CHAPTER 1. INTRODUCTION

1.1 GENERAL

The City of Chula Vista (City) most recent sewer master plan effort was performed by PBS&J, and was completed in May 2005. In addition to the latest master plan effort, the most recent Adopted General Plan was completed in December 2005. Using the documents identified above, Infrastructure Engineering Corporation (IEC) has developed this comprehensive Wastewater Master Plan Update (Plan Update) that provides a comprehensive review and evaluation of the City's existing wastewater collection system based on future growth projections through year 2050. Based on results from the evaluation, the Plan Update identifies facility improvements and financing alternatives for the City to plan for its aging infrastructure and continued growth of the City's General Plan.

The Master Plan Update is presented in nine chapters:

- Chapter 1 – Introduction
- Chapter 2 – Existing Sewer Collection System
- Chapter 3 – Wastewater Generation Analysis
- Chapter 4 – Sewer Collection System Design Criteria
- Chapter 5 – Hydraulic Model Development
- Chapter 6 – Hydraulic Analysis and Results
- Chapter 7 – Recommended Capital Improvement Projects (CIP)
- Chapter 8 – Capacity Fee Evaluation
- Chapter 9 – Overflow Emergency Response Plan Requirements

1.2 AUTHORIZATION

This Wastewater Master Plan Update was authorized under a Professional Services Agreement (PSA) entered into between Infrastructure Engineering Corporation (IEC) and the City of Chula Vista, as approved by the City Council December 6, 2011 via Resolution No. 2011-236.

The City of Chula Vista is located in southwestern San Diego County, approximately seven miles north of the international border with Mexico. Incorporated in 1911, the City is located at the center of one of the richest cultural, economic and environmentally diverse zones in the United States. It is the second-largest City in San Diego County with a population of approximately 250,000. Chula Vista boasts more than 50 square miles of coastal landscape, canyons, rolling hills, mountains, and a variety of natural resources and quality infrastructure. A map of the City's location is shown in Figure 1-1. The City has historically been one of the fastest growing cities in San Diego County having a population of 173,556 in 2000 (2005 Adopted General Plan) to what it currently has, just over 250,000 and what it is projected to have approx. 330,000 (SANDAG Series 12) in 2050.

The City is responsible for the maintenance, operations and management of all sewer collection systems that transport flows generated within the City. It maintains nearly 500 miles of sewer main lines and 11 wastewater lift stations. The City's collection facilities convey wastewater flow generated within 8 main drainage basins to connections to regional sewerage facilities located along San Diego Bay to the west and Sweetwater River to the north. Flows are ultimately conveyed to transmission and treatment facilities operated by the City of San Diego's Metropolitan Wastewater Department (METRO). Currently the City owns capacity rights of 20.864 million gallons per day (mgd) within the METRO system.

1.3 PURPOSE

The purpose of the Wastewater Master Plan Update is to re-evaluate the system capacity through year 2050, assess the condition of existing lift stations, evaluate the treatment capacity alternatives develop of a capital improvement plan (CIP) for rehabilitation and expansion of the collection system and treatment alternatives, and recommend a revised capacity fee for new development within the City. Specific recommendations for pipeline replacements, lift station facilities and treatment capacity will be made in every 5-year increment starting in 2012 (existing) and include 2017, 2022, 2027, 2032, 2037, 2042 and 2050. The 38-year CIP includes the recommended system improvements to address existing and projected

capacity constraints as well as the acquisition of additional regional treatment capacity. This recommended CIP forms the basis for the updated capacity fee and capital facilities financing plan and will be used in wastewater rate evaluations to be completed in separate financial studies.

1.4 ASSET MANAGEMENT

The asset management portion of the project will be provided as a separate document following the Master Plan Update. The asset management program will be incorporated in with the City's hydraulic model utilizing Innovyze CapPlan, identifying and scoring City assets. CapPlan will work in conjunction with the hydraulic model and its results, ultimately developing a rehabilitation and implementation plan for the aging infrastructure as well as the associated risks to pipeline failure throughout the City.

1.5 OVERFLOW EMERGENCY RESPONSE

The final chapter in the Master Plan Update summarizes the City's existing Wastewater Overflow Emergency Response Plan and identifies recommendations for modifications and/or improvements to the existing plan. In addition, IEC has provided recommendations for the inclusion of language regarding reporting of all Sanitary Sewer Overflow's (SSO) in accordance with Order No. R9-2007-0005, as adopted by the San Diego Regional Water Quality Control Board (SDRWQCB).


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12,000
24,000
Feet
N
S.D. COUNTY
I-15
SR-52
SR-67
SR-163
SR-125
I-5
I-8
SAN DIEGO
SR-94
SR-163
LEMON GROVE
S.D. COUNTY
S.D. COUNTY
SR-75
SR-54
CORONADO
NATIONAL CITY
S.D. COUNTY
S.D. COUNTY
SAN DIEGO
SR-125
I-15
CHULA VISTA
I-805
SAN DIEGO
S.D. COUNTY
IMPERIAL BEACH
SR-905
MEXICO 1-D
Source: Esri, DigitalGlobe, GeoEye, i-
Getmapping, Aerogrid, IGN, IGP, swis
Legend
Freeways
Study Area
Surrounding Municipalities
Infrastructure
ENGINEERING CORPORATION
City of Chula Vista
Wastewater Collection System Master Plan
Study Area Location Map
FINAL
May 2014
Figure 1-1