4.10 Utilities and Service Systems

4.10.1 Introduction

Section 4.10, Utilities and Service Systems, addresses the impacts that land use changes related to the 201 Haskins Way Project (project) would have on water supplies, wastewater treatment, landfill capacity, and solid waste. All of these subtopics are considered in the discussions of existing conditions, baseline plus project conditions, and cumulative conditions. The section describes existing utilities and service systems on the project site and in the study area, and presents the baseline conditions against which project impacts are measured. Project-specific impacts are presented for the proposed project and mitigation measures, if any, are identified when feasible. A cumulative impact discussion is identified for each subtopic.

4.10.2 Environmental Setting

EXISTING CONDITIONS

Water System

The water system in the East of 101 Area is owned and operated by the California Water Service Company (Cal Water). The Cal Water South San Francisco District (SSF District) is located in northern San Mateo County approximately 6 miles south of the City of San Francisco. The SSF District serves the communities of South San Francisco, Colma, a small portion of Daly City, and an unincorporated area of San Mateo County known as Broadmoor, which lies between Colma and Daly City.[1] The SSF District's overall water system includes 160 miles of pipeline, 14 storage reservoirs, 25 booster pumps, and eight groundwater wells.

Potable water supply for the SSF District is a combination of groundwater from Cal Water-owned wells and purchased water from the San Francisco Public Utilities Commission (SFPUC). Cal Water's annual allocation of SFPUC supply is shared among its three peninsula districts: Bear Gulch, Mid-Peninsula, and South San Francisco.[2] Annual supply from SFPUC to utility customers varies with precipitation and related hydrologic conditions.

Purchased SFPUC potable supply is delivered through a network of pipelines, tunnels, and treatment plants. This supply is predominantly from the Hetch Hetchy Reservoir but also includes water produced from watersheds, reservoirs, and treatment facilities in Alameda and San Mateo Counties.[3] Groundwater

[1] Bay Area Water Supply & Conservation Agency, 2018. California Water Service – South San Francisco District (website). Available online at: http://bawsca.org/members/profiles/cws-san-francisco. Accessed June 7, 2018.
[2] California Water Service (CalWater), 2016. *2015 Urban Water Management Plan, South San Francisco District*, published June 2016. Available online at: https://www.calwater.com/docs/uwmp2015/bay/South_San_Francisco/2015_Urban_Water_Management_Plan_Final_(SSF).pdf. Accessed June 7, 2018.
[3] Ibid, pp. 19–20.

has historically supplied 10 to 15 percent of the SSF District's water demand.[4] It is extracted from the Merced Formation of the Colma Creek Basin, a sub-basin of the Merced Valley Groundwater Basin. Locally this basin is referred to as the Westside Basin. Cal Water intends to limit its planned production of groundwater from the Westside Bain to 1,535 acre-feet per year (AFY), which is consistent with current pumping capacity and historical pumping rates.[5] There are currently no plans for recycled water or desalinated water supplies to be available to the project area.[6]

Total system demand in 2015 was 7,064 AFY.[7] SSF District water use in 2015 was strongly affected by the Drought Emergency Regulation adopted by the State Water Resources Control Board (SWRCB) in May 2015. Between June and December 2015, water use in South San Francisco decreased by 21.7 percent compared to 2013.[8] The projected average annual growth rate in services across all customer categories is approximately 0.5 percent, with a projected total system demand of 8,901 AFY in 2040.[9]

The distribution system of the SSF District is upgraded and improved through Cal Water's main replacement program. Storage facilities and new booster pumps are added as needed to meet the average day and maximum day requirements. Future capital expenditures are planned for drilling and developing new wells to replace aging wells currently in operation, which would increase system reliability and allow Cal Water to pump its fair share of sustainable extracted groundwater from the Westside Basin.[10]

Project Site

The project site is served by the California Water Service Company, which purchases most of its water from the SFPUC. Existing water supply piping near the project site is located under Haskins Way, East Grand Avenue, and East Jamie Court. Three fire hydrants are located on the south side of East Jamie Court north of and adjacent to 400-450 East Jamie Court, one is west of Haskins Way on the east side of the 390 Swift parcel, and another is on the north side of East Grand Avenue south of 415 East Grand Avenue.

Existing water use, based on 2017 metered readings for irrigation and interior building use, is shown in **Table 4.10.1: Existing Water Use**, in terms of hundred cubic feet per year (CCF), gallons per day, and AFY.

[4] Ibid, pp. 54–55.
[5] Ibid, pp. 76.
[6] Ibid, pp. 69–70.
[7] Ibid, Table 2-1, p. 16
[8] Ibid, p. 27.
[9] Ibid, Table 4-2, p. 31.
[10] Ibid, p. 55.

Table 4.10.1: Existing Water Use

Parcel	CCF/year	Gallons per day	AFY
Phase 1 Area			
201 Haskins Way	278		
400-450 East Jamie Court			
400-450 East Jamie Court (Interior)	*3,734*		
400-450 East Jamie Court (Irrigation)	*1,515*		
Subtotal Phase 1 Area	**5,527**	**11,327**	**12.7**
Phase 2 Area			
400-450 East Jamie Court[1]	-	-	-
101 Haskins Way	56		
151 Haskins Way	298		
410 Haskins Way	80		
430 Haskins Way	112		
451 East Jamie Court	**69**		
Subtotal Phase 2 Area	**615**	**1,260**	**1.4**
Total	**6,142**	**12,587**	**14.1**

Notes: CCF = hundred cubic feet. One CCF is equivalent to 748 gallons.

[1] Development activity would occur on 400-450 E. Jamie Court (015-102-250) during both Phase 1 development and Phase 2 development.

Source: CalWater, Water Supply Assessment for the 201 Haskins Way Project, September 6, 2018.

Wastewater System

Regional

The City of South San Francisco (City) maintains all of its sewer system facilities and infrastructure in accordance with the *Sewer System Management Plan* (SSMP) per Waste Discharge Requirements (WDRs) adopted by the SWRCB.[11] The current SSMP is dated June 2014 and is regularly updated in accordance with regulatory requirements.[12] City staff are currently preparing an update to the plan (herein referred to as the Draft SSMP) and have provided a 2017 draft for the purposes of analysis of the proposed project.[13]

All wastewater from the City is conveyed to the Water Quality Control Plant (WQCP), which is located at 195 Belle Air Road in South San Francisco. The WQCP is operated and maintained by the City and provides secondary wastewater treatment for the cities of South San Francisco, San Bruno, and Colma. It also provides the dechlorination treatment of chlorinated effluent for the cities of Burlingame, Millbrae,

[11] State Water Resources Control Board, Waste Discharge Requirements Order No. 2006-003 DWQ and Order No. WQ 2003-0058-EXEC

[12] City of South San Francisco, 2014. *Sewer System Management Plan*. Revised June 2014. Available online at: http://www.ssf.net/home/showdocument?id=824. Accessed June 6, 2018.

[13] City of South San Francisco, 2017. *Draft Sewer System Master Plan*. Prepared November 2017. Available as part of the Administrative Record of this EIR.

and the San Francisco International Airport prior to discharging the treated wastewater into San Francisco Bay (Bay).[14] The combined treated, dechlorinated wastewater is discharged to the Bay through a single pipe to the deep water outfall approximately 1 mile northeast of San Bruno Point.

The WQCP design capacity for average dry weather flow is 13 million gallons per day (mgd).[15] The City is entitled to approximately 74 percent of the available treatment capacity of the WQCP. In 2016, average daily flows were 8.27 mgd for South San Francisco and San Bruno combined. Average dry weather flows for 2040 are projected to be 10.3 mgd.

The City's wastewater collection system in the East of 101 Area consists of 6-inch- through 30-inch-diameter sewers and a series of gravity sewers and pump stations that convey flow to the main pump station (Pump Station No 4); Pump Station No. 7 conveys a small portion of the East of 101 Area to the WQCP as well. Pump Station 3, located on Kimball Way, serves the project site and directs flows west along Grand Avenue, and south on Harbor Way to Pump Station 4.

Project Site

The project site is served by the existing sanitary sewer system. There are 8-inch-wide sanitary sewer lines on Haskins Way and East Jamie Court along the project site frontage and 8-inch-wide sanitary sewer lines on East Grand Avenue. On Haskins Way, near Swift Avenue, the 8-inch line on Haskins Way expands to a 15-inch line running northwest.

Within the 201 Haskins Way parcel, a 10-foot-wide sewer easement with a 15-inch-wide sanitary sewer line runs along the parcel's northern boundary. Where the Haskins Way line meets the northern 15-inch-diameter line, the lines merge into the 15-inch-wide sanitary sewer line near Swift Avenue, which continues to the northwest.

A sanitary sewer capacity analysis prepared for the proposed project investigated the existing 8-inch sanitary sewer main fronting the site on Haskins Way, the existing 15-inch sanitary sewer main running east-west through the project within an easement, and the 15-inch sanitary sewer main downstream of the site within Swift Avenue to Pump Station 3 at the intersection of Swift Avenue and Kimball Way.[16] The capacity of Pump Station 3 was evaluated as the downstream terminus for this analysis.

In 2017, the City prepared a Draft SSMP evaluated the sewer collection system capacity during peak dry weather flows and peak wet weather flows for the existing and buildout flows. In general, the hydraulic model prepared for the Draft SSMP indicated that the sewer collection system exhibited acceptable performance during both peak dry weather flows and peak wet weather flows, with some exceptions.[17]

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[14] City of South San Francisco, 2018. Water Quality Control Plant (website). Available online at: http://www.ssf.net/departments/public-works/water-quality-control-plant. Accessed: June 6, 2018.

[15] Schumacker, Brian. 2017. Plant Superintendent, South San Francisco Water Quality Control Plant. Email to Alice Tackett regarding the 2017 OPSP Update, Planner, Michael Baker International. February 14.

[16] BKF, 2018. 201 Haskins Way – Sanitary Sewer Capacity Analysis, dated July 13, 2018. Available as part of the Administrative Record for this EIR.

[17] City of South San Francisco, 2017. *Draft Sewer System Master Plan*, Figures 7.1 and 7.2.

Estimates of sanitary sewer generation for the existing uses at the project site were determined using a unit rate of 0.03 gallons per day per square foot provided in the Draft SSMP, as shown in **Table 4.10.2: Existing Sanitary Sewer Generation Rates**.[18] These unit rates multiplied by the square footage of land use determine the Average Dry Weather Flow (ADWF) for the site. Due to fluctuations in flow through the day and for the effects of rainfall and groundwater dependent inflow and infiltration, a peaking factor of 3 was applied to the ADWF to determine the Peak Wet Weather Flows (PWWF).

Existing flows are expressed as a ratio between the existing depth of flow compared to the existing pipe diameter ("depth of flow to pipe diameter", abbreviated as d/D), where 0.1 d/D would be considered a pipe with low flow and 0.9 would be considered full pipe flow.[19] The existing sanitary sewer flows within each of these pipe segments was calculated using Manning's Equation for gravity pipe flow and assuming an existing flow condition of d/D=0.50 per the Draft SSMP hydraulic model. [20] These flows correspond to the Peak Wet Weather Flow (PWWF) condition. The existing available flow capacity is the difference between flows at 0.50 d/D (existing) and 0.90 (full pipe flow). **Table 4.10.3: Available Capacity of Existing Sanitary Sewer Mains** details the full flow capacities of the existing sanitary sewer mains.

Pump Station 3 is the downstream terminus for the sewer main segments listed above. Based on the 2017 Draft SSMP, Lift Station 3 does not have any capacity issues under existing conditions, and has a minimum of 925 gallons per minute (gpm) of surplus capacity to accommodate future wet weather flows.[21]

Stormwater

The City is one of 22 members of the San Mateo Countywide Water Pollution Prevention Program and operates under the San Francisco Bay Regional Water Quality Control Board (RWQCB) Municipal Regional Stormwater National Pollution Discharge Elimination System (NPDES) Permit (MS4 Permit).[22] The City's stormwater infrastructure is comprised of underground storm drains, engineered channels, and present-day creeks and watersheds.[23] The largest watershed in the immediate vicinity is the Colma Creek watershed, which includes portions of San Bruno Mountain, as well as urbanized areas of the City, Daly City, and Colma. Most of this urbanized creek is channelized and/or conveyed underground to allow for urban development. The percent of impervious surface area within the Colma Creek watershed was estimated to be 65 percent.[24] Colma Creek is a flood control channel maintained by the San Mateo County Department of Public Works that discharges into the Bay just north of the San Francisco

[18] BKF, 2018. 201 Haskins Way – Sanitary Sewer Capacity Analysis, Attachment A, Table 1 – Existing Sanitary Sewer Generation.

[19] BKF, 2018. 201 Haskins Way – Sanitary Sewer Capacity Analysis, p. 4.

[20] City of South San Francisco, 2017. *Draft Sewer System Master Plan*, Figures 7.1 and 7.2.

[21] Ibid, Table 5 and Table 7.3.

[22] San Francisco Bay Regional Water Quality Control Board, 2015. Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES Permit No. CAS612008.

[23] Givler, R.W, Sowers, J.M., and Vorster, P., 2006. Creek & Watershed Map of Daly City & Vicinity, Oakland Museum of California, Oakland, CA. 1:25,800 scale. Available online at: http://explore.museumca.org/creeks/WholeMaps/11_Daly%20City%20Creek%20Map.pdf. Accessed June 6, 2018.

[24] National Land Cover Database, 2016. Imperviousness Data, Colma Creek Watershed. Available online at: https://www.mrlc.gov/. Accessed June 6, 2018.

International Airport. In addition to the Colma Creek watershed, a series of small watersheds are located along the shoreline in the vicinity of the site. The majority of the project vicinity consists of fill material located east of the historic shoreline along the Bay. As such, the site lacks natural surface drainages. A series of man-made structures provide drainage of surface waters.

Table 4.10.2: Existing Sanitary Sewer Generation Rates

Parcel	Existing Land Use	Sanitary Sewer Generation (gallons per day)[1]	Peak Wet Weather Flow Rate (cubic feet per second [cfs])[2]	Peak Wet Weather Flow Rate (gallons per minute)
Phase 1 Area				
015-102-230 201 Haskins Way	24,075	722	0.003	1.5
015-102-250 400-450 East Jamie Court[3]	157,000	7,850	0.035	15.9
Subtotal Phase 1 Area	***181,075***	***8,572***	***0.039***	***17.3***
Phase 2 Area				
015-102-250 400-450 East Jamie Court[3]	-	-	-	-
015-102-210 101 Haskins Way	7,000	210	0.001	0.4
015-102-220 151 Haskins Way	11,599	348	0.002	0.7
015-102-180 410 East Grand Avenue	27,300	819	0.004	1.7
015-102-160 430 East Grand Avenue	37,096	1113	0.005	2.2
015-102-240 451 East Jamie Court	75,000	2250	0.010	4.5
015-102-290 No Address[4]	N/A	-	-	
Subtotal Phase 2 Area	***157,995***	***4,740***	***0.021***	***9.6***
Total	**339,070**	**13,312**	**0.060**	**26.9**

Notes:

1 Based on a generation rate of 0.03 gallons per day per square foot of light industrial land use and and 0.05 gallons per day per square foot of office/research and development (R&D) land use.

2 Based on a conversion of gallons per day to cubic feet per second, then multiplied by a peaking factor of 3.

3 Development activity would occur on 400-450 E. Jamie Court (015-102-250) during both Phase 1 development and Phase 2 development.

4 Assessor's Parcel Number 015-102-290 is a parking lot. No existing sewer flows are generated.

Source: BKF (2018), 2017 Draft SSMP Table 3.3 (2017)

Table 4.10.3: Available Capacity of Existing Sanitary Sewer Mains

Segment (Location)	Pipe Size	Existing Available Flow Capacity (cfs)
SA-1 (Swift Avenue)	15-inch	1.63
HW-1 (Haskins Way)	8-inch	0.38
JC-1 (East Jamie Court)	8-inch	0.72
ES-2 (Easement)	15-inch	1.16

Note: Based on Figures 7.1 and 7.2 of the 2017 Draft SSMP, each of these segments are flowing with a d/D ratio less than 0.50 in the existing PWWF conditions. The existing available flow capacity is the difference between flows at 0.50 d/D (existing) and 0.90 (full pipe flow).

Source: BKF (2018), 2017 Draft SSMP (2017)

Project Site

The majority of the project area is currently covered by low-permeability surfaces, including asphalt parking areas, compacted gravel areas, buildings, and streetscape infrastructure. Stormwater runoff from the project site is generally directed to the west and south, then flows to the existing 24-inch-diameter storm drain line on East Jamie Court and the existing 48-inch-diameter storm drain line on Haskins Way. Runoff flows south along Haskins Way and into a catch basin, then through an existing approximately 48-inch-diameter outfall pipe before being discharged into the Bay. The outfall pipe is designed to operate throughout a range of high tide conditions in the Bay to prevent flooding near the terminus of the system.

Within the 201 Haskins Way parcel, two existing 12-inch-diameter storm drains are located along the parcel's northern and southern boundaries. These storm drains flow west from the parcel and connect to the existing 48-inch-diameter storm drain line on Haskins Way. One connection from the southern on-site storm drain to the East Jamie Court storm drain is also provided.

Within the 400-450 East Jamie Court parcel, a series of underground on-site storm drains ranging from 10 to 15 inches in diameter meet at one 18-inch-diameter storm drain at the southwest corner of the parcel, which provides one connection from the site to the existing 48-inch-diameter storm drain line on Haskins Way.

Solid Waste

The South San Francisco Scavenger Company is contracted by the City as the sole hauler of solid waste and operator of recycling services for the City. The South San Francisco Scavenger Company would transport all solid waste from the project site to the Blue Line Transfer facility, located directly east of the project site. The Blue Line Transfer facility has a permitted capacity of 2,400 tons per day. Once the useable materials have been separated at the Blue Line Transfer facility, the remaining trash is then transported to the Corinda Los Trancos (Ox Mountain) Sanitary Landfill or Newby Island Sanitary Landfill.

The Ox Mountain Landfill has a permitted maximum disposal of 3,598 tons per day. As of 2015, the landfill's remaining capacity was 22.18 million cubic yards[25], or approximately 16.64 million tons of compacted-in-place solid waste.[26,27] The estimated closure date for the Ox Mountain Landfill is 2034. The Newby Island Landfill has a permitted maximum disposal of 4,000 tons per day, with an estimated remaining capacity of 21.2 million cubic yards, or approximately 15.9 million tons of compacted-in-place solid waste.[28] The estimated closure date for the Newby Island Landfill is 2041.

In 2015, the latest year for which data are available, the average per capita residential disposal rate in South San Francisco was 6.9 pounds per day, which meets South San Francisco's target identified by the California Department of Resources Recycling and Recovery (CalRecycle) of 6.9 pounds per day[29]. For the employment sector, the average disposal rate was 9.3 pounds per day per employee, which did not meet the 9.0 pounds per day per employee target. Thus, the estimated existing solid waste generation rates are calculated in **Table 4.10.4: Existing Estimated Employee-Generated Solid Waste** based on a factor of 9.3 pounds per day per employee.

4.10.3 Baseline Conditions

The analyses in California Environmental Quality Act (CEQA) documents typically present the existing environmental setting as the baseline conditions against which the project conditions are compared to determine whether an impact is significant. However, in the study area, some land development projects are either recently occupied or under construction. Because these projects would be complete by the time the proposed project is operational, the analyses provide baseline conditions that take these conditions into account. The projects that are taken into account in the baseline conditions, in addition to existing projects, are listed in Section 4.1, Approach to Environmental Analysis, under "Approach to Baseline Setting," on pp. 4.1.4-4.1.7.

4.10.4 Regulatory Framework

This section provides a summary of the plans and policies of the City, and the state agencies that have policy and regulatory control over the project site.

[25] CalRecycle, 2018. Facility/Site Summary Details: Corinda Los Trancos Landfill (Ox Mtn) (41-AA-0002) (website). Available online at: http://www.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Detail/. Accessed June 6, 2018.

[26] CalRecycle. 2015. PacITConversion Table 1 – Material Type Equivalency Factors. Available online at: http://www.calrecycle.ca.gov/FacIT/Conversion1.pdf. Accessed June 6, 2018.

[27] A cubic yard of uncompacted municipal solid waste is equivalent to approximately 0.22 tons (440 pounds); a cubic yard of compacted-in-place in a landfill is equivalent to approximately 0.75 tons (1,500 pounds) (CalRecycle 2015).

[28] CalRecycle, 2018. Facility/Site Summary Details: Newby Island Sanitary Landfill (43-AN-0003). Available online at: http://www.calrecycle.ca.gov/SWFacilities/Directory/43-AN-0003/Detail/. Accessed June 6, 2018.

[29] CalRecycle, 2015. South San Francisco Diversion/Disposal Rate Detail, 2015. Available online at: http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionDetail.aspx?JurisdictionID=511&Year=2015. Accessed August 27, 2018.

Table 4.10.4: Existing Estimated Employee-Generated Solid Waste

Existing Land Use	Land Use (sq. ft.)	Estimated Employment[1]	Estimated Solid Waste Disposal (pounds per day)	Estimated Solid Waste Disposal (tons per year)
Phase 1 Area				
015-102-230 201 Haskins Way	24,075	25	234	43
015-102-250 400-450 East Jamie Court[2]	157,000	349	3,245	592
Subtotal Phase 1 Area	***181,075***	***374***	***3,479***	***635***
Phase 2 Area				
015-102-250 400-450 East Jamie Court[2]	-	-	-	-
015-102-210 101 Haskins Way	7,000	7	68	12
015-102-220 151 Haskins Way	11,599	12	113	21
015-102-180 410 East Grand Avenue	27,300	29	266	49
015-102-160 430 East Grand Avenue	37,096	39	361	66
015-102-240 451 East Jamie Court	75,000	79	730	133
015-102-290 No Address[3]	N/A			
Subtotal Phase 2 Area	***157,995***	***165***	***1,539***	***281***
Total	**339,070**	**540**	**5,018**	**916**

Notes:

[1] Based on the *City of South San Francisco General Plan* Land Use Element employment estimates of 955 sq. ft. of industrial use per employee and 450 sq. ft. of office/ research and development (R&D) use per employee.

[2] Development activity would occur on 400-450 E. Jamie Court (015-102-250) during both Phase 1 development and Phase 2 development.

[3] Assessor's Parcel Number 015-102-290 is a parking lot. No existing sewer flows are generated.

Source: City of South San Francisco General Plan (1999), CalRecycle (2015)

STATE

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act.[30] The Act has been modified over the years in response to factors such as the state's water shortages and droughts. A significant amendment was made in 2009, after the drought of 2007–2009, and as a result of the governor's call for a statewide 20 percent reduction in urban water use by the year 2020 (see "Water Conservation Act of 2009," below).

The Urban Water Management Planning Act requires an urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, to prepare an Urban Water Management Plan (UWMP) to support long-term water resource planning and ensure the reliability of its water resources over a 20-year planning horizon. The UWMP must consider availability of water resources during normal, dry, and multiple dry years. The act describes the contents of the UWMP and specifies how urban water suppliers should adopt and implement the plans. In accordance with the Water Conservation Act of 2009, urban water suppliers must also establish water use targets for 2015 and 2020 that would help achieve a statewide savings of 20 percent by 2020. The Urban Water Management Planning Act requires that UWMPs be updated every five years, in years ending with "0" or "5."

Water Conservation Act of 2009

The Water Conservation Act of 2009, also known as Senate Bill (SB) X7-7, requires the state to set a goal of reducing urban water use by 20 percent by the year 2020.[31] In turn, each retail urban water supplier must determine baseline water use during their baseline period and must also specify water use targets for the years 2015 and 2020 in order to help the state achieve the reduction. Water agencies are required to demonstrate compliance with their established water use target for the year 2015 and 2020 in their 2015 UWMPs. Beginning in 2016, urban retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for state water grants or loans.

Water Supply Assessment – Senate Bill 610

SB 610 (Water Code Sections 10910 through 10915), effective January 1, 2002, requires cities and counties to confirm that sufficient water supply sources are available before specified large development projects are approved.[32] Confirmation is provided in a Water Supply Assessment (WSA) that must be prepared for projects that include: (1) the equivalent demand of 500 residential units; (2) a shopping center or business establishment that employs more than 1,000 persons or has a floor space of more than 500,000 square feet; or (3) a commercial office building that employs more than 1,000 persons or has a floor space of more than 250,000 square feet. The WSA for a proposed project must be included in that

[30] California Water Code Sections 10610 through 10656. Available online at: https://www.water.ca.gov/LegacyFiles/urbanwatermanagement/docs/UWMPAct.pdf. Accessed June 7, 2018.
[31] Senate Bill X7-7, approved November 10, 2009. Available online at: http://wdl.water.ca.gov/wateruseefficiency/sb7/docs/SB7-7-TheLaw.pdf. Accessed June 7, 2018.
[32] California Water Code Sections 10910 through 10915. Available online at: http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb_0601-0650/sb_610_bill_20011009_chaptered.html. Accessed June 6, 2018.

project's CEQA document. A WSA was prepared for the 201 Haskins Way Project because the project meets the commercial office criteria. The results of this analysis are discussed under Impact UT-3, below. This assessment is available as Appendix D of this EIR.

National Pollutant Discharge Elimination System Permits

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to issue and enforce NPDES permits.[33] In addition, the SWRCB develops water quality standards and performs other functions to protect California's waters. The RWQCBs carry out the SWRCB regulations and standards and also issue and enforce permits. The NPDES permit applicable to the proposed project that pertains to utilities and service systems is the NPDES Municipal Regional Stormwater Permit (see "Regulatory Framework" in Section 4.6, Hydrology and Water Quality, pp. 4.6.8-4.6.9).

The San Francisco-San Bruno WQCP operates under an NPDES permit issued by RWQCB under the authority of the state. One of the requirements of the permit is that the WQCP implement a Pretreatment Program to regulate the collection of toxic and hazardous wastes of municipal sources. Under the Pretreatment Program, dischargers of industrial wastewater are required to abide by specific wastewater discharge limits and prohibitions. Industrial dischargers are also required to submit self-monitoring reports on the total volume and pollutant concentrations of their wastewater, and to allow for inspections by the City of South San Francisco.

The NPDES Municipal Regional Stormwater Permit (Provision C3) for South San Francisco requires that best management practices (BMPs) and low-impact development (LID) practices be implemented as part of redevelopment.

California Integrated Waste Management Act – Assembly Bill 939

Among the California statutes regulating solid waste, the California Integrated Waste Management Act (CIWMA), Assembly Bill (AB) 939 (1989), was landmark legislation. The CIWMA mandated that source reduction be the highest priority waste management strategy, followed by recycling and composting, and environmentally safe transportation and land disposal.[34] The law requires that each county prepare an Integrated Waste Management Plan, replacing the earlier County Solid Waste Management Plan. The CIWMA and later revisions required that counties, cities, and regional agencies prepare a source reduction and recycling element in its plan for diversion of 25 percent of all solid waste from landfills or transformation facilities by 1995, and 50 percent by 2000, using a 1989 baseline. Subsequent policies have been enacted to further intensify solid waste diversion rates, which are incorporated on an ongoing basis into the statewide California Green Building Standards Code (CALGreen) mandatory waste reduction requirements.

[33] California State Water Resources Control Board, 2018. Porter-Cologne Water Quality Control Act, Water Code Division 7 and Related Sections (As amended, including Statutes 2017). Available online at: https://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf. Accessed June 7, 2018.

[34] CalRecycle, 2018. History of California Solid Waste Law, 1985-1989 (website). Available online at: http://www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989.htm. Accessed June 7, 2018.

Solid Waste Disposal Measurement Act – Senate Bill 1016

The Solid Waste Disposal Measurement Act, SB 1016 (2008), changed the metric for evaluating success in California's solid waste management. The act maintained the 50 percent diversion requirement set forth under the CIWMA, but addressed the problem that calculating the diversion rate was a complex, time-consuming, and difficult process. Instead, the act provided for a 50 percent Equivalent Per Capita Disposal Target.[35] This per capita disposal target is the amount of disposal a jurisdiction would have had during the base period, if it had been exactly at a 50 percent diversion rate. The 50 percent Equivalent Per Capita Disposal Target is calculated by dividing the average of 2003–2006 per capita generation in half. Each jurisdiction has a specific 50 percent Equivalent Per Capita Disposal Target that cannot be compared to other jurisdictions. In addition, for jurisdictions that have already met the 50 percent diversion rate at that time, annual waste generation studies are no longer required, allowing more resources to be focused on the development or maintenance of waste reduction strategies.

LOCAL

City of South San Francisco General Plan

The *City of South San Francisco General Plan* (General Plan), originally adopted in 1999 and as amended in 2011, provides a vision for the long-range physical and economic development for the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The General Plan contains a Parks, Public Facilities, and Services Element, which includes policies pertaining to water supply and wastewater systems, and a Health and Safety Element, which addresses solid waste.[36]

Policy 5.3-G-1: Promote the orderly and efficient operation and expansion of the water supply system to meet projected needs.

Policy 5.3-G-2: Encourage water conservation measures for both existing and proposed development.

Policy 5.3-G-3: Promote the equitable sharing of the costs associated with providing water service to new development.

Policy 5.3-I-1: Work with California Water Service Company and Westborough County Water District to ensure coordinated capital improvements with respect to the extent and timing of growth.

Policy 5.3-I-2: Establish guidelines and standards for water conservation and actively promote the use of water-conserving devices and practices in both new construction and major alterations and additions to existing buildings.

Policy 5.3-I-3: Ensure that future residents and businesses equitably share costs associated with providing water service to new development in South San Francisco.

Policy 5.3-G-4: Promote the orderly and efficient operation and expansion of the wastewater system to meet projected needs.

[35] Senate Bill 1016, approved September 26, 2018. Available online at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB1016. Accessed June 7, 2018.

[36] City of South San Francisco, 1999. *City of South San Francisco General Plan*, as amended, Chapters 5 and 8. Available online at: http://www.ssf.net/departments/economic-community-development/planning-division/general-plan. Accessed June 7, 2018.

Policy 5.3-G-5: Promote the equitable sharing of the costs of associated with providing wastewater service to new development.

Policy 5.3-G-6: Maintain environmentally appropriate wastewater management practices.

Policy 5.3-I-4: Ensure coordinated capital improvements with respect to the extent and timing of growth.

Policy 5.3-I-5: Ensure that future residents and businesses equitably share costs associated with providing wastewater service to new development in South San Francisco.

Policy 5.3-I-7: Encourage new projects in East of 101 area that are likely to generate large quantities of wastewater to lower treatment needs through recycling, pretreatment, or other means as necessary.

Policy 8.3-G-1: Reduce the generation of solid waste, including hazardous waste, and recycle those materials that are used, to slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989.

Policy 8.3-I-1: Continue to work toward reducing solid waste, increasing recycling, and complying with the San Mateo County Integrated Waste Management Plan.

East of 101 Area Plan

The *East of 101 Area Plan* was adopted by the City in 1994 in order to guide and regulate development in the City's East of 101 Area, which includes the project site. The East of 101 Area Plan, which was adopted prior to the City's General Plan, is primarily used as a design-level document for new projects located in the East of 101 Area, with the exception of some land use and conservation element policies still in effect. For all other utilities and service system policies, the current General Plan policies listed under Chapter 5 of the General Plan, Public Facilities and Services, are the guiding policies and supersede all Public Facilities Element policies set forth in Chapter 6 of the *East of 101 Area Plan*.

Urban Water Management Plan

As stated above, the State Urban Water Management Plan Act requires urban water suppliers to prepare a UWMP every 5 years. The 2015 UWMP for the SSF District is a foundational document and source of information about SSF District's historical and projected water demands, water supplies, supply reliability and vulnerabilities, water shortage contingency planning, and demand management programs.[37] Among other things, it is used as a long-range planning document by Cal Water for water supply and system planning.

East of 101 Sewer System Management Plan

The City completed an SSMP for the east portion of the City (east of U.S. 101) in September 2002 with subsequent updates in 2007 and 2011. These updates identified capacity deficiencies in the existing wastewater collection system and recommended improvements intended to mitigate deficiencies and serve future redevelopments. Recognizing the importance of planning, developing, and financing system

[37] California Water Service (CalWater), 2016. *2015 Urban Water Management Plan, South San Francisco District*, published June 2016. Available online at: https://www.calwater.com/docs/uwmp2015/bay/South_San_Francisco/2015_Urban_Water_Management_Plan_Final_(SSF).pdf. Accessed June 7, 2018.

facilities to provide reliable sewer collection service to existing customers and for servicing anticipated growth, the City initiated the development of the 2017 SSMP. The plan describes characteristics of the planning area, system performance and design criteria, existing sewer system facilities, existing and projected sewer flows, the hydraulic model development, model evaluation and proposed improvements, and a summary of recommended Capital Improvement Program projects.[38]

Climate Action Plan

The purpose of the *South San Francisco Climate Action Plan* (CAP), adopted in 2014, is to demonstrate the City's continued commitment to reduce greenhouse gas (GHG) emissions while protecting unique resources in the City.[39] The CAP provides goals, policies, and programs to reduce GHG emissions, adapt to climate change, and support the goals of AB 32 (2006) and SB 743 (2013). Measures and standards identified in the CAP allow the City to simplify the development review process and determine whether projects are eligible for streamlining incentives. The CAP meets the requirements of a Qualified GHG Reduction Strategy and, consistent with the Global Warming Solutions Act of 2006, presents a target reduction of 15 percent below baseline 2005 GHG emissions levels by 2020.

The CAP provides guidance for a scientific and regulatory framework, a GHG emissions inventory, a GHG reduction strategy, adaptation and resiliency, and implementation. The CAP incorporates several policies regarding water usage and diversion of solid waste, including the policies listed below.

Measure 5.1: Develop a waste reduction strategy to increase recycling and reuse of materials to achieve a 75% diversion of landfilled waste by 2020.

- Continue to enforce the existing construction and demolition recycling ordinance, requiring 100% of inert waste and 65% of noninert waste to be recycled from all eligible projects.

Measure 6.1: Reduce water demand.

Revitalize implementation and enforcement of the Water Efficient Landscape Ordinance by undertaking the following:

- Establishing a variable-speed pump exchange for water features.
- Limiting turf area in commercial and large multi-family projects.
- Restricting hours of irrigation to occur between 3:00 a.m. and two hours after sunrise.
- Installing irrigation controllers with rain sensors.
- Landscaping with native, water-efficient plants.
- Installing drip irrigation systems.
- Reducing impervious surfaces.

Measure 6.2: Provide alternative water resources for irrigation.

[38] City of South San Francisco, 2017. *Draft Sewer System Master Plan*. Prepared November 2017. Available as part of the Administrative Record of this EIR.

[39] City of South San Francisco, 2015. *Climate Action Plan*, adopted February 13, 2014, p. ES-1. Available online at: http://www.ssf.net/departments/economic-community-development/planning-division/planning-documents/approved-policy-documents. Accessed September 1, 2017.

- Create water policies for the stormwater management strategy that seek to capture storm runoff (e.g., bioswale, rainwater collection, and irrigation programs).
- Continue to implement the City's Water Efficient Landscape Guidelines.

The CAP includes a Development Checklist for City staff to use to identify applicable CAP measures for discretionary projects and required mitigation standards. The Development Checklist serves as the summary of project-level standards from the CAP. For discretionary projects seeking to use CEQA streamlining provisions, the City may require CAP measures as mandatory conditions of approval or as mitigation for identified GHG emission impacts.[40] Criteria applicable to utilities and service systems include, but are not limited to, the following questions:

- Will certification of the building be sought under Leadership in Energy and Environmental Design (LEED) or other green building criteria?
- Will any water features exceed CALGreen standards?
- Will the project incorporate low-impact development practices?
- Will any xeriscaping be installed?
- Will captured rainwater or graywater be used for irrigation?

The CAP, as it generally relates to the reduction of GHG emissions, is also discussed in detail in Section 4.5, Greenhouse Gas Emissions, on pp. 4.5.7-4.5.8.

City of South San Francisco Municipal Code

Chapter 15.60 of the South San Francisco Municipal Code (Municipal Code) establishes regulations for recycling and diversion of debris from construction and demolition. Contractors are encouraged to make every structure planned for demolition available for deconstruction, salvage, and recovery prior to demolition; and to recover the maximum feasible amount of salvageable designated recyclable and reusable materials prior to demolition, but at least at the rate set forth in CALGreen. The diversion requirements of the Municipal Code include submittal and completion of a waste management plan that includes deconstruction and salvaging as practicable, directing 100 percent of inert solids (building materials) to reuse or recycling facilities approved by the City, and either recycling all mixed debris to recycling facilities or source separating non-inert materials or directing non-inert materials (all other materials) to recycling facilities at a diversion rate of 65 percent.

4.10.5 Impacts and Mitigation Measures

This section describes the impact analysis related to utilities and service systems for the proposed project. This section also describes the methods used to determine the impacts of the proposed project and lists the thresholds used to conclude whether an impact would be significant.

[40] Ibid, pp. 75 and 169–171.

SIGNIFICANCE CRITERIA

Per the CEQA Guidelines, Appendix G, a utilities and service system impact is considered significant if project implementation would:

a. exceed wastewater treatment requirements or the applicable Regional Water Quality Control Board.

b. require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

c. require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

d. have insufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.

e. 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.

f. be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

g. not comply with federal, state, and local statutes and regulations related to solid waste.

APPROACH TO ANALYSIS

The impact analysis is informed by the results of a WSA performed for the proposed project (provided as Appendix D to this EIR),[41] a sanitary sewer capacity analysis performed for the proposed project,[42] the draft *East of Highway 101 – City of South San Francisco Sewer System Master Plan* prepared November 2017 (Draft SSMP),[43] and solid waste and landfill information provided by CalRecycle. Based on the general area-wide scale of utility service areas and systems, project-specific water demand, wastewater production, and solid waste production, implementation of Phase 1 development and project buildout are expected to have relatively similar results. Therefore, each of the impacts discussed below considers the proposed project at full project buildout, and Phase 1 development is not discussed separately.

Prior to construction of the proposed project during Phase 1 development and project buildout, existing light industrial uses would vacate. Therefore the consumption of water and energy and the production of wastewater and solid waste under the proposed project would be a net difference between the prior utility use and the new utility use. To determine the net water consumption utilized under the proposed project, the WSA analyzes the net new water use under the proposed project based on the water demand calculation for the *Genentech 2017 Master Plan Update* because that data differentiates water use for office and laboratory facilities similar to those of the project. For purposes of calculating new water demand estimates, it is assumed that 60 percent of the project would be for laboratory/research and

[41] CalWater, 2018. *SB 610 Water Supply Assessment for the 201 Haskins Way Project*, September 6, 2018. Available as Appendix D to this EIR.

[42] BKF, 2018. 201 Haskins Way – Sanitary Sewer Capacity Analysis, July 13, 2018.

[43] City of South San Francisco, 2017. *East of Highway 101 – City of South San Francisco Sewer System Master Plan*, draft prepared November 2017. Available as part of the Administrative Record of this EIR.

development (R&D) use and 40 percent of the project would be office use. As discussed in the WSA, the net water use calculation reflects the existing water use of the buildings located on the Phase 1 area and Phase 2 area parcels that would be replaced by the project based on 2017 metered readings for those buildings.

Estimates of wastewater generation rates under existing and proposed conditions were determined using unit rates provided by the 2017 Draft SSMP. From this estimate, a calculation of net new wastewater generation rate between the existing light industrial use to be removed and proposed new office/R&D use was performed. To analyze wastewater capacity, this analysis investigates the existing 8-inch sanitary sewer main fronting the site on Haskins Way, the existing 15-inch sanitary sewer main running east-west through the project within an easement, and the 15-inch sanitary sewer main downstream of the site within Swift Avenue to Pump Station 3 at the intersection of Swift Avenue and Kimball Way. The capacity of Pump Station 3 was evaluated as the downstream terminus for this analysis.

For solid waste, existing generation rates are not known; therefore, the analysis of these impacts is based on the citywide average solid waste generation rates from CalRecycle of employment uses per capita. The analysis compares the estimated existing solid waste rates to the estimated the rates that would occur under the proposed project.

IMPACT EVALUATION

Wastewater

Impact UT-1: Implementation of the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; would not exceed the capacity of the wastewater treatment provider that would serve the project site; and would not require the construction of new, or expansion of existing, wastewater treatment facilities, the construction of which could cause significant effects. *(Less than Significant)*

The project site is served by an existing separated sewer system. The proposed project, at both Phase 1 and project buildout, would involve construction of new connections to the existing sewer lines on East Grand Avenue, Haskins Way, and East Jamie Court to provide service to the proposed new office/R&D buildings. From there, the existing sewer lines run west of Haskins Way to Swift Avenue, west on Swift Avenue to Kimball Way, north on Kimball Way to East Grand Avenue, then west on East Grand Avenue to Harbor Way, then south to Harbor Way and terminating at the WQCP.[44]

The sanitary sewer capacity analysis prepared for the proposed project investigated the existing 8-inch sanitary sewer main fronting the site on Haskins Way, the existing 15-inch sanitary sewer main running east-west through the project within an easement, and the 15-inch sanitary sewer main downstream of the site within Swift Avenue to Pump Station 3 at the intersection of Swift Avenue and Kimball Way. The capacity of Pump Station 3 was evaluated as the downstream terminus for this analysis.

[44] City of South San Francisco, 2017. *Draft Sewer System Master Plan*, Figure 4.1, p 4-2.

Estimates of sanitary sewer generation for the proposed office/R&D uses at the project site were determined using a unit rate of 0.05 gallons per day per square foot provided in the 2017 Draft SSMP, as shown in **Table 4.10.5: Proposed Project Sanitary Sewer Generation Rates**.[45] These unit rates multiplied by the square footage of land use determine the ADWF for the site. Due to fluctuations in flow through the day and for the effects of rainfall and groundwater dependent inflow and infiltration, a peaking factor of 3 was applied to the ADWF to determine the PWWF.

The future sanitary sewer flows within each of these pipe segments was calculated using Manning's Equation for gravity pipe flow and assuming an existing flow condition of d/D=0.50 per Figures 7.1 and 7.2 of the 2017 Draft SSMP. These flows correspond to the PWWF condition. The future available flow capacity is the difference between flows at 0.50 d/D (existing) and 0.90 (full pipe flow). As shown in **Table 4.10.6: Flow Capacity of Existing Sanitary Sewer Mains with Proposed Project**, the additional flows generated by the proposed project would account for between 3.5 and 23.7 percent of existing available flow capacity, and would not exceed flow capacities of the existing sanitary sewer mains.

Lift Station 3 has a minimum of 925 gpm of surplus capacity to accommodate future wet weather flows. Based on the net new sewer generation rate of 59.2 gpm as shown in Table 4.10.2, above, Lift Station 3 would have approximately 865.8 gpm of remaining surplus capacity to accommodate future wet weather flows, and the proposed project would not exceed the capacity of the lift station.

The Draft SSMP projects future land use development in the East of 101 Area to the year 2040 divided into four generalized areas: the Oyster Point Community, Genentech's Campus, the Gateway Area, and Bay West Cove. The project site is located within the "Genentech" area of the Draft SSMP's growth map, and the parcels on the project site are identified for future growth.[46] The Draft SSMP identifies components for the system that would require improvement to support future growth. Those improvements include capacity (pipe diameter) upgrades, slope improvements, and lift station improvements. None of the segments analyzed above, which occur between the project site and Lift Station 3, were identified in the Draft SSMP as requiring improvements, However, project flows would be added to the region-wide system as it flows from Lift Station 3 to the WQCP. According to the Draft

[45] Ibid, Table 3.3, p 3-10.2
[46] Ibid, Figure 2.3, p. 2-7.

Table 4.10.5: Proposed Project Sanitary Sewer Generation Rates

	Land Use (sq.ft.)	Sanitary Sewer Generation (gallons per day)[2]	Peak Wet Weather Flow Rate (cubic feet per second [cfs])[3]	Peak Wet Weather Flow Rate (gallons per minute)
Existing Light Industrial Land Use To Be Removed[1]				
Phase 1 Area (201 Haskins Way)	24,075	722	0.003	1.5
Subtotal Phase 2 Area (101 and 151 Haskins Way, 410 and 430 East Grand Avenue, and 451 East Jamie Court	*157,995*	*4,740*	*0.021*	*9.6*
Total Existing Light Industrial Land Use To Be Removed	**182,070**	**15,288**	**0.022**	**10.3**
Proposed New Office/R&D Use				
Phase 1 Development				
015-102-230 201 Haskins Way	280,765	**14,038**	**0.063**	**28.4**
015-102-250 400-450 East Jamie Court[2]	25,000	**1,250**	**0.0026**	**2.5**
Subtotal Phase 1 Development	***305,765***	**15,288**	**0.069**	**30.9**
Phase 2 Development				
015-102-250 400-450 East Jamie Court	85,000	**4,250**	**0.019**	**8.6**
015-102-210 101 Haskins Way	24,535	**1,227**	**0.006**	**2.5**
015-102-220 151 Haskins Way	28,602	**1,430**	**0.006**	**2.9**
015-102-180 410 East Grand Avenue	40,384	**2,019**	**0.009**	**4.1**
015-102-160 430 East Grand Avenue	72,076	**3,604**	**0.016**	**7.3**
015-102-240 451 East Jamie Court	62,087	**3,104**	**0.014**	**6.3**
015-102-290 No Address[4]	16,347	**817**	**0.004**	**1.7**
Subtotal Phase 2 Development	***329,031***	**16,452**	**0.074**	**33.2**
Total Proposed New Office/R&D Use	**634,796**	**31,740**	**0.143**	**64.1**
Net New Sewer Generation				
Phase 1		**14,566**	**0.066**	**29.4**
Phase 2		**11,712**	**0.053**	**23.7**
Total Project Buildout		**26,278**	**0.118**	**53.1**

Notes:

[1] For a summary of existing sanitary sewer generation rates by parcel, see Table 4.10.2.

[2] Based on a generation rate of 0.03 gallons per day per square foot of light industrial land use and 0.05 gallons per day per square foot of office/R&D land use.

[3] Based on a conversion of gallons per day to cubic feet per second, then multiplied by a peaking factor of 3.

[3] Development activity would occur on 400-450 East Jamie Court (015-102-250) during both Phase 1 development and Phase 2 development.

[4] Assessor's Parcel Number 015-102-290 is a parking lot. No existing sewer flows are generated.

Source: BKF (2018), 2017 Draft SSMP Table 3.3 (2017)

Table 4.10.6: Flow Capacity of Existing Sanitary Sewer Mains with Proposed Project

Segment (Location)	Pipe Size	Existing Available Flow Capacity (cfs)	Additional Project Flow (cfs)	Project Flow as a Percent of Existing Capacity (%)	Remaining Capacity (cfs)
SA-1 (Swift Avenue)	15-inch	1.63	0.13	8.0%	1.5
HW-1 (Haskins Way)	8-inch	0.38	0.09	23.7%	0.28
JC-1 (East Jamie Court)	8-inch	0.72	0.03	4.2%	0.69
ES-2 (Easement)	15-inch	1.16	0.04	3.5%	1.12

Note: Based on Figures 7.1 and 7.2 of the 2017 Draft SSMP, each of these segments are flowing with a d/D ratio less than 0.50 in the existing PWWF conditions. The existing available flow capacity is the difference between flows at 0.50 d/D (existing) and 0.90 (full pipe flow).

Source: BKF (2018), 2017 Draft SSMP (2017)

SSMP, there is one pipeline capacity improvement and three slope deficiency improvements recommended between Lift Station 3 and the WQCP,[47] as follows:

- 4-P2 – Pipeline capacity improvement to a gravity main on Harbor Way (replace existing 27-inch pipeline with a 30-inch pipeline)
- 4-S1– Slope deficiency improvement on Littlefield Avenue from 50 feet northeast of East Grand Avenue to Littlefield Avenue to East Grand Avenue
- 4-S2 – Slope deficiency improvement on Littlefield Avenue from 100 feet south of East Grand Avenue to Grand Avenue
- 4-S5 – Slope deficiency improvement on East Grand Avenue from 250 feet east of Kimball Way to Kimball Way

The Draft SSMP also provides a discussion of the City's Capital Improvement Program, which was adopted by the City on June 15, 2017, to assist the City in planning and constructing the collection system improvements through the 2040 scenario, and presents the methodologies for developing equitable distribution of costs. The capital improvement costs account for project-related costs associated with engineering design, project administration, construction management, inspection, and legal costs.

The Draft SSMP indicates that capacity allocation analysis is needed to identify improvement funding sources, and to establish a nexus between development impact fees and improvements needed to service growth. In compliance with the provisions of the Mitigation Fee Act, Government Code Sections 66000, et. seq. (also known as AB 1600), the analysis differentiates between the needs of existing users and those of anticipated future developments. For example, to address pipeline capacity improvement 4-P2, the SSMP suggests a cost allocation of 54 percent of funding from existing users and 46 percent of costs from future users.[48]

The costs of capital improvements would be captured through payment of the City's Sewer System Capacity Study and Improvement Fee (the "Sewer Capacity Fee"), based on the square footage of

[47] Ibid, Figure 7.3, Table 7.1 and Table 7.2, pp 7-6, 7-8, and 7-9.
[48] Ibid, Table 8.2, p 8-6.

proposed project new uses, pursuant to the City's Master Fee Schedule and Title 14 "Water and Sewage" of the Municipal Code.

Therefore, with a fair-share contribution to the City's capital improvement program through payment of the Sewer Capacity Fee, the proposed project would not exceed the capacity of wastewater facilities, and would not require the construction of new, or expansion of existing, wastewater treatment facilities. This impact is less than significant. No mitigation is necessary.

Stormwater

Impact UT-2: Implementation of the proposed project would not require the construction of new, or expansion of existing, stormwater drainage facilities, the construction of which could cause significant environmental effects. *(Less than Significant)*

In general, the proposed project would alter but not create substantial new impervious surface area compared to existing conditions at Phase 1 or at project buildout. The existing site is largely disturbed by buildings and paved parking areas. Many of the existing parcels (the 201 Haskins parcel in the Phase 1 area; 101 and 151 Haskins Way and 410 and 430 East Grand Avenue parcels in the Phase 2 area) include portions of compacted gravel that have previously been used for parking or truck storage. Due to the compacted nature of this existing gravel, significant infiltration providing groundwater recharge is likely not occurring in the existing condition. Existing permeable surfaces include ornamental landscaping in the site frontages and parking areas, and ruderal grass areas in undeveloped setbacks between parcels.

Both Phase 1 and buildout of the proposed project would be required to manage stormwater runoff as part of green infrastructure through LID practices. This approach implements engineered controls to allow stormwater, filtering, and storage and flood control. Phase 1 and project buildout would involve minor grading to allow controlled stormwater flows through paved areas into designated bioretention areas or storm drains. Portions of roof areas would also be designed as green roofs that would provide filtration. Stormwater received through all proposed roof areas would be routed to the ground level through downspouts and conveyed to bioretention areas. The bioretention areas would be designed to allow water to evaporate, and provide pre-treatment of pollutants such as trash, debris, and larger sediments, as well as filtration of other pollutants. After collection, filtered stormwater would be allowed to infiltrate into groundwater or to storm drainage conveyances.

In summary, the project would alter but not substantially increase impervious surfaces as compared to existing conditions. Under the project, stormwater would continue to be routed to the storm drains on East Jamie Court and Haskins Way. Post-construction peak stormwater flows would not be increased compared to existing conditions. The project would comply with all applicable BMPs and Conditions of Approval regarding stormwater drainage and surface runoff detention measures, and therefore the amount of surface runoff would not increase.

Therefore, impacts associated with stormwater drainage facilities would be less than significant. No mitigation is necessary.

Water Supply

Impact UT-3: Cal Water has sufficient water supply available to serve the project site from existing entitlements and resources and would not require new or expanded water supply resources or entitlements. *(Less than Significant)*

Construction of the proposed project would require minor quantities of water for dust control, concrete mixing, and construction-related equipment washing. This impact is less than significant, and is not further discussed below.

The proposed project would require water supplies to serve office/R&D uses and employees on-site. The proposed project would require the most water resources at project buildout (including both Phase 1 development and the conceptual Phase 2 development). Therefore, a separate discussion of Phase 1 water supply impacts is not necessary.

The City requested Cal Water to prepare a WSA in accordance with SB 610 requirements for the proposed project, which is provided as Appendix D to this EIR. To estimate water use rates for proposed project, water usage rates for similar office space and laboratories in the Oyster Point area were obtained from the December 2008 South San Francisco Gateway Business Park WSA prepared by Cal Water. In the Gateway Business Park WSA, overall average annual day office water use was 0.04 gallon per day per square foot, and average annual day laboratory water use was 0.063 gallon per day per square foot.

More recently, the City requested a water demand study for the *Genentech Master Plan Update* project in 2017. The study indicated that existing Genentech office water use is 0.0547 gallon per day per square foot and laboratory water use is 0.082 gallon per day per square foot.[49] Since this water use data is more recent and is based on metered water use for assumed similar office and laboratory facilities to those proposed project, these use assumptions are used to calculate project water demand. This is a conservative approach as existing usage rates do not account for the improvements in water conservation technology and water conservation policies that have occurred in the past 6 years.

At project buildout, the irrigated landscaped areas likely would increase from present site conditions; however, the technology of irrigation has improved since the current project site's irrigation systems were installed. Furthermore, the project would comply with CAP Measure 6.1 and 6.2 to implement features to reduce water demand and provide alternative water resources per CAP Measure 6.1 and Measure 6.2, such as water efficient irrigation systems and alternative water resources for irrigation (such as stormwater runoff collection and bioswales). Therefore, irrigated water demand is expected to be similar to existing conditions or reduced. Current city ordinances require all new developments to install water-conserving fixtures and appliances. All of these would be incorporated into the proposed project.

[49] California Water Service, 2018. *SB 610 Water Supply Assessment for the 201 Haskins Way Project*, September 6, 2018. Available as Appendix D of this EIR.

The estimated net water demand accounts for the existing water use for the buildings that would be demolished in connection with development of the proposed project. Existing water use for those uses to be removed is based on 2017 metered readings and is approximately 1,830 gallons per day.[50]

For the basis of analysis of water demand estimates, it is assumed that the intended use of the new uses on the project site would be comprised of 60 percent laboratories space (R&D) and 40 percent office space. Based on 0.0547 gallon per day per square foot of office use and 0.082 gallon per day per square foot of laboratory use, the proposed project at project buildout would require approximately 48,164 gallons per day (14,826 gallons per day for office use and 33,338 gallons per day of laboratory use).

Therefore, the estimated net water demand for the proposed project is calculated as follows: 48,164 gallons per day of new office and laboratory use, less 1,830 gallons per day for the existing water use for a total of 46,334 gallons per day of net new water use.

The WSA utilizes 2023 as the date of overall project completion and beginning of operations at the proposed building, including conceptual Phase 2 development.

The SSF District has a sufficient supply under normal hydrological conditions. However, during 1-year or multi-year dry periods, shortfalls up to 22 percent are projected.[51] The WSA analyzed the proposed project's estimated water use based on a normal hydrological year, a single dry year, and three consecutive dry years.

Normal Hydrologic Year

For all three Cal Water peninsula districts served by SFPUC, the combination of existing local and purchased supplies would be adequate to meet forecasted demands for the proposed project, those associated with existing Cal Water customers and all other new developments for the next 20+ years.

Single Dry Year

For a single dry year, supplies may be less than normal projected demands if SFPUC supplies are reduced, which historically has not occurred. Generally, a reduced supply is not expected, but if SFPUC does reduce its supplies, Cal Water would implement additional demand reduction measures. The amount of groundwater supply of 1,535 AFY would not be affected by a single dry year. During a single dry year, treated surface water from the Bear Gulch Reservoir in the Bear Gulch District would most likely decrease. While a single dry year may trigger increased water demand reduction measures, demand has not been reduced to reflect those measures. Depending on when in the next 20+ years another single dry year occurs, additional supply sources (water transfers and desalination) may have been developed and be available to offset any reductions in existing sources. Accordingly, water supplies during a single dry year would be adequate to meet forecasted demands for the proposed project.

[50] Existing water use is based on interior building use only. For the purposes of this analysis, irrigated water demand is expected to be similar to existing conditions or reduced based on improvements to technology.

[51] California Water Service, 2018. *SB 610 Water Supply Assessment for the 201 Haskins Way Project*, September 6, 2018. Available as Appendix D of this EIR.

Three Consecutive Dry Years

During a 3-year dry period, water supplies would be less than normal demand by a range from 14 to 22 percent in 2040 depending on the specific dry year and the projected future date. Again, Cal Water would assess any supply reduction notifications from SFPUC, the availability of water from its treated surface source in Bear Gulch District, and whether it can continue to pump groundwater at its historically normal rate. Westside Basin groundwater supplies would likely continue to be pumped at current rates although that would result in a reduction in basin storage and a lowering of groundwater levels. During years of above-normal rainfall, it is expected that groundwater storage would increase, as has been the case in past decades.

Depending on the timing of possible successive dry years in the next 20+ years, additional water supply sources (water transfers and desalination) may have been developed and be available to offset any reductions in existing supply sources. If not, Cal Water would determine what additional demand reduction measures would be needed to reduce demand to match available supplies. As previously noted, Cal Water exceeded its goal of reducing demands during the most recent (2010–2015) severe drought.

If in the first dry year, demand reduction responses do not appear to be sufficient, Cal Water would implement additional conservation measures in the second and third dry years. This is expected to result in an adequate supply for all three Cal Water peninsula districts from 2020–2040. Accordingly, water supplies during 3 consecutive dry years would be adequate to meet forecasted demands for the proposed project.

Conclusion

The SSF District would be able to provide adequate water supplies to meet existing and projected demands, which includes full development of the proposed project for normal, single dry year, and multiple dry-year conditions based on the following:

1. Current Westside Basin groundwater supplies and Cal Water's current and projected groundwater production rates from its active wells.
2. Generally adequate long-term normal hydrologic supplies provided by the SFPUC, but recent significant proposed reductions in supply during multiple dry-year periods.
3. An effective demand reduction program to meet requirements of state laws.
4. Future Cal Water plans to develop additional supply sources including transfers/exchanges of supplies from outside the peninsula area and development of local desalination facilities.
5. The prospect of longer term additional local supplies being obtained from SFPUC's proposed conjunctive use program for the Westside Basin.
6. Possible recycled water projects being developed collaboratively among local wastewater and water utilities in the SSF District area.
7. Cal Water's ability to achieve additional drought-driven reductions in demand (15 to 26 percent) during single dry-year and multiple dry-year periods through its established in-place water programs.

8. Historical performance which demonstrates Cal Water's ability to both increase supply sources and effectively achieve demand reductions if required.

As part of the project entitlements process, Cal Water would review the proposed project's water facility designs to ensure that the required water facilities are consistent with the proposed development plan and would coordinate with the developer, its planners and engineers, the City, and the California Division of Drinking Water in the design, construction, and operation of the proposed water distribution system.

In summary, the proposed project would not require new or expanded water supply entitlements or the expansion of existing water facilities, the construction of which could cause significant environmental effects. Therefore, impacts associated with water demand would be less than significant. No mitigation is necessary.

Solid Waste

Impact UT-4: The proposed project would be served by a landfill with sufficient permitted capacity and would comply with all applicable statutes and regulations related to solid waste. ***(Less than Significant)***

As discussed above, the South San Francisco Scavenger Company is contracted by the City as the sole hauler of solid waste and operator of recycling services for the City. The South San Francisco Scavenger Company would transport all solid waste from the project site to the Blue Line Transfer facility, located directly east of the project site. The Blue Line Transfer facility has a permitted capacity of 2,400 tons per day. Once the useable materials have been separated at the Blue Line Transfer facility, the remaining trash is then transported to the Corinda Los Trancos (Ox Mountain) Sanitary Landfill or Newby Island Sanitary Landfill.

The Ox Mountain landfill has a permitted maximum disposal of 3,598 tons per day. As of 2015, the landfill's remaining capacity was 22.18 million cubic yards[52], or approximately 16.64 million tons of compacted-in-place solid waste.[53] The estimated closure date for the Ox Mountain Landfill is 2034. The Newby Island Landfill has a permitted maximum disposal of 4,000 tons per day, with an estimated remaining capacity of 21.2 million cubic yards, or approximately 15.9 million tons of compacted-in-place solid waste.[54] The estimated closure date for the Newby Island Landfill is 2041.

The proposed project would increase the intensity of land uses at the site, resulting in an increase of solid waste to the Blue Line Transfer facility and landfills, particularly the Ox Mountain Sanitary Landfill, from the project site. Based on the average 2015 solid waste disposal rate of 9.3 pounds per employee in the City[55], the net new solid waste generation rate in tons per year is provided in **Table 4.10.7: Estimated Employee-Generated Solid Waste under the Proposed Project**.

[52] CalRecycle, 2018. Facility/Site Summary Details: Corinda Los Trancos Landfill (Ox Mtn) (41-AA-0002) (website). Available online at: http://www.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Detail/. Accessed June 6, 2018.

[53] A cubic yard of uncompacted municipal solid waste is equivalent to approximately 0.22 tons (440 pounds); a cubic yard of compacted-in-place in a landfill is equivalent to approximately 0.75 tons (1,500 pounds) (CalRecycle 2015).

[54] CalRecycle, 2018. Facility/Site Summary Details: Newby Island Sanitary Landfill (43-AN-0003). Available online at: http://www.calrecycle.ca.gov/SWFacilities/Directory/43-AN-0003/Detail/. Accessed June 6, 2018.

[55] CalRecycle, 2015. South San Francisco Diversion/Disposal Rate Detail, 2015. Available online at: http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionDetail.aspx?JurisdictionID=511&Year=2015. Accessed August 27, 2018.

Table 4.10. 7: Estimated Employee-Generated Solid Waste under the Proposed Project

	Land Use (sq. ft.)	Estimated Employment[2]	Estimated Solid Waste Disposal (pounds per day)	Estimated Solid Waste Disposal (tons per year)
Existing Light Industrial Land Use To Be Removed[1]				
Phase 1 Area (201 Haskins Way)	24,075	25	0.003	1.5
Subtotal Phase 2 Area (101 and 151 Haskins Way, 410 and 430 East Grand Avenue, and 451 East Jamie Court	*157,995*	*166*	*0.021*	*9.6*
Total Existing Light Industrial Land Use To Be Removed	**182,070**	**15,288**	**0.022**	**10.3**
Proposed New Office/R&D Use				
Phase 1 Development				
015-102-230 201 Haskins Way	280,765	**14,038**	**0.063**	**28.4**
015-102-250 400-450 East Jamie Court[2]	25,000	**1,250**	**0.0026**	**2.5**
Subtotal Phase 1 Development	***305,765***	**15,288**	**0.069**	**30.9**
Phase 2 Development				
015-102-250 400-450 East Jamie Court	85,000	**4,250**	**0.019**	**8.6**
015-102-210 101 Haskins Way	24,535	**1,227**	**0.006**	**2.5**
015-102-220 151 Haskins Way	28,602	**1,430**	**0.006**	**2.9**
015-102-180 410 East Grand Avenue	40,384	**2,019**	**0.009**	**4.1**
015-102-160 430 East Grand Avenue	72,076	**3,604**	**0.016**	**7.3**
015-102-240 451 East Jamie Court	62,087	**3,104**	**0.014**	**6.3**
015-102-290 No Address	16,347	**817**	**0.004**	**1.7**
Subtotal Phase 2 Development	***329,031***	**16,452**	**0.074**	**33.2**
Total Proposed New Office/R&D Use	**634,796**	**31,740**	**0.143**	**64.1**
Net New Sewer Generation				
Phase 1		**14,566**	**0.066**	**29.4**
Phase 2		**11,712**	**0.053**	**23.7**
Total Project Buildout		**26,278**	**0.118**	**53.1**

Notes:

[1] For a summary of existing sanitary sewer generation rates by parcel, see Table 4.10.24.

[2] Based on General Plan Land Use Element employment estimates of 955 sq. ft. of industrial use per employee and 450 sq. ft. of office/R&D use per employee.

[3] Development activity would occur on 400-450 East Jamie Court (015-102-250) during both Phase 1 development and Phase 2 development.

Source: General Plan (1999), CalRecycle (2015)

Development under the proposed project would result in an additional approximately 53.1 tons of solid waste per year (approximately 0.15 tons per day), representing less than 1 percent of the permitted maximum amount accepted daily at the Blue Line Transfer facility and Ox Mountain Sanitary Landfill. The remaining capacity of the Blue Line Transfer facility would be able to accommodate the additional solid waste. Thus, the increase in solid waste generated under the proposed project would be sufficiently served by the Blue Line Transfer facility and the Ox Mountain Landfill. Therefore, the impact would be less than significant and no mitigation measures are required.

Solid waste disposal and recycling in the City is regulated by the Municipal Code, particularly Chapters 8.16 and 8.28. As neither of these chapters establishes quantitative disposal or recycling rates, the project site would not be subject to diversion requirements. However, under the Municipal Code, the proposed project would be required to have its solid waste, including construction, demolition debris, and recyclable materials, collected by the South San Francisco Scavenger Company. Additional health and sanitation requirements set forth in the Municipal Code would be met by San Francisco Scavenger Company. For construction and demolition, the City requires 100 percent of all inert solids (building materials) and 65 percent of non-inert solids (all other materials) to be recycled.[56] Additionally, eligible projects (2,000 square feet or more) must submit a Waste Management Plan.

As described in "Regulatory Framework," AB 939 requires that local jurisdictions divert at least 50 percent of all solid waste by 2000. Furthermore, as described in the CAP, Measure 5.1, the project sponsor would be required to develop a waste reduction strategy to increase recycling and reuse of materials to achieve a generalized rate of 75 percent diversion of landfilled waste. As analyzed above, the project site is not a substantial contributor to the City's generation of solid waste disposal at the Ox Mountain Sanitary Landfill. Implementation of the proposed project would increase the project site's solid waste contribution by less than 1 percent to the Blue Line Transfer facility and Ox Mountain Sanitary Landfill. Consequently, because the proposed project would not impede the City's compliance with AB 939 and the CAP, the impact related to compliance with solid waste regulations would be less than significant and no mitigation measures are required.

CUMULATIVE IMPACTS

Impact C-UT-1: The proposed project would not result in a cumulatively considerable contribution to significant cumulative impacts on utilities and service systems. ***(Less than Significant)***

The geographic context for a discussion of cumulative impacts on utilities is the service area of the utility in question. For instance, the geographic context for cumulative impacts on water supply is the Cal Water and SFPUC service areas; on wastewater, it is the East of 10 l Area; and on the storm drainage system, the geographic context is the local watershed. The cumulative impacts analysis for each utility considers all cumulative growth within its respective service area, as identified by the providers' demand projections.

[56] City of South San Francisco, 2017. *City of South San Francisco Construction and Demolition Waste Management Plan* – Information for the Applicants. Available online at: http://www.ssf.net/home/showdocument?id=2416. Accessed August 27, 2018.

As discussed under Impacts UT-1, UT-2, UT-3, and UT-4, above, the existing water supply system, wastewater collection and treatment system, and landfill and solid waste systems are each projected to have adequate capacity to accommodate future growth in the East of 101 Area. The proposed project would add demand to each of these facilities, along with the reasonably foreseeable future projects listed in Section 4.1, Approach to Environmental Analysis, under "Approach to Cumulative Analysis," on pp. 4.1.7-4.1.9.

Water Supply

For water demand, similar to the proposed project, those reasonably foreseeable future projects that involve large commercial or office uses would also be required to request a WSA from Cal Water to identify project-specific impacts. However, the WSA states that existing water supplies in a normal hydrologic year, a single dry year, or 3 consecutive dry years are adequate to meet forecasted demands for the next 20+ years to the year 2040. Therefore, it is anticipated that existing water supplies are adequate to meet the demand of the proposed project, in combination with these reasonably foreseeable future projects. Therefore, the proposed project, in combination with reasonably foreseeable future projects, would have a less-than-significant cumulative impact on water supplies. As such, the proposed project would not contribute considerably to a significant cumulative water supply impact. No mitigation is necessary.

Stormwater

Similar to the proposed project, each of the reasonably foreseeable future projects identified in Section 4.1, Approach to Environmental Analysis, involves infill development on areas that are largely covered by existing paved and impervious surfaces from existing light industrial and office uses. Each of these projects would be required to manage stormwater runoff as part of green infrastructure through LID practices and these projects would likely maintain or increase the amount of landscaped or pervious surfaces in the East of 101 Area. The proposed project, in combination with reasonably foreseeable future projects, would not substantially increase impervious surfaces as compared to existing conditions. Post-construction peak stormwater flows would not be increased compared to existing conditions. Similar to the proposed project, these reasonably foreseeable future projects would be required to comply with all applicable BMPs and Conditions of Approval regarding stormwater drainage and surface runoff detention measures, and therefore, the amount of surface runoff would not increase. Therefore, the proposed project, in combination with reasonably foreseeable future projects, would have a less-than-significant cumulative impact on water supplies. As such, the proposed project would not contribute considerably to a significant cumulative water supply impact. No mitigation is necessary.

Wastewater

With regard to wastewater collection and treatment, the Draft SSMP projects future land use development in the East of 101 Area to the year 2040, and identifies components for the system that would require improvement to support future growth. Those improvements include capacity (pipe diameter) upgrades, slope improvements, and lift station improvements. Similar to the proposed projects, these reasonably foreseeable future projects would be required to contribute to the Capital Improvement Program through

the Sewer System Capacity Study and Improvement Fee. Furthermore, as a standard condition of approval, the City would require the proponents of each project to provide project-specific sewer capacity studies. Therefore, the proposed project, in combination with reasonably foreseeable future projects, would have a less-than-significant cumulative impact on wastewater generation. As such, the proposed project would not contribute considerably to a significant cumulative wastewater generation impact. No mitigation is necessary.

Solid Waste and Landfill Capacity

For solid waste and landfill capacity, the state generated about 87 million tons waste in 2013, of which approximately 30.2 million tons were disposed in landfills in the state or exported to out-of-state landfills. With a population of about 38 million residents, California had a per capita disposal rate of 4.4 pounds per resident per day, well below the statewide target of 6.3 pounds per person per day needed to meet the 50 percent diversion mandate.[57] Although the average per capita residential disposal rate in South San Francisco in 2015 was 6.9 pounds per day, which meets the statewide target, the average disposal rate was 9.3 pounds per employee, which did not meet the 9.0 pounds per day per employee target. The proposed project, in combination with reasonably foreseeable future projects, would not cause significant regional impacts on landfill capacity, because these projects would comply with the City's requirements to reduce solid waste and achieve an overall 75 percent diversion of landfilled waste per CAP Measure 5.1, as would other development projects that would also contribute waste to the City's landfills. The construction of other cumulative projects identified would generate construction waste during their construction periods. However, the compliance with construction waste diversion regulatory requirements to recycle 100 percent of all inert solids (building materials) and 65 percent of non-inert solids (all other materials) during construction and demolition, along with the cumulative projects' compliance with regulatory requirements, would reduce their contribution to overall solid waste volumes such that the cumulative impact would be less than significant. Therefore, the proposed project would not have a considerable contribution to a significant cumulative solid waste impact. No mitigation is necessary.

[57] CalRecycle, 2015. State of Disposal in California (Publication #DRRR 2015-1524), p. 6. Available online at: http://www.calrecycle.ca.gov/publications/Documents/1524/20151524.pdf. Accessed June 8, 2018.

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