tiburon Boulevard to Zelinsky Park, restoration of the existing Zelinsky Park area, landscaping, installation of a Story Time Area and Staff Patio, and 52 new parking spaces.<sup>15</sup> The Tiburon Town Council approved the

<sup>13</sup> Town of Tiburon. 2010. Belvedere – Tiburon Library Expansion Project Draft Environmental Impact Report [page II-1].

<sup>14</sup> MARINet. 2021. MARINet Library Database. Available at: [https://marinet.bibliocommons.com/v2/search?custom\\_edit=false&query=branch%3A%22Belvedere+Tiburon%22&searchType=bl&suppress=true](https://marinet.bibliocommons.com/v2/search?custom_edit=false&query=branch%3A%22Belvedere+Tiburon%22&searchType=bl&suppress=true).

<sup>15</sup> Town of Tiburon. 2010. Belvedere – Tiburon Library Expansion Project Draft Environmental Impact Report [page II-1].

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Belvedere – Tiburon Library Expansion project at its August 1, 2012 meeting.<sup>16</sup> The expansion was completed in 2022.

### ***Other Municipal Services***

The Town of Tiburon municipal services includes the Administration & Finance Department, Building Department, Community Development Department, Police Department, Public Works Department, and Town Clerk.

Town Administration is comprised of a series of support-related activities and functions, and includes the offices of the Town Manager, Town Attorney, and Town Clerk. The Administrative Services division is responsible for management oversight of Town departments, financial management of Town resources, business license administration, payroll and personnel administration, risk management, records management, and coordination of Town activities and service delivery systems to ensure that Town services are provided efficiently.

The Building Division ensures that construction in the Town is compliant with adopted technical construction codes, in conformance with accepted building practices, and consistent with the Town's adopted policies and regulations. The Building Division issues permits, conducts regular building permit inspections, performs plan check reviews for construction applications, conducts residential resale inspections, and performs code enforcement for areas under its purview.

The Planning Division of the Community Development Department is responsible for managing the physical development of the Town in an orderly manner in accordance with the Tiburon General Plan, Zoning Ordinance, Municipal Code, and Town policies and regulations. The Planning Division reviews and processes a wide variety of planning, zoning, subdivision, and other permits and performs code enforcement functions for areas in its purview.

The Department of Public Works is responsible for the maintenance and improvement of all public infrastructure owned and managed by the Town of Tiburon. In addition to normal maintenance operations, we are a key agency in responding to emergencies involving our infrastructure as well as weather related events and other disasters that have the potential for adverse impacts to public health or the environment.

The Town Clerk's Office prepares and maintains the Town's legislative actions and proceedings, assures compliance with open meeting laws, conducts local elections, and provides day-to-day administrative support to the Town and the Town Council.

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<sup>16</sup> Belvedere – Tiburon Library. 2021 Belvedere – Tiburon Library Expansion. Available at: <https://www.beltibrary.org/about-us/library-expansion>.

### ***Tiburon Public Parks***

The Parks Maintenance Division of the Tiburon Public Works Department maintains the Town's 10 parks (covering nearly 70 acres) as well as the multi-use path and the landscaped medians throughout Town.<sup>17</sup> The primary source of funding for park maintenance comes from the Cypress Hollow Special Tax Assessment District, developer impact fees, and the General Fund. The Town currently maintains a park standard of five acres per 1,000 residents. The Town's 10 parks include community parks, mini-parks, and specialty facilities. In addition to the Town's 10 parks, two regional parks are located within the Tiburon Planning Area in unincorporated Marin County, which are maintained by the Marin County Parks and Open Space Department.<sup>18</sup>

#### *Community Parks*

Community parks are developed primarily to meet the recreational needs of a large portion of the town. Community parks range in size according to purpose, and often feature one-of-a-kind community facilities or natural resources. For example, the Richardson Bay Lineal Park offers a multi-use path and amenities along the bay waterfront and open space/natural preservation areas, while Point Tiburon Shoreline Park features the Elephant Rock Fishing Pier and amenities along the bay waterfront. Community parks may also contain a greater variety of recreational facilities, such as swimming pools, community centers, public rest rooms, bocce ball and horseshoe areas, trails, athletic fields, and pond fishing. Community parks located in the Tiburon Planning Area include the:

- Richardson Bay Lineal Park, which includes:
  - Blackie's Pasture;
  - McKegney Green;
  - South of Knoll Park;
  - Multi-Use Path; and
  - Cypress Grove Garden Park;
- Point Tiburon Shoreline Park, which includes:
  - Elephant Rock Fishing Pier;
- Reed Park; and
- Town Hall Park.

#### *Mini-Parks*

Mini-parks primarily serve a small portion of the town, usually within one-half mile radius of the park. Mini-parks are generally oriented toward the recreational needs of children and youth. For example, Cypress Hollow Park provides playground equipment while the Bel Aire Play Area is an unimproved green area for residents of the Bel Aire neighborhood to play. All

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<sup>17</sup> Town of Tiburon. 2022. Municipal Budget Fiscal Year 2022-2023. [page 54].

<sup>18</sup> Marin County Parks and Open Space Department. 2008. Strategic Plan.

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of the Town's mini-parks are located near collector streets in residential neighborhoods. Mini-parks in the Tiburon Planning Area include the:

- Belveron Mini-Park;
- Bel Aire Play Area;
- Cypress Hollow Park; and
- Zelinsky Park.

### *Specialty Facility*

Specialty Facility primarily provide for specific recreational activities, such as the Teather Park Tennis Courts, which provides tennis court facilities for public use. The only specialty facility located in the Tiburon Planning Area is the Teather Park Tennis Courts.

### *Regional Parks*

The Planning Area also consists of several regional recreational areas and county park facilities, which includes both water-based, and passive recreational opportunities. For example, Tiburon Uplands Nature Preserve in unincorporated Marin County offers a hike through to Old Saint Hilary's Open Space Preserve and bay views from the higher elevations while the Paradise Beach Park provides fishing opportunities, a canoe/kayak launch, and spacious lawns and shady trees to enjoy panoramic views across the water to the East Bay.<sup>19</sup>

### *Tiburon Park Facilities*

As shown in Table 3.13-9, the Planning Area consists of 94.1 acres of parkland. Of the 94.1 acres of parkland within the Planning Area, the Town currently manages approximately 56.7 acres. With an approximate population of 8,956 residents<sup>20</sup> in 2022, the Town's parkland totals approximately 10.5 acres of Town parkland per 1000 residents (excluding the County's 18.6-acre Paradise Beach Park and 18.8-acre Tiburon Uplands Nature Preserve within the Planning Area). The location of parks within the Tiburon Planning Area is shown on Figure 3.13-2. Table 3.13-9 summarizes the park facilities within the Planning Area by acreage.

TABLE 3.13-9: SUMMARY OF LOCAL PARK FACILITIES IN THE PLANNING AREA

PARK NAME	ACRES	PARK TYPES
Richardson Bay Lineal Park		CP
Blackie's Pasture	15.5	CP
McKegney Green	11.6	CP
South of Knoll Park and Playground	6.5	CP
Multi-Use Path	11.3	CP
Cypress Grove Garden Park	0.1	CP

<sup>19</sup> Marin County Parks and Open Space Department. Parks & Preserves Location List. Available at: <https://www.marincountyparks.org/parkspreserves/sip-location-list>.

<sup>20</sup> California Department of Finance. May 2022. E-5 Report.

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PARK NAME	ACRES	PARK TYPES
Pt. Tiburon Shoreline Park	2.3	CP
Elephant Rock Fishing Pier	-	CP
Reed Park	1.5	CP
Town Hall Park	1.8	CP
Belveron Mini Park	2.1	MP
Bel Aire Play Area	0.5	MP
Cypress Hollow Park	0.5	MP
Zelinsky Park	1.5	MP
Teather Park Tennis Courts	1.5	SP
Paradise Beach Park	18.6	RP
Tiburon Uplands Nature Preserve	18.8	RP
<b>Total</b>	<b>94.1</b>	<b>--</b>
<i>NOTES:</i>		
<i>CP = Community Park, MP = Mini-Park, SP = Special Park, RP = Regional Park</i>		
<i>SOURCES: MarinMaps, 2021; De Novo Planning Group 2021</i>		

### *Angel Island*

In addition to the parks on the Tiburon Peninsula, 726 of the 740 acres of Angel Island State Park are within the incorporated Town of Tiburon; the remaining 14 acres are located in the City and County of San Francisco. This historic park offers peninsula residents and visitors unique opportunities for hiking, biking, camping, and boating in San Francisco Bay. The Ranch provides popular youth summer camps on Angel Island. Approximately 200,000 people visit Angel Island annually, almost all of them arriving by ferry.

### ***Belvedere – Tiburon Recreation Department (The Ranch)***

The Town administers its recreation programs by way of a joint powers agreement (JPA) with the City of Belvedere. In 2013, the title of the JPA was changed to The Ranch. The Ranch offers a wide array of programs, providing classes and activities for toddlers through older adults. Approximately 70 percent of programming is for children, including the after-school academy program and summer camps. Special events, adult programs and other programs comprise approximately 30 percent of the programming. The Community Opinion Survey found that nearly half of the residents (47 percent) reported their households had attended a The Ranch program, class, or event.<sup>21</sup>

Dairy Knoll serves as the local community center owned and operated by The Ranch, which is utilized for recreational programming. Additionally, The Ranch has facility use agreements for programming at multiple locations throughout Tiburon, including Reed Elementary

<sup>21</sup> Town of Tiburon. 2011. Tiburon Peninsula Recreation Needs and Existing Condition Assessment Study [page 16].



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School, Bel Aire Elementary School, Del Mar Middle School, Angel Island State Park, Paradise Park, Landmarks Art and Garden Center, and Tiburon Baptist Church.<sup>22</sup>

### *Dairy Knoll*

The Ranch at Dairy Knoll is located at 600 Ned’s Way in Tiburon and serves as the local community center owned and operated by The Ranch (formerly the Belvedere – Tiburon Recreation Department). The purpose of The Ranch at Dairy Knoll is to provide quality recreational and educational programs that inspire and enrich the lives of children and adults in the community while maintaining a self-supporting agency. This facility can accommodate up to 147 people in three separate private meeting rooms or one great room totaling 2,310 square feet. This site includes a spacious outdoor patio and picnic areas, ideal for team building activities or outdoor dining. This site can also accommodate bounce houses and children’s entertainers.

### **Commercial/Private Recreation Facilities**

In addition to public park facilities, the Planning Area is home to four commercial/private recreation facilities. These are private facilities that require membership for access and use. Neither the Town nor The Ranch has any role in influencing the recreational amenities or programs offered by these private facilities. Table 3.13-10 summarizes the commercial/private recreation facilities within the Planning Area and the recreational amenities provided.

TABLE 3.13-10: COMMERCIAL RECREATION FACILITIES

COMMERCIAL RECREATION FACILITY	RECREATIONAL AMENITIES
Corinthian Yacht Club	Boat members slips plus guest slips
Tiburon Peninsula Club	10 tennis courts, three swimming pools, fitness center
Belvedere Tennis Club	7 tennis courts, pool
Tiburon Yacht Club/Paradise Cay Yacht Harbor	Boat slips and Clubhouse

SOURCE: Town of Tiburon Parks and Recreation Element

### **Open Space Areas**

Open space and preservation of the natural environment are valued and defining characteristics of the Tiburon Peninsula. The Tiburon Peninsula consists of over 800 acres of protected and publicly owned open space land. Additionally, on the Peninsula, there are approximately 115 acres of private open space protected from development through easement or another legal instrument. These open space areas are generally not open to public use.<sup>23</sup> As shown in Table 3.13-11, approximately 769 acres of open space land is

<sup>22</sup> Marin County LAFCO. 2020. Tiburon Peninsula Municipal Services Review. [page 42]

<sup>23</sup> Town of Tiburon. 2011. Tiburon Peninsula Recreation Needs and Existing Condition Assessment Study [page 23-24]

located within the Planning Area. Figure 3.13-2 shows the location of open space areas within the Tiburon Planning Area and Table 3.13-11 summarizes the open space areas by acreage.

TABLE 3.13-11: SUMMARY OF LOCAL PARK FACILITIES

OPEN SPACE AREA	ACRES
Hamon (Rock & Tree) Open Space	10.5
Mt. Tiburon Subdivision Open Space	12.3
Hilarita Project Open Space	2.8
Cibrian Subdivision Open Space	3.8
Ring Mountain <sup>1</sup>	389.1
La Cresta Open Space	65.3
Del Madera Subdivision Open Space	29.2
Miraflores Subdivision Open Space	17.2
Mateo Drive Subdivision Open Space	2.8
Town Hall Area Open Space	2.0
Eavey Open Space	21.3
El Marinero Subdivision Open Space	9.3
Reed School District Open Space	11.8
Atkinson Open Space	59.7
Highlands Subdivision Open Space	3.1
Old Saint Hilary's <sup>1</sup>	123.9
Pt. Tiburon Marsh Open Space	5.1
<b>Total</b>	<b>769.1</b>
<i>NOTE:</i>	
1) County of Marin Facility	
SOURCES: MarinMaps GIS, 2021; De Novo Planning Group 2021	

### 3.13.2 REGULATORY SETTING

#### ***Federal***

##### *National Fire Protection Association Standard 1710*

The NFPA released NFPA 1710 (Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments), originally in 2001. The standard specifies minimum criteria addressing effectiveness and efficiency of public fire agencies. One element recommends that agencies establish service delivery objectives and specific time objectives. There is no national standard for response times, and NFPA 1710 recognizes the need to support communities in setting measurable outputs (response times) and outcomes (service delivery objectives).

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### **State**

#### *California Emergency Plan*

The California Emergency Plan describes how response to natural or human-caused emergencies occurs in California. The Emergency Plan is a requirement of the California Emergency Services Act, and describes methods for conducting emergency operations, the process for rendering mutual aid, emergency services of government agencies, how resources are mobilized, how the public is informed, and how continuity of government is maintained during emergency. The Emergency Plan further describes hazard mitigation (actions to reduce risk), as well as preparedness and recovery from disasters.

Preparing for and responding to wildland fire incidents is one part of this plan. The California Fire Service Task Force on Climate Impacts was established in July 2014. The Task Force is comprised of members from local, State, and federal jurisdictions, and continues to build upon the State's Blue Ribbon Fire Commission that was initially established following the 2003 wildfires, the most devastating of which was the Cedar Fire in San Diego. The objectives of the Task Force are to review the past Blue Ribbon Fire Commission recommendations and action plan, validate, and prioritize items that remain outstanding, and evaluate the most current climate threats, science, studies, and recommendations. The Task Force will also, as necessary, develop new or updated recommendations related to wildfire preparedness and mitigation needed to successfully adapt to California's changing climate, aligning actions and recommendations with the State's climate adaptation strategy and related efforts.

#### *California Occupational Safety and Health Administration*

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

#### *Emergency Response/Evacuation Plans*

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with

SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

*California Fire Protection Code*

The California Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist first responders, industrial processes, and many other general and specialized fire safety requirements for new existing buildings and premises.

*International Fire Code*

The International Fire Code (2015) with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

*California Health and Safety Code*

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

*NFPA 1710*

The NFPA 1710 Standards are applicable to urban areas and where staffing is comprised of career Firefighters. According to these guidelines, a career fire department needs to respond within six minutes, 90 percent of the time with a response time measured from the 911 call to the time of arrival of the first responder.

The standards are divided as follows:

- Dispatch time of one minute or less for at least 90 percent of the alarms
- Turnout time of one minute or less for EMS calls (80 seconds for fire and special operations response)
- Fire response travel time of four minutes or less for the arrival of the first arriving engine company at a fire incident and eight minutes or less travel time for the deployment of an initial full alarm assignment at a fire incident

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- Eight minutes or less travel time for the arrival of an advanced life support (ALS) (4 minutes or less if provided by the fire department)

### *California Building Standards Code*

The State of California provided a minimum standard for building design through the 2019 California Building Standards Code (CBC), which is in Part 2 of Title 24 of the California Code of Regulations. The 2019 CBC is based on the 2018 International Building Code but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city and County building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in all new high-rise buildings and residential buildings; the establishment of fire resistance standards for fire doors, building material; and particular types of construction.

### *California Health and Safety Code*

State fire regulations are set forth in Sections 13000 *et seq.* of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

### *California Code of Regulations*

Title 5, Section 14002 *et seq.* governs school facility design.

Title 8, Section 6150-6184 of the California Code of Regulations establishes general fire safety standards. The standards range from fire hose size requirements to the design of automatic sprinklers.

Title 14, Section 1270 *et seq.* of the California Code of Regulations establishes minimum standards for a variety of wildfire preparedness and prevention regulations.

Title 19 Section 1.00 *et seq.* of the California Code of Regulations, establishes the “Regulations of the State Fire Marshall” which includes a variety of emergency fire response, fire prevention and construction and construction materials standards.

### *California State Assembly Bill 2926—School Facilities Act of 1986*

In 1986, Assembly Bill (AB) 2926, entitled the School Facilities Act of 1986, was enacted by the State of California and added to the California Government Code (GOV § 65995). It authorizes school districts to collect development fees, based on demonstrated need, and generate revenue for school districts for capital acquisitions and improvements. It also established that the maximum fees (adjustable for inflation) which may be collected under this, and any other school fee authorization are \$1.50 per square foot (\$1.50/square foot) of residential development and \$0.25/square foot of commercial and industrial space.

AB 2926 was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 *et seq.* of the Government Code. Under this statute, payment of statutory fees

by developers serves as total mitigation under the California Environmental Quality Act (CEQA) to satisfy the impact of development on school facilities. However, subsequent legislative actions have alternatively expanded and contracted the limits placed on school fees by AB 2926.

### *California Senate Bill 50*

As part of the further refinement of the legislation enacted under AB 2926, the passage of SB 50 in 1998 defined the Needs Analysis process in Government Code Sections 65995.5–65998. Under the provisions of SB 50, school districts may collect fees to offset the costs associated with increasing school capacity because of development. The fees (referred to as Level One fees) are assessed based upon the proposed square footage of residential, commercial/industrial, and/or parking structure uses. Level Two fees require the developer to provide one-half of the costs of accommodating students in new schools, while the State would provide the other half. Level Three fees require the developer to pay the full cost of accommodating the students in new schools and would be implemented at the time the funds available from Proposition 1A (approved by the voters in 1998) are expended. School districts must demonstrate to the State their long-term facilities need and costs based on long-term population growth to qualify for this source of funding. However, voter approval of Proposition 55 on March 2, 2004, precludes the imposition of the Level Three fees for the foreseeable future. Therefore, once qualified, districts may impose only Level Two fees, as calculated according to SB 50.

### *California Government Code, Section 65995(b), and Education Code Section 17620*

SB 50 amended California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every 2 years, according to inflation adjustments.

### *Mitigation Fee Act (California Government Code 66000-66008)*

Enacted as AB 1600, the Mitigation Fee Act requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put. The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development plan on which it is to be levied. The Act came into force on January 1, 1989.

### *The Mello-Roos Communities Facilities Act of 1982*

The Mello-Roos Community Facilities Act, Government Code Section 53311 *et seq.*, provides an alternative method of financing certain public capital facilities and services through a special property tax. This state law empowers local agencies to establish Community Facilities Districts to levy special taxes for facilities for public infrastructure such as roads,



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schools, and libraries. The creation of a Mello-Roos District requires the approval of two-thirds of the voters.

### *Quimby Act (California Government Code Section 66477)*

The 1975 Quimby Act (GOV § 66477), authorizes cities and counties to adopt ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for operation and maintenance of park facilities. A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or parkland and the type of development project upon which the fee is imposed. Cities with a high ratio of park space to residents can set a standard of up to 5 acres per thousand persons for new development. Cities with a lower ratio can only require the provision of up to 3 acres of park space per thousand people. The calculation of a city's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of city-owned parkland.

## **Regional**

### **Tiburon Fire Protection District**

The TFPD was established in April of 1941 and is an autonomous Special District as defined under the Fire Protection District Law of 1987, Health and Safety Code, Section 13800, of the State of California. A five-member Board of Directors, elected by their constituents and each serving a four-year term, governs the TFPD. The TFPD service area encompasses approximately 5.5 square miles, providing structural fire and emergency medical response to the Town, the City of Belvedere, and unincorporated residential and wildland areas on the peninsula, as well as parts of the San Francisco Bay to Angel Island State Park.

### *TFPD Ordinance No. 131*

In November 2022, the TFPD adopted Ordinance No. 131 adopting the 2022 California Fire Code. The 2022 California Fire Code, which consists of certain portions of the 2021 edition of the International Fire Code as amended by the California Building Standards Commission, and Appendix A of the 2021 edition of the International Wildland-Urban Interface Code as adopted and amended herein, shall be enforced by the Fire Prevention Bureau of the TFPD, and shall be operated under the supervision of the Chief of the TFPD.

### **Southern Marin Fire Protection District**

The SMFPD is an independent fire district as defined in the California Administrative Code, (Fire Protection District Law of 1987 - Health & Safety Code Section 13800, et seq.) and provides fire protection and emergency medical services to the northwestern corner of the Tiburon Planning Area. The SMFPD was created in 1999 by Marin County LAFCO with the consolidation of the Alto-Richardson Bay Fire Protection District and the Tamalpais Fire Protection District. In June 2012, the City of Sausalito was also annexed into the SMFPD by a vote of the citizens of Sausalito, and, more recently, the SMFPD signed a Shared Services

Agreement in January 2020 with the City of Mill Valley, which consolidated the mid and upper management teams of both organizations into a single team with a single Fire Chief serving both agencies.

### *SMFPD Ordinance No. 2022/2023-01*

The SMFPD Ordinance adopts the 2022 California Fire Code and Appendix A of the 2021 International Wildland-Urban Interface Code. The Ordinance contains amendments to the California Fire Code and includes requirements for Wildland-Urban Interface fire areas to address the local climatic, geographic, and topographic conditions that impact fire prevention efforts, and the frequency, spread, acceleration, intensity, and size of fire involving buildings in the community. Some of the requirements are related to hazardous vegetation and fuel management, defensible space, fire flow requirements for buildings, fire hydrant locations and distribution, and minimum widths and clearances for fire access roads. The Ordinance was approved by the SMFPD Board of Supervisors in September 2022.

### **Southern Marin Emergency Medical Paramedic System**

Southern Marin Emergency Medical Paramedic System (SMEMPS) was established in October 1980 to better serve the Emergency Medical Service (EMS) needs of residents and visitors in southern Marin County. Prior to 1980, EMS delivery was provided by firefighters that were certified as Emergency Medical Technicians. Realizing that a better system was possible, the local jurisdictions came together and formed a Joint Powers Authority. The intent was to create a system that would provide paramedic service to the community and, on average, SMEMPS serves an average of 2,650 patients each year. The member agencies currently include the SMFPD, TFPD, City of Belvedere, City of Mill Valley, City of Sausalito, and the County of Marin.

### **RUSD Local Control and Accountability Plan 2021-22**

The LCAP is a three-year plan, updated annually, and a tool for local educational agencies to set goals, plan actions, and leverage resources to meet those goals to improve student outcomes. The 2021-22 LCAP is the latest Plan released by the RUSD.

### **Marin County Open Space**

The Marin County Open Space District is a non-profit organization that manages over 16,000 acres of parks and open space. The Marin County Open Space District services include operations and maintenance of open space and trails, research projects, oversee capital improvement projects, and provide educational events for the public.

### **Marin County Community Wildfire Protection Plan**

The Marin County Community Wildfire Protection Plan (CWPP), adopted in 2016, is an advisory document prepared by FIREsafe Marin in collaboration with stakeholder agencies pursuant to the Healthy Forests Restoration Act. The CWPP is a countywide strategic plan with action items to reduce fire hazard in the County, especially in areas of concern, which mostly fall within Marin's WUI boundary. The CWPP assists in protecting human life and

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reducing property loss from wildfire throughout Marin County. The CWPP describes wildfire risk, hazard, and recommendations for improving wildfire preparedness at the County level, achieving the following:

- Outlines community characteristics that relate to wildfire risk and hazard including climate, weather, vegetation, and population.
- Describes the fire environment, including the description of the County WUI and regional weather.
- Assesses wildfire hazard and risk at the County level.
- Describes existing and proposed community outreach that is integral to improving wildfire preparedness.
- Identifies mitigation strategies that could be applied to address wildfire hazard and risk.
- Describes the CWPP as a living document to be updated periodically.

The CWPP is accompanied by appendices that address specific areas and projects by agency to meet strategic goals. The lists of projects include past, current, and/or planned projects from the 2015 Marin Unit Fire Plan and are intended to provide a starting point for identifying and prioritizing a more complete, countywide list of future fuel reduction and outreach projects. The projects identified within the Tiburon Planning Area include:

- Ring Mountain: fire road/ridge access
- Old St. Hilary's Open Space: fuel reduction, defensible space
- Middle Ridge Open Space: fuel reduction
- Blackies Pasture: fuel reduction
- Chipper/Veg Removal Events: community fuel reduction

### ***Local***

#### **Tiburon General Plan**

The existing General Plan includes goals, policies, and implementation measures that assist in reducing or avoiding impacts to public services, parks, and recreational facilities. These goals, policies, and implementation measures are found in the Safety Element and Parks and Recreation Element.

#### **Tiburon Municipal Code**

Chapter 18 Parks, Open Space and Recreational Lands. This chapter of the Tiburon Municipal Code regulates and governs the use, operation, control and maintenance of those parks, open spaces, and recreational lands under the control of the town.

Chapter 14B Public Facilities Development Fees. This chapter of the Tiburon Municipal Code outlines the development fees that are needed to finance public facilities to ensure that each

new development, development project, or construction project contributes its fair share of the costs of public facility improvements.

### 3.13.3 THRESHOLDS OF SIGNIFICANCE

According to the CEQA Guidelines Appendix G, the proposed project will have a significant impact related to public services, parks, or recreational facilities if it would:

- Result in substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
  - Fire Protection
  - Police Protection
  - Schools
  - Other public facilities
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

### 3.13.4 ANALYSIS, IMPACTS, AND MITIGATION MEASURES

This analysis identifies potential impacts to fire protection, police protection, schools, parks, and recreational facilities based on development anticipated from buildout of the General Plan 2040. Impacts to public services, parks, and recreational facilities were assessed using the significance criteria established by the CEQA Guidelines, as well as State, and local plans, regulations, and ordinances.

The provision of recreational facilities and ability to fund their installation and maintenance is provided for at a statewide level under the Quimby Act, a regulation allowing cities to require dedication of land or payment of fees for parks and recreation as a condition of tentative or parcel map approval.

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<b>Impact PSR-1</b>	<b>Development facilitated by the General Plan would not result in the provision of or need for new or physically altered fire protection facilities, police protection facilities, school facilities, and library facilities, the construction or operation of which could cause significant environmental impacts.</b>
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Development accommodated under the General Plan 2040 would result in an incremental increase in new residential, commercial, mixed uses, and community uses. As described in

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Chapter 2.0, Project Description, full buildout of the General Plan, including the development anticipated in the General Plan 2040, would yield up to 923 residential units, including 174 single-family residential units, 477 mixed use residential units, 190 very-high density residential units, 10 Main Street residential units, and 72 ADUs. Assuming an average household size of 2.40, a total of approximately 2,215 persons could be accommodated at buildout of the General Plan 2040.

Residential and non-residential development and growth in the town under the General Plan 2040 would incrementally increase demand for public services, including fire protection, law enforcement, schools, libraries, and other public and governmental services. (Parks and other recreational facilities are discussed under Impact PSR-2.) As the demand for services increases, there may be a need to increase staffing and equipment to maintain acceptable service ratios, response times, and other performance standards. However, based on the anticipated population growth from the General Plan 2040 comprising 24.6 percent of the town's current population,<sup>24</sup> the construction of new or expanded fire protection, police protection, school, library, or other municipal service facilities would not be required.

The General Plan 2040 includes a range of policies and programs to ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between the town and appropriate service agency, and that new development funds its fair share of services. The General Plan 2040 includes policies to ensure that fire protection and law enforcement services keep pace with new development and that school, library, and governmental services are adequately planned and provided. Future development in accordance with the General Plan 2040 would be subject to these General Plan 2040 policy requirements.

### Fire Protection Services

The pattern and amount of development envisioned by the General Plan 2040 would not result in a significant impact to fire protections services. The anticipated population growth from the General Plan 2040 would be 24.6 percent of the town's current population and would not necessitate the construction of new or expanded fire protection facilities. The TFPD's current response time goal is to maintain an overall response time of 8 minutes or less, 90 percent of the time. Under normal conditions, there are six full time professional emergency responders that can be deployed for an emergency within the boundaries of the District. As shown in Table 3.13-1, the TFPD's average response time excluding mutual aid is below 8 minutes for all incident types; however, TFPD's average response time when mutual aid is included exceeds 8 minutes for fire, hazardous materials, and severe weather/natural

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<sup>24</sup> According to the California Department of Finance (E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022), the Town of Tiburon has a current (January 2022) population of 8,956 persons, with an average household size of 2.40. The proposed General Plan Update could accommodate up to 923 residential units. Therefore, the projected additional residential population that could result from the proposed project would be 2,215 persons (which is a 24.7 percent increase over the existing population).

disaster incidents. According to the TFPD Comprehensive Annual Financial Report Fiscal Year 2019-2020, 72 percent of all the calls in the fiscal year were responded to in under 8 minutes and 61 percent were responded to in under 7 minutes.

As noted previously, in 2016, the SMFPD conducted a Fire and Emergency Medical Services Deployment Analysis to assist in setting service delivery objectives according to National Fire Protection Association (NFPA) Standard 1710. One recommendation included adoption of deployment measure policies. These policies addressed distribution of fire stations, multiple-unit effective response force for serious emergencies, hazardous materials responses, and technical rescue.<sup>25</sup> Each policy contained the following standards:

1. **Distribution of Fire Stations** – First-due unit arrives within 9 minutes and 30 seconds of receipt of call 90 percent of the time.
2. **Effective Response Force** – Minimum response of one ladder truck, four engines, one medic unit, and one Battalion Chief arrive within 11 minutes and 30 seconds from receipt of 9-1-1 call 90 percent of the time.
3. **Hazardous Materials Response** – First unit’s travel time is 6 minutes or less 90 percent of the time.
4. **Technical Rescue** – First unit arrives in 8 minutes or less 90 percent of the time and initiates rescue within a total response time of 11 minutes and 30 seconds, 90 percent of the time.

In 2017, 2018, and 2019, the SMFPD met these standards 100 percent of the time.<sup>26</sup> Additionally, according to the findings of the SMFPD’s 2016 Fire and Emergency Medical Services Deployment Analysis, the current locations for the SMFPD’s fire engines and stations are adequate to meet the needs of the District and relocating or adding a fire station in the service area is not necessary or a cost-effective investment. However, the study did recommend that the SMFPD focus on reducing crew turnout times to fall consistently below 2 minutes. Compliance reports for 2017-2019 show that the SMFPD has achieved this objective.

As previously stated, ISO routinely conducts assessments of each fire agency in the United States, with a goal to re-assess fire agencies once every five years. In 2016, the District received the findings from the ISO, which awarded them a PPC Class of 1 putting the SMFPD among the top 0.3 percent of communities nationwide.

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<sup>25</sup> Southern Marin Fire Protection District 2016 Fire and Emergency Medical Services Deployment Analysis. Available at: <https://www.southernmarinfire.org/admin/document-library/file/deployment-analysis/Vol%201%20-%20So%20Marin%20FPD%20Executive%20Summary%20Final%20%2809-22-16%29.pdf>.

<sup>26</sup> City of Sausalito. 2020. City of Sausalito Revised General Plan EIR [page 3.13-4].



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Furthermore, the increased property taxes from development facilitated by the General Plan 2040 would result in additional funding being available to the TFPD and SMFD to accommodate future growth.

### Police Services

The pattern and amount of development envisioned by the General Plan 2040 would not result in a significant impact to police services. The anticipated population growth from the General Plan 2040 would be 24.6 percent of the town's current population and would not necessitate the construction of new or expanded police facilities. The TPD provides police services to the Town of Tiburon. Similar to other cities and towns, the TPD relies on the Marin Sheriff's Office for search and rescue services and long-term holding facilities and County Animal Control for animal service. The Department Services Division includes patrol, administration, support personnel, investigations, training, parking enforcement and crime prevention program. TPD coordinates with other Town departments, government agencies and has developed a partnership with the community in planning and implementing safe school programs, neighborhood and business awareness, safe pedestrian and traffic flow on Tiburon's streets and emergency preparedness programs. TPD promotes community-oriented policing and understands that it is the community itself that can best say what it needs from its Police Department and the Police, and the community must work together to accomplish jointly set goals through cooperative efforts. Additionally, the TPD also contracts with the Sheriff's Office for dispatch services. The TPD's 2020/21 budget is approximately \$3.75 million.

As noted previously, Tiburon plans to double spending toward infrastructure, expand the police force and formally reorganize Town Hall under a \$22.92-million budget proposal as officials remain optimistic about the town's continued recovery from the economic impacts of the pandemic.<sup>27</sup>

### School Facilities

The pattern and amount of development envisioned by the General Plan 2040 will not result in a significant impact to school facilities, as new development provides impact mitigation fees of offset the impacts to school facilities. The anticipated population growth from the General Plan 2040 would be 24.6 percent of the town's current population and would not necessitate the construction of new or expanded school facilities. The California State Legislature, under SB 50, has determined that payment of school impact fees provides full and complete mitigation for impacts to school facilities. All development facilitated by the General Plan 2040 would be required to pay the school impact fees adopted by each school

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<sup>27</sup> The Ark Newspaper. June 7, 2022. "Tiburon set to expand police, double spending on infrastructure". Available at: <https://www.thearknewspaper.com/single-post/tiburon-set-to-expand-police-double-spending-on-infrastructure#:~:text=The%20preliminary%20fiscal%202023%20budget,for%20a%20surplus%20of%20%2450%2C783>.

district, and this requirement is considered to fully mitigate the impacts of the General Plan 2040 on school facilities.

### Library Services

The pattern and amount of development envisioned by the General Plan 2040 would not result in a significant impact on library services. Although the project would increase the population in the town, the estimated new residents would represent 24.6 percent of the existing population. Additionally, the Belvedere-Tiburon Library was renovated and expanded in 2019-2021 to accommodate future growth in the town as well as provide more services to residents. Therefore, development anticipated under the General Plan 2040 would not be expected to result in the need for new or expanded library facilities or services.

### Other Municipal Services

The pattern and amount of development envisioned by the General Plan 2040 would not result in a significant impact to other municipal services. The anticipated population growth from the General Plan 2040 would be 24.6 percent of the town's current population. As a result, the budgets for the Administration & Finance Department, Building Department, Community Development Department, Police Department, Public Works Department, and Town Clerk are expected to be minimally impacted. Further, the allocation of other municipal services is determined annually by the Town Council based upon local needs and resources. Since the General Plan 2040 assumes that any additional development would be primarily infill in nature (i.e., replacing existing development and building on existing vacant parcels), impacts to other municipal services is not expected to be significant. For the same reasons, the General Plan 2040 would not result in the need for new or expanded other municipal service facilities.

### Conclusion

In conclusion, no new construction of or expansion to fire protection, police protection, library, school, or other municipal service facilities is anticipated under the General Plan 2040. Development envisioned by the General Plan 2040 would result in an incremental increase in the demand for public services in the Planning Area, and as demand for services increases, there may be a need to increase staffing and equipment to maintain acceptable service ratios, response times, and other performance standards. However, based on the anticipated population growth from the General Plan 2040 comprising 24.6 percent of the town's current population, the construction of new or expanded fire protection, police protection, school, library, or other municipal service facilities would not be required.

As the Town receives development applications for subsequent development under the General Plan 2040, those applications will be reviewed by the Town for compliance with the policies and programs of the General Plan 2040 to ensure that that fire protection and police protection services keep pace with new development and that school, library, and other municipal services are adequately planned and provided. Therefore, impacts related to public services would be ***less than significant***.

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### Mitigation Measures

None required.

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<b>Impact PSR-2</b>	<b>Implementation of the General Plan would not increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur, or be accelerated.</b>
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The Town has adopted a Quimby Act ratio. Policy PR-1 of the existing General Plan 2040 includes the following parkland dedication standard: Sufficient park land and recreational facilities shall be maintained over time. A ratio of 5.0 acres of park land per 1,000 persons is established for the Planning Area pursuant to the Quimby Act.

As shown in Table 3.13-9, the Planning Area consists of 94.1 acres of parkland. Of the 94.1 acres of parkland within the Planning Area, the Town currently manages approximately 56.7 acres. With an approximate population of 8,956 residents<sup>28</sup> in 2022, the Town's parkland totals approximately 10.5 acres of Town parkland per 1000 residents. It is noted that this ratio excludes the County's 18.6-acre Paradise Beach Park, the 18.8-acre Tiburon Uplands Nature Preserve, and the Angel Island State Park within and adjacent to the Planning Area. These additional open space and open space amenities supplement the Town's parks.

New development accommodated under the General Plan 2040 would result in an incremental increase in new residential and non-residential uses. As described in Chapter 2.0, Project Description, throughout its planning horizon the General Plan 2040 is expected to accommodate approximately 923 new residential dwelling units within the Planning Area. This new growth would increase the town's population by approximately 2,215 residents. Some of these new employees are expected to be residents of the Planning Area. This new growth would incrementally increase demand for parks and other recreational facilities in the Planning Area. At buildout of the General Plan 2040, assuming all future development occurs, town population is projected to be approximately 11,171.

The anticipated population growth from the General Plan 2040 would be 24.6 percent of the Town's current population. As discussed below, the Town has ample park space and currently exceeds the recommended ratio of 5 acres per 1,000 residents. This population growth would not substantially increase existing use of park facilities, nor cause or accelerate their deterioration.

Moreover, the General Plan 2040 includes policies and programs that protect parks and recreational facilities, and future development in accordance with the General Plan 2040 would be subject to these policies and programs. Policy OS-4 requires the permanent protection of public or private open space. Under this policy, publicly owned open space land should not be sold and should only be traded in exchange for open space which

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<sup>28</sup> California Department of Finance. May 2022. E-5 Report

provides improved trail connections, resource protection, or other public benefits. Policy OS-32 aims to maintain sufficient park land and recreational facilities over time. Program OS-j requires the town to work with the Belvedere-Tiburon Recreation Department and the City of Belvedere to consider the long- and short-term need for additional parklands, sporting facilities, picnic facilities, play areas, or programs to meet the community's recreational programming and facilities needs. Policy OS-33 requires the town to continue to require new parkland dedication and/or collection of in-lieu fees during the development review process. A ratio of 5.0 acres of park land per 1,000 persons is established for the Planning Area pursuant to the Quimby Act. Policy OS-34 requires the town to continue to use park funds and any future in-lieu fees for improvement of existing and future parks and for parkland acquisition purposes. Policy OS-35 requires the town to pursue federal, state, county, and other funds to assist in the maintenance, improvement, and acquisition of existing and/or future park facilities.

The Town would be able to provide approximately 8.4 acres of parkland per 1,000 residents at buildout of the General Plan 2040. When natural open space areas are factored in, the Town would continue to exceed the recommended ratio of 5 acres per 1,000 residents.

In conclusion, development envisioned by the General Plan 2040 could result in an incremental increase in new development. However, given the incremental increase in residential growth anticipated during the buildout of the General Plan 2040, such population growth would not result in a significant acceleration in deterioration of parkland facilities. Furthermore, compliance with the General Plan 2040 policies and programs and adherence to the Tiburon Municipal Code would ensure that future developments provide their fair share of maintenance and upkeep to town parks. Impacts would be *less than significant*.

*Applicable Proposed General Plan Policies and Implementation Actions*

*Open Space, Parks, and Recreation Element*

**Policy OS-4 Retention of Publicly Owned Open Space**

Permanently protect public or private open space. Publicly owned open space land should not be sold and should only be traded in exchange for open space which provides improved trail connections, resource protection, or other public benefits.

**Policy OS-32 Maintain Sufficient Park Facilities**

Maintain sufficient park land and recreational facilities over time.

**Program OS-j Coordinate Park and Recreation Planning**

Work with the Belvedere-Tiburon Recreation Department and the City of Belvedere to consider the long- and short-term need for additional parklands, sporting facilities, picnic facilities, play areas, or programs to meet the community's recreational programming and facilities needs.

**Policy OS-33 Parkland Dedication**

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Continue to require new parkland dedication and/or collection of in-lieu fees during the development review process. A ratio of 5.0 acres of park land per 1,000 persons is established for the Planning Area pursuant to the Quimby Act.

### **Policy OS-34 Use of Park Funds**

Continue to use park funds and any future in-lieu fees for improvement of existing and future parks and for parkland acquisition purposes.

### **Policy OS-35 Pursue Outside Funding**

Pursue federal, state, county, and other funds to assist in the maintenance, improvement, and acquisition of existing and/or future park facilities.

### **Mitigation Measures**

None required.

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**Impact PSR-3      Implementation of the General Plan would include or require the construction or expansion of parks and other recreational facilities, which might have an adverse physical effect on the environment.**

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To maintain existing parks and recreational facilities within the Planning Area, the General Plan 2040 contains policies and programs that require maintenance and expansion of park, open space, and recreational facilities as well as recreational programs. For example, Policy OS-32 aims to maintain sufficient park land and recreational facilities over time. Program OS-j requires the Town to work with the Belvedere-Tiburon Recreation Department and the City of Belvedere to consider the long- and short-term need for additional parklands, sporting facilities, picnic facilities, play areas, or programs to meet the community's recreational programming and facilities needs. Additionally, Program OS-k directs the Town to consider development of a community pool, community center/gymnasium, a dog park, and bocce courts if sites and funding become available, as well as consider acquisition of the Richardson Bay Sanitary District site for recreational use if it becomes available. Policy OS-33 directs the Town to prepare a Parks Master Plan to guide the use, development, and management of park facilities. As such, development facilitated by the General Plan 2040 could include the construction of new or expanded parks and other recreational facilities in conjunction with development of various housing sites throughout the Planning Area.

There could be environmental impacts associated with the construction of new or expanded parks and other recreational facilities. It is not possible to identify the timing or relative specifics of these improvements is unknown at this time and it would be premature to consider these projects on a project-specific level as part of the Draft EIR for the General Plan 2040, as these projects have not yet been sited or designed and other key project components that would influence potential environmental impacts have not yet been determined. Accordingly, it would be inappropriate and speculative under CEQA to conduct a project-specific analysis in this Draft EIR. As the town proceeds with the construction of

new or expanded parks and other recreational facilities, including the public improvements identified in the General Plan, 2040 those projects will be reviewed by the Town for compliance with the policies and programs of the General Plan 2040 as well as the Municipal Code, which implements the General Plan 2040, related to physical effects these projects may have on the environment. Likewise, as the Town receives development applications for subsequent development under the General Plan 2040 that includes new or expanded parks and other recreational facilities, those future discretionary actions would be evaluated for project-specific environmental effects at the time they are proposed. Therefore, the physical effects on the environment from the construction of new or expanded parks and other recreational facilities would be **less than significant**.

*Applicable Proposed General Plan Policies and Implementation Actions*

*Open Space, Parks, and Recreation Element*

**Program OS-k Future Recreation Facilities**

Consider development of a community pool, community center/gymnasium, a dog park, and bocce courts if sites and funding become available. Consider acquisition of the Richardson Bay Sanitary District site for recreational use if it becomes available.

**Policy OS-33 Parkland Dedication**

Continue to require new parkland dedication and/or collection of in-lieu fees during the development review process. A ratio of 5.0 acres of park land per 1,000 persons is established for the Planning Area pursuant to the Quimby Act.

**Mitigation Measures**

None required.

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**Impact PSR-4**      **Development facilitated by the General Plan, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to fire protection facilities, police protection facilities, school facilities, library facilities, parks, and recreational facilities.**

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This analysis evaluates whether the impacts of the General Plan 2040, together with the impacts of cumulative development, would result in a cumulatively significant impact with respect to fire protection facilities, police protection facilities, school facilities, library facilities, parks, or recreational facilities.

Cumulative development with unincorporated Marin County is identified in the Marin Countywide Plan Update Final EIR. Cumulative development would be required to comply with design review regulations and policies in local and regional plans, including the Marin Countywide Plan and Marin County Development Code to ensure that impacts are less than significant. Cumulative projects within unincorporated Marin County would be required to comply with applicable Marin Countywide Plan policies and programs and adhere to



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development and design standards in the Marin County Municipal Code For these reasons, cumulative impacts to public services and recreation would be ***less than significant***.

### Fire Protection Services

The geographic context for the analysis of cumulative impacts related to fire protection services includes the TFPD and SMFD service areas, which comprises the Town of Tiburon, the City of Belvedere, unincorporated residential and wildland areas on the peninsula, as parts of the San Francisco Bay to Angel Island State Park, City of Sausalito, Tamalpais Valley, Homestead Valley, Almonte, Alto Bowl, Strawberry, the western 1/4 of the Town of Tiburon (Bel Aire/Blackfield/Reed Heights), and the National Park areas of Fort Baker and the Marin Headlands. A significant cumulative environmental impact would result if this cumulative growth exceeded the ability of the TFPD and SMFD to adequately serve their service area, thereby requiring construction of new facilities or modification of existing facilities. All cumulative projects within the TFPD and SMFD service area would be required to comply with relevant town ordinances, city ordinances and General Plan 2040 policies that address fire protection services. Therefore, cumulative impacts would be ***less than significant***.

Moreover, the General Plan 2040's incremental contribution to less than significant cumulative impacts would not be significant. As discussed under Impact PSR-1, implementation of the General Plan 2040 would not create a need for new or physically altered facilities for the TFPD and SMFD to provide fire protection services to its service area. Furthermore, the increased property taxes from development facilitated by the General Plan 2040, as well as the cumulative development projects, would result in additional funding being available to the TFPD and SMFD to allow for future growth.

As previously discussed, development facilitated by the General Plan 2040 would be required to comply with the policies and programs in the General Plan 2040 as well as the Tiburon Municipal Code, to ensure that fire protection services are adequate as future development is proposed. All cumulative projects within the TFPD and SMFD service areas would be required to comply with the relevant town ordinances, city ordinances, and General Plan 2040 policies that address fire protection services. Therefore, impacts of the General Plan 2040 on fire protection services are not cumulatively considerable and the cumulative impact would be ***less than significant***.

### Police Protection Facilities

The geographic context for the analysis of cumulative impacts related to police protection facilities includes the TPD service area, which comprises the Town. Since police protection services in Tiburon are provided by the Department, changes and growth anticipated under the General Plan 2040 would not have any cumulative impact beyond Tiburon's SOI. A significant cumulative environmental impact would result if this cumulative growth exceeded the ability of the Department to adequately serve their service area, thereby requiring construction of new facilities or modification of existing facilities. All cumulative projects within the Department service area would be required to comply with town ordinances and

other policies that address police protection services. Therefore, cumulative impacts would be **less than significant**.

The General Plan 2040's incremental contribution to less than significant cumulative impacts would not be significant. As discussed under Impact PSR-1, implementation of the General Plan 2040 would not create a need for new or physically altered facilities for the Department to provide police protection services to its service area.

As previously discussed, development facilitated by the General Plan 2040 would be required to comply with the policies and programs in the General Plan 2040 as well as the Municipal Code, to ensure that police protection services are adequate as future development is proposed. Therefore, impacts of the General Plan 2040 on police protection services are not cumulatively considerable and the cumulative impact would be **less than significant**.

### School Facilities

The geographic context for the analysis of cumulative impacts related to school facilities includes the TUSD service area, RUSD service area, and private schools that serve Tiburon and surrounding cities. Regional growth resulting from past, present, and reasonably foreseeable projects would result in increased demand for additional school facilities within all three public school districts serving the Town of Tiburon. Like development in Tiburon, the schools are expected to receive development impact fees from cumulative development within other jurisdictions. The payment of school impact fees would ensure that school facilities can accommodate future students. Therefore, cumulative impacts would be **less than significant**.

Development envisioned by the General Plan 2040 would contribute to an incremental cumulative increase in the demand for school facilities within the two school districts serving the town. The General Plan 2040's incremental contribution to less than significant cumulative impacts would not be significant. As discussed under Impact PSR-1, all development facilitated by the General Plan 2040 will be required to pay the school impact fees adopted by each school district, and this requirement is considered to fully mitigate the impacts of the General Plan 2040 on school facilities.

Therefore, impacts of the General Plan 2040 on school facilities are not cumulatively considerable and the cumulative impact would be **less than significant**.

### Library Facilities

The geographic context for analysis of cumulative impacts to library facilities includes the Tiburon Library. A significant cumulative environmental impact would result if cumulative growth exceeded the ability of the Belvedere-Tiburon Library to adequately serve people within their service area, thereby requiring construction of new facilities or modification of existing facilities. All cumulative projects would be required to comply with town ordinances and other policies that address library facilities and services. Therefore, cumulative impacts would be **less than significant**.

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The General Plan 2040's incremental contribution to less than significant cumulative impacts would not be significant. At buildout, development envisioned by the General Plan 2040 would result in a population increase of 24.6 percent, which would not significantly increase demand for library services. Additionally, the Belvedere-Tiburon Library was renovated and expanded in 2019-2021 to accommodate future growth in the Town as well as provide more services to residents. For these reasons, impacts of the General Plan 2040 on library facilities are not cumulatively considerable and the cumulative impact would be ***less than significant***.

### Other Municipal Services

The geographic context for analysis of cumulative impacts to other municipal services is the Town and SOI. Development envisioned by the General Plan 2040 would contribute to an incremental cumulative increase in the demand for other municipal services. All cumulative projects would be required to comply with Town ordinances other policies that address municipal services. Therefore, cumulative impacts would be ***less than significant***. The General Plan 2040's incremental contribution to the less than significant cumulative impacts would not be significant. At buildout, the anticipated population growth from the General Plan 2040 is 24.6 percent of the Town 's current population. The allocation of other municipal services is determined annually by the Town Council based upon local needs and resources. As a result, the cumulative impact on the Town budget is expected to be minor. For these reasons, impacts of the General Plan 2040 on other municipal services are not cumulatively considerable and the cumulative impact would be ***less than significant***.

### Parks and Recreational Facilities

The geographic context for the analysis of cumulative impacts of parks and recreational facilities includes those located within the town boundary. A significant cumulative environmental impact would result if this cumulative growth resulted in an increase in the use of existing parks and recreational facilities, such that substantial physical deterioration of the parks or recreational facilities would occur, be accelerated, to require the construction of new parks and recreational facilities or modification of existing parks and recreational facilities. All cumulative projects would be required to comply with Town ordinances and General Plan 2040 policies that address parks and recreational facilities, such as paying park in-lieu fees and maintaining adequate parkland ratios. Therefore, cumulative impacts to parks and recreational facilities would be ***less than significant***. The General Plan 2040's incremental contribution to the less than significant cumulative impacts would not be significant. As discussed under Impact PSR-2, implementation of the General Plan 2040 would not increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated. As discussed under Impact PSR-3, the construction or expansion of parks and other recreational facilities are not expected to result in an adverse physical effect on the environment. As such, development anticipated under the General Plan 2040 would not create substantial impacts related to parks and other recreational facilities.

Further, potential future impacts to Tiburon parks and recreational facilities would be further reduced through the contribution of property taxes to ensure facilities at these locations are adequately maintained and sufficient to accommodate growth associated with cumulative development. Therefore, impacts of the General Plan 2040 on parks and other recreational facilities are not cumulatively considerable and the cumulative impact would be ***less than significant***.

In conclusion, implementation of the General Plan 2040 is not expected to result in the need for new or expanded fire protection facilities, police protection facilities, school facilities, library facilities, other municipal service facilities, parks, or recreational facilities. If future requests for land use amendments cause the need for new facilities, development of such facilities would be located within the planning area analyzed in this Draft EIR. The General Plan 2040 includes policies and programs that are specifically designed to reduce or avoid environmental impacts of construction, including construction of public facilities. The policies related to each environmental topic area are shown throughout this Draft EIR. There are no additional significant impacts related to construction of public service, recreational or park facilities beyond the construction impacts that are analyzed throughout this Draft EIR. As appropriate, future facility construction plans would be subject to project-level CEQA analysis and additional feasible mitigation, if appropriate. Therefore, there would be no significant adverse physical cumulative environmental effects associated with construction and operation of new fire protection facilities, police protection facilities, school facilities, library facilities, other municipal service facilities, parks or recreational facilities, and this impact is considered ***less than significant***.

### **Mitigation Measures**

None required.

Figure 3.13-1. Fire Districts

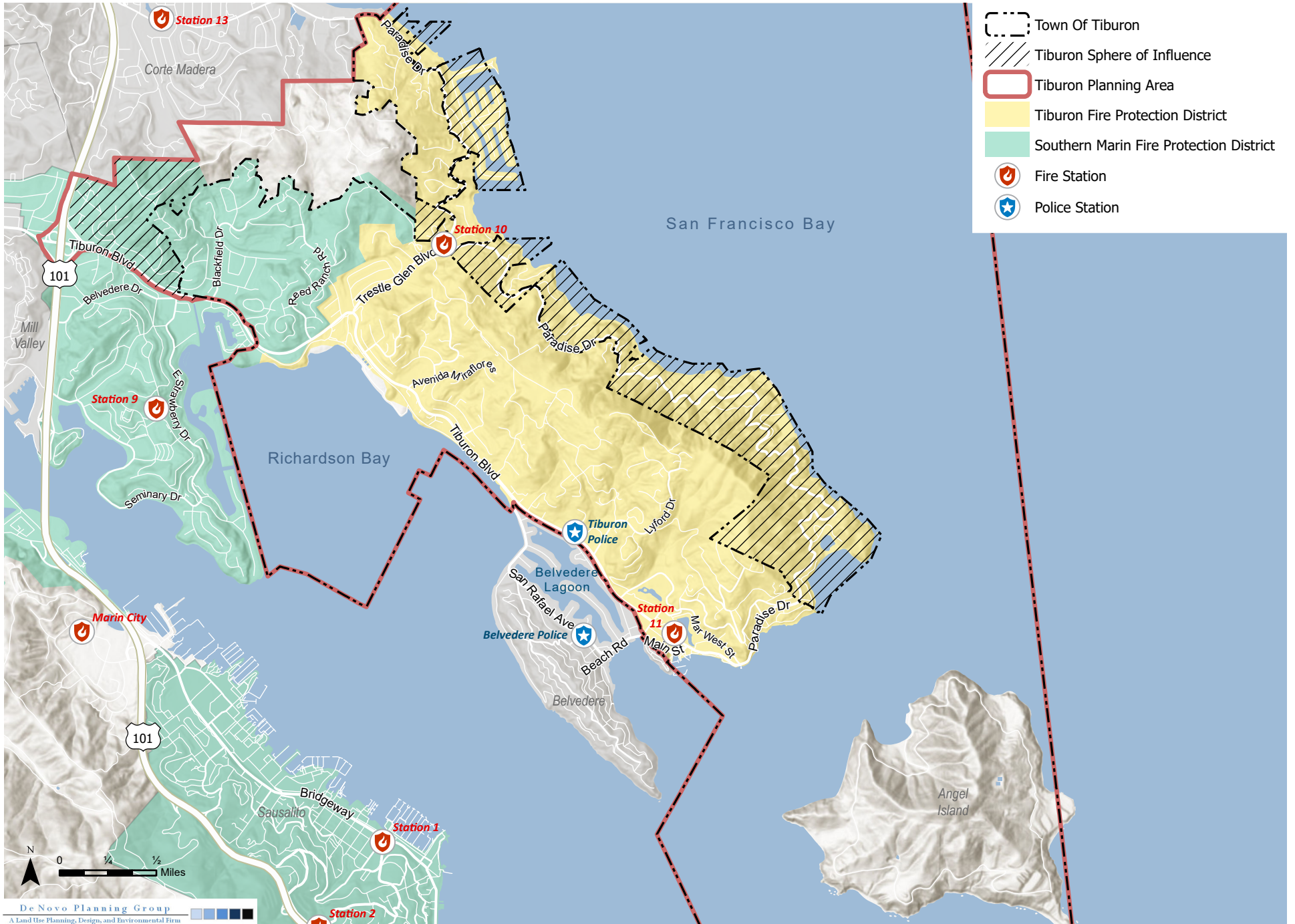
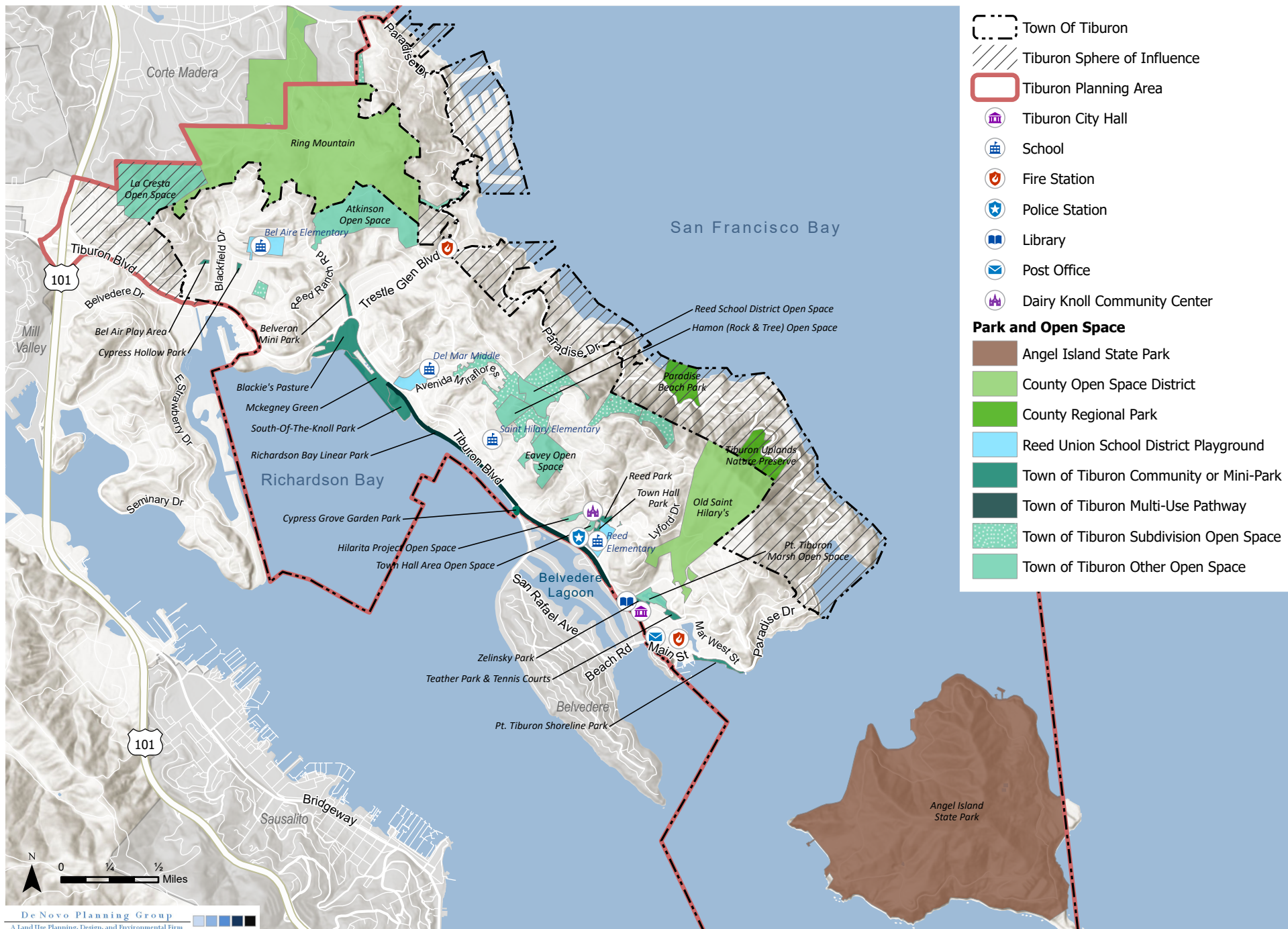




Figure 3.13-2. Public Safety, Parks, and Community Services







### 3.14 TRANSPORTATION

This section of the Draft EIR (Draft EIR) describes the regulatory framework and existing conditions in the Town related to transportation and evaluates the potential impacts on the local and regional circulation system that would result from implementation of the General Plan 2040. This section includes an analysis of the potential for the General Plan 2040 to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities; conflict with or be inconsistent with California Environmental Quality Act (CEQA) Guidelines Section 15064.3, subdivision (b); increase hazards due to a design feature; or interfere with emergency access. The analysis was conducted in accordance with the standards and methodologies set forth by the Town. It provides a level of detail appropriate for a program-level EIR. Future discretionary projects facilitated by the General Plan 2040 will be evaluated for project-specific impacts to transportation at the time they are proposed.

This section is based on analysis conducted by GHD including information described in the Tiburon General Plan 2040 Existing Conditions Report.

#### 3.14.1 EXISTING SETTING

Located eight miles north of San Francisco, Tiburon is placed in the heart of the San Francisco Bay Area. The Tiburon Peninsula is accessible by ferry from downtown San Francisco, by road from Highway 101 and Highway 131 (Tiburon Boulevard), and by bicycle through San Francisco Bay Trail. Apart from San Francisco, the other nearby major cities include Sausalito, Corte Madera, and San Rafael. Coordination among the regional transportation agencies is crucial for the continuous growth through higher connectivity and multiple transportation options of the Town. **Figure 3.14-1** shows the major regional transportation facilities.

Due to its unique geography, the Tiburon Peninsula provides various challenges and opportunities for transportation. The challenges are largely due to the relative isolation that results from being an elongated peninsula and from topography that is dominated by relatively steep hillsides.

#### *Travel Modes to Work*

Tiburon has double the rate of people that use public transportation including the ferry service (18.1 percent) for their journey to work as compared to the Marin County transit trips, according to the American Community Survey (ACS) 5-year estimates from 2015-19.

Fifty-four-point-six percent (54.6%) of workers drove alone to work which is fairly low as compared to countywide (64.1 percent) and statewide (73.5 percent) averages. Tiburon also has a higher rate of residents working at home (14.9 percent during the 2015-19 period that

predates the COVID-19 pandemic), more than double the Bay Area and statewide averages prior to 2020.

On the other hand, the percentage of employed persons who walked to work is only 1.6 percent, lower than the averages for Marin County (3.4 percent) and the Bay Area (3.5 percent). Reasons behind low walking trips might be because of the town’s hilly terrain, limited provision of sidewalks, and longer distances between the destinations. Further analysis has shown a decline in walking and bicycling trips from 2016 onwards (Data USA, n.d.). It should be noted that this data does not include recreational walking and bicycling trips. The journey to work commute characteristics data is presented in **Table 3.14-1**.

TABLE 3.14-1: WORK COMMUTE CHARACTERISTICS

Jurisdiction	Town of Tiburon		Marin County		Bay Area (9 County Region)		State of California	
Employed persons <sup>1</sup>	4,344		130,747		4,119,405		19,078,101	
Mode Split	Number	% <sup>2</sup>	Number	%	Number	%	Number	%
Drove Alone	2,327	54.6%	82,136	64.1%	2,522,264	65.1%	13,767,903	73.5%
Carpool	365	8.6%	10,537	8.2%	374,868	9.7%	1,841,273	9.8%
Public Transit	773	18.1%	12,346	9.6%	522,092	11.1%	970,901	5.2%
Walk	69	1.6%	4,399	3.4%	147,157	3.5%	479,751	2.6%
Other	92	2.2%	2,813	2.2%	143,493	3.3%	482,036	2.6%
Worked at Home	635	14.9%	15,930	12.4%	258,172	7.3%	1,188,387	6.3%
<sup>1</sup> POPULATION INCLUDES 16 YEARS OF AGE OR OLDER <sup>2</sup> PERCENTAGES ARE ROUNDED OFF TO THE NEAREST INTEGER SOURCE: U.S. CENSUS BUREAU, 2015-2019 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.								

Since the COVID-19 pandemic, the travel characteristics across all modes of transportation have been significantly impacted. During the lockdown in April 2020, passenger car travel was reduced by as much as three-fourths in some cities and towns as compared to the same period in 2019. However, it did regress through the end of 2020 (Ewoldsen, 2020).

Many cities took this opportunity to create a network of slow streets by closing traffic to encourage and facilitate more walking and biking, including a slow streets program on Main Street in Tiburon that was implemented through October 2021. Concerning active transportation, a cycling boom has been underway across the nation (Eco-Counter, 2021). In addition, interest and sales in electric bicycles (e-bikes) has been growing rapidly and is expected to continue to grow, with an extended range that increases the viability of bicycling for longer trips, and in areas with hilly terrain such as Tiburon, and can enhance transit access. Bicycle counts conducted in May 2020 found that approximately four to five percent of bicycles on a popular Marin County bicycle path consisted of e-bikes (Transportation Authority of Marin, September 2020).

Public transportation saw a sharp decline in ridership during the pandemic. The social distancing requirements impacted the transit fleet capacity and service intervals.

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Telecommuting and e-commerce grew during the pandemic resulting in the rise of “zoomtowns” (Fox, 2020). Although research is still ongoing, it is anticipated that some of this trend is likely to continue post-COVID, including higher rates of working from home.

### Place of Work

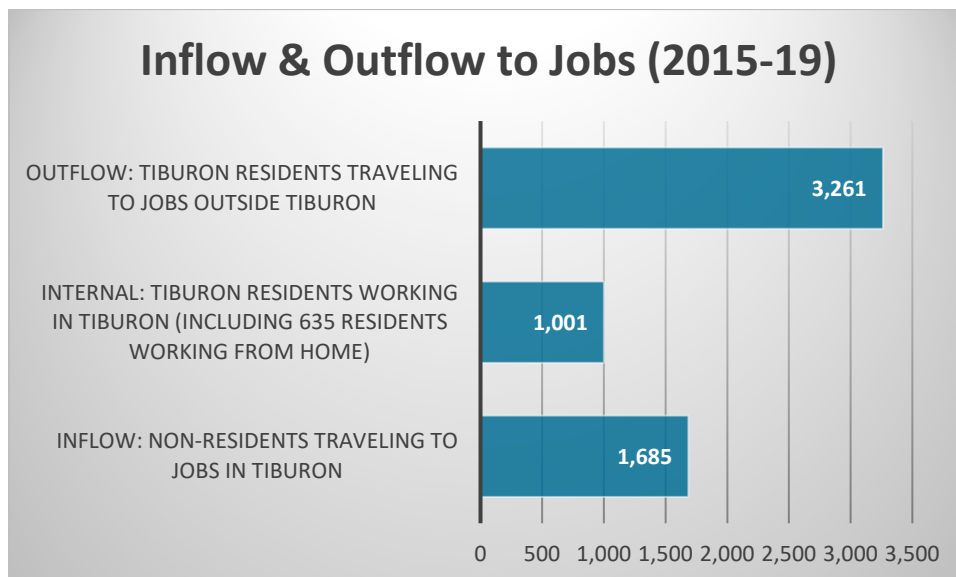
As shown in **Table 3.14-2**, a large number of residents in Tiburon and Marin County travel outside their place of residence for work based on ACS survey data from 2015-19. As shown, 3,260 Tiburon residents commuted to other jurisdictions for work, while 1,001 Tiburon residents worked in Tiburon (including 635 residents that worked from home as indicated on Table 3.14-1). **Chart 3.14-1** summarizes inflow and outflow characteristics of work trips to/from and within Tiburon, showing that approximately 1,685 non-residents commuted to jobs in Tiburon based on 2018 employment data.

TABLE 3.14-2: PLACE OF WORK

Residence	Tiburon		Marin County		Bay Area (9 County Region)*		California	
	Number	%	Number	%	Number	%	Number	%
Worked in Place of Residence	1,001	23%	36,791	31%	2,642,859	71%	14,514,622	83%
Worked Outside Place of Residence	3,260	77%	83,811	69%	1,079,553	29%	10,957,928	17%
Worked Outside State of Residence	0	0%	0	0%	14,371	0.4%	82,071	1%

\* 2013-17 ACS 5 YEAR ESTIMATES  
 SOURCE: U.S. CENSUS BUREAU, 2015-2019 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

CHART 3.14-1: INFLOW & OUTFLOW OF TRAVEL TO WORK



SOURCE: U.S. CENSUS BUREAU, OUTFLOW & INTERNAL DATA FROM 2015-19 AMERICAN COMMUNITY SURVEY (SEE TABLE 2 ABOVE); INFLOW DATA FROM U.S. CENSUS BUREAU, CENTER FOR ECONOMIC STUDIES, LONGITUDINAL EMPLOYER-HOUSEHOLD DYNAMICS (LEHD), 2018

### Travel Time to Work

The mean travel time to work for Tiburon residents is 32 minutes, similar to the Marin Countywide and Bay Area average as shown **Table 3.14-3**. However, 58 percent of the work trips for the town are more than 45 minutes long with only five percent trips less than 15 mins.

TABLE 3.14-2: MEAN TRAVEL TIME TO WORK

Jurisdiction	Tiburon	Marin County	Bay Area (9 County Region)	California
Mean Travel Time to Work (in minutes)	32.2	32.6	32.3	30.7

SOURCE: U.S. CENSUS BUREAU, 2013-2017 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES.

### Vehicle Miles Traveled (VMT)

A common indicator used to quantify the amount of motor vehicle use attributable to a specified area is vehicle miles traveled (VMT). One VMT is defined as any type of motor vehicle being driven one mile. Many factors affect VMT including the average distance residents travel to work, school, and shopping, as well as the proportion of trips that are made by non-automobile modes. Areas that have a diverse land use mix and adequate facilities for non-automobile modes, including transit, walking and bicycling, tend to generate lower VMT than auto-oriented suburban areas more distant from metropolitan centers.

The Transportation Authority of Marin (TAM) has developed an activity-based travel demand model, the TAM Demand Model (TAMDM) that provide estimates of VMT for trips beginning or ending in Marin County with a base year of 2015.

Table 3.14-4 shows the existing (2015) town wide rates of VMT per Capita for Tiburon residents, and VMT per Employee for jobs located in Tiburon, according to the TAMDM.

TABLE 3.14-3: VEHICLE MILES TRAVELED (VMT) ESTIMATE FOR TIBURON

Population Segment	2015	
	Residents/ Workers	VMT Per Capita/ Employee
VMT Per Capita (Tiburon residents)	9,180	15.9
VMT Per Employee (jobs in Tiburon)	3,075	24.3

SOURCE: TRANSPORTATION AUTHORITY OF MARIN, TRAVEL DEMAND MODEL (TAMDM)

# Town of Tiburon

## General Plan 2040 EIR

### 3.14.2 STREET NETWORK

#### Street Classifications

This section describes the physical characteristics of Tiburon’s street network. The General Plan Mobility Chapter identifies a functional classification system for each street type. A map of Tiburon’s street network is shown on **Figure 3.14-2**. The existing street classifications are defined as follows, further described on **Table 3.14-5**:

- **Arterials:** A street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to properties. Safe pedestrian and bicycle facilities, where feasible and appropriate, should be provided along arterials.
- **Collector:** A street for automobile traffic moving between arterial and local streets, generally providing direct access to properties. Safe pedestrian and bicycle facilities should be provided along the collectors where feasible and appropriate.
- **Local Streets:** A street providing direct access to properties and designed to discourage through traffic. Dedicated bicycle and pedestrian facilities, even if feasible, may not be necessary if traffic speeds are slow enough to comfortably share the roadway space.

**Table 3.14-6** and **Table 3.14-7** summarizes the street network based on functional classification miles and ownership.

TABLE 3.14-4: ROADWAY CLASSIFICATIONS & STREET DESIGN CHARACTERISTICS

Type	Function	Examples	Traffic Lanes
Freeway	Connects regional activity centers	U.S. 101	> 4
Major Arterial	Connects major local activity centers; also connects arterials with freeways	Tiburon Blvd., from U.S. 101 to Trestle Glen	4
Minor Arterial	Connect major arterial with collector and local streets.	Tiburon Blvd., from Trestle Glen to Main St.; Trestle Glen Blvd.	2 – 4
Collector	Collects traffic from local streets and channels it to arterial streets.	Blackfield Dr., Reed Ranch Rd., Lyford Dr., Stewart Dr.	2
Local	Serve adjacent residential and commercial property.	Gilmartin Dr., Cecilia Way, Main St., Mountain View Dr., Mt. Tiburon Rd., Juno Rd.	2

SOURCE: TIBURON GENERAL PLAN, 2016

TABLE 3.14-5: STREET NETWORK MILES BY CLASSIFICATION

Street Class	Tiburon (Miles)	Planning Area (Miles)
Freeways and Expressways	0	0
Major Arterial	0.6	1.2
Minor Arterial	3.1	3.1
Collector	5.2	11.3
Local Streets <sup>1</sup>	47.0	55.3
<b>Total</b>	<b>56.0</b>	<b>71.0</b>

SOURCE: MARIN COUNTY GIS PORTAL, 2020

TABLE 3.14-6: STREET OWNERSHIP INFORMATION

Ownership	Tiburon (Miles)	Planning Area (Miles)
Town of Tiburon	52.9	52.9
Caltrans	3.1	3.72
Others (Marin County, Corte Madera)	0	14.38
<b>Total</b>	<b>56.0</b>	<b>71.0</b>

SOURCE: MARIN COUNTY GIS PORTAL, 2020

### State Route 131 (Tiburon Blvd)

Caltrans operates and maintains the only state route in Tiburon, SR 131 (Tiburon Blvd). SR 131 is a two to four-lane east-west arterial that carries between 10,000 and 42,000 vehicles per day. It is the only dedicated truck route in the Town. SR 131 is a divided four-lane road from US 101 to Reed Ranch Rd, where it becomes an undivided two-lane road through the rest of the Town. SR 131 primarily provides connection to collector and local streets, as well as some commercial/retail land uses. SR 131 connects to US 101, which provides regional access to the rest of Marin County, Sonoma County, and San Francisco.

### 3.14.3 TRAFFIC VOLUMES

Daily (24-hour) motor vehicle traffic volumes on key street segments are summarized below on Table 3.14-8 and on Figure 3.14-9. It should be noted that volumes are from prior years, as new counts could not be collected in 2020 or 2021 due to the COVID-19 pandemic that reduced travel. Traffic volumes are below capacity on most segments.

TABLE 3.14-7: DAILY TRAFFIC VOLUMES, NUMBER OF LANES & POSTED SPEED LIMIT COMPARISON

Roadway	2005	2014	Percent change (2005-14)	2017*	Number of through Lanes	Posted Speed Limit
Tiburon Blvd, west of Redwood Highway Frontage Rd near US 101	41,000	42,100	+3%	48,300	4	35
Tiburon Blvd, west of Blackfield Dr	32,000	30,150	-6%	32,100	4	45
Tiburon Blvd, east of Reed Ranch Road	26,000	26,887	+3%	24,400	4	40
Tiburon Blvd, south of Trestle Glen Blvd	23,100	22,522	-3%		2	40
Tiburon Blvd, north of Avenida Miraflores	-	19,800	N/A		2	40
Tiburon Blvd, north of Rock Hill Dr	19,800	17,950	-9%	20,000	2	40
Tiburon Blvd, north of Lyford Dr	16,000	13,850	-13%		2	35
Tiburon Blvd, south of Beach Rd	7,600	10,400	+37%		2	30
Tiburon Blvd, north of Main St			N/A	6,000	2	30
Trestle Glen Blvd, east of Tiburon Blvd	-	6,225	N/A		2	35
Paradise Dr, east of Trestle Glen Blvd	-	1,535	N/A		2	25

SOURCE: 2017\* - FROM CALTRANS- [HTTPS://DOT.CA.GOV/PROGRAMS/TRAFFIC-OPERATIONS/CENSUS/TRAFFIC-VOLUMES/2017](https://dot.ca.gov/PROGRAMS/TRAFFIC-OPERATIONS/CENSUS/TRAFFIC-VOLUMES/2017)



# Town of Tiburon

## General Plan 2040 EIR

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TIBURON GENERAL PLAN, 2016

### **Public Transportation System**

Public transportation in Tiburon is provided by Marin Transit, Golden Gate Transit/Ferry, and Angel Island/Tiburon Ferry. All transit services are operating with reduced services at the time of writing due to the COVID-19 pandemic, so where possible, pre-pandemic services are presented along with current services. **Table 3.14-9** lists current public transportation services as of time of writing (Winter 2021).

#### **Marin Transit**

Marin Transit is the agency responsible for local transit service within Marin County, including Tiburon. The agency operates local transit services and contracts with other operators for three types of fixed route services within the county: large bus fixed route, shuttle, and rural service. Marin Transit also operates paratransit and dial-a-ride service within Marin County.

Currently, there is only one fixed route service within Tiburon: Route 219, which operates along Tiburon Blvd between downtown Tiburon, Belvedere, and US-101 at Seminary Dr Bus Pad in Mill Valley, where connections can be made to regional routes. The route also serves residential neighborhoods in Tiburon on a limited basis during weekdays, however this has been temporarily suspended. The route operates 7-days a week with 30-45 min headways. On weekdays the operating hours are 6:38am-8:53pm and on Weekends/Holidays they are 8:06am-7:58pm. Pre-pandemic, this route operated on a similar schedule, with the exception of inclusion of service to residential areas in Tiburon.

Pre-pandemic, Marin Transit operated school routes on weekdays directly before and after typical school hours. Two of these routes served Tiburon: Route 113 and Route 119. Route 113 made AM trips and 1-2 PM trips, beginning in Paradise Cay and serving East Corte Madera before ending at Redwood High School in Larkspur. Route 119 made 2 AM trips and 1-2 PM trips, beginning at Main St/Tiburon Blvd and making stops in Belvedere and along Tiburon Blvd before ending at Redwood High School in Larkspur. It is expected that both routes will resume post-pandemic once in-person school instruction resumes.

#### **Golden Gate Transit**

Golden Gate Transit operates transit services between Marin County and Sonoma, San Francisco, and Contra Costa Counties. It is one of three operating divisions of the Golden Gate Bridge, Highway, and Transportation District. The agency operates two inter-county bus services: Transbay Basic Service, and Transbay Commute Service. Prior to the pandemic, one commute bus route was operated between Tiburon and San Francisco with two AM trips and one PM trip.

### Golden Gate Ferry

The Golden Gate Bridge, Highway, and Transportation District operate ferry services between Marin County and San Francisco via conventional and high-speed ferries. Service is provided between the Tiburon Ferry Terminal (located in downtown Tiburon) and the San Francisco Ferry Building Gate B, Monday-Friday. Current service as of January 2022 includes three AM and two PM trips outbound to San Francisco, and two AM and three PM trips inbound to Tiburon. It should be noted that ferry schedules are updated quarterly and vary by season. More crossings are typically offered in the summer than in winter to account for increased tourist traffic.

Since December 13, 2021, Golden Gate Ferry also operates daily service between the San Francisco Ferry Building and Angel Island, with five daily roundtrips from Monday to Friday, and four daily roundtrips on Saturday and Sunday.

### Angel Island/Tiburon Ferry

The Angel Island/Tiburon Ferry operates recreational ferry service between Angel Island and downtown Tiburon. Service varies by season and in general more crossings are offered in the summer to account for increased tourist traffic. At the time of writing (Winter 2021), three crossings to Angel Island and four crossings to Tiburon were being offered on weekends; however, service is not being offered at all times during the winter due to the pandemic. Pre-pandemic, service was offered on one-to-two-hour headways, depending on the time of year. Service was offered at one-hour headways on weekends from April to October, and on one-to-two-hour headways from November to March. No service was offered on weekdays during the winter except by reservation.

### Pilot Late Night Ferry Service Program

A pilot late-night and weekend service is proposed between San Francisco and Tiburon with partial funding from the Town preliminarily approved in October 2021. The service would operate on Thursday through Saturday evenings. The Town would subsidize up to 80% of the estimated cost during the first two years of the program. The remaining 20% would be collected from businesses that benefit from the service.

Additionally, the Golden Gate Bridge Highway & Transportation District resumed direct commuter ferry service between Tiburon and San Francisco in December 2021, just ahead of the town's pilot program for weekend and evening runs.<sup>1</sup> Effective January 2, 2023, the commuter runs start at 6:50 a.m. from Tiburon and arrive in San Francisco at 7:20 a.m. The last trip to Tiburon leaves San Francisco at 6:40 p.m. and arrives in Tiburon at 7:20 p.m.<sup>2</sup>

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<sup>1</sup> Golden Gate Ferry resumes Tiburon-to-SF run. Marin Independent Journal. December 14, 2021. Available at: <https://www.marinij.com/2022/01/03/golden-gate-ferry-resumes-tiburon-to-sf-run/>. Accessed March 9, 2023.

<sup>2</sup> Source: <https://www.goldengate.org/ferry/route-schedule/tiburon-san-francisco/?backurl=%2Fferry%2Fschedules-maps%2F>.

# Town of Tiburon

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### Marin Access Paratransit

Marin Access Paratransit offers pre-scheduled bus transportation for persons with disabilities in Marin County. Service is offered within ¾ mile of fixed route Marin Transit routes and covers portions of Tiburon. Service is provided to paratransit eligible individuals on an on-demand basis, during regular Marin Transit operating hours.

TABLE 3.14-8: PUBLIC TRANSPORTATION SERVICES IN TIBURON (AS OF JANUARY 2022)

Service Provider	Route	Description	Frequency
Marin Transit	Route 219 Tiburon-Strawberry bus	Downtown Tiburon to/from Strawberry (Redwood Highway Frontage Road & DeSilva Island Drive)	30 to 45-minute headways
Golden Gate Ferry	Tiburon-San Francisco Ferry Building	Tiburon Ferry Terminal to/from San Francisco Ferry Building	7 daily roundtrips (weekdays), 4 daily roundtrips (Saturday/Sunday)
Angel Island Tiburon Ferry	Tiburon-Angel Island	Tiburon Ferry Terminal to/from Angel Island	Varies
Marin Access Paratransit	N/A	On-Demand within ¾ mile of Marin Transit fixed-route service	Varies

SOURCE: MARIN TRANSIT, GOLDEN GATE TRANSIT, ANGEL ISLAND-TIBURON FERRY, MARCH 2023.

### Active Transportation

Like many other small towns in the nation, Tiburon has a compact center well-suited for walking and bicycle trips. The active transportation network is designed for a range of ages, abilities, incomes, and skill levels. It is designed for people to move independently within their community—such as families walking to the nearby school—and also to experience the landscape between communities, for travel, recreation, or in the context of bicycle tourism (Federal Highway Administration, 2016). The following section describes the bicycle and pedestrian network for Town.

### Bicycle Facilities

One of the underlying goals of statewide “complete streets” requirements is that all modes of travel, including bicycles, should be adequately accommodated on most streets, not just streets that are designated as bikeways. Therefore, the provision of travel accommodations may occur throughout the town’s transportation network. Designated bikeways are routes where an additional level of bicycle accommodation is to be provided. There are four classifications of designated bikeway facilities in California, as defined by the California Department of Transportation (Caltrans):

- **Multi-Use Paths (Class I Bikeways).** A path physically separated from motor vehicle traffic by an open space or barrier, and either: within a highway right-of-way or within an independent right-of-way used by bicyclists, pedestrians, joggers, skater, and other non-motorized travelers. Because the availability of uninterrupted rights-of-way is limited, this type of facility may be difficult to locate and more expensive to build relative to other types of bicycle and pedestrian facilities, but less expensive compared to building new roadways. The 2.6-mile Old Rail Trail connects Richardson Bay from Blackie’s Pasture,

Downtown Tiburon and Shoreline Park. The Old Rail Trail is in close proximity to schools, shopping areas, parks, and public facilities.

- **Bicycle Lanes (Class II Bikeways).** A portion of a roadway that has been set aside by striping and pavement markings for the preferential or exclusive use of bicyclists. Bicycle lanes are intended to promote an orderly flow of bicycle and vehicle traffic. This type of facility is established by using the appropriate striping, legends, and signs. Buffered bicycle lanes are further enhanced by providing a designated buffer space, typically with pavement markings, between the bicycle lane and adjacent on-street parking or motor vehicle lane. Buffered bicycle lanes provide greater separation between bicyclists and motorists and/or avoid the door zone adjacent to parked cars.
- **Bicycle Routes (Class III Bikeways).** Class III bicycle routes are facilities where bicyclists share travel lanes with motor vehicle traffic. Bike routes must be of benefit to the bicyclist and offer a higher degree of service than adjacent streets. They provide for specific bicycle demand and may be used to connect discontinuous segments of bicycle lane streets. They are often located on local residential streets. Presently, the town has 2.8 miles of class III bikeways on Paradise Drive.
  - *Bicycle Boulevard.* In addition, many cities have installed an enhanced type of Class III Bicycle Route, referred to as a “Bicycle Boulevard.” Bicycle Boulevards are generally installed on relatively low-volume streets and often include elements to facilitate bicycle travel, such as reorienting stop signs to reduce delays to cyclists, and/or discouraging use by motorists making through trips, such as through inclusion of traffic calming measures.
- **Separated Bikeway (Class IV Bikeways).** A Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and adjacent vehicle traffic. The physical separation may include flexible posts, grade separation, inflexible physical barriers or on-street parking. Separated bikeways generally operate in the same direction as vehicle traffic on the same side of the roadway. However, two-way separation bikeways can also be used, usually in lower speed environments. Presently, there are no class IV bikeways in Tiburon. However, Tiburon Boulevard between US-101 and Blackfield / Greenwood Cove Drive could be the potential location for class IV bikeways.

**Figure 3.14-4** shows the existing and planned bikeway network for the Tiburon. The existing bicycle facilities follow “Paradise Loop” which runs along Tiburon Boulevard and Paradise Drive and forms the primary bicycle transportation and recreation spine of the Tiburon Peninsula. **Table 3.14-10** shows the existing and proposed length of bikeways by class.

TABLE 3.14-9: BIKEWAY NETWORK MILES

Type OF Bikeway	Bikeway Class	Existing (Miles)	Proposed (Miles)
Multi-use Paths	I	2.72	0.0
Bicycle Lanes	II	0.72	1.61
Bicycle Routes	III	2.84	0.97

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Separated Bikeways	IV	0.00	0.03
<b>Total</b>	--	<b>6.13</b>	<b>2.61</b>

SOURCE: TIBURON BICYCLE AND PEDESTRIAN MASTER PLAN, 2016

### Walking Conditions

#### *Sidewalk, Path & Crosswalk Network*

In addition to the Old Rail Trail, Tiburon has a variety of pedestrian facilities consisting of sidewalks, crosswalks, stairways, and walkways. A number of these facilities are more or less developed, consisting of historic stairways and unpaved or narrow footpaths (Town of Tiburon, 2016). Examples of high-use pedestrian areas include the downtown area and crossings of Tiburon Boulevard to access destinations such as schools, the post office, and library. In addition, a walkway extends along a segment of Mar West Street to the Tiburon Peninsula Club.

**Figure 3.14-5** provides a map showing pedestrian constraints and gaps in the walking network. It is evident that the northern portion of the town lacks dedicated pedestrian facilities. In the southern portion of the town, Rock Hill Road from Tiburon Boulevard to St. Hilary Middle School could be another potential segment for sidewalk addition.

### Transportation Safety

Collision history from the California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS), University of California, Berkeley's Transportation Injury Mapping System (TIMS) were obtained for five years (2015-2019) to determine existing motor vehicle collision trends. The locations of the motor vehicle collisions are shown in **Figure 3.14-6**. As shown in **Table 3.14-11**, there were a total of 58 reported collisions during the years from 2015 to 2019. **Figure 3.14-7** depicts the type of reported collision by location.

- There were no fatal collisions reported for the specified time frame.
- On average, one serious injury and four visible injury collisions are reported annually.
- Severe injuries occurred in five percent of all the collisions and the major cause of such collisions is unsafe speed.
- Rear end collisions were the most common occurring collision type (33%), followed by Broadside collisions (14%).
- The two most common primary collision factors were unsafe speed (36%) and automobile right-of-way (15%)

Bicyclists and motorcyclists were involved in 19 percent and 16 percent of collisions resulting injuries. As shown in **Table 3.14-12**, just three injury collisions involved pedestrians, while 11 involved bicyclists, and nine involved motorcyclists.

TABLE 3.14-10: REPORTED COLLISIONS BY CRASH SEVERITY (2015-19)

Crash Severity	Total Crashes
Fatal	0
Severe Injury	3
Visible Injury	20
Complaint of Pain	35
<b>Total</b>	<b>58</b>

SOURCE: TIMS, 2021

TABLE 3.14-11 FATAL AND INJURY COLLISIONS BY MODE OF TRAVEL (2015-19)

Road Users Involved	Fatal	Severe Injury	Visible Injury	Complaint Of Pain	Total
Pedestrian - Vehicle	0	0	3	0	3
Bicycle - Vehicle	0	0	5	6	11
Motorcycle - Vehicle	0	0	4	5	9
Other Motor Vehicle Collisions	0	3	8	24	35
<b>Total</b>	<b>0</b>	<b>3</b>	<b>20</b>	<b>35</b>	<b>58</b>

SOURCE: TIMS, 2021

### *Bicycle and Pedestrian Collisions*

The locations of reported bicycle and pedestrian collisions are shown in **Figure 3.14-8**. As shown, bicycles or pedestrians were involved in approximately 24 percent of reported collisions. The majority of collisions involving bicycles or pedestrians were Vehicle-Bicycle collisions, accounting for approximately 19 percent of total collisions.

Bicycle and pedestrian collisions occurred mainly along Tiburon Boulevard and Paradise Drive. Four bicycle and pedestrian collisions occurred near the intersection of Cecilia Way and Paradise Drive. The other major hotspot for bicycle and pedestrian collision is near the Shoreline Park.

### *Alternative Fuel Vehicles*

With incentives from government, more Californians are moving towards cleaner alternative energy sources for their vehicles as a way to reduce their impact on the natural environment. As one of the largest producers of pollution, the automobile and transportation industries



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are rapidly responding to this shift toward alternative fuel sources for vehicles. Marin County has the 2nd highest per capita EV ownership of any county in the California, and with 58 charging stations and 201 charging ports, there are more EV charging stations than gas stations in Marin County (Transportation Authority of Marin, 2018). TAM has funded the two charging stations in Tiburon. Additional infrastructure deployment will be essential to for the success of alternative fuel vehicles. **Figure 3.14-10** shows the location of existing hydrogen and electric vehicle charging stations.

### 3.14.4 REGULATORY SETTING

#### *Federal*

The U.S. Department of Transportation (DOT) is the umbrella agency for all federal transportation policies and regulations. The DOT's stated goals are to keep the traveling public safe, increase national mobility, and support the national economy through the transportation system. The DOT oversees several agencies that administer federal statutes for various branches of transportation, including:

- The National Highway Traffic Safety Administration, which is responsible for motor vehicle and highway transportation safety standards and regulations
- The Federal Highway Administration, which is responsible for laws pertaining to commercial freight and the maintenance and preservation of interstate highways, tunnels, and bridges
- The Federal Motor Carrier Safety Administration, which is responsible for safety regulation laws for large commercial vehicles
- The Federal Railroad Administration, which is responsible for regulating the safety and development of the U.S. railroad system
- The Federal Transit Administration, which provides financial and technical assistance to local public transportation systems

These agencies support state and local governments in the design, construction, and maintenance of transportation systems through various programs and projects<sup>3</sup> (Transportation Law).

#### *State*

##### **California Department of Transportation**

The California Department of Transportation (Caltrans) is charged with managing and maintaining the State's highway system. Caltrans directly manages more than 50,000 lane miles of State and federal highways, as well as over 12,000 highway bridges; permits more

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<sup>3</sup> For more information: <https://www.fhwa.dot.gov/federalaid/projects.cfm>

than 400 public-use airports; and operates three of the top five Amtrak intercity rail services.<sup>4</sup> Caltrans' Strategic Plan 2020-2024 identifies six primary goals: Safety First, Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network, Strengthen Stewardship and Drive Efficiency, Lead Climate Action, and Advance Equity and Livability in All Communities.<sup>5</sup> Within the Tiburon Planning Area, Caltrans maintains Highway 101.

### **Caltrans Deputy Directive 64-R1: Complete Streets-Integrating the Transportation System**

In 2001, Caltrans adopted Deputy Directive 64: a policy directive related to non-motorized travel throughout the state. In October 2008, Deputy Directive 64 was strengthened to reflect changing priorities and challenges. Deputy Directive 64-R1 states:

The Department views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system. Providing safe mobility for all users, including motorists, bicyclists, pedestrians and transit riders, contributes to the Department's mission/vision: "Improving Mobility across California.

Successful long-term implementation of this policy is intended to result in more options for people to go from one place to another, less traffic congestion and greenhouse gas (GHG) emissions, more walkable communities (with healthier, more active people), and fewer barriers for older adults, children, and people with disabilities.

### **Caltrans Director's Policy 22: Director's Policy on Context Sensitive Solutions**

Director's Policy 22, a policy regarding the use of "Context Sensitive Solutions" on all State highways, was adopted by Caltrans in November of 2001. The policy reads:

The Department uses "Context Sensitive Solutions" as an approach to plan, design, construct, maintain, and operate its transportation system. These solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders.

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<sup>4</sup> California Department of Transportation (Caltrans). Caltrans Strategic Management Plan 2015-2020. Website: <https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/caltrans-strategic-mgmt-plan-033015-a11y.pdf>. Accessed February 28, 2023.

<sup>5</sup> California Department of Transportation (Caltrans). Caltrans Strategic Plan 2020-2024. Website: <https://dot.ca.gov/-/media/dot-media/programs/risk-strategic-management/documents/sp-2020-16p-web-a11y.pdf>. Accessed February 28, 2023.

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The context of all projects and activities is a key factor in reaching decisions. Context is considered for all State transportation and support facilities when defining, developing, and evaluating options. When considering the context, issues such as funding feasibility, maintenance feasibility, traffic demand, impact on alternate routes, impact on safety, and relevant laws, rules, and regulations must be addressed.

The policy recognizes that “in towns and cities across California, the State highway may be the only through street or may function as a local street,” that “these communities desire that their main street be an economic, social, and cultural asset as well as provide for the safe and efficient movement of people and goods,” and that “communities want transportation projects to provide opportunities for enhanced non-motorized travel and visual quality.” The policy acknowledges that addressing these needs will assure that transportation solutions meet more than just traffic and operational objectives.

### **Complete Streets Act**

On September 30, 2008, Governor Schwarzenegger signed into law Assembly Bill (AB) 1358, the California Complete Streets Act of 2008. As of January 2011, AB 1358 requires any substantive revision of the circulation element of a city or county’s general plan to identify how it will safely accommodate the circulation of all users of the roadway including pedestrians, bicyclists, children, seniors, individuals with disabilities, and transit riders, as well as motorists. A “Complete Street” is one that provides safe and convenient travel in a manner that is suitable to the local context.

### **Senate Bill 743**

On September 27, 2013, California Governor Jerry Brown signed Senate Bill (SB) 743 into law, which changes the way that transportation impacts are analyzed under CEQA. Specifically, SB 743 required the Governor’s Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to using level of service (LOS) for evaluating transportation impacts. Particularly within areas served by transit, those alternative criteria must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” (Public Resources Code [PRC] Section 21099(b)(1).)

In addition, SB 743 adds Public Resources Code Section 21099, which provides that “aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.” A transit priority area is defined as an area within 0.5 mile of an existing or planned major transit stop. Public Resources Code Section 21064.3 defines a major transit stop as a “site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon commute periods.”

## Vehicle Miles Traveled

Following the enactment of SB 743, the OPR identified Vehicle Miles Traveled (VMT) as the new metric to analyze transportation impacts.

In December 2018, the OPR recommended changes to the CEQA Guidelines that were adopted and described in new Section 15064.3, codifying the new VMT requirement and setting forth criteria for evaluating transportation impacts using VMT. Under Section 15064.3, VMT analysis is mandatory for all projects effective July 1, 2020. (Subd. (c).) A project's effect on automobile delay (e.g., LOS) no longer constitutes a significant environmental impact. (Subd. (a).)

Under CEQA Guidelines Section 15064.3, a lead agency has discretion to choose the most appropriate methodology for evaluating VMT, including whether to evaluate it qualitatively or quantitatively, and whether to express the change in absolute terms, per capita, per household, or in any other measure. (Subd. (b)(4).) The lead agency may use a model to estimate a project's VMT, and it may revise the model's estimates to reflect professional judgment based on substantial evidence. Any estimates and assumptions, and any revisions to model outputs, should be documented and explained in the CEQA document. If existing models and methods are not available to estimate VMT for the particular project being considered, the lead agency may analyze VMT qualitatively. (Subd. (b)(3).) A qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. Additionally, land use projects within one-half mile of an existing major transit stop or a stop along an existing high-quality transit corridor are presumed to cause less than significant transportation impacts. (Subd. (b)(1).) Projects that decrease VMT in the project area compared to existing conditions should be presumed to have a less-than-significant transportation impact.

In December 2018, the OPR released a revised Technical Advisory, which provides advice and recommendations regarding the assessment of VMT, thresholds of significance, and mitigation measures.<sup>6</sup> Key recommendations described in the OPR guidelines include:

- Land use development near transit or in VMT-efficient areas should be presumed to cause a less-than-significant transportation impact.
- Transit, active transportation, and rehabilitation projects that do not add motor vehicle capacity should also be presumed to cause a less-than-significant impact.
- Consistent with CEQA requirements that grants discretion to cities to identify locally applicable impact thresholds: OPR's guidelines do not require a specific methodology for measuring VMT and identifying impact thresholds, but instead defer to local jurisdictions to identify methodologies and thresholds applicable to each local setting.

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<sup>6</sup> Governor's Office of Planning and Research (OPR). 2018. Technical Advisory: On Evaluating Transportation Impacts in CEQA.

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- The OPR guidelines describe recommended methodologies for local agencies to consider when updating their transportation impact thresholds.
- OPR recommends that VMT be quantified on a “per capita” (per resident) basis for residential projects, and on a “per employee” for office development. OPR recommends that VMT impact thresholds for residential and employment uses be based on comparing “projects” under CEQA with area-wide averages, with project impacts evaluated under a “per capita” or “per employee” methodology considered potentially significant if project VMT exceeds the selected threshold. Establishing VMT impact thresholds that are 15 percent below existing rates has been suggested, but not required, in order to help meet statewide greenhouse gas (GHG) reduction goals. Cities and towns can choose whether to base their VMT impacts thresholds on regional, countywide, or sub-regional averages (while citywide or town-wide averages can also be utilized for residential VMT thresholds).
- For retail projects, OPR recommends that VMT be evaluated based on the “net change” in VMT (not a rate) since retail projects typically redistribute traffic within a market area rather than resulting in net new VMT (thus a net increase in VMT could be considered potentially significant).
- OPR provides several recommendations for mixed-use projects, including evaluating each use separately or evaluating mixed-use projects based on the appropriate methodology for the predominant land use.

### **Caltrans - Context Sensitive Street Design**

Caltrans promotes “*Context Sensitive Solutions*” as an approach to plan, design, construct, maintain, and operate its transportation system. These solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders. Context sensitive solutions meet transportation goals in harmony with community goals and natural environments. They require careful, imaginative, and early planning, and continuous community involvement.

### ***Regional***

#### **Plan Bay Area 2050**

The Association of Bay Area Governments (ABAG) is the official comprehensive planning agency for the San Francisco Bay region, which is composed of the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma, and also contains Highway 101 jurisdictions. The Regional Transportation Plan and Sustainable Community Strategy (RTP/SCS) for the San Francisco Bay Area, named Plan Bay Area 2050 was jointly produced and adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) on October 21, 2021. Plan Bay Area 2050

is the strategic update to Plan Bay Area 2040, and it connects the elements of housing, the economy, transportation and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. It is a roadmap to help Bay Area cities and counties preserve the character of our diverse communities while adapting to the challenges of future population.<sup>7</sup>

Local agencies seeking funding through MTC's One Bay Area Grant (OBAG) Program are expected to show compliance with Complete Streets policies. MTC via OBAG is a potentially major source for transportation funding. MTC will embark on a third OBAG cycle beginning in 2022 in order to advance Plan Bay Area 2050. Meeting eligibility requirements would allow the Town to apply for Local Street and roads preservation, safe routes to schools, pedestrians and bicycle improvements, and transportation for livable community funds.

Under Plan Bay Area 2050's strategies, just under half of all Bay Area households would live within one half-mile of frequent transit by 2050, with this share increasing to over 70% for households with low incomes. Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecasted to lower the share of Bay Area residents that drive to work alone from over 50% in 2015 to 36% in 2050. GHG emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the state mandate of a 19% reduction in per-capita emissions by 2035 — but only if all strategies are implemented.

Throughout Plan Bay Area 2050, Growth Geographies are geographic areas used to guide where future growth in housing and jobs would be focused under the plan's strategies over the next 30 years. These geographies are identified for growth either by local jurisdictions or because of their proximity to transit or access to opportunity. The four types of Growth Geographies analyzed in Plan Bay Area 2050 are: Priority Development Areas (PDAs), Priority Production Areas (PPAs), Transit-Rich Areas (TRAs), and High-Resource Areas (HRAs).<sup>8</sup> Tiburon contains a Transit-Rich and High-Resource Area on the southern portion of the Town.<sup>9</sup>

### **Metropolitan Transportation Commission**

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county Bay Area, including Marin County. It also functions as the federally mandated Metropolitan Planning Organization (MPO) for the region. It is responsible for regularly updating the Regional Transportation Plan (RTP), a

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<sup>7</sup> Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2021. Plan Bay Area 2050. May 26.

<sup>8</sup> Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2021. Plan Bay Area 2050. May 26. Page 18.

<sup>9</sup> Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2021. Plan Bay Area 2050. May 26. Page 19.



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comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities.

As stated in Section 3.7, Greenhouse Gas Emissions, SB 375 was adopted as the means for achieving regional transportation related GHG targets. Among the requirements of SB 375 is the creation of a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the RTP must be consistent with one other, including action items and financing decisions. MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission. Plan Bay Area 2050 is the current RTP.

The MTC has established its policy on Complete Streets in the Bay Area. The policy states that projects funded all, or in part, with regional funds (e.g., federal, State Transportation Improvement Program, and bridge tolls) must consider the accommodation of bicycle and pedestrian facilities, as described in Caltrans Deputy Directive 64. These recommendations do not replace locally adopted policies regarding transportation planning, design, and construction. Instead, these recommendations facilitate the accommodation of pedestrians, including wheelchair users, and bicyclists into all projects where bicycle and pedestrian travel is consistent with current adopted regional and local plans.

### **Transportation Authority of Marin**

The MTC requires the local transportation authority, in this case the TAM, to establish transportation plans that are incorporated into the larger RTP. In Marin County, the TAM is also the Congestion Management Agency tasked with preparing a comprehensive transportation improvement program among local jurisdictions that describes the strategies to reduce traffic congestion and improve land use decision-making.

TAM is required to prepare, update, and monitor the Congestion Management Program (CMP). The CMP consists of monitoring, performance measurement, and a capital improvement plan for roadways, bicycle and pedestrian facilities, and transit services. As required by State legislation, TAM maintains a travel demand model to forecast proposed changes to the transportation network. The 2019 CMP Update includes a Transportation Demand Management (TDM) element that outlines projects and strategies that promote alternate modes of transportation and thereby help reduce traffic congestion and improve air quality, as required by the State of California Government Code Section 65089(b) Subsection (3).<sup>10</sup> Local governments have an opportunity to ensure that TDM measures are adequately factored into this decision making process as they review new development proposals and make key decisions on planning and zoning matters. Local governments may also choose to support (through resolution or other means) regional TDM measures, including carpool lanes and ridesharing facilities and programs, which could be implemented by other agencies, such as the TAM or MTC.

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<sup>10</sup> Transportation Authority of Marin (TAM). 2019. 2019 Congestion Management Plan Update, page 32.

### **Marin County Congestion Management**

The Transportation Authority of Marin (TAM) is the Congestion Management Agency (CMA) for Marin County and funds transportation projects that improve mobility, reduce congestion, and provide a transportation system with more options countywide. TAM is responsible for developing expenditure plans for voter-approved local sales tax measures, such as Measure AA and Measure B. The agency coordinates a variety of projects among the County's local agencies (including Tiburon) as well as regional and state partners, including highways, sidewalks, Safe Routes to School, bicycle lanes, transit, and alternative commute options.

TAM, as the county's CMA, also maintains a Congestion Management Program (CMP) as required by the California Government Code 65089. TAM is also required to monitor the implementation of all elements of the CMP and prepare a monitoring report every other year. This report fulfills the biennial monitoring task as required by the State. The CMP includes LOS monitoring of freeways and major arterials, the performance of multi-modal transportation options, such as transit and bicycle/pedestrian, discussion of Transportation Demand Management, Land Use Analysis program, the role of the Travel Demand Model, and a 7-year Capital Improvement Program.

As part of the CMP monitoring requirements, TAM bi-annually monitors LOS on 10 freeway segments and 17 arterial segments in Marin County. Should a segment fall below the established LOS standard for that segment, the jurisdiction in which the segment is located is required to participate in the preparation, adoption, and implementation of a deficiency plan to improve the LOS. Each Marin County jurisdiction, including Tiburon, is additionally required by the CMP to participate in the Land Use Analysis program, under which the impacts of land use decisions on the regional transportation system are analyzed and if necessary, mitigated.

There are no CMP segments within Town limits; however, one segment borders it and is a major connector into Tiburon: SR-131 (Tiburon Blvd) from US-101 to Strawberry Dr. In the most recent monitoring cycle to date (2018), Tiburon Blvd operated at LOS A in both the AM and PM peak period. TAM also monitors bicycle/pedestrian activity at two locations within Town limits each bi-annual monitoring cycle: Tiburon Blvd at Main St, and Tiburon Bike Path at Blackie's Pasture.

### **Marin County Unincorporated Bicycle and Pedestrian Master Plan**

The Marin County Unincorporated Area Bicycle and Pedestrian Master Plan, 2018 is an update to the 2008 plan conducted an in-depth needs analysis identifying areas of concerns in the unincorporated region of the County. The plan proposes various projects such as Class II bikeway on Tiburon Boulevard connecting US Highway 101 with Tiburon Town Limits and Class I between Strawberry Drive and Greenwood Cove Drive. Furthermore, it recommends the addition of bike lanes on US Highway 101 and Tiburon Blvd Interchange based on the results of the study conducted by TAM.

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### **Golden Gate Bridge, Highway and Transportation District**

The Golden Gate Bridge, Highway and Transportation District operates the Golden Gate Bridge and two public transit systems: Golden Gate Transit buses and the Golden Gate Ferry. Several Golden Gate Transit routes connect Tiburon with regional centers, including destinations within Marin and in San Francisco. The Golden Gate Ferry provides service between the Town and San Francisco.

### **Marin County Transit District**

The MCTD provides local transit service within Marin County. Although MCTD has responsibility for local services, it does not own any buses or facilities and does not employ its own drivers. Instead, MCTD contracts with other providers, including Golden Gate Transit and Whistlestop Wheels, for local bus and paratransit services.

### ***Local***

#### **2020 General Plan**

The Circulation Element is provided in Chapter 5 of the 2020 General Plan most recently updated on February 3, 2016. This element addresses walkability, transit access, and “complete streets”:

#### **Tiburon Bicycle and Pedestrian Plan**

The Town adopted the Tiburon Bicycle and Pedestrian Plan in 2016 that focuses on bicycle and pedestrian facilities such as sidewalks, paths, bike lanes, and bike routes. The following goals were adopted as part of the plan.

- Goal 1 - Increased Bicycle and Pedestrian Access: Expand bicycle and pedestrian facilities and provide increased access to neighborhood areas, employment centers, shopping areas, schools, and recreational sites.
- Goal 2 - Bicycle Transportation: Make travel by bicycle an integral part of daily life in Tiburon by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient.
- Goal 3 - Pedestrian Transportation: Encourage walking as a daily form of transportation in Tiburon by completing a pedestrian network that services short trips and transit, improving the quality of the pedestrian environment, and increasing safety, convenience, and access opportunities for all users.

Connections from residential areas to schools and from the town to Strawberry, Mill Valley, and Corte Madera still present significant obstacles to bicyclists. The Bicycle and Pedestrian Plan specifies the addition of 2.61 miles of bikeways within the Town limits mainly focusing on Tiburon Blvd, Trestle Glen Blvd, and Paradise Dr., and pedestrian crossing improvements

on Tiburon Blvd. Furthermore, the plan includes a few trail projects such as Tiburon Ridge Trail and Las Lomas Trail.

### **Tiburon Complete Streets Policy**

The Town adopted a Complete Streets Policy that expresses its commitment to creating and maintaining “Complete Streets” which are defined as comprehensive, integrated transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families, among others.

### **Tiburon Climate Action Plan 2030**

The transportation sector is one of the largest sources of GHG emissions. Hence, it is important to understand the impact of transportation on climate change. To reduce GHG emission from the transportation sector, the following actions were recommended as part of the Tiburon Climate Action Plan 2030:

**LCT-C1: Zero Emission Vehicles.** Take actions that will result in at least 45% of registered passenger vehicles in Tiburon and Marin County to be zero emission vehicles (ZEVs), including plug-in electric vehicles (EVs) and hydrogen fuel cell electric vehicles, by 2030. Actions include:

1. Support development of a countywide EV plan that can be adopted by all Marin jurisdictions that identifies strategies to accelerate EV adoption. The plan should identify the number and type of chargers needed in each jurisdiction to achieve a minimum 45% ZEV penetration target; potential locations for public, workplace, and multi-family charging; best practices for charging station siting, installation, and signage; and model code language and guides for permit streamlining and charging infrastructure requirements.
2. Work with PG&E, MCE, Transportation Authority of Marin, and other entities to identify and develop multifamily and workplace charging sites.
  - a. Conduct outreach to multifamily HOA associations and facilitate meetings with EV charging supply providers.
  - b. Relax development standards to facilitate installation of EV chargers.
  - c. Assist in applying for available grant funding and rebates.
  - d. Contribute funding for grid infrastructure upgrades as needed.
3. Pursue opportunities to expand the Town’s EV charging network by identifying suitable Level 2 and Level 3 DC fast charging locations and considering innovative programs, such as streetlight and curbside charging to serve those who do not have access to home charging.
  - a. Develop a private-public partnership and install Level 3 fast chargers at public locations, such as Blackie’s Pasture, sufficient to service near-term resident

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- and visitor demand with expansion plans to service a projected Marin County population of 90,000 EVs in 2030.
- b. Assist in applying for available grant funding and rebates.
  - c. Contribute funding for grid infrastructure upgrades as needed.
4. Encourage and facilitate installation of Level 3 fast chargers in the Downtown as commercial properties are redeveloped.
    - a. Facilitate meetings with property owners, developers, and EV charging equipment providers as new development is proposed.
    - b. Provide concessions on development standards as needed to facilitate installation of fast chargers.
    - c. Allow EV fast charging spaces to count towards the parking requirement for residential and commercial uses.
    - d. Allow advertising to be delivered at EV chargers.
    - e. Assist in applying for available grant funding and rebates.
    - f. Contribute funding for grid infrastructure upgrades as needed.
    - g. Develop Level 3 fast chargers sufficient to service a projected Marin County population of 90,000 EVs by 2030.
  5. Provide directional signage to public EV chargers on local streets and, as appropriate, from state highways.
  6. Work with the Transportation Authority of Marin (TAM), MCE, the California Energy Commission (CEC) and other entities to provide technical assistance and incentives, such as rebates, for multi-family and workplace charging sites.
  7. Participate in a countywide effort by MCE, Pacific Gas & Electric (PG&E), and others to provide rebates for new or used electric vehicles.
  8. As the Town's Green Building Ordinance is updated, require new and remodeled single-family, multi-family and commercial projects to install electrical service, add conduits and chargers, as appropriate, for potential electric vehicle use beyond state standards.
    - a. Require all new multifamily development to provide one EV-ready parking space per unit and additional EV fast chargers that are accessible to the public.
  9. Participate in regional efforts and grant programs to encourage widespread availability of EV charging stations.
  10. Participate in and provide funding for programs to promote EV adoption, including "Drive an EV" events and other media and outreach campaigns.
  11. Encourage or require, as practicable, ride hailing and delivery service companies to utilize zero emission vehicles.
  12. Promote adoption of electric bicycles, scooters, and motorcycles.

**LCT-C2: Bicycling and Micromobility.** Encourage bicycling and micromobility as an alternative to vehicular travel.

1. Promote bicycling and micromobility, including electric bicycles, scooters, and skateboards, through outreach channels and partner agencies.

2. Require new, remodeled, and expanded commercial, mixed use, and multifamily development to provide secure parking for electric bicycles.
3. Provide secure electric bicycle parking at Town parks and buildings.
4. Encourage schools, the library, and shopping centers to provide secure electric bicycle parking.
5. Establish and maintain a system of bicycle facilities that are consistent with the Tiburon Bicycle and Pedestrian Master Plan and “complete streets” policies.
6. Implement the Tiburon Bicycle and Pedestrian Master Plan’s recommendations to support and expand bicycling.
7. Update the Tiburon Bicycle and Pedestrian Master Plan to support the use of e-bikes, electric scooters, and electric skateboards, including easily accessible charging stations for them.

**LCT-C3: Walking.** Encourage walking as an alternative to vehicle use.

1. Establish and maintain a system of pedestrian facilities that are consistent with the Tiburon Bicycle and Pedestrian Master Plan and “complete streets” policies.
2. Implement the Tiburon Bicycle and Pedestrian Master Plan’s recommendations to support and expand walking.

**LCT-C4: Safe Routes to School.** Continue to support the Safe Routes to School Program and strive to increase bicycling, walking, carpooling (especially in a ZEV), and taking public transit to school.

1. Work with TAM and other organizations to promote school and student participation.
2. Identify issues associated with unsafe bicycle and pedestrian facilities between neighborhoods and schools, apply for Safe Routes to School grants, and execute plans to improve pedestrian and bicycle facilities.

**LCT-C5: Public Transit.** Support and promote public transit by taking the following actions:

1. Work with Marin Transit and Golden Gate Transit to maximize ridership through expansion and/or improvement of transit and ferry routes, schedules, and services.
2. Support a “Yellow School Bus” program and student use of regular transit to reduce school traffic.
3. Encourage transit providers, including school buses, to use renewable diesel as a transition fuel and to purchase electric buses whenever replacing existing buses.

**LCT-C6: Employee Trip Reduction.** Reduce vehicle miles traveled commuting to work through the following actions:

1. Work with the TAM, the Metropolitan Transportation Commission, and the Bay Area Air Quality Management District (BAAQMD) to promote transportation demand programs to local employers, including rideshare matching programs, vanpool incentive programs, emergency ride home programs, telecommuting, transit use



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discounts and subsidies, showers and changing facilities, bicycle racks and lockers, and other incentives to use transportation other than single occupant vehicles.

2. Embark on a behavior change and educational campaign to encourage employees to reduce vehicle trips.
3. Work with TAM on promoting countywide transportation demand management programs to encourage trip reduction throughout the county.

**LCT-C7: Vehicle Idling.** Encourage drivers and autonomous vehicles to limit vehicle idling through public outreach and engagement campaigns.

**LCT-C8: Smart Growth Development.** Promote land use and development policies that prioritize infill housing and mixed-use development near commercial services and transit facilities. Achieve multifamily housing development on housing opportunity sites identified in the Town's Housing Element 2023-2031 and apply existing inclusionary requirements for units affordable to lower-income households as applicable.

**LCT-C9: Zero Emission Landscape and Small Off-Road Equipment.** Adopt an ordinance to require the use of zero emission landscape and small off-road equipment instead of gasoline and diesel-powered equipment in all residential and commercial areas. 15 Equipment includes leaf blowers and vacuums, hedge trimmers, edgers, brush cutters, chainsaws, lawn mowers, chain saws (under 45 cc), pressure washers, and portable generators.

1. Provide information on available rebates, such as the California Air Resources Board's Clean Off-Road Equipment Voucher Incentive Project for small business and sole proprietary landscape professionals.
2. Consider offering an incentive for businesses to use zero emission landscape equipment such as a rebate on equipment purchases or discount on business license fees.
3. Explore building code modifications to support zero emission landscape equipment.

**LCT-M1: Zero Emission Town Vehicles.** Purchase or lease zero-emission vehicles for the Town fleet whenever feasible and when not, the most fuel-efficient models available. Achieve a 100% electric light duty vehicle fleet by 2030.

**LCT-M2: Low Carbon Fuels.** Use low-carbon fuel such as renewable diesel as a transition fuel in the Town's fleet and encourage the Town's service providers and joint powers agencies to do the same until vehicles are replaced with zero-emission vehicles.

**LCT-M3: Town Employee Commute.** Provide Town employees with incentives and/or reduce barriers to drive electric vehicles and use alternatives to single occupant auto commuting, such as discounted EV charging, transit and e-bike discounts and subsidies, secure bicycle facilities, showers and changing facilities, ridesharing services, vanpools, emergency ride home service, flexible schedules, and telecommuting when practicable.

**LCT-M4: Municipal Zero Emission Landscape Equipment and Small Off-Road Engines.** Replace all gas-powered leaf blowers, mowers, brush cutters, hedgers, saws, and other

landscape equipment and small off-road engines, including generators and pressure washers, with zero emission equipment.

### 3.14.5 THRESHOLDS OF SIGNIFICANCE

#### ***CEQA Guidelines Appendix G***

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

#### ***VMT Significance Threshold and Methodology***

CEQA Guidelines Section 15064.3, subdivision (b) requires an evaluation of a project's transportation impacts based on VMT. VMT refers to the amount and distance of automobile travel attributable to a project.

CEQA gives the lead agency discretion in selecting an appropriate methodology and significance threshold for VMT impacts. A lead agency may conduct either a qualitative or quantitative analysis of VMT impacts. CEQA Guidelines and OPR Guidance recommend that, if possible, lead agencies conduct a quantitative analysis based on transportation models. However, where existing models or methods are not available, the lead agency may instead prepare a qualitative analysis. CEQA Guidelines note that for many projects, a qualitative analysis of construction traffic may be appropriate.

The use of VMT as a performance measure allows for the evaluation of traffic impacts associated with GHG emissions. It can be measured as a total or on a *per-capita* basis and can be used to estimate fuel consumption by motor vehicles for distances traveled. Increase in VMT for gasoline-powered vehicles would cause an increase in the GHG emissions from vehicles making these trips.

Guidance from the OPR states that using a travel forecasting model is preferred because a travel model would account for both 'project generated VMT' and the 'project effect on VMT', which would include the effect of the project in redistributing VMT within a region.

TAM developed the Transportation Authority of Marin Demand Model (TAMDM), a tour-based assessment of travel behavior that produces VMT estimates for travel to, from or within Marin County, including Tiburon.

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The OPR provides recommendations for evaluating land use plans. From the OPR December 2018 “Technical Advisory on Evaluating Transportation Impacts in CEQA” OPR states that as with projects, agencies should analyze VMT outcomes of land use plans across the full area over which the plan may substantively affect travel patterns, including beyond the boundary of the plan or jurisdiction’s geography. A general plan may have a significant impact on transportation if proposed new residential, office or retail land uses would in aggregate exceed the respective thresholds set by either the lead agency or the OPR’s recommended significance thresholds.

The lead agency has discretion in determining an appropriate methodology for evaluating a project’s VMT, including whether to express the change in absolute terms, per capita, or another measure, as long as assumptions are documented. However, the OPR recommends setting land use project VMT thresholds at fifteen percent below existing VMT per capita based on regional or city VMT per capita for residential projects, or 15 percent below regional VMT per Employee averages for employment projects. Another approach is for the lead agency to develop their own jurisdiction specific VMT thresholds. Since the Town has not set significance thresholds for acceptable versus unacceptable levels of VMT for CEQA analysis; therefore, this analysis is based on the OPR recommended threshold of 15 percent below existing regional per capita VMT for Marin County.

The significance threshold defines what constitutes an acceptable level of VMT and what requires mitigation measures to reduce VMT. Thresholds should be consistent with key transportation planning documents such as Plan Bay Area 2050, which contains regional and local projections of VMT growth associated with expected changes in population, employment, and the regional transportation network. Additional VMT reduction may be achieved at the project level through TDM strategies and active transportation network expansion which are not fully accounted for in regional level travel forecasting models.

### **3.14.6 ANALYSIS, IMPACTS, AND MITIGATION MEASURES**

Impacts related to transportation resulting from implementation of the General Plan 2040 are discussed below. As of July 1, 2020, State law provides that vehicle delay is not a significant environmental impact under CEQA. Accordingly, LOS, traffic volumes, and auto delay are no longer appropriate metrics to evaluate transportation impacts. Rather, State law establishes VMT as the appropriate metric for transportation analysis. Accordingly, this Draft EIR focuses upon conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, without regard to LOS.

**Impact 3.14-1      Implementation of General Plan 2040 would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.**

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Implementation of the General Plan 2040 would not conflict with any program, plan, ordinance, or policy addressing the circulation system. The General Plan 2040 is the “constitution” for all future development within the town, and the Mobility Chapter establishes the Town’s relevant programs, plans, ordinances, and policies.

The General Plan 2040 has been developed within the framework provided by several regulations and documents that help shape or interact with the goals, objectives, policies, and programs of the General Plan 2040, including the Bay Area region’s Regional Transportation Plan, Plan Bay Area 2050. Plan Bay Area 2050 includes seven goals and 13 performance targets covering three broad areas: the environment, equity and the economy. Transportation-related performance targets include: (1) Increase non-auto mode share; (2) Reduce vehicle operating and maintenance costs due to pavement conditions; and (3) Reduce per-rider transit delay due to aged infrastructure. Implementation of the General Plan 2040 is in compliance with the programs and policies set by Plan Bay Area 2050.

Additionally, as detailed below, the General Plan 2040 will continue and strengthen the Town’s existing programs, plans, ordinances, and policies, including those related to transit, roadway, bicycle, and pedestrian facilities. Future development within the town will be required to comply with these provisions of the General Plan 2040 and related provisions of the Tiburon Municipal Code. Implementation of the General Plan 2040 will also be consistent with transit plans adopted by other regional agencies and State law regarding circulation and roadway requirements. Therefore, there will be ***no impact***.

**Roadway**

The General Plan 2040 would continue and strengthen the Town’s existing programs, plans, ordinances, and policies addressing roadways, and it would be consistent with the Complete Streets Act.

The Mobility Chapter seeks to reduce emissions and minimize traffic congestion and promote alternative modes of transportation, such as walking and bicycling. In order to achieve this, the Mobility Chapter includes policies and programs to improve public transit, pedestrian and bicycle facilities, and parking and transportation demand management programs.

Goal M-A identifies the need to provide a multimodal transportation system that supports the vision, goals, and objectives of the Town and is effectively planned, funded, operated, and maintained. Specific policies identified for the roadway network that supports this objective include Policy M-3, to prioritize the maintenance and operation of the existing transportation network over major expansions to the transportation network. Policy M-4 identifies transportation network improvements over the next 20 years that the Town will

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undertake to enable the roadway system to operate safely and efficiently while accommodating future growth consistent with the General Plan 2040. Goal M-B seeks to increase multimodal accessibility throughout the Tiburon Planning Area with an emphasis on improved walking, bicycling, and transit modes. Policies M-5 and M-6 focus on creating an integrated, multimodal transportation system that improves the attractiveness of walking, bicycling, and riding transit, with an additional focus on facilitating multimodal access to major facilities and destinations.

In compliance with these goals and policies, the Mobility Chapter seeks to use a mixture of strategies to increase access to multimodal transportation choices, reduce vehicle miles traveled, reduce congestion, and enhance mobility.

Under the Complete Streets Act, general plans of California cities are required to include planning for complete streets—that is, streets that meet the needs of all users of the roadway, including pedestrians, bicyclists, users of public transit, motorists, children, the elderly, and the disabled.

The Mobility Chapter of the General Plan 2040 contains a number of goals and policies that contribute towards the provision of a circulation network that is consistent with the Complete Streets Act. Policy M-1 tasks the Town with preserving and managing rights-of-way consistent with the goal to provide Complete Streets and the Town's goals for preserving residential quality of life and aesthetics. Policy M-7 would eliminate "gaps" in bikeways and pedestrian networks where feasible and appropriate. Policy M-10 would have the Town work to ensure adequate connections to transit stations by identifying, prioritizing, and seeking funding to plan and construct roadway, bikeway, and pedestrian improvements within 1/2 mile of existing and planned transit stations, emphasizing the development of complete streets. Goal M-D furthers the complete streets concept by creating a context-sensitive street and roadway system that provides safe access to all users between activity centers within the Planning Area and to destinations across the San Francisco Bay Area, including places of employment, shopping, and recreation. Policy M-23 requires the Town to accommodate all users through roadway design, while Program M-g requires the Town to implement complete streets goals and policies. Policy M-25 requires the Town to identify streets that can be made more "complete" through a reduction in the width of travel lanes, with consideration for emergency vehicle operations. The Town shall consider including new bikeways, sidewalks, and on-street parking on these streets by re-arranging and/or re-allocating how the available space within the public right of way is utilized.

There would be no conflict between the General Plan 2040 and existing programs, plans, ordinances, and policies addressing roadways. Future development in the town will be required to comply with the General Plan 2040. Therefore, there would be ***no impact***.

### ***Bicycle and Pedestrian Facilities***

The General Plan 2040 would continue and strengthen existing programs, plans, ordinances, and policies to support bicycle and pedestrian facilities. These include the prioritization of multimodal systems, maintenance a network of complete streets to provide safe mobility access for all users, implementing additional complete streets improvements as appropriate for the communities in which they are proposed, developing and maintaining local and regional bicycle networks, and promoting pedestrian and bicycle safety when infrastructure improvements are made.

In particular, the General Plan 2040 includes a range of policies and programs to ensure that bicycle and pedestrian facilities are maintained, improved, and expanded. Goal M-I requires the Town to design, construct, and maintain a universally accessible, safe, convenient, integrated, and well-connected bicycle and pedestrian system that promotes biking and walking. Bicycle facilities, programs, and services shall be provided, and other transportation and land use policies shall be implemented as necessary to achieve increased bicycle and walking use. Policy M-36 seeks to make traveling to and from schools by walking or biking safer, while Policy M-37 targets the installation of countdown style pedestrian signals to increase pedestrian safety. Policy M-38 seeks to connect pedestrian paths, trails and bicycle lanes in Tiburon with other paths and trails where practical. Policy M-39 requires new public and commercial projects to install bike facilities, including bike racks. Policy M-40 requires the establishment of pedestrian routes, particularly for school children, for all neighborhoods where feasible and appropriate; designing pedestrian-oriented streets to provide a pleasant environment for walking and other desirable uses of public space, including such elements as shade trees, plantings, and wayfinding signage where appropriate; and include safe crossings on pedestrian routes at major intersections.

Existing and proposed bicycle and pedestrian facilities are shown on Exhibit 3.14-2 and Exhibit 3.14-3.

The General Plan 2040 would continue and further strengthen existing policies, plans, and programs regarding bicycle and pedestrian facilities and would not decrease the performance or safety of such facilities. Further, the General Plan 2040 includes goals and policies aimed at facilitating bicycling and walking. Future development would be required to comply with the General Plan 2040. Accordingly, the General Plan 2040 would not conflict with a program, plan, ordinance, or policy related to bicycle and pedestrian facilities. There would be ***no impact***.

### ***Transit Facilities***

Consistent with the Complete Streets Act, the General Plan 2040 contains goals, policies and programs that would promote the use of public transit and improve public transit service for existing and future populations through the Town's own initiatives and through cooperation with the public transit providers who serve Tiburon.



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Development and growth in the town under the General Plan 2040 would result in an incremental increase in the demand for transit service, including bus and ferry transit. Golden Gate Transit and Marin Transit provide bus service throughout the Planning Area. The Golden Gate Bridge, Highway, and Transportation District operates ferry service between Marin County and San Francisco via conventional and high-speed ferries. Service is provided between the Tiburon Ferry Terminal (located in downtown Tiburon) and the San Francisco Ferry Building Gate B, Monday-Friday. The Angel Island/Tiburon Ferry operates recreational ferry service between Angel Island and downtown Tiburon.

Accordingly, Goal M-J promotes an integrated transportation system, including the preservation and enhancement of transit as an essential component of a multimodal transportation system, in order that residents and visitors may efficiently, conveniently, and safely connect to, and transfer between, different transportation modes. Policy M-46 requires the Town to work with Golden Gate Transit and Marin Transit to increase service levels for buses in the planning area when feasible and ensure that bus service provides accessibility and mobility for all Tiburon residents, workers, and visitors. The Town shall continue to identify additional strategies to encourage residents, workers, and visitors to ride buses for trips to, from, and within the Planning Area. Policies M-48, M-49, and M-50 would provide additional transit facilities such as bus shelters, seating at bus stops, and development of new bus stops, all in an effort to enhance transit ridership. Policy M-52 seeks to ensure that ferry service remains a viable commuter and recreational travel option; this may be accomplished by several strategies including helping to coordinate between service providers or encouraging the expansion of ferry service. Policy M-53 would support the use of water taxi services, which provide on demand boat trips to destinations across the Bay Area, as an alternative to driving for recreational and commuting trips when ferry service is not available.

In 2018, Marin County voters approved Measure AA, the Marin County Transportation Sales Tax Renewal Expenditure Plan, which extended the 0.5 cent transportation sales tax for an additional 20 years, through 2039. Fifty-five percent of Measure AA funding is distributed towards funding four categories of service, including the provision of efficient and effective local bus service to reduce congestion and meet community needs, enhanced bus services to schools, and specialized services for seniors and people with disabilities. As such, some of the Measure AA funding would provide more efficient bus service throughout the Tiburon Planning Area.

The Golden Gate Bridge, Highway and Transportation District prepares a Short-Range Transit Plan (SRTP) every 2 years and serves as a blueprint for transit services. The most recent SRTP covers fiscal years 2022-23 to 2027-28.<sup>11</sup> The SRTP establishes a set of set of goals and objectives for its transit services; most are established internally while some are required by MTC. The success of each goal and objective is measured through a series of performance

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<sup>11</sup> Golden Gate Bridge Highway and Transportation District, Short-Range Transit Plan, Fiscal Years 2022/23 – 2027/28. December 2022..

measures that should meet specific standards. The SRTP is the principal means by which these goals and objectives are created and modified. The goals of the plan include: (1) Provide reliable, safe, and effective regional transit services, and (2) Improve transit system performance. The SRTP also includes a CIP to support the replacement and rehabilitation of equipment and facilities. Lastly, the SRTP includes an operations plan and budget to ensure that Golden Gate Transit bus service and Golden Gate Ferry are provided in accordance with the plan. The operations plan includes a framework for considering service changes and identifies future service changes. As such, as development and growth occur under the proposed General Plan 2040, increased demand for transit service will be reviewed every 2 years under the SRTP to ensure that Tiburon continues to be adequately served by transit facilities.

In conclusion, development envisioned by the General Plan 2040 could result in an incremental increase in new development, which could result in an increased demand for transit service, including bus and ferry transit. The General Plan 2040 includes goals and policies aimed at encouraging increased use of public transit, both for existing and future residents, workers and visitors. Accordingly, the General Plan 2040 would not conflict with a program, plan, ordinance, or policy related to public transit facilities. Additionally, with the use of Measure AA funding for local bus service, as well as the Golden Gate Bridge, Highway and Transportation District's preparation of a SRTP every 2 years to review transit services and transit system performance, development facilitated by the General Plan 2040 would not conflict with a program, plan, ordinance, or policy related to transit facilities. There would be **no impact**.

#### Level of Significance before Mitigation

No Impact

#### Mitigation Measures

None Required

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#### **Impact 3.14-2      Development facilitated by the General Plan 2040 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b).**

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CEQA Guidelines Section 15064.3 requires an analysis of transportation impacts based on VMT. The following analysis considers the VMT impacts of General Plan 2040 buildout. CEQA Guidelines Section 15064.3, subdivision (b), gives local agencies discretion to select the most appropriate methodologies and significance thresholds for evaluating VMT, including whether to evaluate it qualitatively or quantitatively, and whether to express the change in absolute terms, per capita, per household, or in any other measure. (Subd. (b)(4).)

The Town has not adopted numeric significance thresholds for VMT. Therefore, this analysis is based on OPR guidance, which recommends setting land use project VMT thresholds for residential development at fifteen percent below baseline VMT per capita for the city or region. According to the TAMDM, the baseline (year 2015) regional average for Marin County

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is 15.8 VMT per capita. Therefore, the VMT impact threshold for this analysis is 13.4 VMT per capita (85 percent of the baseline rate).

To provide a quantitative VMT evaluation, the Town used TAMDM model data under 2040 conditions to estimate the VMT that would be generated by anticipated development under General Plan 2040 buildout, which would total up to 923 dwelling units. Based on this analysis: existing and projected future VMT per capita rates are shown in Table 3.14-13. As shown, development under the General Plan 2040 would generate 14.1 VMT per capita, more than 10 percent lower than the baseline countywide rate but higher than the impact threshold of 13.4 VMT per capita.

TABLE 3.14-12 : VMT PER CAPITA

	Population	Home-Based VMT	VMT Per Capita
<b>Tiburon (2015 baseline)</b>	9,180	146,199	15.9
<b>Marin County (2015 baseline)</b>	259,376	4,091,987	15.8
<b>Impact threshold (85% of Marin County baseline)</b>			<b>13.4</b>
<b>Growth From General Plan 2040</b>	2,199 <sup>1</sup>	31,005	<b>14.1</b>
<b>Exceed VMT Threshold?</b>			<b>Yes</b>
1. 2.38 persons per dwelling unit x 923 dwelling units SOURCE: GHD, 2023; De Novo Planning Group, 2023			

The key factors resulting in the VMT per capita rate exceeding the threshold are:

- Residential development on sites located outside of downtown Tiburon would generate VMT per capita at rates exceeding the impact threshold. This includes potential single-family residential development at multiple sites outside of downtown Tiburon, and potential multi-family resident development on a site bordering Paradise Drive.
- By contrast, residential development on sites in downtown Tiburon would generate VMT per capita at rates below the impact threshold. This reflects the proximity of those sites to shopping, transit and other commercial uses, as well as proximity to transit including ferry service. Development in mixed-use downtown areas generate lower rates of VMT.

The Mobility Chapter of the General Plan 2040 contains a number of policies and programs that assist in reducing VMT. For example, Goal M-N states that to support statewide and regional efforts to reduce greenhouse gas emissions, the Town shall strive to ensure that rates of VMT are below regional averages on a “per resident” and “per employee” basis. To achieve that goal, Policy M-65 would have the Town support and prioritize land uses and transportation provisions that help reduce VMT. The Town would consider the effect of planned circulation improvements on VMT when updating the Town’s capital improvement program, per Policy M-66. The Town will support car sharing and bicycle sharing opportunities in Downtown Tiburon as required by Policy M-67. Goal M-B seeks to increase

multimodal accessibility throughout the Tiburon Planning Area with an emphasis on improved walking, bicycling, and transit modes, while Policy M-5 would strive to achieve an integrated, multimodal transportation system that improves the attractiveness of walking, bicycling, and riding transit. This would increase travel choices and aid in achieving a more balanced transportation system, thereby reducing air pollution and GHG emissions and VMT. Policy M-57 requires the Town to coordinate with the Transportation Authority of Marin to encourage employers to work together to identify programs that provide incentives for employees to use alternative transportation modes, including carpools. Program M-m requires the Town to support transportation demand management (TDM) programs and measures, including promoting the 511 Rideshare program to employers and employees as a resource for exploring ways to reduce traffic and parking congestion.

Although the General Plan 2040 includes goals, policies, and programs that may reduce VMT, the General Plan 2040's residential development would generate VMT per Capita at a rate that would exceed the threshold of 15 percent below the regional average. Therefore, the impact is **potentially significant**.

#### Level of Significance before Mitigation

Potentially Significant

#### Mitigation Measures

MM 3.14-2: *When the Town receives an application for a project located outside of Downtown Tiburon and subject to CEQA, it shall apply the "Screening Thresholds for Land Use Projects" set forth in OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA. If the project would exceed the screening thresholds, or other evidence demonstrates a potentially significant VMT impact, the Town shall require the applicant to prepare a quantitative, project-level VMT analysis. If the analysis shows that the project would exceed the applicable numeric threshold of significance, the Town shall require the applicant to prepare and submit a VMT Reduction Plan for Town review and approval. The VMT Reduction Plan shall incorporate mandatory measures sufficient to reduce project VMT below the applicable numeric threshold of significance. The VMT Reduction Plan may include, without limitation, a TDM program; pedestrian, bicycle, or transit network improvements; car sharing or ride sharing programs; transit subsidies; telecommuting or alternative work schedules; and/or any other measures sufficient to reduce VMT below the applicable threshold.*

Mitigation Measure 3.14-2 requires applicants for projects subject to CEQA that are located outside of Downtown Tiburon to prepare a quantitative project-specific VMT analysis. If that analysis shows that the project will exceed the numeric threshold of significance, Mitigation Measure 3.14-2 will further require the applicant to prepare a VMT Reduction Plan for Town review and approval. The VMT Reduction Plan must include specific measures demonstrating

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that VMT will be reduced below the numeric level of significance, which shall be considered a performance standard.

However, since most of the residential development outside of Downtown Tiburon would consist of single-family residential development and accessory dwelling units (ADUs) and may include projects subject to a ministerial, streamlined review process, much development outside of Downtown Tiburon may not be subject to CEQA. Therefore, Mitigation Measure 3.14-2 would have limited use. In addition: most successful TDM programs focus on employment sites (not residences), while TDM and VMT reduction programs focusing on residential development are challenging to implement and monitor. Therefore, it is unlikely that VMT Reduction Plans or other similar measures would be effective in significantly lowering the VMT rates for residential development on sites located outside of Downtown Tiburon.

Therefore, even with implementation of Mitigation Measure 3.14-2, the General Plan 2040 would exceed the applicable VMT threshold and would therefore conflict or be inconsistent with Section 15064.3, and impacts would be ***significant and unavoidable***.

### Level of Significance after Mitigation

Significant and unavoidable.

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#### **Impact 3.14-3      Development facilitated by the General Plan 2040 would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

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Development anticipated by the General Plan 2040 could result in an incremental increase in new residential, commercial, and industrial uses. The General Plan 2040 would retain the existing roadway patterns and does not propose any new major roadways or other physical features that would substantially increase hazards or incompatible uses. Furthermore, development under the General Plan 2040 would be located on sites either developed and/or underutilized, and/or in close proximity to existing residential, commercial, and industrial uses.

The majority of development under the General Plan 2040 is expected to be located on developed lots in areas where existing infrastructure (including highways and local roadways) are already in place. An incremental increase in development could occur within the Planning Area which may require the installation of new infrastructure, such as roads; however, any new infrastructure would be limited to serving new development. As such, the General Plan 2040 does not propose any significant changes to land use patterns or the roadway network such that new roadways would substantially increase hazards due to a geometric design feature. Proposed development, land use activities, and roadway network improvements that occur pursuant to the General Plan 2040 would be reviewed for compliance with State and local requirements of site distance, and similar issues, as relevant. As such, development facilitated by the General Plan 2040 would not substantially increase

hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) and impacts would be ***less than significant***.

**Level of Significance before Mitigation**

Less than Significant

**Mitigation Measures**

None Required

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**Impact 3.14-4 Implementation of the General Plan 2040 would not result in inadequate emergency access.**

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Development anticipated by the General Plan 2040 could result in an incremental increase in new residential and commercial uses. The General Plan 2040 would retain the existing roadway patterns and does not propose any new major roadways or other physical features that would result in inadequate emergency access. Further, development under the General Plan 2040 would be located on sites either developed and/or underutilized and are not expected to inhibit emergency access. An incremental increase in development could occur within the Planning Area, which may require the installation of new infrastructure, such as roads and fire access roads; however, any new infrastructure would be limited to serving new development and would be reviewed by the Town to ensure adequate emergency access is provided.

The General Plan 2040 includes policies and programs to ensure that adequate emergency access is provided and maintained. Policy M-2 requires the Town to prioritize emergency service needs when developing transportation plans and making transportation network changes. Policy M-25 looks to develop complete streets, but, all new street configurations shall provide for adequate emergency vehicle operation.

In conclusion, development facilitated by the General Plan 2040 does not propose any significant changes to land use patterns or the roadway network such that potential impairments to emergency access would be created (road closures, road narrowing, new roadways with steep grades, etc.). Proposed development and land use activities that occur pursuant to the General Plan 2040 would be reviewed for compliance with State and local requirements for emergency access by the Town. For example, buildings 30 feet in height or higher would need to provide a minimum of two access points suitable for fire apparatus. Development under the General Plan 2040 would utilize the existing street and transit network for travel to and from each development site. As such, development and land use activities contemplated by the General Plan 2040 would not result in inadequate emergency access. Impacts would be ***less than significant***.

**Level of Significance before Mitigation**

Less than Significant

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# Town of Tiburon

## General Plan 2040 EIR

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### Mitigation Measures

None Required

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**Impact 3.14-5      Development facilitated by the General Plan 2040, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to transportation.**

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This analysis evaluates whether the impacts of the General Plan 2040, together with the impacts of cumulative development in adjacent jurisdictions, could result in a cumulatively significant impact with respect to transportation. This analysis then considers whether the incremental contribution of the impacts associated with the implementation of the General Plan 2040 would be significant. Both conditions must apply in order for a project's cumulative effects to rise to the level of a significant impact. The geographic context for this analysis includes the Tiburon Planning Area, Belvedere, and adjacent unincorporated areas.

The cumulative impact analysis is based on each of the impact items described above (Impacts 3.14-1 to 3.14-4):

- Cumulative development in adjacent jurisdictions would not cause a conflict between the General Plan 2040 and an adopted transportation program, plan, ordinance, or policy (Impact 3.14-1).
- Cumulative development in adjacent jurisdictions would not cause additional VMT impacts attributable to the General Plan 2040 beyond the impact already identified as significant and unavoidable in Impact 3.14-2. The anticipated rate of 14.1 VMT per capita generated by the General Plan 2040 is anticipated to help reduce the countywide rate of VMT per capita (15.8 VMT per capita under Baseline conditions, and 15.0 VMT per Capita forecasted under 2040 conditions).
- Cumulative development in adjacent jurisdictions would not result in safety hazards on street segments within Tiburon or its planning area (Impact 3.14-3).
- Cumulative development in adjacent jurisdictions is not anticipated to result in inadequate emergency access to Tiburon (Impact 3.14-4), since such development would not result in physical changes to the facilities providing emergency access to Tiburon.

In addition to the above: cumulative projects would be required to comply with County and local ordinances and General Plan 2040 policies that address potential impacts related to transportation. However, while development under the General Plan 2040 would result in VMT lower than the countywide rate of VMT, the General Plan 2040 would result in VMT that exceeds the threshold of significance based on countywide baseline VMT. For these reasons, cumulative impacts with respect to transportation and traffic would be ***significant and unavoidable***.

**Level of Significance before Mitigation**

Significant and Unavoidable

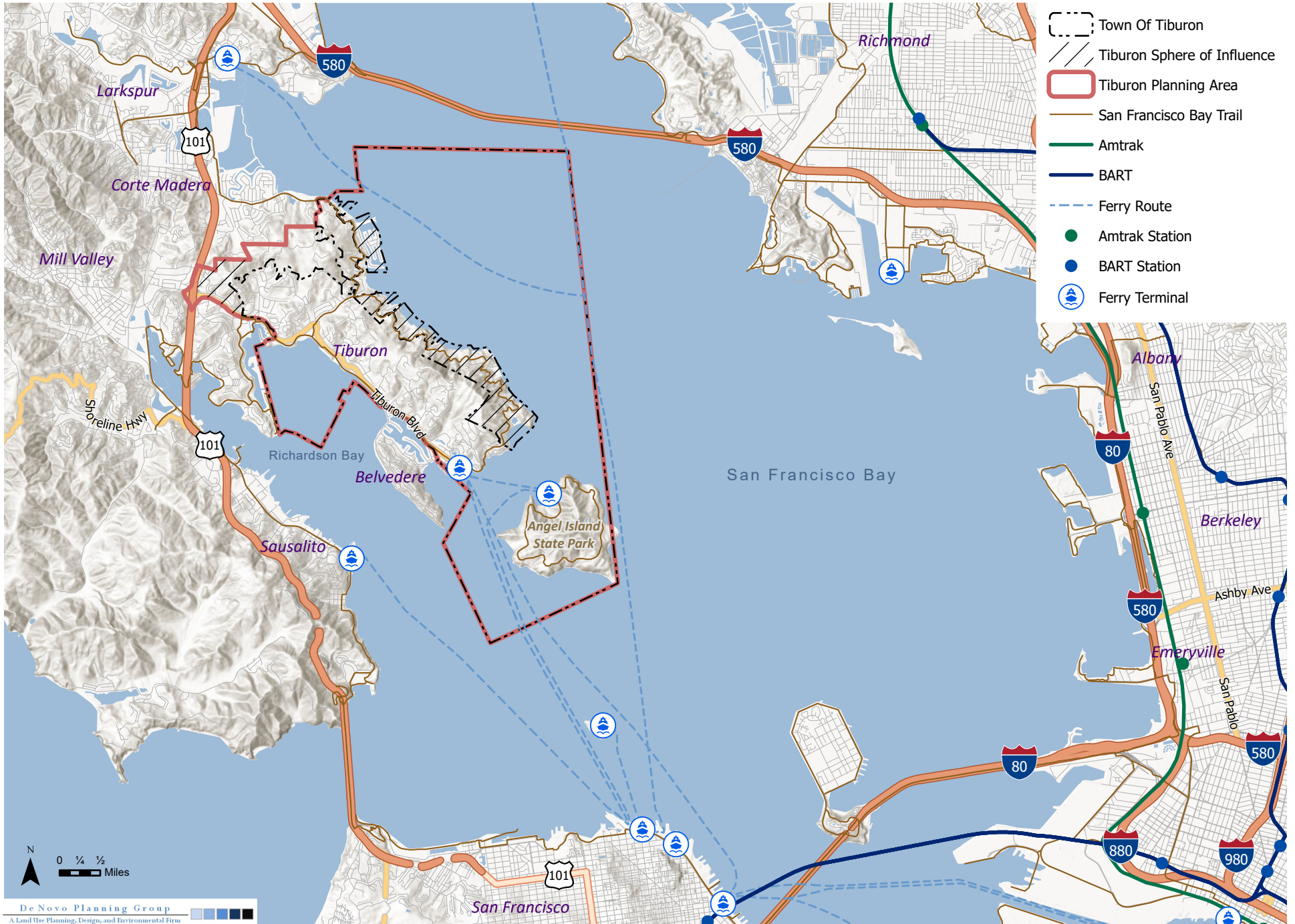
**Mitigation Measures**

As discussed under Impact 3.14-2, there is the potential for ministerial approval of projects that would not be subject to mitigation measures, including Mitigation Measure 3.14-2. Therefore, even with implementation of Mitigation Measure 3.14-2, the General Plan 2040 would exceed the applicable VMT threshold and would therefore conflict or be inconsistent with Section 15064.3. Therefore, General Plan 2040 would have a ***cumulatively considerable*** contribution to this ***significant and unavoidable*** impact.

**Level of Significance after Mitigation**

Significant and unavoidable and cumulatively considerable.

Figure 3.14-1. Regional Transportation Setting



- Town Of Tiburon
- Tiburon Sphere of Influence
- Tiburon Planning Area
- San Francisco Bay Trail
- Amtrak
- BART
- Ferry Route
- Amtrak Station
- BART Station
- Ferry Terminal

N  
0 1/4 1/2 Miles

De Novo Planning Group  
A Land Use Planning, Design, and Environmental Firm

Sources: ArcGIS Online World Hillshade Map Service; Marin County GIS; TJKM; BART; MTC. Map date: March 1, 2023.



Figure 3.14-2. Street Network

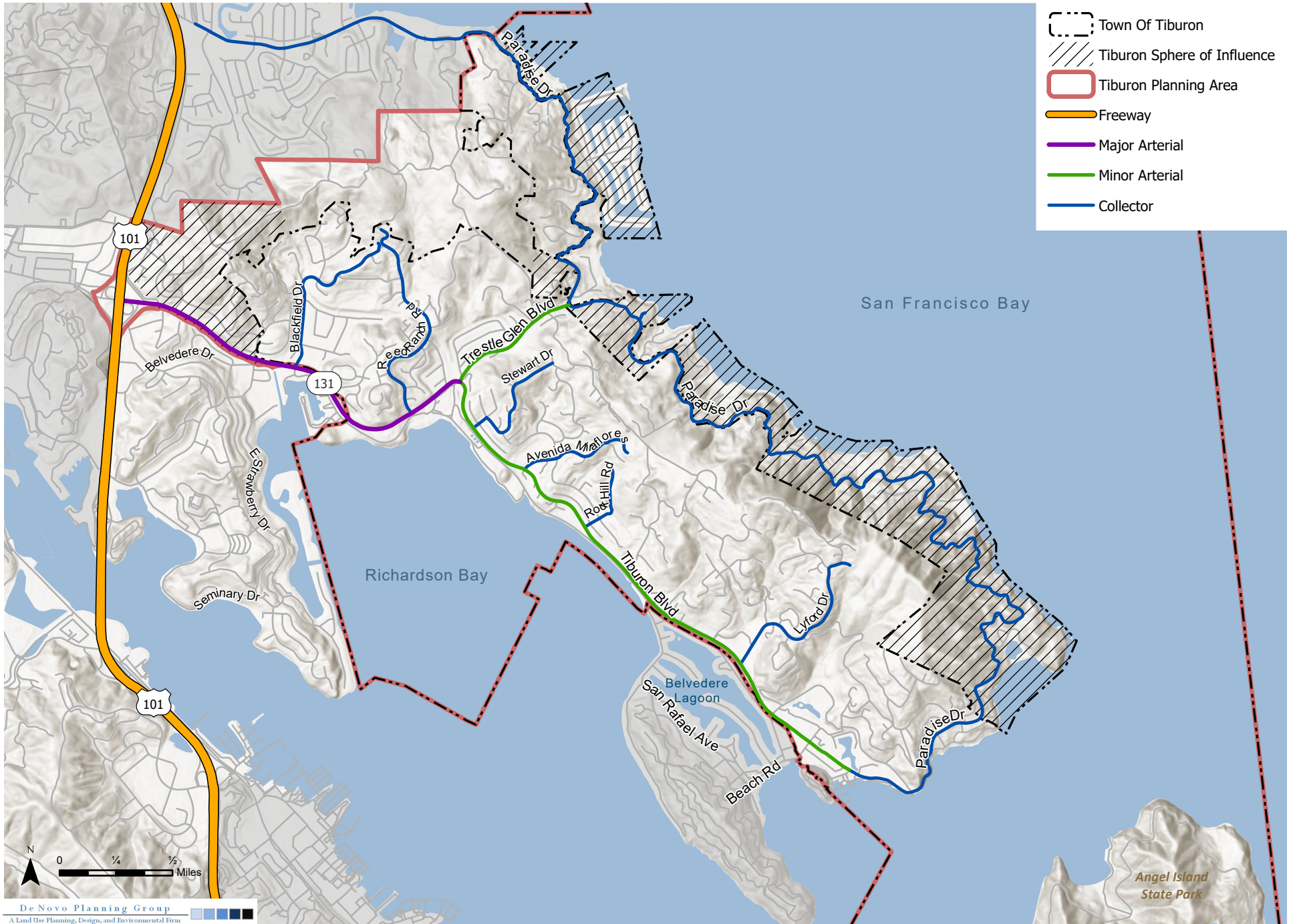
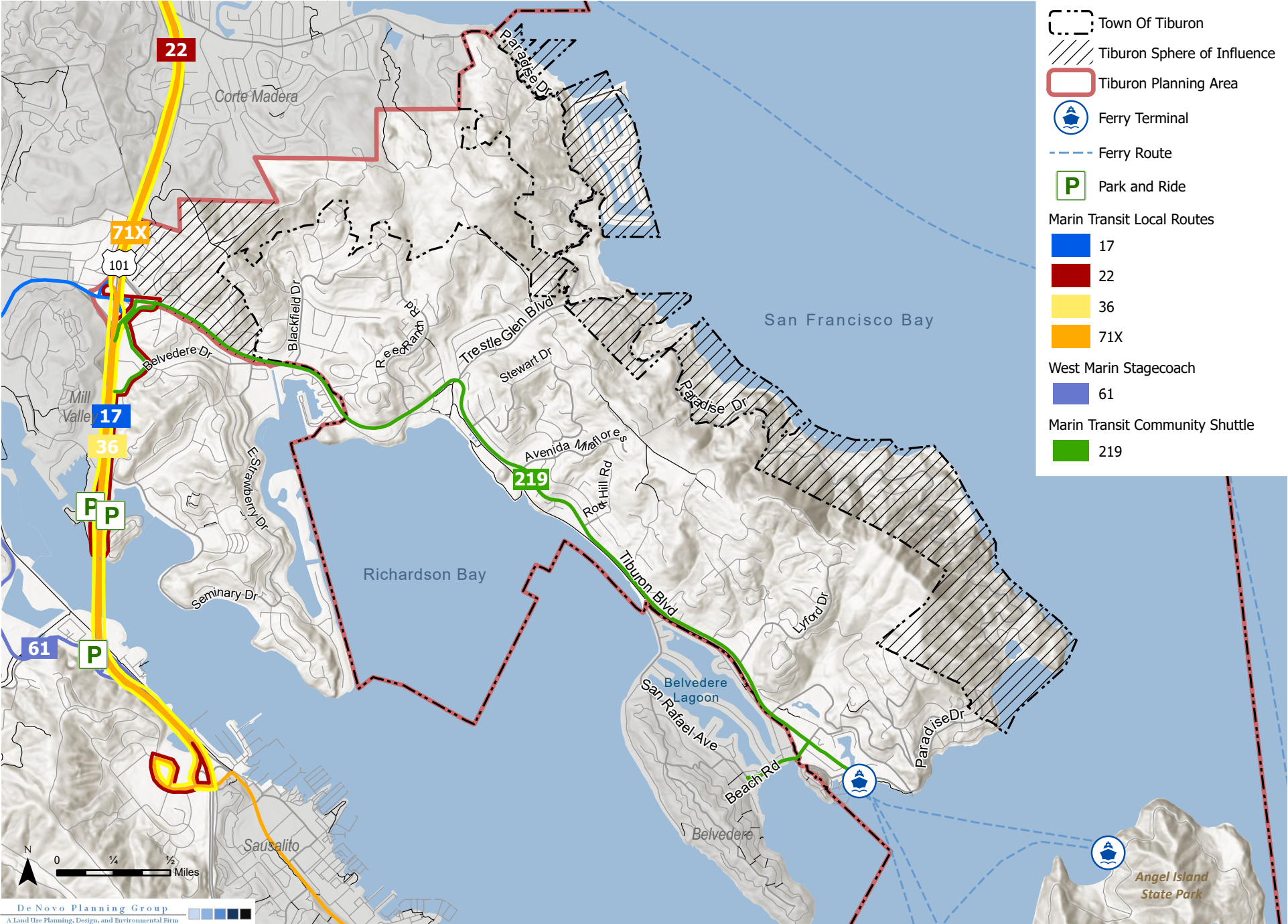


Figure 3.14-3. Transit Routes



- Town Of Tiburon
- Tiburon Sphere of Influence
- Tiburon Planning Area
- Ferry Terminal
- Ferry Route
- Park and Ride
- Marin Transit Local Routes**
- 17
- 22
- 36
- 71X
- West Marin Stagecoach**
- 61
- Marin Transit Community Shuttle**
- 219



Figure 3.14-4. Bikeway Network

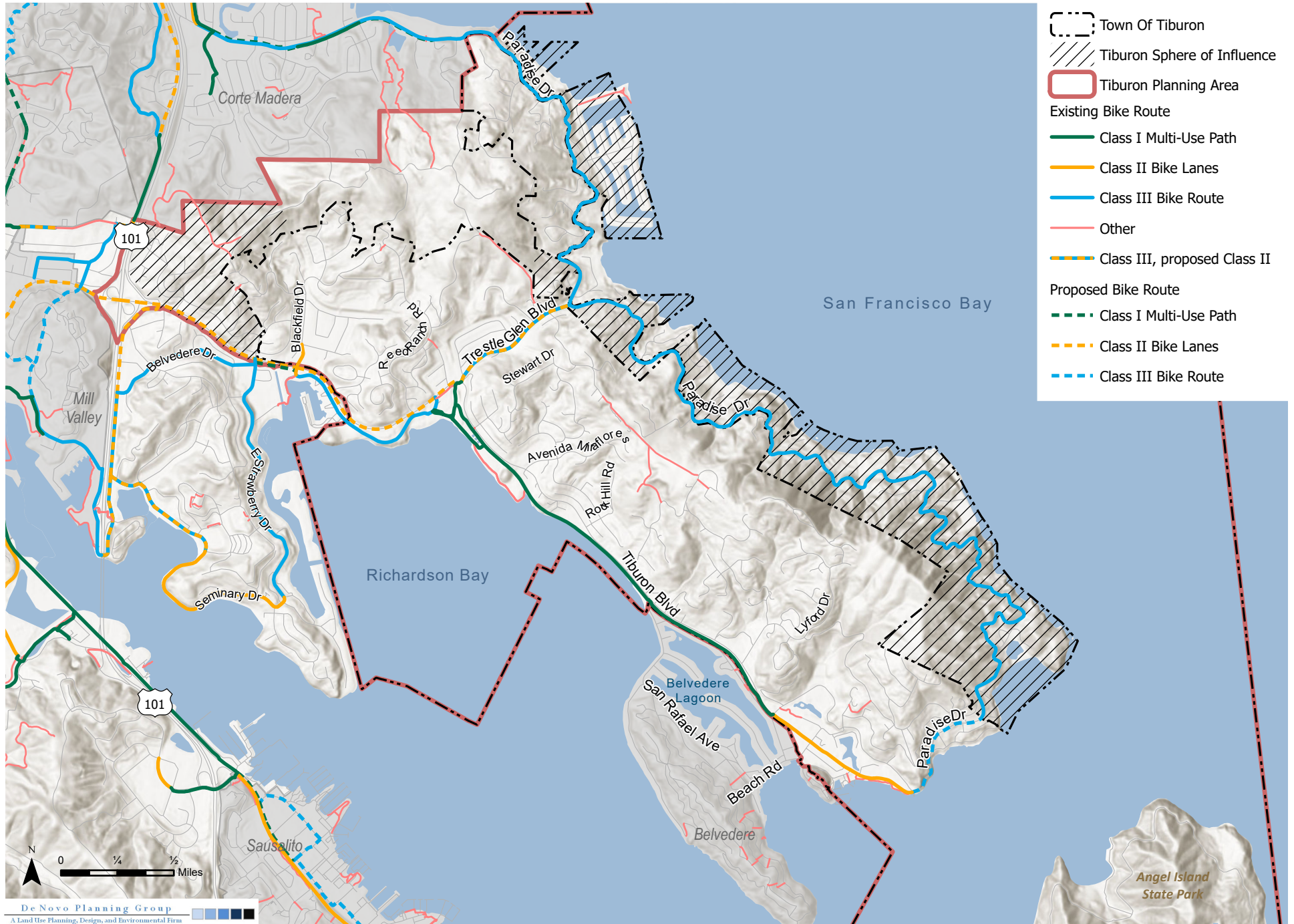




Figure 3.14-5. Sidewalks and Paths

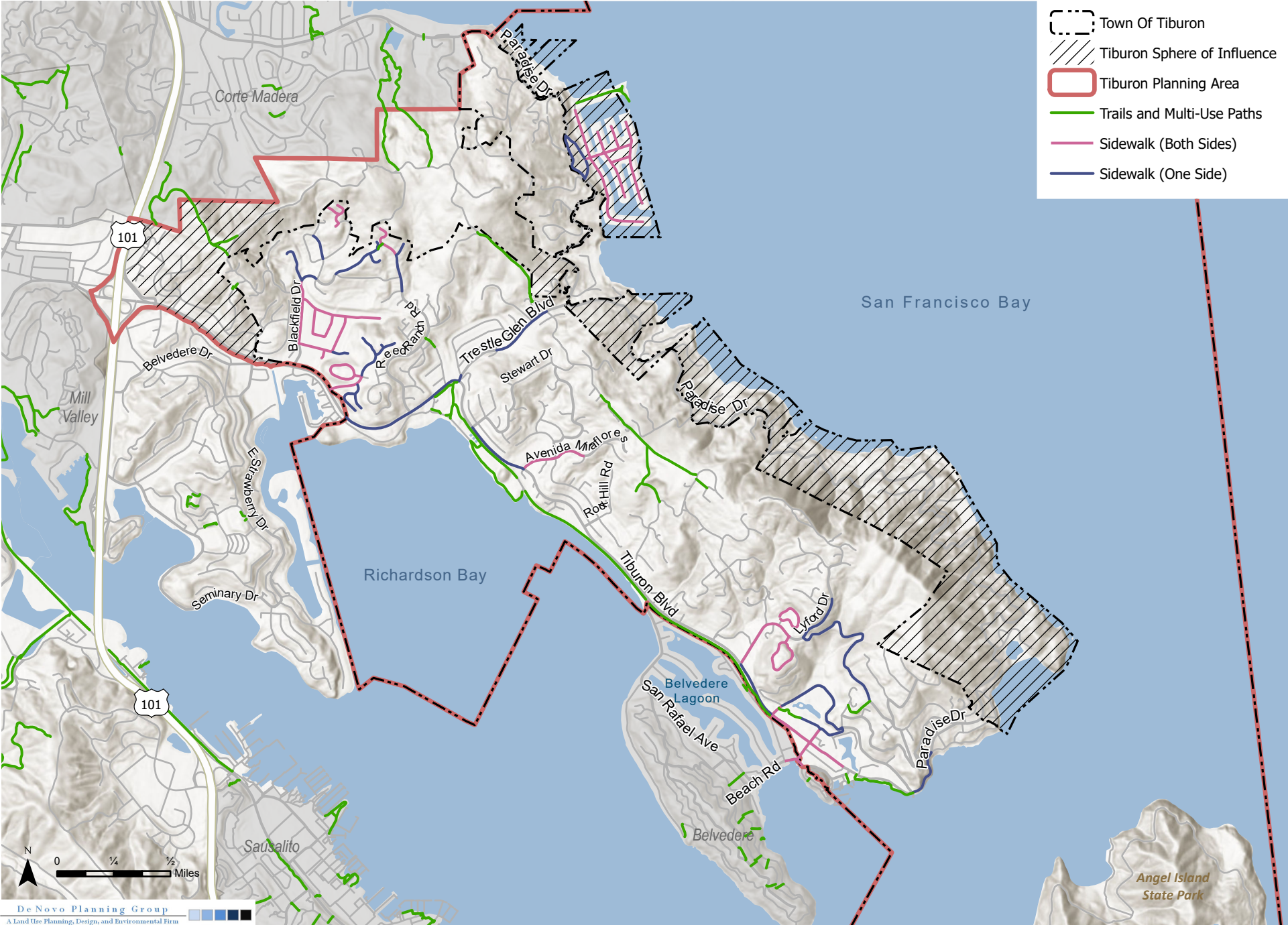


Figure 3.14-6. Motor Vehicle Collision Locations (2015-19)

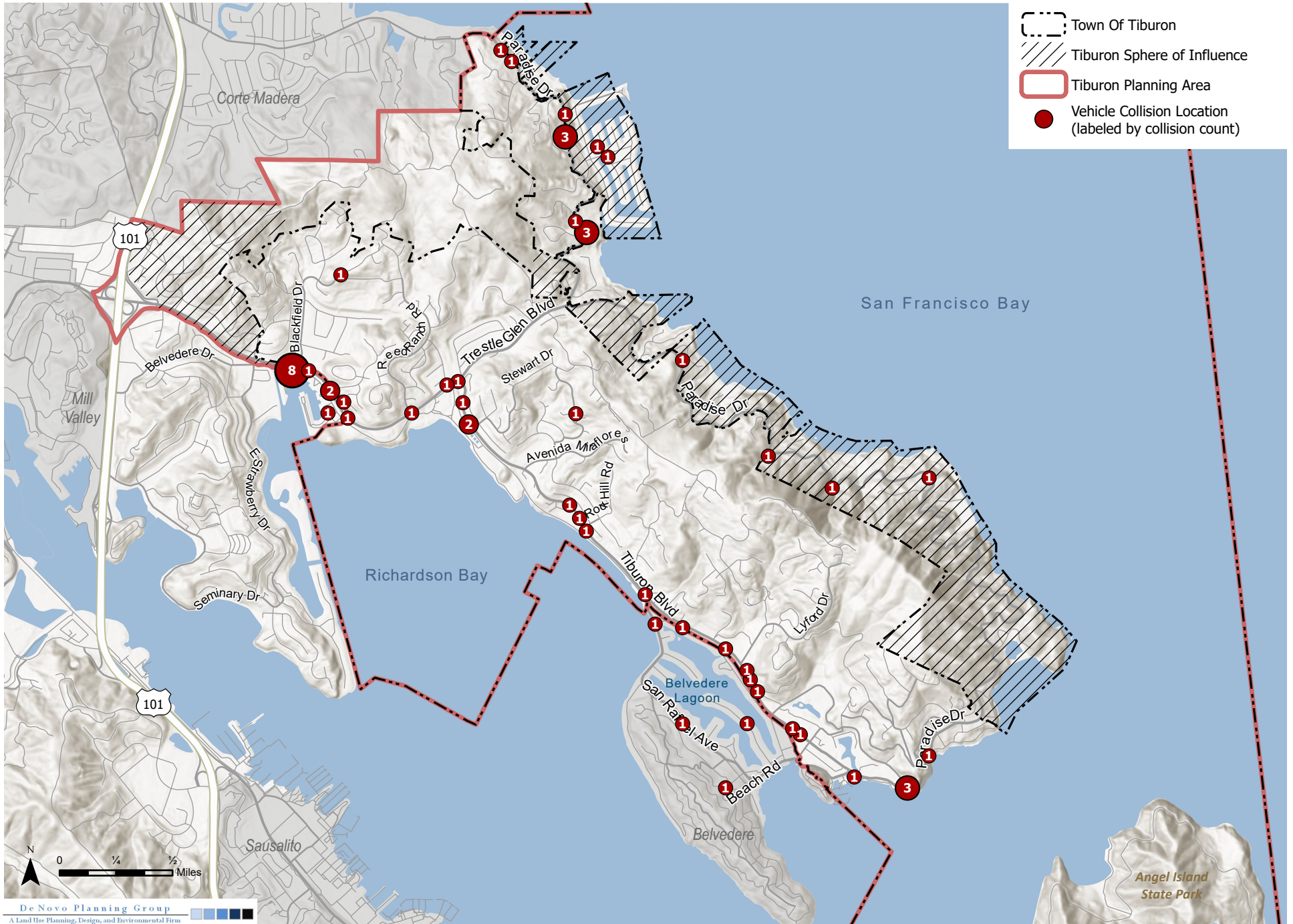




Figure 3.14-7. Types of Reported Collisions (2015-19)

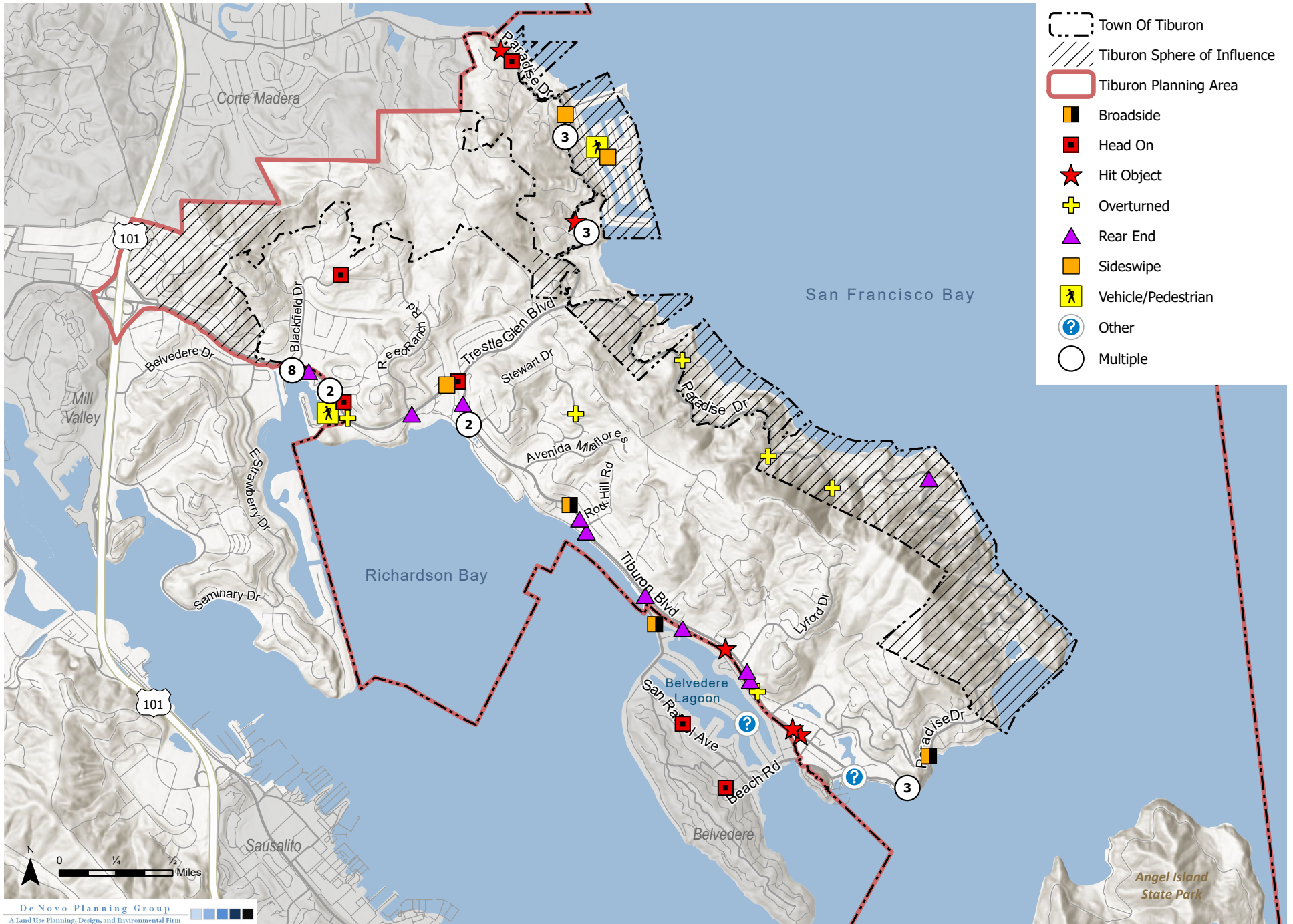


Figure 3.14-8. Bicycle and Pedestrian Collision Locations (2015-19)

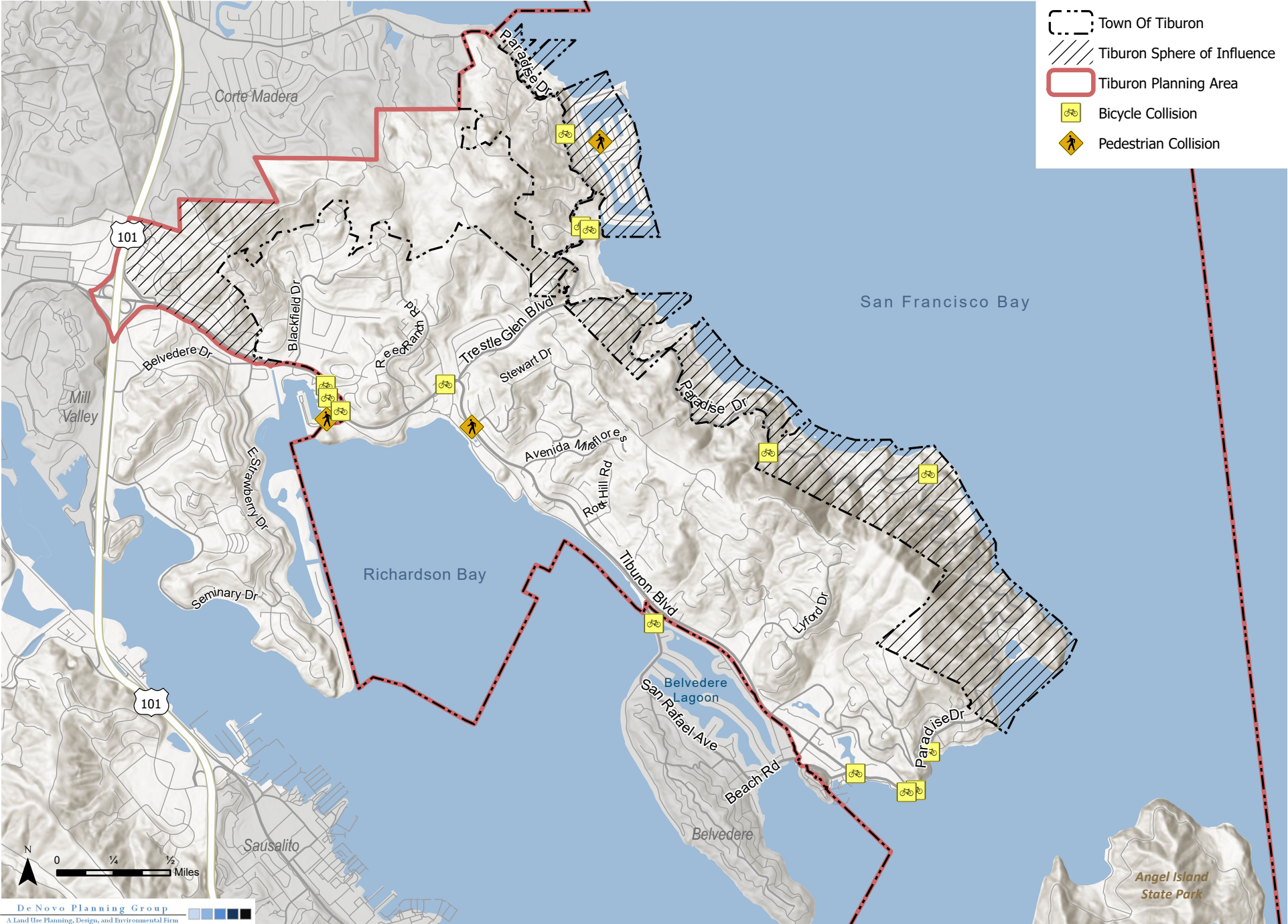




Figure 3.14-9. Daily Traffic Volume

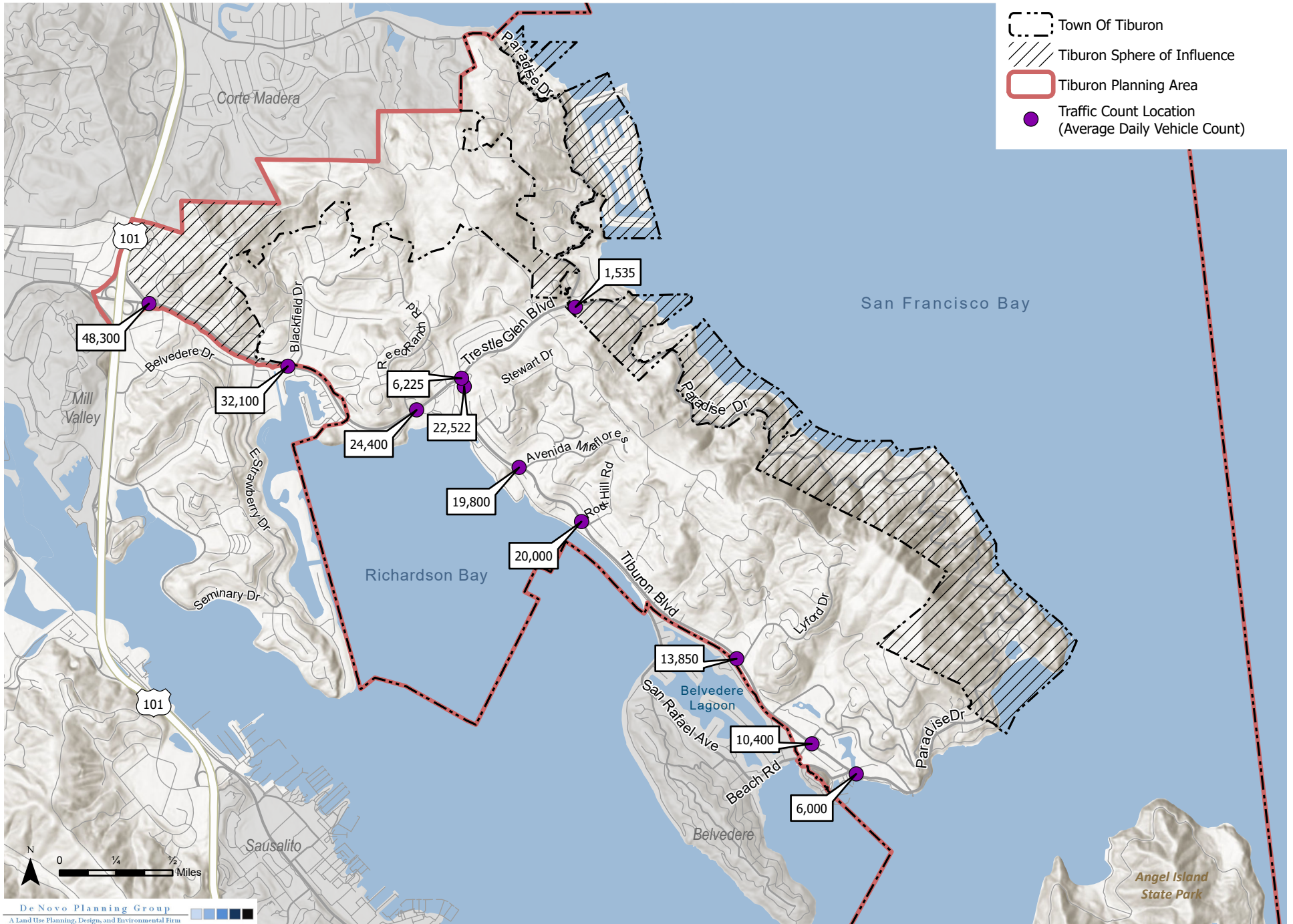
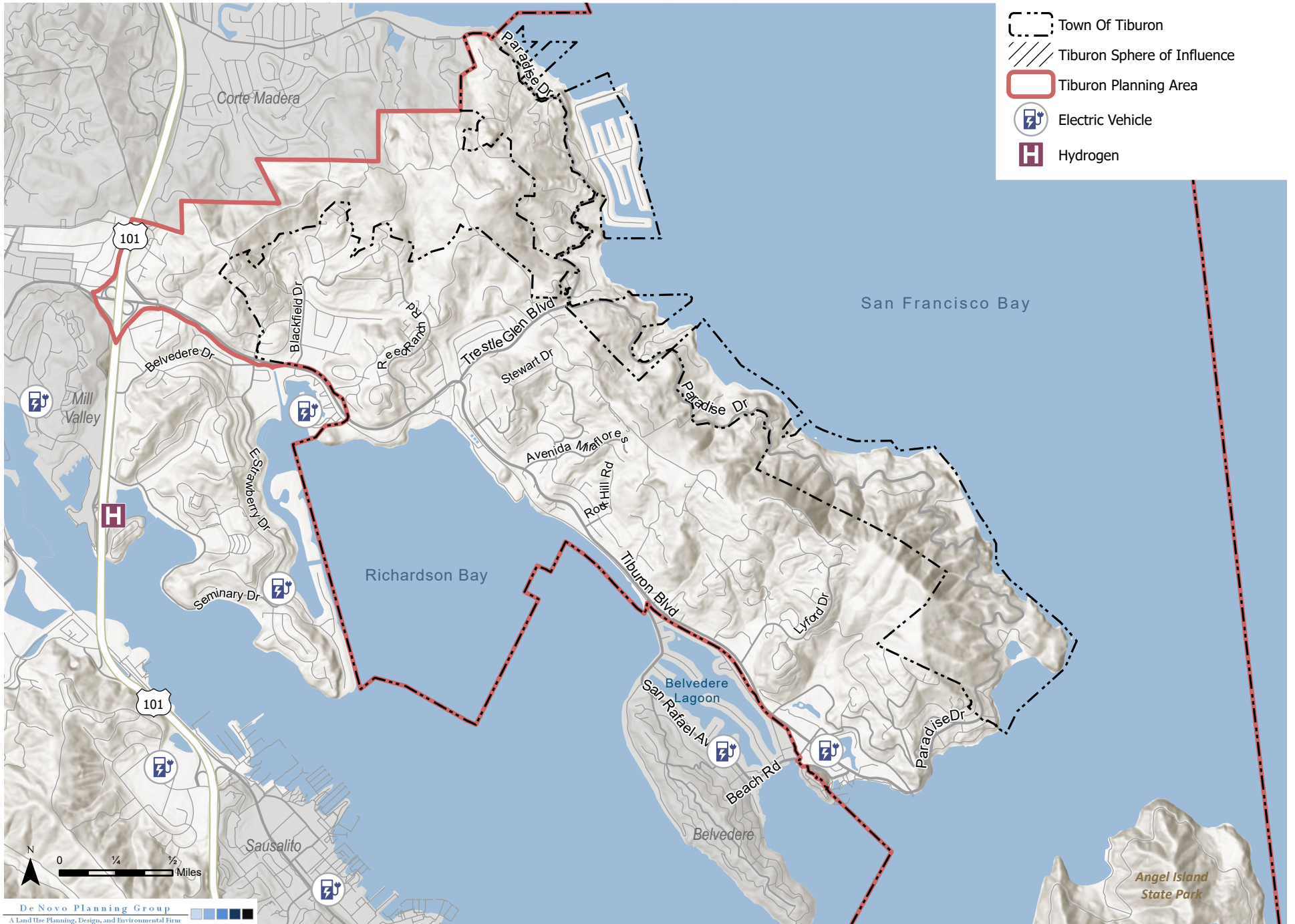







Figure 3.14-10. Alternative Fuel Stations



-  Town Of Tiburon
-  Tiburon Sphere of Influence
-  Tiburon Planning Area
-  Electric Vehicle
-  Hydrogen

0 1/4 1/2 Miles





### 3.15 UTILITIES AND SERVICE SYSTEMS

This section evaluates the potential effects on utilities related to implementation of the Town of Tiburon General Plan 2040 by identifying anticipated demands and existing and planned service availability. For the purposes of this Draft EIR, utilities consist of water supply; wastewater; solid waste; and storm drain facilities. Future discretionary projects will be evaluated for project-specific impacts to utilities and service systems at the time they are proposed.

There were no comments received during the public review period for the NOP related to utilities and service systems.

#### 3.15.1 WATER SERVICES

This section describes the Town of Tiburon's water demands, water supplies, water distribution system, and water quality.

##### *Key Terms*

**Acre feet (AF):** The volume of one acre of water to a depth of one foot. Each acre-foot of water is equal to 325,851.4 gallons.

**GPD:** Gallons per day.

**Groundwater:** Water that is underground and below the water table, as opposed to surface water, which flows across the ground surface. Water beneath the earth's surface fills the spaces in soil, gravel, or rock formations. Pockets of groundwater are often called "aquifers" and are the source of drinking water for a large percentage of the population in the United States. Groundwater is often extracted using wells which pump the water out of the ground and up to the surface. Groundwater is naturally replenished by surface water from precipitation, streams, and rivers when this recharge reaches the water table.

**MG:** Million gallons.

**MGD:** Million gallons per day.

**Surface water:** Water collected on the ground or from a stream, river, lake, wetland, or ocean. Surface water is replenished naturally through precipitation, but is lost naturally through evaporation and seepage into soil.

## **Existing Conditions - Water Services**

### *Potable Water System*

Chartered on April 25, 1912, the Marin Municipal Water District (Marin Water) is the first municipal water district in California and currently provides potable water service to ten incorporated cities and towns, including San Rafael, Mill Valley, Fairfax, San Anselmo, Ross, Larkspur, Corte Madera, Tiburon, Belvedere, and Sausalito. The Marin Water service area covers approximately 147 square miles and serves a population of approximately 191,000 customers through about 61,700 active service connections.<sup>1</sup> Marin Water averages 22.4 million gallons per day (mgd) of water use with a maximum daily water design capacity of 71 mgd.<sup>2</sup>

Approximately 75 percent of Marin Water’s water supply originates from rainfall on about 22,000 acres of protected Mount Tamalpais watershed land owned by the district and in the grassy hills of west Marin, which flows into one of seven Marin Water reservoirs. Additionally, Marin Water supplements its water supply with purchased water from the Sonoma County Water Agency (SCWA), which comes from the Russian River system in Sonoma County. The Russian River water supply originates from rainfall that flows into Lake Sonoma and Lake Mendocino, and it is naturally filtered through 80 feet of sand beds adjacent to the river. The Russian River water supply is blended with Marin Water’s reservoir water, within its distribution system. The reservoir water is treated at one of the three Marin Water’s treatment plants before traveling through the extensive distribution system—including 886 miles of water mains, 121 storage tanks, and 94 pump stations.<sup>3</sup> Figure 3.15-1 illustrates the Marin Water facilities that serves the Tiburon Planning Area.

As California’s first municipal water district, replacing aging infrastructure is one of the most critical needs in the district. Many pipelines are more than 100 years old; therefore, upgrading the system of underground pipelines increases the overall reliability of Marin Water’s system. In 2019, Marin Water managed 14 large construction projects designed to improve the reliability of the existing infrastructure. These projects included water main replacements and repairs, large valve replacements, and bypass installations. Additionally, many of these projects were designed to deliver large amounts of water in a short period for firefighting, improving fire flow.<sup>4</sup>

Marin Water is currently conducting a comprehensive evaluation of its complex water system through the development of the Water System Master Plan (WSMP), which is anticipated to be completed in 2023. The WSMP will evaluate long-term investments for water system assets that are essential to maintaining delivery of water to customers. From this system-

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<sup>1</sup> Marin Municipal Water District. June 2021. 2020 Urban Water Management Plan. Available at: [https://www.marinwater.org/sites/default/files/2021-07/Final%20MMWD%20UWMP\\_w\\_Appendices\\_rev.pdf](https://www.marinwater.org/sites/default/files/2021-07/Final%20MMWD%20UWMP_w_Appendices_rev.pdf)

<sup>2</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [page 21]

<sup>3</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [p. 20]

<sup>4</sup> Marin Water. 2020. Marin Water 2019 Annual Report. [page 6]

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wide evaluation, the WSMP will determine infrastructure needs and recommend long-term capital investments for maintaining service reliability and improving system operations.<sup>5</sup>

### Water System Supplies

The Town of Tiburon receives potable water from Marin Water. Marin Water’s water supplies presently come from a combination of water imported from Sonoma County Water Agency (SCWA), local surface water, and recycled water. Groundwater is not currently or planned to be used as a municipal water supply source by the district, though private groundwater wells are used in Marin Water’s service area. Table 3.15-1 summarizes, by source, the total amount of actual water supplied in 2020.

TABLE 3.15-1: MARIN WATER’S WATER SUPPLIES – ACTUAL (AFY)

Water Supply	Additional Water Supply Detail	2020	
		Actual Volume	Water Quality
Purchased or Imported Water	Purchased from SCWA	6,822	Drinking Water
Surface Water	Not desalinated	20,449	Drinking Water
Surface Water	Environmental releases from Kent and Soulajule Lakes	12,699	Raw Water
Other	Water sold to the Meadow Club	180	Raw Water
<b>Total</b>		<b>40,149</b>	--

SOURCE: MARIN WATER 2020 URBAN WATER MANAGEMENT PLAN, TABLE 6-9. (JUNE 2021)

Table 3.15-2 summarizes, by source, the total amount of projected water supply from 2025 to 2045 in five-year increments. Note that the numbers represent the total amount of supply available to the district, whereas Table 3.15-1 showed only the supply that was used to meet demand, regardless of how much was available.

TABLE 3.15-2: MARIN WATER’S PROJECTED WATER SUPPLIES (AFY)

Water Supply	Projected Water Supply				
	2025	2030	2035	2040	2045
Purchased/Imported Water	5,300	5,300	5,300	5,300	5,300
Surface Water	78,450	78,793	78,525	78,558	78,626
Recycled Water	750	750	750	750	750
Other	171	174	176	176	176
<b>Total</b>	<b>84,761</b>	<b>85,017</b>	<b>84,751</b>	<b>84,784</b>	<b>84,852</b>

NOTE: RAV = REASONABLE AVAILABLE VOLUME; TRSY = TOTAL RIGHT OR SAFE YIELD

SOURCE: MARIN WATER 2020 URBAN WATER MANAGEMENT PLAN, TABLE 6-10 (JUNE 2021)

### Purchased/Imported Water Supply

Since 1975, Marin Water has contracted with the SCWA for a supplemental supply of water, primarily from Lake Sonoma via the Russian River. Marin Water’s present contract with SCWA

<sup>5</sup> Marin Water Board of Directors Special Meeting. 2020. Agenda Item 1: Board 2020 Annual Retreat. September 25, 2020. [Attachment 1b]

is based on two antecedent documents: the 1975 Off-Peak Water Supply Agreement (Off-Peak Agreement) and its amendments, and the 1991 Agreement for the Sale of Water between SCWA and the district. In 1996, these two contracts were combined into a single new agreement, the Supplemental Water Supply Agreement (Agreement).

The Agreement combined the two prior agreements such that the district can now take deliveries of up to 14,300 AFY from SCWA. All of these deliveries are also now classified as “firm” water. In addition to the annual delivery limit, the Agreement also places seasonal limitations on water delivery rates to the district. Deliveries are limited to 23.1 mgd from December to March and 12.8 mgd from May to September. In April and November, deliveries cannot exceed 20.1 mgd, and in October, deliveries are limited to 17.1 mgd. The Agreement will remain in force through June 30, 2025 and includes a renewal provision that will extend the Agreement through June 30, 2040.<sup>6</sup>

In addition to contractual delivery limits, Russian River water deliveries to Marin Water are subject to available pipeline capacity in facilities owned by SCWA and Novato Municipal Water District (NMWD). Russian River water is diverted by SCWA at a series of sub-surface Ranney collectors near Wohler Bridge in Sonoma County. Water destined for Marin Water flows through SCWA pipelines to Petaluma. From Petaluma, the water flows southward in NMWD’s aqueduct for eight miles to the northern end of Marin Water’s pipeline facilities in Novato. The Interconnection Agreement from 2014 describes Marin Water’s rights to use the excess capacity in NMWD’s facilities. The Interconnection Agreement runs contiguous with the SCWA Restructured Agreement for Water Supply, which will expire on June 30, 2040, and has renewal options.<sup>7</sup>

Water imported from SCWA is naturally filtered in the deep sand and gravel below the riverbed and requires no further clarification. This water enters Marin Water’s system at the Ignacio Water Quality and Pumping Station, where water quality is monitored continually and adjusted as needed. Marin Water’s water use projections for imported water from SCWA are shown in Table 3.15-3, which have been coordinated with the demands and methodology in the SCWA’s 2020 UWMP. Marin Water’s current contract allows the purchase of up to 14,300 AFY from SCWA; however, Marin Water’s ability to accept this water is limited by infrastructure constraints.

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<sup>6</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [page 51]

<sup>7</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [page 51]

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TABLE 3.15-3: WHOLESAL WATER SUPPLIES – EXISTING AND PLANNED SOURCES OF WATER (AFY)

Wholesale Source – Sonoma County Water Agency	2025	2030	2035	2040	2045
Normal Year	5,300	5,300	5,300	5,300	5,300
Single-Dry Year	7,200	7,200	7,200	7,200	7,200
Extended Drought, First Year	7,200	7,200	7,200	7,200	7,200
Extended Drought, Second Year	7,200	7,200	7,200	7,200	7,200
Extended Drought, Third Year	4,597	4,597	4,597	4,597	4,597
Extended Drought, Fourth Year	4,300	4,300	4,300	4,300	4,300
Extended Drought, Fifth Year	4,300	4,300	4,300	4,300	4,300

SOURCE: MARIN WATER 2020 MUNICIPAL WATER DISTRICT URBAN WATER MANAGEMENT PLAN, TABLE 7-3. (JUNE 2021)

### Surface Water Supply

Marin Water's primary water supply is local surface water. Until 1976, the district's water supply was obtained solely from rainfall collected from the Mount Tamalpais watershed, including approximately 28 square miles of Marin Water-owned lands, and 36 square miles not owned by Marin Water. Presently, total reservoir storage operated by Marin Water is 25.9 billion gallons (79,566 AF). The annual runoff into Marin Water's reservoirs varies greatly from a maximum of 220,000 AF in 1983 to a minimum of only 4,100 AF in 1977. The average and median annual runoff is 83,000 AF.<sup>8</sup> Table 3.15-4 provides a chronology of Marin Water's water rights and development of its reservoir system.

TABLE 3.15-4: MARIN WATER'S SURFACE WATER RESERVOIR SYSTEM (AF)

Reservoir Name	Year Constructed	Storage Capacity (AF)	Water Rights
Lake Lagunitas	1873	350	Pre-1914
Phoenix Lake	1905	411	Pre-1914
Bon Tempe Reservoir	1948	4,017	Appropriative Permit No. 05633
Alpine Lake	1918	3,069	Pre-1914
	1924	4,600	Appropriative Permit No. 05633
	1941	8,891	
Kent Lake	1953	16,050	Appropriative Permit Nos. 05633, 09390, 18546
	1982	32,895	
Nicasio Reservoir	1960	29,000 <sup>1</sup>	Appropriative Permit No. 12800
Soulajule Reservoir	1980	10,572	Appropriative License 12807 and Permit No. 16892
<b>Total Existing Reservoir Storage</b>		<b>79,566</b>	

NOTE: 1) UNDER THE WATER RIGHT FOR STORAGE, 6,570 AF OF WATER FROM NICASIO CREEK CAN BE TRANSFERRED FROM NICASIO RESERVOIR TO KENT LAKE TO FILL KENT LAKE. THIS WOULD FREE UP CAPACITY IN NICASIO RESERVOIR FOR ADDITIONAL STORAGE UP TO THE TOTAL OF 29,000 AF (22,430 AF STORED IN NICASIO RESERVOIR PLUS 6,750 TRANSFERRED AND STORED IN KENT LAKE).

SOURCE: MARIN WATER 2020 URBAN WATER MANAGEMENT PLAN, TABLE 6-2. (JUNE 2021)

In managing its surface water supply, Marin Water defines the operational yield of its water supply system as the volume of water that can be provided to its customers in most years without depleting its reservoir storage to the point where stored water would be insufficient to meet a reduced water demand during a repeat of the most severe historical drought

<sup>8</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [page 57]



period. Marin Water’s operational yield is based on 115 years of estimated monthly hydrologic data. The operational yield was determined using the Marin WaterSim model developed to simulate Marin Water’s water supply system, as described in the Marin WaterSim Model Technical Memorandum of the Marin Water Water Resources Plan 2040. The analysis was limited to Marin Water’s local watershed supplies, meaning it excluded the water imported from the SCWA and locally produced recycled water. According to the Marin Water Water Resources Plan 2040, Marin Water currently estimates the “operational yield” of its surface water sources to be about 29,020 AFY if 25 percent of usable storage is reserved for emergency supply and imported water is excluded from the analysis.<sup>9</sup>

### *Recycled Water*

Recycled water is highly treated wastewater that is safe for many purposes. Wastewater is treated at the Recycled Water Facility, a state-of-the-art membrane treatment plant located at, and operated by, the Las Gallinas Valley Sanitary District. Once treated, recycled water travels through separate pipelines to district customers. Marin Water’s recycled water system contains 24.5 miles of pipeline, 5 MG of storage, 4 pump stations, and 333 service connections. The recycled water distribution system primarily serves customers in the City of San Rafael, as well as the unincorporated communities of Marin County.

In 2020, the recycled water system served about 748 AFY, or about 2 percent of the total demand, through 333 service connections. Table 3.14-5 indicates the existing and projected future recycled water uses.<sup>10</sup>

### *Groundwater Supply*

According to the DWR’s Bulletin 118 Groundwater Basin Lookup, there are three groundwater basins identified within the Marin Water’s service area, including the Ross Valley Groundwater Basin, San Rafael Valley Groundwater Basin, and portions of the Novato Groundwater Basin. All three basins are categorized by the California Statewide Groundwater Elevation Monitoring (CASGEM) program as very low priority basins. No groundwater basins are identified within the Tiburon Planning Area.

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<sup>9</sup> Marin Water, 2017. Marin Municipal Water District Water Resources Plan 2040. March. Available: <https://www.marinwater.org/sites/default/files/2020-09/Water%20Resources%20Plan%202040.pdf>.

<sup>10</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [page 65]

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TABLE 3.15-5: CURRENT AND PROJECTED RECYCLED WATER USES (AFY)

Beneficial Use Type	General Description of Use	2020 actual use	2025	2030	2035	2040	2045
Landscape irrigation (excluding golf courses)		443	433	433	433	433	433
Golf course irrigation		88	88	88	88	88	88
Commercial Use		162	163	163	163	163	163
Industrial use		33	33	33	33	33	33
Other	Toilet/urinal flushing in commercial and residential settings	23	23	23	23	23	23
<b>Total</b>		<b>748</b>	<b>750</b>	<b>750</b>	<b>750</b>	<b>750</b>	<b>750</b>

SOURCE: MARIN WATER 2020 URBAN WATER MANAGEMENT PLAN, TABLE 6-5. (JUNE 2021)

Groundwater use within Marin Water’s service area is limited to small, domestic use through private groundwater pumping wells. Marin Water has studied the potential for municipal groundwater use. However, several studies have determined the potential for municipal groundwater use within the boundaries of Marin Water’s service area is very limited due to limited production capabilities, water quality constraints, and potential water rights issues. As a result of these studies, groundwater is not currently or planned to be used as a municipal water supply source by the district.<sup>11</sup>

### Current and Projected Water Demands and Supplies

According to Marin Water’s 2020 UWMP, the 2020 actual water demands of the district were 40,149 AFY. Water demand projections were developed through 2045 using Marin Water’s Demand Side Management Least Cost Planning Decision Support System (DSS) model. Table 3.15-6 compares projected water supplies available in a normal year to projected demand totals, with the difference showing a projected surplus during the planning horizon of the UWMP.

TABLE 3.15-6: NORMAL YEAR SUPPLY AND DEMAND COMPARISON (AFY)

	2025	2030	2035	2040	2045
Supply totals	84,761	85,018	54,751	84,784	84,582
Demand totals	38,018	38,049	37,974	38,051	38,207
<b>Difference</b>	<b>46,742</b>	<b>46,972</b>	<b>46,777</b>	<b>46,733</b>	<b>46,645</b>

SOURCE: MARIN WATER 2020 URBAN WATER MANAGEMENT PLAN, TABLE 7-7. (JUNE 2021)

<sup>11</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [page 53]

Table 3.15-7 compares projected water supplies available in a single dry year to projected demand totals, with the difference showing a projected surplus during the planning horizon of the UWMP.

TABLE 3.15-7: SINGLE DRY YEAR SUPPLY AND DEMAND COMPARISON (AFY)

	2025	2030	2035	2040	2045
Supply totals	52,432	52,137	52,135	52,139	52,149
Demand totals	38,019	68,046	37,974	38,051	38,207
<b>Difference</b>	<b>14,113</b>	<b>14,091</b>	<b>14,161</b>	<b>14,088</b>	<b>13,942</b>

SOURCE: MARIN WATER 2020 URBAN WATER MANAGEMENT PLAN, TABLE 7-8. (JUNE 2021)

Table 3.15-8 compares total supply available in multiple dry years to projected demand totals, with the difference in multiple dry years showing a projected surplus during the planning horizon of the UWMP. Based on this comparison, Marin Water will have sufficient supplies to meet the demands anticipated by the UWMP during normal and dry water years. This is attributed to the measures already implemented by the district to increase storage and SCWA supply, as well as the district’s aggressive conservation measures and Dry Year Water Use Reduction Program.

TABLE 3.15-8: MULTIPLE DRY YEARS SUPPLY AND DEMAND COMPARISON (AFY)

		2025	2030	2035	2040	2045
First Year	Supply totals	79,556	79,560	79,560	79,562	79,567
	Demand totals	38,019	38,046	37,974	38,051	38,207
	<i>Difference</i>	41,537	41,514	41,586	41,511	41,360
Second Year	Supply totals	84,321	84,313	84,342	84,314	84,262
	Demand totals	38,019	38,046	37,974	38,051	38,207
	<i>Difference</i>	46,302	46,267	46,368	46,263	46,055
Third Year	Supply totals	86,430	86,448	86,419	86,453	86,530
	Demand totals	38,019	38,046	37,974	38,051	38,207
	<i>Difference</i>	48,411	48,402	48,445	48,402	48,323

SOURCE: MARIN WATER 2020 URBAN WATER MANAGEMENT PLAN, TABLE 7-9. (JUNE 2021)

*Water Shortage Contingency Plan*

As the water purveyor, Marin Water must provide the minimum health and safety water needs of the communities it serves at all times. As part of urban water management planning, water suppliers are required to provide a Water Shortage Contingency Plan (WSCP) outlining how the supplier will prepare for and respond to water shortages.

Table 3.15-9 shows the seven stages of the WSCP and their associated shortage range and shortage response actions.

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TABLE 3.15-9: WATER SHORTAGE CONTINGENCY PLAN LEVELS

Stage	Percent Shortage Range	Shortage Response Actions
0	0%	<ul style="list-style-type: none"> <li>Includes water waste prohibitions effective at all times.</li> </ul>
1	Up to 10%	<ul style="list-style-type: none"> <li>If rainfall is 30% below average for the water year<sup>1</sup> as of April 1st</li> <li>Includes implementation of mandatory restrictions on end uses (see 2020 UWMP Table 8-2) as well as agency actions (see 2020 UWMP Table 8-3).</li> </ul>
2	Up to 20%	<ul style="list-style-type: none"> <li>Total reservoir storage is in the vicinity of 45,000 acre-feet on January 1st.</li> <li>Includes implementation of mandatory restrictions on end uses (see 2020 UWMP Table 8-2) as well as agency actions (see 2020 UWMP Table 8-3).</li> </ul>
3	Up to 30%	<ul style="list-style-type: none"> <li>Total reservoir storage is in the vicinity of 50,000 AF on February 1st</li> <li>Includes implementation of mandatory restrictions on end uses (see 2020 UWMP Table 8-2) as well as agency actions (see 2020 UWMP Table 8-3).</li> </ul>
4	Up to 40%	<ul style="list-style-type: none"> <li>Total reservoir storage is in the vicinity of 55,000 AF on April 30th and/or storage level projections using average rainfall indicate December 1st storage in vicinity of 30,000 AF.</li> <li>Includes implementation of mandatory restrictions on end uses (see 2020 UWMP Table 8-2) as well as agency actions (see 2020 UWMP Table 8-3).</li> </ul>
5	Up to 50%	<ul style="list-style-type: none"> <li>Total reservoir storage on December 1 is less than 30,000 AF.</li> <li>Includes implementation of mandatory restrictions on end uses (see 2020 UWMP Table 8-2) as well as agency actions (see 2020 UWMP Table 8-3).</li> </ul>
6	Up to 60%	<ul style="list-style-type: none"> <li>Continued drought and forecasted decreasing storage levels or catastrophic event beyond Stage 5, or total reservoir storage is projected to be in the vicinity of 30,000 AF on April 1st.</li> <li>Includes implementation of mandatory restrictions on end uses (see 2020 UWMP Table 8-2) as well as agency actions (see 2020 UWMP Table 8-3).</li> </ul>

NOTE: 1) TOTAL RESERVOIR STORAGE INCLUDES EMERGENCY STORAGE AND DEAD STORAGE  
 SOURCE: MARIN WATER 2020 URBAN WATER MANAGEMENT PLAN, TABLE 8-1. (JUNE 2021)

### Water System Quality

According to Marin Water’s 2020 Annual Water Quality Report, Marin Water conducts more than 120,000 water quality and process control tests yearly from watershed to faucet, to ensure the potable water supply is safe to drink. This includes ongoing process control testing at the treatment plants as well as laboratory testing of the district’s water samples. Many of these samples undergo chemical, bacteriological and physical analyses in the district’s water quality laboratory, which is certified by the California State Water Resources Control Board’s Environmental Laboratory Accreditation Program. Additionally, Marin Water sends other samples to specialty labs for testing. Marin Water’s 2020 Annual Water Quality Report indicates that all water supplied to customers during 2020 met all state and federal regulatory standards.

It should be noted that routine water testing at Bel Aire Elementary School in Tiburon was conducted in August 2019, which showed possibly dangerous levels of lead close to or exceeding the EPA’s safety threshold for toxic metals of 15 parts per billion. The routine water testing identified a drinking fountain inside a classroom with toxic metals measured at 14.7 parts per billion, a hallway fountain with toxic metals measured at 17.4 parts per billion, and a fountain at a play field with toxic metals measured at 12.3 parts per billion. All three water fountains were replaced with new hydration stations. Marin Water indicated that the water quality issue was with the school’s plumbing or fountain fixtures and that there were no issues with lead in Marin Water’s water supply or delivery system.<sup>12</sup>

## ***Regulatory Framework - Water Services***

### **State**

#### *California Water Quality Control Board*

The State Water Quality Control Board (Water Board), Division of Drinking Water, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund (“SRF”) and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for MTBE and other oxygenates.

#### *Consumer Confidence Report Requirements*

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Water Board. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

#### *Urban Water Management Planning Act*

The Urban Water Management Planning Act has as its objectives the management of urban water demands and the efficient use of urban water. Under its provisions, every urban water supplier is required to prepare and adopt an urban water management plan. An “urban water supplier” is a public or private water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than

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<sup>12</sup> Rodriguez, Adrian. “Tiburon School’s Water Tests Show Lead Contamination”. Marin Independent Journal. October 14, 2019.



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3,000 acre-feet of water annually. The plan must identify and quantify the existing and planned sources of water available to the supplier, quantify the projected water use for a period of 20 years, and describe the supplier's water demand management measures. The urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Department of Water Resources must receive a copy of an adopted urban water management plan.

### *Senate Bill 610 and Assembly Bill 901*

The State Legislature passed Senate Bill (SB) 610 and Assembly Bill (AB) 901 in 2001. Both measures modified the Urban Water Management Planning Act.

SB 610 requires additional information in an urban water management plan if groundwater is identified as a source of water available to an urban water supplier. It also requires that the plan include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water to the project and to request identified public water systems to prepare a specified water supply assessment. The assessment must include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to these entitlements, rights, and contracts. AB 901 requires an urban water management plan to include information, to the extent practicable, relating to the quality of existing sources of water available to an urban water supplier over given time periods. AB 901 also requires information on the manner in which water quality affects water management strategies and supply reliability. The bill requires a plan to describe plans to supplement a water source that may not be available at a consistent level of use, to the extent practicable. Additional findings and declarations relating to water quality are required.

### *Senate Bill (SB) 221*

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within five days of the subdivision application being accepted as complete for processing by the city or county. It also adds Government Code Section 66473.7, establishing detailed requirements for establishing whether a "sufficient water supply" exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring availability of a sufficient water supply. The applicable public water system must provide proof of availability. If there is no public water system, the city or county must undertake the analysis described in Government Code Section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

## Local

### *Marin Municipal 2020 Water District Urban Water Management Plan*

The 2020 Urban Water Management Plan (UWMP) is a foundational document for Marin Municipal Water District (Marin Water) and is a source of information about Marin Water’s historical and projected water demands, water supplies, supply reliability and potential vulnerabilities, water shortage contingency planning, and demand management programs. Marin Water prepared the UWMP to remain in compliance with the Urban Water Management Planning Act (California Water Code Section 10610 et seq.). This document also describes the actions Marin Water is taking to promote water conservation, both by the Marin Water and by its customers (referred to as “demand management measures”), and includes a plan to address potential water supply shortages such as drought or other impacts to supply availability (the “Water Shortage Contingency Plan”). The UWMP is updated every five years in accordance with state requirements under the Urban Water Management Planning Act (UWMP Act) and amendments (Division 6 Part 2.6 of the California Water Code Sections 10610 – 10656).

### *Marin Municipal Water District Water Resources Plan 2040*

Marin Water prepared the Water Resources Plan 2040 to evaluate resiliency in the face of a variety of threats to water resources in its service area and to identify options to enhance resiliency for its customers. The Water Resources Plan 2040 provides information to enable the district to make informed water supply planning decisions in the face of a variety of potential reliability threats, including an updated Water Shortage Contingency Plan that includes to provide the district more flexibility in addressing dry periods early. As part of the Water Resources Plan 2040, Marin Water updated the baseline operational yield, which is defined as the maximum annual demand that can be met by the district’s local water supply system during the hydrologic record, assuming 25 percent of supply capacity (beyond unusable storage) is reserved for emergency purposes. To better understand potential changes in future supply availability under various future conditions, the Water Resources Plan 2040 addresses simulated reliability threats or “events” and the “futures” that would result from those events that could impact baseline supply conditions, including earthquakes, drought, climate change, wildfire, landslides, and water quality issues. Based on the results of the simulated reliability threats, the Water Resources Plan 2040 recommends actions that Marin Water should take to increase the water supply resiliency, including increased water conservation, investing in watershed management, and exploring groundwater partnering opportunities.

### *Water Supply Master Plan*

Marin Water is preparing a Water System Master Plan (WSMP) that is intended to provide a roadmap for investing in the water system, ensure cost effective use of resources, evaluate and address system needs, and update its planning and design criteria. The WSMP is anticipated to be completed in 2023.

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### *Marin Municipal Water District Code*

Title 11 Water Service Rules and Regulations. This title outlines the rules and regulations that are adopted to establish uniform practices governing water service and to define the obligations of Marin Water to consumers and of consumers to Marin Water. Topics in this title of the code include applications for water service, installation of new service connections, cross-connections, meter reading, billing and rendering of bills, payment of bills, termination of water service, water main extensions, charges for main extensions, installation of services, charges for service installations and connection fees, and fire flow fees.

Chapter 13.02 Water Conservation and Dry Year Water Use Reduction Program. This chapter provides a water conservation plan to minimize the effect of a shortage of water on consumers and to adopt provisions that will significantly reduce the consumption of water during an extended dry weather period (drought), which would extend the available water for consumers while reducing the hardship on the general public to the greatest extent possible. The programs developed in this chapter are triggered based on lake storages developed by computer simulations performed utilizing Marin Water's seven reservoirs with approximately 80,000 acre feet of total capacity and up to 9,000 acre feet per year of imported water. This chapter establishes prohibitions on nonessential activities, requirements for water services, and identifies programs to reach 10% and 25% reduction goals in dry periods.

Chapter 13.03 Water Budgets and Related Conservation Measures. This chapter specifies the terms and conditions under which water budgets will be required and to specify when consumers will be required to retrofit water using fixtures with low flow or ultra-low flow fixtures to reduce the per capita consumption of water. Implementation of the provisions of this chapter would reduce the hardship on consumers resulting from over subscription of the Marin Water's water supplies which has increased the susceptibility to short-falls in dry years.

Chapter 13.04 Comprehensive Drought Water Conservation and Enforcement Measures. Chapter 13.04 was amended multiple times in 2021 in response to drought conditions that led Marin Water to declare a water shortage emergency and adopt mandatory water restrictions. In 2022, Marin Water repealed restrictions that established maximum water use for single-family residential accounts, single-family irrigation, and commercial irrigation accounts, while maintaining regulations and restrictions on water. As amended, Chapter 13.04, establishes drought water waste prohibitions that address prohibited nonessential uses, including washing of sidewalks, driveways, parking lots, and other hard surfaced areas, water leaks, water use for decorative elements, water use for various landscaping activities, refilling drained swimming pools, and initial filling of swimming pools and restrictions on reverse osmosis units. Chapter 13.04 provides exemptions from daytime water prohibition for testing and repair of irrigation systems to eliminate water use, allows for adjustments of

water use limits for larger households, and provided for variances for use of water due to hardship, emergency conditions, or comparable water conservation efforts.

*Town of Tiburon Municipal Code*

Chapter 13E Water Efficient Landscape. As mandated under State Government Code Section 65595(c), certain new construction, remodel, and rehabilitation projects that include landscape and irrigation improvements are required to comply with water-efficient landscape requirements and monitoring of water usage for irrigation. The purpose of this chapter is to comply with this state mandate regarding water-efficient landscaping. The ordinance contains provisions that include but are not limited to, the following:

1. The application and monitoring of a "maximum applied water allowance" that is established for applicable projects.
2. The review of required landscape and irrigation plans, specifications and supportive documents prepared for applicable projects for compliance with water-efficient landscape restrictions, including limitations on the type and amount of landscape materials and plant species.
3. The review, inspection and approval of landscape and irrigation that is installed for applicable projects to ensure compliance with the approved landscape and irrigation plans and specifications.
4. The post-installation monitoring of water usage for irrigation by applicable projects.

## **ANALYSIS, IMPACTS, AND MITIGATION MEASURES – WATER SERVICES**

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**Impact 3.15-1      General Plan 2040 implementation may result in insufficient water supplies available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years (Significant and Unavoidable)**

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Implementation of the General Plan 2040 would result in increased population and employment growth within the Planning Area, and a corresponding increase in the demand for additional water supplies.

While Marin Water can meet future demands as described in the District's UWMP with no new or expanded water supply or treatment facilities, the General Plan 2040, along with additional growth in the Marin Water service area associated with the regional growth assigned to Marin County jurisdictions under the 6th cycle RHNA would result in growth beyond the service population projected in the UWMP. Future UWMP updates would need to include updated regional population and housing estimates as plans and housing element are updated. Additionally, according to Marin Water, once it receives the updated Housing Elements from all jurisdictions served, Marin Water will be amending its UWMP to evaluate water supply and infrastructure capacity. This potential future population growth would

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exceed Marin Water’s planned service population, which is anticipated to increase by 20,629 from 2020 to 2045.<sup>13</sup>

While the population growth associated with all jurisdictions served by Marin Water would increase growth during the planning period, the UWMP demonstrates that Marin Water will have a robust water supply under normal year, single dry year, and multiple dry year conditions and is anticipated to have excess supply under all of these conditions and in all study years (2025, 2030, 2035, 2040, and 2045) as shown in Tables 7-7 through 7-9 of the 2020 UWMP. The lowest excess supply of 13,942 acre feet per year is projected in 2045 under a single dry year condition.<sup>14</sup> This excess supply is more than adequate to serve the 303.5 acre feet of year demand for water that would occur with additional population growth of 2,215 under full buildout of the General Plan 2040 (916 housing units x 2.44 pph = 2,235) [128 gallons per capita per day x 2,235 = 286,080 gallons per day or approximately 320 acre feet per year). Furthermore, Marin Water’s 2020 UWMP indicates that based on historical water supply patterns, the MMWD can meet future demands for the district, including Tiburon, under normal, single-dry year, and multiple-dry year scenarios. However, there is uncertainty in the future due to climate change.

The Town’s General Plan 2040 requires development to demonstrate adequacy of facilities and water supplies through Policy LU-2 and Policy C-18 and Programs LU-e through LU-g. Additionally, Program LU-g requires the Town to coordinate growth projections and infrastructure planning with urban service providers such as Marin Municipal Water District to ensure sufficient capacity to serve existing and future development, and Policy C-19 calls for the Town to coordinate planning activities with Marin Water to ensure that both the Town and Marin Water have the latest information with respect to land use and water supply planning.

As described previously, Marin Water’s 2020 UWMP has determined that there is adequate supply to meet demand for a projected service population of 211,961 in 2045, an increase of 20,692 people from the 2020 level. Thus, water supply is sufficient to accommodate population growth in Tiburon associated with the development of 916 new residential units. However, the 2020 UWMP was prepared based upon the Association of Bay Area Government 2017 population projections, and therefore does not account for population projections associated within the 6th Cycle Housing Element updates for all of the jurisdictions within Marin Water’s service area. The aggregate RHNA’s for these jurisdictions would result in significantly more residential units within Marin Water’s service area than what was considered in the UWMP. Specifically, future growth would include 8,021 RHNA units assigned to Marin Water’s cities and towns from 2023-2031 as well as a portion of the 3,569 RHNA units assigned to the unincorporated area. The resulting population from the 2023-2031 period alone would be close to or exceed the population planned through 2045.

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<sup>13</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [Table 3-1]

<sup>14</sup> Marin Water. 2021. 2020 Urban Water Management Plan. [Table 7-8]



The RHNA does not account for units that would be assigned past 2031 which would allocate additional units to Marin Water's service area from 2031-2045.

Marin Water must update the UWMP every five years to accommodate new and projected population growth, and Marin Water intends to update the plan to reflect the 6th Cycle Housing Element Updates and to ensure sufficient water supplies to support the anticipated increase in residential development.

However, out on an abundance of caution, even with implementation of the above policies and programs, the uncertainty associated with drought impacts on future water supply and with the timing and fruition of efforts by Marin Water and other regional districts to supplement water supplies in dry and multiple dry years presents the possibility that Marin Water may not be able to supply water for the Project and cumulative (Project and Marin Water's commitments outside of the Project) scenarios. Because of these uncertainties, and because the current UWMP does not account for population projections associated with RHNA for all of the jurisdictions within Marin Water's service area, impacts to water supply for the Project are **significant and unavoidable** with no feasible mitigation measures.

#### Level of Significance before Mitigation

Potentially significant

#### Mitigation Measures

No feasible mitigation

#### Level of Significance

Significant and unavoidable

#### General Plan 2040 Policies and Programs that minimize impacts

**Policy LU-2 Infrastructure for New Development:** Assure that sewer, water, and other essential infrastructure improvements must be available to the developer to serve new development by the time of completion of construction and that anticipated traffic levels are consistent with adopted Vehicle Miles Traveled (VMT) standards. New development shall pay its fair share of essential expanded infrastructure to the maximum extent allowed by law.

**Program LU-e Infrastructure Capacity:** Analyze project impacts on infrastructure capacity and services as part of CEQA review and require mitigation measures as needed in consultation with provider agencies.

**Program LU-f Development Impact Fees:** Periodically review and update public facilities impact fees to assure that new development pays its fair share of public infrastructure and service costs.

**Program LU-g Public Infrastructure Planning:** Coordinate growth projections and infrastructure planning with urban service providers such as Marin Municipal Water District and the sanitary districts to ensure sufficient capacity to serve existing and future development.

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**Policy C-18 Water Conservation:** Support the efforts of the Marin Municipal Water District (Marin Water) to conserve the use of water through enforcement of the Town's water conservation ordinance requiring implementation of water conservation measures.

**Program C-e Development Impacts on Water Retention:** 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, 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 implemented to the extent feasible.

**Program C-f Water Conservation Ordinance:** Continue to implement the Town's water conservation ordinance through the review of new development proposals involving new landscaping.

**Policy C-19 Water Supply Planning:** Coordinate planning activities with Marin Water to ensure that both the Town and Marin Water have the latest information with respect to land use and water supply planning.

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**Impact 3.15-2      General Plan 2040 implementation may require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Significant and Unavoidable)**

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Development and growth in the Town under the General Plan 2040 would result in increased demand for water supplies, including water conveyance and treatment infrastructure. The General Plan 2040 includes policies and actions to ensure that water supplies are provided at acceptable levels and to ensure that development and growth does not outpace the provision of available water supplies.

As described under Impact 3.15-1, future water supplies are projected to be adequate to meet demand that would be generated by buildout of the General Plan 2040.

It is anticipated that water treatment infrastructure and water supply infrastructure may need to be extended to serve future development. Future development in the Planning Area would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system connection fees, and pay the applicable water usage rates. Future projects may be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites to the existing water infrastructure network.

As future development and infrastructure projects are considered by the Town, each project will be evaluated for conformance with the General Plan 2040, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. The specific impacts of providing new and expanded water distribution infrastructure cannot be determined at this time, as the General Plan 2040 does not propose or authorize any specific development projects or include details on any future development projects. Future water treatment and supply infrastructure, such as new or expanded water treatment plants, increased storage capacity at reservoirs, groundwater storage, and additional or expanded storage tanks, may also be needed to serve General Plan 2040 development. As previously identified, Marin Water plans to evaluate its water supply and system needs following review of all adopted 6<sup>th</sup> Cycle Housing Elements. As Marin Water has not yet identified specific improvements to address planned growth, the specific impacts of expanding the water treatment and supply infrastructure cannot be determined at this time.

Any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for urbanized land uses, and the environmental impacts of constructing and operating the new water distribution infrastructure are anticipated to be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan 2040, as discussed in Chapters 3.1 through 3.14, 3.16, and 4.0 of this Draft EIR. However, because new or expanded facilities would be required to serve General Plan 2040 buildout and the site specific details of these new or expanded facilities is unknown this is considered a **significant and unavoidable** impact of General Plan 2040.

#### **Level of Significance before Mitigation**

Significant and unavoidable

#### **Mitigation Measures**

No feasible mitigation

#### **Level of Significance**

Significant and unavoidable

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**Impact 3.15-3: General Plan 2040 implementation, combined with other cumulative development, may result in insufficient water infrastructure available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years (Significant and Unavoidable)**

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Water treatment, storage, and supply infrastructure upgrades and expansion may be needed in the Planning Area and region in order to treat and deliver water from new development, including growth planned in General Plans throughout the region, the 6<sup>th</sup> Cycle Final RHNA Plan, and Plan Bay Area 2050 for Marin County. As previously identified, the

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construction and improvement projects to increase water supply, water treatment, water storage, and water conveyance, would be site and project specific and not cumulative in nature. Additionally, as described in Impact 3.15-2, and facility improvement projects either for the Project or cumulatively would, comply with District, local, state, and federal regulations and adopted standards for development and construction of utility system infrastructure and facilities. While the adopted federal, state, and local regulations and standards along with General Plan policies and programs and mitigation measures identified in Sections 3.1 through 3.15 would reduce potential environmental effects associated with construction and expansion of system infrastructure, it cannot be concluded with certainty that impacts related to this potential construction would be mitigated to less than significant. Therefore, because new or expanded facilities would be required to serve regional growth, including General Plan 2040 buildout, and the site specific details of these new or expanded facilities is unknown, the General Plan 2040's contribution would be considered **cumulatively considerable**.

### Level of Significance before Mitigation

Potentially Significant.

### Mitigation Measures

No feasible mitigation

### Level of Significance

Significant and unavoidable and cumulatively considerable

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### **Impact 3.15-4 General Plan 2040 implementation along with cumulative development could result in insufficient water supplies available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.**

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As described previously, Marin Water's UWMP has determined that there is adequate supply to meet demand for a projected service population of 211,961 in 2045, an increase of 20,692 people from the 2020 level. Thus, water supply is sufficient to accommodate population growth in Tiburon associated with the development of 916 new residential units. However, the 2020 UWMP was prepared based upon the Association of Bay Area Government 2017 population projections, and therefore does not account for population projections associated within the 6th Cycle Housing Element updates for all of the jurisdictions within Marin Water's service area. The aggregate RHNAs for these jurisdictions would result in significantly more residential units within Marin Water's service area than what was considered in the UWMP. Marin Water must update the Urban Water Management Plan every five years to accommodate new and projected population growth, and the district intends to update the plan to reflect the 6th Cycle Housing Element Updates and to ensure sufficient water supplies to support the anticipated increase in residential development.

Implementation of the General Plan 2040 along with regional development would result in increased population and employment growth within the Planning Area and region, and a corresponding increase in the demand for additional water supplies. Additionally, even with implementation of the above policies and programs, the uncertainty associated with drought impacts on future water supply and with the timing and fruition of efforts by water districts to supplement water supplies in dry and multiple dry years presents the possibility that Marin Water may not be able to supply water for the Project and cumulative (Project and Districts' commitments outside of the Project) scenarios. Because of these uncertainties, and because current UWMPs do not account for population projections associated within the 6th Cycle Housing Element updates for all of the jurisdictions within Marin Water's service area. Impacts to water supply for the Project and cumulative scenarios are **significant and unavoidable** and **cumulatively considerable** with no feasible mitigation measures.

#### Level of Significance before Mitigation

Potentially Significant.

#### Mitigation Measures

No feasible mitigation

#### Level of Significance

Significant and unavoidable and cumulatively considerable

### 3.15.2 WASTEWATER

This section describes the Town of Tiburon's wastewater infrastructure, wastewater flows, treatment, regulatory requirements, and infrastructure planning.

#### Key Terms

**Effluent:** In the context of wastewater treatment plants, effluent is wastewater that has been through a treatment process to remove pollution and undesirable constituents from the water.

**PDES:** Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

**WWTP:** Wastewater treatment plant. Treatment of wastewater may include the following processes: screening to remove large waste items; grit removal to allow sand, gravel, and



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sediment to settle out; primary sedimentation where sludge can settle out of the wastewater; secondary treatment to substantially degrade the biological content of the sewage; tertiary Treatment to raise the quality of the effluent before it is discharged; and discharge.

### ***Existing Conditions - Wastewater***

Wastewater service in the Tiburon Planning Area is provided by multiple local agencies, including the Richardson Bay Sanitary District (RBSD), Sanitary District 5 (SD5), and Sanitary District 2 (SD2) of Marin County. As shown on Figure 3.15-2, the majority of the Planning Area is served by either the RBSD or the SD5 while a small northeastern portion of the Town and Planning Area is served by SD2.

### ***Richardson Bay Sanitary District***

RBSD is an independent special district. It encompasses an approximate 3.1 square mile jurisdictional boundary within southeast Marin County. Approximately 60 percent of its jurisdictional area is within Tiburon Town limits, and the other 40 percent covers the unincorporated community of Strawberry.

RBSD is a member of the Sewerage Agency of Southern Marin (SASM). RBSD provides sewage collection and water reclamation services and connects to the main sewer lines owned by SASM which carry the wastewater to the SASM wastewater treatment plant located in the City of Mill Valley. Once processed, the wastewater is disinfected and pumped 6 miles to Racoon Straits in Tiburon for deep-water discharge into the San Francisco Bay. Processed water is also further treated, or reclaimed, and used for landscape irrigation by the City of Mill Valley Parks Department. Figure 3.15-3 illustrates the RBSD wastewater infrastructure and facilities that serve the Tiburon Planning Area.

### ***RBSD Capacity***

As part of the 2019 RBSD Sewer System Management Plan, a capacity assessment was completed for RBSD based on flow monitoring data obtained during the 2008/09 and 2009/10 wet weather seasons, which was used to develop a Capacity Assurance Plan and Capital Improvement Plan (CIP). The modeled facilities in the RBSD collection system included the Hawthorne Terrace, Del Mar, and Belveron Gardens pump stations, downstream force mains, and gravity sewers that convey flow to the Salt Works Pump Station from the northeast and southwest, and to the Ricardo Road Pump Station from the northwest and southeast. According to the 2019 Sewer System Management Plan, the capacity assessment identified some sewers in the RBSD system that may surcharge under peak design event wet weather flow conditions; however, none of the surcharge was severe enough to present a significant risk of overflow.

Additionally, the 2019 Sewer System Management Plan noted the RBSD completed a sewer rehabilitation project in the Belveron Gardens Pump Station tributary area in response to a

2009 hydraulic model analysis identifying the Belveron Gardens Pump Station as not having sufficient firm capacity to convey design storm flows. The Belveron Gardens Pump Station sewer rehabilitation project consisted of the rehabilitation and/or replacement of over 7,000 feet of sewer mains, lower laterals, and some upper laterals. As a result, the Belveron Gardens Pump Station did not have a sewer system overflow during the February 13, 2019 wet weather event, which closely resembled a design storm event.<sup>15</sup>

*SASM Wastewater Treatment Plant*

The SASM WWTP is located in Mill Valley at 450 Sycamore Avenue, approximately 1.9 miles west of the Tiburon Town limits. The SASM WWTP treats raw wastewater from its six member agencies. The WWTP’s treatment process consists of screening, grit removal, flow equalization, primary sedimentation, biological treatment (trickling filters), secondary clarification, disinfection (chlorination), and dechlorination. Dechlorination occurs prior to discharge to Raccoon Strait in the San Francisco Bay via a submerged outfall that is jointly shared with the Sanitary District 5 of Marin County.

*Current and Projected Wastewater Flows*

Table 3.15-10 identifies the current and projected wastewater flow and loading, as summarized in the SASM WWTP Master Plan.

TABLE 3.15-10: SUMMARY OF WASTEWATER FLOWS AND CHARACTERISTICS – SASM WWTP

Parameter	Units	Existing Conditions (2014)			Projected 2035 Values		
		ADW	ADA	ADMM	ADW	ADA	ADMM
Flow	mgd	2.22	2.67	4.19	2.34	2.81	4.41
BODS	mg/L	253	213	--	253	213	--
	lb/d	4,557	4,686	6,167	4,803	4,939	6,500
TSS	mg/L	323	271	--	323	271	--
	lb/d	5,811	5,984	7,689	6,125	6,307	8,104
Minimum Hour Dry Weather Flow		0.40 mgd			0.42 mgd		
Peak Hour Dry Weather Flow		4.67 mgd			4.92 mgd		
Peak Hour Wet Weather Flow		32.7 mgd			32.7 mgd		

NOTE: FLOWS REPRESENT AVERAGE DRY WEATHER (ADW) FLOWS, AVERAGE DAILY ANNUAL (ADA) FLOWS, AND AVERAGE DAY MAXIMUM MONTH (ADMM) FLOWS AND LOADS IN LB/D REPRESENT ADW LOADS, ADA LOADS, AND ADMM, LOADS.  
SOURCE: SASM WWTP MASTER PLAN (DECEMBER 2014)

The current average dry weather flow (ADWF) to the SASM WWTP is 2.22 mgd, with a service population in 2014 of 29,000. The SASM WWTP Master Plan identifies anticipated population growth in Marin County by approximately 5.4 percent and in Mill Valley by approximately 5 percent by 2035. Therefore, the SASM WWTP Master Plan projects that the ADWF in 2035 will be 2.34 mgd. During wet weather events, the wastewater collection system receives a significant amount of extraneous flows, known as infiltration and inflow. Because of the high

<sup>15</sup> Richardson Bay Sanitary District. April 2019. Sewer System Management Plan. [page 8-2]

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infiltration and inflow contributions, the existing peak hourly wet weather flow (PHWWF) to the WWTP is 32.7 mgd.<sup>16</sup>

The existing NPDES permit rates the facility capacity at 3.6 mgd for ADFW and 24.7 mgd for PWWF; however, the influent pump station has a capacity of 32.8 mgd. Therefore, when flows exceed 24.7 mgd, excess wastewater flows are diverted to the equalization basins for treatment after the event. If the equalization basins reach capacity, the excess flows are treated in primary clarifiers and blended with the secondary effluent. The blended effluent is required to meet the NPDES permit discharge standards.<sup>17</sup>

As part of the SASM WWTP Master Plan, a hydraulic and process capacity assessment of the WWTP and outfall was performed, which estimated that the WWTP and outfall have a firm hydraulic capacity of 23.5 to 25.2 mgd during wet weather events. The process analysis indicated that the WWTP can adequately treat an ADFW of up to 2.77 mgd under maximum month load conditions to current discharge standards when all units are in service. Therefore, the WWTP has adequate capacity to treat the projected ADFW flows in 2035. However, capacity improvements would be necessary to meet the PHWWF of 24.7.

In response, the SASM initiated the Wastewater Treatment Plant Rehabilitation Project – Phase I in April 2018 to increase the WWTP’s PHWWF capacity to 24.7, which is currently 90 percent complete and is expected to conclude in February 2021. The primary goal of the WWTP Rehabilitation Project is to ensure reliable treatment of wastewater under the National Pollutant Discharge Elimination System permit (NPDES), as well as compliance with regional, State and Federal regulations.<sup>18</sup>

### **Sanitary District Number 5**

SD5 is an independent special district and provides secondary treatment of domestic and commercial wastewater to the City of Belvedere, the Town of Tiburon east of Gilmartin Drive, and unincorporated areas of the Tiburon Peninsula. SD5 maintains two separate sewer collection systems each with their own WWTP: the Main Sewer System and the Paradise Cove Sewer System. Figure 3.15-3 illustrates the SD5 wastewater infrastructure and facilities that serve the Tiburon Planning Area, including the Main WWTP and Paradise Cove WWTP.

It should be noted that Figure 3.15-3 also identifies the Seafirth WWTP within the jurisdictional boundaries of SD5; however, the Seafirth WWTP is not active and has been decommissioned. The Seafirth WWTP was originally a part of the Seafirth Estates neighborhood private wastewater collection system serving the 30-unit subdivision, which

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<sup>16</sup> Sewerage Agency of Southern Marin. December 2014. Wastewater Treatment Plan Master Plan. [page ES-4]

<sup>17</sup> Sewerage Agency of Southern Marin. December 2014. Wastewater Treatment Plan Master Plan. [page ES-4]

<sup>18</sup> Sewerage Agency of Southern Marin. April 2018. Wastewater Treatment Plant Rehabilitation Project – Phase I Notice.

was owned and operated by the Seafirth Estates Company.<sup>19</sup> Following the establishment of SD5's Paradise Cove Sewer System and WWTP, SD5 worked with the Seafirth Estates Company and SFBRWQCB in decommissioning the aging Seafirth Estates WWTP and connecting the neighborhood to the new Paradise Cove force main. Additionally, two new pump stations were installed in the Seafirth Estates neighborhood to facilitate pumping to the Paradise Cove WWTP.<sup>20</sup>

### *Main Sewer System and Wastewater Treatment Plant*

The Main Sewer System consists of approximately 30.9 miles of pipe, ranging from 4 inches to 18 inches in diameter, and 24 pump stations (9 in the Tiburon Zone, 13 in the Belvedere Zone and 2 in the Paradise Cove Zone). Of the 30.9 miles of pipe, 28.5 miles are gravity lines and the remaining 2.4 miles are Force Main lines. The Main Sewer System serves a population of about 8,400 and provides sewer service to most businesses and residents within the service area, as well as unincorporated areas within the District's sphere of influence. The majority of sewer collected and treated in the service area is residential with a very small commercial component serving downtown Tiburon. There are no industrial activities in the SD5 service area and the Tiburon/Belvedere peninsula is fully developed with very few opportunities for future developments.

Collected sewage in the main sewer system is conveyed to the SD5 Main WWTP located at 2001 Paradise Drive in Tiburon. The Main WWTP provides secondary treatment of wastewater for discharge to Raccoon Strait in Central San Francisco Bay. The treatment process consists of raw influent grinding, primary clarification, activated sludge aeration, secondary clarification, sodium hypochlorite disinfection, and sodium bisulfite dechlorination. The WWTP also has onsite storage consisting of an additional primary clarifier, an offline aeration basin, and a surge tank, totaling 315,000 gallons. During wet weather, when primary-treated flows exceed the WWTP's biological treatment capacity and all onsite storage is used, the WWTP routes the portion of flows above 2.3 MGD from its primary clarifiers directly to its sodium hypochlorite disinfection tank (bypassing activated sludge aeration and secondary clarification) where it is blended with biologically treated effluent prior to discharge. Any primary treated flows stored onsite are routed back to the headworks for full treatment.

The Main WWTP shares an outfall with the SASM WTP in Mill Valley (regulated under NPDES Permit No. CA0037711). Discharge of treated effluent to Raccoon Strait in Central San Francisco Bay is through a 36-inch outfall and a submerged, multi-port diffuser located about 840 feet offshore. The diffuser spans 195 feet and consists of 15 risers, each with four 3-inch

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<sup>19</sup> California Regional Water Quality Control Board – San Francisco Bay Region. December 2006. Order No. R2-2006-0082. [page 4].

<sup>20</sup> Sanitary District No. 5 of Marin County. August 2014. Grand Jury Report Findings Response "The Scoop on Marin County Sewer Systems: Part 1". [page 3].

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diameter ports submerged approximately 84 feet below mean sea level. The average daily outfall capacity is 31.4 mgd.<sup>21</sup>

### *Current and Projected Wastewater Flows*

The Main WWTP is licensed to provide biological treatment for an average daily dry weather design flow of 0.98 mgd. Additionally, the WWTP can provide biological treatment for up to 2.3 mgd wet weather flows.<sup>22</sup> In the calendar year 2020, the Main WWTP received and treated:

- Average dry weather flow of 0.57 mgd;
- Average daily annual flow of 0.585 mgd;
- Average wet weather flow of 0.63 mgd (very dry year); and
- Peak wet weather flow of 1.17 mgd (very dry year).<sup>23</sup>

According to Tony Rubio, District Manager – Chief Plant Operator of SD5, the Main WWTP has plenty of capacity to treat future flows for the occasional new home or upgraded home that adds fixture units.<sup>24</sup> According to the 2018 Sewer System Master Plan for the main sewer system, the portions of Tiburon and the City of Belvedere in the service area are close to being completely built out. To date, the Main Sewer System has not had an overflow event attributed to capacity deficiency; therefore, it is anticipated the main sewer system has capacity to treat future flows.

### *Paradise Cove Sewer System and Wastewater Treatment Plant*

The Paradise Cove Sewer System consists of approximately 3.1 miles of pipe, ranging from 3 inches to 6 inches in diameter, and 2 pump stations. Of the 3.1 miles of pipeline, 1.4 miles are gravity lines while the remaining 1.7 miles are associated with the force main pipeline. The majority of sewer collected and treated in the service area is residential. The Paradise Cove Sewer System serves 400 customers through 109 service connections within unincorporated area within the Tiburon Sphere of Influence from 3200 through 4200 Paradise Drive, as well the Seafirth Estates neighborhood.

The Paradise Cove WWTP is located at 3700 Paradise Drive within the Tiburon Sphere of Influence. SD5 is responsible for the operation and maintenance of the collection system associated with the Paradise Cove WWTP. The WWTP treatment process uses two identical treatment trains, each with an average daily dry weather capacity of 0.02 mgd, consisting of grinding, influent screening, flow equalization (primary clarification), extended aeration,

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<sup>21</sup> California Regional Water Quality Control Board – San Francisco Bay Region. August 2018. Order No. R2-2018-0038. [page F-5].

<sup>22</sup> California Regional Water Quality Control Board – San Francisco Bay Region. August 2018. Order No. R2-2018-0038.

<sup>23</sup> Sanitary District No. 5 of Marin County. February 11, 2021. Email correspondence with Tony Rubio, District Manager – Chief Plant Operator.

<sup>24</sup> Sanitary District No. 5 of Marin County. February 11, 2021. Email correspondence with Tony Rubio, District Manager – Chief Plant Operator.



secondary clarification, chlorination (sodium hypochlorite), and dechlorination (sodium bisulfite). The treated, disinfected, and dechlorinated wastewater is then discharged into the Central San Francisco Bay through a submerged, four-inch, rubber duckbill diffuser valve located approximately 400 feet offshore. It should be noted that the Paradise Cove WWTP does not process any biosolids. Waste-activated sludge is stored in a holding tank (aerobic digestion) and is hauled to the Main Sewer System's WWTP for processing.<sup>25</sup>

### *Current and Projected Wastewater flows*

The Paradise Cove WWTP can provide secondary treatment for an average daily dry weather design flow of 0.04 mgd. In 2014, the average daily flow was 0.015 mgd.<sup>26</sup> In the calendar year 2020, the Paradise Cove WWTP received and treated:

- Average dry weather flow of 0.015 mgd;
- Average daily annual flow of 0.015 mgd;
- Average wet weather flow of 0.016 mgd (very dry year); and
- Peak wet weather flow of 0.019 mgd (very dry year).<sup>27</sup>

According to Tony Rubio, District Manager – Chief Plant Operator of SD5, the Paradise Cove WWTP has plenty of capacity for the occasional new home or renovations/remodels that add fixture units. Additionally, according to the 2018 Paradise Cove -- Sewer System Master Plan, the Paradise Cove Sewer System has not had an overflow event that has been attributed to capacity deficiency and that the land in the service area is close to being completely built out. For these reasons, it is anticipated that the Paradise Cove Sewer System will have capacity to treat future wastewater flows.

### ***Sanitary District Number 2***

SD2 serves 4.5 square miles and provides sewerage collection services for the Town of Corte Madera, small portions of the surrounding communities of Larkspur and Tiburon and some adjacent unincorporated County land. SD2 operates the 44.7 miles of the gravity sewage collection system, 19 pump stations, and 5.1 miles of force mains.<sup>28</sup> Figure 3.15-3 illustrates the SD2 wastewater infrastructure and facilities that serve the Tiburon Planning Area.

SD2 is a member of CMSA, as previously described. The CMSA WWTP on the north side of Point San Quentin was completed in 1985. Its dry weather capacity is 10 mgd. The flow from

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<sup>25</sup> California Regional Water Quality Control Board – San Francisco Bay Region. 2016. Tentative Order No. R2-2016-00XX.

<sup>26</sup> California Regional Water Quality Control Board – San Francisco Bay Region. 2016. Tentative Order No. R2-2016-00XX.

<sup>27</sup> Sanitary District No. 5 of Marin County. February 11, 2021. Email correspondence with Tony Rubio, District Manager – Chief Plant Operator.

<sup>28</sup> Sanitary District No. 2 of Marin County. August 2013. Sewer System Management Plan.

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SD2 is delivered to the treatment plant through the Ross Valley Interceptor that includes the flows from the other MAs.<sup>29</sup>

As part of SD2’s Sewer Master Plan, SD2 conducted a capacity assessment to assess the current and future capacity requirements of its collection system. To develop and calibrate the hydraulic model, two separate data sources were used: flow meters at the Paradise pump station, at the Golden Hind pump station, and upstream of the SD2 connection to the Ross Valley Interceptor (District force main [FM]), and level monitoring devices in specific manholes. Table 3.15-11 identifies the results of the capacity evaluation comparing the peak flow to the Paradise Pump Station to the peak flow to the District FM, as identified in the Sewer Master Plan.

TABLE 3.15-11: SUMMARY OF WASTEWATER FLOWS AND CHARACTERISTICS – CMSA WWTP

Scenario	Peak Flow to Paradise Pump Station	Peak Flow to District FM
Existing Dry Weather Loading	1.37 mgd	1.51 mgd
Future Dry Weather Loading	1.41 mgd	1.59 mgd
Existing Wet Weather Loading	6.32 mgd	6.83 mgd
Future Wet Weather Loading	6.35 mgd	6.91 mgd

SOURCE: SD2 SEWER MASTER PLAN (AUGUST 2009)

Based on the results of the capacity assessment, SD2 identified hydraulic deficiencies during wet weather conditions, including gravity segments with excessive flow depth to pipe diameter ratios (flowing full), surcharging manholes, and gradient deficiencies. For design storm conditions, seven gravity segments were deemed hydraulically deficient (out of 1,697 in total) and one manhole was identified for surcharging. Additionally, 10 out of the 1,697 gravity segments were identified with slopes either reversed or less than standard. To alleviate the identified hydraulic deficiencies and surcharges, specific capacity improvement projects were developed and included as Capital improvement Projects, which alleviated capacity issues and surcharges under design storm conditions at buildout.<sup>30</sup>

SD2 has developed and completed a number of more recent rehabilitation projects to increase the reliability of the sewer system to ensure sewer flows can be directed to the CSMA WWTP, including the:

- Variable Frequency Drive Replacement at Paradise Drive Pump Station project;
- Trinidad II Pump Station Modifications project to reduce SSO risk, reduce staff maintenance and overtime hours, and improve worker safety;
- Fifer Pump Station Modification project to upgrade submersible pumps to meet wet weather demands, modernizing pump controls, replacing a diesel generator to meet current air quality standards, and refurbishing wet well protective coating to enhance long term durability of the concrete; and

<sup>29</sup> Sanitary District No. 2 of Marin County. August 2013. Sewer System Management Plan.

<sup>30</sup> Sanitary District No. 2 of Marin County. August 2009. Sewer Master Plan.

- Boardwalk A & B Pump Station Motor Control Center Update Project.

Additionally, SD2 recently completed the 2019 Sewer Rehabilitation Project, which focused on rehabilitating the sanitary sewer system in several neighborhoods to improve efficiency and operational integrity of the sewer collection system, reduce inflow & infiltration, reduce SSO risk and reducing staff maintenance. Overall, the project replaced a total of 7,450 linear feet of 6-inch pipes with 8-inch pipes and replaced 151 lower laterals.<sup>31</sup> Currently, SD2 is working on the 2020 Rehabilitation Project, which will replace 2,900 linear feet of sewer main, 3 spot repairs and a rehabilitation of 33 manholes, as well as replace 156 lower laterals and 4,248 linear feet of associated pipe. The project is designed to improve efficiency and operational integrity of the sewer collection system, reduce inflow & infiltration, reduce SSO risk, and reduce the need for staff maintenance.<sup>32</sup> The 2020 Rehabilitation Project is anticipated to be completed in February 2021.

### *CMSA Wastewater Treatment Plant*

The Central Marin Sanitation Agency (CMSA) WWTP is located in San Rafael at 1301 Anderson Drive, approximately 2.3 miles north of the Tiburon town limits. The CMSA WWTP provides secondary treatment of domestic, commercial, and industrial wastewater for the City of San Rafael and the surrounding CMSA member agencies and serves a population of about 105,000. The CMSA wastewater management system includes over 70 pump stations, more than 450 miles of sewer pipelines throughout the service area, as well as two major interceptors to transport the wastewater to the treatment plant, and a two-mile long outfall through which treated wastewater is discharged into the San Francisco Bay.<sup>33</sup>

CMSA treats its wastewater by screening, grit removal, primary clarification, secondary biological treatment, secondary clarification, disinfection by chlorine, and dechlorination by sodium bisulfite. The treatment plant uses an onsite storage basin to store up to 6.2-million gallons of effluent during wet weather diversions of the secondary treatment units. When flows subside, the stored wastewater is either sent to the chlorine disinfection units for discharge or routed back to the headworks for re-treatment (if needed). During wet weather periods, primary-treated wastewater above 30 mgd is routed around the secondary treatment processes and blended with the secondary-treated wastewater prior to disinfection.<sup>34</sup> In 2018, CMSA received 3.99 billion gallons of wastewater and removed over 98% of pollutants, and there were zero reportable NPDES permit violations.<sup>35</sup>

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<sup>31</sup> Sanitary District No. 2 of Marin County. Available at: <https://townofcortemadera.org/955/2019-Sewer-Rehabilitation-Project>.

<sup>32</sup> Sanitary District No. 2 of Marin County. Available at: <https://townofcortemadera.org/957/2020-Sewer-Rehabilitation-Project>.

<sup>33</sup> Central Marin Sanitation Agency. June 2020. Biennial Operating and Capital Budget [page 24].

<sup>34</sup> California Regional Water Quality Control Board – San Francisco Bay Region. January 2018. CMSA WTP NPDES Permit Reissued.

<sup>35</sup> Central Marin Sanitation Agency. 2019. Spring 2019 Newsletter [page 4].

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According to the 2017 Facilities Master Plan, the CMSA completed the Wet Weather Improvements Project in May 2010 to handle increasing wet weather flows from the CMSA member agencies. WWTP expansions and modifications included new mechanical equipment for the Aerated Grit Chamber 3, two new primary clarifiers to increase the primary treatment capacity to 125 mgd, polymer storage and feed facilities to increase primary clarifier performance, two new chlorine contact tanks, and a new 155-mgd effluent pumping station to increase disposal capacity during concurrent peak flow and high tide events.

### *Current Wastewater Flows*

According to the CMSA 2017 Facilities Master Plan, the CMSA WWTP has a ADWF capacity of 10 mgd and has a wet weather capacity of 125 mgd. Currently, the WWTP typically receives and treats:

- Average dry weather flow of 3.1 mgd;
- Average annual flow of 4.95 mgd;
- Average wet weather flow of 6.51 mgd; and
- Peak wet weather flow of 58.5 mgd.<sup>36</sup>

## **Regulatory Framework - Wastewater**

### **Federal**

#### *Clean Water Act (CWA) / National Pollutant Discharge Elimination System (NPDES) Permits*

The CWA is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial

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<sup>36</sup> City of San Rafael. January 2021. San Rafael General Plan 2040 & Downtown Precise Plan Draft EIR. [page 4.17-31]

activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a municipal sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering surface water.

### **State**

#### *State Water Resources Control Board/Regional Water Quality Control Board*

In California, all wastewater treatment and disposal systems fall under the overall regulatory authority of the Water Board and the nine California Regional Water Quality Control Boards (RWQCBs), who are charged with the responsibility of protecting beneficial uses of State waters (ground and surface) from a variety of waste discharges, including wastewater from individual and municipal systems. The Town of Tiburon is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB).

The RWQCB's regulatory role often involves the formation and implementation of basic water protection policies. These are reflected in the individual RWQCB's Basin Plan, generally in the form of guidelines, criteria and/or prohibitions related to the siting, design, construction, and maintenance of on-site sewage disposal systems. The Water Board's role has historically been one of providing overall policy direction, organizational and technical assistance, and a communications link to the State legislature.

The RWQCBs may waive or delegate regulatory authority for on-site sewage disposal systems to counties, cities or special districts. Although not mandatory, it is commonly done and has proven to be administratively efficient. In some cases, this is accomplished through a Memorandum of Understanding (MOU), whereby the local agency commits to enforcing the Basin Plan requirements or other specified standards that may be more restrictive. The RWQCBs generally elect to retain permitting authority over large and/or commercial or industrial on-site sewage disposal systems, depending on the volume and character of the wastewater.

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### *Porter-Cologne Water Quality Control Act*

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the State Water Resources Control Board (Water Board) has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the Water Board to a RWQCB. The Porter-Cologne Act authorizes the Water Board and RWQCB to issue NPDES permits.

Under the RWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

### **Local**

#### *Richardson Bay Sanitary District*

The Richardson Bay Sanitary District of Marin County (RBSD) is an independent special district that provides wastewater collection services to parts of the Tiburon Peninsula and the unincorporated area of Strawberry. The RBSD serves over 4,140 households and has been servicing the area since 1949. The RBSD is a Member Agency (MA) of the Sewerage Agency of Southern Marin (SASM), which is a Joint Powers Agency formed in 1979 to consolidate the wastewater collection, treatment, water reclamation, and disposal in southern Marin County. RBSD's wastewater flows are conveyed to the SASM wastewater treatment plant (WWTP) in Mill Valley.

#### *RBSD Sewer System Management Plan*

The RBSD Sewer System Management Plan (SSMP) was updated in June 2019 to comply with the requirements of the Water Board Order No. 2006-0003-DWQ, and Amended Monitoring and Reporting Program (MRP), Order No. WQ 2013-0058-Exec. The objective of the RBSD SSMP is to establish goals that align the sewer collection system operation, management and capacity assurance activities in a manner that achieves the following:

- To properly manage, operate, and maintain all parts of the wastewater collection system, so as to preserve and protect the public's investment in that system;
- To provide adequate capacity to convey peak flows to the WWTP;
- To minimize the frequency and duration of sewer system overflows (SSOs), including implementing regular, proactive maintenance of the system to remove issues that may cause sewer backups or SSOs;
- To mitigate the impact of SSOs on public health and the environment;
- To respond quickly and respectfully to public notifications of SSOs or other collection system issues;



- To collect complete and accurate information regarding SSOs for reporting to the appropriate regulatory agencies;
- To uphold the District’s standards and specifications on newly constructed public and private sewers;
- To provide a safe working environment for District employees; and
- To provide District employees with the tools and training needed to perform their work effectively and achieve the District goals.

The RBSD SSMP references the RBSD Sewer Use Code and service agreements to demonstrate that the district has legal authority to prevent illicit discharges into its wastewater collection system; require sewers and connections be properly designed and constructed; ensure access for maintenance, inspection, or repairs for portions of the laterals owned or maintained by the district; to limit discharges of fats, oils, and greases (FOG) and other debris that may cause blockages; and enforce any violation of its sewer ordinances.

#### *RBSD Sewer Use Code*

The RBSD Sewer Use Code consists of rules and regulations that govern sewer construction, the disposal of sewage and drainage from buildings, and the connection to the sewerage works of the RBSD. RBSD Sewer Use Code Articles III and VII, specifically Section 301, names specific wastes that are not allowed in the sewer system. RBSD Sewer Use Code Article VII, Section 701 calls attention to the requirements of the SASM Ordinance 83-1 (see “Sewage Agency of Southern Marin Ordinances”), which provides uniform requirements for discharges into the wastewater collection and treatment system. Additionally, RBSD Sewer Use Code Article VII, Section 702 provides authority to require installation and maintenance of grease traps or grease interceptors by restaurants, school kitchens, hotels, hospitals, or other establishments where grease may be introduced into drainage or sewerage system in quantities that could affect line stoppage or hinder sewage treatment or private sewage disposal.

RBSD Sewer Use Code Articles V, VI, and VIII establish requirements for proper design and construction of sewers and connections. RBSD Sewer Use Code Article V, Section 502 and Article VI, Section 613 require all laterals and sewer lines, respectively, be constructed in conformance with the Standard Specifications for Building Sewer Construction of the RBSD. Both RBSD Sewer Use Code Articles V and VI provide other requirements for development of plans and specification, and for District inspections and approvals. Additionally, RBSD Sewer Use Code Article VIII, Sections 801 to 803 require a permit and establish compliance to assure that sewer construction and design meets RBSD standards.

RBSD Sewer use Code Article IV, Section 406 states that the district has the right to inspect any individual sewer disposal system and Article VI, Section 601 requires all new building sewers to be accompanied by a contract with the District that authorizes inspection. Lastly, RBSD Sewer use Code Article X, Section 1003 provides authorized representatives of the

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district to enter in and upon any and all buildings, industrial facilities, and properties for the purpose of inspection, re-inspection, observation, sampling, testing, or otherwise performing such duties, as may be necessary.

### *Sewerage Agency of Southern Marin*

As previously stated, the SASM is a Joint Powers Agency formed in 1979 to consolidate the wastewater collection, treatment, water reclamation, and disposal needs of about 29,500 residents in southern Marin County. SASM is made up of six MAs, including the City of Mill Valley, Tamalpais Community Services District, Almonte Sanitary District, Alto Sanitary District, Homestead Valley Sanitary District, and RBSD. The mission of the SASM is to efficiently provide wastewater treatment services to its member agencies and work cooperatively with government agencies on all compliance requirements, guided at all times by the following core values:

- Public health and safety with an emphasis on facility operations, employee safety, and neighborhood well-being;
- Operational excellence, customer service and public education;
- Environmental stewardship with an emphasis on quality treated effluent, zero controllable spills, and re-use of biosolids, methane and reclaimed water; and
- Support and encourage cooperative activities between all member agencies.

Each MA owns, operates and maintains a sanitary sewer system, which connect to the main sewer lines owned by SASM that carry the wastewater to the SASM WWTP located in Mill Valley at 450 Sycamore Avenue. At the SASM WWTP, the water flows through several treatment units which reduce and remove a variety of pollutants and organic materials. The processed wastewater is disinfected and pumped six miles to Racoon Straits in Tiburon for deep water discharge into the San Francisco Bay.

### *SASM WWTP Master Plan*

In December 2014, the SASM adopted a WWTP Master Plan to develop a “road map” for the next 25 years of WWTP improvements, including a list of necessary projects, an implementation schedule, and cost estimates to ensure that capital funds are properly allocated to improvements that will benefit the SASM in the short and long term. The primary objectives of the SAMS WWTP Master Plan are to:

- Evaluate the existing treatment processes for capability of reliably meeting existing discharge requirements;
- Evaluate the existing treatment system to meet potential future discharge requirements, such as stricter nutrient limits or reducing blending during weather flows;
- Develop a prioritized 25-year capital improvements program (CIP) that phases projects and results in reasonable customer rate impacts; and

- Examine and recommend sustainable elements and strategies, which can be incorporated into the proposed CIP, that are complementary to SASM's policy initiatives.

Based on the evaluation of the existing SASM WWTP and treatment system, the SASM developed recommended improvements, including rehabilitation and/or replacement improvements to maintain overall reliability, capacity improvements to treat existing and future flows/loads, flood mitigation and sustainability projects, improvements required if ammonia removal is required, improvements required if nitrogen removal is required, improvements required if blending is prohibited, recycled water expansion project, and collection and conveyance system improvements.

#### *SASM Ordinances*

The SASM Wastewater Discharge Ordinance (Ordinance No. 83-1) was adopted in 1983 to set uniform requirements for discharges into the wastewater collection and treatment system and enable SASM to comply with the administrative provisions of the Clean Water Grant Regulations and the water quality requirements set by the RWQCB. Article II of the Wastewater Discharge Ordinance lists prohibitions on discharges that include, but are not limited to, substances that could cause fire or explosion, obstruct the treatment works, cause danger to life or safety, have a strong offensive odor, have a detrimental impact to Waters of the State, or cause the treatment works to be overloaded. Specifically, Section 2.08.2 of the Wastewater Discharge Ordinance states that no person shall discharge any wastewater containing 300 milligrams per liter (mg/l) of oil or grease of animal or vegetable origin or containing more than 100 mg/l of oil or grease of mineral or petroleum origin.

Additionally, SASM adopted a Mercury Reduction ordinance (Ordinance No. 2010-01) in 2010 to help prevent the spread of mercury pollution and a Private Lateral Model ordinance (Ordinance No. 2014-01) in 2014 to regulate the construction, use, and maintenance of private sewer laterals. The Mercury Reduction ordinance requires dental facilities in the SASM jurisdiction to separate amalgam (the silver material used in dental fillings which contains mercury) and properly dispose of waste in compliance with the Bay Area Pollution Prevention Group (BAPPG). The Private Lateral Model ordinance authorizes the SASM to enforce the upgrade and repairs of private sewer laterals to ensure SASM sewer treatment facilities are not overburdened.

#### *Sanitary District Number 2 of Marin County*

Sanitary District Number 2 of Marin County (SD2) was incorporated on January 21, 1901, and was re-incorporated as a subsidiary district to Corte Madera on January 15, 1969. SD2 provides sewage collection services for Corte Madera, limited areas of the surrounding communities of Larkspur and Tiburon, and certain unincorporated land within Marin County. Services include the installation and maintenance of sanitary sewer pipelines and pump stations, regulation of sanitary sewer connections, and waste collection services within the

# Town of Tiburon

## 2040 General Plan EIR

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boundary of SD2. Treatment of sanitary sewer flow is provided by the Central Marin Sanitation Agency (CMSA).

### *SD2 SSMP*

The SD2 SSMP is a document that guides the design, development, and maintenance of the sewer utilities within the district and was last updated in August 2013. Specifically, the SD2 SSMP:

- Identifies goals to properly manage, operate, and maintain all parts of its wastewater collection system in order to reduce and prevent SSOs, as well as to mitigate any SSOs that occur;
- Identifies identify SD2 Staff who are responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements;
- Provides a summary of SD2's overflow emergency response plan;
- Discusses SD2's FOG control measures, including identification of problem areas, focused cleaning, and source control;
- Discusses SD2's legal authority, including its sanitary code and agreements with other agencies;
- Identifies SD2's measures and activities, including maps, resources and budget, preventive maintenance, condition assessments, equipment, training, and outreach;
- Identifies the design and construction standards;
- Outlines SD2's Capacity Management program; and
- Identifies SD2's monitoring, measurement, and program modifications plan.

### *SD2 Sewer Master Plan*

The SD2 Sewer Master Plan was prepared in August 2009 to provide information to support the SD2 SSMP. The primary focus of the SD2 Sewer Master Plan was to evaluate the condition of the existing system, further develop the existing hydraulic model, and establish a capital improvement plan (CIP) that will allow for the continued operation, maintenance and replacement of the system as required. Projects recommended in the CIP were developed to support the levels of service and the total cost of the 40-year CIP is \$94,600,000, an average of \$2.3 million annually.

### *SD2 Sanitary Code*

The SD2's Sanitary Code, the Town of Corte Madera Municipal Code, Title 21: SD2 a Subsidiary District of The Town of Corte Madera includes several provisions that establish the District's legal authority to control discharges and maintain their sanitary sewer system.

Chapter 21.16 (Sewer Use Regulations) outlines the use regulations of SD2's sewer system, including prohibited drainage into the sanitary sewers, types of waste prohibited, required interceptors, maintenance of interceptors, preliminary treatment of wastes, and maintenance of pretreatment facilities. Section 21.16.010 (Drainage into Sanitary Sewers prohibited) prohibits stormwater drainage entering into the SD2's sanitary sewers. Additionally, Section 21.16.020 (Types of Wastes Discharged to Public Sewers) outlines the

types of waste prohibited from being discharged or deposited into the sewer system, including the discharge of any water or waste which contains more than one hundred parts per million, by weight, of fat, oil or grease. Section 21.16.030 (Installation of Grease Interceptors) allows for the SD2 to require installation of grease interceptors at non-residential buildings. Interceptors shall be of a type and capacity approved by district staff and shall be located in such a manner as to be readily and easily accessible for inspection by the district.

Chapter 21.20 (Sewer Laterals and Connections) outlines the regulations related to sewer laterals and connections, including the new construction of laterals; the ownership, maintenance, and repair of private sewer laterals; separate sewers; connection to district sewer system; sewer lateral and connection cleanouts; backflow prevention devices; sewer too low; maintenance; testing and right of entry; access to properties for sewer lateral inspections; mandatory testing; and permits required.

Chapter 21.22 (Infiltration and Inflow; Inspection; Repairs) provides for the SD2 to authorize and mandate the enforcement of the upgrade, replacement or repair of private sewer laterals to address inflows and infiltrations and sewer overflows contributed by private sewer laterals.

Chapter 21.28 (Permits and Permit Fees) outlines the necessary permit and permit fees to connect to the SD2 sanitary sewer system, as well as the minimum standards for the design and construction of new sewers, and for the repair or replacement of existing sewers.

#### *Central Marin Sanitation Agency*

On October 15, 1979, the San Rafael Sanitation District, Sanitary District No. 1 of Marin County, SD2, and the City of Larkspur entered into a joint powers agreement to create the CMSA to oversee the construction and operation of a regional WWTP. The purpose of the CMSA is to plan, acquire, construct, maintain and operate facilities, for the collection, treatment, reclamation, and disposal of wastewater, and to capture and utilize the renewable resources derived from the wastewater treatment process, including but not limited to biogas, recycled water, and biosolids. The goals of the CMSA are to:

- Continue to operate and maintain its wastewater facilities to produce high quality effluent and biosolids, within a changing regulatory environment;
- Continually improve financial management practices to ensure transparency, financial sustainability, and sound fiscal principles;
- Further incorporate green business principles and consider renewable resource opportunities in its short- and long-term planning;
- Lead or actively participate in collaborative efforts to address local and regional environmental opportunities and challenges; and
- Attract and retain high quality employees by providing a work environment that motivates staff, fosters professional development values.

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### *Central Marin Sanitation Agency Ordinances*

CMSA adopted a FOG ordinance (Ordinance No. 2007-1) to minimize sanitary sewer overflows (SSOs) in the CMSA service area. The FOG ordinance controls the discharge of FOG to the sanitary sewer from commercial food service establishments by establishing requirements for food service establishments to install and maintain grease traps and interceptors. CMSA Ordinance No. 2019-1 outlines the fees to be paid for each new sewer connection based on land use or plumbing fixtures. Fees are also assessed for septic and chemical toilet waste haulers, FOG haulers, and industrial waste discharges. CMSA Ordinance No. 2009-2 is aimed at reducing the mercury load to the sanitary sewer system by regulating the discharge of amalgam wastes from dental offices.

### *Sanitary District Number 5 of Marin County*

Sanitary District Number 5 of Marin County (SD5) is a special district that has been providing collection and treatment of wastewater to parts of the Tiburon Peninsula and the City of Belvedere since the early 1940s. SD5 maintains two separate sewer collection systems each with their own WWTP: the Main Sewer System and the Paradise Cove Sewer System. The SD5 Main Sewer System serves the City of Belvedere and parts of the Town of Tiburon east of Gilmartin Drive and the majority of sewage collected and treated in the service area is residential with a very small commercial component serving downtown Tiburon. The collected sewage in the Main Sewer System is conveyed to SD5's Main WWTP located at 2001 Paradise Drive for treatment. The SD5 Paradise Cove Sewer System is located in unincorporated Marin County and serves the Town of Tiburon unincorporated area from 3200 Paradise Drive through 4200 Paradise Drive, as well as the Seafirth Estates neighborhood. Collected sewage is conveyed to SD5's Paradise Cove WWTP located at 3700 Paradise Drive for treatment.

### *SD5 SSMP and SD5 – Paradise Cove SSMP*

The SD5 SSMP and SD5 – Paradise Cove SSMP are documents that guides the design, development, and maintenance of the sewer utilities within SD5's Main Sewer System and Paradise Cove Sewer System. Both SSMP's were last updated in May 2018. The SD5 SSMP and SD5 – Paradise Cove SSMP:

- Identify goals SD5 has set for the management, operation, and maintenance of both sewer systems and discuss the role of the SSMPs in supporting these goals;
- Identify SD5 staff who are responsible for implementing the SSMPs, responding to SSO events, and meeting the SSO reporting requirements;
- Provide an overview and summary of the SD5's emergency response documents and procedures for sewer overflows;
- Discuss the SD5's FOG control measures, including identification of problem areas, focused cleaning, and source control;
- Discuss SD5s Legal Authority and includes agreements with other agencies;
- Discuss SD5 operations, maintenance and other related measures and activities;
- Discuss SD5's design and construction standards;



- Discuss SD5's capacity management measures;
- Discuss parameters SD5 tracks to monitor the success of the SSMPs and how the SD5 plans to keep the SSMPs current; and
- Discuss the SD5's SSMPs auditing program.

#### *SD5 Municipal Code*

The SD5 Municipal Code includes several provisions and regulations that establish SD5's legal authority to control discharges and maintain their sanitary sewer systems.

Chapter 3.05 (Sanitary Code) of the SD5 Municipal Code outlines the rules and regulations of sewer construction, disposal of sewage and drainage of buildings, and connections to SD5's sewage system. This chapter regulates the use of public and private sewers and drains and discharge of waters and waste into the public sewer system and provides penalties for the violation of the provisions. This chapter also adopts standard specifications as minimum standards for the design and construction of sewerage facilities within the boundaries of SD5. Additionally, Article VIII (Use of Public Sewers) of Chapter 3.05 outlines all measures prohibiting illicit discharges and discharges of any pollutant into the sewers that would obstruct or damage the collection system, interfere with treatment, or threaten harm to human health or the environment. Examples of discharges include waste or water containing more than 100 parts per million, by weight, of FOG, any gasoline or other flammable or explosive liquid/solid/gas, and any other solid or viscous substance capable of causing obstruction to the flow in the sewers, to name a few.

Chapter 3.10 (Mercury Reduction) of the SD5 Municipal Code is intended to significantly reduce the quantity of mercury entering SD5's water pollution control system by establishing waste management practices for all owners and operators of dental facilities that remove, repair, or place amalgam fillings.

Chapter 3.25 (FOG) of the SD5 Municipal Code is intended to facilitate the implementation and enhance the effectiveness of the FOG control program. SSOs are a major concern to wastewater agencies throughout the State of California. A frequent cause of SSOs is the blockage of sewer lines due to discharge of FOG from food preparation and clean-up operations. To prevent SSOs in its sanitary sewer system, Chapter 3.25 outlines regulations and requirements to reduce the discharge of FOG from restaurants and other food service establishments to levels that will not cause blockage in sewer lines.

Title V (Standard Specifications) of the SD5 Municipal Code provides minimum standards for the design and construction of sewerage facilities within the boundaries of SD5, as well as outlines the procedures for the submittal, review, and approval of plans and permits of sewerage facilities, such as sewer mains. Additionally, Title V outlines SD5's annexation policy, downstream capacity policy, right-of-way policy, condemnation policy, and engineering policy.

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### *Tiburon/Belvedere Wastewater Financing Authority*

The Tiburon/Belvedere Wastewater Financing Authority, via SD5, provides collection and treatment of wastewater to parts of the Tiburon Peninsula and the City of Belvedere. The Tiburon/Belvedere Wastewater Financing Authority is set up to assist SD5 to meet or exceed all applicable local, state and federal laws and regulations, and is dedicated to the protection of public health and the environment through effective and economical collection, conveyance, treatment and disposal of wastewater. SD5 is an independent local agency governed by an elected Board of Directors, whom are then appointed to the Board of Directors for the Tiburon/Belvedere Wastewater Financing Authority.

### *Town of Tiburon Municipal Code*

Chapter 13C Individual and Alternative Sewage Disposal Systems. This chapter adopts the Marin County individual sewage disposal ordinance and the alternative sewage disposal system ordinance. The individual sewage and alternative sewage disposal systems ordinances both includes provisions to ensure that the disposal of sewage and/or the distribution of graywater shall be accomplished in a safe and sanitary manner in order to protect the public health, safety and welfare.

## **ANALYSIS, IMPACTS, AND MITIGATION MEASURES –WASTEWATER**

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**Impact 3.15-5: General Plan 2040 implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (Less than Significant)**

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Wastewater service in the Tiburon Planning Area is provided by multiple local agencies. The Richardson Bay Sanitary District provides wastewater collection facilities and services, and the Sewerage Agency of Southern Marin provides wastewater treatment for properties located in the western area of Tiburon near the town of Corte Madera. Sanitary District No. 2 provides collection services, and the Central Marin Sanitation Agency treats the wastewater for properties located in the northern area of Tiburon. The eastern end of the Tiburon peninsula is served by Sanitary District No. 5, which provides both wastewater collection and treatment.

Additional population growth of 2,235 is anticipated under full buildout of the General Plan 2040 (916 housing units x 2.44 pph = 2,235). Assuming a water use rate of 128 gallons per capita per day x 2,235 = 286,080 gallons per day) would result in approximately 0.29 mgd of additional demand.

The current average dry weather flow (ADWF) to the SASM WWTP is 2.22 mgd, with a service population in 2014 of 29,000. The SASM WWTP Master Plan identifies anticipated population

growth in Marin County by approximately 5.4 percent. The growth in Tiburon under full buildout of the General Plan 2040 would be anticipated to exceed this growth rate.

The Main WWTP is licensed to provide biological treatment for an average daily dry weather design flow of 0.98 mgd. Additionally, the WWTP can provide biological treatment for up to 2.3 mgd wet weather flows (California Regional Water Quality Control Board – San Francisco Bay Region, August 2018). In the calendar year 2020, the Main WWTP received and treated:

- Average dry weather flow of 0.57 mgd;
- Average daily annual flow of 0.585 mgd;
- Average wet weather flow of 0.63 mgd (very dry year); and
- Peak wet weather flow of 1.17 mgd (very dry year).

Approximately 780 units would be accommodated by the General Plan 2040 in this service area which would add approximately 0.24 mgd. This increase is within the 0.98 mgd design capacity. While it is anticipated the main sewer system has capacity to treat future flows as the General Plan 2040 growth is within design capacity, growth within the service area may require additional capacity and may result in the need for additional upgrades or expansion.

The Paradise Cove WWTP can provide secondary treatment for an average daily dry weather design flow of 0.04 mgd. In 2014, the average daily flow was 0.015 mgd (California Regional Water Quality Control Board – San Francisco Bay Region, 2016). In 2020, the Paradise Cove WWTP received and treated:

- Average dry weather flow of 0.015 mgd;
- Average daily annual flow of 0.015 mgd;
- Average wet weather flow of 0.016 mgd (very dry year); and
- Peak wet weather flow of 0.019 mgd (very dry year).

Approximately 134 units would be accommodated by the General Plan 2040 within this service area which could result in 0.042 mgd of additional demands. This new demand would place the total at 0.057 mgd which is above the design flow capacity identified for dry weather flows. It is anticipated that the Paradise Cove Sewer System may need additional upgrades or treatment requirements would need alternative or expanded service.

According to the CMSA 2017 Facilities Master Plan, the CMSA WWTP has a ADWF capacity of 10 mgd and has a wet weather capacity of 125 mgd. Currently, the WWTP typically receives and treats:

- Average dry weather flow of 3.1 mgd;
- Average annual flow of 4.95 mgd;
- Average wet weather flow of 6.51 mgd; and
- Peak wet weather flow of 58.5 mgd.

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It is anticipated that the CMSA Wastewater Treatment Plant will have capacity to treat future wastewater flows.

As described above based on the overview of each agency, including the existing wastewater system and current and projected wastewater flows the service providers other than Paradise Cove WWTP would be anticipated to have sufficient capacity to serve development anticipated under the General Plan 2040, including the SASM WWTP future planned capacity improvements necessary to meet the peak hourly wet weather flow, potential SASM WWTP upgrades to meet regional demand, including the General Plan 2040, and upgrades for the Paradise Cove WWTP to accommodate new development.

The Town and its service providers must also periodically review and update their applicable master plans, and as growth continues to occur within the Planning Area, service providers and the Town will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development. The General Plan 2040 includes policies and programs to ensure and support adequate treatment capacity. Specifically, Program LU-e will require future projects to analyze project impacts on infrastructure capacity and services as part of CEQA review and require mitigation measures as needed in consultation with provider agencies. Program LU-f calls for the periodical review and update public facilities impact fees to assure that new development pays its fair share of public infrastructure and service costs, while Program LU-g focuses on public infrastructure planning and calls for the Town to coordinate growth and infrastructure planning with urban service providers such as Marin Water and the sanitary districts to ensure sufficient capacity to serve existing and future development.

However, even with implementation of the above policies and programs, because development anticipated under the General Plan 2040 could exceed wastewater treatment capacity to accommodate population projections associated with the General Plan 2040, impacts to wastewater treatment capacity for the Project are considered **significant and unavoidable**.

### Level of Significance before Mitigation

Potentially significant

### Mitigation Measures

No feasible mitigation

### Level of Significance

Significant and unavoidable

**Impact 3.15-6: General Plan 2040 implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects**

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Development contemplated under the General Plan 2040 would result in increased wastewater flows, resulting in the need for additional or expanded wastewater treatment and conveyance infrastructure.

As described under Impact 3.15-5 the SASM WWTP would require future capacity improvements necessary to meet the peak hourly wet weather flow and potential other improvements to accommodate regional demand. While it is anticipated the main sewer system has capacity to treat future flows as the General Plan 2040 growth is within design capacity, growth within the service area may require additional capacity and may result in the need for additional upgrades or expansion. Additionally, the Paradise Cove WWTP would require capacity improvements to accommodate population projections associated within the 6th Cycle Housing Element RHNAs. The Town and its service providers must periodically review and update their applicable master plans, and as growth continues to occur within the Planning Area, service providers and the Town will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development. The General Plan 2040 includes policies and programs to ensure and support adequate treatment capacity. Specifically, Program LU-e will require future projects to analyze project impacts on infrastructure capacity and services as part of CEQA review and require mitigation measures as needed in consultation with provider agencies. Program LU-f calls for the periodical review and update public facilities impact fees to assure that new development pays its fair share of public infrastructure and service costs, while Program LU-g focuses on public infrastructure planning and calls for the Town to coordinate growth and infrastructure planning with urban service providers such as Marin Municipal Water District and the sanitary districts to ensure sufficient capacity to serve existing and future development.

Wastewater treatment and conveyance facilities would be evaluated at the project level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan 2040. As future development and infrastructure projects are considered by the Town, each project will be evaluated for conformance with the General Plan 2040, Municipal Code, and other applicable regulations.

While the adopted federal, state, and local regulations and standards along with General Plan policies and programs and mitigation measures identified in Sections 3.1 through 3.15 would reduce potential environmental effects associated with construction and expansion of wastewater infrastructure, it cannot be concluded with certainty that impacts related to

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this potential construction and operation of expanded facilities would be mitigated to less than significant. Therefore, because new or expanded facilities would be required to serve regional growth, including General Plan 2040 buildout, and the site specific details of these new or expanded facilities is unknown, this is considered a **significant and unavoidable** impact of the Project.

### Level of Significance before Mitigation

Potentially significant

### Mitigation Measures

No feasible mitigation

### Level of Significance

Significant and unavoidable

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### Impact 3.15-7: Project and Cumulative Need for System Infrastructure and Facilities:

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Regionally, wastewater infrastructure upgrades and expansions will be needed to serve and treat wastewater demand anticipated under regional plans, including local General Plans, the 6<sup>th</sup> Cycle Final RHNA Plan, and Plan Bay Area 2050. Parts of the Planning Area may need wastewater infrastructure upgrades and expansion in order to serve and treat wastewater from new development. Generally, construction and improvement projects would be site and project specific and not cumulative in nature. Additionally, while there are potential individual environmental impacts that may be associated with the infrastructure and facility improvement projects either for the Project or cumulatively (Project and Districts' commitments outside of the Project), compliance with District, local, state, and federal regulations and adopted standards for development and construction of utility system infrastructure and facilities would reduce potential impacts.

While the adopted federal, state, and local regulations and standards along with General Plan policies and programs and mitigation measures identified in Sections 3.1 through 3.15 would reduce potential environmental effects associated with construction and expansion of system infrastructure to address planned cumulative demand, it cannot be concluded with certainty that impacts related to this potential construction would be mitigated to less than significant. Therefore, because new or expanded facilities would be required to serve regional growth, including General Plan 2040 buildout, and the site specific details of these new or expanded facilities is unknown, However, because new or expanded facilities would be required to serve General Plan 2040 buildout and the site specific details of these new or expanded facilities is unknown the Projects contribution would be considered **cumulatively considerable**.



**Level of Significance before Mitigation**

Potentially Significant.

**Mitigation Measures**

No feasible mitigation

**Level of Significance**

Significant and unavoidable and cumulatively considerable

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**Impact 3.15-8 General Plan 2040 implementation along with cumulative development could result in insufficient wastewater treatment capacities available to serve the Town and reasonably foreseeable future development**

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Regionally, wastewater treatment capacity will need to be expanded to serve and treat wastewater generated anticipated under regional plans, including local General Plans, the 6<sup>th</sup> Cycle Final RHNA Plan, and Plan Bay Area 2050. As described previously, the Town and its service providers must also periodically review and update their applicable master plans, and as growth continues to occur within the Planning Area, service providers and the Town will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development. The General Plan 2040 includes policies and Programs to ensure and support adequate treatment capacity. Specifically, Program LU-e will require future projects to analyze project impacts on infrastructure capacity and services as part of CEQA review and require mitigation measures as needed in consultation with provider agencies. Program LU-f calls for the periodical review and update public facilities impact fees to assure that new development pays its fair share of public infrastructure and service costs, while Program LU-g focuses on public infrastructure planning and calls for the Town to coordinate growth and infrastructure planning with urban service providers such as sanitary districts to ensure sufficient capacity to serve existing and future development.

However, even with implementation of the above policies and programs, because development anticipated under the General Plan 2040 could exceed treatment capacity at the Paradise Cove WWTP to accommodate population projections associated within the 6th Cycle Housing Element update. As such Impacts to wastewater treatment capacity for the Project are considered **significant and unavoidable** and **cumulatively considerable** as the projects contributing increased service demands beyond existing capacities.

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### Level of Significance before Mitigation

Potentially Significant.

### Mitigation Measures

No feasible mitigation

### Level of Significance

Significant and unavoidable and cumulatively considerable

### 3.15.3 STORMWATER

The section provides a discussion of the stormwater/flood control systems that serve the Town of Tiburon. The Town's existing drainage system is comprised primarily of channelized creeks fed by surface runoff and underground storm drains. The Town maintains the system within incorporated areas. In the unincorporated parts of the Planning Area, the Marin County Flood Control and Water Conservation maintains major channels and creeks over which they hold land rights, while the County Department of Public Works maintains road drainage systems and several detention basins.

#### *Existing Conditions - Stormwater*

##### *Stormwater Flows and Storm Drains*

The Tiburon storm drain system is a combination of pipe and open drainage channel (ditch) systems, which includes over 344 sections of pipes, several natural and enhanced channels and ditches within and flowing into Town boundaries not owned or maintained by the Town of Tiburon, the Pamela Court and Leland Pump Stations, and tidal and tidal outfalls into the Richardson Bay and San Francisco Bay. The storm drain system co-mingles with Caltrans and unincorporated Marin County drainage channels, as well as the drainage systems of the cities of Belvedere, Corte Madera, and Mill Valley<sup>37</sup>. Figure 3.15-4 identifies the stormwater facilities that serve the Town and Planning Area.

Located on a peninsula, the Tiburon Planning Area consists of multiple watersheds generally draining to Richardson Bay on the south side, Racoon Strait to the east, and San Francisco Bay to the north. The Tiburon Planning Area is located within the Richardson Bay Watershed<sup>38</sup>, which encompasses several sub-watersheds, including: the Angel Island-San Francisco Bay Estuaries sub, Arroyo Corte Madera Del Presidio-Frontal San Francisco Bay Estuaries, and Larkspur Creek-Frontal San Francisco Bay Estuaries. According to the Tiburon Storm Drainage Master Plan, the Town is drained by multiple smaller sub-watersheds on the

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<sup>37</sup> CSW/Stuber-Stroeh Engineering Group. 2008. Tiburon Storm Drainage Master Plan

<sup>38</sup> Marin County Stormwater Pollution Prevention Program. September 2017. Storm Water Resource Plan Functionally Equivalent Document. [page 3-12]

north, west, east, and south sides of the Peninsula, which primarily discharge into Richardson Bay or San Francisco Bay through tidal outfalls.

The following are descriptions of the identified watersheds in the Tiburon Storm Drainage Master Plan that contribute to the Town's storm drain system.

**Belveron A and B Watersheds:** Both Belveron A and B Watersheds outlet into Richardson Bay through Blackie's Pasture, a park traversed by drainage pathways defined by vegetated open channel, culvert and underground pipe storm drain system. Belveron A Watershed encompasses approximately 59 acres of mostly residential development within the lower portion of Reed Ranch Road and is bounded by Jefferson Drive to the east and Southridge West (road) to the west. Belveron A Watershed discharges to Richardson Bay through the western culvert and open channel system through Blackie's Pasture.

The westerly draining portion of Trestle Glen Boulevard (west of Hacienda Drive) is situated along the valley of the Belveron B Watershed. The Belveron B Watershed encompasses approximately 195 acres of open space, vegetated hillside, and residential development. Drainage from Trestle Glen Boulevard discharges through the eastern vegetated channel flowing through Blackie's Pasture.

**Blackfield/West Creek Watershed:** The Blackfield/West Creek Watershed encompasses the westernmost portion of the Town limits. This approximately 244-acre watershed accepts drainage from both unincorporated Marin County along the upper ridge lines and from the City of Mill Valley along the western boundary. A portion of the storm drain system draining the Cypress Hollow Drive area appears to be located under Bay Vista Drive in the City of Mill Valley. Blackfield Road parallels the north-south flowing West Creek which is under the jurisdiction of Marin County Flood Control and Water Conservation District. Flows in West Creek upstream of the Tiburon Boulevard crossing may be influenced by inflow from the Pamela Court Pump Station under large events.

**Cecilia Watershed:** The Cecilia Watershed lies adjacent to the Leland/East Creek Watershed, receiving flows from the Cayford Circle hilltop and Southridge West Hilltop. The approximately 40-acre watershed drains to Richardson Bay, crossing Tiburon Boulevard near the intersection with Cecilia Way via a 36-inch diameter culvert.

**Downtown 1/4, 2, 3, 5, and 6 Watersheds:** The Downtown 1/4 Watershed utilizes two outlets to drain its approximately 36 acres to Richardson Bay. Flow entering inlet DT719 splits with flows moving either to the northwest to the outlet near the intersection of Mar West and Tiburon Boulevard or southeast towards the outlet at Main Street and Tiburon Boulevard, near several Downtown outlets.

The Downtown 2 Watershed encompasses approximately 1.3 acres and outlets to the northwest of the City of Belvedere at the intersection of Main Street and Beach Road. The Downtown 3, 5, and 6 Watersheds all outlet in the vicinity of the intersection of Main Street

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and Tiburon Boulevard. The areas drained by the Downtown 3, 5, and 6 Watersheds are approximately 4.6 acres, 1.2 acres, and 2.0 acres, respectively.

**East End Watersheds:** The East End Watershed group consists of nine separate watersheds located along the eastern-most tip of the Tiburon Peninsula. All outlets for the East End group are located easterly of the downtown area, northeast of the intersection of Tiburon Boulevard and Paradise Boulevard. The areas drained by the East End Watersheds are approximately 1.1 acres known as East End 1, approximately 1.7 acres known as East End 2, approximately 24.1 Acres known as East End 3, approximately 1.2 acres known as East End 4, approximately 8.9 acres known as East End 5, approximately 46.1 acres known as East End 6, approximately 5.3 acres known as East End 7, approximately 1.1 acres known as East End 8, and approximately 4.8 acres known as East End 9.

**Leland/East Creek Watersheds:** The Leland/East Creek Watershed lies adjacent and to the east of the Blackfield/West Creek Watershed. This approximately 253-acre watershed is comprised of residential and open space area which drains into the north-south flowing East Creek (parallel to Leland Street) which is under the jurisdiction of the Marin County Flood Control and Water Conservation District. Flows in East Creek upstream of the Tiburon Boulevard crossing may be influenced by inflow from the Leland Pump Station under large events.

**Lyford Watershed:** The approximately 197-acre Lyford Watershed drains a portion of the hillside to the south of Mount Tiburon Road to an outlet midway between the intersections of Tiburon Boulevard with Lyford Drive and Ned's Way. A large portion of the flow generated within the watershed travels beneath Reed Elementary School. The outlet of Lyford Watershed, after crossing Tiburon Boulevard, flows into the Lagoon adjacent to the Town of Belvedere via 36-inch diameter culvert.

**Madsen Watershed:** The approximately 1.5-acre Madsen Watershed is located on the northeastern slope of Tiburon, north of the Old Landing Watersheds. Storm water flows enter the storm drain system primarily at the entrance of Mateo Drive, as well as at an additions storm drain located further uphill along Mateo Drive; however, the uphill portion of Mateo Drive discharges into Old Landing Watersheds. In general, discharge from the Madsen Watershed enters San Francisco Bay near the Paradise Cay Yacht Harbor.

**Upper Mar West and Lower Mar West (Mar West-Raccoon) Watersheds:** The Upper Mar West and Lower Mar West (Mar West-Raccoon) Watersheds are related by an outlet weir and conduit overflow structure located in the lake adjacent to the Tiburon Peninsula Club on Mar West Boulevard. The number of inlet structures for the two watersheds precluded modeling them together, although technically they share the same outlet into Richardson Bay. The entire Upper Mar West Watershed drains to the lake and is released via outlet weir and conduit structure into the Lower Mar West (Mar West-Raccoon) Watershed. The outlet for the combined system is located near the Downtown 6 Watershed outlet.

Upper Mar West Watershed encompasses approximately 191-acres, including the lake near the Peninsula Club. The Lower Mar West (Mar West-Raccoon) Watershed drains approximately 72 acres. The lower "Raccoon Lake" within the Lower Mar West (Mar West-Raccoon) Watershed outlets via weir and conduit structure into the lower portion of the Lower Mar West system. A very small watershed contributes to the lake and the outlet weir appears to discharge only under very large events.

**Miraflores Watershed:** The Miraflores Watershed envelops approximately 133 acres and outfalls to Richardson Bay to the southwest of the Pine Terrace subdivision. The watershed of mostly steep slopes is almost entirely developed. The lower portion of the watershed includes the lower section of Avenida Miraflores and Del Mar Middle School.

**Old Landing Watersheds:** Old Landing Watersheds 1 and 2 drain a combined approximately 128 acres on the northeast slope of the Tiburon Peninsula, and drain into San Francisco Bay. Old Landing 1 envelops approximately 40 acres, and Old Landing 2 consists of approximately 88 acres. In both cases, much of the contributing watershed is undeveloped with areas of residential single family low-density housing.

**Rock Hill Watersheds:** The Rock Hill Watersheds A through G were previously described in the Tiburon Drainage Master Plan (Bala & Strandgaard, 1975). These watersheds are generally steep with small areas of relatively flat terrain adjacent to Tiburon Boulevard.

The outfall from Rock Hill A Watershed is located near the westerly corner of the Belvedere Tennis Club and drains approximately 40 acres. Rock Hill B Watershed outlets at the southeast edge of the Belvedere Tennis Club and drains approximately 51 acres. The outfall from Rock Hill C Watershed is located approximately 650 feet south southwest of the intersection of Tiburon Boulevard and Rock Hill Drive and drains approximately 11 acres.

Rock Hill D Watershed outfalls approximately 350 feet northwest of the intersection of Tiburon Boulevard and Gilmartin Drive and drains approximately 58 acres. The outfall from Rock Hill E Watershed is located approximately 150 feet southwest of the intersection of Tiburon Boulevard and Gilmartin Drive and drains approximately 11 acres. Rock Hill F outlets approximately 220 feet west of the intersection of Tiburon Boulevard and San Rafael Avenue and drains approximately 8 acres. The outlet for the Rock Hill G Watershed is approximately 250 feet to the southwest of Tiburon Boulevard and San Rafael Avenue and drains approximately 74 acres.

**Seafirth Watershed:** Seafirth Watershed consists of approximately 23 acres of residential development along Seafirth Road. The watershed lies on the northeastern slope of the Tiburon Peninsula and drains to San Francisco Bay.

**Stewart Watershed:** The Stewart Watershed encompasses approximately 25 acres. Stewart Drive and several cul-de-sacs drain to a main trunk line along lower Stewart Drive. The watershed outlets into Richardson Bay immediately east of Blackie's Pasture. Stewart is one

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of the only watersheds completely drained by a closed pipe system instead of a pipe and open drainage channel (ditch) system.

**Sugarloaf Watersheds:** Five small drainage systems at the top of Sugarloaf Hill collect water from ridge line development and outlet onto Tiburon's northeast slope. Combined, Sugarloaf A, B, C, D, and E watersheds encompass approximately 3.5 acres.

**Taylor Watersheds:** The Taylor Watersheds include four individual areas surrounding and including parts of Taylor Road at the northernmost point of the northeastern side of the Tiburon Peninsula. Whereas Taylor 1 outlets directly to San Francisco Bay, Taylor 2, 3, and 4 outlet into swales which eventually reach the bay without additional pipes except those which may cross beneath Paradise Boulevard. The Taylor Watersheds encompasses approximately 36.6 acres, including 27.1 acres known as Taylor 1, 1.3 acres known as Taylor 2, 2.6 acres known as Taylor 3, and 5.6 acres known as Taylor 4.

The Tiburon Department of Public Works is responsible for the maintenance and improvement of all public infrastructure owned and managed by the Town. In addition to normal maintenance operations, they are a key agency in responding to emergencies involving infrastructure as well as weather related events and other disasters that have the potential for adverse impacts to public health or the environment.

Areas not owned or maintained by the Town include those maintained by the Marin County Department of Public Works, Marin County Parks Department and Open Space District, and the Reed Union School District. Marin County Department of Public Works maintains West Creek and East Creek and operates the Pamela Court and Leland Pump Stations, which are the only pump stations within the Town's storm drain system. The Pamela Court Pump Station adjoins West Creek and Leland Pump Stations adjoins East Creek and collects flood waters from a flat area encompassing Pamela Court, lower Blackfield Drive, Harriet Way, and the Cove Shopping Center, and discharge into the East and West Creeks immediately upstream of the Tiburon Boulevard culvert crossings. Additionally, Marin County Parks Department and Marin County Open Space District maintain some upland areas which contribute to the Tiburon storm drainage system, Caltrans maintains several ditches along the Tiburon Boulevard right-of-way, and Reed Union School District maintains the storm drain systems which traverse school district property<sup>39</sup>.

According to the Tiburon Storm Drainage Master Plan, of the 344 pipe sections analyzed in the plan, 249 pipe sections were determined to have insufficient capacity to pass a 25-year frequency storm event. Additionally, 116 sections (approximately 17,000 feet of pipe) require cleaning or cleaning and re-inspecting, and 58 pipe sections necessitate replacement due to structural and material failures. In June 2020, the Town of Tiburon Public Works Department completed a storm drain rehabilitation project, which consisted of the cleaning and repairing

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<sup>39</sup> CSW/Stuber-Stroeh Engineering Group. 2008. Tiburon Storm Drainage Master Plan [page 9-10]



of corrugated metal pipe, lining of pipes with cured in-place liners, miscellaneous repairs, minor concrete, and other similar actions on various streets in Tiburon to improve stormwater drainage<sup>40</sup>.

The Town's storm drains do not connect to the sewer system, and all stormwater that flows into a storm drain system flows directly into the neighboring bays. As discussed previously, The SFBRWQCB requires all municipalities within Marin County (and the County itself) to develop restrictive surface water control standards for new development projects as part of the municipal regional NPDES Permit. Known as "Provision C.3," new development or redevelopment projects that disturb one or more acres of land area must contain and treat stormwater runoff from the site.

#### *Flooding and Floodplain Mapping*

Tiburon is responsible for maintaining the flood control system within the incorporated area. In the unincorporated parts of the Planning Area, responsibility for storm drain maintenance lies with the Marin County Flood Control and Water Conservation District. FEMA identifies Special Flood Hazard Areas (SFHA). FEMA publishes Flood Insurance Rate Maps that depict floodplains. Flooding and flood hazards are addressed in greater detail in Section 3.8 (Hazards).

### **Regulatory Framework - Stormwater**

#### **Federal**

##### *Clean Water Act*

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters." Section 404, Title 33, Section 1344 of the CWA in part authorizes the U.S. Army Corps of Engineers to:

- Set requirements and standards pertaining to such discharges: subparagraph (e); Issue permits "for the discharge of dredged or fill material into the navigable waters at specified disposal sites": subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if "the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies and fishery areas": subparagraph (c);

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<sup>40</sup> Town of Tiburon Town Council Meeting. (2020). 'Agenda Item CC-3: Accept the 2020 Storm Drain Rehabilitation Project as Complete and File a Notice of Completion with the County of Marin. July 15, 2020.

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- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual State or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);
- Withdraw approval of such State or interstate permit programs: subparagraph (i);
- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain Federal or State projects from regulation under this Section: subparagraph (r); and,
- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s).

Section 401 certification is required prior to final issuance of Section 404 permits from the U.S. Army Corps of Engineers.

The Water Board is responsible for implementing the Clean Water Act and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for stormwater discharges (individual permits and general permits). The Water Board elected to adopt a Statewide General Permit (Water Quality Order No. 2013-001-DWQ-DWQ).

### *Federal Emergency Management Agency*

The Town is a participant in the National Flood Insurance Program (NFIP), a Federal program administered by the Federal Emergency Management Agency (FEMA). Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the Department of Water Resources to insure the proper implementation of FEMA floodplain management regulations. The Town adopted the Model Floodplain Management Ordinance within the Town in order to maintain eligibility within the National Flood Insurance Program.

### *Coastal Zone Management Act*

The Coastal Zone Management Act (CZMA) was passed in 1972. This act, administered by the National Oceanic and Atmospheric Administration, provides for the management of the nation's coastal resources, including the Great Lakes. The goal is to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."

The CZMA outlines three national programs: the National Coastal Zone Management Program, the National Estuarine Research Reserve System, and the Coastal and Estuarine Land Conservation Program (CELCP). The National Coastal Zone Management Program aims to balance competing land and water issues through state and territorial coastal

management programs, the reserves serve as field laboratories that provide a greater understanding of estuaries and how humans impact them, and CELCP provides matching funds to state and local governments to purchase threatened coastal and estuarine lands or obtain conservation easements.

### *National Pollutant Discharge Elimination System*

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the EPA, subject to review and approval by the EPA Regional Administrator. The terms of these NPDES permits implement pertinent provisions of the Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the Clean Water Act.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less and are therefore to be updated regularly. To expedite the permit issuance process, the Water Board has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The Water Board has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the San Francisco Bay Region can be covered under these general permits, which are administered jointly by the Water Board and RWQCB. Tiburon is within the jurisdiction of the San Francisco Bay RWQCB.

The Water Board and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters. In 2003, smaller (less than 100,000 population) municipalities and unincorporated counties were required to obtain coverage under a statewide NPDES Municipal General Stormwater Permit (Phase II Permit) issued by the State Water Resources Control Board. In Marin County, the County and all Marin's municipalities, including Tiburon, are subject to the conditions of the regulations described in the current 2013 Phase II Permit. The Marin County Permittees are currently subject to National Pollutant Discharge Elimination System (NPDES) Permit No.

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CAS000004, issued by Order No. WQ 2018-0007-EXEC on March 13, 2019, which pertains to stormwater runoff discharge from storm drains and watercourses within their jurisdictions.

### **State**

#### *Department of Water Resources*

The Department of Water Resources' (DWR) major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring the Sacramento-San Joaquin Delta, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

#### *California Water Code*

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the Water Board and each of the RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the Water Board and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region the regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the Water Board in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

- (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:

(1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.

(2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

*Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary*

The watershed of the Bay-Delta Estuary provides drinking water to two-thirds of the State's population and water for a multitude of other urban uses, and it supplies some of the State's most productive agricultural areas, both inside and outside of the Estuary. The Bay-Delta Estuary itself is one of the largest ecosystems for fish and wildlife habitat and production in the United States.

The Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

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### *Local*

#### *San Francisco Bay Conservation and Development Commission (BCDC) San Francisco Bay Plan (Bay Plan)*

The San Francisco Bay Conservation and Development Commission (BCDC) is a California state planning and regulatory agency with regional authority over the San Francisco Bay, the Bay's shoreline band, and the Suisun Marsh. BCDC was created in 1965 and is the nation's oldest coastal zone agency.

Its mission is to protect and enhance San Francisco Bay and to encourage the Bay's responsible and productive use for this and future generations. State law requires sponsors of projects that propose to fill or extract materials from the Bay to apply for a BCDC permit. In addition to minimizing any fill required for an appropriate project and ensuring that the project is compatible with the conservation of Bay resources, BCDC is tasked with requiring maximum feasible public access within the Bay's 100-foot shoreline band. In addition, BCDC leads the Bay Area's ongoing multi-agency regional effort to address the impacts of rising sea level on shoreline communities and assets.

The San Francisco Bay Plan (Bay Plan) was completed and adopted by the BCDC in 1968 and has been updated regularly with the most recent revisions approved by BCDC in 2019. Essential parts of the Bay Plan include policies to guide future uses of the Bay and shoreline, and the maps that apply these policies to the present Bay and shoreline. The Bay Plan addresses the following matters as specifically required by the law:

1. The results of the Commission's detailed study of the Bay;
2. The comprehensive plan adopted by the Commission for the conservation of the water of San Francisco Bay and the development of its shoreline;
3. The Commission's recommendation of the appropriate agency to maintain and carry out the Bay Plan;
4. The Commission's estimate of the approximate amount of money that would be required to maintain and carry out the provisions of the Plan for the Bay;
5. Other information and recommendations the Commission deemed desirable.

The Bay Area Plan includes findings and policies related to hydrology/ water quality. The hydrology/ water quality section of the Bay Area Plan includes policies associated with the implementation of programs for controlling pollution, including stormwater management plans, Total Maximum Daily Load implementation plans, construction site stormwater runoff and erosion, sediment controls, establishing best management practices, such as site planning or structural controls, new technologies, project siting criteria, and operating methods.

#### *Marin County Stormwater Pollution Prevention Program*

The Marin County Stormwater Pollution Prevention Program (MCSTOPPP) is a joint effort of Marin's cities, towns, and unincorporated areas 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. Each MCSTOPPP member agency implements a local stormwater pollution prevention program and funds the countywide MCSTOPPP, which provides for the coordination and consistency of approaches between the local stormwater programs and documents their efforts in annual reports. The annual reports include information on illegal discharge detection and elimination, street and storm drain cleaning, municipal and creek maintenance, stormwater and creek protection controls for development projects, business inspections, and public outreach, education, and participation. While MCSTOPPP provides guidance for compliance with NPDES permitting, permit compliance is administered by the specific municipality in which the project is proposed.

### *Bay Area Stormwater Management Agencies Post Construction Manual*

The MCSTOPPP has approved the most recent version of the Bay Area Stormwater Management Agencies (BASMAA) Post Construction Manual as the applicable California Storm Water Quality Association Best Management Practices Handbook for projects within MCSTOPPP. The BASMAA Post Construction Manual is to assist applicants for development approvals to prepare submittals that demonstrate their project complies with the NPDES permit requirements. This manual is designed to facilitate the review of applications and promote integrated Low Impact Development (LID) designs. LID design aims to mimic pre-project site hydrology as well as protect water quality. Runoff from roofs and impervious paved areas is dispersed to landscaped areas or routed to bioretention facilities distributed throughout the site. Bioretention facilities infiltrate some runoff and feature underdrains to convey treated stormwater to storm drains.

### *Tiburon Storm Drain Master Plan*

The Tiburon Storm Drain Master Plan established a comprehensive study of the existing drainage system throughout the Town of Tiburon. The study involved the research and review of available background materials and information, examination of regional storm drain video footage, and the creation of base maps for field investigation. The Plan includes watershed areas outside of Town boundaries which, due to topography, contribute to the Town's drainage system. Preparation of the Storm Drainage Master Plan is part of the Town of Tiburon's ongoing efforts to compile data, analyze, and upgrade its existing, aging storm drainage system. Field observations were catalogued, and data was formulated for input into 44 separate hydrologic/hydraulic models representing the watersheds and drainage systems of Tiburon to identify structural and material failures.

### *Town of Tiburon Municipal Code*

Chapter 13D Flood Damage Prevention Ordinance. This chapter outlines specific requirements for new developments within floodplain areas that serve to minimize public and private losses due to flood conditions. In order to accomplish its purposes, this chapter includes methods and provisions for:

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1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
4. Controlling filling, grading, dredging and other development which may increase flood damage; and
5. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

Chapter 13E Water Efficient Landscape. As mandated under State Government Code Section 65595(c), certain new construction, remodel, and rehabilitation projects that include landscape and irrigation improvements are required to comply with water-efficient landscape requirements and monitoring of water usage for irrigation. The purpose of this chapter is to comply with this state mandate regarding water-efficient landscaping. The ordinance contains provisions that include but are not limited to, the following:

- The application and monitoring of a "maximum applied water allowance" that is established for applicable projects.
- The review of required landscape and irrigation plans, specifications and supportive documents prepared for applicable projects for compliance with water-efficient landscape restrictions, including limitations on the type and amount of landscape materials and plant species.
- The review, inspection and approval of landscape and irrigation that is installed for applicable projects to ensure compliance with the approved landscape and irrigation plans and specifications.
- The post-installation monitoring of water usage for irrigation by applicable projects.

Chapter 14A Drainage Areas. This chapter is enacted for the purpose of establishing drainage fees to defray the actual or estimated costs of constructing planned drainage facilities for the removal of surface and storm waters from local or neighborhood drainage areas.

Chapter 17 Harbor and Waterways. This chapter establishes additional standards and regulations related to zoning, parks and recreation and the obstruction, diverting, etc., of watercourses within the Town of Tiburon.

Chapter 20A Urban Runoff Pollution Prevention. The purpose of this chapter is to establish the legal authority required by section E.6.a of the phase II stormwater permit and to ensure the future health, safety and general welfare of the citizens of the Town of Tiburon and to protect and enhance watercourses, fish and wildlife habitat by:

1. Minimizing discharges other than storm runoff to storm drains or watercourses to the maximum extent practicable;
2. Responding to the discharge of spills, preventing and controlling the discharge of spills to storm drains or watercourses and prohibiting dumping or disposal of materials other than stormwater;
3. Reducing pollutants in stormwater discharges to the maximum extent practicable;
4. Requiring operators of construction sites, new or redeveloped land, and industrial and commercial facilities to install, implement, or maintain appropriate best management practices ("BMPs").
5. Requiring development projects to maintain or reduce the volume, velocity, peak flow rate and duration of runoff as compared to the pre-development stormwater runoff and preventing stormwater pollution whenever possible, through stormwater management controls and ensuring that these management controls are properly maintained.
6. Authorizing the town to take the foregoing and all other actions specified by Section E.6.a of the Phase II Small Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System Permit, Water Quality Order No. 2013-0001—DWQ, General Permit No. CAS000004 ("Phase II Stormwater Permit") and subsequent revisions and amendments thereto.
7. The intent of this chapter is to protect and enhance the water quality of our watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Clean Water Act, the Porter-Cologne Water Quality Control Act (California Water Code section 13000 et seq.), and the phase II stormwater permit and subsequent revisions and amendments thereto.

### ***Analysis, Impacts, and Mitigation Measures - Stormwater***

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#### **Impact 3.15-9: General Plan 2040 implementation would not require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects (Less than Significant)**

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Tiburon has adopted regulations that require management of stormwater for all new development. Stormwater management is the use of specific practices, constructed or natural, to reduce, slow down and/or remove pollutants from stormwater runoff. Stormwater management practices are essentially designed to restore or mimic some of the natural processes provided by the vegetative cover that existed prior to land disturbance. Replacing impervious surfaces with vegetation allows the soil to naturally filter or biodegrade contaminants that would otherwise flow into streams, and wetlands, and the Bay.

State and federal regulations work to protect watershed and recharge areas. In particular, the National Pollutant Discharge Elimination System (NPDES) program and the State Regional Water Quality Control Board mandate control of urban runoff to eliminate the percolation of pollutants from surface runoff into underground water supplies and open

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bodies of water. The NPDES program requires the Town to inspect, identify, and prevent illicit discharges such as silt, road debris, oil, or discharges from any residential, commercial or construction area into drains, waterways, and wetlands. Discharges of materials must be processed or eliminated where practical.

Development under the General Plan 2040 could result in increased areas of impervious surfaces throughout the Planning Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth may involve development of some facilities on-site within new development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way. The specific impacts of providing new and expanded drainage facilities cannot be determined at this time, as the General Plan 2040 does not propose or approve any specific development project nor does it designate specific sites for new or expanded public facilities.

Stormwater drainage and conveyance facilities would be evaluated at the project level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan 2040 as discussed throughout this Draft EIR, including in Chapters 3.1 through 3.14 and 3.16 through 4.0.

Additionally, the General Plan 2040 includes policies and programs listed below to further ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan 2040, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts.

### Program C-e Development Impacts on Water Retention

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, 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 implemented to the extent feasible.

### Program C-g Implement Stormwater Regulations

Continue to be an active member agency of the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) to implement best management practices and to comply with federal and state water quality regulations to reduce pollution being conveyed through storm water systems to the Bay.

#### Program LU-e Infrastructure Capacity

Analyze project impacts on infrastructure capacity and services as part of CEQA review and require mitigation measures as needed in consultation with provider agencies.

As future development and infrastructure projects are considered by the Town, each project will be evaluated for conformance with the General Plan 2040, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this is considered a **less than significant** impact.

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#### **Impact 3.15-10: Project and Cumulative Need for System Infrastructure and facilities including relocation or construction of new or expanded storm water drainage facilities.**

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As the Planning Area develops, portions of the Planning Area may need of infrastructure upgrades in order to serve storm water needs from new development. Generally construction and improvement projects would be site and project specific and not cumulative in nature. Additionally, while there are potential individual environmental impacts that may be associated with the infrastructure and improvement projects either for the Project or cumulative development, compliance with District, local, state, and federal regulations and adopted standards for development and construction of utility system infrastructure and facilities would ensure that potential impacts are **less than significant**.

#### **Level of Significance before Mitigation**

Less than significant and less than cumulatively considerable.

#### **Mitigation Measures**

None required

### **3.15.4 SOLID WASTE**

This section describes the Town of Tiburon's solid waste collection services, waste disposal facilities, solid waste generation rates, and regulatory requirements.

#### **Key Terms**

**Class I landfill:** A landfill that accepts for disposal 20 tons or more of municipal solid waste daily (based on an annual average); or one that does not qualify as a Class II or Class III municipal solid waste landfill.

**Class II landfill:** A landfill that (1) accepts less than 20 tons daily of municipal solid waste (based on an annual average); (2) is located on a site where there is no evidence of groundwater pollution caused or contributed by the landfill; (3) is not connected by road to

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a Class I municipal solid waste landfill, or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and (4) serves a community that experiences (for at least three months each year) an interruption in access to surface transportation, preventing access to a Class I landfill, or a community with no practicable waste management alternative.

**Class III landfill:** A landfill that is not connected by road to a Class I landfill or a landfill that is located at least 50 miles from a Class I landfill. Class III landfills can accept no more than an average of one ton daily of ash from incinerated municipal solid waste or less than five tons daily of municipal solid waste.

**Transfer station:** A facility for the temporary deposition of some wastes. Transfer stations are often used as places where local waste collection vehicles will deposit their waste cargo prior to loading into larger vehicles. These larger vehicles will transport the waste to the end point of disposal or treatment.

### ***Existing Conditions - Solid Waste***

The Town of Tiburon is a member agency of Zero Waste Marin. As the regional agency, Zero Waste Marin reports diversion progress to CalRecycle on a countywide basis.

#### *Waste Collection Services*

Tiburon is served by the Mill Valley Refuse Service, a privately owned company that provides residential and commercial garbage, recycling and yard waste collection services under a Town franchise agreement. Mill Valley Refuse Service began operation as the Mill Valley Garbage Company in 1906, and has served Mill Valley and other southern Marin communities continuously since then, including Almonte, Alto, Belvedere, Corte Madera, Homestead, Mill Valley, Strawberry, Tiburon, and surrounding Marin County areas.

#### *Waste Disposal Facilities*

Approximately 19 solid waste sites exist in Marin County with one active disposal site, Redwood Landfill, located north of Novato. The remaining sites are closed or inactive and no longer receive solid waste. Additional active sites in Marin County include the:

- Marin Sanitary Service Transfer Station (large volume transfer/processing facility);
- Marin Sanitary Service (inert Debris Type A processing operation);
- Bolinas-Stinson Resource Recovery Project (green material composting operation);
- West Marin Compost (agricultural material composting operation);
- Central Marin Sanitation Agency (limited volume transfer operation);
- West Marin Compost Project (green material composting operation); and
- WM Earthcare of Marin (composting facility [mixed]).

In 2019, Zero Waste Marin disposed of 241,254 tons of solid waste to 19 different waste disposal facilities all over California. Currently, the Redwood Landfill in Marin County and the



Potrero Hills Landfill in Solano County accept the most solid waste generated from the Zero Waste Marin. The following provides an overview of the Redwood Landfill and Potrero Hills Landfill, as well as a breakdown of the amount of solid waste disposed at the other landfills in California from Zero Waste Marin communities in 2019.

### *Redwood Landfill*

In 2019, the Redwood Landfill accepted approximately 50.7 percent (or 122,303 tons) of the solid waste generated by the Zero Waste Marin. The landfill is operated by Waste Management and is located on a 420-acre site at 8950 Redwood Highway north of Novato and east of US-101. Approximately 220 acres are dedicated to landfill operations, and the remaining 200 acres support composting, recycling, and reuse services as well as open space and a freshwater lagoon for migratory waterfowl. A plant was constructed in 2017 that converts landfill gas to clean, renewable electricity for use by Marin Clean Energy customers. Waste Management also operates the largest composting facility in Marin County and offers recycled compost and mulch as WM EarthCare products. The landfill is licensed as a Class III nonhazardous disposal facility. It has a maximum permitted throughput of 2,300 tons/day and a remaining capacity of 26 million tons. The estimated closure date is 2036.

### *Potrero Hills Landfill*

In 2019, the Potrero Hills Landfill accepted approximately 42.2 percent (or 101,891 tons) of the solid waste generated by the Zero Waste Marin. This landfill accepts approximately 41 percent of the waste generated by the county. The landfill is operated by Waste Connections Company and is located on a 526-acre site at 3675 Potrero Hills Lane, a few miles south of Suisun City in the hills of Suisun Marsh in Solano County. A compost facility and a landfill-gas-to-energy plant is also operated at this site. The landfill has a maximum permitted throughput of 4,330 tons/day and a remaining capacity of 13,872,000 tons. The closure date is estimated to be February 14, 2048.

### *Other Landfills*

Table 3.15-12 identifies the other landfills in California that accepted waste from Zero Waste Marin in 2019 (latest year in CalRecycle records), in decreasing tonnage amounts:

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TABLE 3.15-12: OTHER LANDFILLS ACCEPTING MARIN COUNTY WASTE – 2019

Landfill	Location	Solid Waste Accepted (tons)
Keller Canyon	City of Pittsburg	10,984
Altamont Landfill & Resource Recovery	City of Livermore	2,900
Monterey Peninsula	City of Marina	1,909
Recology Hay Road	City of Vacaville	807
Corinda Los Trancos (Ox Mountain)	City of Half Moon Bay	88
Newby Island Sanitary	City of Milpitas	86
Kirby Canyon Recycling and Disposal Facility	City of Morgan Hill	80
Vasco Road Sanitary	City of Livermore	70
Fink Road	Stanislaus County	61
Kiefer Landfill	Sacramento County	21
Forward	City of Manteca	13
Guadalupe Sanitary	City of San Jose	13
Azusa Land Reclamation County	City of Azusa	10
Foothill Sanitary	San Joaquin County	6
Clean Harbors Buttonwillow LLC	Kern County	6
Yolo County Central	City of Woodland	2
John Smith Road Landfill	San Benito County	1

SOURCE: CALRECYCLE DATABASE: JURISDICTION DISPOSAL BY FACILITY (2019)

### Hazardous Waste Disposal

Marin Household Hazardous Waste Facility located at 565 Jacoby Street in San Rafael is open Tuesday to Saturday for residential drop-off and Tuesday and Wednesday by appointment only for commercial drop-off. The facility is available to the residents of Marin County communities except for residents of the City of Novato, which has its own facility. Proof of residency is required to use this facility. Table 3.15-13 shows examples of hazardous waste accepted. Approximately 61 percent of the collected hazardous waste material is recycled and three percent is reused, while only two percent is landfilled<sup>41</sup>.

TABLE 3.15-13: HAZARDOUS WASTE ACCEPTED

Home & Garden Products	Automotive Care Products	Paint & Paint Related Products	Personal Care Products	Misc. Products
Liquid cooking oils Detergents Ammonia and tile cleaners Tub cleaners Bleach-base cleaners Window cleaner Over cleaners Polishes	Motor oil Oil filters Gasoline Diesel Antifreeze Brake fluid Transmission fluid Car batteries Car waxes and polishes	Latex paint Oil based paint Aerosol paint cans Solvents Adhesives Paint removers Wood preservatives Wood finishes Roofing tar	Hypodermic, intravenous and pen needles Beauty products in aerosol cans Hair color kits Hair sprays Nail polishes Nail removers Perfumes	Roof shingles Floor tiles Ceiling tiles Siding and insulation Light bulbs Household batteries Electronic products Mercury-containing devices Pool chemicals

<sup>41</sup> Marin Household Hazardous Waste Facility, 2020. About the Marin HHW Facility. Available at: <https://marinhhw.com/about-marin-hhw/>

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Home & Garden Products	Automotive Care Products	Paint & Paint Related Products	Personal Care Products	Misc. Products
Air fresheners Fertilizers Herbicides Fungicides Pesticides Insecticides Rodenticide		Putty, caulk, and glues		Photo chemicals Road flares Fire extinguishers Propane and butane gas cylinders CO <sub>2</sub> cylinders

SOURCE: MARIN HOUSEHOLD HAZARDOUS WASTE FACILITY RESIDENTIAL AND COMMERCIAL CUSTOMER GUIDELINES

The following materials are not accepted at the Marin Household Hazardous Waste Facility:

- Appliances (e.g., toasters, blenders, air conditioners, refrigerators, etc.);
- Business equipment;
- Medication;
- Hair products (e.g., hair dryers, flat irons, etc.);
- Tapes and CDs;
- Explosives or Ammunition;
- E-cigarettes;
- Toys of any kind; and
- Sharps (i.e., needles and syringes) from businesses.

### Solid Waste Generation Rates and Volumes

The California Department of Resources Recycling and Recovery (CalRecycle) tracks and monitors solid waste generation rates on a per capita basis. Per capita solid waste generation rates and total annual solid waste disposal volumes for Zero Waste Marin between 2015 and 2019 are shown in Table 3.15-14.

TABLE 3.15-14: ZERO WASTE MARIN SOLID WASTE GENERATION RATES

Year	Population		Employment		Total Disposal Tonnage (tons/year)
	Waste Generation Rate (lbs/person/day)	Reporting Year Population	Waste Generation Rate (lbs/employee/day)	Reporting Year Employment	
2015	4.0	258,972	9.3	111,124	188,115.60
2016	4.6	263,150	10.5	114,965	223,481.46
2017	4.7	263,262	10.7	115,944	232,015.10
2018	5.2	262,803	11.9	115,777	250,496.11
2019	5.0	262,879	11.4	115,700	241,275.81
2020	4.9	260,388	11.4	111,502	232,349.70

SOURCE: CAL RECYCLE. ACCESSED: JANUARY 2021

The per capita waste generation rate and per employee waste generation rate both increased from 4.0 to 5.2 lbs/person/day and 9.3 to 11.9 lbs/employee/day over the 2015 to

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2018 period, respectively, and the total annual disposal tonnage in the Zero Waste Marin service area increased by 62,380.51 tons over the 2015 to 2018 time span. From 2018 to 2020, the per capita and per employee waste generation rates both decreased from 5.2 to 4.9 lbs/person/day and 11.9 to 11.4 lbs/employee/day. Additionally, the total annual disposal tonnage in the Zero Waste Marin service area decreased by 18,146 tons in from 2018 to 2020. With the passage of SB 1016, the per capita disposal rate is used to determine the diversion progress of a jurisdiction and not the jurisdictional diversion rates. Therefore, a population increase resulting in the generation of more overall waste does not affect the jurisdiction's ability to meet its waste goals. The Zero Waste Marin's waste disposal rate targets are shown in Table 3.15-15.

TABLE 3.15-15: ZERO WASTE MARIN WASTE DISPOSAL RATE TARGETS (POUNDS/DAY)

Year	Population		Employment	
	Target	Actual	Target	Actual
2015	7.6	4.0	17.3	9.3
2016	7.6	4.6	17.3	10.5
2017	7.6	4.7	17.3	10.7
2018	7.6	5.2	17.3	11.9
2019	7.6	5.0	17.3	11.4
2020	7.6	4.9	17.3	11.4

SOURCE: CAL RECYCLE. ACCESSED: JANUARY 2021

The target rate on the above table represents a 50 percent diversion rate. In accordance with AB 939, which required municipalities to aggressively pursue MSW source reduction and recycling, Zero Waste Marin continues to meet and exceed all AB 939 goals. Zero Waste Marin has set a goal of 94 percent diversion from landfills by 2025, which would greatly reduce the need for landfill disposal. The current diversion rate for 2018 is 66 percent, which is down from 75 percent in 2014. Zero Waste Marin also provides grants to its member agencies to develop and implement programs that work toward the zero-waste goal. The various solid waste management actions adopted by Zero Waste Marin include, but are not limited to, recycling and yard waste programs for residents and businesses, public education and public outreach awareness events, and school recycling and composting.

### Regulatory Framework - Solid Waste

#### Federal

##### Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several

amendments, the current Act governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA was an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the Environmental Protection Agency (EPA) to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the Federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the Federal program.

## **State**

### *Sanitary District Act of 1923*

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts and enforces the sanitation districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. This act was amended in 1949 to allow sanitation districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

### *California Integrated Waste Management Act (AB 939, SB 1322, and SB 1016)*

The California Integrated Waste Management Act of 1989 (AB 939 and SB 1322) requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25 percent by 1995 and 50 percent by 2000. To help achieve this, the act requires that each jurisdiction prepare a source reduction and recycling element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle). AB 939 also established a goal for all California counties to provide at least 15 years of ongoing landfill capacity. The purpose of AB 939 and SB 1322 is to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible.” The term “integrated waste management” refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows: Source Reduction; Recycling; Composting; Transformation; and Disposal.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on two factors: a jurisdiction’s reported total disposal of solid waste divided by the jurisdiction’s population. The California Integrated Waste Management Board was replaced by CalRecycle in 2010. CalRecycle sets a

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per capita disposal rate target for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate

### *Organic Waste Methane Emissions Reduction Act (SB 1383)*

In September 2016, SB 1383 was signed into law establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. SB 1383 establishes goals to reduce the landfill disposal of organics by achieving a 50 percent reduction in the 2014 level of statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. SB 1383 grants CalRecycle the regulatory authority to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food must be recovered for human consumption by 2025. Methane emissions resulting from the decomposition of organic waste in landfills are a significant source of greenhouse gas emissions contributing to global climate change. Organic materials—including waste that can be readily recycled or composted—account for a significant portion of California's overall waste stream.

### *AB 341 (75 Percent Solid Waste Diversion)*

AB 341 requires CalRecycle to issue a report to the Legislature that includes strategies and recommendations that would enable the state to divert 75 percent of the solid waste generated in the state from disposal by January 1, 2020, requires businesses that meet specified thresholds in the bill to arrange for recycling services by January 1, 2012, and also streamlines various regulatory processes.

### *SB 1374 (Construction and Demolition Waste Materials Diversion)*

Senate Bill 1374 (SB 1374), Construction and Demolition Waste Materials Diversion Requirements, requires that jurisdictions summarize their progress realized in diverting construction and demolition waste from the waste stream in their annual AB 939 reports. SB 1374 required the CIWMB to adopt a model construction and demolition ordinance for voluntary implementation by local jurisdictions.

### *AB 2176 (Montanez, Chapter 879, Statutes of 2004)*

This law requires the largest venue facilities and events (as defined) in each city and county to plan and implement solid waste diversion programs, and annually report the progress of those upon the request of their local government. In turn, local jurisdictions must report to the CIWMB waste diversion information for the top 10 percent of venues and events by waste generation.

A large event is defined as:



1. Serves an average of more than 2,000 individuals per day of operation (both people attending the event and those working at it—including volunteers—are included in this number); and
2. Charges an admission price or is run by a local agency.

The bill specifically includes public, nonprofit, or privately owned parks, parking lots, golf courses, street systems, or other open space when being used for an event, including, but not limited to, a sporting event or a flea market in addition to events that meet both of the above.

A large venue is defined as:

A permanent facility that annually seats or serves an average of more than 2,000 individuals within the grounds of the facility per day of operation (both people attending the event and those working at it—including volunteers too—are included in this number).

Venues include, but are not limited to airports, amphitheaters, amusement parks, aquariums, arenas, conference or civic centers, fairgrounds, museums, halls, horse tracks, performing arts centers, racetracks, stadiums, theaters, zoos, and other public attraction facilities.

*AB 1826 (Mandatory Commercial Organics Recycling)*

AB 1826, which was enacted in 2014, mandates organic waste recycling for businesses and multifamily dwellings with five or more units. The commercial organics recycling law took effect on April 1, 2016, and organic waste includes food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Currently, businesses and multifamily residences of five or more units that generate four or more cubic yards per week of solid waste (including recycling and organic waste) must arrange for organic waste recycling services. In the fall of 2020, CalRecycle will review the annual reports from various jurisdictions, and if the statewide goal of 50 percent reduction in organic waste as compared to 2014 has not been met, the organic recycling requirements will cover businesses and multi-family residences that generate two or more cubic yards of solid waste per week.

Marin Sanitary Service offers two organics recycling programs that allow businesses to comply with the requirements of AB 1826: The Food 2 Energy Program and Commercial Compost Program. The Food 2 Energy program diverts organic food waste from local restaurants, delis, food vendors, and grocery stores and converts the material into biogas through anaerobic digestion that is used as a power source for the CSMA WWTP. The Commercial Compost Program provides commercial compostable carts for businesses that generate organic material, including food scraps, food-soiled paper, and plant/landscape trimmings, that are turned into organic compost at the Redwood Landfill.

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### *California Integrated Waste Management Board Model Ordinance*

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Reuse and Recycling Access Act of 1991 (Section 42900-42911 of the Public Resources Code) directs the California Integrated Waste Management Board (CIWMB) to draft a “model ordinance” relating to adequate areas for collecting and loading recyclable materials in development projects. The model ordinance requires that any new development project, for which an application is submitted on or after September 1, 1994, include “adequate, accessible, and convenient areas for collecting and loading recyclable materials.” For subdivisions of single family detached homes, recycling areas are required to serve only the needs of the homes within that subdivision.

### *California Solid Waste Reuse and Recycling Access Act of 1991*

The California Solid Waste Reuse and Recycling Access Act requires development projects to set aside areas for collecting and loading recyclable materials. This act required CalRecycle to develop a model ordinance for adoption by any local agency to provide adequate areas for the collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own that establishes standards, including space allocation, for the collection and loading of recyclable materials.

### *California Green Building Standards Code (CALGreen)*

CALGreen became mandatory on January 1, 2011; the most recent 2022 CALGreen became effective on January 1, 2023. CALGreen requires the diversion of at least 65 percent of the construction waste generated during most new construction projects (CALGreen Sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects.

As of January 1, 2020, in all jurisdictions including those without a construction and debris ordinance requiring the diversion of 65 percent of construction waste, the owners/builder of construction projects within the covered occupancies are required to divert 65 percent of the construction waste materials generated during the project. Additionally, CALGreen allows a disposal reduction option that can be met when the project’s disposal rate is less than 2.0 pounds per square foot for non-residential and high rise residential, or less than 3.4 pounds per square foot for low-rise residential.

## **Local**

### *Marin Hazardous and Solid Waste Joint Powers Authority (Zero Waste Marin)*

In response to the California Integrated Waste Management Act, Marin County’s public agencies formed the Marin Hazardous and Solid Waste Joint Powers Authority, also known as Zero Waste Marin. Zero Waste Marin was formed in 1996 and is comprised of the cities and towns of Belvedere, Corte Madera, Fairfax, Larkspur, Mill Valley, Novato, Ross, San Anselmo, San Rafael, Sausalito, and Tiburon, and the County of Marin. The goal of Zero Waste Marin is to help residents and businesses in Marin County meet the County’s goal of 94

percent diversion from landfills by 2025 by reducing and recycling their solid waste and safely disposing of hazardous wastes. Zero Waste Marin ensures the County's compliance with State recycling mandates and provides information on household hazardous waste collection, recycling, composting, and waste disposal. The Marin County Department of Public Works/Waste Management administers Zero Waste Marin, and the AB 939 Local Task Force provides citizen and industry review.

*Marin Countywide Integrated Waste Management Plan*

The California Integrated Waste Management Act of 1989 (AB 935) requires each county to prepare and adopt a Countywide Integrated Waste Management Plan (CIWMP). In April 1998, Zero Waste Marin, private waste haulers, and facility operators developed the Marin Countywide Integrated Waste Management Plan, which implements recycling programs necessary to meet the State's 25 percent and 50 percent recycling mandates. Waste reduction and disposal facilities in the county that require solid waste facility permits must conform to policies and siting criteria in the CIWMP. The CIWMP includes, by reference, source reduction and recycling elements, household hazardous waste elements, and non-disposal facility elements as well as a plan that describes countywide diversion programs and landfill disposal needs. The elements must be reviewed every five years and revised if necessary. The latest five-year review report for the CIWMP was submitted by Zero Waste Marin in March 2018.

In addition, each city, county, or regional agency must prepare an annual report for submittal to CalRecycle that summarizes its progress in reducing solid waste as required by Public Resources Code Section 41821. Once every two or four years (depending on the compliance schedule), CalRecycle conducts its own jurisdictional review of the annual reports to determine if the jurisdiction has met the Integrated Waste Management Act goals.

*Town of Tiburon Municipal Code*

Chapter 26 Solid Waste Storage, Collection and Disposal. The purpose of this chapter of the Tiburon Municipal Code is to prevent actual or potential public health hazards and nuisances by the regulation of the accumulation, collection and disposal of solid waste.

***Analysis, Impacts, and Mitigation Measures - Solid Waste***

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**Impact 3.15-11: General Plan 2040 implementation would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, would not generate solid waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals, and would not exceed of the capacity of local infrastructure (Less than Significant)**

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The Town of Tiburon is a member agency of Zero Waste Marin. As the regional agency, Zero Waste Marin reports diversion progress to CalRecycle on a countywide basis. Tiburon is

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served by the Mill Valley Refuse Service, a privately owned company that provides residential and commercial garbage, recycling and yard waste collection services under a Town franchise agreement.

The California Department of Resources Recycling and Recovery (CalRecycle) tracks and monitors solid waste generation rates on a per capita basis. As described previously, the per capita waste generation rate and per employee waste generation rate both increased from 4.0 to 5.2 lbs/person/day and 9.3 to 11.9 lbs/employee/day over the 2015 to 2018 period, respectively, and the total annual disposal tonnage in the Zero Waste Marin service area increased by 62,380.51 tons over the 2015 to 2018 time span. From 2018 to 2020, the per capita and per employee waste generation rates both decreased from 5.2 to 4.9 lbs/person/day and 11.9 to 11.4 lbs/employee/day. Additionally, the total annual disposal tonnage in the Zero Waste Marin service area decreased by 18,146 tons in from 2018 to 2020. . With the passage of SB 1016, the per capita disposal rate is used to determine the diversion progress of a jurisdiction and not the jurisdictional diversion rates. Therefore, a population increase resulting in the generation of more overall waste does not affect the jurisdiction's ability to meet its waste goals.

The development of future land uses under the General Plan 2040 would increase solid waste disposal needs. Future development of projects as under buildout the General Plan 2040 may increase the population within the Planning Area by approximately 2,198 persons, and would result in a reduction of 120,042 in non-residential square feet area and 240 fewer jobs. As described above, the service area has achieved a disposal rate of 4.9 PPD per resident, and 11.4 lbs per employee in 2020. Assuming these disposal rates remain constant throughout the life of the General Plan, the new growth under General Plan 2040 buildout would result in an increase of approximately 10,92 pounds per day, which equals 5.48 tons per day or 1,999 tons of solid waste per year. Additionally, the reduction in overall nonresidential square footage would result in a decrease of 2,736 pounds per day or 499 tons per year. The additional solid waste generation associated with the General Plan 2040 would not exceed the receiving landfill's remaining and additional capacity.

As described previously the Redwood Landfill in Marin County and the Potrero Hills Landfill in Solano County accept the most solid waste generated from the Zero Waste Marin. The Redwood Landfill has a maximum permitted throughput of 2,300 tons/day and a remaining capacity of 26 million tons. The estimated closure date is 2036. The Potrero Hills Landfill has a maximum permitted throughput of 4,330 tons/day and a remaining capacity of 13,872,000 tons. The closure date is estimated to be February 14, 2048. The additional solid waste generation associated with the proposed General Plan 2040 would not exceed the receiving landfills' remaining and additional capacity. Additionally, the General Plan 2040 includes actions to further reduce the project's impact on solid waste services. Policy S-5 Waste Diversion Targets call for the Town to strive to meet or exceed waste diversion and food recovery targets set by the state. Program S-m requires that businesses prepare and

implement waste management plans to maximize recycling and food recovery and minimize disposal of organic waste where appropriate as a condition of approval of use permits. Program S-n calls of the Town to work with the Town's waste hauler and Zero Waste Marin to develop and implement programs to educate and motivate residents and business owners to increase recycling of materials and food recovery and reduce disposal of organic waste, while Program S-o call for the modification of the solid waste disposal ordinance to maximize the recovery and recycling of construction debris consistent with the Marin Zero Waste model ordinance. Policy S-6 call for municipal waste reduction by maximizing recycling, composting, reuse, waste reduction, and food recovery within municipal operations and at public parks and facilities. Program S-p calls for the Town to provide sufficient recycling and composting bins for public and staff use, and Program S-q calls for the adoption of municipal purchasing procedures to give preference to purchasing products that are recyclable, made from recycled materials, and minimize packaging.

With the implementation of the policies and programs identified above and a commitment to meeting waste reduction goals within the Planning Area, potential solid waste impacts would be considered a **less-than-significant** impact.

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**Impact 3.15-12: Under cumulative conditions the Project would not generate solid waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals, and would not exceed of the capacity of local infrastructure**

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As described previously under Impact 3.10-1, there is adequacy capacity anticipated to serve the Projects solid waste requirements. The California Department of Resources Recycling and Recovery (CalRecycle) tracks and monitors solid waste generation rates on a per capita basis. As described previously, from 2018 to 2020, the per capita and per employee waste generation rates both decreased from 5.2 to 4.9 lbs/person/day and 11.9 to 11.4 lbs/employee/day. Additionally, the total annual disposal tonnage in the Zero Waste Marin service area decreased by 18,146 tons in from 2018 to 2020. With the passage of SB 1016, the per capita disposal rate is used to determine the diversion progress of a jurisdiction and not the jurisdictional diversion rates. Therefore, a population increase resulting in the generation of more overall waste does not affect the jurisdiction's ability to meet its waste goals. As such the waste generated is within target ranges identified by state targets and will continue to ensure that potential impacts are **less than significant**.

**Level of Significance before Mitigation**

Less than significant and less than cumulatively considerable.

**Mitigation Measures**

None required



Figure 3.15-1. Marin Municipal Water District Facilities

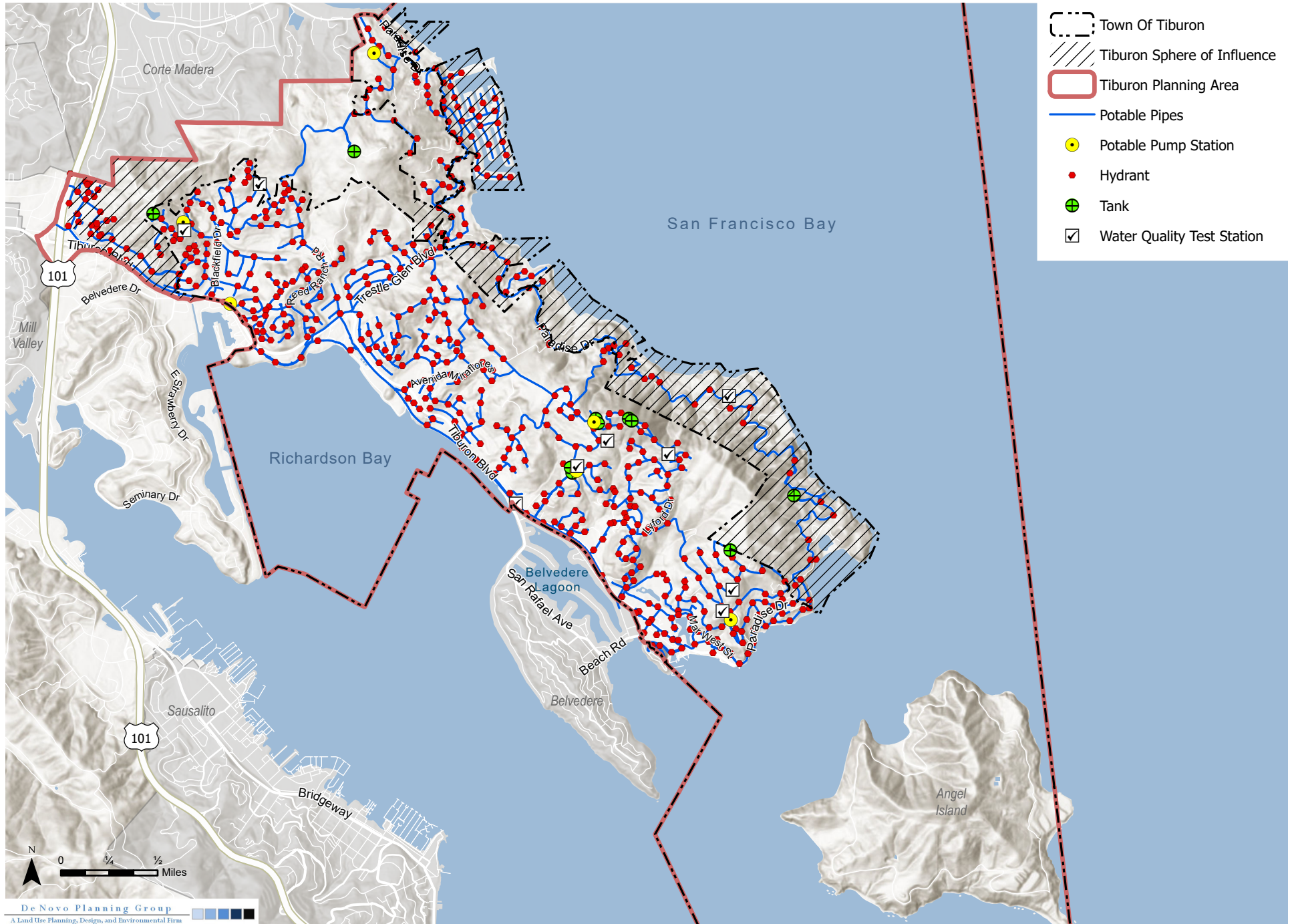




Figure 3.15-2. Wastewater Agency Boundaries

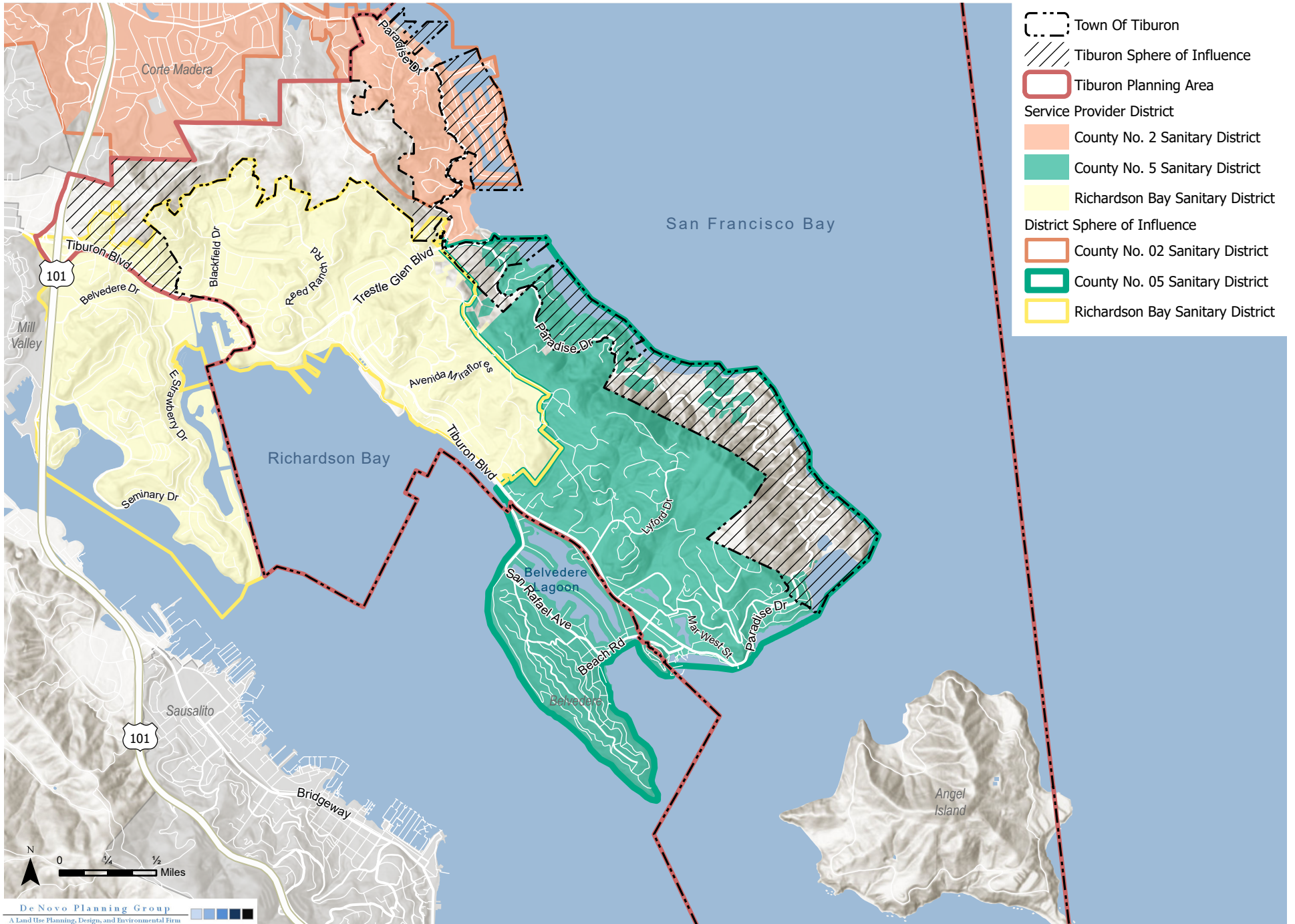


Figure 3.15-3. Wastewater Facilities

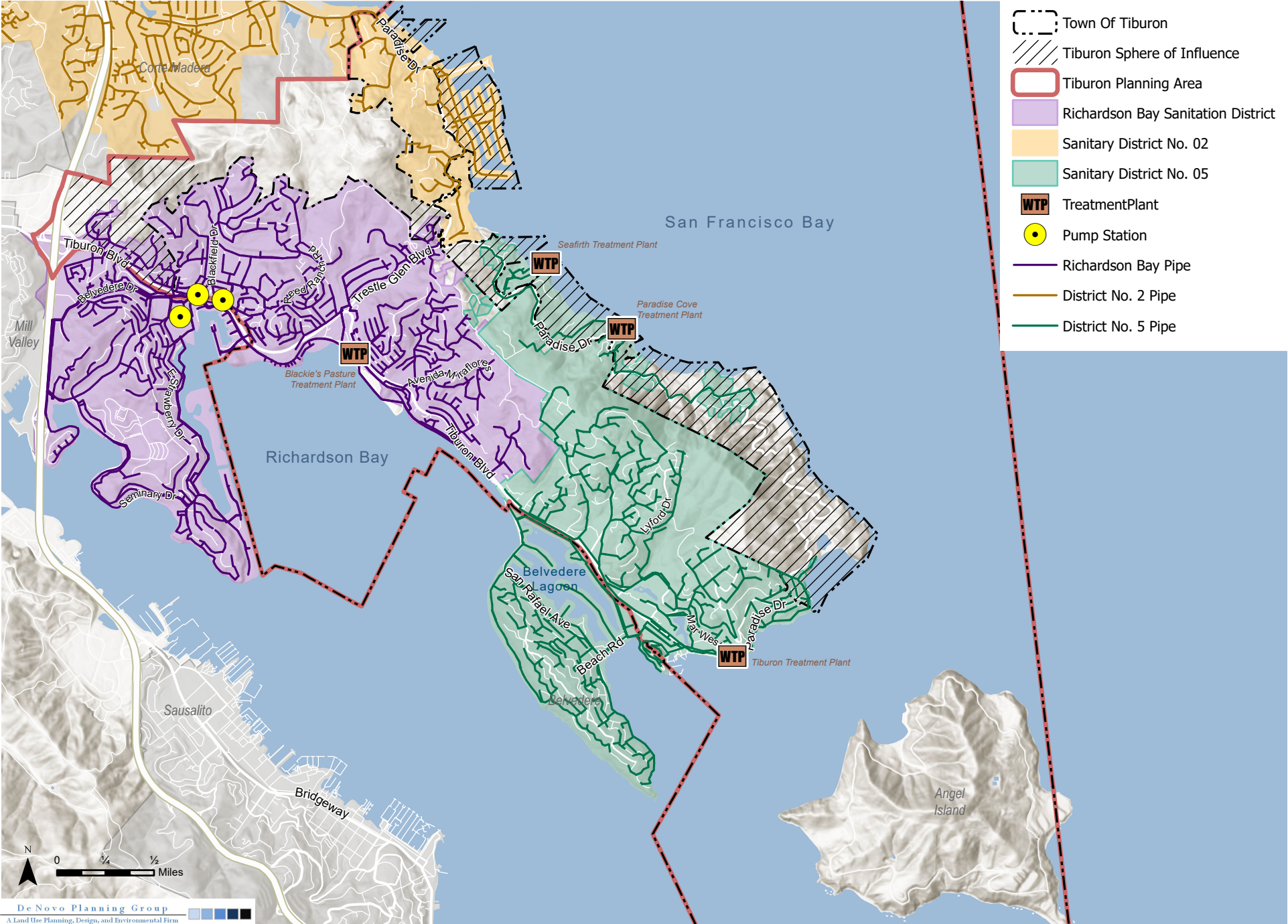
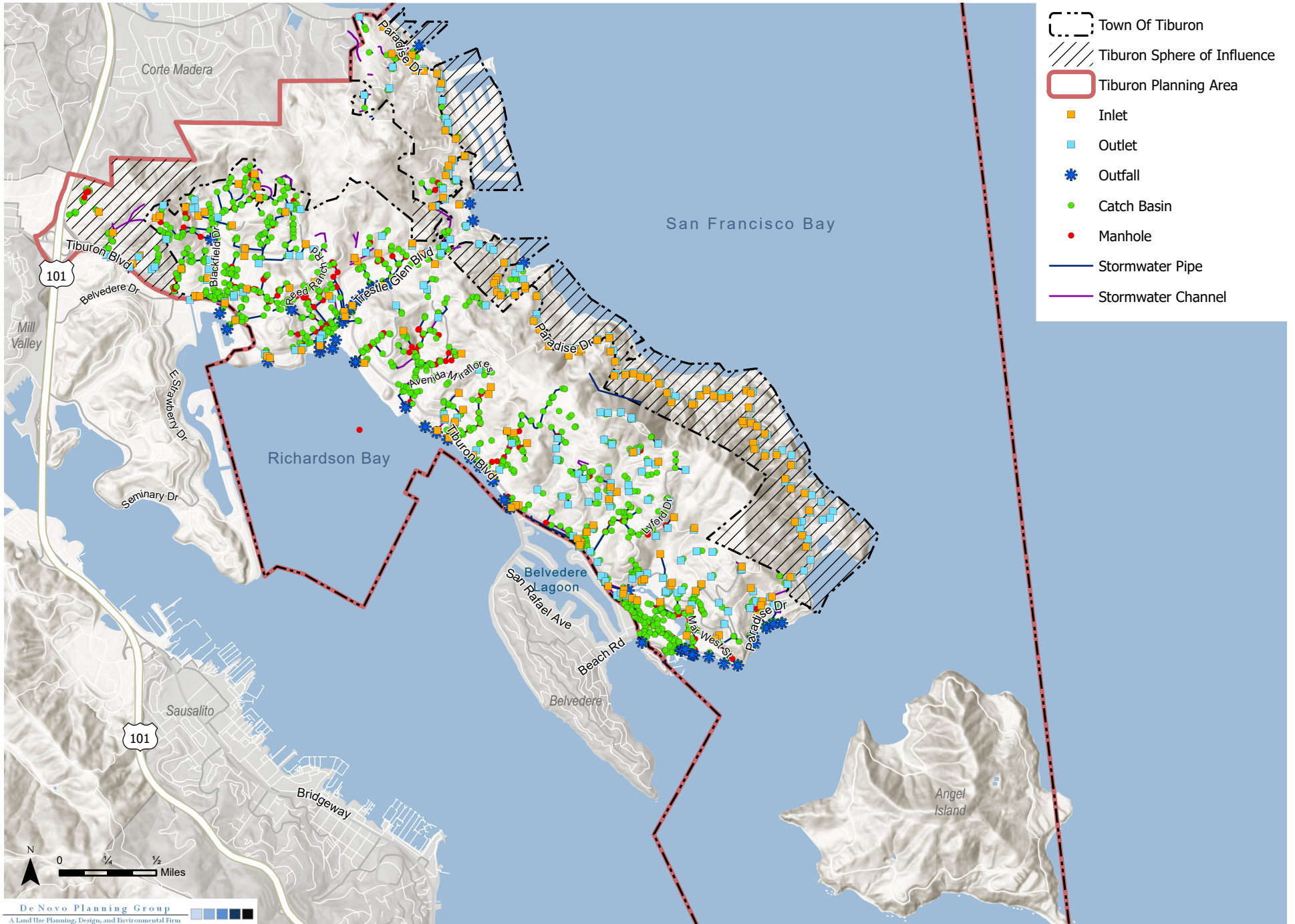




Figure 3.15-4. Stormwater Facilities





### 3.16 WILDFIRE

Wildfires are, on average, becoming more frequent and more destructive due to a combination of higher temperatures, longer dry periods, and increased human development within wooded areas. Grassland or other vegetation in California is easily ignited, particularly in dry seasons. Wildfire is a serious hazard in high, dry fuel load areas, particularly near areas of natural vegetation and steep slopes since fires tend to burn more rapidly on steeper terrain. Wildfire is also a serious hazard in areas of high wind, given that fires will travel faster and farther geographically when winds are higher. Furthermore, wildfire is more likely in areas where electric power lines are located above ground where they can encounter either vegetation or building materials.

This Chapter of the Draft EIR describes the existing wildfire conditions in the Planning Area as well as the relevant regulatory framework. This section also evaluates the possible impacts related to wildfire that could result from implementation of the General Plan 2040. Future discretionary projects will also be evaluated for project-specific impacts to wildfire at the time they are proposed. See Section 3.13, Public Services and Recreation, for a discussion of fire protection services.

Three comments were received by Dorene Curtis, Julie and Seth Jacobs, and Kathy and Gerry Silverfield expressing concern about emergency evacuation routes, emergency vehicle access, and housing development in areas of wildfire risk. These topics are further discussed in Chapter 3.8 (Hazards) and additional information related to transportation impacts is included in Chapter 3.14 (Transportation) of this Draft EIR.

#### 3.16.1 EXISTING SETTING

##### *Wildfire Risk*

##### **CAL FIRE Fire Threat Areas**

California Department of Forestry and Fire Protection's (CAL FIRE) Fire Threat Model identifies fire threats using fuel rank, which is a ranking system developed by CAL FIRE that incorporates four wildfire factors: fuel model, slope, ladder index, and crown index, and modeled characteristics regarding fire probability and behaviors.

The U.S. Forest Service has developed a series of fuel models, which categorize fuels based on burn characteristics. These fuel models help predict fire behavior. In addition to fuel characteristics, slope is an important contributor to fire hazard levels. A surface ranking system has been developed by CAL FIRE, which incorporates the applicable fuel models and slope data. The model categorizes slope into six ranges: 0-10%, 11-25%, 26-40%, 41-55%, 56-75% and >75%. The combined fuel model and slope data are organized into three categories,

referred to as surface rank. Thus, surface rank reflects the quantity and burn characteristics of the fuels and the topography in a given area.

The ladder index is the distance from the ground to the lowest leafy vegetation for tree and plant species. The crown index reflects the quantity of leafy vegetation present within individual specimens of a given species.

The surface rank, ladder index, and crown index for a given area are combined to establish a fuel rank of medium, high, or very high. Fuel rank is used by CAL FIRE to identify areas in the California Fire Plan where large, catastrophic fires are most likely.

The fuel rank data are used by CAL FIRE to delineate fire threat based on a system of ordinal ranking. Thus, the Fire Threat model creates discrete regions, which reflect fire probability and predicted fire behavior. The five classes of fire threat range from low to extreme.

As shown in Figure 3.16-1, the Town of Tiburon primarily contains areas with “moderate” and “high” fire threats. However, Figure 3.16-1 does identify three small areas with “low” fire threats, including one in the northwest portion of the Planning Area adjacent to Richardson Bay and Trestle Glen Boulevard, another in the southeast portion of the Planning Area east of Paradise Drive, and one along the southern shoreline of Angel Island. The two highest fire threat levels, “very high” and “extreme,” are not mapped within or adjacent to the Planning Area. “High” fire threats are located in the northern and eastern portions of the Planning Area, where there tends to be a greater amount of combustible vegetation and where slopes are greater. CAL FIRE data for the areas immediately north and west of the Planning Area include “moderate” and “high” fire threats.

### **CAL FIRE Fire Hazard Severity Zones**

The State has charged CAL FIRE with the identification of Fire Hazard Severity Zones (FHSZ) within State Responsibility Areas. In addition, CAL FIRE must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas. The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards. Figure 3.16-2 illustrates the Town’s Fire Hazard Severity Zones and Responsibility Areas.

As shown in Figure 3.16-2, there are no VHFHSZs located within the Town or Planning Area. While the majority of the Planning Area is not within a FHSZ, portions of the Planning Area are located in “moderate” and “high” FHSZs, including areas in the northern, northwestern, northeastern, and eastern portions of the Planning Area. No areas within or adjacent to the Planning Area are categorized as containing a “very high” FHSZs by CAL FIRE.

### **Wildland-Urban Interface Zones**

A Wildland-Urban Interface (WUI) zone is an area where human made structures and infrastructure (e.g., cell towers, schools, water supply facilities, etc.) are in or adjacent to areas prone to wildfire. Approximately 60,000 acres in Marin County fall within the WUI zone, where residences are intermixed with open space and wildland vegetation. Due to

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surrounding vegetation and proximity to wildlands, these areas are considered to be at greater risk of wildfires. A Wildland Urban Intermix zone is defined as a housing development interspersed in an area dominated by wildland vegetation subject to wildfire. Lastly, a Wildfire Influence Zone is an area where wildfire susceptible vegetation is within 1.5 miles from a Wildland-Urban Interface or Wildland-Urban Intermix zone.

Wildland fire hazards exist in varying degrees throughout the Tiburon Peninsula and probably pose the greatest threat to public safety and property of all other potential hazards. The fire season generally lasts from five to six months, but has been elongated due to climate change. Many homes have been built on steep slopes with vegetation near structures. These slopes are often steep, located in rugged terrain, and have very few access routes. The majority of Tiburon is located within either a “Wildland-Urban Interface”, “Wildland-Urban Intermix”, or “Wildfire Influence” fire hazard zone.

Figure 3.16-3 identifies the Wildland-Urban Interface, Wildland-Urban Intermix, and Wildfire Influence Zones within Tiburon and the fire hazard severity for each. As shown in Figure 3.16-3, areas throughout the Town and Planning Area have significant portions designated with a moderate and high fire hazard areas associated with Wildland Urban Interface, Wildland Urban Intermix, and Wildfire Urban Influence zones. Table 3.16-1 identifies the amount acres within the Planning Area located in an either a Wildland Urban Interface, Wildland Urban Intermix, and Wildfire Urban Influence zones.

TABLE 3.16-1: WUI TYPE BY FIRE HAZARD SEVERITY IN TIBURON PLANNING AREA

WUI TYPE	TOWN LIMITS	SOI	PLANNING AREA	GRAND TOTAL
<b>WILDLAND-URBAN INTERFACE ZONE</b>				
Not in a Fire Hazards Severity Zone	0.00	0.00	0.00	0.00
Moderate Fire Hazard Severity	427.49	169.79	1.19	598.46
High Fire Hazard Severity	388.90	71.09	4.28	464.27
<i>Wildland Urban Influence Subtotal</i>	<i>816.39</i>	<i>240.88</i>	<i>5.47</i>	<i>1,062.73</i>
<b>WILDLAND-URBAN INTERMIX ZONE</b>				
Not in a Fire Hazards Severity Zone	0.00	0.00	0.00	0.00
Moderate Fire Hazard Severity	108.29	72.19	0.96	181.45
High Fire Hazard Severity	126.83	72.50	1.64	200.97
<i>Wildland Urban Intermix Subtotal</i>	<i>235.12</i>	<i>144.69</i>	<i>2.60</i>	<i>382.42</i>
<b>WILDFIRE URBAN INFLUENCE ZONE</b>				
Not in a Fire Hazards Severity Zone	87.92	16.69	1.72	106.34
Moderate Fire Hazard Severity	616.53	64.78	2.31	683.62
High Fire Hazard Severity	415.24	309.19	304.39	1,028.82
<i>Wildfire Urban Influence Subtotal</i>	<i>1,119.69</i>	<i>390.66</i>	<i>308.42</i>	<i>1,818.78</i>
<b>NOT IN A WUI ZONE</b>				
Not in a Fire Hazards Severity Zone	7,536.49	122.74	30.73	7,689.96



WUI TYPE	TOWN LIMITS	SOI	PLANNING AREA	GRAND TOTAL
Moderate Fire Hazard Severity	38.45	28.04	0.00	66.49
High Fire Hazard Severity	19.82	19.85	1.74	41.40
<i>Not in a WUI Zone Subtotal</i>	<i>7,594.76</i>	<i>170.63</i>	<i>32.47</i>	<i>7,797.85</i>
<b>Total</b>	<b>9,765.96</b>	<b>946.86</b>	<b>348.96</b>	<b>11,061.78</b>

SOURCE: CAL FIRE FRAP \*WILDLAND URBAN INTERFACE, INTERMIX, AND INFLUENCE ZONES – WITH HOUSING DENSITY AND HAZARD CLASS\*, 2021.

## Federal

### United States Department of Interior

#### *Review and Update of the 1995 Federal Wildland Fire Management Policy*

1. **Safety**—Firefighter and public safety is the first priority. All Fire Management Plans and activities must reflect this commitment.
2. **Fire Management and Ecosystem Sustainability**—The full range of fire management activities will be used to help achieve ecosystem sustainability, including its interrelated ecological, economic, and social components.
3. **Response to Wildland Fire**—Fire, as a critical natural process, will be integrated into land and resource management plans and activities on a landscape scale, and across agency boundaries. Response to wildland fire is based on ecological, social, and legal consequences of the fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and values to be protected dictate the appropriate management response to the fire.
4. **Use of Wildland Fire**—Wildland fire will be used to protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Use of fire will be based on approved Fire Management Plans and will follow specific prescriptions contained in operational plans.
5. **Rehabilitation and Restoration**—Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.
6. **Protection Priorities**—The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be based on the values to be protected, human health and safety, and the costs of protection. Once people have been committed to an incident, these human resources become the highest value to be protected.
7. **Wildland Urban Interface**—The operational roles of federal agencies as partners in the Wildland Urban Interface are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments. Federal

agencies may assist with exterior structural protection activities under formal Fire Protection Agreements that specify the mutual responsibilities of the partners, including funding. (Some federal agencies have full structural protection authority for their facilities on lands they administer, and may also enter into formal agreements to assist State and local governments with full structural protection.)

8. **Planning**—Every area with burnable vegetation must have an approved Fire Management Plan. Fire Management Plans are strategic plans that define a program to manage wildland and prescribed fires based on the area's approved land management plan. Fire Management Plans must provide for firefighter and public safety; include fire management strategies, tactics, and alternatives; address values to be protected and public health issues; and be consistent with resource management objectives, activities of the area, and environmental laws and regulations.
9. **Science**—Fire Management Plans and programs will be based on a foundation of sound science. Research will support ongoing efforts to increase our scientific knowledge of biological, physical, and sociological factors. Information needed to support fire management will be developed through an integrated interagency fire science program. Scientific results must be made available to managers in a timely manner and must be used in the development of land management plans, Fire Management Plans, and implementation plans.
10. **Preparedness**—Agencies will ensure their capability to provide safe, cost-effective fire management programs in support of land and resource management plans through appropriate planning, staffing, training, equipment, and management oversight.
11. **Suppression**—Fires are suppressed at minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.
12. **Prevention**—Agencies will work together and with their partners and other affected groups and individuals to prevent unauthorized ignition of wildland fires.
13. **Standardization**—Agencies will use compatible planning processes, funding mechanisms, training and qualification requirements, operational procedures, values-to-be-protected methodologies, and public education programs for all fire management activities.
14. **Interagency Cooperation and Coordination**—Fire management planning, preparedness, prevention, suppression, fire use, restoration and rehabilitation, monitoring, research, and education will be conducted on an interagency basis with the involvement of cooperators and partners.
15. **Communication and Education**—Agencies will enhance knowledge and understanding of wildland fire management policies and practices through internal and external communication and education programs. These programs will be continuously improved through the timely and effective exchange of information among all affected agencies and organizations.

16. **Agency Administrator and Employee Roles**—Agency administrators will ensure that their employees are trained, certified, and made available to participate in the wildland fire program locally, regionally, and nationally as the situation demands. Employees with operational, administrative, or other skills will support the wildland fire program as necessary. Agency administrators are responsible and will be held accountable for making employees available.
17. **Evaluation**—Agencies will develop and implement a systematic method of evaluation to determine effectiveness of projects through implementation of the 2001 Federal Fire Policy. The evaluation will assure accountability, facilitate resolution of areas of conflict, and identify resource shortages and agency priorities.

## State

### *California Government Code Section 65302*

Government Code Section 65302, which establishes standards for developing and updating General Plans, includes fire hazard assessment and Safety Element content requirements. This section describes that a Safety Element shall include protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The Safety Element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

The Safety Element is also required to:

- Identify information regarding flood hazards;
- Establish a set of comprehensive goals, policies, and objectives for the protection of the community from the unreasonable risks of flooding;
- Establish a set of feasible implementation measures designed to carry out the applicable goals, policies, and objectives;
- Be reviewed and updated as necessary to address the risk of fire for land classified as state responsibility areas and land classified as very high fire hazard severity zones;
- Be reviewed and updated as necessary to address climate adaptation and resiliency strategies applicable to the city or county.

### *Assembly Bill 337*

Per AB 337, local fire prevention authorities and the California Department of Forestry and Fire Protection (CAL FIRE) are required to identify “Very High Fire Hazard Severity Zones

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(VHFHSZ) in Local Responsibility Areas (LRA). Standards related to brush clearance and the use of fire-resistant materials in fire hazard severity zones are also established.

### *Senate Bill 99*

Senate Bill 99 (SB 99) requires jurisdictions, upon the next revision of the Housing Element on or after January 1, 2020, to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes.

### *California Public Resources Code*

The State's Fire Safe Regulations are set forth in Public Resources Code Section 4290, which include the establishment of State Responsibility Areas (SRA). An SRA is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires. SRA does not include lands within Town boundaries or in federal ownership. Areas in federal ownership are under Federal Responsibility Areas (FRA), and areas within Town boundaries are included in Local Responsibility Areas.

Public Resources Code Section 4291 sets forth defensible space requirements, which are applicable to anyone that *...owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material* (Section 4291(a)). These requirements include:

- Maintenance of defensible space of 100 feet from each side and from the front and rear of the structure, not beyond the property line except as required by state law, local ordinance, rule, or regulation;
- An insurance company that insures an occupied dwelling or occupied structure may require a greater distance than that required under paragraph (1) if a fire expert, designated by the director, provides findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure.
- Removal of the portion of a tree that extends within 10 feet of the outlet of a chimney or stovepipe;
- Maintenance of a tree, shrub, or other plant adjacent to or overhanging a building free of dead or dying wood;
- Maintenance of the roof of a structure free of leaves, needles, or other vegetative materials;
- Prior to constructing a new building or structure or rebuilding a building or structure damaged by a fire in an area subject to this section, the construction or rebuilding of which requires a building permit, the owner shall obtain a certification from the local

building official that the dwelling or structure, as proposed to be built, complies with all applicable state and local building standards.

*California Fire Code*

The California Fire Code establishes standards related to the design, construction, and maintenance of buildings. The standards set forth in the California Fire Code range from designing for access by firefighters and equipment and minimum requirements for automatic sprinklers and fire hydrants to the appropriate storage and use of combustible materials.

*California Code of Regulations Title 8*

In accordance with California Code of Regulations Title 8, Sections 1270 and 6773 (*Fire Prevention and Fire Protection and Fire Equipment*), the Occupational Safety and Health Administration (Cal OSHA) establishes fire suppression service standards. The standards range from fire hose size requirements to the design of emergency access roads.

*California Code of Regulations Title 14 (Natural Resources)*

Division 1.5 (Department of Forestry and Fire Protection), Title 14 of the CCR establishes a variety of wildfire preparedness, prevention, and response regulations.

*California Code of Regulations Title 19 (Public Safety)*

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

*California Code of Regulations Title 24 (CA Building Standards Code)*

The California Fire Code is set forth in Part 9 of the Building Standards Code. The California Fire Code, which is pre-assembled with the International Fire Code by the International Code Council (ICC), contains fire-safety building standards referenced in other parts of Title 24.

*California Health and Safety Code Section 13000 et seq.*

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which is divided into “Fires and Fire Protection” and “Buildings Used by the Public.” The regulations provide for the enforcement of the California Fire Code and mandate the abatement of fire hazards.

The code establishes broadly applicable regulations, such as standards for buildings and fire protection devices, in addition to regulations for specific land uses, such as childcare facilities and high-rise structures.

*California Public Utilities Code Section 8367 et seq.*

State regulations relating to wildfire mitigation are set forth in Section 8387 of the California Public Utilities Code. The regulations provide that each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines

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and equipment. The local publicly owned electric utility or electrical cooperative is also required to prepare a wildfire mitigation plan.

### ***Local and Regional***

#### *Marin County Community Wildfire Protection Plan*

The Marin County Community Wildfire Protection Plan (CWPP), adopted in 2016, is an advisory document prepared by FIREsafe Marin in collaboration with stakeholder agencies pursuant to the Healthy Forests Restoration Act. The CWPP is a countywide strategic plan with action items to reduce fire hazard in the County, especially in areas of concern, which mostly fall within Marin's WUI boundary. The CWPP assists in protecting human life and reducing property loss from wildfire throughout Marin County. The CWPP describes wildfire risk, hazard, and recommendations for improving wildfire preparedness at the County level, achieving the following:

- Outlines community characteristics that relate to wildfire risk and hazard including climate, weather, vegetation, and population;
- Describes the fire environment, including the description of the County WUI and regional weather;
- Accesses wildfire hazard and risk at the County level;
- Describes existing and proposed community outreach that is integral to improving wildfire preparedness;
- Identifies mitigation strategies that could be applied to address wildfire hazards and risk; and
- Describes the CWPP as a living document to be updated periodically.

The CWPP is accompanied by appendices that address specific areas and projects by agency to meet strategic goals. The lists of projects include past, current, and/or planned projects from the 2015 Marin Unit Fire Plan and are intended to provide a starting point for identifying and prioritizing a more complete, countywide list of future fuel reduction and outreach projects.

#### *Tiburon Fire Protection District*

The Tiburon Fire Protection District (TFPD) was established in April of 1941 and is an autonomous Special District as defined under the Fire Protection District Law of 1987, Health and Safety Code, Section 13800, of the State of California. A five-member Board of Directors, elected by their constituents and each serving a four-year term, governs the TFPD. The TFPD service area encompasses approximately 5.5 square miles, providing structural fire and emergency medical response to the Town of Tiburon, the City of Belvedere, and unincorporated residential and wildland areas on the peninsula, as well as parts of the San Francisco Bay to Angel Island State Park.



### **TFPD Ordinance No. 131**

In September 2022, the TFPD adopted Ordinance No. 131 (Effective January 2023) adopting and modifying the 2022 California Fire Code and Appendix A of the 2021 International Wildland-Urban Interface Code. The Ordinance contained amendments to the California Fire Code and included requirements for Wildland-Urban Interface fire areas to address the local climatic, geographic, and topographic conditions that impact fire prevention efforts, and the frequency, spread, acceleration, intensity, and size of fire involving buildings in the community. Additionally, TFPD Ordinance No. 131 provided for the issuance of permits for hazardous uses or operations and defined the powers and duties of the Community Risk Reduction and Fire Prevention Bureau and officers.

### *Southern Marin Fire Protection District*

The Southern Marin Fire Protection District (SMFPD) is an independent fire district as defined in the California Administrative Code, (Fire Protection District Law of 1987 - Health & Safety Code Section 13800, et seq.) and provides fire protection and emergency medical services to the northwestern corner of the Tiburon Planning Area. The SMFPD was created in 1999 by Marin County LAFCO with the consolidation of the Alto-Richardson Bay Fire Protection District and the Tamalpais Fire Protection District. The District serves the communities of Sausalito, Tamalpais Valley, Almonte, Homestead Valley, Alto, Strawberry, approximately 1/4 of the town of Tiburon, the City of Mill Valley, Fort Baker and the Marin Headlands.

### **SMFPD Ordinance**

The SMFPD Ordinance adopts the 2022 California Fire Code and Appendix A of the 2021 International Wildland-Urban Interface Code. The Ordinance contains amendments to the California Fire Code and includes requirements for Wildland-Urban Interface fire areas to address the local climatic, geographic, and topographic conditions that impact fire prevention efforts, and the frequency, spread, acceleration, intensity, and size of fire involving buildings in the community. Some of the requirements are related to hazardous vegetation and fuel management, defensible space, fire flow requirements for buildings, fire hydrant locations and distribution, and minimum widths and clearances for fire access roads. The Ordinance was approved by the SMFPD Board of Directors in September 2022.

### *Southern Marin Emergency Medical Paramedic System*

Southern Marin Emergency Medical Paramedic System (SMEMPS) was established in October 1980 to better serve the Emergency Medical Service (EMS) needs of residents and visitors in southern Marin County. Prior to 1980, EMS delivery was provided by firefighters that were certified as Emergency Medical Technicians. Realizing that a better system was possible, the local jurisdictions came together and formed a Joint Powers Authority. The intent was to create a system that would provide paramedic service to the community and, on average, SMEMPS serves an average of 2,650 patients each year. The member agencies currently include the SMFPD, TFPD, City of Belvedere, City of Mill Valley, City of Sausalito, and the County of Marin.

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### *Town of Tiburon Municipal Code*

Chapter 14B Public Facilities Development Fees. This chapter of the Tiburon Municipal Code outlines the development fees that are needed in order to finance public facilities to ensure that each new development, development project, or construction project contributes its fair share of the costs of public facility improvements.

### **3.16.2 THRESHOLDS OF SIGNIFICANCE**

According to the California Environmental Quality Act (CEQA) Guidelines Appendix G, the proposed Project will have a significant impact related to wildfire if located in or near state responsibility areas or lands classified as very high fire hazard severity zones if the project would:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan;
- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

As described previously the Planning Area is not within a State Responsibility Area or located on or near lands classified as very high fire hazard severity zones (VHFHSZ) by CAL FIRE. However because the area is located within a locally designated Urban Wildland Interface that carries the risk of fire threat, these impacts are discussed below for informational and disclosure purposes. For impacts related to emergency response and evacuation see Chapter 3.8 (Hazards) Impact HAZ-6. For impacts related to the exposure of people or structures to wildland fires see Impact HAZ-7.

### **3.16.3 ANALYSIS, IMPACTS, AND MITIGATION MEASURES**

Impacts related to wildfires resulting from implementation of the General Plan 2040 are discussed below. The following impact analysis is based on an assessment of baseline conditions for the Planning Area, including emergency response and evacuation plan requirements, wildland fire exposure risk, and post-fire hazards.

**Impact 3.16-1      Development allowed under the General Plan 2040 in or near State responsibility areas or lands classified as very high fire hazard severity zones would not substantially impair an adopted emergency response plan or emergency evacuation plan.**

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Tiburon’s location on a peninsula and topography of steep hillsides poses challenging and existing constraints for emergency response and evacuation. One of the major problems Tiburon faces during any emergency is the possibility of becoming isolated from surrounding cities or counties and any subsequent resources or help. The Tiburon Peninsula has one major road (Tiburon Boulevard) and one minor road (Paradise Drive) which provide primary access to the entire Planning Area. Additionally, there is a second minor road (Trestle Glen Boulevard) connecting Tiburon Boulevard and Paradise Drive in the northern portion of the Planning Area; however, the remaining transportation network consists of narrow local streets within the hillsides. Therefore, the susceptibility to road blockages is high and delays during evacuations will be inevitable. During an emergency, some areas could be inaccessible to emergency service personnel and vehicles due to the limited access to the area.

In the event of an area-wide emergency, evacuation of the Tiburon Planning Area would be difficult. Evacuation traffic on Tiburon Boulevard (Highway 131) would cause severe congestion since that is the only major access route for most of the Planning Area. As residents use the Highway 101 Tiburon Boulevard/East Blithedale Avenue interchange to evacuate out of Marin County, key choke points would occur causing massive delays for Tiburon residents, especially those located in residential areas in the southern portion of the peninsula. During an evacuation of the Tiburon Peninsula area, it is anticipated that over 17,000 residents from Tiburon, Belvedere, and Strawberry would potentially utilize this interchange as the main evacuation route since it is the closest interchange to all three communities.

The fire departments serving Tiburon, the Tiburon Fire Protection District and the Southern Marin Fire Protection District, use a cloud-based platform called Zonehaven that provides public safety workers with tools to pre-plan evacuation zones and routes, run scenario models, and collaborate with other agencies. The platform communicates live updates to fire department personnel and the public about evacuation routes, traffic flow, and roadway conditions during an emergency. Using satellite images and other information, the platform delivers real-time evacuation instructions to residents through mobile alerts and social media that can be adapted to the type of emergency, such as wildfire, earthquake, and tsunami. As conditions change, evacuation routes can be quickly modified. For example, roadways may be closed or turned into one-way evacuation routes as needed.

The Town approved an Evacuation Decal program in August 2018 to demarcate potential evaluation routes to assist residents, businesses, and visitors in evacuating in the event of the disaster. The Evacuation Decal program was developed by the Tiburon Fire Protection District with input from the Belvedere Tiburon Joint Disaster Advisory Council.

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As described previously, there are no SRAs in the Planning Area and according to CAL FIRE, there are no high Fire Hazard Severity Zones within the Planning Area. However, there are locally designated fire threats areas located throughout the Planning Area. The majority of development anticipated under the General Plan 2040 is located in existing developed areas, would be infill development, and all would be located within the existing Town limits. Furthermore, it should be noted that the development that could occur would include additional residential infill development, but would be similar to the development types and developable areas as what was already planned for and would not alter or change existing identified emergency evacuation routes. As described previously, proposed changes to the Land Use Map include areas for higher density housing opportunities within generally developed portions of the Town, with the remainder of the Planning Area land uses remaining the same.

Additionally, policies and programs contained within the General Plan 2040 provide guidance for preventative measures and practices to minimize wildland fire hazards and maintain adequate evacuation and access routes for vehicles in the event of an emergency, including wildland fires. Specifically, Program SR-d calls on the Town to work with the Tiburon Fire Protection District, the Southern Marin Fire Protection District, the Marin Wildfire Prevention Authority, and the Tiburon Police Department to identify and map residential developments in hazard areas that do not have at least two emergency evacuation routes and identify mitigation measures as feasible. Program SR-e ensures the Town evaluates evacuation routes for their capacity, safety, and viability under a range of emergency scenarios, and Program SR-f calls for the improvement of local evacuation capacity by identifying evacuation routes through signage and promotion of public safety route identification applications. Assess the feasibility of adding additional evacuation routes.

Accordingly, compliance with General Plan 2040 Policies, combined with area evacuation procedures and policies, and the review of all new structures by the Police and Fire Departments to ensure adequate emergency access, would result in a **less-than-significant** impact.

### *Mitigation Measures*

None required.

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**Impact 3.16-2**      **Development under the General Plan 2040 in areas located in or near State responsibility areas or lands classified as very high fire hazard severity zones would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of wildfire.**

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There are no SRAs in the Planning Area and there are no Fire Hazard Severity Zones within the Planning Area as designated by CAL FIRE. However, as described previously there are locally designated fire threats areas located throughout the Planning Area within the UWI.

The majority of proposed development is located in existing developed areas, would be infill development, and all is located within the existing Town limits.

The degree of wildland fire hazard, including the exposure of future occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to slope or prevailing winds, would not substantially change with adoption of the General Plan 2040 compared to existing conditions, although additional increases in residential units and residents would be anticipated.

Development facilitated under the General Plan 2040 is required to be consistent with local fire plans, Town Fire regulations, and Town plans, policies, programs, and ordinances in place to reduce the risks associated with wildland fires. As described below, these proposed policies and programs would reduce the potential for exposure to wildland fires through preventative and proactive measures to reduce fuel load, maintain robust communications, and ensure access to evacuation routes.

The Marin County Multi-Jurisdiction Local Hazard Mitigation Plan (MCM LHMP) dedicates a subsection to wildfire and post-fire debris flow. The LHMP identifies the following to assist the County in reducing wildfire risk, which in turn can assist in reducing wildfire risk within the Planning Area:

- Provide potential mitigation such as advance identification of evacuation routes and no parking zones near fire hazard zones, and expanding vegetation management.
- Ensure adequate water supply in high risk wildfire areas for local fire departments.

The Marin Operational Area Emergency Operations Plan (EOP) assists in inter-agency coordination in emergency operations. The Town also participates in programs to reduce wildfire risks that are offered by SMFD, FIRESafe Marin, and CAL FIRE.

Furthermore, implementation of the CWPP and Marin Operational Area EOP include public education programs to reduce potential for fires to start, and also set action plans to remove flammable vegetation from around buildings and ensure adequate water supply in high risk wildfire areas. Reducing potential for fires to start and mitigating wildfire spread once started reduces exposure to smoke and air pollution. Safely evacuating people affected by wildfires also reduces exposure.

The General Plan 2040 contains policies and programs that reduce risks from wildland fires before development occurs. As the Town receives development applications for subsequent development projects, those applications will be reviewed for compliance with the policies and programs of the General Plan 2040 to reduce the exposure of people or structures, either directly or indirectly, to a risk of loss, injury, or death involving wildland fires. In particular, all development would be subject to the Building and Fire codes to address fire hazard conditions and the following General Plan 2040 policies and programs:

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### *Fire Hazards*

**Policy SR-17, Fire Risk Reduction:** Reduce the risk of loss of life, personal injury, and property damage resulting from wildfire and urban fire hazards through code enforcement and coordination the local Fire Districts and other agencies to ensure the safe delivery of emergency services and the effective evacuation of the community in the event of a disaster.

**Policy SR-18, Impacts of New Development:** Require new development to provide sufficient water supply and equipment for fire suppression to ensure that the requirements for minimum fire flow and the size, type, and location of water mains and hydrants set forth in the California Fire Code and by local ordinance are met.

**Policy SR-19, Mitigation of Inadequate Water Supply:** Require new development within areas of insufficient peak load water supply to contribute to improvements to the water delivery system to meet requirements for minimum fire-flow.

**Policy SR-20, Cooperation with Fire Districts:** Work with the Fire Districts and other agencies to provide, enhance, and maintain adequate access, including secondary access, to all areas within the Planning Area.

**Program SR-II, Defensible Space Around Structures:** Consider adoption of an ordinance requiring the maintenance of defensible space on properties where fire hazard is significant. On-going maintenance of defensible space buffers and fire protection infrastructure (e.g., safe access for emergency response vehicles, visible street signs, fuel breaks, and emergency water sources and supplies, etc.) in new development projects shall be assured in a form satisfactory to the Town and the Fire Districts prior to construction of improvements.

**Program SR-mm, Review New Developments for Fire Risk:** Review all development proposals for fire risk and require mitigation measures, including on-going maintenance of defensible space and infrastructure related to fire protection and fire hardening of structures and areas proximate to structures, for development located in state responsibility areas, high fire hazard severity zones, or other areas with significant wildfire potential, to reduce the probability of fire-related hazards to a less than significant level. Require all new development to meet the adopted state and local fire codes. Refer all applications to the appropriate Fire Districts for review.

**Program SR-nn, Open Space Management Plan:** Implement the adopted Open Space Management Program to reduce fuel loads and maintain fire roads and evacuation routes.

Development facilitated under the General Plan 2040 is required to be consistent with the County of Marin, SMFD, and Town plans, policies, programs, and ordinances in place to



reduce the risks associated with wildland fires. Moreover, development is generally consistent with developed areas of the town and all identified sites that include land use revisions are all located within the existing Town limits and in developed portions of the Town. As a result, the degree of wildland fire hazard would not substantially change with adoption of the General Plan 2040, and current hazards existing fire hazards would not be significantly increased. Therefore, impacts under this topic would be **less than significant**.

*Mitigation Measures*

None required.

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**Impact 3.16-3**      **Implementation of the General Plan 2040 in areas located in or near State responsibility areas or lands classified as very high fire hazard severity zones may require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities); however, the installation and maintenance of such infrastructure would not substantially exacerbate fire risk or result in significant temporary or ongoing impacts to the environment.**

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There are no Fire Hazard Severity Zones within the Planning Area nor is the Planning Area in a SRA. However, high fire hazard areas and areas within the WUI that are at risk of wildfire are designated locally. The majority of future development is located in existing developed areas, would be infill development, and is located within the existing Town limits. The General Plan 2040 is a long-term planning document, and no development is proposed or would be approved as part of the General Plan 2040. Further, development of sites would generally have existing services and is expected to be on lots and in areas where existing infrastructure (including highways and local roadways) and services are already in place, or readily available. Additionally, Program SR-mm requires the review of new developments for fire risk. Specifically the program requires the review of all development proposals for fire risk and require mitigation measures, including on-going maintenance of defensible space and infrastructure related to fire protection and fire hardening of structures and areas proximate to structures, for development located in state responsibility areas, high fire hazard severity zones, or other areas with significant wildfire potential, to reduce the probability of fire-related hazards to a less-than-significant level. This program also requires all new development meet the adopted state and local fire codes, and refers all applications to the appropriate Fire Districts for review. Any future utility projects or infrastructure improvements would be reviewed for compliance with local and regional policies and programs, and would require project specific reviews. The Town would retain the existing roadway and other infrastructure patterns and does not propose any new roadways or other major infrastructure improvements or extensions into undeveloped areas which would pose an additional or increase to wildfire risk. Additionally, as described previously, there are no State Responsibility Areas or Very High Fire Hazard Severity Zones mapped within the Planning Area. As such, the General Plan 2040 does not approve, propose, or authorize development in a SRA or Fire Hazard Severity Zone per CAL FIRE regulatory maps. As such,

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the General Plan 2040 does not propose the installation and maintenance of any new infrastructure that would substantially exacerbate fire risk, and is not located within a SRA or VHFHSZ as delineated by CAL FIRE. As such, impacts would be ***less than significant*** related to this environmental topic.

### *Mitigation Measures*

None required.

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**Impact 3.16-4      Development facilitated by the General Plan 2040 in areas located in or near State responsibility areas or lands classified as very high fire hazard severity zones could substantially expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.**

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There are no SRAs or Very High Fire Hazard Severity Zones mapped within the Planning Area. As such, the General Plan 2040 does not approve, propose, or authorize development in a SRA or Fire Hazard Severity Zone per CAL FIRE regulatory maps.

However, high fire hazard areas and areas within the WUI that are at risk of wildfire are designated locally. The majority of development allowed under the General Plan 2040 would occur in already developed areas and are less susceptible to wildfire because they are surrounded by existing development. If a fire were to occur in the more developed areas of the Town, the risk of flooding or landslides afterward would be negligible because little additional soil would be exposed due to the developed conditions.

Some development may occur areas currently designated for urban uses but are currently vacant. Portions of the Town contains sloping hillsides that are susceptible to landslides and flooding after fire has removed protective vegetative cover. These secondary hazards associated with wildfires are described in the MCM LHMP. In a post-fire scenario, wildfires can secondarily cause contamination of reservoirs, as well as transmission line and road destruction. Slopes that have been stripped of vegetation are exposed to greater amounts of erosive runoff, which can weaken soils and cause slope failure. Major landslides can occur several years after a wildfire. Most wildfires burn hot and for long durations and can bake soils, especially those high in clay content, thus increasing ground imperviousness and runoff generated by storm events, thereby increasing the chance of flooding.

Land use designations and development types would be substantially similar to the existing and planned site uses throughout the Town, with targeted increased in density in areas to accommodate regional housing needs. As a result, the degree of secondary wildland fire hazard exposure from additional residents and developments within the WUI and within locally designated fire threat areas would increase with additional population growth.

Hazard mitigation is the use of long-term and short-term policies, programs, projects, and other activities to alleviate the death, injury, and property damage that can result from a disaster. Marin County and its partners, including the Town of Tiburon, developed the LHMP

to assess risks posed by natural hazards and to develop a mitigation strategy for reducing the County's risks. The LHMP lays out a process to prepare for and lessen the impacts of specified natural hazards that are most likely to impact Marin, such as earthquakes, wildfires, floods, debris flows, wind damage, and tsunamis.

Development accommodated under the General Plan 2040 is generally focused in infill areas, within the currently Town limits, and in already developed areas of the Town; however, development could result in an increase in exposure of people and structures to wildland post fire hazards within the Planning Area as all future development would add more people and structures within the Town and within areas that contain locally designated fire hazards. Development would place more people and structures in areas of the Town that have been locally designated as high fire hazard areas, within the Wildland Urban Interface and in areas that may be susceptible to post fire hazard conditions.

As described previously, there are no State Responsibility Areas or Very High Fire Hazard Severity Zones mapped within the Planning Area. As such, the General Plan 2040 does not approve, propose, or authorize development in a SRA or Fire Hazard Severity Zone per CAL FIRE regulatory maps. Therefore, impacts related to exposure of people and structures to post wildfire hazards and associated hazards, either directly or indirectly within a SRA or VHFHSZ, would be considered ***less than significant***.

#### *Mitigation Measures*

None required.

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**Impact 3.16-5      Development facilitated by the General Plan 2040, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to wildfire.**

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All cumulative projects would be subject to similar fire protection development standards and be required to comply with Marin County ordinances and General Plan 2040 policies and programs to assist in protecting life and property in the event of a wildfire. In addition, all cumulative projects would be covered under existing emergency response plans by the County. Lastly, implementation of the Marin County Community Wildfire Protection Plan throughout the Planning Area and adjacent unincorporated areas, would reduce cumulative impacts related to wildfire. For these reasons, cumulative impacts with respect to wildfire hazards would be ***less than significant***.

The incremental contribution to cumulative wildfire hazard impacts would not be significant. As previously discussed, development and growth in the Town under would largely occur in already developed areas of the Town and would involve infill development and redevelopment. Limited development could result in an incremental increase in exposure of people and structures to wildland fires and associated hazards, particularly for development within the WUI. As a result, the degree of wildland fire hazard, including secondary hazards, would not substantially change with adoption of the General Plan, and current hazards would not significantly increase.

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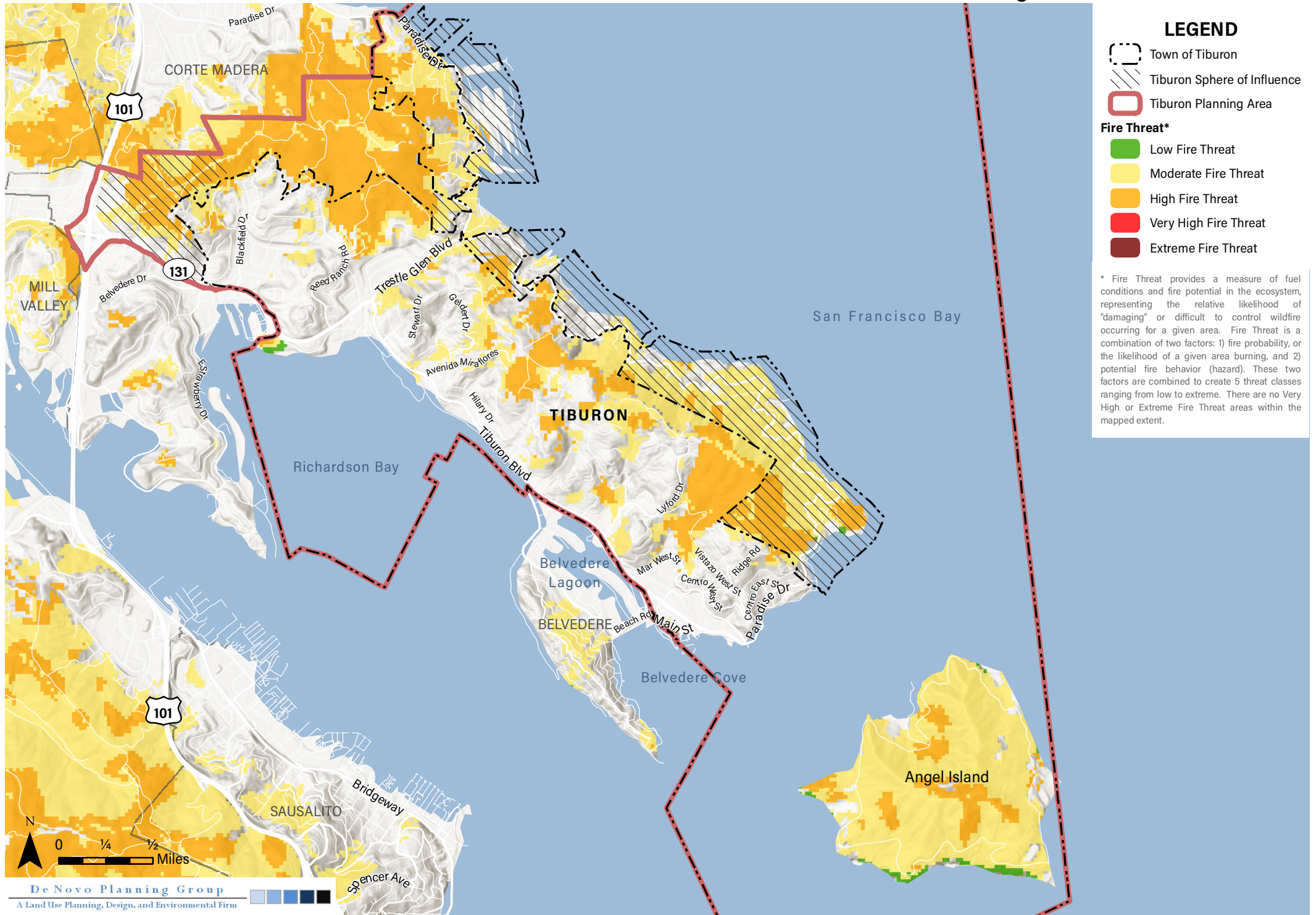
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As described previously, there are no SRAs or Very High Fire Hazard Severity Zones mapped within the Planning Area. As such, the General Plan 2040 does not approve, propose, or authorize development in a SRA or Fire Hazard Severity Zone per CAL FIRE regulatory maps. New development would be required to comply with the special fire protection measures identified in the SMFD Fire Ordinance. Continued implementation of the Marin County Community Wildfire Protection Plan and Marin Operational Area Emergency Operations Plan will assist in protecting life and property in the event of a wildfire. The Town would also continue to work and coordinate with other jurisdictions to minimize and reduce impacts, and would review all projects for wildfire related hazards. As described throughout this EIR chapter the General Plan 2040 includes policies and programs to increase wildfire hazed awareness, planning, and the review of projects which would result in a beneficial landscape for wildfire protection and planned. Accordingly, the General Plan's contribution to cumulative impacts would also be ***less than significant***.

### *Mitigation Measures*

None required.

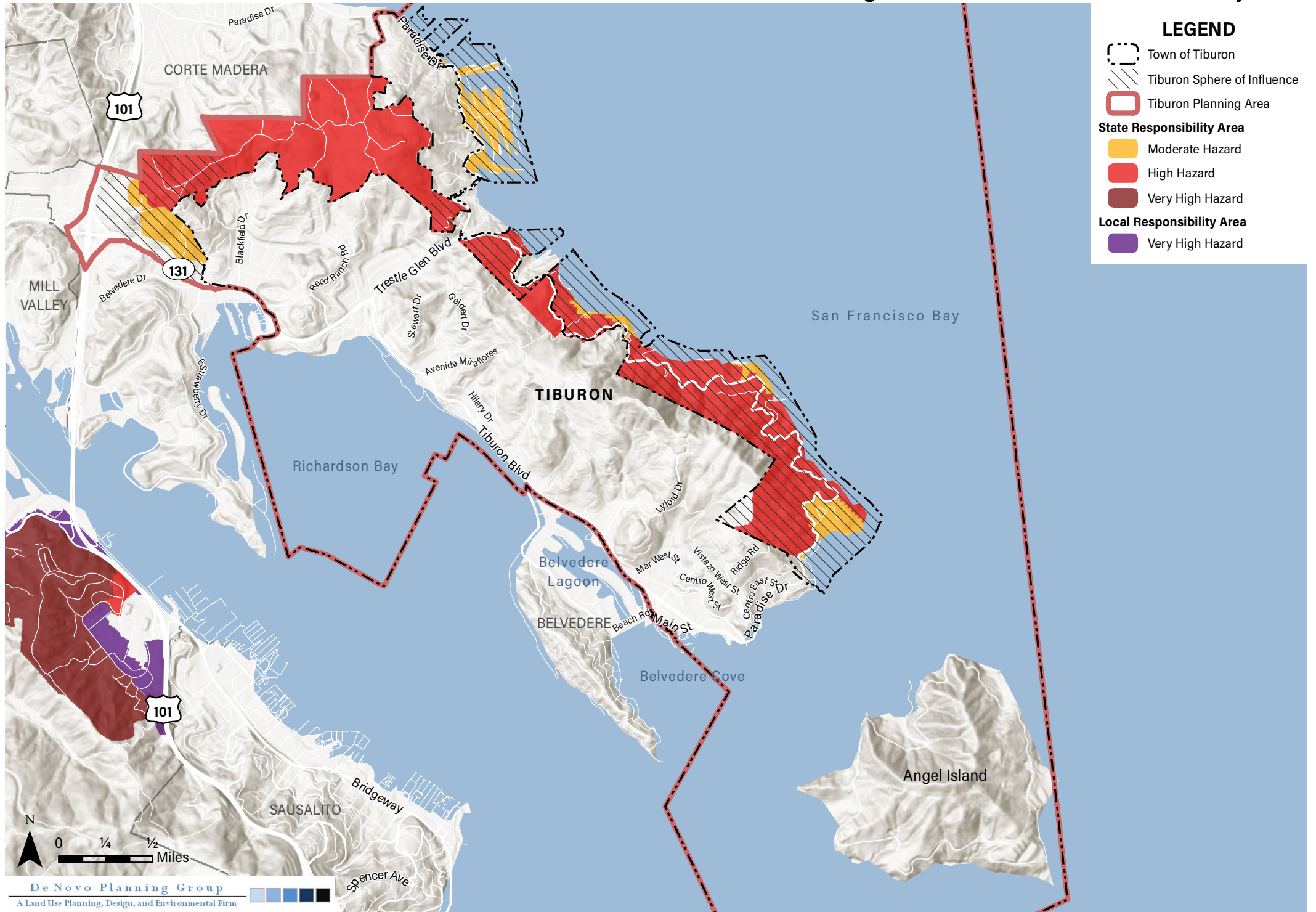
Figure 3.16-1: Fire Threat



Sources: ArcGIS Online World Hillshade Map Service; CalFireFRAP "Wildland Fire Threat (1thrt14\_2). Map date: December 1, 2020. Revised March 4, 2021.



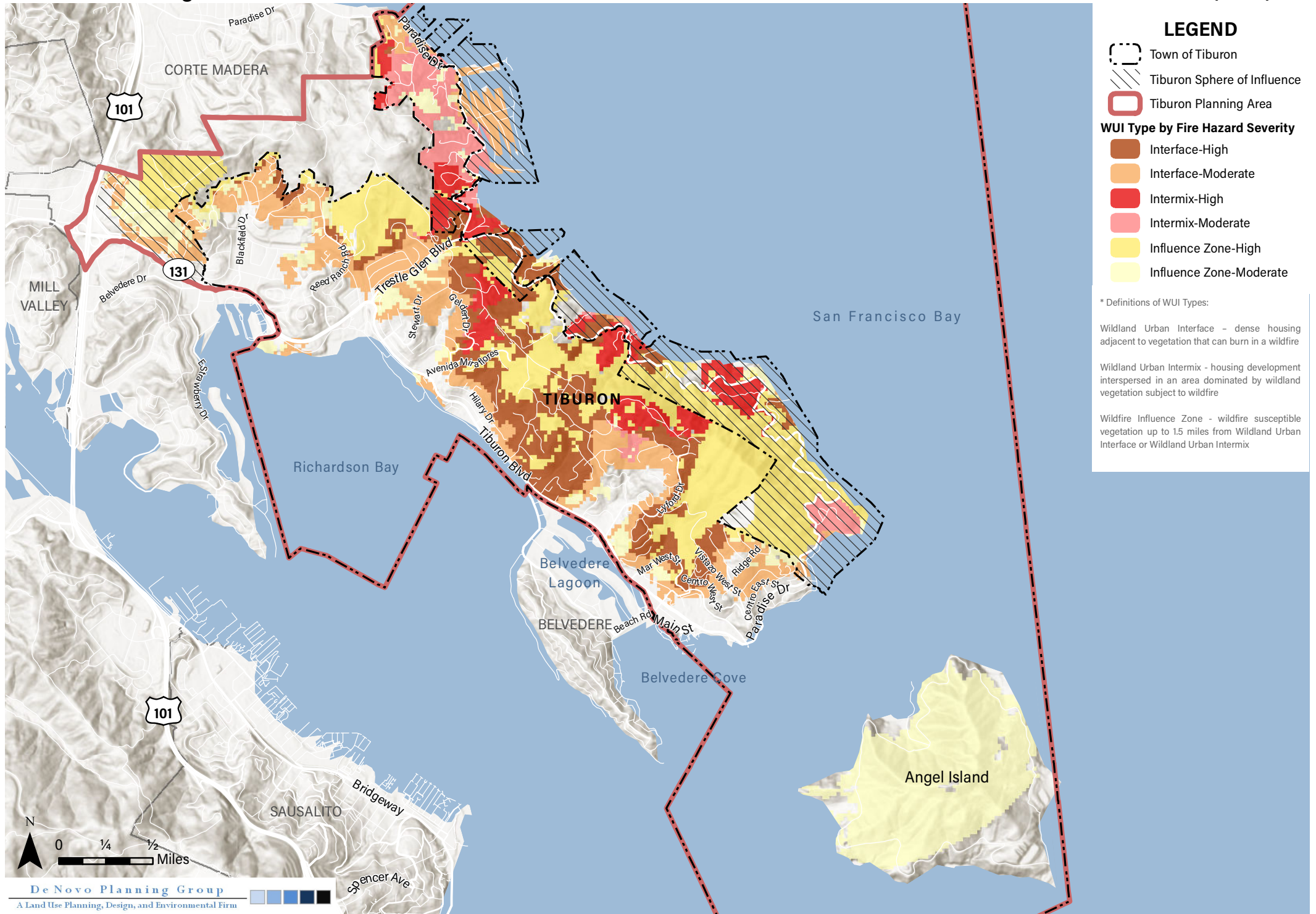
Figure 3.16-2: Fire Hazard Severity Zones



Sources: ArcGIS Online World Hillshade Map Service; CalFireFRAP fhzs06\_3\_21 and c21fhz06\_3. Map date: December 1, 2020. Revised March 4, 2021.



Figure 3.16-3: Fire Hazards and Wildland Urban Interface, Intermix, and Wildfire Influence Zones (WUI)





## 4.0 ALTERNATIVES TO THE GENERAL PLAN

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The following section contains a comparative impact assessment of potentially feasible alternatives to the General Plan. The primary purpose of an alternatives analysis under the California Environmental Quality Act (CEQA) is to provide the decision-makers, other interested parties, and the general public with a reasonable number of potentially feasible project alternatives that could attain most of the basic Project Objectives, while potentially avoiding or reducing any of the General Plan’s environmental effects.

Alternatives that are evaluated in the EIR must be potentially feasible alternatives. However, not all possible alternatives need to be analyzed. An EIR must “set forth only those alternatives necessary to permit a reasoned choice.” (CEQA Guidelines, Section 15126.6(f).) The CEQA Guidelines provide a definition for a “range of reasonable alternatives” and, thus limit the number and type of alternatives that need to be evaluated in an EIR. An EIR need not include any action alternatives inconsistent with the lead agency’s fundamental underlying purpose in proposing a project. (In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings (2008) 43 Cal.4th 1143, 1166.)

First and foremost, alternatives in an EIR must be potentially feasible. In the context of CEQA, “feasible” is defined as:

*... capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.* (CEQA Guidelines Section 15364)

### 4.1 SIGNIFICANT UNAVOIDABLE IMPACTS

As described in Chapter 1.0 (Introduction) General Plan 2040 has been developed to be largely self-mitigating in that the goals, policies, and programs in the General Plan recognize the importance of natural environment and are designed to protect the environment and environmental resources. In certain instances, mitigation is included to reinforce and enhance the protections identified in the policies and programs. However, the following impacts would remain significant and unavoidable with implementation of General Plan 2040:

- Impact 3.2-1 Implementation of the General Plan 2040 could conflict with or obstruct implementation of the applicable air quality plan.
- Impact 3.2-5: General Plan 2040 implementation, in combination with other cumulative development, would not conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants.

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- Impact 3.7-1 Development facilitated by the General Plan could directly or indirectly generate GHG emissions that may have a significant impact on the environment.
- Impact 3.7-3 Development facilitated by the General Plan, in combination with past, present, and reasonably foreseeable projects, could result in significant cumulative impacts with respect to GHG emissions.
- Impact 3.14-2 Development facilitated by the General Plan 2040 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)
- Impact 3.14-5 Development facilitated by the General Plan 2040, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to transportation.
- Impact 3.15-1 General Plan 2040 implementation may result in insufficient water supplies available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-2 General Plan 2040 implementation may require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Impact 3.15-3: General Plan 2040 implementation, combined with other cumulative development, may result in insufficient water infrastructure available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-4 General Plan 2040 implementation along with cumulative development could result in insufficient water supplies available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-5: General Plan 2040 implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Impact 3.15-6: General Plan 2040 implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects.
- Impact 3.15-7: Implementation of General Plan 2040, along with other cumulative development, would have a significant impact on wastewater infrastructure and facilities.

- Impact 3.15-8 General Plan 2040 implementation along with cumulative development could result in insufficient wastewater treatment capacities available to serve the Town and reasonably foreseeable future development.
- 5.2: Significant and irreversible environmental changes
- 5.4: Substantial adverse effects on human beings

## 4.2 ALTERNATIVES TO THE GENERAL PLAN

A NOP was circulated to the public to solicit recommendations for a reasonable range of alternatives to the Project. Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the Project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review and comment period.

The Draft EIR identifies significant and unavoidable and potentially significant impacts described above in Section 4.1.

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR that were found to be significant and unavoidable or potentially significant.

This section describes the potential of each alternative to reduce the impacts identified above, while fulfilling the basic objectives of the Project.

Three alternatives to General Plan 2040 were considered. Since General Plan 2040 was prepared with the intent to be a self-mitigating document, project alternatives focused on amending land uses and development standards to reduce potentially significant impact areas as identified throughout this EIR. The alternatives analyzed in this EIR include the following:

**Alternative 1: No Project Alternative.** Tiburon continues to operate and develop under the 2020 General Plan and Land Use Map. Under Alternative 1, the Town would not adopt General Plan 2040. The 2020 General Plan would continue to be implemented and no changes to the General Plan, including the Land Use Map, Circulation Diagram, goals, policies, or programs would occur. The 2020 General Plan was last comprehensively updated in 2006, and an update to the Housing Element was completed in 2016.

Table 4.0-1 summarizes the 2020 General Plan land use designations for areas within the Town limits, SOI, and Planning Area by acreage. Land use designations on the 2020 General Plan Land Use Map, as amended through January 2021, are shown in Chapter 1.10 Figure 3.10-1.

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## General Plan 2040 EIR

TABLE 4.0-1: 2020 GENERAL PLAN LAND USE DESIGNATIONS - TOWN LIMITS, SOI, AND PLANNING AREA

LAND USE	ACREAGES			
	TOWN LIMITS	SOI	PLANNING AREA (OTHER)	PLANNING AREA TOTAL
Low Density Residential	3.8	15.1	0.0	18.9
Medium Low Density Residential	264.3	75.6	0.0	339.9
Medium Density Residential	545.6	36.7	0.0	582.3
Medium High Density Residential	247.4	106.4	0.0	353.8
High Density Residential	51.8	7.9	0.0	59.7
Very High Density Residential	99.9	9.6	0.0	109.5
Planned Development Residential	130.0	313.1	0.0	443.1
Neighborhood Commercial	20.9	0.0	0.0	20.9
Shopping Commercial	0.0	3.3	0.0	3.3
Village Commercial	6.9	0.0	0.0	6.9
Office	1.4	0.0	0.0	1.4
Open Space	404.1	84.7	308.6	797.5
Public/Quasi-Public	810.7	41.4	0.0	852.1
Park	64.7	12.2	0.0	76.9
Marine	6,781.0	150.3	0.0	6,931.3
Right-of-Ways	0.2	0.0	0.0	0.2
<b>Total</b>	<b>9,432.7</b>	<b>856.2</b>	<b>308.6</b>	<b>10,597.5</b>
<i>Affordable Housing Overlay</i>	7.6	1.2	0.0	8.8

SOURCES: TOWN OF TIBURON, 2021; DE NOVO PLANNING GROUP, 2021.

Under Alternative 1 buildout there would be an increase over existing conditions in residential growth of approximately 421 dwelling units as shown in Table 4.0-5. Under Alternative 1, the 2020 General Plan policy framework would still be in effect, which would constitute a status quo approach to land use regulation in the Town. The policy framework proposed by General Plan 2040, encourages and aims to achieve a community with a compatible land use pattern that meets the Town’s long-term housing, employment, and civic needs while reducing impacts created by growth through the policy framework. Additionally, General Plan 2040 was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection.

Alternative 1 would not include updated policies, particularly those related to housing, greenhouse gases, community health, safety, including wildfire, flooding, and climate adaptation, and transportation, as required by State law. This alternative would not include various policies proposed in General Plan 2040 to ensure protection of environmental resources, both at the Project level and under cumulative conditions, consistent with the objectives of CEQA.



Alternative 1 fails to meet several of the basic Project objectives, including addressing new requirements of State law; and addressing emerging transportation, and housing trends.

Therefore, Alternative 1 (No Project) is rejected from further consideration as a CEQA alternative, as it fails to meet several of the Project objectives. However, for reference, the environmental effects associated with Alternative 1 are discussed and summarized in Table 4.0-5 to provide a general comparison between the 2020 General Plan (Alternative 1 – No Project), General Plan 2040, and Alternatives 2 and 3. Additionally for comparative purposes and to provide additional context on land use changes proposed by General Plan 2040 and Alternatives 2 and 3, Table 4.0-2 below details existing land use designations for parcels identified for additional land use changes by General Plan 2040 and Alternatives 2 and 3.

**TABLE 4.0-2: EXISTING CONDITIONS FOR PARCELS PROPOSED FOR LAND USE CHANGES UNDER GENERAL PLAN 2040 AND ALTERNATIVES 2 AND 3.**

APN	EXISTING USE	2020 GP	PARCEL SIZE (ACRES)	DENSITY (DU/AC) OR INTENSITY	NET NEW DWELLING UNITS	NET NON-RESIDENTIAL S.F. CHANGE
058-171-91	Parking lot	NC	0.66	15.3	10	0
058-171-43	Bank	NC/AHO	0.72	15.3	11	0
058-171-47	Bank (vacant)	NC/AHO	0.57	15.3	8	0
058-171-86	Parking lot	NC/AHO	1.07	15.3	16	0
060-082-57	Boardwalk Shopping Ctr.	NC	2.21	0.37 FAR	-40	0
059-101-03	Comm. bldg.	NC/AHO	0.27	15.3	13	0
059-101-04	Comm. bldg.	NC/AHO	0.6			0
059-102-15	Post Office, comm. bldgs. and 3 apts.	VC	0.41	0.28 FAR	-24	0
059-102-16		VC	1			0
058-151-41	School	VH/AHO	2.9-acre portion of 7.5-acre site	15.3	44	0
058-171-70	Office bldg.	O	0.47	0	0	0
058-171-68	Office bldg.	O	0.3			0
058-171-69	Office bldg.	O	0.59			0
058-171-96	Parking lot	NC/AHO	0.86	15.3	13	0
058-171-97	Store	NC	1.66	15.3	25	0
059-101-01	Former Deli	NC/AHO	0.39	15.3	5	0
059-101-02	Commercial Bldg.	NC/AHO	0.13	15.3	1	0
059-101-15	Commercial Bldg.	NC/AHO	0.43	15.3	6	0
059-101-14	Commercial Bldg.	NC	0.29	0.37 FAR	-3	0
059-102-27	Theatre, retail shops	VC	0.43	0.28 FAR	0	0

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APN	EXISTING USE	2020 GP	PARCEL SIZE (ACRES)	DENSITY (DU/AC) OR INTENSITY	NET NEW DWELLING UNITS	NET NON-RESIDENTIAL S.F. CHANGE
038-142-02	2 residential units	PDR	9.58		7	0

**Alternative 2: Village Centers Alternative.** Alternative 2 would focus more new development of multifamily housing near a local shopping area within the Town. Specifically, development potential at Cove Shopping Center is increased to accommodate 49 units, while development potential of 4576 Paradise Drive site is reduced to focus development on only 3 acres of the site (maximum 49 units). This alternative would include the updated policy document (consistent with General Plan 2040), and would be required to adhere to the same policy guidance.

Table 4.0-3 below details the land use changes associated with Alternative 2.

TABLE 4.0-3: PARCELS PROPOSED FOR LAND USE CHANGES UNDER ALTERNATIVE 2.

APN	EXISTING USE	PROPOSED GP DESIGNATION	PARCEL SIZE (ACRES)	DENSITY (DU/AC)	NET NEW DWELLING UNITS	NET NON-RESIDENTIAL S.F. CHANGE
058-171-91	Parking lot	MU	0.66	40-45	26	0
058-171-43	Bank	MU	0.72	40-45	28	-7,866
058-171-47	Former bank (vacant)	MU	0.57	40-45	22	-3,487
058-171-86	Parking lot	MU	1.07	30-35	32	0
060-082-57	Boardwalk Shopping Ctr.	MU	2.21	30-35	66	-17,418
059-101-03	Comm. bldg.	MU	0.27	30-35	8	-5,320
059-101-04	Comm. bldg.	MU	0.6	30-35	18	-7,396
059-102-15	Post Office, comm. bldgs. and 3 apts.	MU	0.41	30-35	12	-5,512
059-102-16			1	30-35	30	-23,122
058-151-41	School	VH-25	2.9-acre vacant portion of 7.5-acre site	20-25	72	0
058-171-70	Office bldg.	MU	0.47	30-35	40	-17,640
058-171-68	Office bldg.	MU	0.3	30-35		
058-171-69	Office bldg.	MU	0.59	30-35		
058-171-96	Parking lot	MU	0.86	40-45	34	0
058-171-97	Store	MU	1.66	40-45	66	-17,079
059-101-01	Former Deli	MU	0.39	30-35	11	1,202
059-101-02	Commercial Bldg.	MU	0.13	30-35	3	-3,782
059-101-15	Commercial Bldg.	MU	0.43	30-35	12	-8,440
059-101-14	Commercial Bldg.	MU	0.29	30-35	8	-3,892

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APN	EXISTING USE	PROPOSED GP DESIGNATION	PARCEL SIZE (ACRES)	DENSITY (DU/AC)	NET NEW DWELLING UNITS	NET NON-RESIDENTIAL S.F. CHANGE
059-102-27	Theatre, retail shops	MS	0.43	20-25	12	-9,930
034-212-18	Cove Shopping Center (40% of site develops with new res/MU)	MU	3.09	40-45	49	0
038-142-02	2 residential units	VH	3	12.4	37	0

**Alternative 3: Downtown Density Alternative.** Development potential in the Downtown is increased to allow 40-45 units per acre on all MU sites. Development potential of 4576 Paradise Dr. site is reduced to the units allowed under the 2020 General Plan (7 units). This alternative would include the updated policy document (consistent with General Plan 2040), and would be required to adhere to the same policy guidance. Table 4.0-4 below details the land use changes associated with Alternative 3.

TABLE 4.0-4: PARCELS PROPOSED FOR LAND USE CHANGES UNDER ALTERNATIVE 3.

APN	EXISTING USE	PROPOSED GP DESIGNATION	PARCEL SIZE (ACRES)	DENSITY (DU/AC)	NET NEW DWELLING UNITS	NET NON-RESIDENTIAL S.F. CHANGE
058-171-91	Parking lot	MU	0.66	40-45	26	0
058-171-43	Bank	MU	0.72	40-45	28	-7,866
058-171-47	Bank (vacant)	MU	0.57	40-45	22	-3,487
058-171-86	Parking lot	MU	1.07	40-45	42	0
060-082-57	Boardwalk Shopping Ctr.	MU	2.21	40-45	88	-17,418
059-101-03	Comm. bldg.	MU	0.27	40-45	10	-5,320
059-101-04	Comm. bldg.	MU	0.6	40-45	24	-7,396
059-102-15	Post Office, comm. bldgs. and 3 apts.	MU	0.41	40-45	16	-5,512
059-102-16			1	40-45	40	-23,122
058-151-41	School	VH-25	2.9-acre vacant portion of 7.5-acre site	20-25	72	0
058-171-70	Office bldg.	MU	0.47	40-45	54	-17,640
058-171-68	Office bldg.	MU	0.3	40-45		
058-171-69	Office bldg.	MU	0.59	40-45		
058-171-96	Parking lot	MU	0.86	40-45	34	0
058-171-97	Store	MU	1.66	40-45	66	-17,079
059-101-01	Former Deli	MU	0.39	40-45	15	1,202
059-101-02	Commercial Bldg.	MU	0.13	40-45	5	-3,782

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APN	EXISTING USE	PROPOSED GP DESIGNATION	PARCEL SIZE (ACRES)	DENSITY (DU/AC)	NET NEW DWELLING UNITS	NET NON-RESIDENTIAL S.F. CHANGE
059-101-15	Commercial Bldg.	MU	0.43	40-45	17	-8,440
059-101-14	Commercial Bldg.	MU	0.29	40-45	11	-3,892
059-102-27	Theatre, retail shops	MS	0.43	20-25	17	-9,930
038-142-02	2 residential units	PDR	9.575		7	0

A brief comparative buildout summary for each Alternative is included in Table 4.0-5 below. As shown in Table 4.0-5 General Plan 2040 includes the most residential development opportunities. Alternatives 2 and 3 have roughly the same buildout potential but the location of units would change. The 2020 General Plan has the least overall residential development capacity but would not result in reduction of non-residential development.

TABLE 4.0-5: NEW GROWTH POTENTIAL BY ALTERNATIVE

	POPULATION	DWELLING UNITS	NON-RESIDENTIAL SQUARE FOOTAGE
<i>NEW GROWTH POTENTIAL</i>			
General Plan 2040	2,215	916	-129,682
Alternative 1: Existing General Plan/No Project	1,010	421	0
Alternative 2: Village Centers Alternative	1,997	832	-129,682
Alternative 3: Downtown Density Alternative	1,999	833	-129,682

SOURCE: DE NOVO PLANNING GROUP, 2023

### 4.3 PROJECT OBJECTIVES

CEQA Guidelines Section 15124(b) requires a statement of objectives sought by General Plan 2040, including the underlying purpose of the project. The General Plan is intended to guide growth and land development of the community, while conserving resources in a manner consistent with the quality of life desired by residents. For the purpose of this Draft EIR analysis, the following objectives have been identified for the General Plan:

- Sense of Place. Preserve and enhance Tiburon's quality of life and small-town feel by enhancing access to scenic public open spaces and protecting important historic, cultural, and artistic resources that highlight the Town's social and architectural history.

- Economic Vitality. Support a local economy, including a vibrant Downtown that provides a wide range of services and amenities to serve the local population, while accommodating tourism.
- Balanced Growth. Focus new development in Downtown and in areas adjacent to Tiburon Boulevard while preserving existing neighborhoods and open space.
- Mobility. Provide a balanced transportation system that accommodates automobiles while enhancing transportation connections for pedestrians, bicycles, transit services, and new technology.
- Healthy Lifestyles and Community Connections. Promote physical health and wellness by improving outdoor recreational facilities and public gathering places, trail connections and signage, and by providing quality recreation programs to residents of all ages, abilities, and economic means.
- Equity. Promote social equity and inclusiveness in the creation of public policies, and ensure the just and equitable provision of public facilities and services.
- Housing. Protect and enhance residential neighborhoods' quality of life, and support the development of more diverse and affordable housing opportunities.
- Safety. Provide a safe community through public safety services, resilient infrastructure, and public preparedness.
- Environmental Resources. Protect and enhance open spaces and natural resources that contribute to Tiburon's unique identity and scenic beauty.
- Climate Change and Resilience. Reduce greenhouse gas emissions and increase community resilience by preparing for the effects of climate change, including increased wildfires and sea level rise.
- Incorporate and address new requirements of State law and State of California General Plan Guidelines (2017).

#### 4.4 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR that were found to be potentially significant or significant and unavoidable. Following the analysis of each alternative, Table 4.0-6 summarizes the comparative effects of each alternative.



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### AIR QUALITY

General Plan 2040 includes a range of goals and policies that cover the full breadth of air quality issues as recommended in the BAAQMD's 2017 Clean Air Plan. While implementation of the goals, policies, and actions would reduce criteria pollutant emissions, future project-specific impacts would need to be determined on a project-by-project basis, as necessary. As described in Chapter 3.2 (Air Quality), General Plan 2040 implementation would result in the following significant and unavoidable and potentially significant (mitigated to less than significant) impacts to air quality:

- Impact 3.2-1: Implementation of General Plan 2040 would conflict with or obstruct implementation of the applicable air quality plan.
- Impact 3.2-5: Implementation of General Plan 2040, in combination with past, present, and reasonably foreseeable projects, would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants.
- Impact 3.2-3 General Plan 2040 implementation could expose sensitive receptors to substantial pollutant concentrations.
- Impact 3.2-6: General Plan 2040 implementation, in combination with other cumulative development, would not expose sensitive receptors to substantial pollutant concentrations.

### *Alternative 1*

Under Alternative 1, the Planning Area would be developed with the 2020 General Plan Land Use Map and policy guidance. New local, state, and regional measures that improve air quality included in General Plan 2040 would not be updated or implemented. Both General Plan 2040 and Alternative 1 would permit and facilitate the development of new sensitive receptors, such as new homes, in locations near roadways, and stationary sources of TAC emissions.

Buildout under Alternative 1 would be lower than General Plan 2040, with buildout of Alternative 1 resulting in fewer housing units and fewer residents when compared to General Plan 2040 and Land Use Map. The decrease in total residential unit count and population may decrease the total air quality emissions and potential conflicts with applicable air quality plans. However, density reductions would generally increase per capita GHG emissions levels. Further, the goals, policies, and programs in General Plan 2040 that cover the full breadth of air quality issues as recommended in the BAAQMD's 2017 Clean Air Plan, and also implements the growth plans in Plan Bay Area 2050 that address regional air quality issues, would not be implemented. Additionally, General Plan 2040 Land Use Map and updated designations were developed to support planning principles that create mixed use areas and increase density in areas near services and community facilities, promoting alternative

transportation options and trip internalization which reduces VMT and associated emissions of air pollutants and support operational air quality goals.

While adherence to BAAQMD guidelines and rules would reduce potential exposure to TACs, it is not possible to determine at this stage of the planning process that all impacts could be reduced to a less-than-significant level from individual projects. Under both Alternative 1 and General Plan 2040, future projects would be subject to BAAQMD requirements for permitting and screening. Alternative 1 would reduce the total amount of residential development, which would reduce overall construction and operational emissions throughout the Planning Area and would not result in a reduction in non-residential development. Under Alternative 1, future development would not be subject to MM 3.2.3, which mitigates potential exposure to TACs through requiring new development projects that may result in significant TACs to perform a Health Risk Assessment and implement appropriate measures to ensure residential uses and other sensitive receptors are not exposed to levels of TACs that would result in significant health risks.

As such, Alternative 1 would be considered **slightly worse** with regard to these impacts when compared to General Plan 2040.

### **Alternative 2**

Under Alternative 2, the Planning Area would be developed to focus more new development of multifamily housing near shopping areas within Tiburon. Specifically, development potential at Cove Shopping Center is increased to accommodate 49 units, while development potential of 4576 Paradise Drive site is reduced to focus development on only 3 acres of site (maximum 49 units). This Alternative would provide adequate units to accommodate the RHNA and does not conflict with growth projected for Southern Marin in Plan Bay Area 2050.

Alternative 2 would include the updated General Plan 2040 policy document and would be required to adhere to the same policy guidance and local, state, and regional air quality measures as General Plan 2040. General Plan 2040 and Alternative 2 include a range of goals and policies that would reduce air quality and TAC emissions, consistent with BAAQMD's 2017 Clean Air Plan. Maximum densities under Alternative 2 would be increased in selected areas to accommodate additional multifamily housing near shopping. However, buildout of Alternative 2 would result in fewer housing units and residents within Tiburon when compared to General Plan 2040 Land Use Map. The decrease in total residential unit count and population would result in a slight decrease in the total air quality emissions from both construction and operation of developed uses. Additionally, shifting the growth pattern to place more multi-family development in close proximity to local shopping resources and community facilities and reducing growth in outlying areas would also slightly reduce vehicle trips and VMT. Therefore, this alternative would be **slightly better** when compared to General Plan 2040.

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### ***Alternative 3***

General Plan 2040 and Alternative 3 would permit and facilitate the development of new sensitive receptors, such as new homes, in locations near roadways, and stationary sources of TAC emissions. Overall, development levels under Alternative 3 would include less residential development and similar job generating uses when compared to General Plan 2040. Under Alternative 3 the development potential in the Downtown is increased to allow 40-45 units per acre on all MU sites and the development potential of 4576 Paradise Drive site is reduced to the units allowed under the 2020 General Plan (7 units). As with Alternative 2, this alternative would also accommodate the Town's RHNA and implement the growth plan of Plan Bay Area 2050.

Implementation of General Plan 2040 goals, plans policies, and actions, and adherence to BAAQMD guidelines and rules that would reduce air quality impacts would still be required under this alternative as this alternative would include the updated policy document and would be required to adhere to the same policy guidance and local, state, and regional air quality measures as General Plan 2040.

Under both Alternative 3 and General Plan 2040, future projects that would generate criteria pollutants, TACs or place sensitive receptors in the vicinity of existing uses that generate emissions, would be subject to BAAQMD requirements for permitting and screening. The added development potential under General Plan 2040 would generate the most amount of overall traffic and construction-related air quality impacts. While Alternative 3 would also generate increased traffic levels when compared to the existing levels, the shift in placing more residential development within the Downtown and reducing residential development in the outlying Paradise Drive area would promote alternative transit and walkability and reduce vehicle trips and VMT. As such, this alternative would be **better** when compared to General Plan 2040.

### ***Paleontological and Geologic Resources***

As described in Chapter 3.6 (Geology), General Plan 2040 would result in a potentially significant impacts to paleontological resources which would be reduced to less than significant levels through the implementation of Project mitigation:

- Impact 3.6-6: Development facilitated by the Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Impact 3.6-7: Development facilitated by the Project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to geology, soils, seismicity, or paleontological resources.

### **Alternative 1**

Under Alternative 1, the Planning Area would be developed with the 2020 General Plan Land Use Map, and policy guidance. Alternative 1 would result in less development and reduced development footprints as the changes under General Plan 2040 that increase densities and identify areas for intensification would not occur. However, General Plan 2040 focuses the majority of development on infill (previously disturbed) sites. Further, because General Plan 2040 would update geological and cultural resource policies to include new policies such as Policy C-16 that calls on the Town to protect significant geological, ecological, archaeological, tribal cultural, and paleontological resources and historic sites, impacts to paleontological resources may be **slightly worse** as the No Project Alternative does not establish additional and updated policies related to geologic and paleontological resources.

### **Alternatives 2 and 3**

Under Alternatives 2 and 3, the Planning Area would be developed with the same policy guidance and a substantially similar development footprint when compared to General Plan 2040. As such the impacts to paleontological resources under Alternative 2 and 3 would remain the **substantially similar** to the proposed Project.

### ***Greenhouse Gas Emissions***

As described in Chapter 3.7 (Greenhouse Gas Emissions and Energy), General Plan 2040 would result in significant and unavoidable impacts associated with greenhouse gases:

- Impact 3.7-1 Development facilitated by General Plan 2040 would directly or indirectly generate GHG emissions that may have a significant impact on the environment.
- Impact 3.7-2 Development facilitated by General Plan 2040 would conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions.

### **Alternative 1**

Under Alternative 1, the Planning Area would be developed with the 2020 General Plan Land Use Map and policy guidance. New local, state, and regional greenhouse gas measures that are included in General Plan 2040 would not be updated or implemented. Buildout under Alternative 1 would be lower than General Plan 2040, and buildout of Alternative 1 would result in fewer housing units, and fewer residents when compared to General Plan 2040 and Land Use Map. The decrease in total residential unit count and population may decrease the total greenhouse gas emissions and energy use within the planning area, however, density reductions would generally be seen to increase per capita GHG emissions levels. Additionally, the Land Use Map and updated designations including in General Plan 2040 were developed to support smart planning principals to create mixed use areas and density increased for

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multifamily developments that may place more people near services, promote alternative transportation options and trip internalization and reduce VMT. These increased densities are supportive of regional development needs, including accommodating the RHNA, and also support GHG and VMT reduction strategies. As such, the greenhouse gas emissions impact would be **increased** under Alternative 1 when compared to General Plan 2040.

### **Alternative 2**

Under Alternative 2, the Planning Area would be developed to support additional mixed use housing opportunities in The Cove Shopping Center and residential development in the outlying area (4576 Paradise Drive). Alternative 2 would be required to adhere to the same policy guidance and local, state, and regional greenhouse gas measures as General Plan 2040. Buildout of Alternative 2 would result in fewer housing units, when compared to General Plan 2040 Land Use Map. The decrease in total residential unit count and population may decrease the total greenhouse gas emissions and energy use, however, population reductions would generally be seen to increase per capita GHG emissions levels. However, although Alternative 2 results in slightly less overall population it places more emphasis in locating multi-family higher density development near existing shopping center areas and reducing development in the outlying area, which promotes alternative transportation options and trip internalization to reduce VMT when compared to General Plan 2040. As such, Alternative 2 would be **slightly better** because the updated Land Use Map presents slightly more opportunities for trip internalization and increased opportunities for walking and bicycling due to their proposed mix of higher density residential uses near shopping areas.

### **Alternative 3**

Under Alternative 3, the Planning Area would be developed to support increased densities in the Downtown and reduce residential development in the outlying area by reducing growth potential at 4576 Paradise Drive to the amount allowed under the 2020 General Plan. Under Alternative 3, the Planning Area would be required to adhere to the same policy guidance and local, state, and regional greenhouse gas measures as General Plan 2040. Under both Alternative 3 and General Plan 2040, future projects that would generate GHG emissions. Alternative 3 would decrease the total residential unit count and population which may decrease the total greenhouse gas emissions and energy use, however, population reductions would be seen to increase per capita GHG emissions levels. However, the added development potential under General Plan 2040 would generate the most amount of overall VMT and overall GHG emissions and impacts, While Alternative 3 would generate increased traffic levels when compared to the existing levels, placing more residential development within the Downtown and reducing development in the outlying area places future residents in closer proximity to shopping, community services, and transit. This promotes alternative transit and walkability and would reduce GHG emissions associated with VMT and vehicle trips. Therefore, this alternative would be **slightly better** in terms of overall GHG emissions when compared to General Plan 2040.

### ***Noise and Vibration***

As described in Chapter 3.11, Impact 3.11-2, Development facilitated by General Plan 2040 would result in potentially significant impacts related to construction vibration which are mitigated to a less than significant level:

- Impact 3.11-2: Development facilitated by General Plan 2040 would not generate excessive groundborne vibration or groundborne noise levels.

#### **Alternative 1**

Under Alternative 1, the Planning Area would be developed with the 2020 General Plan Land Use Map, and policy guidance. Buildout under Alternative 1 would be lower than General Plan 2040, and buildout of Alternative 1 would result in fewer housing units, and fewer residents when compared to General Plan 2040 and Land Use Map. Alternative 1 would also result in less density and smaller scale buildings. The decrease in total residential unit count and decrease in building scale would decrease the potential construction related vibration associated with General Plan 2040 buildout. However, mitigation measure MM 3.11-2 would not be applied to future projects and thus there would be a potential to expose persons to excessive groundborne vibration or noise. Therefore, this impact would be **slightly worse** under Alternative 1.

#### **Alternatives 2 and 3**

Under Alternatives 2 and 3, there would be slightly less development than the Project. However, all three scenarios would result in new residential and mixed use development and would result in potential impacts similar to the Project. For General Plan 2040, Alternative 2, and Alternative 3, future development would be subject to General Plan policies intended to minimize exposure to excessive noise, operational vibration, and construction vibration. With mitigation measure MM 3.11-2, construction vibration would be **substantially similar** across all alternatives and roughly equal when compared to General Plan 2040.

### ***Transportation***

As described in Chapter 3.14 (Transportation and Circulation), General Plan 2040 would result in significant and unavoidable impacts:

- Impact 3.14-2 Development facilitated by the General Plan 2040 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b).
- Impact 3.14-5 Development facilitated by the General Plan 2040, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to transportation.



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### Alternative 1

Alternative 1 would result in development of the 2020 General Plan Land Use Map and policy document. Without an updated Land Use Element, Land Use Map, and Circulation Element which place emphasis on higher density infill development and mixed use developments that reduce the need for vehicle trips and trip lengths and also support pedestrian, bicycle, and transit alternatives to automobile traffic, impacts related to transportation under Alternative 1 would be increased when compared to General Plan 2040. As such Alternative 1 would be **slightly worse** compared to General Plan 2040 as Alternative 1 does not include updated policy guidance or targeted infill development areas.

### Alternative 2

General Plan 2040 includes goals, policies, and programs designed to reduce VMT, such as implementing circulation improvements through the capital improvement program. General Plan 2040 policies, land use forecasts, and targeted areas for growth are the result of an extensive outreach process among staff, policymakers, and the public to arrive at a solution that balances competing concerns about accommodating housing growth, jobs growth, and quality of life.

Alternative 2 would be developed to support additional mixed use housing opportunities at The Cove Shopping Center and would reduce the number of units at 4576 Paradise Drive. As previously discussed, this alternative would be required to adhere to the same policy guidance and local, state, and regional measures as General Plan 2040. Buildout of Alternative 2 would result in fewer housing units, when compared to General Plan 2040 Land Use Map. While the slight decrease in total residential unit count and population may decrease total VMT levels, Alternative 2 would result in a reduction in VMT due to the shift in units from the outlying Paradise Drive area to providing higher density multifamily units or mixed use units at The Cove Shopping Center, which is closer to services, community facilities, and the regional roadway network. This provides for additional opportunities to promote alternative transportation options and trip internalization to reduce VMT when compared to General Plan 2040. As such, Alternative 2 would be **slightly better** because the Land Use Map revisions present slightly more opportunities for trip internalization and increased opportunities for alternatives trip transit options due to the proposed mix of higher density residential uses near shopping areas.

### Alternative 3

Alternative 3 would include the updated General Plan 2040 policy document and would be required to adhere to the same policy guidance as General Plan 2040. The Land Use Map revisions included in Alternative 3 would place emphasis on increased densities and additional infill development within the Downtown and would reduce development in the outlying Paradise Drive area. This shift to concentrate residential development and increase intensities in the Downtown would promote trip internalization and would promote walking and biking

type trips within the downtown areas for shopping and other purposes. As such, overall impacts under Alternative 3 would be **slightly better** when compared to General Plan 2040.

### *Utilities*

As described in Chapter 3.15, significant and unavoidable impacts are anticipated for water and wastewater utilities:

- Impact 3.15-1 General Plan 2040 implementation may result in insufficient water supplies available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-2 General Plan 2040 implementation may require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Impact 3.15-3: General Plan 2040 implementation, combined with other cumulative development, may result in insufficient water infrastructure available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-4 General Plan 2040 implementation along with cumulative development could result in insufficient water supplies available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-5: General Plan 2040 implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Impact 3.15-6: General Plan 2040 implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects.
- Impact 3.15-7: Implementation of General Plan 2040, along with other cumulative development, would have a significant impact on wastewater infrastructure and facilities.
- Impact 3.15-8 General Plan 2040 implementation along with cumulative development could result in insufficient wastewater treatment capacities available to serve the Town and reasonably foreseeable future development.

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### Alternative 1

Alternative 1 would continue the development pattern and goals, policies, and programs established by the 2020 General Plan. This alternative would not include an updated policy document or land use map. General Plan 2040 includes goals, policies and programs specifically to conserve water use and to ensure adequate capacity exists to serve future developments. While the 2020 General Plan is consistent with the current MMWD UWMP and growth anticipated for the service area, the additional housing required by the ABAG Final RHNA Plan for Marin County jurisdictions would increase the demand for water throughout the MMWD service area and is anticipated to exceed the capacity of Marin Water's system, including treatment facilities. Similarly, the additional housing required by the ABAG Final RHNA Plan for Marin County jurisdictions would increase the demand for wastewater treatment through the XX service area and may exceed the capacity of wastewater systems.

Alternative 1 would result in fewer residential units than General Plan 2040 and would thus have less demand for water (a reduction of 152,064 gallons per day) and less wastewater generation (a reduction of approximately 0.15 mgd) than General Plan 2040. Therefore, Alternative 1 would have less demand for water supply, water treatment and conveyance, wastewater treatment, and wastewater conveyance than General Plan 2040.

As such Alternative 1 would be **better** when compared to General Plan 2040.

### Alternative 2

As noted in this Draft EIR Impact 3.15-1, development facilitated under General Plan 2040 could result in insufficient water supplies from MMWD. As described previously Alternative 2 would result in less residential units as compared to General Plan 2040 at buildout. Like the General Plan, this alternative would still result in increased impacts as development anticipated under this alternative would exceed growth identified by MMWD in their UWMP and future ability to serve additional developments accommodated by the RHNA's or each service area within the district will have to be assessed as part of the District's updated UWMP process. However, the reduced residential buildout would be expected to result in a slight reduction in the need for utilities and service systems when compared to General Plan 2040. Specifically, Alternative 2 would result in fewer residential units than General Plan 2040 and would thus have less demand for water (a reduction of 25,728 gallons per day) and less wastewater generation (a reduction of approximately 0.026 mgd) than General Plan 2040. Therefore, Alternative 2 would have less demand for water supply, water treatment and conveyance, wastewater treatment, and wastewater conveyance than General Plan 2040. Therefore, while the impact level would remain the same Alternative 2 would result in less overall development and a **slightly reduced** impact, to utilities and service systems as compared to General Plan 2040.

### Alternative 3

As with Alternative 2 Alternative 3 would result in less residential units as compared to General Plan 2040 at buildout. Like the General Plan, this alternative would still result in increased

impacts as development anticipated under this alternative would exceed growth identified by MMWD in their UWMP and future ability to serve additional developments accommodated by the RHNA's or each service area within the district will have to be assessed as part of the District's updated UWMP process. However, the reduced residential buildout would be expected to result in a slight reduction in the need for utilities and service systems when compared to General Plan 2040. Specifically, Alternative 3 would result in fewer residential units than General Plan 2040 and would thus have less demand for water (a reduction of 25,472 gallons per day) and less wastewater generation (a reduction of approximately 0.025 mgd) than General Plan 2040. Therefore, Alternative 3 would have less demand for water supply, water treatment and conveyance, wastewater treatment, and wastewater conveyance than General Plan 2040. Therefore, while the impact level would remain the same Alternative 3 would result in less overall development and a **slightly reduced** impact, to utilities and service systems as compared to General Plan 2040.

### ***Irreversible Effects and Adverse Effects on Human Beings***

Chapter 5.0 (Other CEQA) identifies two significant and unavoidable impacts associated with General Plan 2040:

- 5.2: Significant and irreversible environmental changes
- 5.4: Substantial adverse effects on human beings

Alternatives 1, 2, and 3

General Plan 2040 would result in a significant and unavoidable impact associated with irreversible environmental effects as described under Impact 5.2. Implementation of General Plan 2040 would result in a commitment of land uses and resources for the foreseeable future. Land use and development consistent with the General Plan would result in resource commitments by introducing development onto sites that are presently undeveloped, although the majority of development would occur at infill locations and within developed areas of the Town. Additionally, future development will physically change the environment in terms noise, traffic, natural resources etc. These physical changes are irreversible after development occurs. Therefore, General Plan 2040 would result in changes in land use within the Planning Area that would commit future generations to these uses.

Development under Alternative 1 would have less than half of the residential development than General Plan 2040 while Alternatives 2 and 3 would be slightly reduced in comparison to General Plan 2040. These alternatives would all use nonrenewable resources, including metals, stone, and other materials related to construction, and result in on-going demand for fossil fuels and other resources associated with energy production at levels similar to General Plan 2040. Alternative 1 would not adopt the updated land use map that focuses development in higher density infill areas, and would also not adopt the updated policy document which includes goals policies and programs that promote resource conservation

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and establishes policies and programs that address substantial adverse effects on human beings. As such, Alternative 1 would be **slightly worse** when compared to General Plan 2040 while Alternatives 2 and 3 would have **substantially similar** impacts and commitments to resources when compared to General Plan 2040. The associated irretrievable commitment of nonrenewable resources and permanent conversion of other undeveloped lands under Alternatives 2 and 3 would also remain substantially similar when compared to General Plan 2040.

### 4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to General Plan 2040.

A comparative analysis of General Plan 2040 and each of the Project alternatives is provided in Table 4.0-6 below. The table includes a numerical scoring system, which assigns a score of 1 to 5 to each of the alternatives with respect to how each alternative compares to General Plan 2040 in terms of the severity of the environmental topics addressed in this EIR. A score of “3” indicates that the alternative would have the same level of impact when compared to General Plan 2040. A score of “1” indicates that the alternative would have a better (or reduced) impact when compared to General Plan 2040. A Score of “2” indicates that the alternative would have a slightly better (or slightly reduced) impact when compared to General Plan 2040. A score of “4” indicates that the alternative would have a slightly worse (or slightly increased) impact when compared to General Plan 2040. A score of “5” indicates that the alternative would have a worse (or increased) impact when compared to General Plan 2040. The project alternative with the lowest total score is considered the environmentally superior alternative.

As shown in Table 4.0-6, Alternative 3 is the environmentally superior alternative when looked at in terms of the potential to reduce all environmental impacts identified throughout this EIR. However, it should be noted that this alternative and Alternative 2 didn’t reduce any identified potentially significant impact to a less than significant level without the need for identified project mitigation. General Plan 2040’s updated policy includes the fully range of feasible minimization policies and programs to reduce potential impacts to the greatest extent possible, and conserve resources while the General Plan Map updates focus on smart growth principles that identify infill development opportunities that place people and housing near services to meet housing needs when provided opportunities to limit impacts. General Plan 2040 provides for high density mixed-use areas consistent with smart growth development principles and promotes trip internalization and a mix of uses to promote alternative transit opportunities.

TABLE 4.0-6: COMPARISON OF ALTERNATIVES TO GENERAL PLAN 2040

ENVIRONMENTAL ISSUE	GENERAL PLAN 2040	ALTERNATIVE 1 (NO PROJECT)	ALTERNATIVE 2 (VILLAGE CENTERS ALTERNATIVE)	ALTERNATIVE 3 (DOWNTOWN DENSITY ALTERNATIVE)
Air Quality	3 - Same	4 - Slightly Worse	2 - Slightly Better	1 - Better
Geologic/Paleontological Resources	3 - Same	4 - Slightly Worse	3 - Similar	3 - Similar
Greenhouse Gases/Climate Change	3 - Same	5 - Worse	2 - Slightly Better	2 - Slightly Better
Noise - Construction Vibration	3 - Same	4 - Slightly Worse	3 - Similar	3 - Similar
Transportation and Circulation	3 - Same	4 - Slightly Worse	2 - Slightly Better	2 - Slightly Better
Utilities	3 - Same	1 - Better	2 - Slightly Better	2 - Slightly Better
Irreversible Effects and Adverse Impacts on Human Beings	3 - Same	4 - Slightly Worse	3 - Similar	3 - Similar
<b>SUMMARY</b>	<b>21</b>	<b>26</b>	<b>17</b>	<b>16</b>

## 4.6 SATISFACTION OF PROJECT OBJECTIVES

### Alternative 1

As described previously Alternative 1 fails to meet the most basic Project Objectives and thus was not further considered. Alternative 1 fails to meet several of the basic Project Objective as no changes would be made to address updated General Plan guidelines, or the requirements of State law. Since adoption of the 2020 General Plan, State legislation has been passed requiring the Town to address new safety and circulation requirements in the General Plan and to further address greenhouse gas emissions. Additionally, the Town currently has an obligation to update and adopt its Housing Element, and receive State certification. The 2020 General Plan does not conform to state requirements regarding planning for future housing growth and would not accommodate the Town’s RHNA.

### Alternative 2

Like General Plan 2040, Alternative 2 reflects the current goals and vision expressed by Town residents, businesses, decision-makers, and other stakeholders; through the updated policy document, and addresses new requirements of State law, including climate resiliency planning, complete streets, and housing goals. This alternative would update the land use map to allow more residential areas near a local shopping area and would allow for more growth that would be allowed under Alternatives 1, but less overall housing development than General Plan 2040. Although Alternative 2 meets Project Objectives, Alternative 3 provides less housing options.

### Alternative 3

Like General Plan 2040, Alternative 3 would satisfy all Project Objectives as it would adopt the updated policy document as well as an updated Land Use Map. This alternative would



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update the land use map to allow more mixed use residential areas in the Downtown and would allow for more growth that would be allowed under Alternatives 1, but less overall housing development than General Plan 2040. Although Alternative 3 meets Project Objectives, Alternative 3 provides less housing options when compared to General Plan 2040.

### ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION

CEQA Guidelines 15126.6(c) requires an EIR to discuss alternatives that were initially considered but rejected from further consideration. The following are alternatives that were initially considered but rejected from further consideration for the reasons described below.

#### **Alternative Location**

CEQA Guidelines Section 15126.6(f)(2) sets forth considerations to be used in evaluating an alternative location. The section states that if a lead agency concludes that no feasible alternative locations exist for the proposed action, it must disclose its reasons for that conclusion.

In this case, an alternative location does not constitute a feasible alternative because the project in question consists of a comprehensive update to the 2020 General Plan. A General Plan serves as the comprehensive land use planning document for the jurisdiction that adopts it; as such, the geographical area encompassed by the plan is an immutable, fundamental characteristic. Thus, it is not possible to evaluate an alternative location for General Plan 2040.



## **5.0 OTHER CEQA CONSIDERATIONS**

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### **5.1 GROWTH-INDUCING IMPACTS**

Section 15126.2(d) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

*“The way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth... It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.”*

Based on the CEQA Guidelines, growth inducement is any growth that exceeds planned growth of an area and results in new development that would not have taken place without implementation of the project. A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand (*Napa Citizens for Honest Government v. Napa County Board of Supervisors*). Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an increased water supply in an area where water service historically limited growth could be considered growth-inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth

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policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

General Plan 2040 is a long-term plan intended to accommodate projected population, housing, and employment growth, including the appropriate balance among these factors with the necessary public services and infrastructure. General Plan 2040 would serve as a comprehensive, long-term plan for the physical development of Tiburon. Projected growth is described in Section 3.12, Population, Housing and Employment, and the environmental consequences related to the potential growth are fully assessed in each topical section. By definition, General Plan 2040 is intended to provide for and address future growth in the Town.

Because General Plan 2040 provides a framework for development through its Land Use Map, land use designations, goals, policies, and actions, it would directly induce population and employment growth in the Planning Area by designating land for development that is more intense, in some instances, than current designations allow. The analysis of the indirect growth-inducing impacts for General Plan 2040 focuses on the following factors: inducement of unanticipated population growth; encouragement of economic growth that leads to jobs and housing growth; elimination of obstacles to population growth; and resulting service, facility, or infrastructure demands in excess of existing and planned growth.

General Plan 2040 accommodates future growth in Tiburon, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to accommodate future growth. As shown in Table 2-4, General Plan 2040 Growth Assumptions, buildout of General Plan 2040 could yield up to 916 new housing units and reduction of 120,042 square feet of non-residential building square footage within the Planning Area.

Given the historical and current population, housing, and employment trends, growth in the Town of Tiburon, as well as the entire State, is inevitable. The primary factors that account for population growth are natural increase and net migration. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. Growth under General Plan 2040 would remain within the general growth levels projected Statewide and would not be anticipated to exceed any applicable growth projections or limitations that have been adopted to avoid an environmental effect. General Plan 2040 is intended to accommodate the Town's fair share of Statewide housing needs, based on regional numbers provided by the California Department of Housing and Community Development and assigned to Bay Area jurisdictions by ABAG.

General Plan 2040 includes policies and programs that reduce environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality. Additionally, this Draft EIR identifies General Plan 2040 policies and programs, as well as

mitigation measures, where appropriate, that would serve to reduce or eliminate potentially significant impacts associated with specific environmental issues associated with growth. Sections 3.1 through 3.16 and 4.0 provide a discussion of environmental effects associated with development allowed under General Plan 2040.

With implementation of General Plan 2040 policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under General Plan 2040, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds. Therefore, population and housing growth associated with General Plan 2040 would result a ***less than significant impact***.

## **5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES**

As mandated by CEQA Guidelines Section 15126.2(c), the EIR must address significant irreversible environmental changes that would result from implementation of the project. Specifically, such an irreversible environmental change would occur if:

- General Plan 2040 would involve a large commitment of nonrenewable resources;
- Irreversible damage can result from environmental accidents associated with General Plan 2040; and
- The proposed consumption of resources is not justified (e.g., General Plan 2040 results in the wasteful use of energy); (Refer to Section 3.5, Energy, which addresses this topic in accordance with CEQA Guidelines Appendix F).

General Plan 2040 contemplates 916 new dwelling units and a reduction of 120,042 square feet of new non-residential development at buildout.

### **5.2.1 CONSUMPTION OF NONRENEWABLE RESOURCES**

The environmental impacts associated with implementation of General Plan 2040 are analyzed in Chapter 3.0. Future development would consume limited, slowly renewable, and non-renewable resources. This consumption would occur during each individual project's construction phase and would continue throughout its operational lifetime. Future development would require a commitment of resources that would include: (1) building materials; (2) fuel and operational materials/resources; and (3) the transportation of goods and persons to and from individual development sites. Construction would require the consumption of resources that are not renewable or which may renew so slowly as to be considered non-renewable. These resources would include the following construction supplies: lumber and other forest products; aggregate materials used in concrete and asphalt; metals; and water. Fossil fuels such as gasoline and oil would also be consumed to power construction vehicles and equipment.

Development and improvements accommodated through implementation of General Plan 2040 would consume resources which would be similar to those currently consumed within the Town (i.e., energy resources such as electricity and natural gas, petroleum-based fuels required for vehicle-trips, fossil fuels, and water). Fossil fuels would represent the primary energy source associated with both construction and ongoing operation, and the existing, finite supplies of these natural resources would be incrementally reduced. Future development operations would occur in accordance with California Code of Regulations (CCR) Title 24, Part 6, which sets forth conservation practices that would limit energy consumption. Nonetheless, the proposed project's energy requirements would represent a long-term commitment of essentially non-renewable resources.

Construction activities associated with implementation of General Plan 2040 could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions; refer to Section 4.8, Hazards and Hazardous Materials. All potential demolition, grading, and excavation activities would be subject to the established regulatory framework to ensure that hazardous materials are not released into the environment. Compliance with the established regulatory framework and General Plan 2040 goals, policies, and implementation measures would protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials.

In addition, there is the potential that individual future development projects would use and store limited amounts of potentially hazardous materials; refer to Section 3.8. All future development activities requiring the routine use, storage, transport, or disposal of hazardous materials would be subject to all applicable federal, State, and local regulations and standards in place for hazardous materials. Compliance with these regulations and standards would protect against significant and irreversible environmental changes due to the accidental release of hazardous materials.

In conclusion, future construction and operations would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would limit the availability of these resource quantities for future generations or for other uses during the life of the individual developments. It is noted that the continued use of such resources would be on a relatively small scale in a regional context.

### **5.2.2 IRRETRIEVABLE COMMITMENTS/IRREVERSIBLE PHYSICAL CHANGES**

Implementation of General Plan 2040 would result in a commitment of land uses designated for the foreseeable future. Land uses and development consistent with General Plan 2040 would result in irretrievable commitments by introducing development onto sites that are presently undeveloped. The conversion of agricultural lands to urban uses would result in an irretrievable loss of agricultural land, wildlife habitat, and open space. Additionally, development would physically change the environment in terms of aesthetics, air emission, noise, transportation, open space, and natural resources. These physical changes are

irreversible after development occurs. Therefore, General Plan 2040 would result in changes in land use within the Planning Area that would commit future generations to these uses.

While development under General Plan 2040 may have potential to result in hazardous material releases into the environment by new land uses, compliance with State law and during construction and operation activities would ensure that future development would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving release of hazardous materials (see Section 3.8, Hazards and Hazardous Materials). As discussed in Section 3.16, Wildfire, there are no VHFHSZs located within the Town or Planning Area. While the majority of the Planning Area is not within a FHSZ, portions of the Planning Area are located in “moderate” and “high” FHSZs, including areas in the northern, northwestern, northeastern, and eastern portions of the Planning Area. No areas within or adjacent to the Planning Area are categorized as containing a “very high” FHSZs by CAL FIRE.

The majority of development anticipated under General Plan 2040 is located in or adjacent to existing developed areas, is primarily infill development, and would be located within the existing Town limits. Furthermore, it should be noted that the development that could occur includes additional residential infill development, but would be similar to the development types and developable areas as what was already planned for and would not alter or change existing identified emergency evacuation routes. As described previously, proposed changes to the Land Use Map include areas for higher density housing opportunities within generally developed portions of the Town, with the remainder of the Planning Area land uses remaining the same. As a result, the degree of wildland fire hazard, including secondary hazards, would not substantially change with adoption of General Plan 2040, and current hazards would not significantly increase (see Section 3.16, Wildfire). In addition, as discussed in Section 3.13, Public Services and Recreation, existing fire protection facilities would be adequate to serve the Planning Area under General Plan 2040, and General Plan 2040 would not result in a significant and unavoidable impact related to need for new or altered fire protection facilities. Thus, implementation of General Plan 2040 would not have potential to result in significant environmental accidents related to wildfire hazards and would not result in significant irreversible environmental changes (see Section 3.16, Wildfire).

In summary, General Plan 2040 includes an extensive policy framework that is designed to address land use and environmental issues to the greatest extent feasible, while allowing growth and economic prosperity for the Town. However, even with the policies and implementation measures that would serve to reduce potential significant impacts, General Plan 2040 would result in significant irreversible changes. This impact is considered a **significant and unavoidable impact** under CEQA.



### 5.3 SUBSTANTIAL ADVERSE EFFECTS ON FISH, WILDLIFE, AND PLANT SPECIES

As described throughout the analysis in the Draft EIR, General Plan 2040 would not result in any significant impacts that would substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal to the environment. As described in greater detail in Section 3.3, Biological Resources, impacts related to plant and animal species would be reduced to a less than significant level through implementation of goals, policies and implementation measures provided in General Plan 2040 as well as through adherence to state and federal regulations. Therefore, this is considered a **less than significant** impact.

### 5.4 SUBSTANTIAL ADVERSE EFFECTS ON HUMAN BEINGS

As described throughout the analysis of this Draft EIR, General Plan 2040 reduces environmental effects including effects that directly and indirectly impact humans through implementation of goals, policies and implementation measures provided in General Plan 2040. However, several environmental impacts would still be considered significant and unavoidable. These impacts include increases of criteria pollutants, reduced air quality, increased greenhouse gas emissions, vehicle miles traveled, and improvements to ensure adequate water and wastewater capacity which may cause substantial adverse effects on humans and the way humans interact with their environment. Therefore, this is considered a **significant and unavoidable** impact.

### 5.5 SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on significant environmental effects of a project, including effects that cannot be avoided if General Plan 2040 were implemented.

Based on the analysis contained in this Draft EIR, the Town has determined that General Plan 2040 would result in the following significant and unavoidable impacts, as described in the chapter addressing each topic:

- Impact 3.2-1 Implementation of the General Plan 2040 could conflict with or obstruct implementation of the applicable air quality plan.
- Impact 3.2-5: General Plan 2040 implementation, in combination with other cumulative development, would not conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants.

- Impact 3.7-1 Development facilitated by the General Plan could directly or indirectly generate GHG emissions that may have a significant impact on the environment.
- Impact 3.7-3 Development facilitated by the General Plan, in combination with past, present, and reasonably foreseeable projects, could result in significant cumulative impacts with respect to GHG emissions.
- Impact 3.14-2 Development facilitated by the General Plan 2040 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b).
- Impact 3.14-5 Development facilitated by the General Plan 2040, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to transportation.
- Impact 3.15-1 General Plan 2040 implementation may result in insufficient water supplies available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-2 General Plan 2040 implementation may require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Impact 3.15-3: General Plan 2040 implementation, combined with other cumulative development, may result in insufficient water infrastructure available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-4 General Plan 2040 implementation along with cumulative development could result in insufficient water supplies available to serve the Town and reasonably foreseeable future development during normal, dry and multiple dry years.
- Impact 3.15-5: General Plan 2040 implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Impact 3.15-6: General Plan 2040 implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects.
- Impact 3.15-7: Implementation of General Plan 2040, along with other cumulative development, would have a significant impact on wastewater infrastructure and facilities.

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- Impact 3.15-8 General Plan 2040 implementation along with cumulative development could result in insufficient wastewater treatment capacities available to serve the Town and reasonably foreseeable future development.
- 5.2: Significant and irreversible environmental changes
- 5.4: Substantial adverse effects on human beings



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### 3.1 Aesthetics

California Department of Transportation (Caltrans). 2019. List of Eligible and Officially Designated State Scenic Highways. Available: [https://dot.ca.gov/-/media/dot-media/programs/design/documents/desig-and-eligible-aug2019\\_a11y.xlsx](https://dot.ca.gov/-/media/dot-media/programs/design/documents/desig-and-eligible-aug2019_a11y.xlsx). Accessed February 13, 2023.

California Energy Commission (CEC). 2022. 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings: For the 2022 Building Energy Efficiency Standards Title 24, Part 6, and Associated Administrative Regulations in Part 1. Available: [https://www.energy.ca.gov/sites/default/files/2022-12/CEC-400-2022-010\\_CMF.pdf](https://www.energy.ca.gov/sites/default/files/2022-12/CEC-400-2022-010_CMF.pdf). Accessed February 13, 2023.

California Department of Finance. 2022. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022. May 2022. Available: <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>. Accessed: March 13, 2023.

County of Marin, Community Development Department. 2007. Marin Countywide Plan Update Final Environmental Impact Report. November.

International Dark-Sky Association. 2020. Light Pollution. Available: <https://www.darksky.org/light-pollution/>. Accessed February 13, 2023.

Marin County. 2007. 2007 Marin Countywide Plan. Available: <https://www.marincounty.org/depts/cd/divisions/planning/2007-marin-countywide-plan>

Town of Tiburon. 2005. Tiburon General Plan 2020 General Plan Update Draft Environmental Impact Report. Available: <http://www.townoftiburon.org/206/General-Plan>

Town of Tiburon. 2016. Town of Tiburon General Plan. Adopted September 7, 2005 (As Amended Through February 3, 2016). Available: <http://www.townoftiburon.org/206/General-Plan>

Town of Tiburon. 2023. Tiburon Municipal Code. Available: <https://library.municode.com/ca/tiburon>

### 3.2 Air Quality

Bay Area Air Quality Management District (BAAQMD). 2014. Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area. March 2014. Available: [https://www.baaqmd.gov/~/\\_media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities\\_2\\_Methodology.ashx?la=en](https://www.baaqmd.gov/~/_media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en)

- Bay Area Air Quality Management District (BAAQMD). 2017. Spare the Air: Cool the Climate. Final 2017 Clean Air Plan. April. San Francisco, CA. Available: [http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-\\_proposed-final-cap-vol-1-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-_proposed-final-cap-vol-1-pdf.pdf?la=en)
- Bay Area Air Quality Management District (BAAQMD). 2017. CEQA Air Quality Guidelines, Appendix C. May. San Francisco, CA. Available: <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>
- Bay Area Air Quality Management District (BAAQMD). 2021. Plan Bay Area 2050. October. San Francisco, CA. Available: [https://www.planbayarea.org/sites/default/files/documents/Plan\\_Bay\\_Area\\_2050\\_October\\_2021.pdf](https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf)
- C. Donald Ahrens. 2006. Meteorology Today: An Introduction to Weather, Climate, & the Environment.
- California Air Pollution Control Officers Association (CAPCOA). 2016. Air Toxics Hotspot Program. Available: <https://ww2.arb.ca.gov/overview-air-toxics-hot-spots-information-and-assessment-act>
- California Air Pollution Control Officers Association (CAPCOA). 2017. Appendix A, Calculation Details for CalEEMod. November 8, 2017.
- California Air Resources Board. 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available: <https://ww3.arb.ca.gov/ch/handbook.pdf>
- California Air Resources Board. 2014. Background Material: Almanac of Emissions and Air Quality 2013 Edition - Chapter 4 Regional Trends and Forecasts. Page last reviewed on February 7, 2014. Available: <https://ww3.arb.ca.gov/aqd/almanac/almanac13/chap413.htm>
- California Air Resources Board. 2018 (November). Progress Report, California's Sustainable Communities and Climate Protection Act. Available: [https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report\\_SB150\\_112618\\_02\\_Report.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf). Accessed March 13, 2023.
- California Air Resources Board. 2021. Emission Inventory. Available: <https://arb.ca.gov/emfac/emissions-inventory/aa784749921657a3127202959a402bfceebb4665>
- California Air Resources Board. 2023 Area Designations Maps/State and National. Available: <https://www.arb.ca.gov/desig/adm/adm.htm>
- California Air Resources Board. 2023. ARB Databases: Aerometric Data Analysis and Management System (ADAM). Available at: <https://www.arb.ca.gov/adam/trends/trends1.php>



# Town of Tiburon

## General Plan 2040 EIR

---

California Air Resources Board. 2023. California Ambient Air Quality Standards (CAAQS). Available: <http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm>

California Air Resources Board. 2023. California Ambient Air Quality Standards (CAAQS). Available at: <http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm>

California Air Resources Board. 2023. Maps of State and Federal Area Designations. Available: <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>

California Energy Commission. 2016 Building Energy Efficiency Standards. Abstract, pg. 5.

National Aeronautics and Space Administration (NASA). Jet Propulsion Laboratory. 2015. NASA: Background Ozone is a Major Issue in U.S. West. Available: <https://www.jpl.nasa.gov/news/news.php?feature=4723>

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impact. Available: [http://www.valleyair.org/transportation/ceqa\\_idx.htm](http://www.valleyair.org/transportation/ceqa_idx.htm)

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2016. 2016 Plan for the 2008 8-Hour Ozone Standard. Available: [http://valleyair.org/Air\\_Quality\\_Plans/Ozone-Plan-2016/Adopted-Plan.pdf](http://valleyair.org/Air_Quality_Plans/Ozone-Plan-2016/Adopted-Plan.pdf)

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards. Available: <http://valleyair.org/pmplans/documents/2018/pm-plan-adopted/2018-Plan-for-the-1997-2006-and-2012-PM2.5-Standards.pdf>

### 3.3 Biological Resources

California Department of Fish and Wildlife (CDFW). 2023a. California Natural Diversity Database (CNDDDB), Species in 9 Quad Records Search. Available: <https://wildlife.ca.gov/Data/CNDDDB>. Accessed January 30, 2023.

California Department of Fish and Wildlife (CDFW). 2023b. Lake and Streambed Alteration Program. Available <https://wildlife.ca.gov/Conservation/Environmental-Review/LSA>. Accessed January 31, 2023.

California Wildlife Habitat Relationships (CWHR). 2023b. Wildlife Habitats- California Wildlife Habitat Relationships System. Available: <https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>. Accessed January 31, 2023.

De Novo Planning Group. 2022. Tiburon Existing Conditions Report.

Marin County Board of Supervisors. 2013. Draft Marin Stream Conservation Area Ordinance Revised per Board of Supervisors Hearing, October 29, 2013.

San Francisco Bay Conservation & Development Commission (BCDC). 2023. San Francisco Bay Plan. Available: [https://www.bcdc.ca.gov/plans/sfbay\\_plan.html](https://www.bcdc.ca.gov/plans/sfbay_plan.html). Accessed January 31, 2023

### 3.4 Cultural Resources

3D Visions, 2001. *Intensive Survey of Downtown Historic Resources*. Ms. on file, Town of Tiburon, Marin County, California.

Fanning, B., 2006. *Images of America: The Tiburon Peninsula*. Arcadia Publishing, Charleston.

Fanning, B. 2010. *Then & Now: Tiburon and Belvedere*. Arcadia Publishing, Charleston.

Fanning, B. & Wong, W., 2007. *Images of America: Angel Island*. Arcadia Publishing, Charleston.

Heig, J., 1984. *Pictorial History of Tiburon: A California Railroad Town*. Scottwell Associates, San Francisco.

Jones, T. & Klar, K., 2009. *California Prehistory*. Alta Mira Press, London.

Kroeber, A., 1925. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, D.C.

Kelly, I., 1978. *Coast Miwok*. Handbook of North American Indians. Vol. 8, California. Smithsonian Institution, Washington, D.C.

Mathews, G., 1999. *Downtown Tiburon Historic Resources Study*. Ms. on file, Town of Tiburon, Marin County, California.

Northwest Information Center, California Historical Resources Information System, California State University, Sonoma, 2020.

U.S. National Park Service, 2023. National Register Database and Research. Available: <https://www.nps.gov/subjects/nationalregister/database-research.htm#table>. Accessed: March 1, 2023.

### 3.5 Energy

Bureau of Transportation Statistics. 2019. Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles. October 22. Website: <https://www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles>. Accessed April 22, 2020.

California Energy Commission. 2016 Building Energy Efficiency Standards. Abstract, pg. 5.

California Energy Commission (CEC) and California Air Resources Board (ARB). 2003. Reducing California's Petroleum Dependence. August.

California Energy Commission (CEC). 2008. 2008 Energy Action Plan Update. Website: [http://https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc\\_public\\_website/content/utilities\\_and\\_industries/en](http://https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/utilities_and_industries/en)

# Town of Tiburon

## General Plan 2040 EIR

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ergy - electricity and natural gas/2008-energy-action-plan-update.pdf. Accessed March 1, 2023.

California Energy Commission (CEC), 2018. Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1), 7<sup>th</sup> Edition.

Website: <https://www.energy.ca.gov/publications/2018/guidelines-californias-solar-electric-incentive-programs-senate-bill-i-7th>. Accessed March 1, 2023.

California Energy Commission (CEC). 2020. Waste Heat and Carbon Emissions Reduction Act. Website: <http://www.energy.ca.gov/wasteheat/>. Accessed April 20, 2020.

California Energy Commission (CEC). 2023. 2023 Final 2022 Integrated Energy Policy Report Update, Publication Number: CEC-100-2022-001-CMF. February.

California Energy Commission (CEC). 2023. California Gasoline Data, Facts, and Statistics. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics>. Accessed March 1, 2023.

California Energy Commission (CEC). 2023. Energy Almanac. Available: <http://energyalmanac.ca.gov/overview/index.html>

California Energy Commission (CEC). 2023. Energy Efficiency in the Public Power Sector. Available: <https://www.energy.ca.gov/programs-and-topics/topics/energy-assessment/energy-efficiency-public-power-sector>. Accessed March 1, 2023.

California Energy Commission (CEC). 2023. Diesel Fuel Data, Facts, and Statistics. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/diesel-fuel-data-facts-and-statistics>. Accessed March 1, 2023.

California Energy Commission (CEC). 2023. Supply and Demand of Natural Gas in California. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california>. Accessed March 1, 2023.

California Energy Commission (CEC). 2023. Total System Electric Generation. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation>. Accessed March 1, 2023.

California Public Utilities Commission (CPUC). 2019. California Renewables Portfolio Standard - Annual Report. November.

Marin Clean Energy (MCE). Company Profile. Website: <https://www.mcecleanenergy.org/energy-suppliers/>. Accessed April 20, 2020.

Pacific Gas and Electric Company. 2020. Company Profile. Website: [https://www.pge.com/en\\_US/about-pge/company-information/profile/profile.page](https://www.pge.com/en_US/about-pge/company-information/profile/profile.page). Accessed April 20, 2020.

Pacific Gas and Electric Company (PG&E). 2023. Company Profile. Website: [https://www.pge.com/en\\_US/about-pge/company-information/profile/profile.page](https://www.pge.com/en_US/about-pge/company-information/profile/profile.page). Accessed March 1, 2023.

United States Department of Transportation (USDOT). 2014. Summary of Fuel Economy Performance. December 15.

### 3.6 Geology and Soils

De Novo Planning Group. 2022. Existing Conditions Report.

SWRCB (State Water Resources Control Board). 2012. National Pollutant Discharge Elimination System (NPDES), General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2012-006-DWQ NPDES # CA000002).

Town of Tiburon. 2023. Building. Available: <http://www.townoftiburon.org/157/Building>. Accessed February 6, 2023.

### 3.7 Greenhouse Gases

Association of Bay Area Governments and Metropolitan Transportation Commission. 2021. Plan Bay Area 2050: A Vision for the Future. Released October 1. Available: <https://planbayarea.org/finalplan2050>. Accessed March 1, 2023.

Bay Area Air Quality Management District (BAAQMD). 2015. Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011. January. Website: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011\\_GHGSummary.ashx?la=en](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011_GHGSummary.ashx?la=en), Accessed April 19, 2020.

Bay Area Air Quality Management District (BAAQMD). 2022. Draft Justification Report: CEQA Thresholds For Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. February. San Francisco, CA. Available: <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/final-ceqa-thresholds-report-for-climate-impacts-02092022-alt-pdf.pdf?la=en&rev=2d0621f65096463d99dc58f6757b1d70>

California Air Pollution Control Officers Association (CAPCOA). 2010. Quantifying Greenhouse Gas Mitigation Measures. Available: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/capcoa-quantifying-greenhouse-gas-mitigation-measures.pdf>

California Air Resources Board (CARB). 2018. 2018 Progress Report: California's Sustainable Communities and Climate Protection Act. November.

California Air Resources Board (CARB). 2019. 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals. Available:

# Town of Tiburon

## General Plan 2040 EIR

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- <https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate>. Accessed March 13, 2023.
- California Air Resources Board (CARB). 2019. California's 2000-2017 Greenhouse Gas Emissions Inventory, 2019 Edition. 2000-2017 Trends Figure Data. August.
- California Air Resources Board (CARB). 2023. GHG Current California Emission Inventory Data. Available: <https://ww2.arb.ca.gov/ghg-inventory-data>
- California Environmental Protection Agency (Cal/EPA). 2010. Climate Action Team Report to Governor Schwarzenegger and the Legislature. December 2010. Available: [http://www.climatechange.ca.gov/climate\\_action\\_team/reports/](http://www.climatechange.ca.gov/climate_action_team/reports/)
- California Environmental Protection Agency (Cal/EPA). 2018. Indicators of Climate Change in California. May. Available: <https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf>, Accessed April 17, 2020.
- California Public Utilities Commission (CPUC). California Renewables Portfolio Standard. Website: <http://www.cpuc.ca.gov/rps/>. Accessed April 28, 2020.
- California Office of the Governor. 2019. Governor Newsom Announces Climate Pollution Continues to Drop Below 2020 Target While State's Economy Grows. August 12. Website: <https://www.gov.ca.gov/2019/08/12/governor-newsom-announces-climate-pollution-continues-to-drop-below-2020-target-while-states-economy-grows/>. Accessed May 29, 2020.
- Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency. 2019. California's Fourth Climate Change Assessment: Statewide Summary Report. January 16.
- Intergovernmental Panel on Climate Change (IPCC). 2013. "Climate Change 2013: The Physical Science Basis, Summary for Policymakers." Available: [http://www.climatechange2013.org/images/report/WG1AR5\\_SPM\\_FINAL.pdf](http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf)
- Intergovernmental Panel on Climate Change (IPCC). 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.
- National Resources Defense Council (NRDC). 2014. NRDC Fact Sheet: California Snowpack and the Drought. April 2014. Available: <https://www.nrdc.org/sites/default/files/ca-snowpack-and-drought-FS.pdf>
- United States Environmental Protection Agency (U.S. EPA). Greenhouse Gas Emissions. Available: <https://www.epa.gov/ghgemissions>. Accessed April 28, 2020.

### 3.8 Hazards and Hazardous Materials

- California Department of Resources Recycling and Recovery (CalRecycle). 2023. SWIS Facility/Site Search. Available: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>. Accessed: January 27, 2023.
- California Department of Toxic Substances Control, 2023. EnviroStor Database. Available: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed: January 27, 2023.
- California Department of Toxic Substances Control, 2023. EnviroStor: FORT MCDOWELL (71000007). Available: [https://www.envirostor.dtsc.ca.gov/public/profile\\_report?global\\_id=71000007](https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=71000007). Accessed: January 27, 2023.
- California Department of Toxic Substances Control. 2023. EnviroStor: NAVAL NET DEPOT (80000711). Available: [https://www.envirostor.dtsc.ca.gov/public/profile\\_report?global\\_id=80000711](https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80000711). Accessed: January 27, 2023.
- California State Water Resources Control Board (SWRCB). 2023. GeoTracker: Newhall Residence (T1 0000009130). Available: [https://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T10000009130](https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000009130). Accessed: January 31, 2023.
- California State Water Resources Control Board (SWRCB). 2023. GeoTracker. Available: <https://geotracker.waterboards.ca.gov/search>. Accessed: January 27, 2023.
- Department of Toxic Substances Control (DTSC). 2015. Concurrence With Finding of No Department of Defense Actions Indicated (NDAI) for Formally Used Defense Sites in California. Available: [https://www.envirostor.dtsc.ca.gov/public/final\\_documents2?global\\_id=80000711&doc\\_id=60385132](https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80000711&doc_id=60385132). Accessed: January 27, 2023.
- Department of Toxic Substances Control (DTSC). 2023. Hazardous Waste and Substances List (Cortese). Available: [https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTES E&site\\_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29](https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTES E&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29). Accessed: January 27, 2023.
- Edd Clark & Associates. 2015. Paradise Beach Park Phase I Environmental Site Assessment. Available: <https://www.parks.marincounty.org/-/media/files/sites/marin-county-parks/projects-and-plans/park-improvements/master-plan-paradise-beach-park/appendix-c-phase-i-report.pdf?la=en>. Accessed: January 27, 2023.
- Marin County. 2018. Marin County Multi-Jurisdiction Local Hazard Mitigation Plan. Available: <https://marinflooddistrict.org/documents/marin-county-multi-jurisdiction-local-hazard-mitigation-plan-2018>. Accessed: January 30, 2023.



# Town of Tiburon

## General Plan 2040 EIR

---

- National Transportation Safety Board. 2023. Aviation Accident Database & Synopses. Available: <https://www.nts.gov/Pages/AviationQuery.aspx>. Accessed: January 27, 2023.
- National Transportation Safety Board. 2023. National Transportation Safety Board Aviation Accident Final Report. Available: <https://app.nts.gov/pdfgenerator/ReportGeneratorFile.ashx?EventID=20001213X34824&AKey=1&RType=Final&lType=LA>. Accessed: January 27, 2023.
- Parsons, 2009. Final Inspection Report: Fort McDowell/Angel Island. Available: [https://www.envirostor.dtsc.ca.gov/public/final\\_documents2?global\\_id=71000007&doc\\_id=5005798](https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=71000007&doc_id=5005798). Accessed: January 27, 2023.
- Ruhge, J. 2016. Tiburon Naval Depot History. Available: <http://www.militarymuseum.org/Tiburon.html>. Accessed: January 27, 2023.
- TN & Associates, Inc. 2003. Final Site Inspection Report: Fort McDowell/Angel Island. Available: [https://www.envirostor.dtsc.ca.gov/public/deliverable\\_documents/2828230142/FinalSIReport\\_FtMcDowell\\_USACE.pdf](https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/2828230142/FinalSIReport_FtMcDowell_USACE.pdf). Accessed: January 27, 2023.
- ### 3.9 Hydrology and Water Quality
- California Department of Water Resources (DWR). 2003. California's Groundwater: Bulletin 118 – Update 2003. Available: [https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/Statewide-Reports/Bulletin\\_118\\_Update\\_2003.pdf](https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/Statewide-Reports/Bulletin_118_Update_2003.pdf). Accessed: January 31, 2023.
- California Department of Water Resources (DWR). 2019. Groundwater Basin Boundary Assessment Tool. Available: <https://gis.water.ca.gov/app/bbat/>. Accessed: January 31, 2023.
- California State Water Resources Control Board (SWRCB). 2022. 2020-2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report). Available: [https://www.waterboards.ca.gov/water\\_issues/programs/water\\_quality\\_assessment/2020\\_2022\\_integrated\\_report.html](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html). Accessed January 31, 2023.
- EKI Environment and Water, Inc. 2021. 2020 Urban Water Management Plan for Marin Municipal Water District. Available: <https://www.marinwater.org/sites/default/files/2021-06/Draft%20MMWD%20UWMP%202020-1.pdf>. Accessed: February 3, 2023.
- Marin County, 2018. Marin County Multi-Jurisdiction Local Hazard Mitigation Plan. Available: <https://marinflooddistrict.org/documents/marin-county-multi-jurisdiction-local-hazard-mitigation-plan-2018>. Accessed: January 30, 2023.

Marin County Flood Control and Water Conservation District. 2023. About. Available: <https://marinflooddistrict.org/about/>. Accessed: February 3, 2023.

Marin County Flood Control and Water Conservation District. 2023. Watersheds. Available: <https://marinflooddistrict.org/watersheds/>. Accessed: February 3, 2023.

Marin Countywide Stormwater Pollution Prevention Program (MCSTOPPP). 2023. About. Available: <https://mcstoppp.org/about/>. Accessed: February 2, 2023.

Marin Countywide Stormwater Pollution Prevention Program (MCSTOPPP). 2023. Minimum Control Measures for Small Construction Projects. Available: <https://hx96b8.a2cdn1.secureserver.net/wp-content/uploads/2020/09/esc-measures-for-small-construction-projects.pdf>. Accessed: February 2, 2023.

### **3.10 Land Use**

California Department of Toxic Substances Control, EnviroStor Database. 2020. Fort McDowell State Response Site.

Marin County. As Amended Through September 2013. Marin Countywide Plan (Reprinted October 2014). Available at: [https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp\\_2015\\_update\\_r.pdf?la=en](https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update_r.pdf?la=en)

Marin County. 2021. Parcel Data provided by the County Assessor's Office. January 2021.

San Francisco Bay Conservation and Development Commission. April 1984. Richardson Bay Special Area Plan.

Town of Tiburon. Tiburon Municipal Code. Current through Ordinance No. 589 N.S., passed September 2, 2020.

Town of Tiburon. As Amended Through February 3, 2016. Town of Tiburon General Plan. Available at: <https://www.townoftiburon.org/206/General-Plan>

Town of Tiburon. Projects Under Review. Accessed January 2021. Available at: <https://www.townoftiburon.org/357/Projects-Under-Review>

### **3.11 Noise**

American National Standards Institute. (1998). [Standard] ANSI S1.43-1997 (R2007): Specifications for integrating-averaging sound level meters. New York: Acoustical Society of America.

American Standard Testing Methods, Standard Guide for Measurement of Outdoor A-Weighted Sound Levels, American Standard Testing Methods (ASTM) E1014-08, 2008.

ASTM E1014-12. Standard Guide for Measurement of Outdoor A-Weighted Sound Levels. ASTM International. West Conshohocken, PA. 2012.

# Town of Tiburon

## General Plan 2040 EIR

---

- ASTM E1780-12. Standard Guide for Measuring Outdoor Sound Received from a Nearby Fixed Source. ASTM International. West Conshohocken, PA. 2012.
- Barry, T M. (1978). FHWA highway traffic noise prediction model (FHWA-RD-77-108). Washington, DC: U.S. Department of transportation, Federal highway administration, Office of research, Office of environmental policy.
- California Department of Transportation (Caltrans), Technical Noise Supplement, Traffic Noise Analysis Protocol, September 2013.
- California Department of Transportation (Caltrans). Transportation- and Construction- Induced Vibration Guidance Manual. April 2020.
- Federal Highway Administration. FHWA Roadway Construction Noise Model User's Guide. FHWA-HEP-05-054 DOT-VNTSC-FHWA-05-01. January 2006.
- Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.
- Federal Interagency Committee on Noise (FICON), Federal Agency Review of Selected Airport Noise Analysis Issues. August 1992.
- International Electrotechnical Commission. Technical committee 29: Electroacoustics. International Organization of Legal Metrology. (2013). Electroacoustics: Sound level meters.
- International Organization for Standardization. (1996). Acoustic - ISO 9613-2: Attenuation of sound during propagation outdoors. Part 2: General methods of calculation. Geneva: I.S.O.
- SoundPLAN. SoundPLAN GmbH. Backnang, Germany. <http://www.soundplan.eu/english/>
- U.S. Environmental Protection Agency, Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety, March 1974.

### **3.12 Population and Housing**

- Association of Bay Area Government. 2021. Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area. Adopted December 2021.
- Bay Area Census. Town of Tiburon 1970 – 1990 Decennial Census Data. Available at: <http://www.bayareacensus.ca.gov/cities/Tiburon70.htm>
- California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2019.
- California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2020-2021, California Department of Finance, May 2021.

- California Department of Finance. E-8 Historical Population and Housing Estimates for Cities, Counties, and the State, 2000-2010. November 2012.
- Office of Governor Gavin Newsom, Governor Gavin Newsom Signs 18 Bills to Boost Housing Production. October 9, 2019. Website: <https://www.gov.ca.gov/2019/10/09/governor-gavin-newsom-signs-18-bills-to-boost-housing-production/>. Accessed May 23, 2020.
- Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2017. Plan Bay Area 2040. July 26.
- Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2021. Plan Bay Area 2050. Adopted October 2021.
- Town of Tiburon. 2014. 2015-2023 Housing Element. Adopted August 20, 2014.
- United States Census Bureau. 2019. Subject Definitions. August 7. Website: <https://www.census.gov/programs-surveys/cps/technical-documentation/subject-definitions.html>. Accessed March 1, 2023.
- United States Census Bureau, Center for Economic Studies. 2021. American Community Survey: DP03 – Selected Economic Characteristics. Website: <https://data.census.gov/table?q=Tiburon+town,+California&t=Employment&y=2021&tid=ACSDP5Y2021.DP03>. Accessed March 2, 2023.
- United States Census Bureau, Center for Economic Studies. 2019. OnTheMap Version 6.7: Work Area Profile Analysis. August 29. Website: <https://onthemap.ces.census.gov/>. Accessed March 2, 2023.

### **3.13 Public Services and Recreation**

- Belvedere – Tiburon Library. 2021 Belvedere – Tiburon Library Expansion. Available: <https://www.beltibrary.org/about-us/library-expansion>.
- California Department of Finance. 2022. E-5 Report. May 2022.
- City of Sausalito. 2020. City of Sausalito Revised General Plan EIR.
- MARINet. 2021. MARINet Library Database. Available at: [https://marinet.bibliocommons.com/v2/search?custom\\_edit=false&query=branch%3A%22Belvedere+Tiburon%22&searchType=bl&suppress=true](https://marinet.bibliocommons.com/v2/search?custom_edit=false&query=branch%3A%22Belvedere+Tiburon%22&searchType=bl&suppress=true).
- Marin County LAFCO. 2020. Tiburon Peninsula Municipal Services Review. [page 42]
- Marin County Parks and Open Space Department. 2008. Strategic Plan.
- Marin County Parks and Open Space Department. Parks & Preserves Location List. Available: <https://www.marincountyparks.org/parkspreserves/sip-location-list>.

# Town of Tiburon

## General Plan 2040 EIR

---

- Southern Marin Fire Protection District. 2016. 2016 Fire and Emergency Medical Services Deployment Analysis. Available: <https://www.smfd.org/our-district/operations>
- Southern Marin Fire Protection District. 2022. Final Budget Fiscal Year 2022/2023. Available: <https://www.smfd.org/our-district/finance/financials-budget>
- Southern Marin Fire Protection District. 2023. District Overview. Available: <https://www.smfd.org/our-district/district-overview>
- Tiburon Fire Protection District. 2020. 2020 Comprehensive Annual Financial Report. Available: <https://www.tiburonfire.org/wp-content/uploads/2020/12/CAFR-2020.pdf>
- Tiburon Fire Protection District. 2022 Comprehensive Annual Financial Report. Available: <https://www.tiburonfire.org/wp-content/uploads/2022/01/ACFR-2022.pdf>
- The Ark Newspaper. 2022. "Tiburon set to expand police, double spending on infrastructure". June 7, 2022. Available: <https://www.thearknewspaper.com/single-post/tiburon-set-to-expand-police-double-spending-on-infrastructure#:~:text=The%20preliminary%20fiscal%202023%20budget,for%20a%20surplus%20of%20%2450%2C783>.
- Town of Tiburon. 2010. Belvedere – Tiburon Library Expansion Project Draft Environmental Impact Report [page II-1].
- Town of Tiburon. 2011. Tiburon Peninsula Recreation Needs and Existing Condition Assessment Study [page 16].
- Town of Tiburon. 2011. Tiburon Peninsula Recreation Needs and Existing Condition Assessment Study [page 23-24]
- Town of Tiburon. 2020. Chief of Police Job Announcement Brochure. December 2020.
- Town of Tiburon. 2022. Municipal Budget Fiscal Year 2022-23.

### 3.14 Transportation

- California Department of Transportation (Caltrans). Caltrans Strategic Management Plan 2015-2020. Website: <https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/caltrans-strategic-mgmt-plan-033015-a11y.pdf>. Accessed February 28, 2023.
- California Department of Transportation (Caltrans). Caltrans Strategic Plan 2020-2024. 2023. Website: <https://dot.ca.gov/-/media/dot-media/programs/risk-strategic-management/documents/sp-2020-16p-web-a11y.pdf>. Accessed February 28, 2023.
- Golden Gate Bridge Highway and Transportation District. 2023. Tiburon Ferry Timetable. Available: <https://www.goldengate.org/ferry/route-schedule/tiburon-san-francisco/?backurl=%2Fferry%2Fschedules-maps%2F>.

- Golden Gate Bridge Highway and Transportation District, Short-Range Transit Plan, Fiscal Years 2022/23 – 2027/28. December 2022.
- Governor’s Office of Planning and Research (OPR). 2018. Technical Advisory: On Evaluating Transportation Impacts in CEQA.
- Marin Independent Journal. 2021. Golden Gate Ferry resumes Tiburon-to-SF run. December 14, 2021. Available: <https://www.marinij.com/2022/01/03/golden-gate-ferry-resumes-tiburon-to-sf-run/>. Accessed March 9, 2023.
- Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2021. Plan Bay Area 2050. May 26.
- Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2021. Plan Bay Area 2050. May 26. Page 18.
- Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2021. Plan Bay Area 2050. May 26. Page 19.
- Transportation Authority of Marin (TAM). 2019. 2019 Congestion Management Plan Update, page 32.
- U.S. Department of Transportation Federal Highway Administration. 2022. Federal-aid Program Administration. 2022. Available: <https://www.fhwa.dot.gov/federalaid/projects.cfm>

### **3.15 Utilities and Service Systems**

- Bay Area Stormwater Management Agencies Association. 2019. BASAA Post-Construction Manual. Available: <https://hx9.6b8.myftpupload.com/wp-content/uploads/2020/09/basmaa-postconstruction-manual.pdf>
- California Regional Water Quality Control Board – San Francisco Bay Region. December 2006. Order No. R2-2006-0082. Available: [https://www.waterboards.ca.gov/sanfranciscobay/board\\_decisions/adopted\\_orders/2006/R2-2006-0082.pdf](https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2006/R2-2006-0082.pdf)
- California Regional Water Quality Control Board – San Francisco Bay Region. 2016. Order No. R2-2016-00XX. Available: [https://www.waterboards.ca.gov/sanfranciscobay//board\\_info/agendas/2016/October/paradisecove/Paradise\\_Cove\\_Tentative\\_Order.pdf](https://www.waterboards.ca.gov/sanfranciscobay//board_info/agendas/2016/October/paradisecove/Paradise_Cove_Tentative_Order.pdf)
- California Regional Water Quality Control Board – San Francisco Bay Region. January 2018. CMSA WTPP NPDES Permit Reissued. Available: [https://www.waterboards.ca.gov/sanfranciscobay/board\\_info/agendas/2018/January/6\\_ssr.pdf](https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2018/January/6_ssr.pdf)
- California Regional Water Quality Control Board – San Francisco Bay Region. August 2018. Order No. R2-2018-0038. Available:



# Town of Tiburon

## General Plan 2040 EIR

---

[https://www.waterboards.ca.gov/sanfranciscobay/board\\_info/agendas/2018/August/5a\\_final\\_to](https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2018/August/5a_final_to)

CalRecycle. 2015-2019. Jurisdiction Diversion/Disposal Rate Summary. Available: <http://www.calrecycle.ca.gov>. Accessed June 2019.

CalRecycle. 2019. Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility. Available: <https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility>

CalRecycle. 2021. Facility/Site Summary Details: Available: <http://www.calrecycle.ca.gov/SWFacilities/Directory>

CalRecycle. 2022. SWIS Facility/Site Activity Details. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3054?siteID=1727>

Central Marin Sanitation Agency. 2018. 2017 Facilities Master Plan. Available: [https://www.cmsa.us/assets/documents/administrative/2017FacilitiesMasterPlan\\_FINAL.pdf](https://www.cmsa.us/assets/documents/administrative/2017FacilitiesMasterPlan_FINAL.pdf)

Central Marin Sanitation Agency. 2019. Spring 2019 Newsletter. Available: [https://cmsa.us/assets/newsletters/CMSA\\_Newsltr\\_1Q\\_2019\\_WEB.pdf](https://cmsa.us/assets/newsletters/CMSA_Newsltr_1Q_2019_WEB.pdf)

Central Marin Sanitation Agency. June 2020. Biennial Operating and Capital Budget. Available: <https://www.cmsa.us/assets/documents/administrative/budget/FY20%20&%20FY21%20Budget%20Adopted%20GFOA%20Website%20CMSA%20CA.pdf>

City of San Rafael. January 2021. San Rafael General Plan 2040 & Downtown Precise Plan Draft EIR. Available: [https://storage.googleapis.com/proudcity/sanrafaelca/uploads/2021/01/4.17\\_UtilitiesServSystems.pdf](https://storage.googleapis.com/proudcity/sanrafaelca/uploads/2021/01/4.17_UtilitiesServSystems.pdf)

CSW/Stuber-Stroeh Engineering Group. May 2008. Tiburon Storm Drainage Master Plan.

DWR. (2004). Bulletin 118: Groundwater Basin Lookup. Available: <https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118>

Marin County Stormwater Pollution Prevention Program. September 2017. Storm Water Resource Plan Functionally Equivalent Document. Available: <https://hx9.6b8.myftupload.com/wp-content/uploads/2020/09/marin-county-swrp-2017-final.pdf>

Marin Household Hazardous Waste Facility. 2021. About the Marin HHW Facility. Available: <https://marinhhw.com/about-marin-hhw/>

- Marin Municipal Water District. March 2017. Marin Municipal Water District Water Resources Plan 2040. Available: <https://www.marinwater.org/sites/default/files/2020-09/Water%20Resources%20Plan%202040.pdf>
- Marin Municipal Water District. 2020. Marin Municipal Water District 2019 Annual Water Quality Report. Available: [https://www.marinwater.org/sites/default/files/2020-10/Marin%20Water%20Annual%20Water%20Quality%20Report%202019\\_0.pdf](https://www.marinwater.org/sites/default/files/2020-10/Marin%20Water%20Annual%20Water%20Quality%20Report%202019_0.pdf)
- Marin Municipal Water District. 2020. Marin Water 2019 Annual Report. Available: <https://www.marinwater.org/sites/default/files/2020-09/Marin%20Water%202019%20Annual%20Report.pdf>
- Marin Municipal Water District. 2021. Marin Water 2020 Annual Report. Available: <https://www.marinwater.org/sites/default/files/2021-06/AQWR%20-%20English%20-%202020.pdf>
- Marin Municipal Water District. 2020. Marin Municipal Water District Fact Sheet. Available: <https://www.marinwater.org/sites/default/files/2020-10/District%20Fact%20Sheet%202020.pdf>
- Marin Municipal Water District. June 2021. 2020 Urban Water Management Plan. Available: [https://www.marinwater.org/sites/default/files/2021-07/Final%20MMWD%20UWMP\\_w\\_Appendices\\_rev.pdf](https://www.marinwater.org/sites/default/files/2021-07/Final%20MMWD%20UWMP_w_Appendices_rev.pdf)
- Marin Municipal Water District Board of Directors Special Meeting. 2020. Agenda Item 1b: Board 2020 Annual Retreat. September 25, 2020. Available: <https://www.marinwater.org/sites/default/files/2020-11/09-25-2020%20Board%20Retreat%20Packet%20Updated.pdf>
- Mill Valley Refuse. 2021. About Mill Valley Refuse Service. Available: <https://www.millvalleyrefuse.com/support/about-us/>
- Redwood Landfill. 2019. Solid Waste Facility Permit. Facility Number: 21-AA-0001. Issued October 16, 2014.
- Regional Water Quality Control Board. Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. December 2018.
- Richardson Bay Sanitary District. April 2019. Sewer System Management Plan.
- Richardson Bay Sanitary District. Sewer Use Code. Available: [http://richardsonbaysd.org/pdfs/sewer\\_use\\_code.pdf](http://richardsonbaysd.org/pdfs/sewer_use_code.pdf)
- Rodriguez, Adrian. "Tiburon School's Water Tests Show Lead Contamination". Marin Independent Journal. October 14, 2019. Available: <https://www.marinij.com/2019/10/14/marin-school-addresses-lead-contamination-in-drinking-water/>

# Town of Tiburon

## General Plan 2040 EIR

---

San Francisco Bay Conservation and Development Commission. San Francisco Bay Plan. January 2008.

Sanitary District No. 2 of Marin County. August 2009. Sewer Master Plan. Available: <https://townofcortemadera.org/DocumentCenter/View/1318/Sanitary-District-No-2-Sewer-Master-Plan-8-2009>

Sanitary District No. 2 of Marin County. August 2013. Sewer System Management Plan. Available: <https://townofcortemadera.org/DocumentCenter/View/1020/Sanitary-District-No-2-Sewer-System-Mgmt-Plan-8-2013-Update>

Sanitary District No. 2 of Marin County. Accessed 2021. 2019 Sewer Rehabilitation Project Overview. Available: <https://townofcortemadera.org/955/2019-Sewer-Rehabilitation-Project>

Sanitary District No. 2 of Marin County. Accessed 2021. 2020 Sewer Rehabilitation Project Overview. Available: <https://townofcortemadera.org/957/2020-Sewer-Rehabilitation-Project>

Sanitary District No. 2 of Marin County. Accessed 2021. VFD Replacement at Paradise Pump Station Project Overview. Available: <https://townofcortemadera.org/954/VFD-Replacement-at-Paradise-Drive-Pump-S>

Sanitary District No. 2 of Marin County. Accessed 2021. Trinidad II Pump Station Modification Project Overview. Available: <https://townofcortemadera.org/951/Trinidad-II-Pump-Station-Modifications>

Sanitary District No. 2 of Marin County. Accessed 2021. Fifer Pump Station Modification Project Overview. Available: <https://townofcortemadera.org/950/Fifer-Pump-Station-Modifications>

Sanitary District No. 2 of Marin County. Accessed 2021. Boardwalk A & B Pump Station Moto Control Center Updates Project Overview. Available: <https://townofcortemadera.org/953/Boardwalk-A-B-Pump-Station-MCC-Updates>

Sanitary District No. 5 of Marin County. August 2014. Grand Jury Report Findings Response "The Scoop on Marin County Sewer Systems: Part 1". Available: <https://www.marincounty.org/-/media/files/departments/gj/reports-responses/2013/responses/sd5seweri.pdf?la=en>

Sanitary District No. 5 of Marin County. May 2018. Sanitary District No. 5 of Marin County Sewer System Management Plan. Available: <https://www.sani5.org/about/documents/file/archives/2018%2005%2016%20F%20Main%20Plant%20SSMP%2005042018TR.pdf>

Sanitary District No. 5 of Marin County. May 2018. Sanitary District No. 5 of Marin County – Paradise Cove Sewer System Management Plan. Available:

<https://www.sani5.org/about/documents/file/archives/2018%2005%2016%20F%20Paradise%20Cove%20SSMP%20UPDATE%202018%2005012018TR.pdf>

Sanitary District No. 5 of Marin County Municipal Code. Current through Resolution 2020-10, passed October 2020. Available:

<https://www.codepublishing.com/CA/MarinCSD5/#!/MarinCSD501/MarinCSD501.html>

Sanitary District No. 5 of Marin County. February 11, 2021. Email correspondence with Tony Rubio, District Manager – Chief Plant Operator.

Sewerage Agency of Southern Marin. December 2014. Wastewater Treatment Plan Master Plan. Available: <https://www.sasmwwtp.org/projects/masterplan.htm>

Sewerage Agency of Southern Marin. April 2018. Wastewater Treatment Plant Rehabilitation Project – Phase I Notice. Available:

<https://www.cityofmillvalley.org/documents/Public%20Notice.pdf>

Town of Tiburon. As Amended Through February 3, 2016. Town of Tiburon General Plan. Available: <https://www.townoftiburon.org/206/General-Plan>

Town of Tiburon. As Amended Through February 3, 2016. Town of Tiburon General Plan. Available: <https://www.townoftiburon.org/206/General-Plan>

Town of Tiburon Town Council Meeting. 2020. 'Agenda Item CC-3: Accept the 2020 Storm Drain Rehabilitation Project as Complete and File a Notice of Completion with the County of Marin. July 15, 2020.

### **3.16 Wildfire**

California Department of Forestry and Fire Protection and State Board of Forestry and Fire Protection. 2010. 2010 Strategic Fire Plan for California.

California Department of Forestry and Fire Protection. 2012. About the Fire Prevention Fee. Available: <http://www.fire.ca.gov/firepreventionfee/>

California Department of Forestry and Fire Protection. 2020. Marin County Fire Hazard Severity Zones in LRA. Accessed December 2020.

California Department of Forestry and Fire Protection. 2020. Marin County Fire Hazard Severity Zones in SRA. Accessed December 2020.

California Department of Forestry and Fire Protection. 2020. Fuel Ranking Maps and Data. Accessed November 2020.

Marin County Multi-Jurisdictional Local Hazard Mitigation Plan. Available: <https://www.marincounty.org/>

Marin County Fire Department Strategic Plan 2017-2020; [https://issuu.com/marincountyfire/docs/strategic\\_plan\\_2017-2020.11.21.17](https://issuu.com/marincountyfire/docs/strategic_plan_2017-2020.11.21.17)

# Town of Tiburon

## General Plan 2040 EIR

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Southern Marin Fire Protection District (SMFD). 2023. Ordinance. Available:

<https://www.smfd.org/our-district/prevention/fire-and-life-safety/prevention-ordinances>

Southern Marin Fire Protection District (SMFD). 2016. 2016 Marin County Community Wildfire Protection Plan. Available: <https://www.smfd.org/our-district/prevention/vegetation-management/community-wildfire-protection-plan>

Southern Marin Fire Protection District (SMFD). 2020. 2020 SMFD Wildland-Urban Interface Wildfire Hazard and Risk Assessment. Available: <https://www.smfd.org/our-district/prevention/vegetation-management/community-wildfire-protection-plan>

Town of Tiburon. As Amended Through February 3, 2016. Town of Tiburon General Plan. Available: <https://www.townoftiburon.org/206/General-Plan>