

# Chapter 1. Executive Summary

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## Introduction and Purpose

The Centennial Water and Sanitation District (District), formerly the Mission Viejo Water and Sanitation District, is a governmental entity of the State of Colorado empowered and obligated by law to provide water and sewer services to the planned community of Highlands Ranch. The District was formed in 1980 when the Highlands Ranch community development began. Wastewater treatment services are provided for the District's service area at the Marcy Gulch Wastewater Treatment Facility (Marcy Gulch Plant). The Marcy Gulch Plant is located east of Highway 85 and south of Highway C-470. The plant discharges to the adjacent Marcy Gulch, a tributary to Segment 6c of the South Platte River.

The purpose of this Utility Plan is to provide documentation of the District's wastewater collection and treatment services, planning efforts, and utility management. This document is prepared based on guidance from the Denver Regional Council of Government's (DRCOG's) Wastewater Utility Plan Guidance Document and is submitted to DRCOG for Regional Planning Advisory Committee (RPAC) review and approval.

## Service Area

The District's service area boundary includes the entire Highlands Ranch community, as well as several areas adjacent to the Highlands Ranch community that are part of the Northern Douglas County Water and Sanitation District (NDCWSD). The topography of these areas and their natural drainage toward the Highlands Ranch community make it economically favorable to connect to the District's service area for water and sewer service.

The District provides wastewater collection and treatment services to the community of Highlands Ranch through an intergovernmental agreement with the Metro Districts, a collection of five special districts, each representing a portion of the Highlands Ranch community. Among other functions, the Metro Districts are a financial entity which collects tap fees and wastewater charges to fund the District's treatment and collection facilities and services.

The District does not intend to provide wastewater service outside the current boundary. Although neighboring communities have approached the District in the past to discuss the potential for extending wastewater services, these discussions have not developed beyond the initial contact. As a result, it would be inappropriate to include these areas in this Utility Plan.

## **Flow and Load Projections**

The Marcy Gulch Plant has a design annual average treatment capacity of 8.48 million gallons per day (mgd). The plant discharges treated wastewater to Marcy Gulch, an intermittent tributary to Segment 6c of the South Platte River. As of 2002, the annual average flows through the plant have reached 5.9 mgd, and the highest monthly flows were 7.42 mgd, recorded at the Marcy Gulch Plant in May, 2001.

As discussed in Chapter 4 of the Utility Plan, development within the District's service area is expected to produce flows and loads that will increase, but not exceed the current treatment capacity of 8.48 mgd. The District has sufficient collection and treatment capacity to meet current flows and loads in the identified service area. This is due to development within the service area boundary occurring at a pace commensurate with the original community master plan, as well as responsible financial planning for facilities and operations related to water and wastewater service.

## **Water Quality and Treatment Capacity**

The District is in the process of negotiating permit renewal with the Colorado Department of Public Health and Environment's (CDPHE's) Water Quality Control Division (WQCD). The District is conducting preliminary water quality evaluations in preparation for the permit renewal process. The District anticipates significant process changes will not be necessary to meet the limits likely to be imposed by a renewed permit. Unless future water quality regulations force additional treatment processes, the District does not foresee expansion or replacement of its current treatment processes of activated sludge, denitrification, and ultraviolet disinfection.

## **Utility Plan Content and Organization**

Since no new process or capacity needs have been identified, an alternatives analysis is not applicable. Instead, the District's Utility Plan focuses on documentation of service area boundaries, flow and load projections, current processes and capacities, and management of services. The District is conducting public involvement activities related to the Utility Plan concurrent with DRCOG's review. The public involvement portion includes a presentation to the District's Board of Directors, open to the public, and inclusion of the document on the District's web site which is linked to the Highlands Ranch community web site.

The Utility Plan Review Checklist is presented on the following pages to identify the location of DRCOG's recommended components within the Utility Plan document.

