PROGRAMMATIC WATER DISTRIBUTION SYSTEM SUMMARY IN SUPPORT OF ENVIRONMENTAL IMPACT REPORT FOR SAN YSIDRO COMMUNITY PLAN UPDATE CITY OF SAN DIEGO SAN DIEGO COUNTY, CALIFORNIA

JOB NUMBER 100027137

March 1, 2016

PROGRAMMATIC WATER DISTRIBUTION SUMMARY
IN SUPPORT OF ENVIRONMENTAL IMPACT REPORT FOR
SAN YSIDRO COMMUNITY PLAN UPDATE CITY OF SAN DIEGO
SAN DIEGO COUNTY, CALIFORNIA JOB NUMBER 100027137
MARCH 1, 2016

Mark B. Elliott, PE RCE 42064

Prepared for:
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard La Mesa, California 91942
(619) 462-1515
Fax (619) 462-0552

Prepared by:
CH2M
402 W Broadway, Suite 1450
San Diego, CA 92101

Table of Contents

Attachments

1.0 Introduction

This report assesses the ability of the water distribution system to support future development in accordance with the proposed San Ysidro Community Plan Update (SYCPU) and the San Ysidro Historic Village Specific Plan (SYHVSP) which is located within the community plan boundaries.

The SYCPU is a comprehensive update to the current community plan, which was adopted in 1990. The San Ysidro Community Plan covers a total of 1,863 acres within the southern tip of the City of San Diego, adjacent to Otay Mesa-Nestor, Otay Mesa, the Tijuana River Valley, and the international border with Mexico. The majority of the land uses proposed by the SYCPU would be residential. Commercial uses and industrial development would comprise of 18 percent and 2 percent of the community plan area, respectively. A total of 11 percent of the plan area would be designated for institutional uses. Parks and Open Space would cover 5 and 13 percent of the area, respectively. The balance would be occupied by transportation facilities.

The SYHVSP is a comprehensive planning document that will implement the vision for the SYCPU for this Specific Plan Area. The SYHVSP covers approximately 112 acres, and is bounded by Beyer Boulevard to the north, I-5 to the south, I-805 to the east, and Smythe Avenue to the west. The land uses within the SYHVSP would include: residential, commercial, institutional, and park.

2.0 Water Distribution System – Existing Condition

The City of San Diego Public Utilities Department (PUD) provides water for the San Ysidro Community Plan area through an existing water system. Water supply to the San Ysidro area originates at the City's Otay Water Treatment Plant (WTP) at Lower Otay Reservoir which is supplied from the San Diego County Water Authority (SDCWA) or local water captured in Lower Otay Reservoir.

The San Ysidro area is primarily served by the City's 490 South San Diego (SSD) Pressure Zone and further reduced in pressure to serve areas primarily west of Interstate 805. The 490 SSD Pressure Zone is based on high water level of 490 feet at the City's SSD Reservoir (15 million gallons), just west of the Otay WTP

A summary of the major water infrastructure delivering water to the San Ysidro area includes:

- Otay WTP (30 MGD)
- Otay Regulating Clearwells two water reservoirs co-located at the Plant)
- SSD Pipelines No. 1 and No. 2 (36 to 42-inch parallel transmission mains)
- Pressure Reducing Stations to regulate pressure west of I-805 creating the following reduced pressure zones:
  - 390 Princess del Sol Zone
  - 340 Carmel View Zone
  - 270 Otay Regulated Zone

In summary, water is conveyed by gravity from the Otay WTP to the SSD Reservoir and then by gravity to near Interstate 805 and Palm Avenue, where water is distributed to the San Ysidro community area through multiple pressure reducing stations.

3.0 Water Distribution – Deficiencies and Remedies

The City has completed several master planning projects to provide long-term water infrastructure needs to serve the 490 SSD Pressure Zone. In the late 1990s, developers prepared water planning studies addressing the critical need to upsize and replace the SSD pipelines to reliably convey future water supplies. Most of these pipeline upgrades have been completed. The City also plans to replace the aging SSD Reservoir as future development encroaches and impacts the existing facility.

The San Ysidro area is predominately served by the Carmel View 340 and Otay Regulated 270.

Pressure Zones. Because of the available pressures and well looped piping network, no major capacity upgrades are anticipated to meet the ultimate demand. It is anticipated as local projects move forward, focused site specific studies will be required to address water service, including meeting any new fire flow requirements. For example, it may be necessary in some areas to upgrade 8-inch pipelines to 12-inch to meet fire flow capacity requirements.

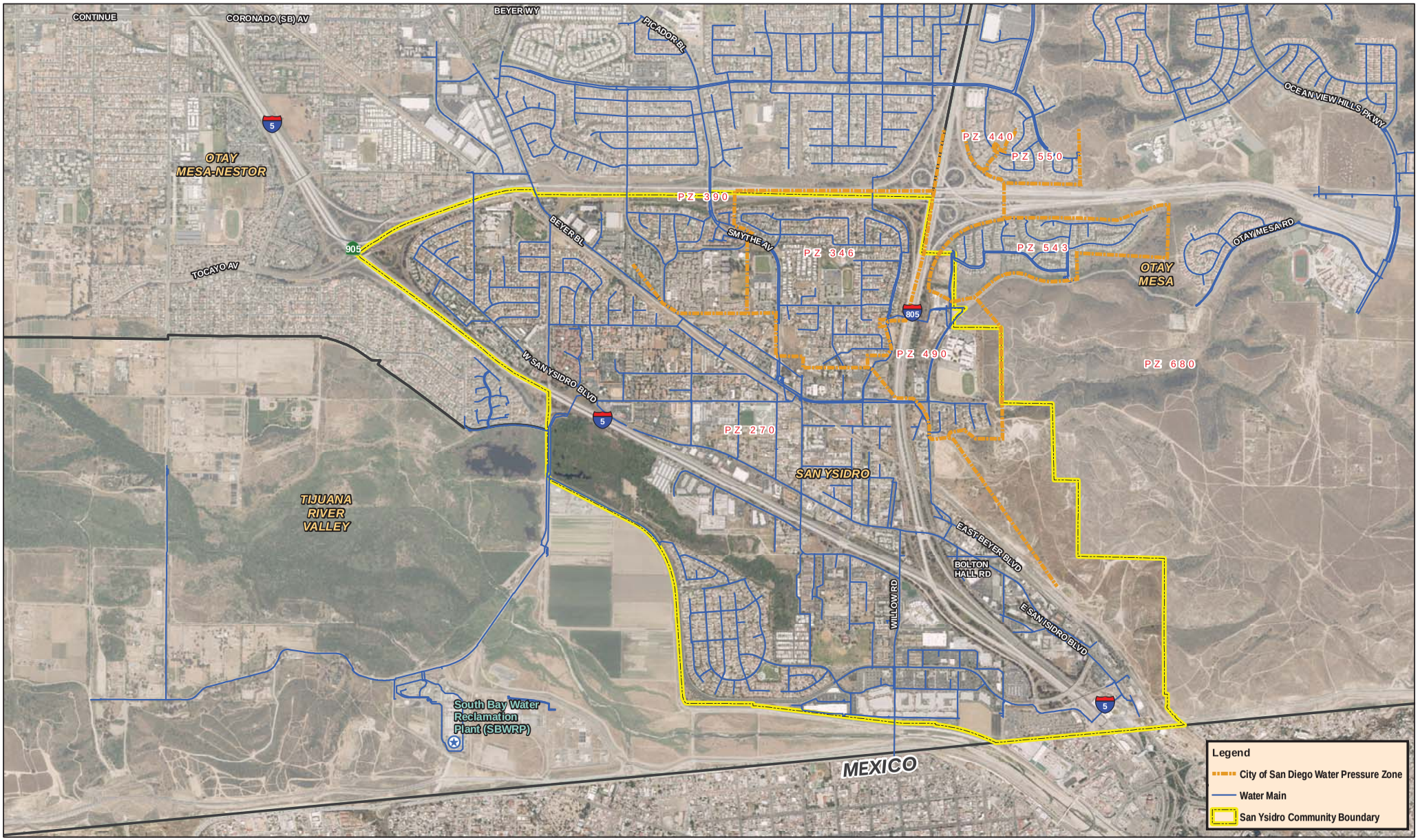
The City has completed an assessment of a large portion of their existing water system specifically focused on the condition of Asbestos Cement (AC) pipeline. AC pipeline in many areas of the City, is aging and in need of replacement over the next 10 to 20 years. A large portion of the existing water system in San Ysidro consists of AC pipelines. Therefore, as part of the San Ysidro Community Plan development, it is likely that the City may determine and assist in funding pipeline replacement projects, concurrent with roadway improvements, to enhance the service reliability of the water system.

4.0 Conclusion

Based on the current condition of the water distribution system serving the community plan area, including the SYHVSP, and the expectation that water distribution infrastructure improvements would be made as Capital Improvement Plan projects and/or as new development occurs, impacts of the proposed SYCPU on the water distribution system in the community plan area would be less than significant on a programmatic level.

ATTACHMENT A

SOUTH SAN DIEGO WATER SYSTEM



San Ysidro Community Water Map Existing Condition - Preliminary

Attachment A

R:\16657-C\GIS\Exhibits\SanYsidro_Water_Map_Existing_Condition.mxd

Exhibit Date: October 9, 2015

REC JN: 16657-C

0 750 1,500 3,000 Feet

Data Sources:
SanGIS Sewer Mains & Trunks: 06.2015
SanGIS Community Plan SD: 08.2014
Eagle Aerial Image: 04.2013

RICK ENGINEERING COMPANY