



General Plan Parks and Open Space and Conservation Elements

Community Assessment

prepared by

City of Foster City

Community Development Department

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1 Introduction

This Community Assessment analyzes Foster City's demographics, growth patterns, and recreational needs to support updates to the Parks and Open Space and Conservation Elements of the City's General Plan. It examines existing community demographics such as population, age, race, ethnicity, language, and household composition, along with projected growth to evaluate whether existing access and services align with community needs.

The assessment also maps the current parks and open space system, analyzing park service metrics across the City, identifying access disparities and how these disparities relate to racial, economic, and social factors. It incorporates urban tree canopy data to evaluate tree coverage and pinpoint coverage gaps. The assessment also evaluates climate impacts and adaptation needs for parks, recreational facilities, and community needs, referencing existing plans such as the Local Hazard Mitigation Plan and Climate Action Plan.

The Community Assessment will be used to inform updates to the Parks and Open Space and Conservation Elements of Foster City's General Plan by identifying areas of needed expansion to serve existing and future communities, future climate considerations, and areas to enhance tree coverage. The insights will guide policy updates regarding future development, park planning, and resource allocation in the City.

2 Community Assessment

2.1 Foster City Demographics

2.1.1 Population

The City of Foster City (Foster City) has experienced growth between 2010 and 2024, increasing by 14.5 percent or approximately 1 percent annually (WRT 2024a). This is greater than the national growth rate of 0.81 percent annually between 2010 and 2024 (WRT 2024a). This is also greater than the state's growth rate at approximately 0.58 percent per year between 2010 and 2020 (Public Policy Institute of California 2024). The total number of households has only increased 9.1 percent over this 14-year period. Foster City has a slightly larger household size at 2.6 people per household compared to the U.S. at 2.55 people per household (WRT 2024a).

POPULATION GROWTH



14.5%

Foster City has experienced 14.5% growth between 2010 and 2024

HOUSEHOLD GROWTH



9.1%

The total number of households in Foster City has increased 9.1% between 2010 and 2024

The current population is estimated to be 35,004 people living in 13,104 households. By 2040, the City's population is projected to be 39,070 residents living within 15,110 households (ABAG 2018). This is in alignment with the City's General Plan population projection of 39,070 in 2040 (Foster City 2023).

2.1.2 Race and Ethnicity

Foster City is a diverse community. Diversity within the city has also increased between 2010 and 2024. According to the U.S. Census Bureau, the largest racial group within the city is Asian Alone, representing 56 percent of the total population in 2024 while White Alone represents 30 percent of the total population (U.S. Census Bureau 2024). By 2039, it's anticipated that Foster City will have an increased Asian Alone population of 65 percent (WRT 2024a).

DIVERSITY WITHIN FOSTER CITY



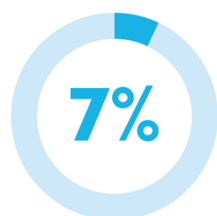
Asian Alone, the largest racial group in Foster City represents 56% of the total population in 2024



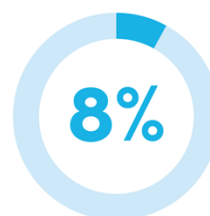
By 2039, it is anticipated that Foster City will have an increased Asian Alone population of 65%

The Hispanic/Latino population was unchanged between 2010 and 2024 representing 7 percent of the City's total population (U.S. Census Bureau 2024). This is far below the national average of 19 percent and state average of approximately 40 percent (U.S. Census Bureau 2024). The Hispanic/Latino population is expected to increase only slightly to 8 percent by 2039 (WRT 2024a).

DIVERSITY WITHIN FOSTER CITY



The Hispanic/Latino racial group represented 7% of Foster City's total population in 2024



The Hispanic/Latino population is expected to increase to 8% by 2039

2.1.3 Age Designations

Age within the City has remained relatively balanced between 2010 and 2024. The largest age segment is the 35-54 segment at 34 percent of the population (WRT 2024a). In 2024, the median age in Foster City was 40.3, which is slightly older than the national median age of 39.3 years (WRT 2024a).

Over the next 15 years it is anticipated that the age distribution in the city will continue to be balanced. The city will age slightly as the 75 years and older segment is expected to increase by 2 percent (WRT 2024a). However, the 18-34 segment is projected to decrease by approximately 5 percent. All other major segments will be relatively unchanged or decrease slightly (WRT 2024a).

MEDIAN AGE IN FOSTER CITY IN 2024



**MEDIAN HOUSEHOLD
INCOME****\$186,440**

Foster City's per capita income is \$92,859 and median household income is \$186,440

2.1.4 Households and Income

The per capita income is the average income per person in the city, calculated by dividing the total income of the population by its total number of people. The median household income is the halfway point of all household incomes in the city, meaning half of households earn more and half earn less than the median income. The City's per capita income is \$92,859 and median household income is \$186,440, both of which are greater than the national averages and the regional averages for San Mateo and San Francisco counties (WRT 2024a). Approximately 4.6 percent of the City's population live below the poverty line, lower than

the national average of 11.1 percent and state average of 12 percent in 2023 (U.S. Census Bureau 2023a, 2023b, 2023c).

2.2 Recent and Future Growth

The Association of Bay Area Governments (ABAG) is responsible for forecasting changes to the Bay Area population and economy, with the most recent projections presented in Plan Bay Area 2050. While Plan Bay Area 2050 does not have projections for Foster City specifically, the population of San Mateo County was 265,000 in 2015. By 2050, San Mateo County will grow by 48 percent reaching 394,000 people (ABAG 2021).

Jobs are expected to experience growth of 29 percent within the county between 2015 and 2050, increasing from 393,000 jobs to 507,000 jobs (ABAG 2021). According to Plan Bay Area 2050, housing levels within Super District 6, which includes Foster City, will increase 39 percent between 2015 and 2050, increasing from 87,000 households to 121,000 households (ABAG 2021).

The most recent projections completed at the city-level were done as a part of ABAG's Plan Bay Area 2040. According to Plan Bay Area 2040, Foster City's population was 32,945 in 2015 and projected to grow to 39,070 by 2040 (ABAG 2018). The number of households in Foster City are anticipated to grow from 12,365 to 15,110 between 2015 and 2040 (ABAG 2018). However, the number of individuals per household is expected to slightly decrease from 2.66 in 2015 to 2.58 in 2040 (ABAG 2018). In 2015, it was estimated that Foster City was home to 21,345 jobs. Jobs are expected to increase to 27,250 by 2040 (ABAG 2018).

**POPULATION
PROJECTION BY 2040****39,070 residents****HOUSEHOLD
PROJECTION BY 2040****15,110 households**

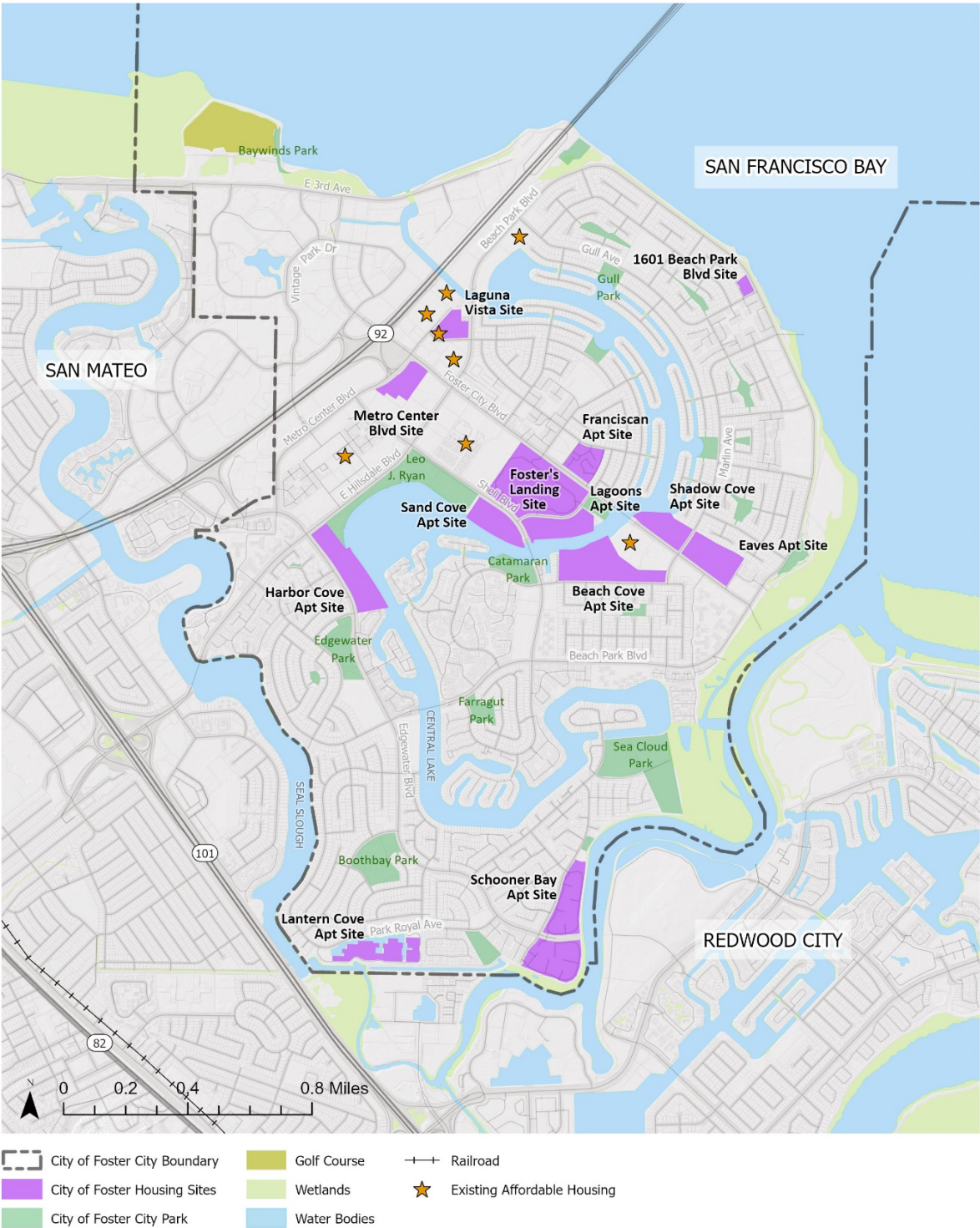
2.2.1 Areas of Planned Growth

According to the City's Housing Element, there were several sites selected for residential development or redevelopment to meet the City's Regional Housing Needs Assessment (RHNA). The strategy used to fulfill the RHNA in the Housing Element included implementation of pipeline projects, updating zoning to allow mixed-use in areas previously designated for commercial uses and rezone non-residential sites to residential sites, the identification of a new site, and carrying over sites from the 5th Cycle Housing Element. In total, there are 13 sites identified in the Housing Element with the potential for new residential development (Foster City 2023). These sites are shown in Figure 1. As the city's population continues to grow and new residential development is built in these areas, there could be an increased need for additional parks and open space to serve that population and ensure that existing facilities are aligned with additional needs.

There are several projects that are currently under review, approved, or under construction that may have an impact on the use or availability of parks and open space in the city. These include:

- The **Foster City Recreation Center Rebuild Project** is currently being constructed. The project involves the demolition of the existing 32,000-square-foot recreation center and construction a new Foster City Recreation Center in approximately the same location (Foster City 2025a). The new recreation center building will be two stories and a maximum of approximately 40 feet in height and approximately 40,000 square feet in size. The proposed project will also include improvements to Leo J. Ryan Park consisting of new outdoor gathering spaces, new landscaping, and restriped parking lots.
- The **Redevelopment of Lantern Cove Apartments** which would add 420 new dwelling units and 518 new parking spaces on a 16.8-acre site known as Lantern Cove Apartments (Foster City 2025a).

Figure 1 Housing Element Sites Inventory Map



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Fig X Sites Inventory

2.3 Recreational Services

2.3.1 Recreation Trends

It is important to understand the local and national participation trends in recreational activities. Understanding these trends allows the City to assess demands and fill gaps in service to meet future needs. Trends data for the city were obtained from the Sports & Fitness Industry Association's (SFIA), National Recreation and Park Association (NRPA), and Environmental Systems Research Institute, Inc. (ESRI). All trend data is based on current and/or historical participation rates, statistically valid survey results, or NRPA Park Metrics. ESRI's 2024 Sports and Leisure Market Potential (MPI) Data measures the demand for recreational activities as well as expected consumer attitudes towards these activities by Foster City residents. Activities with MPI numbers greater than the national average are significant because they indicate that Foster City residents will likely take part in offerings if the city or surrounding communities provided these activities.

Outdoor recreational activities have been on the rise nationally over the last five years. The same trend has been seen for residents in Foster City, with all outdoor recreational activities scoring higher than the national averages. According to the Demographic and Recreation Trend Analysis, walking for exercise is the activity with the highest expected participation both nationally and locally. Foster City scored a higher MPI than what was scored nationally, indicating that the City should continue to bolster and provide resources for pedestrian uses. Given Foster City's lagoon and unique landscape along the coast, there is unsurprisingly a strong demand for all aquatic activities. The city scored higher than the national average for swimming and canoeing or kayaking and scored the same as the national average for saltwater fishing (WRT 2024a). Among all general sports analyzed in the Demographic and Recreation Trend Analysis golf was the most popular sport to engage in locally. Tennis, basketball, baseball, pickleball, football, and softball all also scored higher than the national average (WRT 2024a).

5 YEAR TRENDING SPORTS



Swimming



Canoeing



Kayaking

Among all general sports analyzed in the Demographic and Recreation Trend Analysis golf was the most popular sport to engage in locally.

Tennis, basketball, baseball, pickleball, football are also trending



Golf



Tennis



Basketball



Baseball



Football

2.3.2 Existing Recreation Programs

Foster City has a variety of existing recreational programs for residents of all ages. Senior programs include table tennis and line dancing. Kids and teens have the greatest amount of existing programming, including basketball, flag football, soccer, tennis, pickleball, various dance classes, track & field, and karate. Similarly, programs for adults include pickleball, tennis, low-impact fitness classes, various dance classes, karate, kobujutsu, volleyball, ping pong, wrestling, softball, and bocce ball (Foster City 2025b).

The city has an opportunity to expand their current recreational services primarily along the waterfront by providing more water sports courses. Given that boat activities are very popular, group canoe trips or standup paddle board lessons could be new programs the city provides. In addition, organizing local bird watching or other special-interest groups can encourage recreation and create social opportunities.

2.4 Park and Open Space Services

Foster City is known to have a dense park system. Generally, parks are lush, safe, quiet, and well-used. While most parks offer typical amenities such as playgrounds, sports courts, and picnic areas, many of the City's parks are also designed and located to facilitate water-based activities such as kayaking, boating, and windsurfing.

Parks within the city are defined as follows:

- **Community Parks** are large parks (10 to 30 acres) that provide a wide variety of active and passive recreational opportunities that service a substantial portion of the city.
- **Neighborhood Parks** are medium sized parks (2 to 10 acres) that provide a small range of amenities that meet the daily recreational needs for one or more neighborhoods.
- **Mini Parks** are small parks (less than 2 acres) that provide basic recreational amenities for nearby residents in a specific neighborhood or subdivision.
- **Special Use Parks** are designed around specialized uses which serve a specific recreational need or population group.

Table 1 includes all park names, their types, and acreages of each within the city.

Table 1 Foster City Parks

Park Name	Park Type	Park Acres
Boothbay	Community	11.2
Edgewater Park	Community	8.5
Leo J. Ryan	Community	20.7
Sea Cloud Park	Community	23.9
Catamaran Park	Neighborhood	5.9
Erckenbrack Park	Neighborhood	3.5
Farragut Park	Neighborhood	3.8
Gull Park	Neighborhood	3.1
Marlin Park	Neighborhood	3.1
Port Royal	Neighborhood	3.9
Shorebird Park	Neighborhood	3.5

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Arcturus Park	Mini	0.8
Gateshead	Mini	0.1
Ketch Park	Mini	1.6
Killdeer Park	Mini	2.4
Leo Park	Mini	0.02
Pompano Park	Mini	0.6
Shad Park	Mini	2.2
Sunfish Park	Mini	2.4
Turnstone Park	Mini	1.5
Baywinds Park	Special Use	1.3
Boat Park*	Special Use	1.6
Bridgeview Park	Special Use	3.2
Dog Park*	Special Use	1.6
Total		108.82

*Boat Park and Dog Park are considered two separate Foster City parks. However, since they are part of one cohesive site, they were assessed together.
Source: WRT 2024b.

The Parks Assessment Summary Report evaluated all park facilities within the city against the following four metrics:

- **Access & Connectivity** refers to the general accessibility of amenities for users of all abilities. This includes factors such as signage, internal/external path connectivity, safe pedestrian crossings, parking and more.
- **Comfort & Sense of Safety** refers to the presence or absence of comfort amenities such as seating, shade, drinking fountains, and restrooms. It also assesses criteria that affect the feeling of safety within a park, such as unobstructed sightlines, signs of vandalism, and lighting.
- **Functionality** refers to how well the park functions for serving recreational needs. It includes criteria such as the presence and arrangement of amenities, appropriateness of vegetation, and compatibility with neighboring land uses.
- **Condition** refers to the physical condition of park assets and amenities and identifies signs of deferred maintenance.

A rating scale of 1 to 10 was used for scoring each park against each quality. Scores below 4 points were rated as “poor,” those scored 4.1 to 6 points were rated as “fair,” those scored 6.1 to 8 points were rated as “good,” and those with a score of 8.1 or above were rated as “great.” For a full analysis, including individual scores across categories for all park facilities, please refer to the Parks Assessment Summary Report (2024b) completed by WRT. Figure 2 shows the overall scores given to each of the city’s parks.

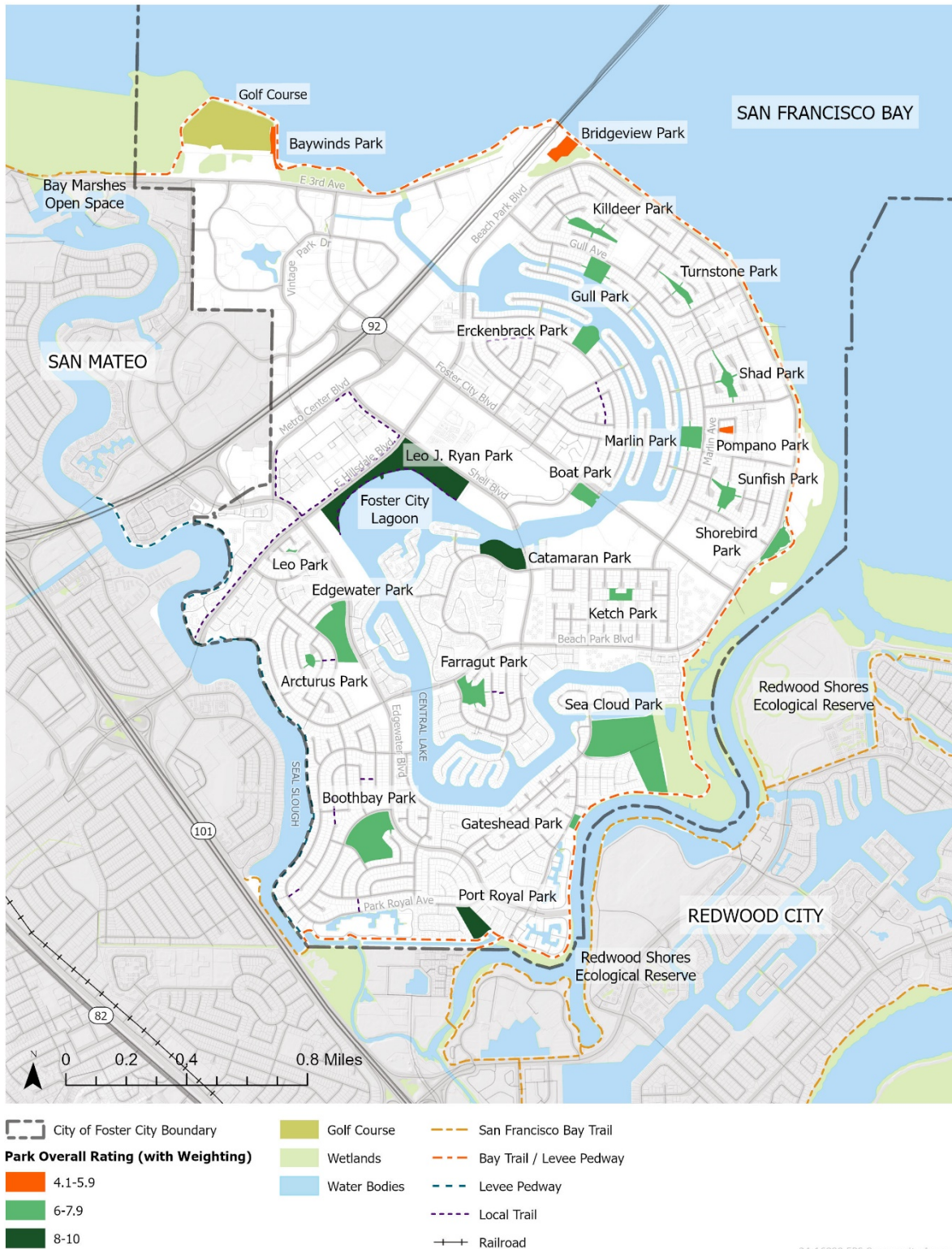
For Access & Connectivity, the Parks Assessment Summary Report notes that parks were rated on average as “good” with an average score of 6.9 (WRT 2024b). Parks with the highest scores for Access & Connectivity include Leo J. Ryan, Shorebird Park, and Gateshead Park, while the lowest scores were for Pompano Park and Edgewater Park. The primary concerns regarding Access & Connectivity included variable path connectivity, difficulty finding the park, inconsistent signage, a well-connected bike and pedestrian system but lack of supportive amenities such as bike racks, and a lack of parking for the most frequented parks.

Foster City parks were rated as “good” for the Comfort & Sense of Safety Category, averaging a score of 6.7 (WRT 2024b). On average, the City’s Community and Neighborhood parks scored higher than the City’s Mini and Special Use parks. The highest scoring parks include Catamaran Park, Leo J. Ryan, and Port Royal, and the lowest scoring parks include Pompano Park, Bridgeview Park, and Baywinds Park. Primary needs to improve Comfort & Sense of Safety include better access to shade, additional comfort amenities, noise mitigation for parks near major noise sources, and lighting.

Parks within Foster City were rated “good” for Functionality with an average score of 6.8 across the various park facilities (WRT 2024b). High scoring parks, such as Port Royal, Ketch Park, and Sea Cloud Park, have a variety of amenities. The lowest scoring parks include Pompano Park and Bridgeview Park which both were rated “poor” for Functionality, scoring below 4 points. Key takeaways noted that the majority of parks within the city provide a variety of amenities, have functional layouts, include water-based landscapes and activities, and are compatible with surrounding land uses.

Parks within the city averaged highest for Condition, with a score of 7.4 (WRT 2024b). Unlike the other categories, the City’s Mini park Condition scores were the highest. In addition, the variance in scores was minimal with all parks scoring 6 points or higher. While scores were high, the Parks Assessment Summary Report notes that geese droppings have had a major impact on park cleanliness, impacting resident enjoyment of the facilities. As of December 2024, Foster City has adopted and begun implementation of the City’s Adaptive Canada Goose Management Plan. The plan aims to reduce the goose population within the city and improve the cleanliness of parks and the waterfront through nesting management, habitat modification, and goose removal (City of Foster City 2022). In addition, the furnishings offered at each park are inconsistent and the conditions of the amenities offered also varied. While many of the parks have healthy vegetation, several parks have variable vegetation conditions with some parks hosting trees that are struggling to grow and other plants appeared withered or missing.

Figure 2 Combined Park Assessment Scores



24-16899 EPS Community Assessment
Fig X Park Combined Assessment Score

2.5 Existing Access to Parks and Open Space

The availability of greenspace (parks, fields, open space) in proximity to housing can create opportunities for physical activity and social interaction. The California Department of Parks and Recreation (CDPR) measures park access and park proximity. When it comes to park access, the CDPR defines “critically underserved” communities as those communities having a ratio of less than three acres of parkland per 1,000 residents. Three acres per 1,000 residents is a State recognized park standard established by California State Parks to measure park access. As shown in Figure 3, there are several areas within Foster City, primarily in the northern and central portions, that have access to less than three acres of park space per 1,000 residents (CDPR 2020).

The Trust for Public Land also evaluates jurisdictions within California based on the ability for residents to access a park within a 10-minute walking distance. Within Foster City, approximately 99 percent of residents live within a 10-minute walk to their nearest park or open space (Trust for Public Lands 2023). This metric is similar regardless of racial group, age group, or income as demonstrated in Figure 4. In addition, the Trust for Public Lands has identified areas where gaps exist.

Table 2 Walking Distance Availability by Demographic

Demographic	People within 10-Minute Walk (Percentage)
Race/Ethnicity	
White ¹	99
Black ¹	99
Native American ¹	97
Asian ¹	99
Pacific Islander ¹	98
Other Race ¹	99
Two or More Races ¹	99
Hispanic	99
Age	
Youth (<20)	99
Adults (20-64)	99
Seniors (>64)	98
Income	
Low Income (<75 % MAI ²)	98
Moderate Income (75%-125% MAI)	99
High Income (>125% MAI)	99

¹Excludes those that report Hispanic origin, which is captured separately from race by the U.S. Census.
²MAI = Median Area Income, which is the median income of the urban area analyzed (Foster City).
Source: Trust for Public Lands 2023.

Figure 3 Park Acreage Available per 1,000 Residents

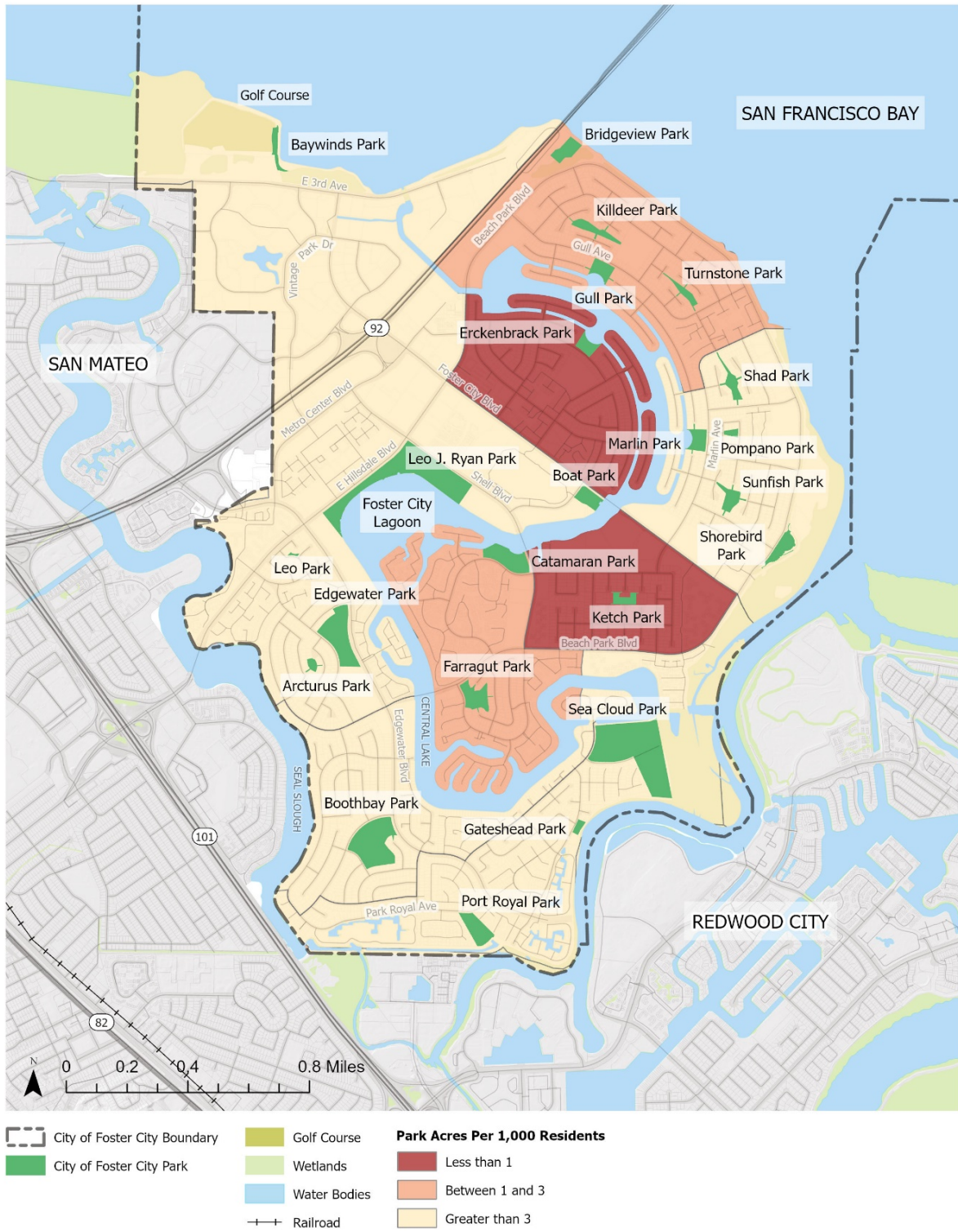
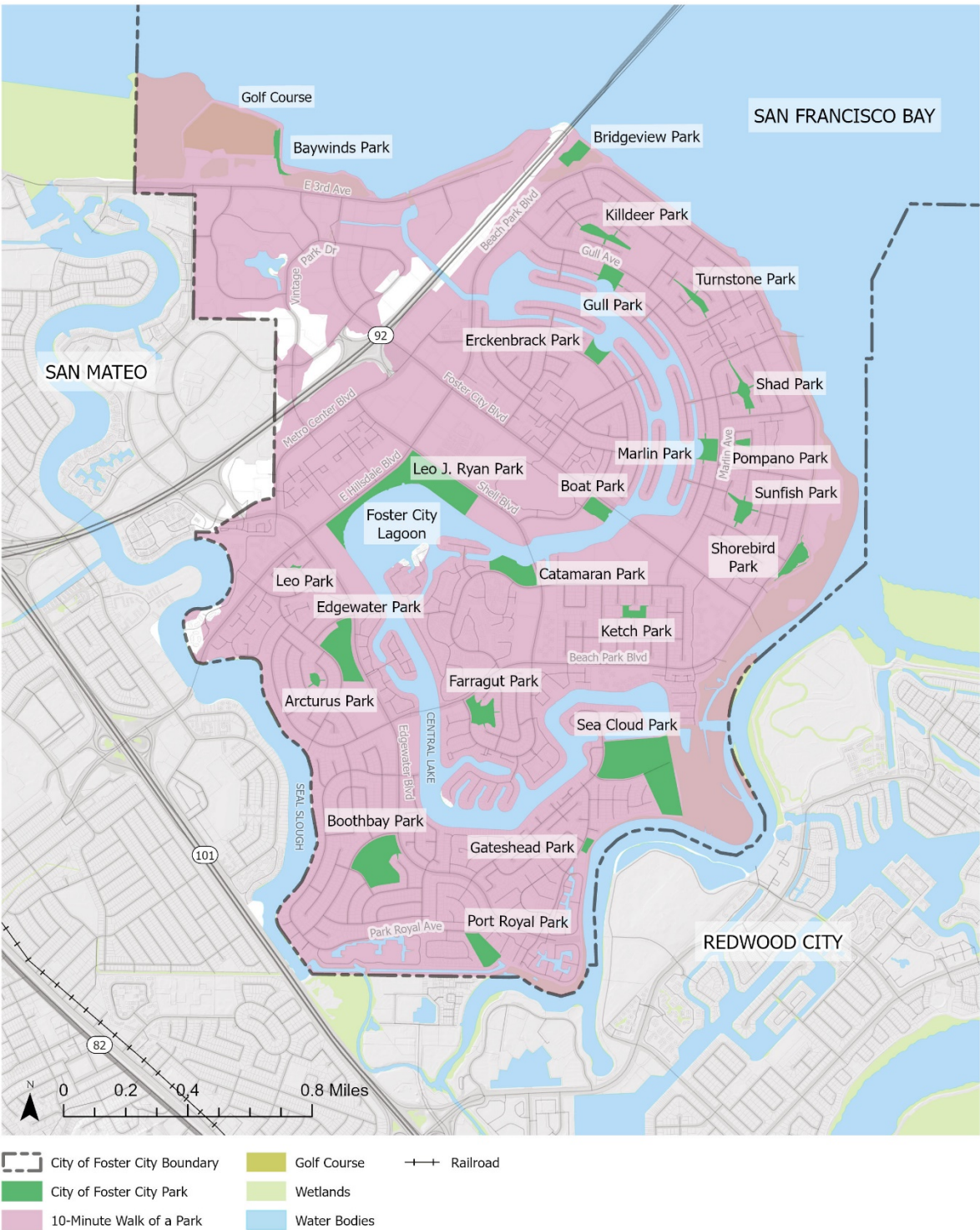


Figure 4 10-Minute Walk Service Area



24-16899 EPS Community Assessment
Fig X Park Walking Accessibility

2.6 Urban Tree Canopy

Foster City has a total 0.5 square miles of existing tree canopy, equivalent to roughly 21,044 trees. According to Tree Equity Score data, the city's 21 census tract block groups achieve a combined Tree Equity Score of 86 out of 100. Expanding the urban canopy by 0.7 square miles (an estimated 31,354 additional trees) and maintaining the existing canopy would bring every urban neighborhood in Foster City to a Tree Equity Score of 100 (Tree Equity Score 2025).

A major driver of Foster City's relatively high Tree Equity Score is the presence of more than 2,000 trees across the City's parks and recreation areas, representing over 80 different species. The most common species include Monterey Pine (361 trees), Narrow-Leafed Ash (177), Sugar Gum (87), River Red Gum (83), Italian Alder (91), and White Alder (121). Sea Cloud Park stands out for having one of the largest concentrations of trees—over 600—while smaller neighborhood parks each add incremental canopy coverage throughout the community (City of Foster City 2021). This diversity and distribution help bolster tree canopy where it might otherwise be sparse, ensuring that most neighborhoods enjoy significant tree cover.

Table 3 Foster City Parks Tree Inventory

Park Name	Number of Trees
Arcturus Park	8
Boothbay Park	182
Catamaran Park	68
Corporation Yard	38
Civic Center Complex	57
Edgewater Park	122
Erckenbrack Park	26
Farragut Park	82
Gateshead Park	18
Ketch Park	62
Killdeer Park	43
Library-Comm. Ctr.	164
Marlin Park	22
Pompano Park	8
Port Royal Park	138
Recreation Center	95
Ryan Park	215
Sea Cloud Park	606
Shad Park	28
Sunfish Park	8
Turnstone Park	28
Source: City of Foster City 2021	

Even if Foster City's main parks already have solid canopy coverage, parks along “edge” zones—where neighborhoods transition into commercial areas—can be priority sites for additional planting. As Foster City updates any Parks and Recreation Master Plans or undertakes new capital

projects, weaving tree planting and canopy expansion into those designs—especially in border zones or areas near major roads—will help maintain equitable tree coverage in the long term. Increasing tree canopy shade coverage around seating and active amenity areas will provide a more comfortable experience for residents and visitors and will become increasingly important as extreme heat impacts amplify over time as climate change progresses.

2.7 Climate Adaptation and Resilience

Foster City's extensive waterfront, lagoon system, and vibrant network of parks are central to the community's identity and quality of life. However, these spaces also face growing climate-related challenges, including sea level rise, intensified storm events, extreme heat, and periodic air quality concerns. Certain parks—particularly those near the lagoon or shoreline—will require targeted adaptation measures to remain safe and enjoyable as climate conditions evolve.

Table 4 provides an overview of climate-related risks present at each of Foster City's parks and recreation spaces.

Table 4 Climate-Related Risk Overview Across Foster City Parks

Park Name	Coastal Flooding & Storm Surge	Dam Failure Inundation	Groundwater Rise	Liquefaction Susceptibility
Arcturus Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Baywinds Park	Yes	Partial	Moderate; Water Table Between 2-5m Depth (Moderate)	Very High
Boat Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Boothbay Park	Yes	Yes	High; Water Table Between 0-1m Depth (Very Shallow)	Very High
Bridgeview Park	Yes	Partial	High; Water Table Between 0-1m Depth (Very Shallow)	Very High
Catamaran Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Edgewater Park	Yes	Yes	High; Water Table Between 0-1m Depth (Very Shallow)	Very High
Erckenbrack Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Farragut Park	Yes	Yes	High; Water Table Between 0-1m Depth (Very Shallow)	Very High
Gateshead Park	Yes	No	High/Very High; Water Table at Surface (Emergent) and Between 0-1m Depth (Very Shallow)	Very High
Gull Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Ketch Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Killdeer Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Leo Park	Yes	Yes	High; Water Table Between 0-	Very High

Park Name	Coastal Flooding & Storm Surge	Dam Failure Inundation	Groundwater Rise 1m Depth (Very Shallow)	Liquefaction Susceptibility
Leo J. Ryan Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Marlin Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Pompano Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Sea Cloud Park	Yes	Partial	High/Very High; Water Table at Surface (Emergent) and Between 0-1m Depth (Very Shallow)	Very High
Shad Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Shorebird Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Sunfish Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Turnstone Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Pompano Park	Yes	Yes	Very High; Water Table at Surface (Emergent)	Very High
Port Royal Park	Yes	No	High; Water Table Between 1-2m Depth (Shallow)	Very High

Sources: Coastal Flooding and Storm Surge: Point Blue Conservation Science and U.S. Geological Survey. Our Coast Our Future (OCOFO). Web application, Petaluma, California. www.ourcoastourfuture.org (accessed January 2025).

Dam Failure Inundation: Foster City, City of. 2023. Safety Element Update. August 21, 2023. Foster City, California.

Groundwater Rise: Point Blue Conservation Science and U.S. Geological Survey. Our Coast Our Future (OCOFO). Web application, Petaluma, California. www.ourcoastourfuture.org (accessed January 2025).

Liquefaction: Foster City, City of. 2023. Safety Element Update. August 21, 2023. Foster City, California.

2.7.1 Addressing Sea Level Rise and Flooding

While the City's existing levee system generally meets federal requirements, some low-lying park areas may still experience intermittent tidal or storm surge flooding under extreme conditions. It is important to note that many regional sea level rise projections do not yet account for Foster City's Levee Improvement Project, which is designed to reduce near-term to mid-century flood risks (City of Foster City 2021). By 2050, sea levels in the Bay Area could increase by 11 to 24 inches, depending on the emissions scenario, and by 2100, projections range from 1.7 feet (20 inches) to over 3 feet (36 inches) (County of San Mateo 2021).

Community parks like Sea Cloud and Leo J. Ryan already sit near the lagoon and Bay shoreline. In more severe sea level rise scenarios, these large multi-amenity parks may see temporary closures of ballfields, picnic areas, or water-based recreation zones if levees are overtopped. Parks such as Marlin, Erckenbrack, and Boat/Dog Park have direct or near-direct water access, making them vulnerable to rising tides and saltwater intrusion. Facilities like boat launches and dog runs could require periodic relocation or floodproofing. Parks currently outside FEMA Special Flood Hazard Areas could, over time, be reclassified as high-risk or adapted to include formalized stormwater detention functions if sea level rise outpaces levee improvements.

Figure 5 **Projected Percent Area Flooded for Foster City**

Storm Scenario	100 yr Storm	6.9%	96.5%	97.5%	97.8%	98.5%	98.5%	98.6%	98.7%	98.7%	n/a	n/a	100%
	20 yr Storm	6.5%	7.3%	97.1%	97.9%	98.4%	98.5%	98.6%	98.6%	98.7%	n/a	n/a	99.9%
	Annual Storm	6%	6.5%	94.3%	96.6%	97.6%	98.2%	98.4%	98.5%	98.6%	n/a	n/a	99.7%
	No Storm	5.8%	6.1%	92.8%	96%	97.3%	98.1%	98.4%	98.5%	98.5%	n/a	n/a	99.7%
		none	25 cm	50 cm	75 cm	100 cm	125 cm	150 cm	175 cm	200 cm	250 cm	300 cm	500 cm
Sea Level Rise Scenario													

under 25% flooded
 25-50% flooded
 50-75% flooded
 over 75% flooded

Values indicate the percentage of Foster City's area flooded under various storm and sea level rise scenarios, as modeled by the Our Coast, Our Future Sea Level Rise and Scenario Report (January 13, 2025). Note: these projections do not account for the Levee Improvement Project.

2.7.1.1 Levee Improvement Project

Foster City's Levee Improvement Project is central to mitigating sea level rise impacts along roughly eight miles of shoreline. Recent enhancements raised and fortified the levee system to protect parks, trails, and community facilities from a 100-year storm event plus anticipated mid-century sea level rise. Improvements include earthen levees, hybrid sheet piles, and concrete flood walls, elevating the levee by up to 6 feet overall and sitting 2.5 to 3.5 feet above the walking surface in most segments (City of Foster City 2021). Although these upgrades substantially reduce near-term flood risk, higher-end sea level rise scenarios—over 3 feet by 2100—may necessitate additional reinforcement or future levee height increases (California Sea Level Rise Guidance 2024, San Mateo County 2021).

A levee's performance relies on regular inspections, repairs, and incremental upgrades. Without adequate funding or political support, deferred maintenance can undermine flood protection, impacting popular community parks like Boothbay or Edgewater. Additionally, access roads serving these waterfront parks could become impassable during extreme high tides. By planning for future improvements—such as higher freeboard, pump stations, and nature-based solutions—Foster City can continue to reduce flood risks as climate projections evolve.

Furthermore, extreme events, such as strong storm surges coinciding with high tides, could still generate water levels exceeding design capacities. Parks with lagoon beaches (e.g., Marlin, Gull, Erckenbrack) and shoreline segments (e.g., Shorebird, Baywinds) may face erosion from wave action and higher tides, despite levee protection. If updated data show faster sea level rise, the City may need to raise or retrofit the levee sooner than planned to protect high-use parks like Sea Cloud and Leo J. Ryan—both critical for large events and community sports.

2.7.1.2 Groundwater and Saltwater Intrusion

As sea levels rise in San Francisco Bay, shallow groundwater underneath low-lying coastal communities will also rise. As sea levels increase, pressure on coastal aquifers can force groundwater upward, even when levees protect against direct coastal flooding. In a low-lying community like Foster City—much of which was built on reclaimed land—this phenomenon can cause water to percolate toward the surface in places that were previously dry (City of Foster City 2023). Rising groundwater increases liquefaction hazards in response to earthquakes, particularly in former open water, mudflat, marsh, and floodplain areas that have been filled for development. This is especially relevant in filled or former marshland areas supporting many of Foster City's smaller "mini parks" (e.g., Arcturus, Pompano, Leo) and in lagoon-adjacent neighborhood parks (San Mateo County 2021). Rising groundwater can damage footpaths, sports

courts, and playground equipment from below, particularly in older parks with less modern drainage (e.g., Erckenbrack, Marlin, Gull). If tide gates and drainage pipes fail or age, saltwater can corrode infrastructure in parks such as Boat/Dog Park or Leo J. Ryan, where water-based recreation is a key feature.

2.7.1.3 Additional Flooding Impacts

Frequent or prolonged flooding degrades turf-grass, landscaping, and hardscapes, causing more frequent park closures. Saltwater intrusion can further weaken playground equipment, restrooms, and other park infrastructure, leading to higher maintenance and repair costs. Rising sea levels also accelerate shoreline erosion, threatening natural buffers and exposing boardwalks, picnic areas, and wildlife habitats to wave action. In turn, coastal wetlands and lagoon habitats that once served as flood buffers may diminish, adding further risk to adjacent parklands.

2.7.1.4 Flood Mitigation Strategies and Coordination

As these impacts intensify, Foster City will need to continue exploring a range of adaptation strategies—including levee reinforcement, nature-based solutions like marsh restoration, and periodic relocation of vulnerable facilities—to sustain its waterfront parks. Future park and trail enhancements should align with levee upgrades and integrate living shorelines or wetland restoration where feasible. This approach combines flood protection with ecological benefits, buffering park infrastructure while enhancing habitat. Collaboration with partners like the San Mateo County Flood and Sea Level Rise Resiliency District is critical to securing resources and expertise for enduring, resilient designs. By proactively addressing sea level rise in planning and maintenance, Foster City can preserve safe, enjoyable, and sustainable outdoor spaces for all.

2.7.2 Preparing for Extreme Heat and Drought

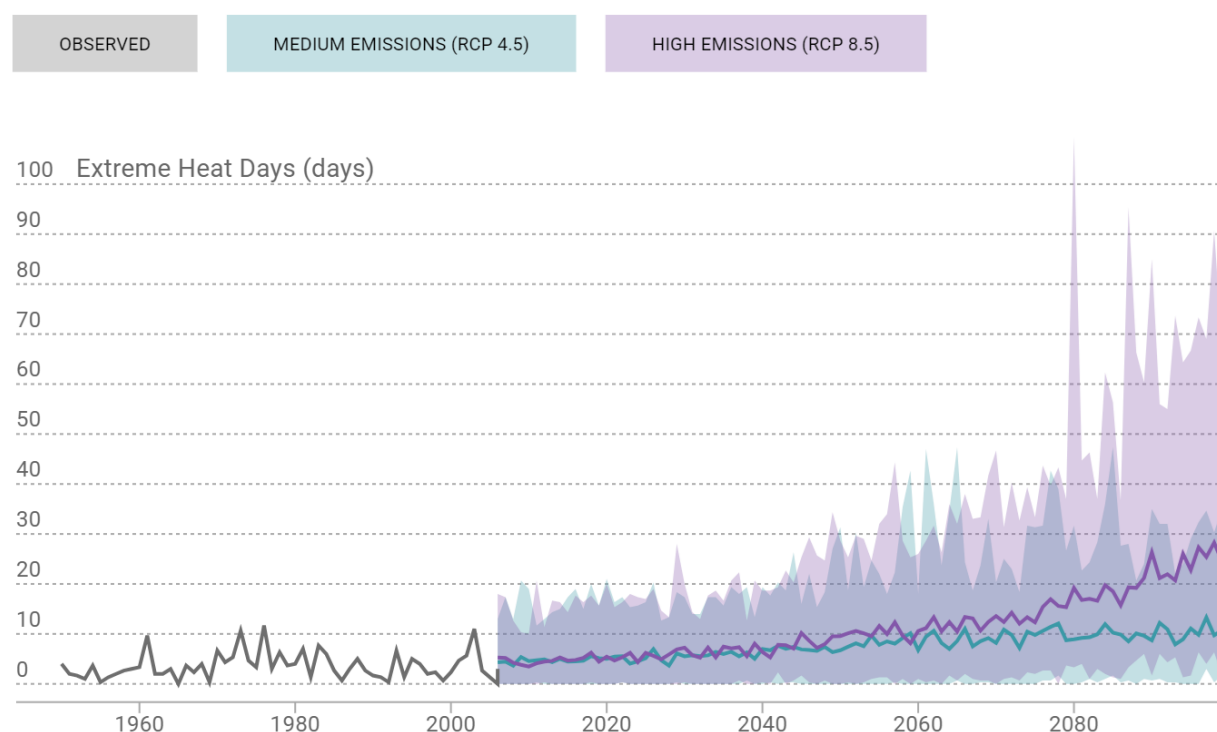
Historically, the Bay Area has experienced only three to five days above 90°F each year. However, projections indicate that by mid-century (2035–2064), Foster City could see up to 15 Extreme Heat Days annually under a high-emissions scenario—a two- to threefold increase (see Table 5 and Figure 6). Extreme Heat Days refers to the number of days in a year when daily maximum temperature is above a threshold temperature of 92.9 °F. While maritime cooling may temper some impacts, average summer maximum temperatures could still rise by 4 to 5°F by 2100 (Cal-Adapt 2025). Rising temperatures can strain both park resources and the wellbeing of residents who rely on outdoor recreation. Prolonged high temperatures may limit the comfortable use of playgrounds, sports fields, and walking trails, particularly during peak afternoon hours.

Heavily used sports parks like Sea Cloud (eight ballfields), Boothbay (ballfield and basketball court), and Edgewater (multiple courts and fields) face increased irrigation needs (City of Foster City 2024). Heat stress could shorten playing hours and raise maintenance costs. Smaller parks like Gateshead, Leo, and Pompano have fewer mature trees and limited seating, making them less comfortable during high-heat days (City of Foster City 2021). During droughts, these areas could see browning turf or temporary field closures. Drought conditions that often accompany heat waves further stress park landscapes, as plantings and athletic fields become more susceptible to damage when water is restricted. This is particularly relevant when drought conditions coincide with heat waves, straining irrigation supplies.

Table 5 Snapshot of Extreme Heat Days for Three 30-Year Time Periods

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	3 days	2 - 4 days
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+4 days	7 days	4 - 12 days
HIGH EMISSIONS (RCP 8.5)	+6 days	9 days	5 - 15 days
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+7 days	10 days	6 - 18 days
HIGH EMISSIONS (RCP 8.5)	+16 days	19 days	10 - 43 days

Compiled from LOCA downscaled climate projections for California's Fourth Climate Change Assessment (Pierce et al., 2018; Livneh et al., 2015).

Figure 6 Most Likely Outcome and Range of Future Projections of Extreme Heat Days

Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018. Observed historical data derived from Gridded Observed Meteorological Data. Details are described in Livneh et al., 2015. Data presented are aggregated over all LOCA grid cells that intersect Foster City boundary. Threshold temperature for a location is defined as the 98th percentile value of historical daily maximum/minimum temperatures (from 1961–1990, between April and October) observed at that location.

In response, Foster City's park system can adopt strategies to mitigate the impacts of extreme heat and drought. One key strategy recommended by Foster City's Climate Action Plan 2024 Update is to expand shade and cooling features, including tree canopies, shade structures, and water amenities (e.g., splash pads and community pools) in areas with high foot traffic and play

spaces (e.g., Leo J. Ryan, Catamaran, Sea Cloud) (City of Foster City 2024). Selecting drought-tolerant shade trees can be especially effective for long-term cooling, water conservation, and landscape resilience. Species such as Holly Oak, Italian Stone Pine, Chinese Elm, Carob Tree, and Chinese Pistache are known for providing dense shade while requiring less water once established. Additional varieties like Mayten or Aleppo Pine can thrive in low-water conditions but may need more frequent monitoring for limb drop or invasive characteristics (Arbor Day Foundation 2025).

The City should continue to upgrade irrigation systems to optimize water use, prioritizing these resilient, low-water species wherever possible and exploring non-potable water sources. This is especially vital for large sports fields in Sea Cloud and Boothbay. Where feasible, parks can be designed or retrofitted with permeable surfaces, bioswales, and rain gardens that capture and reuse stormwater—particularly in areas prone to flooding or heavy runoff (e.g., Port Royal, Edgewater). Creating or designating existing indoor recreation spaces as cooling centers during heat events will also be crucial to ensure that residents have safe, climate-controlled environments available. Through these combined efforts, Foster City can protect community health, conserve water resources, and uphold the vitality of its parks in the face of hotter, drier conditions.

2.7.3 Mitigating Air Quality Impacts

Rising temperatures and regional wildfire activity have led to periodic air quality challenges in Foster City. Smoke and particulate matter from neighboring or distant fires can drift in, impacting park visitors and staff. Meanwhile, higher temperatures can boost ozone formation, especially in the summer. Parks hosting large gatherings (e.g., Leo J. Ryan for festivals, Sea Cloud for sports tournaments) may need to cancel or postpone events on days with unhealthy air quality. Existing indoor facilities, such as community centers at Leo J. Ryan or those adjacent to Sea Cloud, can serve as respite locations.

To address these evolving risks, Foster City's park system can implement practical measures to protect public health and maintain recreational opportunities. Clean-air shelters or “respite” locations within existing indoor facilities, such as community centers, can offer temporary relief when outdoor air quality is unsafe. Expansion of the urban tree canopy in strategic locations will also help filter pollutants while providing shade against the heat. Public messaging and real-time alerts can guide visitors to safe recreation options and suggest protective behaviors (e.g., wearing masks during severe smoke events or shifting activities indoors). By proactively planning for and responding to air quality impacts, Foster City can help ensure that residents continue to enjoy parks and open spaces—even as climate-related challenges intensify.

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