

**TABLE OF CONTENTS**

**4.17 UTILITIES AND SERVICE SYSTEMS ..... 4.17-1**  
4.17.0 Introduction..... 4.17-1  
4.17.1 Methodology ..... 4.17-2  
4.17.2 Existing Conditions..... 4.17-2  
4.17.3 Impacts ..... 4.17-9  
4.17.4 Applicants-Proposed Measures..... 4.17-17  
4.17.5 References..... 4.17-17

**LIST OF ATTACHMENTS**

Attachment 4.17-A: Water Usage Estimates



#### 4.17 UTILITIES AND SERVICE SYSTEMS

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Exceed wastewater treatment requirements of 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 sufficient water supplies available from existing entitlements and resources to serve the project from existing entitlements and resources, or are new and expanded entitlements needed?			✓	
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				✓

##### 4.17.0 Introduction

This section describes local utility services and infrastructure—including cable television and telephone, water treatment, water supply availability, sewer, solid waste disposal, and electricity services in the vicinity of the proposed San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company—hereinafter referred to as “the Applicants”—Pipeline Safety

& Reliability Project (Proposed Project) and analyzes the potential impacts to these resources as a result of the Proposed Project. The Proposed Project involves construction, operation, and maintenance of an approximately 47-mile-long, 36-inch-diameter natural gas transmission pipeline that will carry natural gas from SDG&E's existing Rainbow Metering Station to the pipeline's terminus on Marine Corps Air Station (MCAS) Miramar, as depicted in Figure 3-1: Project Overview Map in Chapter 3 – Project Description. The Proposed Project will require the use of public utilities during construction, and also for operation and maintenance activities. This will include water use during construction activities to control dust, hydrostatic test the pipeline, to make the drilling fluid for horizontal directional drilling (HDD) operations, and operate portable restrooms for construction workers; electricity to power construction trailers and pipeline monitoring equipment during operation; wastewater treatment of water from portable restrooms for the disposal of waste generated from construction and maintenance activities. As discussed in more detail in the following subsections, the Proposed Project will result in less-than-significant impacts to utilities and service systems with one Applicants-Proposed Measure (APM) incorporated.

#### **4.17.1 Methodology**

Information regarding public facilities was collected from websites for the County of San Diego and the cities of San Diego, Escondido, and Poway. Internet searches were also conducted to gather information regarding utility service providers in the vicinity of the Proposed Project. A review of aerial photographs on Google Earth Pro software confirmed the locations of area landfills.

#### **4.17.2 Existing Conditions**

##### **Potable Water<sup>1</sup>**

##### ***San Diego County Water Authority***

The San Diego County Water Authority (SDCWA) has 24 member agencies within its service area. The Proposed Project will travel through the service areas of seven of the 24 member agencies. The SDCWA currently purchases approximately 46 percent of its water from the Metropolitan Water District of Southern California (MWD), which is itself comprised of 26 member agencies serving approximately 19 million people in six counties. The MWD imports water from two primary sources: from the Colorado River via the MWD's Colorado River Aqueduct and from Northern California via the State Water Project.

The SDCWA has greatly diversified its water supply sources over the past several years and made major investments in the region's water delivery and storage system and water use efficiency. It has secured new imported water supplies through a 45- to 75-year water conservation and transfer agreement with the Imperial Irrigation District. The deal, reached in 2003, currently provides more than 100,000 acre-feet<sup>2</sup> of water to the region and will increase to

---

<sup>1</sup> To be conservative, impacts to potable water supply were based on the assumption that the Applicants will use potable water to meet water supply needs for the Proposed Project. However, as described in Chapter 3 – Project Description, to the extent recycled water use is prudent and feasible at the time of construction, environmental impacts associated with the use of that recycled water have been considered in this document.

<sup>2</sup> An acre-foot is defined as the volume of one acre of surface area to the depth of one foot, or 325,853.4 gallons.

provide 200,000 acre-feet of water annually by 2021. The SDCWA has a separate 110-year agreement to receive Colorado River water that is conserved by lining sections of the Coachella and All-American Canals. These projects provide approximately 80,000 acre-feet of water to the region annually. A private seawater desalination facility is currently under construction in the City of Carlsbad, and the SDCWA has a 30-year Water Purchase Agreement for up to 56,000 acre-feet of desalinated seawater per year, or up to 10 percent of the region's supplies. The plant is expected to begin operation in Fall 2015 and will further reduce the amount of water that the SDCWA purchases from the MWD. The SDCWA's Capital Improvement Program costs more than \$3.1 billion and includes dozens of other projects, including new reservoirs, pipelines, pump stations, and a regional water treatment facility. The 2012 raising of San Vicente Dam in eastern San Diego County by approximately 117 feet provides approximately 152,100 acre-feet of additional local storage.

SDCWA is also working with its 24 local member retail agencies to develop local supplies such as groundwater, recycled water, seawater desalination, and conservation. By 2020, local water supplies are projected to meet 36 percent of the region's water demand.

The SDCWA is required to prepare and submit to the California Department of Water Resources an Urban Water Management Plan every five years in accordance with the Urban Water Management Planning Act. The Plan was last updated in 2010. The 2015 Plan will not be released until July 2016. In accordance with the Act, the SDCWA is required to estimate the minimum water supply available over the next 20 years in five year increments for a Normal Water Year, a Single Dry Year, and a Multiple Dry Water Year, based on the driest three-year historic sequence compared to a normal water year. In the 2010 Urban Water Management Plan, the SDCWA determined that if supplies are developed as planned, there will be no supply shortages during a normal water years or single dry years through 2035. The SDCWA has estimated that in the event of a multiple dry year scenario in the 2018 water year, water supply from all allocations and member supplies will be 732,799 acre-feet, or slightly less than 239 billion gallons, while demand will be 740,326 acre-feet resulting in a deficit of 7,527 acre-feet, which would be handled through management actions.

Since publication of the 2010 UWMP, the SDCWA has implemented the above-mentioned new water supply and infrastructure projects to augment and diversify its existing supplies and increase reliability. In addition to developing new water supplies, the SDCWA has been working with its member agencies and other partners to offer programs that improve water use efficiency for residential, commercial, and agricultural users and help promote conservation in the San Diego region. The SDCWA also has heavily promoted conservation, helping to drive down per capita water use in the region by 31 percent since 1990—and 24 percent since just 2007.

Recent state, regional and local drought actions are a response to extended hot and dry conditions across California. The state is experiencing its fourth-straight dry year. Snow water content in the Sierra Nevada snowpack on April 1, 2015 was just 5 percent of its historical average—the lowest since snowpack recordkeeping began in 1950—which means there will be no significant runoff during the summer and fall when California's water demands typically increase. Current hydrologic conditions are better in the Colorado River Basin than they are in the Sierra Nevada.

Nonetheless, inflows into Lake Powell in 2015 will only be about two-thirds of average, and the river basin remains mired in a multi-year drought.

As a result of the recent drought, Drought Management Planning has been implemented across the region. Demand has dropped throughout the region as a result of state urban conservation mandates. For example, on May 5, 2015 the State Water Resources Control Board adopted emergency statewide regulations that set water-use reduction targets for local water agencies from June 1, 2015 through February 2016. For SDCWA's 24 member agencies, state mandates require them to reduce their water use by 12 to 36 percent compared to their 2013 water-use levels. Even before these mandates were in place, potable water demand by the SDCWA's 24 member agencies has decreased more than 20 percent from 2007 to 2014. In addition, total potable water use for the SDCWA's service area for the 12 months ending in March 2015 was down 3.3 percent compared to the year-earlier period.

SDCWA reports that local investments in reliable water supplies such as the Carlsbad Desalination Project and independent water transfers from the Imperial Valley will allow the SDCWA to offset almost all of the reduction in supplies from MWD in fiscal year 2016. That means SDCWA expects to have enough water supplies to meet 99 percent of the typical demands by its member agencies for the 2015-2016 water year, even though SDCWA's member agencies are under state orders to reduce water use by 12 to 36 percent, regardless of available water supplies. SDCWA's longstanding supply allocation methodology during periods of shortage accounts for MWD's allocations and locally controlled water supplies. Based on that calculation, municipal and industrial deliveries to SDCWA's member agencies will be reduced by approximately 1 percent compared to projected "normal" demands during fiscal year 2016. However, because demands are much lower than normal, and the water agencies are required to reduce demands further under new state regulations, SDCWA will be able to meet all of its member agencies' demands with existing supplies.

The following six potable water purveyors are all member agencies of the SDCWA, while the seventh, MCAS Miramar, obtains its water through a contract with the City of San Diego, a SDCWA member agency.

#### ***Rainbow Municipal Water District***

The Rainbow Municipal Water District (RMWD) serves approximately 7,200 metered customers in portions of the unincorporated communities of Fallbrook, Pala, and Bonsall in northern San Diego County. The RMWD purchases 100 percent of the water it serves to its customers (i.e., approximately 20,000 acre-feet of water each year) from the SDCWA. The water is then distributed through the district's system of mains, pumps, reservoirs, and tanks to customers. Even during multiple dry years, the RMWD's 2010 UWMP predicts no water supply deficit.

#### ***Valley Center Municipal Water District***

The Valley Center Municipal Water District (VCMWD) serves approximately 25,514 customers in its service territory in Valley Center and the surrounding areas in northern San Diego County. The SDCWA is the sole supplier of water to the VCMWD, and it is delivered through aqueduct facilities owned and operated by the SDCWA. The VCMWD distributes water to its customers through a system of approximately 291 miles of water mains, 42 reservoirs, and 26 pumping

stations. The VCMWD has approximately 421 acre-feet of storage capacity, as well as approximately 1,612 acre-feet of emergency storage capacity. In fiscal year 2013, the VCMWD delivered approximately 27,371 acre-feet of water to its customers, which was an approximately 45-percent decline in sales volume from 2003, and resulted from the agency's transition from a largely agricultural-rural town to a more rural-urban community.

### ***Rincon del Diablo Municipal Water District***

The Rincon del Diablo Municipal Water District (RDDMWD) provides water to approximately 8,000 meters and 30,000 customers in the Escondido Valley and portions of the City of Escondido. In 2013, the RDDMWD delivered to its customers approximately 7,000 acre-feet of potable water purchased from the SDCWA, as well as 3,030 acre-feet of recycled water. Even during multiple dry years, RDDMWD's 2010 UWMP predicts surplus water supplies in 2020.

### ***City of San Diego***

The City of San Diego is the largest member agency and currently imports 80 to 90 percent of its potable water supply from the SDCWA. Water within the City of San Diego is also obtained from local water supplies, consisting of nine surface water reservoirs with more than 408,000 acre-feet of capacity. Eight of these reservoirs are connected directly or indirectly to the city's three water treatment facilities, which have the capacity to treat a total of approximately 298 million gallons of raw water to meet drinking water standards each day. The geographic areas served by the three water treatment facilities are flexible, such that various areas within the City of San Diego can be supplied by more than one of the treatment plants. The City of San Diego provides water to approximately 1.3 million customers and has plans to use water purification technology to produce one-third of San Diego's future drinking water supply locally by 2035 through its Pure Water San Diego Program. Even during multiple dry years, the City of San Diego's 2010 UWMP predicts no water supply deficit.

### ***City of Escondido***

The City of Escondido provides potable water services to approximately 25,000 metered customers via a system of approximately 370 miles of pipes and mains, as well as 11 reservoirs. The majority of this is raw water purchased from the SDCWA and stored in Dixon Lake, which is owned by the city. However, some water is supplied by local wells and the Escondido-Vista Canal; the Escondido-Vista Canal transports water from Lake Henshaw to Lake Wohlford, which is also owned by the city. Lake Henshaw is located northeast of Escondido, at the headwaters of the San Luis Rey River, and is owned by the Vista Irrigation District. The reservoir has the capacity to hold approximately 55,000 acre-feet of water. Approximately 75 million gallons of raw water from these sources is treated to meet drinking water standards each day at the Escondido-Vista Water Treatment Plant. After it is treated, the water is distributed to customers through the City of Escondido's drinking water mains, as well as to the Vista Irrigation District and the RDDMWD. Even during multiple dry years, the City of Escondido's 2010 UWMP predicts surplus water supplies in 2020.

### ***City of Poway***

All water served in the City of Poway is purchased by the city from the SDCWA. Raw water purchased by the City of Poway is stored in the Lake Poway reservoir, which has a storage

capacity of approximately 3,800 acre-feet, or approximately 1 billion gallons. Water is then treated to meet drinking water standards at the Lester J. Berglund Water Treatment Plant. The treatment plant produces approximately 4 billion gallons of drinking water per year. Once treated, the water is distributed by a system of approximately 263 miles of water pipes within the City of Poway.

### ***Marine Corps Air Station Miramar***

Potable water at MCAS Miramar is supplied by a contract with the City of San Diego. The City of San Diego has also installed reclaimed water distribution lines along Miramar Road for use by MCAS Miramar.

### **Water Drainage Facilities**

Water drainage facilities include Municipal Separate Storm Sewer Systems (MS4s).

### ***San Diego County***

Due to the rural nature of the northern section of the Proposed Project (between Mileposts [MP] 0 and 21.5), water drainage facilities largely consist of roadside ditches and culverts that discharge to creeks and drainages along Old Highway 395, Champagne Boulevard, and Centre City Parkway North. These drainage facilities are maintained by the County of San Diego Public Works Department.

### ***City of San Diego***

Drainage facilities for runoff and storm water in the City of San Diego are provided by a curb and gutter system that drains into catch basins and storm drain systems. These storm drains are not connected to the sanitary sewer system, and they drain directly to local creeks, lakes, and bays. These facilities are operated and maintained by the City of San Diego Storm Water Division.

### ***City of Escondido***

Drainage facilities for runoff in the City of Escondido are provided by a curb and gutter system that drains to catch basins and storm drain systems. These storm drains are not connected to the City of Escondido sanitary sewer system. Instead, they discharge directly to local creeks and lakes. The City of Escondido Storm Water Program is operated by the city's Public Works Department.

### ***City of Poway***

The City of Poway utilizes approximately 1,400 drop inlets, 64 miles of storm pipe, 105 miles of open channels, nine miles of concrete channels, 14 detention basins, and 20 miles of brow ditches for drainage of runoff and storm water. These drainage facilities are maintained by the City of Poway Storm Water and Flood Control Division.

### **Electricity and Natural Gas**

SDG&E provides electricity and natural gas services in San Diego County, the City of San Diego, the City of Escondido, the City of Poway, and MCAS Miramar. Approximately 45 percent of electricity for MCAS Miramar is generated on base by methane generators, which are powered by methane produced from the Miramar Landfill.

## **Cable and Telephone**

Telephone, video/cable, DSL, broadband and satellite services in San Diego County and the cities of San Diego, Escondido, and Poway are available from AT&T. Time Warner Cable and Cox Communications also provide cable, broadband, and phone services in the Proposed Project vicinity.

## **Sewer**

### ***Metropolitan Wastewater System***

The Metropolitan Wastewater System (MWS) provides sewer services to the City of San Diego and 15 other cities and sanitation districts within an approximately 450-square-mile area with a population of over 2.2 million. Wastewater is conveyed through approximately 2,987 miles of collection pipelines and 83 pump stations to the North City Water Reclamation Plant, the Point Loma Wastewater Treatment Plant<sup>3</sup>, and the South Bay Water Reclamation Plant. An average of approximately 180 million gallons of wastewater is treated daily. Treated effluent is discharged to the Pacific Ocean through two ocean outfalls. Solids from the wastewater treatment plants are processed at the Metro Biosolids Center located at the MCAS Miramar.

### ***Rainbow Municipal Water District***

Though the RMWD provides services within a largely rural area where many residents utilize septic systems for their wastewater, approximately 3,300 customers are served by the RMWD public sewer system. In these areas, sewage is collected and transmitted from the RMWD sewer system to the San Luis Rey Wastewater Treatment Plant in the City of Oceanside. The RMWD has the capacity to treat approximately 1 million gallons of wastewater per day at the plant and has contracted with the San Luis Rey Wastewater Treatment Plant to secure an additional 500,000 gallons of treatment capacity once the plant is expanded.

### ***Valley Center Municipal Water District***

The VCMWD is located in a mostly rural area, and many of its customers utilize septic systems for their wastewater. However, the VCMWD provides wastewater treatment services for approximately 2,750 of its customers through the following two facilities:

- the Lower Moosa Canyon Water Reclamation Facility, which treats approximately 500,000 gallons of wastewater per day; and
- the Woods Valley Ranch Water Reclamation Facility, which treats approximately 700,000 gallons of wastewater per day.

### ***City of Escondido***

Wastewater in the City of Escondido is collected by approximately 360 miles of pipelines and 14 pumping stations, and is transmitted to the Hale Avenue Resource Recovery Facility (HARRF) in the City of Escondido. The HARRF treats approximately 15.6 million gallons of wastewater per day

---

<sup>3</sup> The City of San Diego currently operates the Point Loma Wastewater Treatment Plant under a modified 301(h) National Pollutant Discharge Elimination System permit (R9-2009-0001) from secondary treatment requirements of the federal Clean Water Act that allows for certain alternate discharge standards. The modified permit was first approved in 1995, renewed in 2002 and 2010, and is set to expire on July 31, 2015.

from the City of Escondido and the community of Rancho Bernardo within the City of San Diego, and is designed to treat up to 18 million gallons of wastewater per day. Once the wastewater is treated, the effluent is discharged to the Pacific Ocean from the facility via an approximately 14-mile outfall pipeline west of the San Elijo Lagoon in the City of Encinitas, California. The effluent is discharged via diffuser ports along the outfall at a depth of approximately 110 feet below sea level. The HARRF also provides tertiary treated recycled water for industrial uses, as well as irrigation for golf courses, parks, roadway medians, schools, and other public facilities.

### ***City of Poway***

Sewage from the City of Poway travels into the City of San Diego after passing through the City of Poway's wastewater collection system. The City of Poway has approximately 170 miles of wastewater pipes that carry approximately 1 billion gallons of wastewater per year. The majority of wastewater from the City of Poway flows via a gravity-fed system to the City of San Diego and into the MWS, where it is treated at the Point Loma Wastewater Treatment Plant. A portion of the wastewater is treated at the City of San Diego's North City Water Reclamation Plant and is returned to the City of Poway for landscape irrigation in the South Poway Business Park.

### ***Marine Corps Air Station Miramar***

Sewage from MCAS Miramar is collected on base and transmitted via MCAS Miramar's approximately 38 miles of collection lines to the MWS.

### **Solid Waste**

#### ***San Diego County***

Solid waste services in unincorporated areas of San Diego County are provided by Waste Management, Inc.; Republic Services; and EDCO. The nearest operating landfills to the Proposed Project are described in the following paragraphs.

The Sycamore Landfill is located approximately 3.3 miles east of the southern terminus of the Proposed Project and had 7,388,428 cubic yards of remaining capacity as of 2013 and is expected to reach full capacity in 2031. The Otay Landfill, which is located approximately 17.2 miles south of the southern terminus of the Proposed Project, had 24,514,904 cubic yards of remaining capacity as of 2013 and is expected to reach full capacity in 2028.

When construction is scheduled to begin in 2018, the Sycamore Landfill is estimated to have 28,207,438 cubic yards of capacity, and the Otay Landfill is estimated to have 15,648,708 cubic yards of capacity.<sup>4</sup>

---

<sup>4</sup> Landfill capacity estimates for 2018 and 2020 were calculated by estimating the average daily rate of waste deposition (in cubic yards) based on the number of calendar days between the date of the most recent remaining capacity estimate and the estimated landfill closure date. After an average daily rate of deposition was calculated, it was multiplied by the number of calendar days between the most recent remaining capacity estimate date and January 1, 2018 - the date when construction of the Proposed Project is scheduled to begin. The product of the deposition rate was multiplied by the number of days between the most recent estimated capacity date, and the construction start date was then subtracted from the most recent remaining capacity estimate (cubic yards) for the

***City of San Diego***

The City of San Diego owns and operates the Miramar Landfill, which is located at 5180 Convoy Street. The Miramar Landfill is the only operational landfill within the City of San Diego. It had approximately 16,473,000 cubic yards of remaining capacity as of 2013, and it is anticipated to reach full capacity by 2022. It is estimated that the Miramar Landfill will have 10,652,582 cubic yards of capacity in 2018 when construction of the Proposed Project is scheduled to begin.

***City of Escondido***

Solid waste disposal services in the City of Escondido are provided by Escondido Disposal Services under a contract with the City of Escondido Public Works Department. Solid waste is transported to the solid waste transfer station on Washington Avenue in the City of Escondido. It is then consolidated into larger transfer trucks and taken to area landfills for disposal.

***City of Poway***

Solid waste disposal services in the City of Poway are provided by EDCO under a contract with the City of Poway Public Works Department. The solid waste is transported to local EDCO transfer centers to be consolidated and is then taken to area landfills for disposal.

***Marine Corps Air Station Miramar***

Solid waste generated at MCAS Miramar is disposed of at the Miramar Landfill.

**Utility Crossings**

Because the majority of the Proposed Project has been routed within existing roadways and rights-of-way (ROWs), the Proposed Project will cross numerous existing utilities—such as other natural gas pipelines, communication lines, aqueducts, sewers, and water pipelines—along the route. Major utility crossings are listed in Chapter 3 – Project Description.

**4.17.3 Impacts****Significance Criteria**

Potential impacts to utilities and service systems were determined in accordance with Appendix G of the California Environmental Quality Act Guidelines. Significant adverse impacts to utilities and service systems will only occur if the Proposed Project:

- Exceeds wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB)
- Requires or results in the construction of new water or wastewater treatment facilities, or the expansion of existing facilities
- Requires or results in the construction of new storm water drainage facilities or expansion of existing facilities
- Results in the need for a new or expanded water supply

---

facility. All estimated landfill closure dates and remaining capacity estimates were obtained from data produced by the Solid Waste Information System.

- Results in a determination by the wastewater treatment provider that it has inadequate capacity to serve the Proposed Project's projected demand
- Results in inadequate access to a landfill with sufficient permitted capacity to accommodate the Proposed Project's solid waste disposal needs

Causes a breach of published national, state, or local standards relating to solid waste

#### **Question 4.17a – Wastewater Treatment Requirement Exceedances**

##### ***Construction – Less-than-Significant Impact***

The San Diego RWQCB has jurisdiction over wastewater disposal and treatment in San Diego County. Section 4.9 Hydrology and Water Quality provides additional discussion of the San Diego RWQCB wastewater standards and their applicability to the Proposed Project.

The Proposed Project will generate small amounts of wastewater from the use of portable toilets during construction. Portable toilets will be used at staging yards and at areas of active construction. The amount of wastewater associated with the portable toilets will be commensurate with the number of workers in an active construction area (i.e., 125 to 150 workers per segment) and is estimated to be 4,680 to 5,460 gallons per week<sup>5</sup> during the peak of construction. The wastewater will be transported to a wastewater treatment facility by a licensed contractor. Given the minimal amount of wastewater generated by portable toilets, no impact will occur to the capacity of any wastewater treatment facility.

During the pipeline-testing phase, up to 4.7 million gallons of water will be used to hydrostatically test the integrity of the pipeline. Water will be obtained from a local source, such as a fire hydrant or other municipal source, and will be pumped or trucked to the test location. Following hydrostatic testing, the water used for the test will be pumped into temporary storage tanks and tested or tested in the pipe prior to discharge to ensure that it meets the requirements of the applicable permit. Following testing, if required, the water will be treated as necessary to meet the requirements of the applicable permit and will then be discharged to either designated upland areas, surface waters (or MS4) or to an available sanitary sewer in accordance with the applicable permit. As a result, the Proposed Project will not exceed the wastewater treatment requirements of the San Diego RWQCB, and impacts to wastewater treatment requirements will be less than significant.

##### ***Operation and Maintenance – No Impact***

Once construction of the Proposed Project has been completed, operation and maintenance activities for the natural gas transmission line will be conducted in the same manner as they are for existing natural gas transmission lines operated by the Applicants. Normal operation will not result in or generate wastewater. If a repair is necessary and requires hydrostatic testing or the

---

<sup>5</sup> Industry standard rates assume that one portable toilet provides adequate restroom facilities for 10 people for one standard work week. The Applicants estimate that 600 personnel will be required to construct the Proposed Project during the peak of construction. Estimated volumes were calculated assuming that 600 personnel will require at a minimum 60 portable restrooms, plus 18 additional portable restrooms as an approximate 30-percent contingency. The estimated volume range between 4,680 and 5,460 gallons per week was calculated using industry standard portable toilet wastewater capacities of 60 and 70 gallons, respectively.

use of portable toilets, the impact will be similar, but to a lesser degree, as that previously described for construction. As a result, the Proposed Project will not exceed wastewater treatment requirements, and no impact will occur.

#### **Question 4.17b – Water and Wastewater Treatment Facility Expansion**

##### ***Construction – No Impact***

Potable water used for the Proposed Project will come from existing municipal sources, and no new water treatment facilities will be required to meet the demands of the Proposed Project. As discussed in response to Question 4.17a – Wastewater Treatment Requirement Exceedances, portable restrooms will be used and maintained during construction and will be removed after the completion of the Proposed Project. Water for portable restrooms will be transported to the Proposed Project area by a licensed portable restroom vendor. Wastewater will be disposed of by the portable restroom vendor at a wastewater treatment facility that currently has capacity. Additionally, up to 4.7 million gallons of water will be used to hydrostatically test the integrity of the pipeline that will be transported from municipal sources to the Proposed Project area by truck or by pumping from a nearby source. The Point Loma Wastewater Treatment Plant—which is located approximately 14.82 miles southwest of the southern terminus of the Proposed Project—currently treats approximately 180 million gallons of wastewater per day and has the capacity to treat approximately 240 million gallons per day. The total amount of wastewater created by portable restrooms during construction of the Proposed Project is estimated to be 4,680 to 5,460 gallons per week, or approximately 366,000 to 427,500 gallons of wastewater using the conservative assumption that construction will take up to approximately 18 months. As such, the existing Point Loma Wastewater Treatment Plant will not require expansion to treat the minimal wastewater generated by portable restrooms during construction. The Point Loma Wastewater Treatment Plant therefore has significant excess capacity to treat wastewater, and the potential discharge of 3.8 million to 4.7 million gallons of water required for hydrostatic testing, plus the small amount associated with portable restrooms, will not require the extension or expansion of the existing plant to accommodate this potential discharge.

As a result, a new extension of sewer or water lines will not be required to serve the Proposed Project, and no new or expanded water or wastewater treatment facilities will be needed. Though wastewater will be generated by the Proposed Project from portable restroom facilities as well as potentially from hydrostatic testing of the pipeline, the amount of wastewater will be well within the current capabilities of existing wastewater treatment facilities. Thus, there will be no impact as a result of Proposed Project construction.

##### ***Operation and Maintenance – No Impact***

Normal operation and maintenance of the Proposed Project will not require a water supply or produce wastewater that results in the need for any new water or wastewater treatment facilities, and will not require the expansion of any existing facilities. As a result, no impact will occur due to operation and maintenance of the Proposed Project.

### **Question 4.17c – Water Drainage Facility Expansion**

#### ***Construction – Less-than-Significant Impact***

Construction of the Proposed Project will occur within approximately 21 miles of roadways located in the cities of San Diego, Escondido, and Poway. The majority of these roadways are equipped with a curb and gutter system that connects to the cities' MS4s. In the unincorporated areas of San Diego County, approximately 20 miles of the Proposed Project will be constructed within a roadway that is largely drained by roadside ditches and culverts that discharge to local drainages. Construction activities along roadways may temporarily disrupt or block roadside culverts and MS4s by blocking or covering drains with applicable storm water best management practices in accordance with Section 402 of the federal Clean Water Act. However, following construction, all roadways and their associated culverts and MS4s will be restored to pre-construction conditions.

Approximately 4.9 miles of the Proposed Project—including portions within private agricultural lands, the San Dieguito River Park, and MCAS Miramar—will be constructed within existing unpaved roads and in previously undisturbed areas. These unpaved roads and undisturbed areas are drained by a network of natural existing ephemeral drainages and erosional features that discharge precipitation to tributaries of the San Luis Rey River, the San Dieguito River, and the San Diego River. Section 4.9 Hydrology and Water Quality provides additional information on natural ephemeral drainages in the vicinity of the Proposed Project and discussion of potential impacts to these drainages as a result of construction.

Construction of the Proposed Project will involve grading of the approximately 100-foot-wide ROW that is from MP 43.2 to MP 46.9. All grading will be conducted in accordance with the Proposed Project's Storm Water Pollution Prevention Plan and grading plans, which will address potential storm water and runoff impacts as a result of grading. Following the completion of construction in cross-country areas, the Applicants will restore the ROW to pre-construction contours. Additional details on the restoration of temporary impacts to existing drainages and culverts are provided in Section 4.9 Hydrology and Water Quality.

Post-construction storm water runoff from the Proposed Project area is expected to be similar to pre-construction conditions, as construction of the Proposed Project will not result in a significant increase in impervious surfaces as compared to pre-construction conditions. As discussed in Section 4.9 Hydrology and Water Quality, the Proposed Project will not result in an increase in storm water runoff that may impact existing MS4s. Though construction of the Proposed Project may result in temporary impacts to roadside culverts and MS4s, as well as the installation of new culverts within existing drainages, impacts to existing storm water drainage systems will be short in duration. Any newly installed culverts and other ephemeral drainage crossings will generally maintain the same characteristics of the drainages they are installed within and will not result in any significant environmental effects. Therefore, impacts to water drainage facilities due to construction of the Proposed Project will be less than significant.

#### ***Operation and Maintenance – Less-than-Significant Impact***

Operation and maintenance activities for the Proposed Project will be conducted in the same manner as they are for the existing natural gas transmission lines operated by the Applicants in

the vicinity of the Proposed Project. Following the completion of construction activities, the Proposed Project will not result in a significant increase in impervious surfaces that will increase storm water runoff from Proposed Project areas as compared to pre-construction conditions. As there will not be a significant increase in impervious areas or corresponding runoff, impacts will be less than significant.

#### **Question 4.17d – Water Supply Availability**

##### ***Construction – Less-than-Significant Impact***

Water is anticipated to be the primary means of dust control during construction of the Proposed Project, and it is estimated that a total of approximately six million gallons of water will be used on access roads and at active work areas to suppress fugitive dust during construction. Estimated waster use calculations are provided in Attachment 4.17-A: Water Usage Estimates. Water used for dust control will be applied directly to soil and will be applied judiciously to minimize dust and avoid runoff into storm drains or surface waters.

In total, approximately 11.89 million gallons of water (36.5 acre-feet) is estimated to be required during construction of the Proposed Project. Per California Water Code Section 10912, the Projected Project’s projected water demand does not meet the threshold required to prepare a Water Supply Assessment. During construction, water will be utilized to control fugitive dust, hydrostatically test the integrity of the pipeline, and to produce drilling fluid for HDD operations. Estimated waster use calculations are provided in Attachment 4.17-A: Water Usage Estimates.<sup>6</sup> The estimates conservatively assume dry, windy weather conditions to estimate water usage for dust control at the time of construction. The Applicants will limit the use of water for construction to the minimum necessary to construct the Proposed Project, as well as to comply with all applicable federal, state, and local regulations including those associated with air and water quality.

As discussed previously in the Existing Conditions section, the SDCWA is required to prepare an Urban Water Management Plan (UWMP) every five years. SDCWA’s multiple dry water year supply demand assessment in its most recent (2010) UWMP for the year 2018, when construction of the Proposed Project is expected to begin, predicts there could be a deficit of 7,527 acre-feet of water, but that this deficit will be addressed through management actions. As explained above in the Existing Conditions section, while the drought has continued, SDCWA has improved the reliability of its supplies since 2010 and similarly, demand within SDCWA’s service area has dropped significantly due to numerous statewide, regional and local conservation efforts. Accordingly, SDCWA is now predicting that it can meet 99 percent “normal” demands in water year 2015-2016, which means that it can meet current demands, which have decreased significantly and will continue to decrease due to conservation mandates. Further, the Proposed Project has various water supply options including purchasing water to serve short-term construction demands from seven different potable water purveyors. While these purveyors all obtain water from SDCWA, RDDMWD, the City of San Diego, and the City of Escondido also have access to local supplies, such as local surface water or recycled water. In addition, a one-time purchase of 36.5 acre-feet, is less than 0.002 percent of RMWD’s annual

---

<sup>6</sup> Note that the estimated amount of water required to suppress fugitive dust is significantly reduced in areas where the Proposed Project will be constructed in paved roadways.

demand; 0.001 percent of VCMWD's demand; 0.004 percent of RDDMWD's demand; 0.001 percent of the City of Escondido's demand; 0.003 percent of the City of Poway's demand; and, 0.0002 percent of the City of San Diego's demand. Because water purveyors have a long-term planning horizon, the Proposed Project's one time-purchase of 36.5 acre-feet from one to up to seven different water suppliers will have a less-than-significant impact on the water purveyors' supplies.

As stated above, due to the on-going drought in California and the west, the availability of potable water for use in dust control and hydrostatic testing at the time of construction is unknown. Depending on the persistence of the drought between now and the anticipated start of construction in 2018, new mandates may be in place that restrict or limit the use of potable water for construction uses. Similarly, best management practices for dust control may change to reduce water usage. The Applicants recognize the importance of water conservation and are currently developing a Major Projects Water Sourcing Plan (MPWSP) that evaluates all potential sources of water for project construction needs, including potable, groundwater, surface waters and tertiary treated recycled water. Ultimately, the Applicants will implement their MPWSP during construction, as described in APM-PUS-01. APM-PUS-01 will require the Applicants and their contractors to identify available sources of recycled water in close proximity to the Proposed Project for use during construction. However, certain assumptions must be made in order to evaluate potential impacts associated with traffic, water quality, and air quality associated with the transport of recycled water from the closest recycled water facility with adequate supply to meet the demands of the Proposed Project. Impacts to these resources are discussed in Section 4.3 Air Quality, Section 4.7 Greenhouse Gases, Section 4.10 Hydrology and Water Quality, and Section 4.16 Transportation and Traffic using the following associated assumptions. These assumptions consider construction requirements and limitations, including the need for a continuous fill source during the hydrostatic testing phase of the Proposed Project. These assumptions are included in Section 4.16 Transportation and Traffic, Attachment A: Recycled Water Assumptions.

Depending on the availability of potable water at the time of construction, water for the Proposed Project will be purchased from the City of San Diego Public Utilities Department, RMWD, VCMWD, RDDMWD, City of Escondido, and/or City of Poway. In the event that one water purveyor does not have sufficient supplies, it can obtain supplies from another agency.<sup>7</sup> In accordance with APM-PUS-01, where prudent and feasible, recycled water will be purchased from the nearest available recycled water purveyor with adequate supply to meet the demands of the Proposed Project as identified in SDG&E's MPWSP.

---

<sup>7</sup> Future water supplies for new development must bear a reasonable likelihood of actually proving available. *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 430-32. Future supplies need not be definitely assured through signed, enforceable agreements and already-built or approved treatment and delivery infrastructure at the Project's early stage of planning. *Vineyard*, 40 Cal.4th at 432. Instead, the record need only contain "substantial evidence demonstrating a reasonable likelihood that [the water supply] will be available for the project's near- and long-term needs." *SCOPE v. County of L.A.* (2007) 157 Cal.App.4th 149, 162, citing *Vineyard*, 40 Cal.4th at 437. When availability of the sources remains uncertain, the EIR should discuss possible alternative sources. *Id.*

Based on the fact that the SDCWA has forecast that there is adequate water supply to meet demands in most hydraulic years (and that since those forecasts were developed, water demand has dropped significantly), and because at least three of the water suppliers have forecast that have sufficient supplies to meet demands even during multiple dry years, as well as the incorporation of APM-PUS-01, construction of the Proposed Project, even with the ongoing drought, will have less-than-significant impacts on water supply availability.

***Operation and Maintenance – Less-than-Significant Impact***

Operation and maintenance activities will not require the use of water unless a repair or testing is necessary. In this case, water will be used as previously described, but the volume required will be commensurate with the area or volume of the pipeline being repaired or tested. Repairs and testing are expected to occur infrequently. Approximately 100 to 200 gallons of water on an annual basis could be required during the operation and maintenance phase. Additionally, in the event that sections of the Proposed Project pipeline require replacement during the operations and maintenance phase of the Proposed Project, water may be used to hydrostatically test the replacement sections and suppress fugitive dust generated during maintenance activities.<sup>8</sup> Given the infrequency of replacing pipeline segments, in general, the volume of water is considered to be negligible when compared to the water supply on an annual basis. As the amount of water required during the operation and maintenance of the Proposed Project is relatively small and will be required infrequently, and local water agencies have available supply to meet the requirements of the Proposed Project, impacts to the water supply during the operation and maintenance phase of the Proposed Project will be less than significant.

**Question 4.17e – Wastewater Treatment Capacity**

***Construction – Less-than-Significant Impact***

Water used for dust control will be applied to land and will not enter into the sewer system, MS4 System or any receiving water bodies. Water used for hydrostatic testing or water from groundwater dewatering may be discharged to a wastewater treatment provider if other dewatering options are not readily available during construction. As discussed in the responses above and in Section 4-10 Hydrology and Water Quality, water used for hydrostatic testing will be tested and treated if required to meet the requirements of applicable agreements with the treatment provider prior to being discharged and will not impact the capacity or operation of wastewater treatment facilities. During construction of the Proposed Project, portable restrooms will be used and all wastewater from the portable restrooms will be hauled to and disposed of at the nearest wastewater treatment facility with available capacity. As previously discussed, the Point Loma Wastewater Treatment Plant—located approximately 14.82 miles southwest of the southern terminus of the Proposed Project—currently treats approximately 180 million gallons of wastewater per day and has the capacity to treat approximately 240 million gallons per day. Additionally, the HARRF—located approximately 1.7 miles from MP 24.5—currently treats approximately 15.6 million gallons of wastewater per day and has the design capacity to treat

---

<sup>8</sup> It is anticipated that approximately 165 gallons of water will be required to wash tools during pigging operations every seven years. Additionally, it is anticipated that the Proposed Project will require a replacement of 100 feet of pipe in a 30-year period. Any replacement pipe will be hydrostatically tested prior to installation, and each foot of pipe requires approximately 49 gallons of water for the test.

approximately 18 million gallons of wastewater per day. Because there are two facilities with approximately 62.4 million gallons of available wastewater treatment capacity per day in close proximity to the Proposed Project, and because the Proposed Project is expected to generate 4,680 to 5,460 gallons of wastewater from portable restrooms per week (or approximately 366,000 to 427,500 gallons of wastewater during the 18-month Proposed Project construction period) during peak construction (and up 4.7 million gallons of wastewater generated as a result of hydrostatic testing, depending on the method of disposal), less-than-significant impacts to wastewater treatment capacities will occur.

***Operation and Maintenance – No Impact***

Operation and maintenance activities for the Proposed Project will be conducted in the same manner as they are for existing natural gas transmission lines. No new restrooms will be required for the operation and maintenance of the Proposed Project, no additional wastewater will be generated. As a result, no impacts to wastewater treatment capacity will occur from operation and maintenance of the Proposed Project.

**Question 4.17f – Landfill Capacity**

***Construction – Less-than-Significant Impact***

The Proposed Project will generate approximately 320,000 cubic yards of solid waste during construction from refuse, spoils, cleared vegetation, packaging, and construction materials. Waste, (e.g., broken concrete, asphalt, and excavated trench spoils) will ultimately be transported to and disposed of at area landfills, including the Miramar Landfill, Sycamore Landfill, Otay Landfill, or another approved facility. Drilling fluid, which will be used for HDD operations, will be disposed of at a landfill permitted to accept waste with elevated moisture content or provided to an entity that accepts bentonite, such as the Philadelphia Recycling Mine, located in Mira Loma, California, approximately 47 miles northwest of the existing Rainbow Metering Station at MP 0. If approved recycling facilities are available at the time of construction, concrete and asphalt will be recycled accordingly. In either case, the waste will be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste disposal. The Miramar Landfill, Sycamore Landfill, and Otay Landfill combined are estimated to have more than 54.5 million cubic yards of storage capacity remaining as of January 1, 2018. Solid waste generated by the construction of the Proposed Project will account for less than 0.6 percent of the estimated combined landfill capacity in 2018. Further, these facilities are projected to have more than 44.5 million cubic yards of storage capacity in 2020, which is a conservative estimate for the year when all construction activities related to the Proposed Project will be completed. Because there are three landfill facilities in the vicinity of the Proposed Project that are projected to have a combined capacity that is more than sufficient to accommodate the anticipated amount of waste generated during construction, impacts to landfill capacity will be less than significant.

***Operation and Maintenance – Less-than-Significant Impact***

After construction has been completed, operation and maintenance of the natural gas transmission line will continue in generally the same manner as other existing natural gas transmission lines operated by the Applicants. Wastes generated during operation and maintenance activities may include minor amounts of packaging materials, worn equipment, and

food wastes from maintenance crew meals. Handling and disposal of any waste products associated with operation and maintenance activities will comply with applicable statutes and regulations and will produce a negligible amount of solid waste per year. Therefore, less-than-significant impacts to landfill capacities will occur during the operation and maintenance phase of the Proposed Project.

#### **Question 4.17g – Solid Waste Statutes and Regulations**

##### ***Construction – No Impact***

The Applicants will dispose of all wastes during Proposed Project construction in accordance with federal, state, and local statutes and regulations related to solid waste. Therefore, no impact will occur as a result of construction of the Proposed Project.

##### ***Operation and Maintenance – No Impact***

Handling and disposal of all waste products associated with operation and maintenance activities will comply with all applicable statutes and regulations. Therefore, no impact will occur.

#### **4.17.4 Applicants-Proposed Measures**

The Applicants have designed and incorporated the following APM into the Proposed Project to avoid or minimize potential impacts to Utilities and Service Systems:

- **APM-PUS-01:** At a minimum of three months prior to construction, the Applicants will identify and evaluate sources of recycled water from San Diego Gas & Electric Company's Major Projects Water Sourcing Plan in close proximity to the Proposed Project route for use in controlling fugitive dust as well as for hydrostatic testing of the Proposed Project. If an adequate supply of recycled water is available during construction and the use of recycled water will not result in new significant impacts to air quality, greenhouse gas emissions, or traffic as a result of transportation of the recycled water from a recycled water source to construction areas, the Applicants will use recycled water to the extent that it is feasible to do so. If it is determined that the use of recycled water for construction may result in more than 132,750 miles traveled or an average of 262 truck trips per day and a maximum of 957 truck trips per day during hydrostatic testing, the Applicants will consult with the California Public Utilities Commission to determine if the benefits of using recycled water are sufficient to justify the increased impacts to air quality, greenhouse gas emissions, and traffic. All recycled water uses will be conducted in accordance with the requirements of all applicable local, state and federal regulations and permits related to the transportation, storage, application and discharge of recycled water.

#### **4.17.5 References**

City of Escondido Public Works Department. Storm Water Program. Online.  
<http://www.escondido.org/storm-water-program.aspx>. Site visited July 7, 2014.

City of Escondido. Recycling & Waste Reduction Section. Online.  
<http://www.escondido.org/recycling-waste.aspx>. Site visited July 7, 2014.

City of Escondido. Wastewater Division. Online. <http://www.escondido.org/wastewater-division.aspx>. Site visited July 7, 2014.

City of Escondido. Water Division. Online. <http://www.escondido.org/water-division.aspx>. Site visited July 7, 2014.

City of Poway. Department of Public Works, Sewer. Online. <http://poway.org/221/Sewer>. Site visited July 7, 2014.

City of Poway. Department of Public Works, Trash and Recycling Collection. Online. <http://poway.org/298/Trash-Recycling-Collection>. Site visited July 7, 2014.

City of Poway. Department of Public Works, Water. Online. <http://poway.org/317/Water>. Site visited July 7, 2014.

City of Poway. Stormwater and Flood Control Division. Online. <http://www.poway.org/index.aspx/Modules/Index.aspx?page=314>. Site visited July 7, 2014.

City of San Diego Environmental Services Department. 2014. Miramar Landfill. Online. <http://www.sandiego.gov/environmental-services/miramar/>. Site visited July 9, 2014.

City of San Diego. 2014a. Public Utilities Wastewater, Facilities. Online. <http://www.sandiego.gov/mwwd/facilities/index.shtml>. Site visited July 7, 2014.

City of San Diego. 2014b. Storm Water Division. Online. <http://www.sandiego.gov/stormwater/index.shtml>. Site visited July 10, 2014.

City of San Diego. 2014c. Water. Online. <http://www.sandiego.gov/water/index.shtml>. Site visited July 10, 2014.

County of San Diego Department of Public Works. 2005. San Diego County Integrated Waste Management Plan. Online. [http://www.sdcounty.ca.gov/reusable\\_components/images/dpw/recyclingpdfs/summaryplan.pdf](http://www.sdcounty.ca.gov/reusable_components/images/dpw/recyclingpdfs/summaryplan.pdf). Site visited July 7, 2014.

County of San Diego. 2014. Solid Waste Program. Online. <http://www.sdcounty.ca.gov/deh/waste/landfills.html>. Site visited July 7, 2014.

Google. 2014. Google Earth Pro Version 7.1.2.2041 Software. Program used November 2014.

RDDMWD. 2014. Rincon del Diablo Water. Online. <http://www.rinconwater.org/>. Site visited July 7, 2014.

RMWD. 2014. Rainbow Municipal Water District. Online. <http://www.rainbowmwd.com/>. Site visited July 7, 2014.

- San Diego RWQCB. 2010. Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for the City of San Diego E.W. Blom Point Loma Metropolitan Wastewater Treatment Plant discharge to the Pacific Ocean through the Point Loma Ocean Outfall, San Diego County. Online. [http://www.waterboards.ca.gov/sandiego/board\\_decisions/adopted\\_orders/2009/R9-2009-0001/SanDiego301\(h\)\\_Permit-Complete\\_Final.pdf](http://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2009/R9-2009-0001/SanDiego301(h)_Permit-Complete_Final.pdf). Site visited January 27, 2015.
- SDCWA. 2014. Member Agencies. Online. <http://www.sdcwa.org/member-agencies>. Site visited July 7, 2014.
- SDCWA. 2011. 2010 Urban Water Management Plan. Online. <http://www.sdcwa.org/2010-urban-water-management-plan>. Site visited April 30, 2015.
- VCMWD. 2014. Valley Center Municipal Water District. Online. <http://www.vcmwd.org/>. Site visited July 7, 2014.



**ATTACHMENT 4.17-A: WATER USAGE ESTIMATES**