



TECHNICAL MEMORANDUM

To: Peter Sevcik, PE
Nipomo Community Services District

From: Mike Nunley, PE | MKN
Julia Cannon, EIT | MKN

Date: August 14, 2024

Re: Dana Reserve Development Phasing Study – Revised Figures for Annexation Agreement

Introduction & Background

This technical memorandum (TM) presents updated project phasing schedule and cost analysis to be utilized for the Nipomo Community Services District (District) phased planning efforts for Dana Reserve Development (Development). Since the County of San Luis Obispo has approved the Development, the District is moving forward with an annexation agreement of the Development into the District service area. In March 2024, the Dana Reserve Development Phasing Study (2024, MKN) provided recommendations for expansion of water and wastewater services to the Development, requiring strategic integration with the District's existing systems. Tables and figures from the original Phasing Study have been updated as a result of discussions between the District and Developer regarding a draft annexation agreement.

Major water transmission and storage projects were recommended in the Phasing Study for implementation prior to completion and occupancy of the first residential unit due to the need for fire flow, emergency storage, and redundant water supply to the project. Major wastewater system improvements are also recommended for implementation prior to completion and occupancy of the first residential unit to provide wastewater service.

Implementation Phasing Schedule

The updated schedule for implementation of these projects is provided in **Figure 5-1** (attached). The implementation schedule would be initiated with the approval of the annexation agreement between the District and the property owner. The schedule is organized according to months from completion of the annexation agreement. Updates made as an adaptation to the original Phasing Study include the following:

- Wastewater projects have been organized into two major phases, requiring completion of either the first residential unit or Unit No. 1009 of the Development to initiate each major phase.
- Wastewater Project 6 has been separated into Project 6A and 6B, for each aeration basin respectively.
- The District will need to complete Wastewater Project 6A – Extended Aeration Basin No. 2 prior to completion of the first residential unit
- The District will need to complete prior to completion of Unit 1009:
 - Wastewater Project 6B – Extended Aeration Basin No. 3
 - Wastewater Project 8 – Gravity Belt Thickener
 - Wastewater Project 9 – Dewatering Screw Press

Project Cost Opinions

Table 6-1 (attached) summarizes the updated total project costs from the Dana Reserve Evaluation (2022, MKN), escalated to 2023 dollars using the Engineering News-Record Los Angeles Construction Cost Index (ENR-LA CCI). The cost opinions for engineering, administration, and construction management; construction; and contingency are shown separately. Updates made to the original Phasing Study tables include the following:

- Water Project 6 has been removed from the water projects subtotal and will be determined separately by the District.
- Wastewater Project 6 has been separated into Project 6A and 6B, and Projects 8 and 9 have been updated to match the updated implementation schedule.
- The total construction cost for the extended aeration basins has been increased by \$440,000 to allow the District flexibility to provide additional facilities during the construction of Aeration Basin No.2, given that Aeration Basin No. 3 will be implemented in the second major construction phase.
- An additional cost of \$130,000 has been added both to Engineering, Administration, & Construction Management, and Contingency costs for the extended aeration basins to accommodate the updated phasing described above.

Table 6-2 (attached) provides the updated cashflow analysis in which all project costs (provided in **Table 6-1**) have been escalated to the midpoint of construction by a factor of 5% per year, which is the rounded annual average ENR-CCI LA increase from August 2018 to August 2023.

Cashflow Analysis

To estimate quarterly cashflow, the following breakdown of Engineering, Administration, and Construction Management cost was assumed:

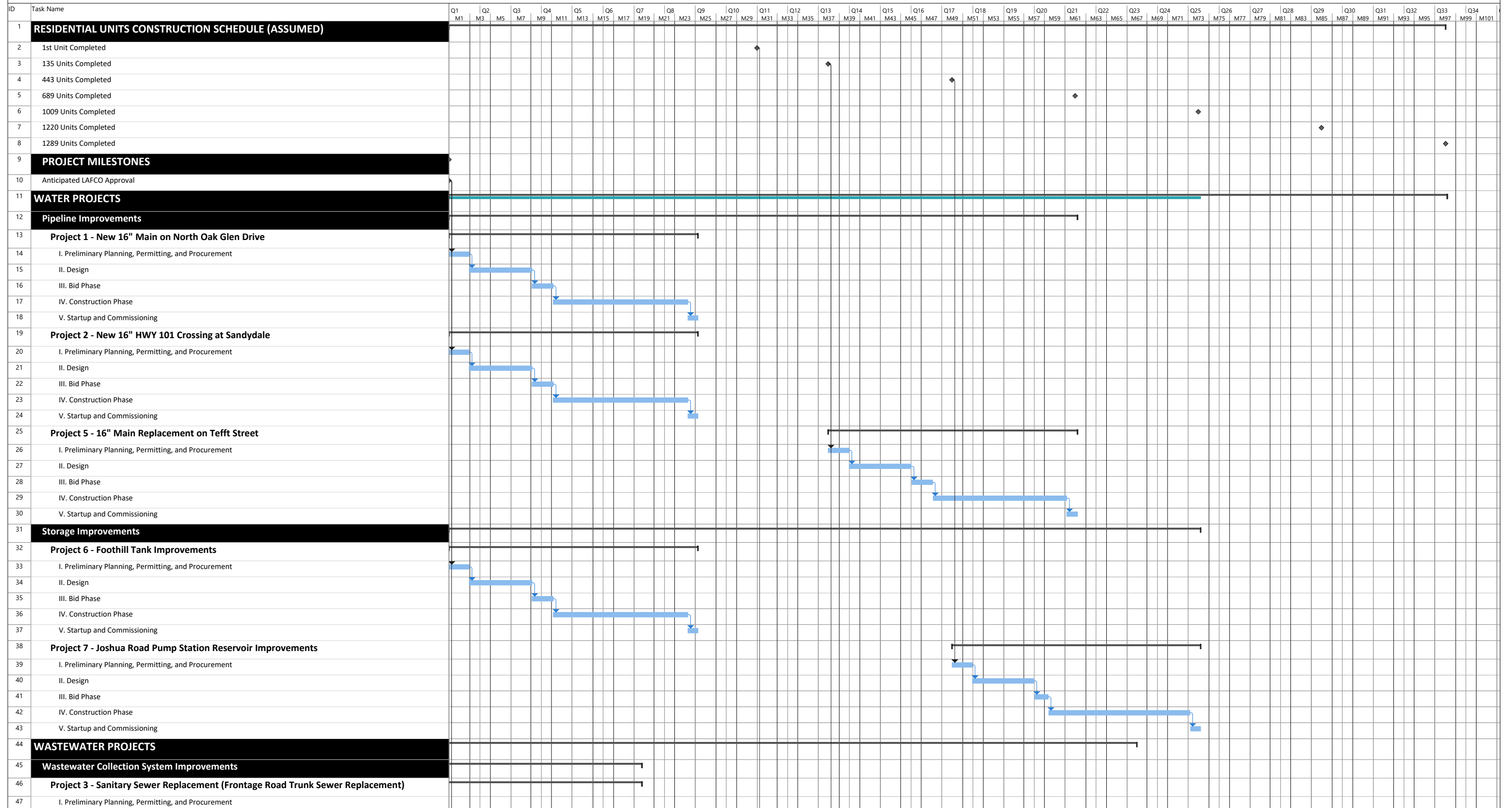
- Preliminary Planning and Permitting = 10%
- Engineering design = 40%
- Engineering services during construction and construction management = 50%

These factors were applied to the cost opinions in **Table 6-2** to develop cost opinions for each phase of project development. It was assumed contingency would be spread through the construction phase of the project. Those cost opinions were applied to the schedule presented in **Figure 5-1** and were spread evenly through each phase of the project to estimate quarterly cashflow. **Figures 6-1, 6-2, and 6-3** (attached) present the anticipated expenditures, not including financing charges, interest, or any fees associated with project financing. The cashflow analysis was developed assuming money is spent at the end of the quarter.

Attachments

- **Figure 5-1:** Phased Implementation Schedule
- **Table 6-1:** Summary of Project Cost Opinions
- **Table 6-2:** Summary of Project Cost Opinions with Escalation to Midpoint of Construction
- **Figure 6-1:** Cash Flow Report – Water Projects
- **Figure 6-2:** Cash Flow Report – Wastewater Projects
- **Figure 6-3:** Cash Flow Report – Water and Wastewater Projects

Figure 5-1
Nipomo Community Services District
Dana Reserve Development
Water and Wastewater Phasing Study



Project: NCS D Dana Reserve Phasing Schedule
Date: Fri 4/26/24

Task	Milestone	Project Summary	Inactive Milestone	Inactive Summary	Manual Task	Manual Summary Rollup	Manual Summary	Start-only	Finish-only	External Tasks	External Milestone	Deadline	Progress	Manual Progress
Split	Summary	Inactive Task	Inactive Summary	Inactive Summary	Duration-only	Manual Summary	Manual Summary	Start-only	Finish-only	External Tasks	External Milestone	Deadline	Progress	Manual Progress

Table 6-1: Summary of Project Cost Opinions

Project and Description	Complete Units to Initiate Construction	Engineering, Administration, & Construction Management	Construction	Contingency	Total
Water Projects					
Project 1 - New 16" Main on North Oak Glen Drive	Prior to first Unit	\$730,000	\$2,410,000	\$730,000	\$3,870,000
Project 2 - New 16" HWY 101 Crossing at Sandydale	Prior to first Unit	\$260,000	\$850,000	\$260,000	\$1,370,000
Project 4 - Willow EOL Connection	Prior to first Unit	Developer Funded			
Project 5 - 16" Main Replacement on Tefft Street	Prior to Unit 689	\$1,300,000	\$4,320,000	\$1,300,000	\$6,920,000
Project 6 - Foothill Tank Improvements	Prior to first Unit	To Be Financed Separately by District			
Project 7 - Joshua Road Pump Station Reservoir	Prior to Unit 1000	\$1,030,000	\$3,420,000	\$1,030,000	\$5,480,000
Water Projects Subtotal		\$3,320,000	\$11,000,000	\$3,320,000	\$17,640,000
Wastewater Projects					
Project 2A – Proposed Sanitary Sewer Lift Station, Force Main, and Wastewater Connection System Connection for Dana Reserve Development	Prior to first Unit	Developer Funded			
Project 2B – Dana Reserve Lift Station Pump #3	Prior to first Unit	Developer Funded			
Project 3 – Sanitary Sewer Replacement	In Progress – District Funded				
Project 4 – Influent Lift Station	Prior to first Unit	\$20,000	\$50,000	\$20,000	\$90,000
Project 5 – Grit Removal	Prior to Unit 1009	\$160,000	\$510,000	\$160,000	\$830,000
Project 6A – Extended Aeration Basin #3	Prior to first Unit	\$540,000	\$1,790,000	\$540,000	\$2,870,000
Project 6B – Extended Aeration Basin #3	Prior to Unit 1009	\$520,000	\$1,730,000	\$520,000	\$2,770,000
Project 7 – Secondary Clarifiers	Prior to Unit 1009	\$710,000	\$2,350,000	\$710,000	\$3,770,000
Project 8 – Gravity Belt Thickener	Prior to Unit 1009	\$220,000	\$710,000	\$220,000	\$1,150,000
Project 9 – Dewatering Screw Press	Prior to Unit 1009	\$400,000	\$1,310,000	\$400,000	\$2,110,000
Wastewater Projects Subtotal		\$3,600,000	\$11,880,000	\$3,260,000	\$18,740,000
Notes:					
1. All project costs were escalated using the ENR-LA CCI (August 2023 = 15179.26). All costs (except Wastewater Project 3) were developed in the Dana Reserve Evaluation (ibid.)					
2. Wastewater Project 3 (Sanitary Sewer Replacement) was updated in the June 2023 60% Progress Submittal. 20% of construction cost was assumed for contingency and 30% was assumed for engineering, administration, and construction management.					
3. All numbers rounded to \$10,000.					

Table 6-2: Summary of Project Cost Opinions with Escalation to Midpoint of Construction

Project and Description	Complete Units to Initiate Construction	Engineering, Administration, & Construction Management	Construction	Contingency	Total
Water Projects					
Project 1 - New 16" Main on North Oak Glen Drive	Prior to first Unit	\$800,000	\$2,640,000	\$800,000	\$4,240,000
Project 2 - New 16" HWY 101 Crossing at Sandydale	Prior to first Unit	\$280,000	\$930,000	\$280,000	\$1,490,000
Project 4 - Willow EOL Connection	Prior to first Unit	Developer Funded			
Project 5 - 16" Main Replacement on Tefft Street	Prior to Unit 689	\$1,650,000	\$5,470,000	\$1,650,000	\$8,770,000
Project 6 - Foothill Tank Improvements	Prior to first Unit	To Be Financed Separately by District			
Project 7 - Joshua Road Pump Station Reservoir	Prior to Unit 1000	\$1,360,000	\$4,500,000	\$1,180,000	\$7,040,000
Water Projects Subtotal		\$4,090,000	\$13,540,000	\$3,910,000	\$21,540,000
Wastewater Projects					
Project 2A – Proposed Sanitary Sewer Lift Station, Force Main, and Wastewater Connection System Connection for Dana Reserve Development	Prior to first Unit	Developer Funded			
Project 2B – Dana Reserve Lift Station Pump #3	Prior to first Unit	Developer Funded			
Project 3 – Sanitary Sewer Replacement	In Progress – District Funded				
Project 4 – Influent Lift Station	Prior to first Unit	\$20,000	\$60,000	\$20,000	\$100,000
Project 5 – Grit Removal	Prior to Unit 1009	\$210,000	\$650,000	\$210,000	\$1,070,000
Project 6A – Extended Aeration Basin #3	Prior to first Unit	\$610,000	\$2,020,000	\$610,000	\$3,240,000
Project 6B – Extended Aeration Basin #3	Prior to Unit 1009	\$650,000	\$2,180,000	\$650,000	\$3,480,000
Project 7 – Secondary Clarifiers	Prior to Unit 1009	\$910,000	\$3,020,000	\$910,000	\$4,840,000
Project 8 – Gravity Belt Thickener	Prior to Unit 1009	\$270,000	\$880,000	\$270,000	\$1,420,000
Project 9 – Dewatering Screw Press	Prior to Unit 1009	\$500,000	\$1,620,000	\$500,000	\$2,620,000
Wastewater Projects Subtotal		\$3,170,000	\$10,430,000	\$3,170,000	\$16,770,000
Notes: All numbers rounded to \$10,000					

Figure 6-1 Cash Flow Report - Water Projects

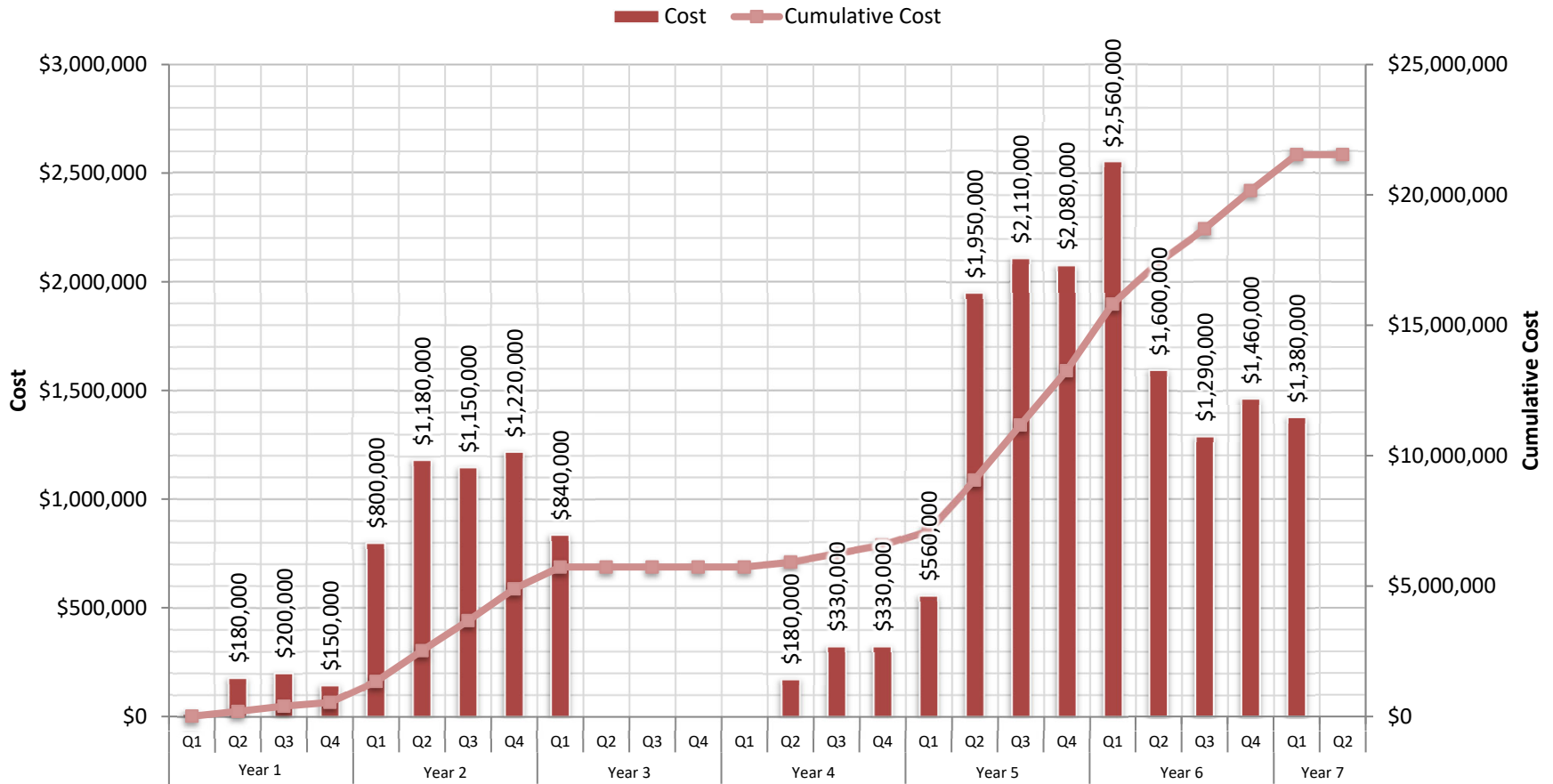


Figure 6-2 Cash Flow Report - Wastewater Projects

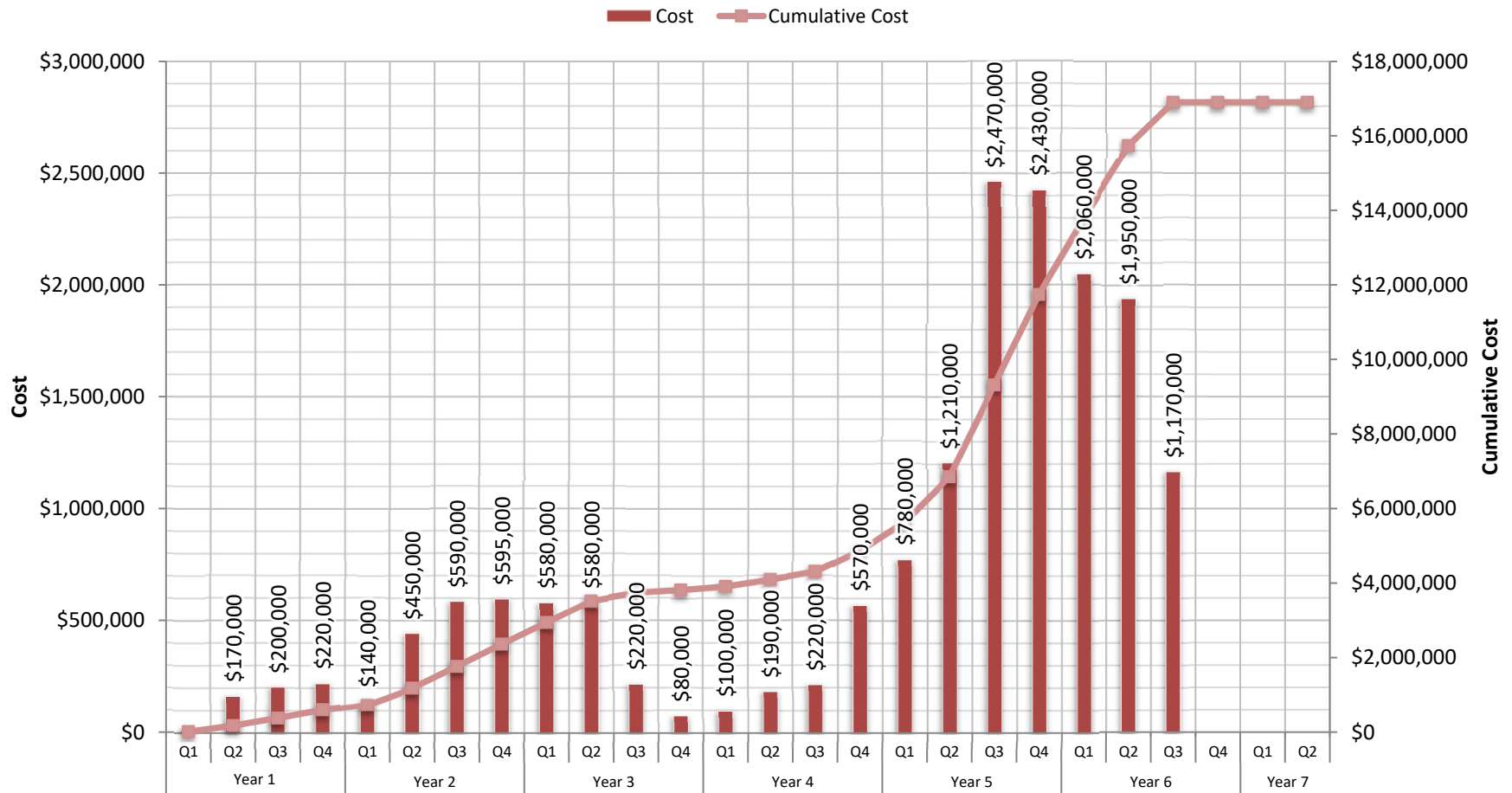


Figure 6-3 Cash Flow Report - Water and Wastewater Projects

