



City of Morro Bay
Water Reclamation Facility Project

MONTHLY REPORT OF PROJECT STATUS AND EXPENDITURES THROUGH AUGUST 2020

FINAL | October 2020





City of Morro Bay
Water Reclamation Facility Project

MONTHLY REPORT OF PROJECT STATUS AND
EXPENDITURES THROUGH AUGUST 2020

FINAL | October 2020

This document is released for the
purpose of information exchange review
and planning only under the authority of
Eric T. Casares
September 2020
State of California, P.E. 73351

Contents

Section 1 - Project Overview	1
1.1 General Project Status Update	1
1.1.1 Water Reclamation Facility	1
1.1.2 Conveyance Facilities	1
1.1.3 Recycled Water Facilities	2
1.2 Quarterly Budget Revision	2
Section 2 - Key Performance Measures	7
2.1 Performance Measures	7
Section 3 - Project Costs	11
3.1 Project Budget	11
3.2 Project Cash Flow	11
Section 4 - Project Schedule	15
4.1 Project Milestones	15

Tables

Table 1	Estimates at Completion	1
Table 2	Project Accomplishments and Challenges	3
Table 3	Budget Revision Summary	5
Table 4	Estimates at Completion	6
Table 5	WRF Project Performance Measures	9
Table 6	WRF Project Overall Budget Status (thru August 2020)	11
Table 7	Project Construction Milestones	15
Table 8	Expanded Milestone Schedule	19

Figures

Figure 1	Project Cash Flow Projections and Actual Expenditures	13
Figure 2	Project Milestone Summary	17

Abbreviations

Bartle Wells	Bartle Wells Associates
BNR	biological nutrient removal
BOD	Biochemical Oxygen Demand
CCC	chlorine contact chamber
CDFW	California Department of Fish and Wildlife
CWSRF	Clean Water State Revolving Fund
DDW	Division of Drinking Water
EACs	Estimate at Completion
EIR	Environmental Impact Report
ESCP	Enhanced Source Control Program
GSI	project hydrogeologist
KPI	Key Performance Indicator
PCO	potential change order
PPP	Pollution Prevention Program
Project	Water Reclamation Facility Project
PWAB	Public Works Advisory Board
RWQCB	Regional Water Quality Control Board
SPI	Schedule Performance Index
TM	Technical Memorandum
TSO	Time Schedule Order
TSS	Total Suspended Solids
USFWS	United States Fish and Wildlife Service
Vistra	Vistra Energy

Section 1

PROJECT OVERVIEW

1.1 General Project Status Update

All components of the Water Reclamation Facility Project (Project) are currently in progress. The general progress update and schedule information presented in this report is current as of October 14, 2020. The financial information including the spent to date and budget remaining amounts are presented as of August 31, 2020.

1.1.1 Water Reclamation Facility

1.1.1.1 Construction

Construction at the WRF site began on March 20, 2020. Activities to date include near completion of the major site work, construction of the foundation and walls of the sludge holding tanks and biological nutrient removal (BNR) basins, and installation of the 78-inch steel pipe serving as the chlorine contact chamber (CCC).

The City and Program Manager are currently working with the design-build team to negotiate Amendment No. 4 that will settle all of the existing potential change orders (PCOs) including the soil slip, delay claims as a result of the California Department of Fish and Wildlife (CDFW), and various design clarifications. The City and Program Manager will bring Amendment No. 4 to City Council for review and approval on November 10, 2020.

1.1.2 Conveyance Facilities

1.1.2.1 Construction

The City opened bids for the Conveyance Facilities component of the Project on August 12, 2020. The City received a total of five (5) bids. A summary of the bids is provided in Table 1 below.

Table 1 Estimates at Completion

Bidder ⁽¹⁾	Base Bid
W.A. Rasic Construction	\$38,425,000.00
OHL USA, Inc.	\$39,671,778.00
Nicholas Construction	\$42,664,745.00
Anvil Builders, Inc.	\$31,493,675.00
John Madonna Construction Company, Inc.	\$33,083,108.75

Notes:

(1) The bids are presented in the order they were read at the bid opening held at the WRF site on August 14, 2020.

City staff is bringing a recommendation to award for Anvil Builders, Inc. to City Council on November 10, 2020.

1.1.3 Recycled Water Facilities

1.1.3.1 Design

The Project's hydrogeologist (GSI Water Solutions [GSI]) delivered the Final Phase 2 (Characterization) Technical Memorandum (TM) in June 2020. GSI and the Program Manager presented the findings from the Characterization TM to the Public Works Advisory Board (PWAB) on August 19, 2020. The City and Program Manager will be presenting the findings of the Characterization TM to the City Council on November 10, 2020 along with the next budget authorization for GSI to cover Phase 3 of the hydrogeological work.

Table 2 summarizes some of the key accomplishments and critical challenges identified for the Project through October 14, 2020.

1.2 Quarterly Budget Revision

The original \$126 million baseline budget was developed in June 2018 (Q4 Fiscal Year 2017/2018). At the beginning of each fiscal year, the budget is updated and used as the measure of performance for the Project during that upcoming fiscal year. The budget is then reviewed and reconciled on a quarterly basis so it can be compared to both the current fiscal year and baseline budgets. The next budget reconciliation will occur at the end of Q1 Fiscal Year 2020/2021 (September 30, 2020). A summary of the baseline, reconciled quarterly, and fiscal year budgets are summarized in Table 3. Subsequent budget reconciliations (quarterly) and fiscal year budgets (annual) will also be presented in this table for reference.

Table 4 summarizes the positions and estimates at completion (EACs) for the major elements of the Project through the end of Q4 FY 19/20 when the last budget reconciliation was completed.

Table 2 Project Accomplishments and Challenges

Project Component	Key Accomplishments	Critical Challenges	Actions to Overcome Challenges	Likely Outcomes
General Project	Continued to support the review of the City's construction loan application by the Clean Water State Revolving Fund (CWSRF) staff.			
	Continued to support permitting for the Project with the Regional Water Quality Control Board (RWQCB) and Division of Drinking Water (DDW)			
Water Reclamation Facility	Continued advancing construction on the South Bay Boulevard site.			
	Held a site tour for the City Council and local media on October 12, 2020.			
	Negotiated an amendment with the design-build team for all outstanding PCOs.			
Conveyance Facilities	Received pre-judgement possession of the Vistra Energy (Vistra) and PG&E property along the bike path and for the Lift Station No. 2 force main alignment necessary to complete construction.			
		The low bid received is approximately \$7 million over the engineer's estimate.	While current rates without funding from the CWSRF will support the increased Project costs, all effort needs to be made to secure CWSRF funding.	With the increased cost of the Project and without receiving CWSRF funding, it could be challenging to reduce the amount currently being collected from rate payers.
Recycled Water Facilities	Received pre-judgement possession of the Vistra property necessary to construct the injection wells and continue the hydrogeological work.			

Table 3 Budget Revision Summary

Project Component	Baseline (Q4 FY 17/18)	Quarterly Reconciliation (Q3 FY 18/19)	Past Fiscal Year (Q4 FY 18/19)	Quarterly Reconciliation (Q1 FY 19/20)	Quarterly Reconciliation (Q2 FY 19/20)	Quarterly Reconciliation (Q3 FY 19/20)	Current Fiscal Year (Q4 FY 19/20)
Water Reclamation Facility ⁽¹⁾	\$62,414,000	\$74,059,000	\$72,891,000	\$72,598,000	\$72,231,000	\$71,856,000	\$77,828,000
Conveyance Facilities	\$21,087,000	\$27,108,000	\$28,864,000	\$28,524,000	\$29,224,000	\$29,989,000	\$29,840,000
Recycled Water Facilities	\$8,593,000	\$5,366,000	\$5,250,000	\$5,212,000	\$5,353,000	\$5,526,000	\$5,526,000
General Program	\$24,403,000	\$11,614,000	\$11,801,000	\$11,625,000	\$11,701,000	\$12,964,000	\$13,260,000
Construction Contingency ⁽²⁾	\$9,444,000	\$6,450,000	\$7,132,000	\$7,131,000	\$7,364,000	\$10,264,000	\$4,207,000
Total	\$125,941,000	124,597,000	\$125,938,000	\$125,090,000	\$125,873,000	\$130,599,000	\$130,661,000

Notes:

(1) Costs include the design-build agreement with Filanc/Black & Veatch, Carollo, and other consultants.

(2) Breakdown of the current contingency (\$4,207,000) is as follows: WRF = \$1,449,000; Conveyance Facilities = \$2,458,000; and Recycled Water Facilities = \$300,000

Table 4 Estimates at Completion

Project Component	Original Estimates	Initial Contract Value	Current Contract Value	Expenditures to Date ⁽¹⁾	Estimate at Completion ⁽²⁾
City and Program Management	\$24,403,000			\$5,458,729	\$13,855,000
City Costs ⁽³⁾				\$2,262,016	\$3,845,000
Program Management ⁽⁴⁾ (Carollo Engineers)		\$293,000	\$6,360,378	\$3,196,713	\$10,010,000
Design/Build WRF	\$62,414,000			\$13,869,460	\$74,927,000
Design/Build (Filanc/Black & Veatch)		\$67,234,512	\$74,926,725	\$13,869,460	\$74,927,000
Conveyance Facilities	\$21,087,000			\$1,807,054	\$26,386,000
Design (Water Works Engineers)		\$1,360,565	\$2,052,387	\$1,807,054	\$2,152,000
Construction				-	\$24,234,000
Recycled Water Facilities	\$8,593,000			-	\$3,575,000
Design				-	\$450,000
Construction				-	\$3,125,000
Contingency	\$9,444,000				\$4,207,000
Water Reclamation Facility					\$1,449,000
Conveyance Facilities					\$2,458,000
Recycled Water Facilities					\$300,000
Other Contracts⁽⁵⁾				\$5,903,647	\$7,711,000
Total	\$125,941,000			\$27,038,890	\$130,661,000

Notes:

- (1) Total expenditures are through August 30, 2020.
(2) EAC is based on the budget reconciliation completed for Q4 FY 19/20.
(3) City costs include staff salaries and benefits, legal services, land acquisition, supplies and equipment, etc.
(4) Includes total program management costs including public outreach and construction oversight/management.
(5) Other Contracts include previous consultants including MKN and Black & Veatch and current consultants including Far Western, ESA, Kestrel, GSI, Bartle Wells Associates, etc.

Section 2

KEY PERFORMANCE MEASURES

2.1 Performance Measures

A set of five (5) Key Performance Indicators (KPIs) were established to readily measure the progress of the Project. These KPIs represent various success factors associated with the WRF project management and delivery that were established by the Program Manager and City staff and are summarized as Table 5. The Project's performance is also illustrated graphically in Figures 1 and Figure 2.

Table 5 WRF Project Performance Measures

Performance Measure	Data	Baseline (Q4FY 18/19)	Current (Q3 FY 19/20)	Delta	Status	Ⓞ	Ⓨ	Ⓡ
1: Total Project Costs	Total Project Projected Cost at Completion versus the Baseline Budget (budget as of 06/30/20)	\$130.7 M	\$130.7 M	0.0%	Ⓞ	Estimated cost within 5% of target budget	Estimated cost > 5% above target budget	Estimated cost > 10% above target budget
1.1: WRF Costs	On Site WRF Projected Cost at Completion versus the Baseline Budget (budget as of 06/30/20)	\$79.3 M	\$79.3 M	0.0%	Ⓞ	Estimated cost within 5% of target budget	Estimated cost > 5% above target budget	Estimated cost > 10% above target budget
1.2: Conveyance Facilities Costs	Conveyance Facilities Projected Cost at Completion versus the Baseline Budget (budget as of 06/30/20)	\$32.3 M	\$32.3 M	0.0%	Ⓞ	Estimated cost within 5% of target budget	Estimated cost > 5% above target budget	Estimated cost > 10% above target budget
1.3: Recycled Water Facilities Costs	Off Site Injection Facilities Projected Cost at Completion versus the Baseline Budget (budget as of 06/30/20)	\$5.8 M	\$5.8 M	0.0%	Ⓞ	Estimated cost within 5% of target budget	Estimated cost > 5% above target budget	Estimated cost > 10% above target budget
1.4: General Project Costs	General Project Projected Cost at Completion versus the Baseline Budget (budget as of 06/30/20)	\$13.3 M	\$13.3 M	0.0%	Ⓞ	Estimated cost within 5% of target budget	Estimated cost > 5% above target budget	Estimated cost > 10% above target budget
2: Program Manager Earned Value	Ratio of Program Manager Earned Value to Actual Invoiced Cost-to-Date (as of 09/16/20)	1.00	0.97	-0.03	Ⓨ	>= 1.00	0.99 to 0.90	< 0.90
3: Schedule Performance Index ⁽¹⁾	Ratio of Planned Percent Complete to Actual Percent Complete (as of 10/14/20)	1.00	0.98	-0.02	Ⓨ	>=1.00	0.99 to 0.80	<0.80
4: Conveyance Pipeline Installed	Feet of conveyance pipeline installed (through 10/14/20)	18,500 LF	0.0 LF	0.0%	Ⓞ	<= 5%	> 5% and <=7.5%	> 7.5%
5: Compliance Date Countdown	Days Remaining to Compliance Date (as of 10/14/20)	867 days	701 days	166 days	Ⓡ	<= 365 days	364 days and 180 days	> 179 days

Section 3

PROJECT COSTS

3.1 Project Budget

The overall budget status for the Project is summarized in Table 6. The top half of the table provides a summary of total estimated Project costs, including original and current estimated costs for the entire Project. The bottom half of Table 6 shows the total amount of work currently under contract and provides a summary of total charges.

Table 6 WRF Project Overall Budget Status (thru August 2020)

Summary of Total WRF Project Cost	
Original Baseline WRF Project Budget ⁽¹⁾	\$125,941,000
Current Fiscal Year WRF Project Budget (as of 6/30/20) ⁽²⁾	\$130,661,000
Current WRF Project Budget (as of 06/30/20) ⁽³⁾	\$130,661,000
Budget Percent Change (Current versus Fiscal Year)	0.0%
Total Expenditures for July 2020	\$2,147,000
Total Expenditures to Date (thru 07/31/20 invoices)	\$27,039,000
Percent of Current WRF Project Budget Expended	20.7%
Summary of Contracted Work	
Total Contracted Amount	\$88,448,000
Percent of Current WRF Project Budget Contracted	67.7%
Total Contracted Amount Expended	\$23,629,000
Percent of Contracted Amount Expended	26.7%
Remaining WRF Project Contracted Amount	\$64,819,000

Notes:

- (1) Developed in June 2018.
- (2) The budget for the Project is reviewed on an annual basis at the end of each fiscal year (June 30th) and is used as the basis of performance for the Project for the upcoming fiscal year.
- (3) The Project budget is reconciled on a quarterly basis and compared to the current fiscal year budget (i.e., September 30, December 31, and March 31)

3.2 Project Cash Flow

Figure 1 presents the projected and actual expenditures for the Project through June 2020 compared to the Fiscal Year 2020/2021 budget developed at the end of Q4 Fiscal Year 2019/2020. The line graph shows the cumulative values for the Project and the bars show the discrete monthly values. Actual and budgeted expenditures from 2013 to the end of Fiscal Year 2018/2019 have been combined to improve readability. Milestones have been added to the cumulative fiscal year budget and cumulative forecasted expenditures to show changes in the Project schedule that have occurred between development of the fiscal year budget from June 2019 and the current, reconciled budget developed at the end of June 2020. The milestone corresponds to the substantial completion of the WRF, which coincides with the City being in

compliance with the Time Schedule Order (TSO) issued by the Regional Water Quality Control Board (RWQCB) in June 2018. While the compliance with the TSO has been delayed several months due to consultation with the United States Fish and Wildlife Service (USFWS), completion of construction of the injection wells has been impacted more significantly due to property acquisition.

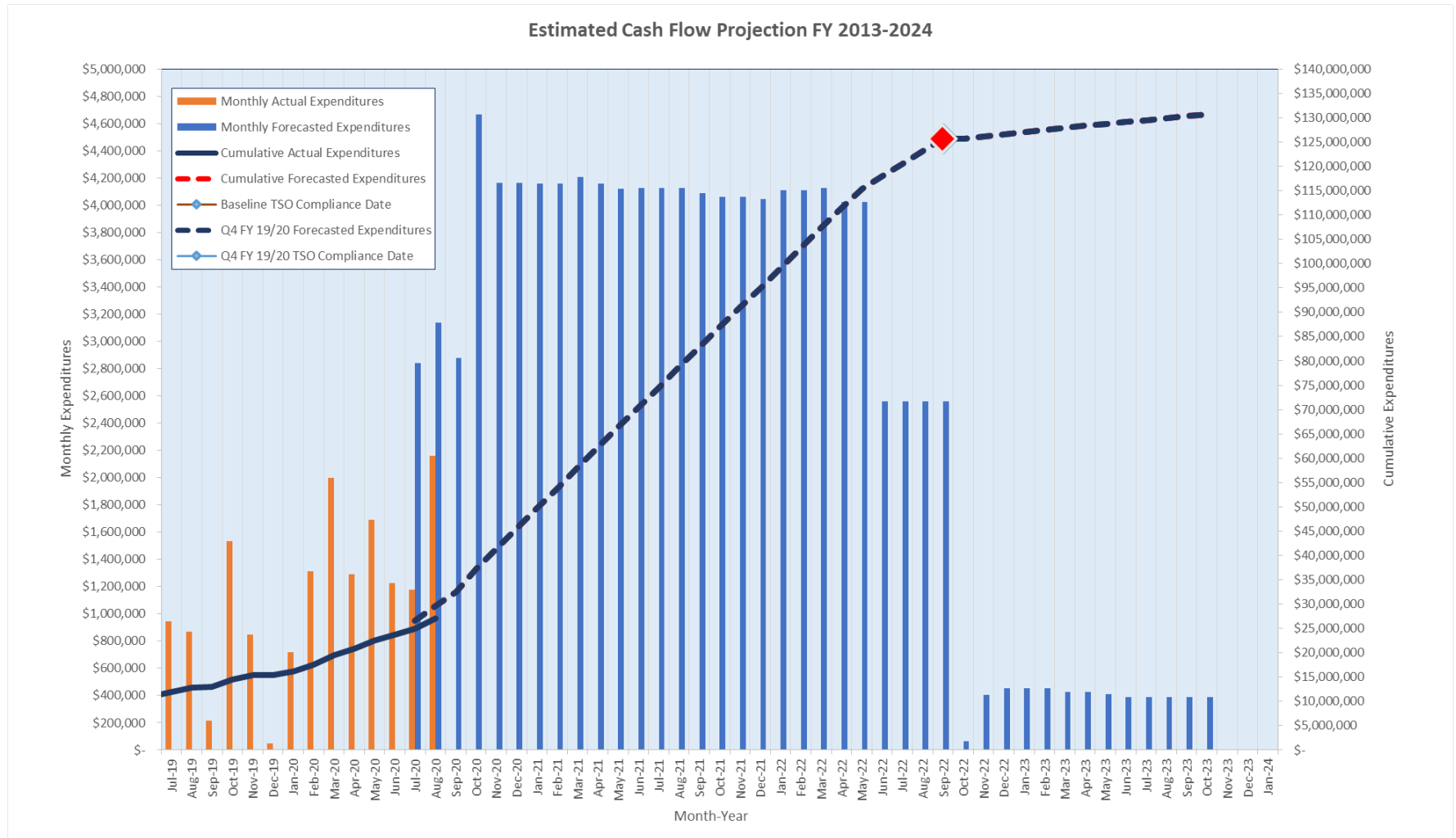


Figure 1 Project Cash Flow Projections and Actual Expenditures

Section 4

PROJECT SCHEDULE

A summary of the Project schedule is presented in Figure 2. The light blue bars for each major task represent the planned progress based on the baseline schedule. The dark blue bars represent the current actual progress through June 2020. For each major line item, the Schedule Performance Index (SPI) has been provided as well as an overall SPI for the entire Project. The SPI is a ratio of the planned percent complete versus the current actual percent complete. A SPI of greater than 1.00 indicates that the Project is on or ahead of schedule and a SPI of less than 1.00 indicates the Project is running behind the planned schedule.

4.1 Project Milestones

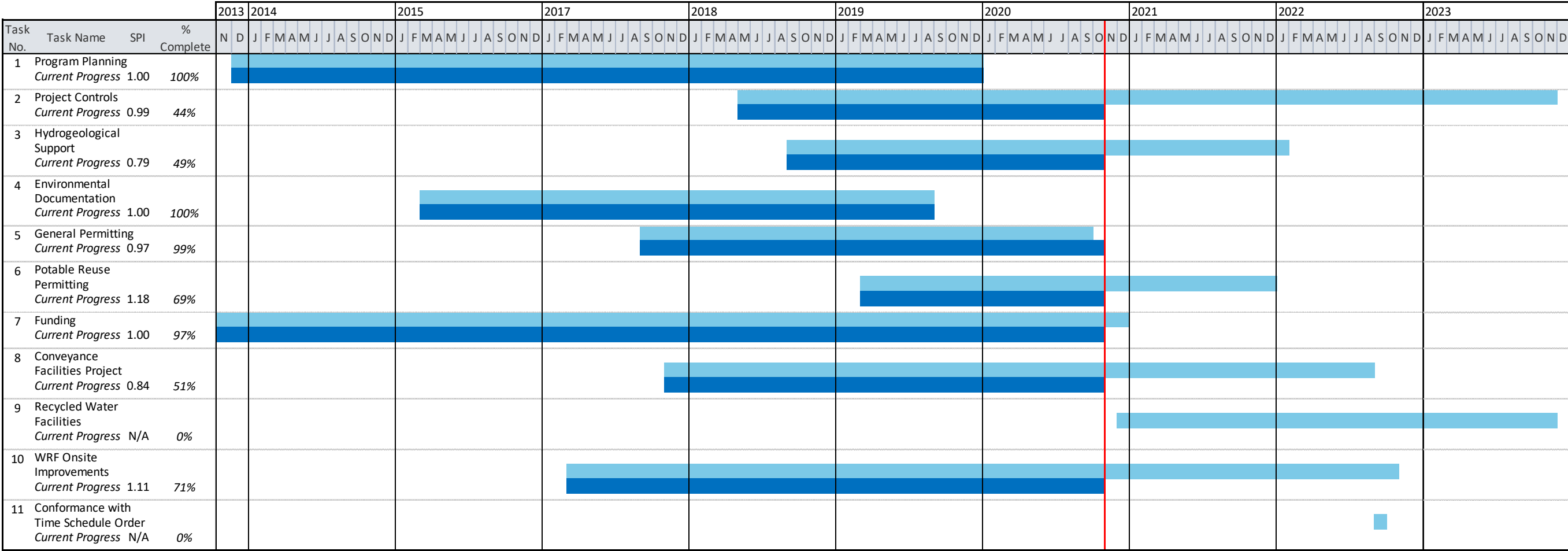
In June 2018, the City received a TSO from the RWQCB. The TSO requires the City to comply with a time schedule that will, within five years of adoption, allow the City to achieve full compliance with biochemical oxygen demand (BOD) and total suspended solids (TSS) final effluent limitations established in Order No. R3-2017-0050. In addition to the final compliance date, a number of intermediate milestones are provided in Table 3 (Compliance Schedule) of the TSO. Presented in Table 7 are the milestones in the TSO.

Table 7 Project Construction Milestones

Required Actions	Compliance Due Date	Planned Compliance Date	Actual Compliance Date
Release of Public Draft Environmental Impact Report (EIR)	March 30, 2018	-	March 30, 2018
Release of Updated Rate Study	June 30, 2018	-	July 05, 2018
Proposition 218 Hearing	August 30, 2018	-	September 11, 2018
Certification of Final EIR	June 30, 2018	-	August 14, 2018
Award of Contract for WRF	September 30, 2018	-	October 23, 2018
Develop, Implement, and Submit Pollution Prevention Plan (PPP) for BOD and TSS	December 01, 2018	TBD ⁽¹⁾	-
Award of Contract for Construction of Conveyance Facilities	November 30, 2019	November 10, 2020	-
Completion of WRF Improvements with Completion Report	December 30, 2022	September 15, 2022	-
Full compliance with final effluent limitations	February 29, 2023	September 15, 2022	-

Notes:

- (1) The City and Program Manager have noted this requirement in the previous quarterly progress reports sent to the RWQCB (as required by the TSO). The City has requested that the Enhanced Source Control Program (ESCP) required as part of the Title 22 Engineer's Report be considered acceptable for this requirement in lieu of the PPP identified in the TSO.



Project SPI: 0.98
Program % Complete: 68%

Baseline Schedule
Actual Progress-To-Date

Figure 2 Project Milestone Summary

An expanded milestone schedule has also been developed for outstanding Project activities.

Table 8 Expanded Milestone Schedule

Milestone	Baseline Schedule Due Date	Planned/Actual Completion Date
General Project		
Compliance with the TSO ⁽¹⁾	November 11, 2021	September 15, 2022
Water Reclamation Facility		
Begin Construction	August 08, 2019	March 20, 2020 (Actual)
Deliver 90 Percent Design	October 24, 2019	March 31, 2020 (Actual)
Substantial Completion	November 11, 2021	September 15, 2022
Final Completion	June 09, 2022	November 10, 2022
Conveyance Facilities		
Deliver 90 Percent Design	October 15, 2019	February 10, 2020 (Actual)
Deliver 100 Percent Design	December 17, 2019	June 15, 2020 (Actual)
Bid Advertisement	February 21, 2020	June 16, 2020 (Actual)
Award Construction Contract	May 08, 2020	November 10, 2020
Substantial Completion	September 17, 2021	January 19, 2022
Final Completion	November 19, 2021	March 05, 2022
Recycled Water Facilities		
Select Preferred Injection Area	May 28, 2019	June 17, 2020 (Actual)
Deliver 30 Percent Design	August 04, 2020	December 01, 2021
Deliver 60 Percent Design	November 10, 2020	March 09, 2022
Deliver 90 Percent Design	February 16, 2021	June 15, 2022
Deliver 100 Percent Design	April 27, 2021	August 24, 2022
Award Construction Contract	July 21, 2021	November 16, 2022
Substantial Completion	April 21, 2022	September 20, 2023
Final Completion	June 21, 2022	November 15, 2023

Notes:

(1) The TSO requires compliance with full secondary treatment by February 28, 2023.

