

## Appendix K

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### Water and Wastewater Summary

4 January 2019

**FINAL**



PROGRAMMATIC WATER AND WASTEWATER SUMMARY

IN SUPPORT OF THE PROGRAM ENVIRONMENTAL IMPACT REPORT FOR

## **KEARNY MESA COMMUNITY PLAN UPDATE**

Prepared by

**West Coast Civil**

10650 Treena Street, Suite 104

San Diego, California 92131

WCC Project No.: 117003-01



**PROGRAMMATIC SEWER COLLECTION INFRASTRUCTURE SUMMARY**  
IN SUPPORT OF THE PROGRAM ENVIRONMENTAL IMPACT REPORT FOR  
KEANY MESA COMMUNITY PLAN UPDATE

CITY OF SAN DIEGO  
SAN DIEGO COUNTY, CALIFORNIA

JOB NUMBER: 117003-01



KYLE O. McCARTY

RCE #71510, EXP 12/31/19

**PREPARED FOR:**

HELIX ENVIRONMENTAL PLANNING, INC.

7578 EL CAJON BOULEVARD

LA MESA, CALIFORNIA 91942

(619) 462-1515

FAX (619) 462-0522

**PREPARED BY:**

WEST COAST CIVIL

10650 TREENA STREET, SUITE 104

SAN DIEGO, CALIFORNIA 92131

(858) 869-1332

(858) 761-0001

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- B Existing Water Distribution System
- C Existing Wastewater Collection System

## 1.0 INTRODUCTION

This report provides a high-level assessment of the ability of the water distribution and wastewater collection systems to support future development in accordance with the proposed Kearny Mesa Community Plan Update (KMCPU). The KMCPU is a comprehensive update to the current community plan, which was adopted in 1992.

Kearny Mesa is a major industrial, office, and commercial center at the geographic center of the City of San Diego. The planning area, which encompasses approximately 4,422 acres, is between State Route 52 (SR-52) on the north and Interstate 805 (I-805) and Interstate 15 (I-15) on the west and east, respectively. The southern boundary of the planning area consists of properties lying to the south of Aero Drive, and properties extending to Friars Road along the western edge of I-15. Predominantly single-family communities surround Kearny Mesa on three sides: Clairemont Mesa and Linda Vista on the west, Serra Mesa on the south and Tierrasanta on the east. Marine Corps Air Station Miramar abuts Kearny Mesa on the north. The Montgomery-Gibbs Executive Field Municipal Airport is a major land use within the community's boundaries. Attachment A depicts the regional location of the community.

Existing land uses are predominantly industrial and transportation-related facilities, with residential units comprising less than 5 percent of the community's land area with the bulk of those acres devoted to multi-family use.

## 2.0 WATER DISTRIBUTION SYSTEM

The City of San Diego Public Utilities Department (PUD) provides water for the Kearny Mesa Community Plan area. Water supply to Kearny Mesa can be provided via the City's Miramar Water Treatment Plant (WTP), the City's Alvarado WTP, and/or the San Diego County Water Authority's (SDCWA) 2<sup>nd</sup> Aqueduct Pipeline, as summarized below:

- Alvarado WTP via the Montgomery Pipeline
- Miramar WTP via Pomerado Pipeline, Shepherd Canyon Pipeline, or the Elliot Pipeline
- SDCWA 2<sup>nd</sup> Aqueduct via the Shepherd Pipeline

The Kearny Mesa area includes five pressure zones: Kearny Mesa (600'), Northwest Mesa (559'), Murphy Canyon (500'), Miramar (712'), and University Heights (390'). The main pressure zone is Kearny Mesa (600'), which in general, is supplied water from the east at higher grades, to the south and westerly lower grades. Pressure zones within the Kearny Mesa area and adjacent communities are serviced via the Clairemont Mesa Cross Tie Pipeline, Cabrillo Palisades Pipeline, and Aero Drive Pipeline.

The City of San Diego's Capital Improvements Program (CIP) website provides information on projects throughout the region in each stage of it's development. Currently, there are four (4) phased projects within the Kearny Mesa area: two (2) in design and two (2) in construction. The scope for three of the four projects is the segmental replacement of existing pipe with the final project being the replacement of a Pressure Reducing Station (PRS) along Convoy Court. These four projects are considered to be major maintenance driven projects and not capacity driven projects.

In summary, the Kearny Mesa area can be supplied from multiple sources and is located in an area where the City's existing water distribution system is transmitting large volumes of water from higher elevations in the east to lower elevations in the west.

### 3.0 WASTEWATER COLLECTION SYSTEM

The City's PUD provides wastewater collection, treatment, reclamation and disposal services to the Kearny Mesa Community through its Metropolitan Sewerage System. Wastewater flows generated within the Kearny Mesa Community Plan area are conveyed through four points of connection outside of the Kearny Mesa Boundary. In general, all wastewater generated in Kearny Mesa is conveyed southwesterly towards the North Metro Interceptor (NMI). A portion of the flows will have the potential to be diverted at the proposed Moreno Pump Station for treatment at the North City Water Reclamation Plant or continue through the NMI to the Point Loma Wastewater Treatment Plant. Provided below is a summary of the facilities for each point of connection to the North Metro Interceptor.

#### Point of Connection 1: Northwest Kearny Mesa

- Limerick Trunk Sewer
- Tecolote Trunk Sewer
- Morena Trunk Sewer
- North Metro Interceptor

#### Point of Connection 2: West Kearny Mesa

- Marlesta Sewer
- East Clairemont Trunk Sewer
- Tecolote Trunk Sewer
- Morena Trunk Sewer
- North Metro Interceptor

#### Point of Connection 3: Southwest Kearny Mesa

- Kearny Mesa Trunk Sewer
- Mission Valley Trunk Sewer
- North Metro Interceptor

#### Point of Connection 4: Southeast Kearny Mesa

- Murphy Canyon Trunk Sewer
- Mission Valley Trunk Sewer
- North Metro Interceptor

The City of San Diego's CIP website shows that there are three (3) Capital Improvement Program projects with regards to Wastewater Infrastructure currently in the works within the Kearny Mesa area. All three of the projects are still in the design phase with construction not foreseen for the next few years. All three projects seek to rehabilitate or replace existing sanitary sewer mains and laterals with only 0.5 mile of new sewer main anticipated. From this information, it can be ascertained that these projects are more maintenance driven rather than capacity driven projects.

## 4.0 RECOMMENDATIONS

The following sections suggest recommendations for potential developments within the Kearny Mesa community with respect to the Water Distribution System and the Wastewater Collection System, respectively.

### Water Distribution System

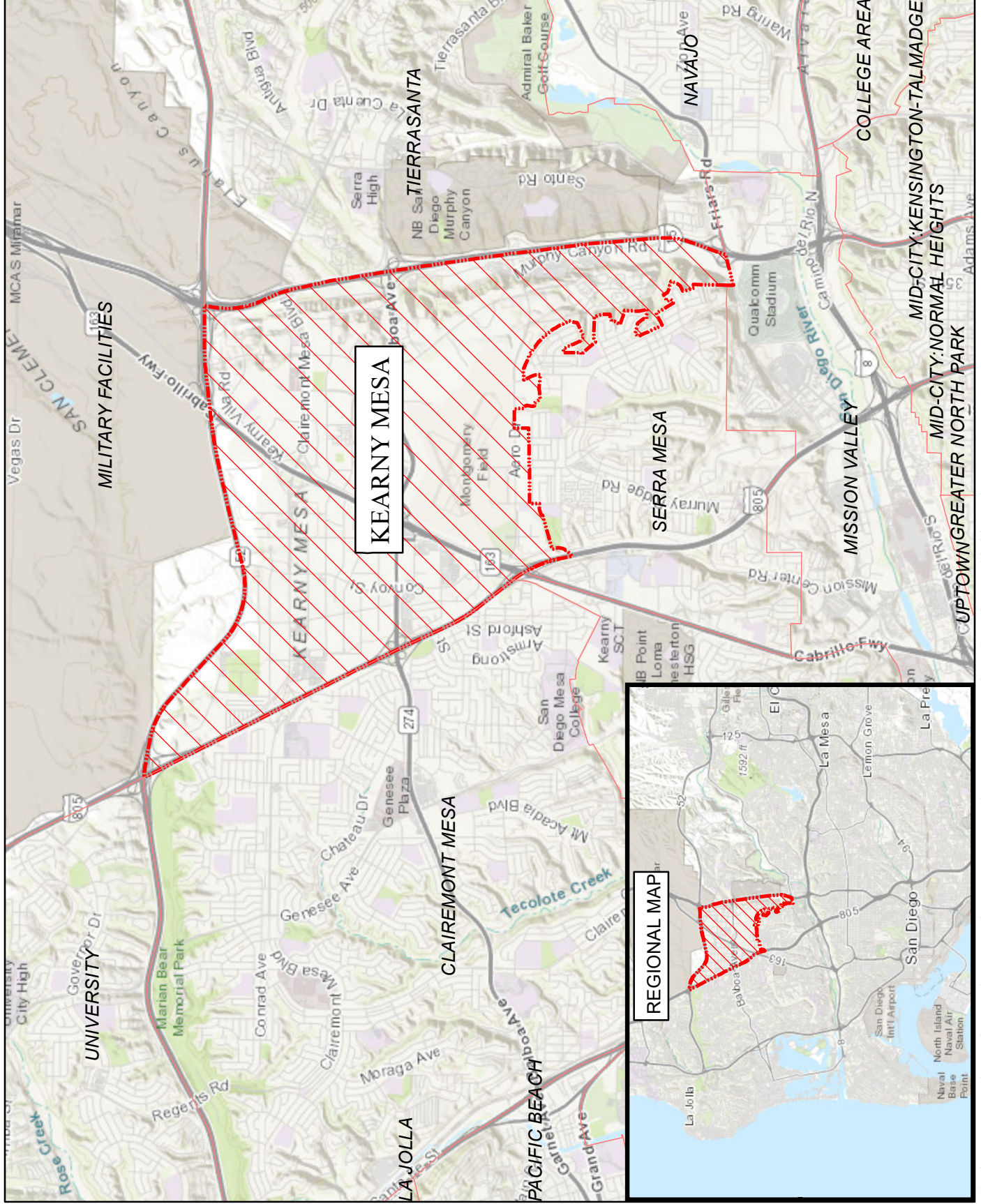
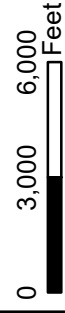
The multiple interconnected pressure zones within the region along with the abundant looping provides a strong and reliable system. Major capacity upgrades will likely not be required. Projects/developments stemming from the proposed community plan update may trigger local capacity or maintenance upgrades. Each project will develop site-specific water studies to ensure that demands are met with regards to water service and fire flow requirements. All future projects shall adhere to the current City of San Diego Standards and Design Guidelines.

### Wastewater Collection System

Although the region is well built out with no major infrastructure additions projected, routine maintenance and segmental upsizing of sanitary sewer infrastructure is anticipated. As each local project/development moves forward, site-specific sewer studies shall be conducted to assess the condition of sewer infrastructure pre and post-development. It is anticipated that the sanitary sewer systems directly impacted by the projects will be assessed for upgrades thus ceding the responsibility to upgrade the affected sewer system on to the particular projects' development.



## **ATTACHMENT A REGIONAL LOCATION MAP**




## **ATTACHMENT B EXISTING WATER DISTRIBUTION SYSTEM**




# Existing Water Distribution System

## Attachment B

 Kearny Mesa Community Boundary


 Water Mains within Kearny Mesa Comm.

 Water Main >16"

 Kearny Mesa (600')

 Northwest Mesa (559')

 Murphy Canyon (500')

 University Heights 1 (390')

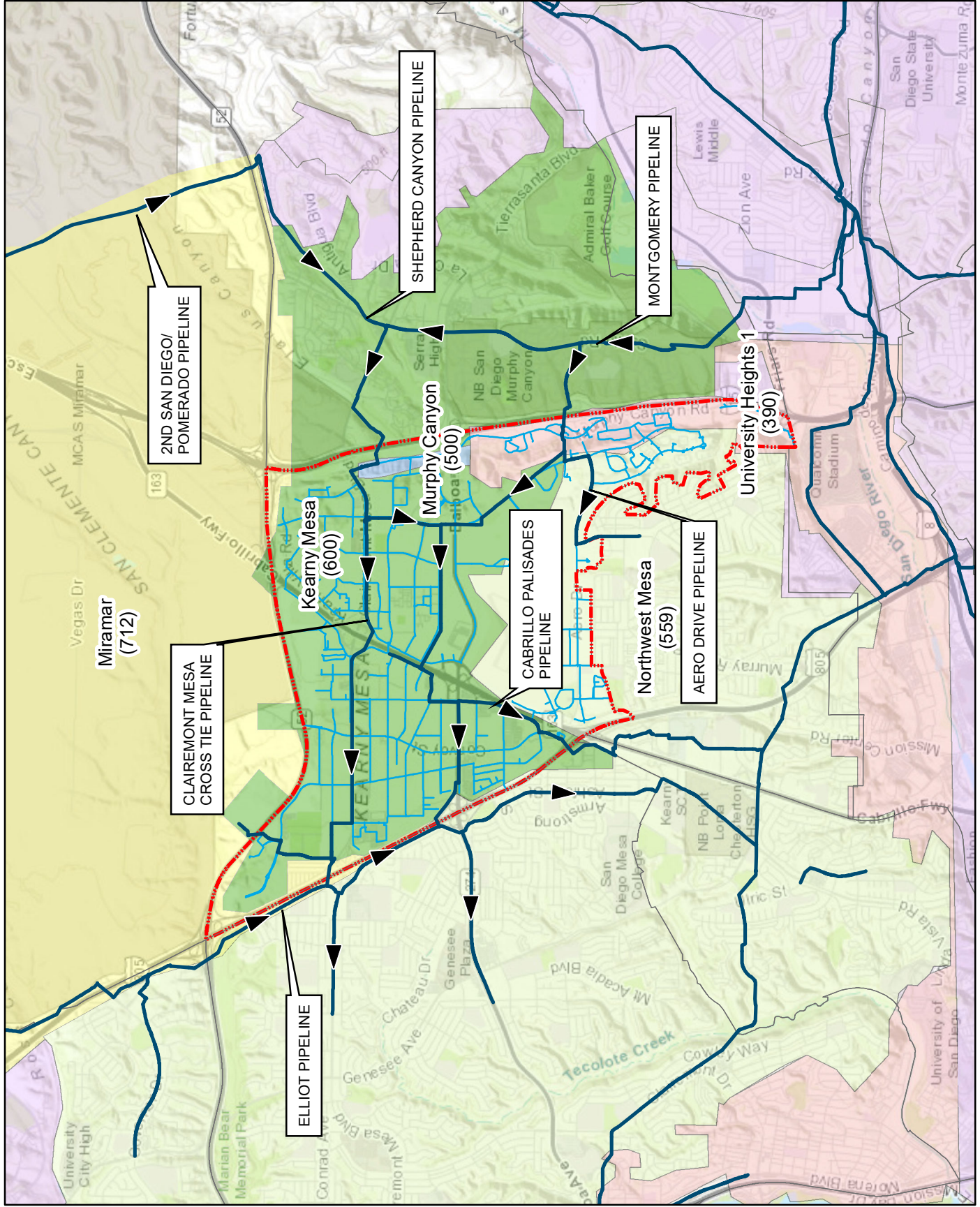
 Miramar (712')

 Others

N



0 3,000 6,000 Feet



## **ATTACHMENT C EXISTING SEWER COLLECTION SYSTEM**



# Existing Sewer Collection System

## Attachment C

Kearny Mesa Community Boundary

Sewer Mains within Kearny Mesa Comm.

Sewer Mains outside Kearny Mesa Comm.

# Point of Connection



0 3,000 6,000 Feet

