MEMORANDUM

EL Montgomery
Salinas Valley GSP

WG Project No. 1447-0002-0100

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Date: April 2, 2021

To: Derrik Williams, PE
Abby Ostovar, PhD

From: Kari Wagner, PE
Greg Hulburd, PE

Subject: Eastside Basin, Project 4 - Eastside Irrigation Supply Project

Introduction

This memorandum provides a summary of the assumptions used to develop the engineer's opinion of probable cost for the conceptual Eastside Basin Project No. 4 (Eastside Irrigation Supply Project).

This conceptual project proposed to extract up to 3,000 acre feet per year (AFY) from agricultural lands on the west side of the Salinas River, near the unincorporated community of Spence, and deliver to the irrigated lands to the east in the Eastside Subbasin.

Conceptual Project

The project assumes construction of a 2.75 million gallon (MG) water storage tank and 10.4 million gallon per day (MGD) pump station adjacent to the source extraction wells on the west side of the Salinas River; the tank is sized to store approximately 25 percent of the average day demand for the system (10.4 MGD). It is assumed that two new extraction wells would be installed and that any additional wells needed for the project would be existing agricultural wells acquired under agreement with the existing agricultural owner. Tie-ins to deliver water to the proposed storage tank would be required. The pump station would deliver water into the distribution system on the eastside of the Salinas River. A 625-foot horizontal directional drilling (HDD) crossing of the Salinas River is assumed.

The distribution system will serve approximately 1,200 acres with an average irrigation demand of six (6) gallons per minute (gpm) per acre. Estimated pipe diameters in the distribution system will range from 6- to 24-inches.

The conceptualized project includes five storage tank and booster pump stations installed throughout the distribution system intended to provide reserve storage capacity throughout the system and the ability to deliver water to unique pressure zones. These smaller tank storage volumes, intended to store approximately 20 percent of the average day irrigation use for the areas served, range from 300,000 to 500,000 gallons; the associated pump stations range from 1.5 to 2.5 MGD in size.

It is assumed that the pipelines will be installed in the public right-of-way, where feasible, otherwise, temporary construction and permanent access easements will be recorded where the pipelines cross private lands. This estimate includes 12.5 acres of land to be acquired for the tank and pump station sites.

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Opinion of Probable Cost

Attachment 1 provides a summary of the opinion of probable costs for this conceptualized Eastside Irrigation Supply project. Capital costs were estimated at $ 139,928,000. On an annualized basis, assuming a 6% discount rate, and 25-year term, this amounts to $10,946,000. Including an annual operations and maintenance cost of $990,000 generates a total annualized cost of $11,937,000. Assuming a yield of 3,000 AFY, the unit cost for water delivered is estimated at $ 3,980/AF.

Attachments

1. Engineer's Opinion of Probable Cost