

### **5.3 COMMUNITY SERVICES**

How land is developed can influence the efficiency and cost associated with providing community services; therefore, it is important to consider how the alternatives would impact those services when deciding on a Preferred Scenario. For example, the alternatives could create a demand for additional police officers, fire fighters, expanded school facilities, or new parkland. On the other hand, the city might already have sufficient capacity to meet the estimated demand for services under all or any of the alternatives. This section describes how the alternatives affect the city's police and fire protection services, public schools, parks and recreational facilities, and libraries, based on available data from each service provider.

#### **POLICE**

Police services in the City of San Mateo are provided by the San Mateo Police Department (SMPD). SMPD's mission is to provide safe streets, security in schools and in homes, success of the city's businesses, and services to the members of the community. SMPD is also committed to diversity and providing excellent public service.

Overall, the population growth under all alternatives would require a corresponding need for additional sworn and professional police staff. According to the City's Police Chief, to serve the population increase in all alternatives, SMPD would need to attract and provide space for new staff, add space and staff to handle increases in call volume, and potentially identify a new substation location within Study Areas 6 and/or 10, which are the most distant from central San Mateo.

Under all alternatives, new tall buildings would need to install public safety radio and emergency responder radio boosters to ensure communication with SMPD.

Alternative A has the least High density-designated uses compared to Alternatives B and C, which means it would have the least impact require the fewest changes to current SMPD communication and policing services. Alternative C shows the most areas with the highest intensities

(density and building height) including Mixed-Use High uses along El Camino Real around the Hillsdale station (Study Area 3) and in Downtown (Study Area 4) with Residential High uses along Railroad Avenue and Mixed-Use High uses between Baldwin Avenue and 5<sup>th</sup> Avenue. Therefore, Alternative C would pose require the greatest potential impact changes to current communication and police services due to the number of buildings over 8 stories.

## **FIRE**

Fire services in the City of San Mateo are provided by the San Mateo Consolidated Fire Department (SMCFD). On January 13, 2019, the fire departments of San Mateo, Belmont, and Foster joined together to form SMCFD which is a joint powers authority that provides fire services to all three cities.

All new development in San Mateo is required to conform with California Building Code standards for fire-resistant building materials, sprinklers, and defensible space.

Under all alternatives, SMCFD would need to provide fire services in higher density areas. While new construction is subject to much more rigorous fire and life safety requirements than older existing buildings, according to the City's Fire Marshal, high density buildings can also increase demand for fire emergency services and put pressure on the fire department's resources. SMCFD would need to add fire staffing in areas with higher density uses.

Alternative A has the least amount of high density-designated uses compared to Alternatives B and C, which means it would require the fewest changes to SMCFD's current fire and emergency response services. Alternative C has the most areas designated for higher density uses and would demand some changes in fire and emergency response services when considering the density of the buildings.

SMCFD would also be responsible for responding to wildfires in San Mateo. According to the City's Fire Marshal, State maps are expected to increase the hazard level in certain areas in San Mateo from a high hazard wildland fire severity zone to a very high hazard severity zone. The wildland fire hazard discussion in Section 5.5 of this evaluation is based on the data currently available.

## **EMERGENCY ACCESS**

This section describes how the draft alternatives could affect police and fire emergency access.

## **POLICE ACCESS**

The most accessible Study Areas for SMPD are Study Areas 1, 2, 3, 4, and 5 due to existing infrastructure and transportation routes. In Study Areas 1 and 2, Alternative B would result in the most net new number of homes when compared to Alternative A and C. In Study Area 3, 4, and 5, Alternative C would result in the most net new number of homes when compared to Alternative A and B.

Study Areas 7, 8, and 9 are currently difficult to access or pass through especially during commute conditions but servicing those areas could be accomplished with improvements to access routes. In Study Area 7, Alternative C would result in the most net new number of homes when compared to Alternative A and B. In Study Areas 8 and 9, Alternative B would result in the most net new number of homes when compared to Alternative A and C.

Study Areas 6 and 10 are the hardest to access given the limited routes of access to those areas from the remainder of the city. Accessing Study Area 6 is challenging to access since this area is isolated from close mutual aid partners and would require significant infrastructure improvements, including upgrades to the radio signals. In Study Area 6, Alternative C would result in the most net new number of homes when compared to Alternative A and B. In contrast, access to Study Area 10 is a bit more readily available due to a mutual aid agreement with Foster City unless a catastrophic event severs the bridges crossing the lagoon

cutting that portion off from the city. All alternatives in Study Area 10 would result in the same number of net new homes.

### **FIRE ACCESS**

Traffic within higher density corridors could pose a challenge for fire access, especially if these areas have on-street parklets that would limit fire access to the building. Increased traffic congestion as a result of development under the alternatives would lower SMCFD’s response time. Areas at the edge of the city with medium and high-density development, such as Study Area 10, would make emergency response more challenging if there is constrained transportation infrastructure, so new development should be required to install traffic preemption devices on existing or new traffic signals to improve access for SMCFD vehicles.

### **CIRCULATION ALTERNATIVE C**

In addition, the idea in Circulation Alternative C of a pedestrian focused, car-light space downtown modeled on Barcelona’s “superblocks” would require careful planning to maintain emergency access for first responders.

### **PUBLIC SCHOOLS**

There are 19 public elementary, middle, and high schools in San Mateo. These schools are managed by school districts, not by the City. Figure 23 shows the locations of the schools in San Mateo. There are two school districts within the City of San Mateo, the San Mateo-Foster City School District (SMFCSD) and the San Mateo Union High School District (SMUHSD). Table 16 shows a complete list of schools by its respective school district and the current enrollment of each school, as well as its remaining capacity.

**Table 16** 2021-2022 Enrollment and Capacity for Schools in San Mateo

	Capacity	Enrollment	Remaining Capacity
<b>San Mateo-Foster City School District</b>			
Baywood Elementary School	670	541	129
Beresford Elementary School	300	253	47
College Park Elementary School	536	436	100
Fiesta Gardens Elementary School	524	429	95
George Hall Elementary School	544	418	126
Highlands Elementary School	592	428	164
Laurel Elementary School	470	551	-81
Lead Elementary School	574	385	189
Meadow Heights Elementary School	358	282	76
San Mateo Park Elementary School	494	327	167
Sunnybrae Elementary School	632	372	260
Bayside Academy - Steam   Stem	720	830	-110
North Shoreview Montessori School	394	259	135
Parkside Montessori School	564	285	279
Abbott Middle School	930	752	178
Borel Middle School	1170	981	189
<b>San Mateo Union High School District</b>			
San Mateo High School	1,941	1,625	316
Hillsdale High School	1,851	1,610	241
Aragon High School	2,002	1,750	252

Source: San Mateo-Foster City School District, 2021

Figure 23. Schools

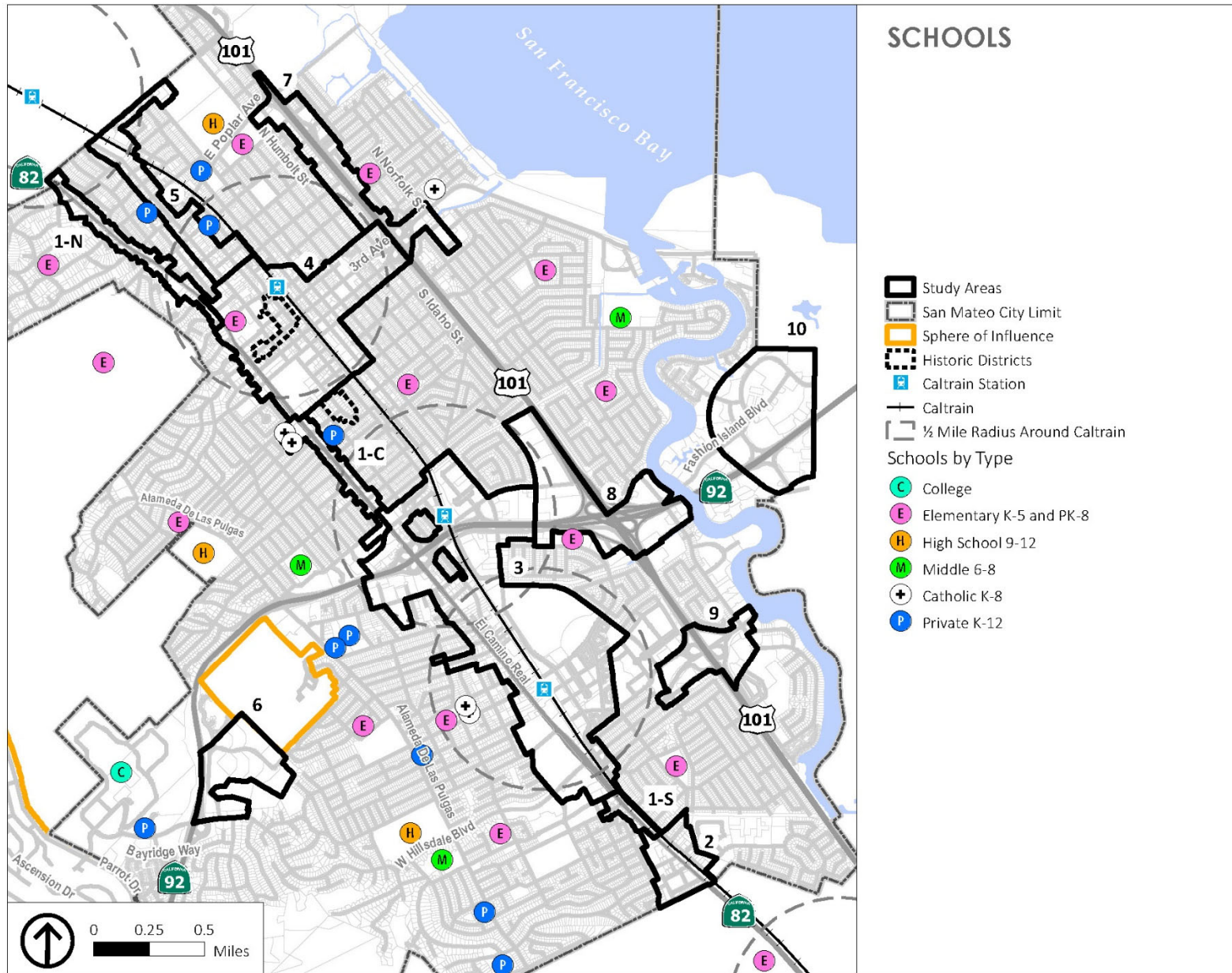




Table 17 shows the number of net new students for each alternative based on the San Mateo-Foster City School District's and the San Mateo Union High School District's student generation rate. The number of new units proposed for all alternatives are primarily multifamily units, with some accessory dwelling units (ADUs) in each alternative, so this analysis uses the SMFCSD student generation rate of .04 for apartments and the SMUHSD student generation rate of 0.04 students for apartments and condos. Since both school districts do not have a student generation rate for ADUs, we used the same .04 student generation rate for ADUs as a conservative estimate.

The schools within the San Mateo-Foster City School District currently have a remaining capacity of 1,943 students. This means the school district could accommodate additional students from the new population in all alternatives. Although, it is difficult to predict how the enrollment capacity will change from year to year. There is an existing school in the San Mateo-Foster City School District that is currently closed and in need of improvements. Once the school is modernized, it could provide space for 510 additional students. The San Mateo-Foster City School District is in the process of adding specialized spaces, such as multi-purpose rooms and counselor offices. On July 30, 2020, the district's board of trustees adopted the Facilities Master Plan for the New Decade which identifies needs across all schools and provides direction for future facility work. According to the Director of Facilities and Construction, there are approximately \$900M+ in identified facility improvements needs and the school district currently has \$409M in local bonds.

The existing high schools within the San Mateo Union High School District currently have an accumulative remaining student capacity of 809. This means the school district could accommodate additional new students from the new population in Alternative A and B, although it is difficult to predict how the enrollment capacity will change from year to year. The net new students for Alternative C would exceed the remaining student capacity of 809. The San Mateo Union High School District currently has no plans to build new facilities and there is no lack of

funding or deficiencies that pertain to any of the existing facilities. To accommodate new students generated by the housing development under Alternative C, the San Mateo Union High School District would need to expand its facilities. This could happen by expanding student capacity at existing sites or establishing a new school site. Identifying new school sites is challenging because of the low supply and high cost of land available for development in the city. However, the San Mateo Union High School District will continue to collect school impact fees from new housing development, as discussed below. . The school impact fees are described further below.

**Table 17** New Students Under Each Alternative

	Alternative A (Net New)	Alternative B (Net New)	Alternative C (Net New)
Net New Homes	11,810	16,070	21,080
<i>Number of New Students SMFCSD (0.04 students per home)</i>	472	643	843
<i>Number of New Students SMUHSD (0.04 students per home)<sup>1</sup></i>	472	643	843

Source: San Mateo-Foster City School District, Projected Enrollments San Mateo-Foster City School District, 2020, PlaceWorks, 2021

<sup>1</sup> SMUHSD's student generation rate is based on projections for "mainly market-rate" apartment units and condos, as defined in the Projected Enrollments San Mateo-Foster City School District report.

As shown by the above graph, Alternative C would result in the highest number of new students for both school districts when compared to Alternative A and B. Alternative A would result in the fewest new students for both school districts when compared to the other two alternatives. This is primarily due to the number of housing units estimated for each alternative. Alternative C has the most net new housing unit proposed while Alternative A has the least.

The San Mateo-Foster City School District and San Mateo Union High School District collect school impact fees, also known as developer impact fees, which are charged depending on the type of new development. These fees are used by each school district to construct the facilities that are needed as a result of new development. New development within the Study Areas would be required to pay school impact fees to the school districts.

## **PARKS AND RECREATION**

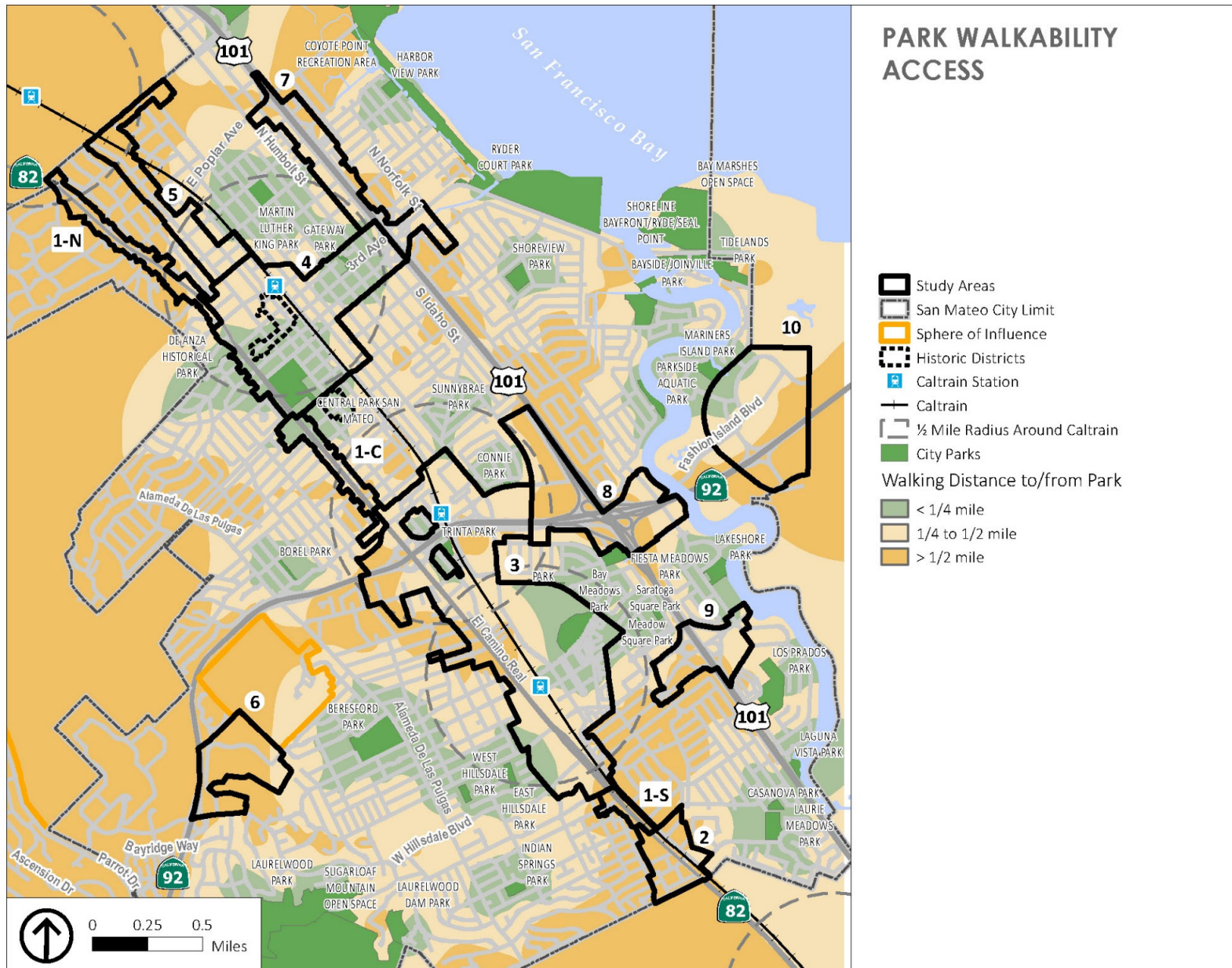
Park land contributes significantly to quality of life in San Mateo. The City currently oversees more than 420 acres of parks and open space, from neighborhood mini parks to regional destinations like Seal Point as shown on Figure 24. Residents in San Mateo also have access to several recreation centers, a boating lagoon, two public swimming pools, and an 18-hole golf course. Figure 24 shows the location and walkability access of the parks within San Mateo. As shown by the figure, most residences within the study areas are within a quarter to half-mile walking distance from a park. Access to parks within each study area is described in the Access to Parks and Open Space section in Section 5.6. In addition to parks, the City's parks and recreation services offers opportunities for people of all ages to participate in community activities, including youth and family aquatics, children summer camps, adult fitness programs, youth programs for teens, and interactive classes for older adults and seniors. The City also hosts special community events throughout the year, including Eggstravaganza, the Holiday Festival of Dance, National Night Out, and the Central Park Music Series.

Just like police and fire stations and schools, it's important for cities to provide sufficient green space for residents. The current General Plan 2030 sets a goal of providing six acres of parkland per 1,000 people to ensure community members have sufficient parks and open space. In addition to the General Plan, the City has developed other park planning documents that help support efforts to provide parks and recreational facilities in the city. Several of the park planning documents are listed

below; however, this is not a comprehensive list of all park plans that exist in the city:

- Central Park Master Plan
- Recreation Facilities Strategic Plan
- Shoreline Parks Master Plan
- Laurelwood/Sugarloaf Management Plan
- Beresford Park Master Plan

Figure 24. Parks and Park Walkability



As mentioned above, San Mateo currently has a goal of providing six acres of park land for every 1,000 residents. Including County-owned Coyote Point, the City currently provides 5.35 acres of park land per 1,000 residents. This acreage will rise slightly when the 1.1-acre Borel Park is constructed which will include amenities such as a playground, oak glades, and grass lawns. Although the City's public park lands do not currently meet the park land goal, it will be important that future development does not further exacerbate the existing deficiency. One obstacle to providing additional parkland is the lack of vacant land that could accommodate large new park sites in the city.

According to the Director of the Parks and Recreation Department, there is a need to upgrade a number of parks, recreational facilities and aging playgrounds throughout the city. There are a few upgrades planned in the immediate future for East Hillside Park, and future upgrades are planned for Sunnybrae Park, Shoreview Park, and King Park. However, there is a lack of funding for park improvements which have only been funded through park in-lieu fees at this time. The most critical infrastructure priority is to ensure that the City's aging system of recreation centers and pools is updated and enhanced to meet the goals of safety, accessibility and equity, and meet the diverse recreational and programmatic needs of the community.

The City Council recently reviewed all of the city's impact fees and expressed support for expanding park in-lieu fees to commercial development as well as residential with the goal of enhancing revenue. Recent residential development has contributed to the City's park in-lieu fees; however, these fees have been used to upgrade existing recreational park facilities and are not being used to increase park acreage.

Below is an analysis of how the alternatives would impact parks and recreational facilities:

- Since the current park acreage in the city is already deficient, all alternatives would further exacerbate the park land deficiency since each alternative introduces new population that would require additional park land. Therefore, all three land use alternatives would need to provide additional publicly owned park land. Alternative A proposes the lowest number of new residents; however, the park land deficiency would still worsen under this alternative since it introduces new population. Alternative C would have the greatest impact on parks since it has the highest number of net new people.
- In addition to park land demand, greater population growth would require more recreational facilities and expanded programs to meet the needs of the residents.

The City of San Mateo's Park and Recreation Department recently completed an update of the Central Park Master Plan (2018) that incorporates retention of the historic characters of Central Park and provides opportunities for new additions to improve community gathering and recreation spaces. Future development in Study Area 4 under any alternative should support the goals of the Central Park Master Plan to create a pedestrian connection to downtown, increased space for flexible community use and events, and a greater emphasis on the park's role as the City's gathering place.

### **PUBLICLY ACCESSIBLE PRIVATELY-OWNED OPEN SPACE**

The City of San Mateo's Zoning Code establishes standards for private usable open space and common usable open space within residential and commercial areas. In residential areas, common open space are areas that can be accessed by all occupants within the residential complex; however, these areas are not accessible to the public. Common open space in commercial areas is an area that is accessible to the public. This area could be a plaza, square, court, or other urban



space which is at least 75 percent open to the sky and free from automotive traffic. Private open space areas in residential projects and commercial developments are reserved for the use of the dwelling unit occupants or employees/guest of the project only. Private open space areas are not accessible to the public.

There are a number of existing open space areas in the City, including regional and community parks, neighborhood parks, and small mini parks. Developments within the City also provide publicly accessible open space areas. The Bay Meadows Phase I development provided approximately 4.6 acres of privately owned and maintained park space. Bay Meadows Phase II is currently in the process of being developed. Phase II of Bay Meadows includes approximately 15 acres of public park land and about 3 acres of publicly accessible open space that will be within walking distance from the Hillsdale station area, as outlined in the Hillsdale Station Area Plan.

One obstacle to providing additional open space area is the lack of vacant land that could accommodate large new open space sites. Some of the Study Areas, such as Study Area 10 at Bridgepointe, have large parcels that may enable the clustering of buildings, leaving substantial room for a new park or new privately-owned open space that is accessible to the public. This idea is represented by the green P in the following Study Areas in all of the alternatives: Study Area 3, Study Area 4, Study Area 6, and Study Area 8.

For areas like Study Area 4, Downtown, or Study Area 1, along El Camino Real, where most parcels are small, the General Plan Update will explore potential strategies to generate new privately maintained open spaces, parks, plazas, and other recreational facilities. The General Plan Update could help encourage incentives for developers to build publicly accessible open space areas within their projects. It should be noted that SMPD has expressed challenges with providing law enforcement service to existing privately-owned public open spaces since jurisdiction over these spaces is not always clear.

Among all alternatives, Alternative A would result in the least demand for new publicly accessible open space area since it results in the lowest number of net new population. Because it has the lowest amount of new residential and mixed-use development, it would also offer fewer opportunities for larger projects that are more likely to include new publicly accessible open space. Alternative C results in the highest demand for new open space area since it has the highest number of net new population; it would also allow more large projects that would be more likely to include new publicly accessible open space.

## **LIBRARY**

The San Mateo Public Library consists of the Main Library and two branches, the Hillsdale Library and Marina Library. The library offers a vast collection of books and programs that are available for teens, adults, and children in the city. These programs include a writing groups, book discussion groups, crafts and makerspace events, music concerts, story times, and cultural events. The library also has rotating art exhibits at the Main Library and five special collections: Biotechnology Learning Center, the California Collection, Franklin Templeton Business Resource Center, Funding Information Network, and the Leon S. Benson Holocaust Studies Collection. The Main Library also incorporates sustainable practices and an energy efficient design.

The City does not maintain a spatial ratio of square feet of library space per number of population as a service target but takes a holistic approach to assessing the viability of current or future library locations. There are currently no expansion plans for the library, but the San Mateo Public Library hopes to replace the Marina Library branch with a new or remodeled library in the future once a funding source has been identified and to add staffing at all three libraries.

All alternatives would result in a higher population which means the San Mateo Public Library would need to consider if the current library locations will provide the sufficient space necessary to serve a higher number of residents for all three alternatives. Among the three alternatives, Alternative C results in the highest population amount

adding about 53,507 new residents by 2040. Alternative A has the lowest number of new residents at 29,498, in addition to the existing population. Since Alternative C adds the most new people, it would have the greatest impact on the San Mateo Public Library when compared to Alternative A and B.

## **POLICY CONSIDERATIONS**

The General Plan Update should consider the following plans and policy directions on community services:

- Planning for fire protection services and evacuation in Study Areas 6 and 10 and other areas of the City that are most challenging for SMFD to access and/or are subject to increased risk from wildfires.
- Providing buffers around new research and development facilities to minimize risks of fire or explosion from hazardous materials and reduce impacts on adjacent sensitive uses.
- Designing site plans, equipment, and landscaping that enable visibility and access for first responders.
- Supporting close communication and collaboration with both local school districts on population projections and facilities planning, as well as issues such as transportation to and from school sites and needed infrastructure upgrades.
- Increasing the number of parks and/or parkland acreage in the city and generating new privately maintained, publicly accessible open spaces, parks, plazas, and other recreational facilities.

- Upgrading and enhancing the aging system of recreation facilities and pools to ensure they meet or exceed safety, accessibility and health codes, facilitate the provision of desired recreation programs and services while conserving surrounding open space.
- Supporting the library's effort to enhance facilities, promoting libraries as welcoming places and resources for everyone, and providing resources that will help the library adapt to new technologies.

## **5.4 UTILITIES**

This section describes the potential impacts of the three land use alternatives to water supply, wastewater services, and stormwater services.

### **WATER<sup>9</sup>**

This section analyzes the projected supply and demand for the impacts of projected growth of each alternative relating to water services. The City of San Mateo has two water providers: Cal Water's Bayshore District covers much of San Carlos and San Mateo, including Study Areas 1 through 9; and the Estero Municipal Improvement District (EMID) serves bayside portions of San Mateo, including Study Area 10, Bridgepointe.

Cal Water's current Urban Water Management Plan (UWMP) reflects the State's recent amendment to the Water Quality Control Plan for the Bay-Delta (Bay-Delta Plan), which decreased the percent of projected future flows that will be available for consumption by urban communities. Given these limitations, the current UWMP projects to have sufficient supplies to meet future demand within the service area that includes San Mateo for normal water supply years, but not for multiple dry year scenarios.

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<sup>9</sup>2020 Urban Water Management Plan, San Mateo, CA. (2020). California Water Service.

The UWMP was completed prior to San Mateo's current General Plan Update effort and is based on ABAG's Projections 2019, which do not reflect the current RHNA issued to the City by ABAG. In all of the alternatives, based on the projections in Cal Water's UWMP, Cal Water would not have sufficient supply to meet the projected demand. This is primarily because all alternatives contemplate population increases that exceed the 2040 population projection used for Cal Water's UWMP. Moreover, Cal Water's population projection covers their service area as a whole (most of San Mateo and most of San Carlos) while the alternatives only focus in the 10 specific study areas. The alternatives do not account for growth outside of the study areas. Table 18 provides a summary of the population increase comparison.

**Table 18** Projected Population Comparison (2020 Cal Water UWMP vs. Alternatives)

Population Projection Source	2020 (Total)	2025 (Net Increase From 2020)	2030 (Net Increase From 2020)	2035 (Net Increase From 2020)	2040 (Net Increase From 2020)
2020 Cal Water UWMP (Entire Service Area*)	137,486	1,656	4,652	7,427	10,316
Alternative A	-	-	-	-	24,577
Alternative B	-	-	-	-	35,338
Alternative C	-	-	-	-	48,586

\* Cal Water's Service Area includes areas outside the Study Areas, including most of San Mateo and San Carlos. Source: California Water Service. 2020 Urban Water Management Plan

In Table 15, average water usage per capita was used to estimate the projected Cal Water water usage for Study Areas 1 through 9 under each of the alternatives. These numbers were then compared with what Cal Water had computed per their projected demand forecasts for their service area in the Cal Water 2020 UWMP.

To estimate the projected demand from the land use alternatives, a water consumption per capita number was developed based on the amount of water used from Cal Water in 2020 divided by the population of the service area. This equates to approximately 34,500 gallons per year or 94.5 gallons per day per capita for San Mateo. Note that this demand per capita figure does not account for future water conservation and efficiency improvements and is therefore likely an overestimate. Estimated water conservation savings are added in Table 19. The increased demand due to the alternative growths was added to the baseline 2020 demand value of 14,563 acre-feet (ac-ft).

**Table 19** Water Usage – Cal Water - Normal Year Projected Demand & Supply

	Alternative Growth Projected Demand + 2020 Cal Water Demand (ac-ft)	Cal Water Projected Supply 2040 Normal Year (ac-ft)	Difference (ac-ft)	Difference Including Estimated Water Conservation Savings by 2040* (ac-ft)
Alternative A	17,165	14,977	(2,188)	(821)
Alternative B	18,304	14,977	(3,327)	(1,870)
Alternative C	19,706	14,977	(4,729)	(3,159)

\*Water conservation savings were computed based off of conversion of UWMP total savings at 2040 to a savings per capita rate. This per capita rate is then multiplied by total population estimated per each alternative scenario. Estimated 2,749 gallons savings per capita per year.

Source: California Water Service. 2020 Urban Water Management Plan.

In dry years, the deficit between water supply and demand is greater than in normal years. Table 20 provides Cal Water projected supply for 2040 single dry year. Multiple dry years results in an even greater supply deficit.

**Table 20 Water Usage – Cal Water - Dry Year Projected Demand & Supply**

	Alternative Growth Projected Demand + 2020 Cal Water Demand (ac-ft)	Cal Water Projected Supply 2040 Single Dry Year (ac-ft)	Difference (ac-ft)	Difference Including Estimated Water Conservation Savings by 2040 (ac-ft)*
Alternative A	17,165	9,676	(7,489)	(6,122)
Alternative B	18,304	9,676	(8,628)	(7,170)
Alternative C	19,706	9,676	(10,030)	(8,460)

\*Assumes same savings per capita used in Table 20 and does not reflect speculative water conservation measures that may be imposed under drought conditions. Source: California Water Service. 2020 Urban Water Management Plan.

Although the current projection comparison shows that there is insufficient supply, the demand on the water supply per capita should decrease over time. According to the Cal Water UWMP, the implementation of new laws, ordinances and regulations, for example, requiring replacement of older water fixtures with more efficient fixtures, should help reduce demand per capita. In addition, recent research into regional water supply and capacity for future development has indicated that it is theoretically possible to offset water use from future residential and job growth by continuing to improve indoor and outdoor water use

efficiency and by focusing on infill development in urbanized areas rather than developing raw land elsewhere in the Bay Area.<sup>10</sup>

The UWMP is one tool in a larger system of water supply planning. For example, SFPUC’s ongoing Alternative Water Supply Program is evaluating new water supply projects that will meet future water supply needs by looking beyond the traditional surface water and groundwater sources and considers “alternative” water supply options such as expanding surface water storage, groundwater banking, transfers, purified water (potable reuse), desalination and technological innovations and other tools that can increase supply or reduce demand in the future.<sup>11</sup> Cal Water is also considering a range of possible approaches that include requiring net-zero demand increase from new development, further regulations on water use, and a suite of other demand mitigation measures to help respond to potentially reduced supplies due to the State’s adoption of the Bay-Delta Plan.

Cal Water has indicated that they calibrate water supply closely to demand so as not to put ratepayers in the position of paying for supplies years or decades before they are actually needed. The next update of the UWMP, which will happen in 2025, will be created with reference to the projected development allowed under San Mateo’s updated General Plan 2040. The preferred scenario and updated General Plan will be an important input for Cal Water into ongoing future supply planning efforts.

As the UWMP is updated in future years, this may become more apparent as new data is collected. However, based on current data, adequate water supply is a significant concern for any of the alternatives in Study Areas 1 through 9. Projected deficits are greatest under

<sup>10</sup> Laura Feinstein and Anne Thebo, Water for a Growing Bay Area: How the region can grow without *increasing water demand*, SPUR Regional Strategy, October 2021. Accessed online at <https://www.spur.org/publications/spur-report/2021-10-21/water-growing-bay-area>, October 21,2021.

<sup>11</sup> SFPUC, Alternative Water Supply Program, Quarterly Report, June 2021 , page 5. [https://www.sfpuc.org/sites/default/files/programs/0\\_Alt%20Water%20Supply%20Planning%20Quarterly%20Report\\_June2021\\_FINAL.pdf](https://www.sfpuc.org/sites/default/files/programs/0_Alt%20Water%20Supply%20Planning%20Quarterly%20Report_June2021_FINAL.pdf), accessed online December 17, 2021.



Alternative C because this per capita calculation is based on residential population, and Alternative C would add the most population.

A similar analysis was performed for study area number 10 of the alternatives based on the 2020 EMID UWMP. EMID's entire service area includes the entire boundary of Foster City and a small portion of San Mateo. Table 21 shows the comparison between the projected population increase in the EMID UWMP and the alternative study. The population increase in Study Area 10 under the alternatives would be greater than the population increase EMID estimates for the whole service area in the 2020 UWMP.

**Table 21** Projected Population Comparison (2020 EMID UWMP vs. Alternatives (Area 10))

Population Projection Source	2020 (Total)	2025 (Net Increase From 2020)	2030 (Net Increase From 2020)	2035 (Net Increase From 2020)	2040 (Net Increase From 2020)
2010-2015 EMID (Whole Service Area)	36,516	416	1,086	2,332	3,591
Alternative A (Area 10)	-	-	-	-	4,921
Alternative B (Area 10)	-	-	-	-	4,921
Alternative C (Area 10)	-	-	-	-	4,921

Source: Estero Municipal Improvement District. 2020 *Urban Water Management Plan*.

Utilizing a similar demand per capita analysis that was used for the Cal Water analysis, water use in EMID averages about 118 gallons per capita. Table 22 shows the projected demand comparison. The 2020 EMID demand shown is the water delivered in 2020, 5,882 ac-ft.

**Table 22** Water Usage – EMID - Projected Demand Comparison

	Alternative Growth Projected Demand + 2020 EMID Demand (ac-ft)	EMID Demand Projection 2040 Normal Year (ac-ft)	Difference (ac-ft)	Difference Including Estimated Water Conservation Savings by 2040 (ac-ft)*
Alternative A (Area 10)	6,663	6,350	313	+661
Alternative B (Area 10)	6,663	6,350	313	+661
Alternative C (Area 10)	6,663	6,350	313	+661

\*Estimated water savings per capita of 6,383 gallons which includes both passive and active conservation per the UWMP.  
Source: Estero Municipal Improvement District. 2020 *Urban Water Management Plan*.

The 2020 EMID UWMP demand projections appear to be greater than the demand estimate when the alternative growth is added to the 2020 EMID demands and water conservation is accounted for. This analysis does not account for other growth within the EMID service area outside of Study Area 10.

For Study Area 10, when water conservation is accounted for, it appears that EMID's supply projections exceed estimated demand, and there would be adequate supply to serve new development under any of the three alternatives (which are the same in Study Area 10).

As part of the future EIR, a more detailed water service analysis will be conducted, including consultation with both water agencies, to refine demand values and potential conservation measures.

## WASTEWATER<sup>12,13,14</sup>

The City of San Mateo maintains its own sanitary sewer conveyance system. San Mateo’s Wastewater Treatment Plant is jointly owned by the City of San Mateo and the City of Foster City/Estero Municipal Improvement District (EMID). This section analyzes the existing and proposed sanitary sewer demands and capacities for the impacts of projected growth of each of the alternatives relating to wastewater conveyance and treatment.

In 1989, the City of San Mateo and EMID entered into a Joint Powers Agreement for construction, operation and maintenance of the treatment plant. Table 23 provides a summary of capacity limits each municipality is able to discharge into the treatment plant.

**Table 23 Sewer Capacity – Joint Powers Agreement**

Flow	San Mateo (mgd)	EMID (mgd)	Total (mgd)
Average Dry Weather Flow	11.4	4.3	15.7
Maximum Day Dry Weather	16.0	6.0	22.0
Maximum Day Wet Weather	32.3	7.0	39.3
Peak Hour Dry Weather	27.37	12.13	39.5
Peak Hour Wet Weather	47.8	12.2	60.0
Max. Month Dry Weather	13.0	4.9	17.9
Max. Month Wet Weather	20.0	5.6	25.6

Mgd = Million gallons per day.

Source: Joint Powers Agreement “Exhibit A”

Future increases in sewer flows will be directly tied to increases in water use and water supply. As explained in the prior section, Cal Water has not currently identified future water supplies to fully serve the amount of development considered in any of the three land use alternatives. If future water supplies are constrained, and/or future development is required to include extreme water conservation or water reuse, future sewage flows will be correspondingly lower.

The projected increase in sanitary sewer discharge by each of the alternatives was computed using sewage coefficients provided in the 2014 Integrated Wastewater Master Plan (IWMP). Although the IWMP was created in 2014, it provided a wastewater flow rate per capita projections for 2020 which includes water conservation. A wastewater flow rate of 75 gallons per capita per day was utilized in this analysis. Table 24 provides an estimate of sewer demand increase for each land use alternative.

**Table 24 Sewer Usage - Projected Demand Based on Use Coefficients**

	Average Dry Weather (ADW) Sewage Generation (Net Increase) (mgd)
Alternative A	2.21
Alternative B	3.02
Alternative C	4.01

Table 25 presents average flow data provided by City staff, additional flows from the alternatives and current sewage capacities for the treatment plant based on the Joint Powers Agreement between the City and EMID.

<sup>12</sup> *Sewer System Management Plan, San Mateo, CA.* (2015). City of San Mateo.

<sup>13</sup> *Integrated Wastewater Master Plan, San Mateo, CA.* (2014). City of San Mateo.

<sup>14</sup> *Joint Powers Agreement Between City of San Mateo and The Estero Municipal Improvement District for Construction and Operation of the Water Quality Control Plant* (1989)

**Table 25 Sewer Usage – Projected Effluent Flows -**

	Total Historical Influent Average Dry Weather Flow 2019-2020* (mgd)	Projected Alternatives Average Dry Weather Flow (mgd)	Total Historical Influent Average Dry Weather Flow + Alternatives Flow (mgd)	Allowed Wastewater Treatment Plant Average Dry Weather Flow 2014**(mgd)
Alternative A	10.76	2.21	12.97	11.40
Alternative B		3.02	13.78	11.40
Alternative C		4.01	14.77	11.40

\*This includes data provided by City staff and includes flow from City of San Mateo, associated minor parties and excludes City of Foster City/EMID flows.

\*\*This is the agreed upon capacity for City of San Mateo and associated minor parties as part of the Joint Powers Agreement with EMID.

Source: City of San Mateo

Based on Table 25, it appears that the allowed average dry weather flow for San Mateo under the current Joint Powers Agreement would be exceeded by the additional flow from any of the three alternatives. The upgraded wastewater treatment plan will have adequate capacity to accommodate the projected average dry weather flows under any of the alternatives. However, increasing the allowed average dry weather flow for the City would require renegotiation of the limits in the Joint Powers Agreement with the other parties.

In addition to the average dry weather flow capacity, the 2014 Integrated Wastewater Master Plan noted that wet weather flow in the past has exceeded existing capacity and caused backups and sanitary sewer overflows during peak wet weather events.<sup>15</sup> As a result, the City of San Mateo is currently under a Cease-and-Desist Order to eliminate sewer overflows.<sup>16</sup> Construction on a significant WWTP upgrade, modernization, and expansion project began in 2019 and is currently

underway, scheduled for completion in 2024. This project will increase the WWTP’s peak wet weather flow capacity to 78 mgd.<sup>17</sup>

The upgrade and expansion to the WWTP that is currently underway will significantly increase its capacity to handle peak wet weather flows. Renegotiation of the Joint Powers Agreement governing the wastewater treatment plant would likely be needed over the next 20 years to increase allowance for average dry weather flows to accommodate any of the alternatives.

**STORMWATER SERVICES<sup>18,19</sup>**

The City of San Mateo maintains storm drain systems citywide. The system comprises 80 miles of storm drain lines that typically direct flow to the nearest creek before reaching San Francisco Bay. This section analyzes how the buildout of the alternatives may affect the storm drainage systems maintained by the City.

<sup>15</sup> *Integrated Wastewater Master Plan, San Mateo, CA.* (2014). City of San Mateo.

<sup>16</sup> <https://cleanwaterprogramsanmateo.org/wwtp/>, accessed October 15, 2021.

<sup>17</sup> <https://cleanwaterprogramsanmateo.org/wwtp/>, accessed October 15, 2021.

<sup>18</sup> *C.3 Regulated Projects Guide (January 2020).* San Mateo Countywide Water Pollution Prevention Program

<sup>19</sup> *San Mateo County Guidelines For Drainage Review.* San Mateo County

The alternative study areas are in general located in highly developed areas of the City. The alternatives would generally be a redevelopment of existing parcels, many which contain a significant amount of impervious areas and no stormwater treatment measures as the land was developed prior to additional rules and regulations were required. This means much of the existing parcels likely drain directly into the City's storm drainage system without any required infiltration or detention of water. Projects in San Mateo County are subject to federal and State requirements to protect water quality, as well as City drainage requirements.

If development projects create and/or replace impervious surface, they may be subject to regulations that require developments to incorporate stormwater treatment measures. These regulations require developments to incorporate stormwater treatment measures which may support holding stormwater on the site and giving it time to sink into the ground. This in turn reduces the stormwater runoff amount and velocities.

The City drainage requirements specify that:

- Post-development peak flow (runoff) and velocity must be less than or equal to pre-development peak flow and velocity in areas where there are no existing down stream storm drain systems.
- In areas where there are existing storm drain systems, those systems must be of adequate size to accept the increased runoff, or mitigation procedures must be taken. Mitigation procedures may include on-site storm drain detention or off-site storm drain improvements.

In general, the stormwater requirements are usually incorporated in the conditions of approval for developments. This includes the possible use of detention basins, stormwater treatment, improvements to the City drainage system that the development may be utilizing or impacting, and much more.

The Green Infrastructure Plan (GIP), a document that includes goals, policies and programs to address land use with relation to green infrastructure, will also influence the design considerations needed for development within the land use alternatives.<sup>20</sup> The policies and programs in the GIP are intended to prevent of water pollution, minimize stormwater runoff, encourage the use of low-impact design features such as bioswales and pervious pavements, require street tree planting as a requirement of all new development, and preserve topography and minimize impacts to natural resources.

The stormwater improvements needed for each development project are determined on a case-by-case basis because each project may vary widely with regard to the amount of stormwater runoff produced and allowed mitigations.

Water quality rules and regulations and City drainage requirements help aid in reducing runoff rates and velocities. The stormwater requirements outlined in each development's condition of approval helps ensure that the City's stormwater infrastructure is able to support the specific development as individual projects are proposed over time.

## **POLICY CONSIDERATIONS**

The General Plan must address infrastructure and there are a number of policies in the existing General Plan regarding water and sewer service. Policy approaches to addressing water supply and wastewater treatment include:

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<sup>20</sup> City of San Mateo, August 2019, Green Infrastructure Plan



- Supporting efforts by Cal Water and EMID to develop supplemental water sources.
- Requiring new major multifamily and commercial developments to evaluate the sewer capacity and make any improvements necessary to convey additional sewage flows from the project.
- Coordinating future planning of the sewer collection and Wastewater Treatment Plan with other users, including EMID, the Crystal Springs County Sanitation District, the Town of Hillsborough, and the City of Belmont.