



City of Morro Bay
Water Reclamation Facility Project

QUARTERLY REPORT ENDING DECEMBER 2021

FINAL | February 2022





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Abbreviations

Anvil	Anvil Builders, Inc.
BMP	Best Management Practices
BNR	Biological Nutrient Removal
BOD	Biochemical Oxygen Demand
BR	brine
CA	California
Carollo	Carollo Engineers, Inc.
CDFW	California Department of Fish and Wildlife
CFAC	Citizens Finance Advisory Committee
CO	Change Order
CPM	critical path method
CWSRF	Clean Water State Revolving Fund
DDW	Division of Drinking Water
EHSP	Enhanced Source Control Program
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FIW	Filter Inlet Water
FO	fiber optic
FRP	Fiber-Reinforced Plastic
FWB	Filter Backwash
GAMA	Groundwater Ambient Monitoring and Assessment Program
GMP	Guaranteed Maximum Price
GSI	GSI Water Solutions
IFC	Issued for Construction
IPR	Indirect Potable Reuse
KPI	Key Performance Indicator
If	Linear Feet
MBR	Membrane Bioreactor
NPDES	National Pollution Discharge Elimination System
NTP	Notice to Proceed
PA	Programmatic Agreement
PCO	Potential Change Order
PG&E	Pacific Gas and Electric
PPP	Pollution Prevention Plan
Project	Water Reclamation Facility Project
PRW	Plant Recycled Water
PWAB	Public Works Advisory Board

Q1	Quarter No. 1
RFI	request for information
RO	Reverse Osmosis
ROWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board
SAA	Stream Bed Alteration Agreement
SHPO	State Historic Preservation Office
SHT	Sludge Holding Tank
SLO	San Luis Obispo
SPI	schedule performance index
SRF	State Revolving Fund
SWRCB	State Water Resources Control Board
TSO	Time Schedule Order
TSS	Total Suspended Solids
USBR	United States Bureau of Reclamation
UVAOP	Ultraviolet Advanced Oxidation Process
VDC	volts direct current
Vistra	Vistra Energy
WIFIA	Water Infrastructure Finance and Innovation Act
WRF	Water Reclamation Facility
WWE	Water Works Engineers
WWR	Wastewater Raw
WWS	Wastewater Screened

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 represents Quarter No. 2 (Q2) of Fiscal Year 2021-2022, from October 1, 2021 to December 31, 2021.

1.1.1 Water Reclamation Facility

1.1.1.1 Design

The design for the Water Reclamation Facility (WRF) was completed with the delivery of the Issued for Construction (IFC) drawings and specifications for the WRF on May 22, 2020.

1.1.1.2 Construction

Construction at the WRF site began on March 20, 2020. Activities to date include the following major activities which are discussed in detail in Section 8:

- Completion of major earthwork
- Remediation of the second soil slip
- Continued installation of major and minor yard piping systems
- Pressure testing of installed underground piping
- Installation of various electrical infrastructure components
- Construction progress in the following process areas:
 - Headworks
 - Biological Nutrient Removal (BNR)/Membrane Bioreactor (MBR) treatment
 - Reverse Osmosis (RO)/Ultraviolet (UV) Advanced Oxidation Process (AOP)
 - Product water facilities
 - Residuals sludge processing
 - Electrical and Instrumentation/Controls
 - Chemical storage and feed
 - Operations building
 - Maintenance building
 - City yard facilities

1.1.2 Conveyance Facilities

1.1.2.1 Design

Water Works Engineers (WWE) submitted the bid set plans and specifications in May 2020 and the City advertised this component of the Project on June 15, 2020.

1.1.2.2 Construction

The City opened bids for the Conveyance Facilities component of the Project on August 14, 2020. The City received a total of five bids. Anvil Builders, Inc. (Anvil) was awarded the contract for construction of the Conveyance Facilities on November 10, 2020 and issued notice to proceed (NTP) on December 14, 2020.

The following activities were completed between October 1, 2021 and December 31, 2021. The contractor continued to maintain general and administrative tasks such as project Stormwater Pollution Prevention Plan (SWPPP), traffic control plans, archeological mitigation and monitoring, and public outreach efforts. Additionally, four construction crews worked at the separate locations at both pump station A, pump station B, South Bay Boulevard and Main Street. A detailed description of the work within these areas is included in Section 8.

1.1.3 Recycled Water Facilities

1.1.3.1 Design

In Q2, the program team continued to make progress towards developing the bid package of the pilot injection well for the recycled water facilities portion of the project. The majority of the non-construction activities included procurement of a well driller for the pilot injection well. Section 8 outlines the recycled water facilities pre-design and design activities in more detail.

1.1.3.2 Construction

Construction of the recycled water facilities included the installation of a monitoring well that will be used to monitor the groundwater level during the pilot injection well study.

1.1.4 Accomplishments and Challenges

Table 1 summarizes some of the key accomplishments and critical challenges identified for the Project through December 31, 2021.

Table 1 Project Accomplishments and Challenges that occurred in Q2

Project Component	Key Accomplishments	Critical Challenges	Actions to Overcome Challenges	Likely Outcomes
General Project	Assembled and submitted disbursement request packages No. 2 and 3 to SRF Construction Loan and No. 4 to SRF Planning Loan.	Project team continues to coordinate and prepare reimbursement packages from FBV and Anvil construction progress payments to submit to SRF for reimbursement on behalf of the City.	No actions required.	Construction progress payments for the Water Reclamation Facility and the Conveyance Facilities will continue to be sent to SRF for reimbursement.
Water Reclamation Facility	Continued planning for facility commissioning, start-up and testing activities and coordination with Conveyance Facilities completion schedule.	Current schedule for treatment plant testing and start-up could result in extended overhead charges due to contractor downtime while awaiting sewage influent from the Conveyance Facilities project component.	Program Management team facilitated two workshops with WRF treatment plant contractor team to develop a strategy that will mitigate the misalignment between their schedule and the Conveyance Facilities schedule.	Minimization or avoidance of additional contract charges associated with schedule misalignment.
	Implemented Storm Water Pollution Prevention Plan (SWPPP) for upcoming winter storms.	The DB team has received two notice of violations of SWPPP measures from the Regional Water Quality Control Board on 11/8/21 and 12/20/21.	The DB team has implemented a robust series of SWPPP best management practices (BMPs) to address the notice of violations for upcoming winter storms. The DB team has also encouraged Regional Water Quality Control Board (RWQCB) staff to inspect SWPPP BMPs to ensure they are compliant with RWQCB standards.	The implementation of the SWPPP BMPs will improve stormwater discharge quality to meet RWQCB standards. The City will receive correspondence from RWQCB staff in January 2022 that the installed BMPs comply with SWPPP standards and that the City has addressed the issues identified in the notice of violations.
Conveyance Facilities	Successfully coordinated with SHPO to finalize Phase 2B monitoring and mitigation requirements for working between Stations 27+00 and 37+00.	On December 7 th , the Construction Management Team, EPA, SHPO, and Far Western met virtually to discuss the Phase 2B monitoring plan for the Conveyance Facilities Project. SHPO was not in acceptance of Far Western's original plan and this meeting was to come to a resolution in order to move forward between Stations 27+00 and 37+00.	Far Western and the EPA developed a monitoring strategy, which includes their original monitoring plan, with additional reporting to SHPO during construction that would be acceptable to SHPO.	This plan will be officially submitted to SHPO early January 2022 and will result in clearance of Anvil to begin construction on the Morro Creek utility bridge abutments with archeological oversight by Far Western.
	Obtained Caltrans Encroachment Permit approval for Traffic Control Plan Stage 19 and detours around South Bay Boulevard.	Construction Management Team required approval of conveyance facilities traffic control plan stage 19 from Caltrans in order to perform construction near the intersection of South Bay Boulevard and Highway 1.	Construction Management Team and Anvil Builders coordinated with Caltrans to revise the traffic control plan to meet Caltrans traffic handling standards as well as queuing along Morro Bay Boulevard off-ramp.	Caltrans approved the traffic control plan. Anvil installed prenotification signs on Highway 1 and implemented TCP stage 19 on December 27 th .
	Completed Jack and Bore trenchless installation across Willow Camp Creek.	Work crossing the Willow Camp Creek by jack and bore construction needed to be complete by November 19 th . During construction, the contractor encountered a large concrete block which dramatically slowed construction.	Contractor had to work longer back to back shifts to remove concrete debris by hand as well as increase production rate in order to make the November 19 th deadline.	Contractor successfully removed the concrete blockage, met the November 19 th schedule and installed the steel casing beneath Willow Camp Creek.
	The City and Program Team has a plan in place for additional tree required to be removed or protected in place.	The Coastal Commission has initially denied the request of the Conveyance Facilities Construction Management team to remove additional trees along the bike path to 1) allow for a safe construction corridor, 2) spread out the pipes in the joint trench to meet DDW separation standards, 3) revitalize the bike with native vegetation, and 4) utilize the newly acquired easement width from Vistra Energy.	The construction management team must provide Coastal Commission justification for the additional tree removal. The team is in process of producing a project memo that addresses these justifications to the Coastal Commission. Additional trees required to be removed will be identified and a request to revise the CDP special conditions report for the Conveyance Facilities will be sent to the Coastal Commission. Additionally, the trees to be protected in place and/or removed will be included in a change order to Anvil for the work outside of their original scope.	The construction management team and the City are anticipating to meet with Coastal Commission to discuss these justifications in early 2022. The City is currently developing a landscaping plan to replace trees removed due to Conveyance Facilities construction.

Table 1 Project Accomplishments and Challenges (continued)

Project Component	Key Accomplishments	Critical Challenges	Actions to Overcome Challenges	Likely Outcomes
Recycled Water Facilities	2-inch Monitoring Well for pilot injection well was installed.	The proposed location of the 2-inch monitoring well required vegetation removal and was not an appropriate site for construction.	GSI Water Solutions (GSI) and the Program Management Team relocated the monitoring well approximately 10 feet to the south of its proposed location.	The monitoring well was successfully installed.
	Pilot Injection Well Bid Opening was on December 9 th , 2021.	No contractor bids were received for the pilot injection well.	The Program Management team revised the bidding documents to allow for a less strict schedule for procurement in order to allow for prospective bidders to procure drilling equipment prior to commencing work. The Pilot Injection Well package will be rebid in January with additional virtual, non-mandatory meetings.	The pilot injection well will be re-bid in late January with a bid opening schedule in mid-March. It is anticipated that a well drilling contractor will be procured for the installation of the pilot injection well and perform the injection testing.

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 to facilitate comparison to both the current fiscal year and baseline budgets.

A summary of the baseline, reconciled quarterly, and fiscal year budgets is provided in Table 2.

Table 3 shows the latest estimate at completion (EAC) for each project component. The EAC considers the City's fiscal year budget and adjusts for City contract amendments, new City consultant contracts, City costs such as labor and administrative expenses, as-needed reallocation from contingency, and other information gathered by the Program Management Team as the project progresses.

Table 2 Budget Revision Summary

Project Component	Baseline (Q4 FY 17/18)	Quarterly Reconciliation (Q3 FY 18/19)	Fiscal Year 19/20 (Q4 FY 18/19)	Quarterly Reconciliation (Q1 FY 19/20)	Quarterly Reconciliation (Q2 FY 19/20)	Quarterly Reconciliation (Q3 FY 19/20)	Fiscal Year 20/21 (Q4 FY 19/20) ⁽³⁾	Quarterly Reconciliation (Q1 FY 20/21)	Quarterly Reconciliation (Q2 FY 20/21) ⁽¹⁾	Quarterly Reconciliation (Q3 FY 20/21) ⁽¹⁾	Fiscal Year 21/22 (Q4 FY 20/21) ⁽²⁾	Quarterly Reconciliation (Q1 FY 21/22)	Quarterly Reconciliation (Q2 FY 21/22) ⁽⁶⁾
Water Reclamation Facility	\$62,414,000	\$74,059,000	\$72,891,000	\$72,598,000	\$72,231,000	\$71,856,000	\$77,828,000	\$77,082,000	\$77,281,977	\$77,087,023	\$77,687,023	\$74,697,995	\$74,697,995
Conveyance Facilities	\$21,087,000	\$27,108,000	\$28,864,000	\$28,524,000	\$29,224,000	\$29,989,000	\$29,840,000	\$37,355,000	\$37,482,000	\$37,482,000	\$37,982,000	\$34,214,311	\$36,319,667
Recycled Water Facilities	\$8,593,000	\$5,366,000	\$5,250,000	\$5,212,000	\$5,353,000	\$5,526,000	\$5,526,000	\$5,740,000	\$5,968,000	\$5,968,000	\$6,668,000	\$6,668,000	\$6,668,000
General Project ⁽⁴⁾⁽⁵⁾	\$24,403,000	\$11,614,000	\$11,801,000	\$11,625,000	\$11,701,000	\$12,964,000	\$13,260,000	\$14,255,000	\$14,445,000	\$14,445,000	\$15,445,000	\$25,589,712	\$25,362,730
Construction Contingency	\$9,444,000	\$6,450,000	\$7,132,000	\$7,131,000	\$7,364,000	\$10,264,000	\$4,207,000	\$4,250,000	\$3,414,023	\$3,608,977	\$6,892,854	\$3,504,859	\$1,626,485
Total	\$125,941,000	124,597,000	\$125,938,000	\$125,090,000	\$125,873,000	\$130,599,000	\$130,661,000	\$138,682,000	\$138,591,000	\$138,591,000	\$144,674,877	\$144,674,877	\$144,674,877

Notes:

- (1) The Project budget is estimated on a quarterly basis (i.e. September 30th, December 31st, and March 31st) and compared to the adopted fiscal year budget by June 30th. Costs shown through Q2 FY 20/21 include the design-build agreement with Filanc and /Black & Veatch (Overland), Carollo Program Management Contract (including subcontracting consultants), and other City consultants. Beginning Q3 FY20/21 this table reflects updated contract amendments and new adopted budgets.
- (2) As presented to City Council on May 25, 2021 for the WRF Q3 2021 Update Report.
- (3) The FY 20/21 budget adopted by City Council was \$130,596,361. The numbers shown in this column, and all columns prior to Q3 FY 20/21, are preserved from prior year quarterly reports.
- (4) Starting in Q4 FY 20/21, General Project includes construction management of the Water Reclamation Facility and the Conveyance Facilities as part of the Program Management costs.
- (5) Starting in Q1 FY 21/22, General Project includes all associated City Costs (e.g. staff salaries and benefits, legal services, land acquisition, supplies, equipment, etc.), and City Contracts for active consultants including construction permitting compliance activities and Program Management costs.
- (6) Breakdown of the Q2 FY 21/22 contingency of \$1,626,485 is as follows: WRF = \$304,859; Conveyance Facilities = \$821,626; and Recycled Water Facilities = \$500,000.

Table 3 Estimates at Completion as of Q2 FY 21/22

Project Component	Original Estimate	Initial Contract Value	Current Contract Value	Expenditures to Date	Estimate at Completion ⁽¹⁾
Design/Build WRF	\$62,414,000	\$67,234,512	\$76,697,995	\$49,221,493	\$74,697,995
Design/Build (FBV/Overland)	--	\$67,234,512	\$76,697,995	\$49,221,493	\$74,697,995
Conveyance Facilities	\$21,087,000	\$32,854,240	\$36,319,667	\$15,673,323	\$36,319,667
Permitting (Cogstone, Far Western, KMA)	--	--	\$1,937,196	\$660,478	\$1,937,196
Design (Water Works Engineers)	--	\$1,360,565	\$2,214,311	\$2,177,773	\$2,214,311
Construction (Anvil Builders)	--	\$31,493,675	\$32,168,160	\$12,835,073	\$32,168,160
Recycled Water Facilities	\$8,593,000	\$351,000	\$944,040	\$599,350	\$6,668,000
Design (GSI)	--	\$351,000	\$933,650	\$588,960	\$933,650
Construction (ABC Liovin)	--	--	\$10,390	\$10,390	\$5,734,350
General Project	\$24,403,000	\$293,000	\$12,105,701	\$17,349,233	\$25,362,730
City Costs ⁽²⁾	--	--	--	\$9,483,492	\$11,889,712
Program Management (Carollo) ⁽³⁾	--	\$293,000	\$11,808,401	\$7,164,399	\$12,200,000
City Contracts ⁽⁴⁾	--	--	\$297,300	\$701,342	\$1,273,018
Contingency	\$9,444,000	--	--	--	\$1,626,485
Water Reclamation Facility	--	--	--	--	\$304,859
Conveyance Facilities	--	--	--	--	\$821,626
Recycled Water Facilities	--	--	--	--	\$500,000

Notes:

- (1) Beginning with the Q4 Fiscal Year 2020/2021 report, the EAC reflects the June 2021 adopted City budget for Fiscal Year 2021/2022 and updated contract amendments.
- (2) City costs include staff salaries and benefits, legal services, land acquisition, supplies, equipment, etc.
- (3) Program management costs include permitting, public outreach, funding support, and construction oversight/management.
- (4) Expenditures to date shown for General Project City Contracts include inactive consultants (such as MKN, Black & Veatch, ESA, and Kestrel) and currently active consultants including Bartle Wells Associates and JSP. Current General Project City Contracts are shown only for currently active consultants.

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 4.

Table 4 WRF Project Performance Measures (through December 2021)

Performance Measure	Data	Baseline (Q4 FY 19/20)	Current (Q2 FY 21/22)	Delta	Status
1: Total Project Costs	Total Project Projected Cost at Completion versus the Baseline Budget	\$130.7 M	\$144.7M	\$14.0M	Ⓡ
1.1: WRF Costs	On Site WRF Projected Cost at Completion versus the Baseline Budget	\$77.8 M	\$74.7 M	\$(3.1) M	ⓖ
1.2: Conveyance Facilities Costs	Conveyance Facilities Projected Cost at Completion versus the Baseline Budget	\$29.8 M	\$36.3 M	\$6.5 M	Ⓡ
1.3: Recycled Water Facilities Costs	Off Site Injection Facilities Projected Cost at Completion versus the Baseline Budget	\$5.5 M	\$6.7M	\$1.2 M	Ⓡ
1.4: General Project Costs	General Project Projected Cost at Completion versus the Baseline Budget	\$13.3 M	\$25.4 M	\$12.1 M	Ⓡ
2: Program Manager Earned Value	Ratio of Program Manager Earned Value to Actual Invoiced Cost-to-Date	1.00	1.00	0	ⓖ
3: Schedule Performance Index	Ratio of Planned Percent Complete to Actual Percent Complete	1.00	1.00	0	ⓖ
4: TSO Compliance Date Countdown	Days Remaining to time schedule order (TSO) Compliance Date of February 28, 2023	789	424	365	ⓖ

LEGENDGREEN: Estimated cost within 5% of target budget, Ratio and Schedule Performance Index ≥ 1.00 , TSO Compliance Date Countdown ≤ 365 daysYELLOW: Estimated cost $> 5\%$ above target budget, Ratio = 0.99 to 0.90 for Program Manager Earned Value and 0.99 to 0.80 for Schedule Performance Index, TSO Compliance Date Countdown between 180 and 364 daysRED: Estimated cost $> 10\%$ above target budget, Ratio < 0.90 for Program Manager Earned Value and < 0.80 for Schedule Performance Index, TSO Compliance Date Countdown > 179 days

Section 3

PROJECT COSTS

3.1 Project Budget

The overall budget status for the Project is summarized in Table 5.

Table 5 WRF Project Overall Budget Status (through December 2021)

Summary of Total WRF Project Cost	
Original Baseline WRF Project Budget ⁽¹⁾	\$125,941,000
Adopted FY 20/21 WRF Project Budget ⁽²⁾	\$130,596,361
Adopted FY 21/22 WRF Project Budget ⁽²⁾	\$144,674,877
Adopted Budget Percent Change (FY 20/21 to FY 21/22)	10.8%
Total Expenditures for FY 21/22 Q2 (10/01/21 to 12/31/21)	\$12,826,421
Total Expenditures to Date (thru 12/31/21 invoices)	\$82,843,400
Percent of FY 21/22 WRF Project Budget Expended to Date	57.3%

Notes:

(1) Developed in June 2018 as the basis of the approved rate surcharge that took effect in July 2019.

(2) The budget for the Project is reviewed on an annual basis near the end of each fiscal year (May) and is adopted by City Council in June prior to each fiscal year.

3.2 Quarterly Expenditures by Budget Code

The current quarterly expenditures as reported by the City's corresponding budget performance report and according to adopted City budget code designations are summarized in Table 6, and expressed by Project component in Table 7.

Table 6 Quarterly Expenditures by Budget Code

City Budget Code ⁽¹⁾	Fund Name	Total Q2 FY21/22 Expenditures ⁽³⁾	Vendor Name	Project Component
4120	Overtime Pay	Summarized in Total Personnel Services below	City of Morro Bay	General Project
4310	Part-Time Pay			
4910	Employer Paid Benefits			
4911	Pension Normal Cost			
4999	Labor Costs Applied			
Total Personnel Services		\$34,124.18	City of Morro Bay	General Project
5114	Laboratory Testing Supplies	Summarized in Total Supplies below	Various	General Project
5115	Water Distribution System Supplies			
5116	Wastewater Collection System Supplies			
5199	Miscellaneous Operating Supplies			
Total Supplies		\$8,457.20	Various	General Project
6101	Legal Services – General	\$21,449.09	Aleshire & Wynder	General Project
6103	Financial Audits	-	-	General Project
6107	Advertising	-	-	-
5307	Blueprint/Copy Charges	-	-	-
6220	Postage (Included in 6710)	\$474.05	Perry's Mail Center	General Project
6301	Electricity	-	-	-
6303	Water	\$123.50	City of Morro Bay	General Project
6510	Meetings & Conferences	-	-	-
6513	Meals & Lodging	-	-	-
6514	Travel Expense	\$1,047.49	Mechanics Bank, Grant Chase	General Project
6640	Maintenance Contracts	-	-	-
6710	Notices & Publications	-	-	-
Total Services		\$23,094.13		
6104	Engineering Services	\$38,993.23	GSI Water Solutions	Recycled Water Facilities
6105	Consultation Services	\$44,894.39	Cogstone, KMA	Conveyance Facilities
6152	Outside Lab Testing	\$3,710.00	Abalone Coast	General Project
6161	Licenses & Permits	\$26,904.50	North County Backflow, State Water Resources Control Board	General Project
6162	Mandated Fees/Inspections	\$10,600.00	US EPA	General Project
6196	Program Management & DB Procurement	\$1,425,718.07	Carollo Engineers and Subconsultants ⁽²⁾	General Project
6197	Grant Support	-	-	-
6198	Government Relations	-	-	-
6640	Maintenance Contracts	-	-	-
7101	Land Acquisition	-	-	-
Total Project Soft Costs		\$1,550,820.19		
6106	Contractual Services	\$1,709,779.54	Anvil Builders, JSP Automation	Conveyance Facilities, General Project
7103	Design/Build-On-Site Improvement Design Phase	-	-	-
7104	Design-Lift Station/Force Main	\$118,837.56	Water Works Engineers	Conveyance Facilities
7105	Planning & Permitting	\$17,911.94	Far Western	Conveyance Facilities
7106	Design-Injection Wells & Recycled Water Pipeline	-	-	-
7107	Design/Build-On-Site Improvement Build Phase	\$9,353,006.30	FBV Overland	Water Reclamation Facility
7108	Injection Well Construction	-	-	-
7109	Lift Station/FM Construction Phase	-	-	-
7110	Pilot Well Construction	\$10,390.00	ABC Liovin	Recycled Water Facilities
Total Construction Costs		\$11,209,925.34		
Total Quarterly Expenditures		\$12,826,421.04		

Notes:

(1) Budget codes correspond to the City's adopted budget for current fiscal year and paid invoices correspond with the City's budget performance report for those codes. Opportunities to reallocate invoice codes or consolidate codes will be considered in future quarters.

(2) Carollo Engineers' active subconsultants include the following: CM Solutions/Quest (Conveyance Facilities schedule review), Earth Systems (Conveyance Facilities materials testing and special inspection), Filippin Engineering (Conveyance Facilities construction inspection), Guida (surveying), JFR Consulting (CEQA support), Katz & Associates (public outreach), KMA (biological resources services), Underwater Resources, Inc. (outfall analysis), Miriaga Engineering Group (WRF Construction Management), Penny Carlo Engineering (industrial users permitting) and Yeh and Associates (geotechnical engineer).

(3) Total quarterly expenditures shown only include invoices paid by the City in this quarter and are derived from a cash basis of accounting using the Accounts Payable reports provided by the City approximately one week after the end of the quarter. Total quarterly expenditures shown may differ from City fiscal year-end budget performance reports that are based on a modified accrual basis of accounting, which reallocates current quarter expenditures for services rendered in prior fiscal year back to June 30, 2021.

Table 7 Quarterly Expenditures by Project Component

Project Component	Expenditures (Q2 FY 21/22)
Water Reclamation Facility	\$9,353,006
Conveyance Facilities	\$1,831,284
Recycled Water Facilities	\$49,383
General Project	\$1,592,748
Total	\$12,826,421

3.3 Project Cash Flow

Figure 1 presents the projected and actual expenditures for the Project through December 2021 compared to the Fiscal Year 2021/2022 budget developed at the end of Q4 Fiscal Year 2020/2021. 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. The cumulative actual and cumulative forecasted expenditures show anticipated project costs over the project duration. The milestone markers correspond to the final completion deadline of the WRF and Conveyance components of the project by February 2023, which coincides with the City being in compliance with the Time Schedule Order (TSO) issued by the RWQCB in June 2018.

A breakdown of the current Q2 Fiscal Year 2021/2022 budget projection by fiscal year compared with total project expenditures to date is included in Table 8.

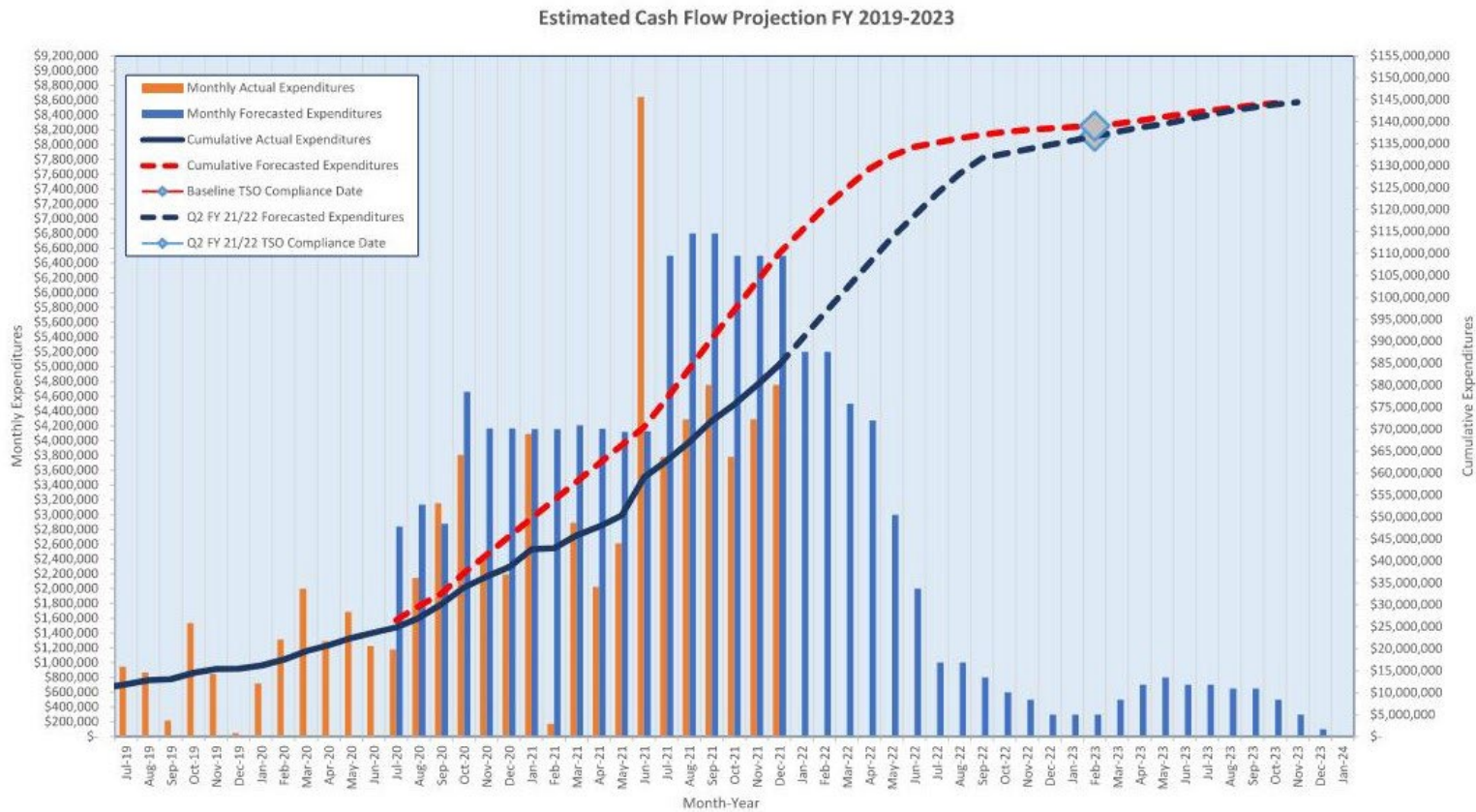


Figure 1 Project Cash Flow Projections and Actual Expenditures

Table 8 WRF Project Expenditures and City Fiscal Year Budgets

Project Component	Total Project Expenditures to Date as of FY 21/22 Q2 ⁽¹⁾	FY 21/22 Budget ^{(2) (8)}	FY 22/23 Budget ⁽²⁾	FY 23/24 Budget ⁽²⁾	Total Project Budget as of FY 21/22 ⁽²⁾
WRF	\$49,221,493	\$33,609,031	\$700,000	\$-	\$73,677,796 ⁽³⁾
Conveyance Facilities	\$15,673,323	\$22,289,569	\$-	\$-	\$38,802,964 ⁽⁴⁾
Recycled Water Facilities	\$599,350	\$2,025,000	\$3,000,000	\$3,000,000	\$8,280,570 ⁽⁵⁾
General Project	\$17,349,233	\$7,748,516	\$1,181,402	\$283,750	\$23,913,546 ⁽⁶⁾
Subtotal	\$82,843,400	\$65,672,116	\$4,881,402	\$3,283,750	\$144,674,877
Contingency	\$-	\$-	Note ⁽⁷⁾	Note ⁽⁷⁾	Note ⁽⁷⁾
Total	\$82,843,400	\$65,672,116	\$4,881,902	\$3,283,750	\$144,674,877

Notes:

- (1) This column reflects activity through the end of the quarter using the quarterly expenditures by project component allocations shown in Table 6. Beginning in Q2 of FY 21/22, some of the consultant expenditures previously allocated to General Project were moved to Conveyance Facilities (Cogstone, Far Western, and KMA), and hence expenditures-to-date shown may differ when compared with the same column from prior quarters.
- (2) This quarterly report Total Project Budget projection reflects the new FY 21/22 WRF Project budget as adopted by City Council in June 2021 as well as future fiscal year City budget projections.
- (3) Breakdown of the Water Reclamation Facility budget by codes from the adopted FY21/22 budget: 7103 (Design/Build WRF Onsite Imprv) = \$59,686,921 and 7107 (Design/Build – On-site Imprv Build Phase) = \$13,990,875. Budget reallocation from another code will be needed during FY 21/22.
- (4) Breakdown of the Conveyance Facilities budget by codes from the adopted FY21/22 budget codes: 7104 (Design-Lift Station/Force Main) = \$2,396,412 and 7109 (Liftstation Pipeline Construction) = \$36,406,552.
- (5) Breakdown of the Recycled Water Facilities budget by codes from adopted FY21/22 budget: 7106 (Design-Inj Wells & Recycled Water Pipeline) = \$1,695,570; 7108 (Injection Well Construction) = \$6,285,000 and 7110 (Pilot Well Construction) = \$300,000.
- (6) Breakdown of the General Project budget includes the remaining codes from the adopted FY21/22 budget not specified in (4), (5), or (6) above. Starting in Q4 FY 20/21, General Project includes construction management of the Water Reclamation Facility and the Conveyance Facilities as part of code 6196 (Prog Mgmt & DB Procure).
- (7) Beginning Q4 FY 20/21 the contingency budget is not broken out within the latest adopted City budget but is accounted for in each project component in the amounts shown in Table 3, Estimates at Completion.
- (8) FY 21/22 Budget amounts exclude carryforward from FY 20/21.

3.4 Project Cost Summary

Table 9 summarizes the cost-to-date and contracted amounts for each of the components of the Project. This table also provides the current cost estimate for each project. Detailed information on the individual components of the Project is provided in Section 7 of this Report.

Table 9 WRF Project Cost Summary (through December 2021)

Project Component	Total Project Expenditures to Date as of FY 21/22 Q2 ⁽³⁾	Contracted Amount to Date	Contracted Amount Expended to Date (%)	Anticipated Total Project Cost ⁽²⁾	Anticipated Total Project Cost Expended to Date (%)
WRF	\$49,221,493	\$76,697,995	64.2	\$75,002,854	65.6
Conveyance Facilities	\$15,673,323	\$36,319,667	43.2	\$37,141,293	42.2
Recycled Water Facilities	\$599,350	\$944,040	63.5	\$7,168,000	8.4
General Project ⁽¹⁾	\$17,349,233	\$12,105,701	Note 4	\$25,362,730	68.4
Total	\$82,843,400	\$126,067,404	65.7	\$144,674,877	57.3

Notes:

- (1) General Project's total project expenditures to date include prior contracts from previous program consultants that are no longer active. General Project's contracted amount to date shows active contracts only, and hence is less than total project expenditures to date.
- (2) Current quarter Estimate at Completion with contingencies included in each project component.
- (3) This column reflects activity through the end of the quarter using the quarterly expenditures by project component allocations shown in Table 6. Beginning in Q2 of FY 21/22, some of the consultant expenditures previously allocated to General Project were moved to Conveyance Facilities (Cogstone, Far Western, and KMA), and hence expenditures-to-date shown may differ when compared with prior quarters.
- (4) The latest contracted amount expended to date of active contracts under General Project is shown in Table 10, General Project Contracts Cost Summary.

3.5 Detailed Project Costs

Tables 10 through 13 present the detailed costs to date for active contracts for each element of the Project.

Table 10 General Project Contracts Cost Summary (through December 2021)

Consultant/Contractor	Actual Expenditures to Date ⁽¹⁾	Total Contracted Cost	Contract Expended to Date (%)
Bartle Wells Associates	\$45,100	\$64,000	70.5
Carollo Engineers, Inc. ⁽²⁾	\$7,164,399	\$11,808,401	60.7
JSP Automation	\$103,590	\$233,300	44.4
Total	\$7,313,089	\$12,105,701	60.4

Notes:

(1) Actual expenditures to date as indicated on City budget performance report and total contracted cost only includes contracts that are currently active.

(2) Includes all Carollo subcontractors under Program Management Contract.

Table 11 WRF Contract Cost Summary (through December 2021)

Consultant/Contractor	Actual Expenditures to Date	Total Contracted Cost ⁽¹⁾	Contract Expended to Date (%)
Overland Contracting	\$49,221,493	\$76,697,995	64.2
Total	\$49,221,493	\$76,697,995	64.2

Notes:

(1) Total Contracted Cost includes final value for Amendment No. 1 through No. 6 of \$1,636,060, \$63,937, \$5,992,218, \$835,097, \$(195,946), and \$1,132,117 respectively and the original contract value of \$67,234,512.

Table 12 Conveyance Facilities Contracts Cost Summary (through December 2021)

Consultant/Contractor	Actual Expenditures to Date	Total Contracted Cost	Contract Expended to Date (%)
Anvil Builders	\$12,835,073	\$32,168,160	39.9
Cogstone	\$279,356	\$1,005,721	27.8
Far Western	\$354,012	\$860,165	41.2
Kevin Merk & Associates	\$27,110	\$71,310	38.0
Water Works Engineers	\$2,177,773	\$2,214,311	98.3
Total	\$15,673,323	\$36,319,667	43.2

Table 13 Recycled Water Facilities Contracts Cost Summary (through December 2021)

Consultant/Contractor	Actual Expenditures to Date	Total Contracted Cost	Contract Expended to Date (%)
ABC Liovin	\$10,390	\$10,390	100.0
GSI	\$588,960	\$933,650	63.1
Total	\$599,350	\$944,040	63.5

3.6 Change Orders

This section presents change orders executed for the WRF and Conveyance Facilities construction activities.

3.6.1 WRF Project Change Orders

The following Amendments have been approved by City Council and have been incorporated into the WRF design-build team's contract, resulting in revisions of the Guaranteed Maximum Price (GMP). Tables 14 through 19 lists the change orders associated with each Amendment.

- Amendment No. 1 – May 2019 (GMP increased by \$1,636,060)
- Amendment No. 2 – March 2020 (GMP increased by \$63,937)
- Amendment No. 3 – May 2020 (GMP increased by \$5,992,218)
- Amendment No. 4 – November 2020 (GMP increased by \$835,097)
- Amendment No. 5 – March 2021 (GMP reduced by \$195,946)
- Amendment No. 6 – September 2021 (GMP increased by \$1,132,117)

Table 14 Summary of Approved Change Orders (Amendment No. 1)

Contract	Change Order No.	Description	Value
WRF	01	New sodium hypochlorite feed for plant water	\$78,576
WRF	02	Change architecture of operations building	\$(21,623)
WRF	03	Headworks odor control	\$18,422
WRF	04	Remove canopy and monorail at membrane bioreactor (MBR)	\$(185,434)
WRF	05	Consolidate chemical facilities	\$218,978
WRF	06	Modify chemical piping	\$(15,856)
WRF	07	Remove solids dumpster lid	\$14,543
WRF	08	Add safe equalization tank	\$504,116
WRF	09	Instrumentation and control changes	\$75,266
WRF	10	Revise maintenance building layout and size	\$516,583
WRF	11	Influent piping and metering	\$411,766
WRF	12	Install outdoor-rated positive displacement blowers at BNR facility	\$(58,210)
WRF	13	Remove bypass of coarse screens	\$(37,137)
WRF	14	Safe diversion box additions	\$58,304
WRF	15	Size dewatering as a building in the future	\$30,983
WRF	16	Stairs for the coarse screens and grit basins (total of 4)	\$52,870
WRF	17	Indirect potable reuse (IPR) product water tank bypass	\$(26,087)
Total			\$1,636,060

Table 15 Summary of Approved Change Orders (Amendment No. 2)

Contract	Change Order No.	Description	Value
WRF	65	Davis-Bacon wage increases	\$63,937
Total			\$63,937

Table 16 Summary of Approved Change Orders (Amendment No. 3)

Contract	Change Order No.	Description	Value
WRF	16	Modify outfall pump station	\$367,632
WRF	19	Reduce size of the product water tank	\$(129,681)
WRF	32	Sulfuric acid system	\$315,652
WRF	37	PLC/SCADA software uniformity (MBR, RO, and headworks only)	\$201,577
WRF	39	NTP delay	\$1,220,532
WRF	40	Headworks valve automation	\$249,946
WRF	41	Perimeter barbed wire fence	\$79,935
WRF	42	UV/AOP system modifications	\$(33,481)
WRF	44	Tank access improvements	\$210,327
WRF	45	Maintenance ceiling revisions and automated roll-up door	\$21,009
WRF	46	Curbed washdown areas	\$76,250
WRF	47	Changes to furnishings and residential equipment	\$85,194
WRF	50	Revisions to water/sewer supply storage sheds	\$13,142
WRF	52	Analyzer relocation and enclosures	\$76,555
WRF	55	Notice of dispute – PG&E temporary power	\$13,163
WRF	56	Impacts of water quality changes	\$282,420
WRF	57	Soil lateral earth pressure	\$116,329
WRF	58	Permanent exclusion fencing	\$855,991
WRF	59	Increased escalation costs	\$1,232,677
WRF	61	Potential change order (PCO) design impacts	\$158,172
WRF	62	Conduit alternative design	\$(268,400)
WRF	64	Reduce performance period	\$(35,450)
WRF	66	Caltrans intersection improvements	\$(21,893)
WRF	67	BNR system modifications	\$742,405
WRF	68	Safe equalization settle tank drain piping	\$62,215
WRF	69	Third party inspection and testing	\$100,000
Total			\$5,992,218

Table 17 Summary of Approved Change Orders (Amendment No. 4)

Contract	Change Order No.	Description	Value
WRF	30	Match sludge blowers to MBR scour blowers	\$17,426
WRF	71	California department of fish and wildlife (CDFW) site access restrictions	\$254,443
WRF	72	Owner trailer utility hook ups	\$19,593
WRF	73	Man gates in perimeter fence	\$27,031
WRF	74	Parking canopy electrical receptacles	\$42,346
WRF	75	Security window at admin building	\$11,079
WRF	76	Additional sodium bisulfite pump	\$58,243
WRF	78	Changed condition - soil slip	\$280,013
WRF	79	Modify water and collection system supply shed	\$10,847
WRF	82	SCADA uniformity	\$108,887
WRF	86	Water shut off valve in Theresa Road	\$5,189
Total			\$835,097

Table 18 Summary of Approved Change Orders (Amendment No. 5)

Contract	Change Order No.	Description	Value
WRF	84	Alternate Red Legged Frog barrier (Ref. PCO 58)	\$(468,768)
WRF	87	Modify alternate conduit design scope (Ref. PCO 62).	\$272,822
Total			\$(195,946)

Table 19 Summary of Approved Change Orders (Amendment No. 6)

Contract	Change Order No.	Description	Value
WRF	77	Covid-19 impacts	\$125,000
WRF	88	Dead-front control panels	\$37,774
WRF	90	24 volts direct current (VDC) digital output circuits	\$25,689
WRF	91	Equipment color (Tnemec 32 light gray)	\$12,500
WRF	92	West cut-slope soil slip reactivation (2021)	\$825,300
WRF	93	NEMA 4x electrical enclosures	\$40,000
WRF	94	Security system revisions	\$25,659
WRF	95	January 2021 storm event (1-26 thru 1-29)	\$40,195
Total			\$1,132,117

3.6.2 Conveyance Facilities Change Orders

The following Amendments have been approved by City Council and have been incorporated into the Conveyance Facilities contractor's contract, resulting in revisions of the total contract price. Tables 20 lists the change orders associated with Amendment No. 1.

- Amendment No. 1 – October 2021 (Contract increased by \$674,485)

Table 20 Summary of Approved Change Orders (Amendment No. 1)

Contract	Change Order No.	Description	Value
Conveyance	1	SHPO Delay (35 days no dig moratorium)	\$443,000
Conveyance	2	Add 2 each 10-inch valves and 10-inch tee	\$23,498
Conveyance	3	PS-B MAS-Relay Pump Protection Module per DC-01	\$13,477
Conveyance	4	PS-A & PS-B Conduit Changes per DC-02	\$6,436
Conveyance	7	Extend waterline relocation from Sta 71+00 and Sta 77+43	\$131,096
Conveyance	12	CA-SLO-2232H Work Interruptions from Sta. 147+00 to 150+00	\$56,978
Total			\$674,485

3.7 Reimbursement from Funding Agencies

In 2017, the City was awarded a \$10.3 million planning loan from the Clean Water State Revolving Fund (CWSRF) program. To date, the City has made four reimbursement requests for the planning loan.

In February 2020, the City executed a \$61.7 million loan with the Environmental Protection Agency's (EPA's) Water Infrastructure and Innovation Act (WIFIA) program. To date, a total of 18 WIFIA reimbursement requests have been made.

In July 2021, the City executed a \$66.6 million construction loan with the CWSRF program. To date, the City has submitted three reimbursement request for the construction loan. A summary of these requests is presented in Table 21.

Table 21 Summary of Reimbursement Requests

Agency	Description	N o.	Date Submitted	Requested	Approved	Received?
				Amount	Amount	
SWRCB	CWSRF Planning Loan	1	Dec-18	\$289,595	\$217,441	Yes
SWRCB	CWSRF Planning Loan	2	Nov-19	\$6,431,295	\$5,312,748	Yes
SWRCB	CWSRF Planning Loan	3	Oct 2020 ⁽¹⁾	\$4,783,797	\$2,415,669	Yes
SWRCB	CWSRF Planning Loan	4	Oct-21	\$930,385	Pending	No
SWRCB	CWSRF Construction Loan	1	Sep-21	\$11,185,434	\$11,185,434	Yes
SWRCB	CWSRF Construction Loan	2	Nov-21	\$10,866,581	Pending	No
SWRCB	CWSRF Construction Loan	3	Dec-21	\$5,463,514	Pending	No
EPA	WIFIA Loan	1	May-20	\$1,100,944	\$1,100,944	Yes
EPA	WIFIA Loan	2	Jun-20	\$61,014	\$50,486	Yes
EPA	WIFIA Loan	3	Jul-20	\$3,489,409	\$3,489,409	Yes
EPA	WIFIA Loan	4	Jul-20	\$2,461,121	\$2,461,121	Yes
EPA	WIFIA Loan	5	Aug-20	\$142,863	\$142,863	Yes
EPA	WIFIA Loan	6	Oct-20	\$1,635,106	\$1,635,106	Yes
EPA	WIFIA Loan	7	Dec-20	\$3,008,572	\$3,008,572	Yes
EPA	WIFIA Loan	8	Dec-20	\$3,671,499	\$3,671,499	Yes
EPA	WIFIA Loan	9	Jan-21	\$5,553,851	\$5,553,851	Yes
EPA	WIFIA Loan	10	Mar-21	\$2,440,399	\$2,440,399	Yes
EPA	WIFIA Loan	11	Apr-21	\$1,621,783	\$1,621,783	Yes
EPA	WIFIA Loan	12	May-21	\$2,988,342	\$2,988,342	Yes
EPA	WIFIA Loan	13	Jun-21	\$3,544,987	\$3,544,987	Yes
EPA	WIFIA Loan	14	Jul-21	\$2,692,977	\$2,692,977	Yes
EPA	WIFIA Loan	15	Sep-21	\$1,328,552	\$1,328,552	Yes
EPA	WIFIA Loan	16	Oct-21	\$488,601.54	\$488,601.54	Yes
EPA	WIFIA Loan	17	Nov-21	\$321,117.49	\$321,117.49	Yes
EPA	WIFIA Loan	18	Dec-21	\$346,278.65	\$346,278.65	Yes
Total				\$76,848,018	\$56,018,181	

Notes:

(1) Reimbursement No. 3 for the CWSRF Planning Loan was originally submitted in December 2019 and was resubmitted in October 2020.

Section 4

PROJECT SCHEDULE

A summary of the Project schedule is presented in Figure 2. Updates to the individual schedules for each Project component are developed by or provided to the Program Management Team on a regular basis. 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 December 2021. 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 the most current schedule and a SPI of less than 1.00 indicates the Project is running behind the most current planned schedule.



Morro Bay WRF Project
Roll-Up Schedule Summary

Printed Date: 2/8/2022
Status Date: 12/31/2021



Figure 2 Project Summary 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 22 are the milestones in the TSO.

Table 22 Time Schedule Order Milestone Summary

Required Actions	Compliance Due Date	Planned Compliance Date	Actual Compliance Date
Release of Public Draft 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	July 05, 2022	-
Full TSO compliance with final effluent limitations	February 28, 2023	July 05, 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 (EHSP) 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.

Table 23 lists an expanded milestone schedule. It has also been developed for outstanding Project activities.

Table 23 Expanded Milestone Schedule

Milestone	Original Date	Current Date
<u>General Project</u>		
Compliance with the TSO ⁽¹⁾	November 11, 2021	July 05, 2022
<u>Water Reclamation Facility</u>		
Begin Construction	April 29, 2019	March 20, 2020 (Actual)
Deliver 90 Percent Design	October 24, 2019	March 31, 2020 (Actual)
Substantial Completion	August 5, 2021	July 12, 2022
Final Completion	October 1, 2021	September 7, 2022
<u>Conveyance Facilities</u>		
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 (Actual)
Substantial Completion	September 17, 2021	March 11, 2022
Final Completion	November 19, 2021	April 25, 2022
<u>Recycled Water Facilities</u>		
Select Preferred Injection Area	May 28, 2019	June 17, 2020 (Actual)
Deliver 30 Percent Design	August 04, 2020	December 22, 2021
Deliver 60 Percent Design	November 10, 2020	March 30, 2022
Deliver 90 Percent Design	February 16, 2021	June 15, 2022
Deliver 100 Percent Design	April 27, 2021	September 14, 2022
Award Construction Contract	July 21, 2021	December 07, 2022
Substantial Completion	April 21, 2022	November 11, 2023
Final Completion	June 21, 2022	December 06, 2023

Notes:

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

Section 5

DESIGN AND PROCUREMENT

5.1 Design Status

No new design contracts for the Project were executed in Q2 Fiscal Year 2021/2022. A summary of the existing design contracts is included in Table 24 below.

Table 24 Design Status (through December 2021)

Project Component	Current Contract Amount	Amount Expended	Percent				Final
			30	60	90	100	
WRF (Design-Build)	\$76,697,995	\$39,868,487	✓	✓	✓	✓	NA
Conveyance Facilities ⁽¹⁾	\$2,214,311	\$2,058,935	✓	✓	✓	✓	✓
Recycled Water Facilities	\$933,650	\$549,967	-	-	-	-	-

Notes:

(1) The Water Works Engineers contract amount included in this table is for both Conveyance Facilities design and Engineering Services During Construction. This contract is excluded from the Project Construction Costs table below.

5.2 Procurement

No design or design-build contract procurements were performed in Q2 FY 2021/2022. Table 25 presents a summary of the procurement activity for the Project.

Table 25 Procurement Status (through December 2021)

Project Component	Circulate Request for Proposals	Proposal Opening Date	Council Award Date	Notice to Proceed Date	Consultant
WRF	January 24, 2018	May 8, 2018	October 23, 2018	November 1, 2018	Overland Contracting (Filanc-Black & Veatch)
Conveyance Facilities	January 31, 2017	March 8, 2017	November 14, 2017	November 15, 2017	Water Works Engineers
Recycled Water Facilities	GSI is currently completing permitting and planning activities. Design Engineer to be Selected in FY 2021/22				

Section 6

CONSTRUCTION STATUS

6.1 Construction Summary

During Q2 Fiscal Year 2021/2022, construction continued for the WRF and the Conveyance Facilities. Table 26 presents a summary of project construction progress and costs through December 31, 2021.

Table 26 Project Construction Costs (through December 2021)

Project Name	Amount Expended	Initial Contract Amount	Current Contract Amount	% Change in Contract Amount
WRF	\$53,767,175	\$67,234,512	\$76,697,995	14.1
Conveyance Facilities	\$17,150,442	\$31,493,675	\$32,168,160	2.1
Recycled Water Facilities	\$-	\$-	\$-	0
Construction Total	\$70,917,617	\$98,728,187	\$108,866,155	10.3

6.2 Upcoming Traffic Control

6.2.1 Planned Impacted Areas

Construction activities for the Conveyance Facilities continued in several work zones:

- Pump Station A near the Existing WWTP on Atascadero Road.
- Pump Station B at the intersection of Quintana and Main Street.
- Pipeline installation along Quintana Road between Main Street and Kennedy Way.
- Utility bridge installation at Morro Creek.
- South Bay Boulevard between Atascadero Road and Highway 1 on-ramp/off-ramp.

6.2.2 Hours of Planned Lane/Road Closures

The City approves traffic control plans for the 21 designated traffic areas that are outlined in the Project plans. Throughout Q2, the necessary traffic control plans were set in place to provide a safe work area for the Contractor as well as provide a safe detour or means of through traffic for Morro Bay commuters. Anvil continues to traffic control measures on Quintana Road between South Bay Boulevard and La Loma. As Anvil progresses along Quintana Road to the roundabout, the traffic control changes based on the location of the trench and pipeline configuration.

The community is encouraged to obtain additional information on current road closures/conditions from the WRF website (www.morrobaywrf.com) or by calling the Project hotline at 877-MORROBAYH2O.

6.3 Construction Safety

The Project safety goal is zero reportable incidents. Every weekly progress meeting includes a brief safety moment between the Program Management Team and both FBV and Anvil to discuss safety topics encountered in the field. There were no construction related incidents reported between October 1, 2021 and December 31, 2021.

Section 7

OTHER PROGRAM ACTIVITIES

7.1 Public Outreach

As part of the construction of the Conveyance Facilities component of the Project, the Program Manager has been engaged in a number of public outreach activities. The following activities occurred during Q2:

- Updated the WRF website with regular construction information on homepage and Construction Information page.
- Coordinated with contractor for distribution of bilingual doorhangers on immediately impacted residences and businesses in several work areas.
- Continued to build stakeholder database email list for regular email correspondence.
- Developed bi-weekly e-blasts to highlight construction schedule look-ahead information and promote virtual community outreach meetings.
- Responded to regular community inquiries from project phone line and email address, and coordinated with team members when necessary.
- Conducted multiple rounds of business visits to communicate about construction in specific areas.
- Worked with construction team on traffic control configuration planning, and traffic control and circulation concerns from the community.

Additional near-term public outreach activities include:

- Developing bi-weekly e-blasts and as-needed construction notices to convey construction look-ahead information to stakeholders and the public.
- Obtaining media coverage about milestone construction activities.
- Working with contractor to distribute doorhangers to properties with 24-hour and seven-day lead times.
- Visiting businesses before work in new areas.
- Responding to inquiries received from community members.

7.2 Permitting Activities

Permit compliance is an important aspect of the Project. The current permitting activities include:

- Regional Water Quality Control Board:
 - In order to obtain a National Pollution Discharge Elimination System (NPDES), the City must submit a Report of Waste Discharge (ROWD) to the RWQCB. The Program Manager submitted the Draft ROWD to the RWQCB in March 2021 and provided additional data in November 2021, which is currently under review.
- Division of Drinking Water:
 - The Title 22 Engineering Report is required by Division of Drinking Water (DDW) before the City can receive a potable reuse permit. The Program Manager delivered

an initial Draft of the Title 22 Engineering Report to the City for review in June 2020. The revised draft, including comments from City staff, was submitted to DDW in July 2020. During Q3 Fiscal Year 2020/2021, the City and Program Manager have received comments from DDW and has had several meetings to review their comments. The Program Management Team met with DDW during Q1 FY 21/22 to discuss the various treatment equipment processes proposed to be installed at the WRF site.

- The City is working with DDW to obtain a variance from their typical pipeline separation requirements due to the width of the trench for the Conveyance Facilities pipelines and the limited ROW for much of the alignment. The City has been coordinating with DDW on this issue since early 2019 and submitted a formal application to DDW in August 2020. Since that time, the City has had a meeting to review the information provided and has provided supplemental information to aid DDW's review. The City, the Construction Management Team, and the Waterworks Engineers has addressed all of DDW's comments and submitted their response to DDW in at the end of December 2021.
- Caltrans:
 - The City obtained the encroachment permit from Caltrans for construction of the Conveyance Facilities pipelines in August 2020. In June the Program Manager approached Caltrans to revise their encroachment permit for the Conveyance Facilities project to extend the permit expiration date and to revise the design at the Atascadero Road and Highway 1 on-ramp.
 - The Construction Management Team received approval from Caltrans on Traffic Control Stage 19 at South Bay Boulevard and Highway 1 in addition to the traffic routing patterns for detoured traffic at Morro Bay Boulevard and the City roundabout. The Construction Management team also received approval from Caltrans to display pre-notification signage on December 13 for South Bay Boulevard traffic to expect to be detoured starting on December 27, 2021.
- California Department of Fish and Wildlife:
 - The City must have a Stream Bed Alteration Agreement (SAA) (as required) from the CDFW before work can begin along certain segments on the bike path for the Conveyance Facilities component of the Project. The City submitted the revised notification in January 2020 and received notification from CDFW on May 4 that their SAA had been approved and they are cleared for construction.
 - There was no activity for CDFW in Q2 2021.
- State Historic Preservation Office:
 - The PA negotiated with the SHPO requires that a mitigation and monitoring plan be developed for each element of the project (i.e., WRF, pipelines, and injection wells). The City submitted the mitigation and monitoring plan to EPA for distribution to SHPO in October 2020. The City has received notification from the EPA regarding SHPO's response on March 15, 2021. The response stated that the City may proceed with construction by implementing the appropriate cultural resources monitoring and mitigation measures for areas along Main St., Quintana road and both lift stations. Far Western has performed the archeological clearance testing for the LS-2 alignment and the pilot injection well in late May 2021 and found the findings largely negative. Far Western completed their Phase 2 Monitoring and Mitigation

plan and transmitted to the EPA for transmittal to SHPO on September 23, 2021. City staff and the Program Management Team received correspondence from SHPO on November 2, 2021 that they did not completely agree and approve the monitoring and mitigation plan for Phase 2B of the conveyance facilities project. The program management team, EPA, Far Western, and SHPO met virtually on December 7, 2021 to further discuss and come to an agreement on monitoring and reporting requirements for Phase 2B. The conveyance facilities contractor is expected to begin work on Phase 2B in late January 2022.

7.3 Funding Status

- Continued to support CWSRF's technical, legal, and financial reviews. The City executed the CWSRF Construction Loan on June 30, 2021. City staff and the Program Management Team continue to develop final disbursement documents, including costs incurred by both Anvil Builders and FBV to request reimbursement from SRF. The City sent its second and third construction loan disbursement request to SRF in November and December 2021 respectively.
- In 2017, the City received a \$10.3 million planning loan from the SWRCB. As of Q2 FY 21/22, the City has submitted four (4) disbursement requests to SWRCB. All four disbursement results result in a total disbursement to the City of \$8.88 million therefore approximately \$1.42 million remains. City staff and the Program Management Team are currently preparing a fifth disbursement request to the State that is expected to be sent in Q3 FY21/22. The City and Program team will continue to utilize the planning loan as much as possible to cover design and planning costs to take full advantage of this funding opportunity.
- The United States Department of the Interior Bureau of Reclamation released its WaterSmart Title XVI WIIN Notice of Funding Opportunity in mid-March 2021. The City prepared an application and submitted to USBR on April 22, 2021 and received notification on July 30, 2021 that they were not selected to receive the grant. The City and Program Management Team met with USBR funding staff on September 1, 2021 to debrief on the grant application and scoring metrics.

7.4 City Operations Activity

Significant City Operations activities are not anticipated until start-up of the WRF begins in early 2022.

Section 8

PROJECT DETAILS

8.1 Water Reclamation Facility

8.1.1 Design/Build

In October 2018, the City executed a contract with Overland Contracting consisting of a joint venture of Filanc and Black & Veatch (i.e., design-build team) for design and construction of the WRF located at the South Bay Boulevard site. The WRF will be delivered using the design-build process.

8.1.2 Project Scope

The scope of this element of the Project includes a preliminary, secondary, and advanced treatment facilities. The secondary treatment processes will consist of an MBR and have the ability to exceed the anticipated discharge requirements for the City's new NPDES permit. The advanced treatment facilities include RO and UV-AOP. Purified water from the advanced treatment facilities will be injected into the Lower Morro Groundwater Basin.

8.1.3 Current Progress

The design-build team has continued to progress the construction of the WRF and is on track to reach substantial completion in July 2022. On March 20, 2020, the City issued the construction NTP to the DB team for the WRF. For Q2 of FY 2021-2022, the following activities were completed between October 1, 2021 and December 31, 2021:

General and Administrative

- Contractor continues to maintain SWPPP Best Management Practices (BMPs).
 - The State Waterboards issued two separate Notice of Violation (NOV) pursuant to BMP use.
 - NOV dated 11/8/2021 was responded to by DB Team and City on 12/17/2021.
 - NOV dated 12/20/2021 is pending and response will be submitted by 1/7/2022 deadline.
 - Both notices allege failure to implement soil cover and erosion control BMPs in inactive areas.
 - The DB team has implemented extensive additional BMPs in response to the Notices.
- Contractor continues to adhere to pertinent mitigation measures stipulations.
- Contractor/subcontractors continue to comply with Davis-Bacon Act requirements.
- Several requests for public information were responded to during the reporting period.
- Contractor continues equipment submittals, procurements, subcontract administration, etc.:
 - Submittal processing is on-going - 495 items submitted and/or approved to date.
 - DB Team has processed 253 requests for information (RFIs) and 32 Design Clarifications to date.

- Contractor continues to prepare and submit critical path method (CPM) schedule updates monthly:
 - Contractor's December 2021 CPM schedule update indicates 32 days late in achieving both substantial completion and final acceptance, based on current contractual completion dates.
 - Carollo and the DB Team met in December 2021 to discuss current schedule for WRF process commissioning, and coordination with the Conveyance Facility project completion. It is currently estimated that the Conveyance facilities will not be completed in time to facilitate the DB Team's current commissioning schedule. A second meeting is scheduled in January 2022 to further discuss impacts and potential workarounds.

Sitework

- Contractor has completed major earthwork operations including filling, compacting, and grading.
- Contractor has installed class 2 aggregate base at all areas to receive asphalt paving.
- Landslide remediation:
 - On January 28, 2021, a cut-slope landslide area reactivated. The DB Team performed site investigations and developed remediation plans. The remediation work was completed during the reporting period. The City will provide on-going inclinometer monitoring.
- Contractor has completed yard piping and continues pressure testing underground piping systems.
- Contractor continues work on minor service piping, equipment drains, etc.
- Electrical subcontractor completed street lights, started pulling power cables and control wires through underground duct banks and vaults, and completed all PG&E service connection facilities.

Headworks

- Continued installation of process piping, valves, supports, appurtenances, handrails, etc., associated with the headworks equipment including the course screens, grit removal equipment, fine screens, odor control, and SAFE diversion box.
- Completed concrete drain slabs for dumpsters at course screens, grit classifiers, and fine screens.

BNR/MBR Treatment

- Installing MBR equipment (Suez) including pumps, blowers, compressors, instruments, panels, etc.
- Continued installation of process piping, valves, supports, appurtenances, stairs and platforms, handrails, etc., associated with the BNR Basins, MBR equipment, WAS/scum pump station, etc.
- Installing stainless steel process air piping for the BNR basins and MBR equipment.
- Installing slide gates, propeller mixer equipment, etc., in the BNR basins.

RO/UV-AOP

- Electrical subcontractor continued installing panels, conduits, boxes, etc. in the electrical room.
- Electrical subcontractor started pulling/terminating power conductors and control wires in panels.
- Continued installing reverse osmosis (RO) equipment (H2O Innovation) including three RO skids.
- Started installation of Trojan UV Flex (AOP) equipment.
- Continued installing process piping, pipe support racks, HVAC equipment, building amenities, etc.

Product Water Facilities

- Continued installing Calcite Facility equipment including 2 each calcite filter tanks, flush pumps and backwash supply tank, and connecting process piping, valves, supports, etc.
- Continued installation of IPR/Outfall pump station equipment including pumps, piping, valves, etc.

Residuals/Sludge Processing

- Installing residuals area (dewatering) equipment including the belt filter press (Charter), sludge pumps, polymer mixing and feed system, process piping, valves, supports, appurtenances, etc.
- Installing SAFE Filter area equipment including the cloth disk filter (Aqua-Aerobics), sludge pumps, backwash pumps, process piping, valves, supports, appurtenances, etc.
- Installing sludge holding tank equipment including blowers (Aerzen), stainless steel Process Air piping, propeller mixer equipment, sludge piping, pipe supports, appurtenances, etc.

Electrical and Controls

- Electrical subcontractor continued major panel installations in the building including the main switchgear SWB-1, Motor Control Centers 1 & 2, and the main PLC panel.
- Electrical subcontractor continued installing other smaller panels, conduits, boxes, etc.
- Electrical subcontractor started pulling/terminating power conductors and control wires in panels.
- SWB-1 has been inspected/approved by an ICC certified electrical inspector and the City's building and safety office has issued the "green-tag" sticker allowing PG&E to connect power.
- Electrical subcontractor has initiated the PG&E service connection and it is anticipated that the site will be powered by late January or early February 2022. This is a major project milestone.

Chemical Storage and Feed

- Contractor coating containment areas and installing chemical feed pump skids and storage tanks.
- Electrical subcontractor installing power distribution panels/equipment, and installing PLC panels.

Operations Building

- Building interior work continued including Break Room and Copy Room cabinets, Control Room console, 54-inch monitors (multiple), locker room and bathroom fixtures, HVAC equipment, etc.
- Electrical subcontractor installing SCADA server rack, panels, conduits, boxes, etc. in electrical room.
- Electrical subcontractor pulling and terminating cable and wire throughout the building.

Maintenance Building

- Building interior work continued including laboratory casework, appliances, doors, bathroom fixtures, HVAC equipment, lighting, electrical, storage racks, fire protection systems, etc.

City Yard Facilities

- Completed remaining building erections of roofing and paneling (materials were backordered).
- Installing roll-up doors, pedestrian doors, building amenities, etc., at the Storage Shed building.

8.1.4 Project Challenges

- West Cut Slope Soil Slip (Re-Activation):
 - The DB Team's landslide remediation work is completed including installation and baseline readings for the added slope inclinometers. This item has been resolved
- PG&E Easement Concerns:
 - PG&E and the City have resolved issues and signed a letter agreement regarding utility easement rights on Teresa Road and the WRF Access Road. This item has been resolved.
- SoCal Gas Easement Concerns:
 - SoCal Gas and the City have tentatively resolved existing utility easement rights on Teresa Road and the WRF Access Road. The City is pursuing a grant deed from the easement property owner on behalf of, and as required by, SoCal Gas. This item is not resolved.
- Covid-19 Material Shortages and Equipment Delivery Delays:
 - The DB Team continues to track cost and schedule impacts caused by COVID-19 supply chain disruptions. This item is not resolved
- Potential Delays due to Conveyance Facilities estimated late completion:
 - The City and DB Team are currently tracking the estimated late completion of Conveyance Facilities by Anvil. The City and DB team are coordinating to mitigate potential delay impacts. This item is not resolved.
- State Waterboards SWPPP Notice(s) of Violations:
 - The State Waterboards has now issued two separate Notice of Violation (NOV) documents pursuant to WRF site BMP implementation. The first NOV was issued 11/8/2021, and City response was submitted 12/17/2021. The second NOV was issued 12/20/2021 and the City's response is due to the State by 1/7/2022. Both NOV(s) allege failure to implement soil cover and erosion control BMPs in inactive areas. The DB Team continues to implement additional BMPs in response to the

NOVs, including adding over 13,000 feet of straw waddle and silt fences, and adding extensive permanent and temporary aggregate base and gravel surfacing. The DB team will issue 2nd NOV response by 1/7/2021 deadline. This item is not resolved.

Table 27 WRF Performance Measures

Performance Measures	Target	Current
Construction Cost ⁽¹⁾	\$67.2M	\$76.7M
Construction Contingency ⁽²⁾	\$9.1M	\$0.3M

Notes:

(1) The GMP includes costs for both design and construction of the WRF (through Amendment No. 6)

(2) For Q2 of FY 21/22, the total contingency remaining for all components is approximately \$1.6M. Approximately \$0.3M is allocated to the WRF.

Table 28 WRF Construction Summary

Schedule		
Request for Bid / Bid Advertisement		January 24, 2018
Bid Opening Date		May 08, 2018
Contract Award / Council Award Date		October 23, 2018
Notice to Proceed (Design)		November 05, 2018
Notice to Proceed (Construction)		March 20, 2020
Original Final Completion Date		August 23, 2022
Original Duration (Calendar Days)		886
Days Changed by Change Order		15
Actual Final Completion Date (including Calendar Days)		September 7, 2022
Schedule Percent Complete		72.3% (651 days / 901 days)
Budget		
Engineer's Estimate (Construction Cost + 10% Construction Contingency)		\$73,475,845
Award Amount (including Design Cost)		\$67,234,512
Change Order Total		\$9,463,482
Current Contract Value		\$76,697,994
Percent Change		14.1%
Work Completed		
Actual Cost -to-Date		\$53,767,175
Percent Complete (Percent Expended)		70.1%
Construction Oversight Statistics		
	PCOs	COs
Total Received	105	N/A
Total Approved	N/A	66 ⁽¹⁾
Total Pending	8	0
Average Turnaround (calendar days)	N/A	N/A

Acronym List: PCO – Proposed Change Order; CO – Change Order

(1) 66 PCOs have been approved and are reflected in Amendment No. 1, 2, 3, 4, 5, and 6 to the Design-Build Agreement.

8.2 Conveyance Facilities

8.2.1 Designer

In November 2017, the City executed a contract with WWE for design and engineering support for the facilities necessary to connect the existing WWTP and the new WRF.

8.2.2 Contractor

The City awarded a contract to Anvil for construction of the Conveyance Facilities component of the Project on November 10, 2020. A construction NTP was issued on December 14, 2020 and Anvil began construction in January of 2021.

8.2.3 Project Scope

The Conveyance Facilities include the design of approximately 3.5 miles of pipelines and two lift stations. The pipelines include two raw wastewater force mains, a wet weather/brine discharge force main, and a potable reuse pipeline to the west injection area.

8.2.4 Current Progress

General and Administrative

- Anvil continues to maintain their project field office at 853 Quintana Road (near Roundabout).
- Contractor continues to maintain SWPPP BMPs and adhere to pertinent mitigation measures.
- Contractor/subcontractors continue to comply with Davis-Bacon Act requirements.
- The City responded to requests for public information pursuant to bike path tree removals.
- Contractor continues equipment submittals and procurement activities.
 - Submittal processing is on-going - 252 items submitted and/or approved to date.
 - RFI processing is on-going - 112 items submitted and/or resolved to date.
- Contractor's submission of CPM schedule updates is on-going. Contractor's Oct/Nov CPM schedule update has been submitted and is under review by the construction manager.
 - City/Contractor have executed a 40 calendar day time extension for the PCO #1 SHPO delay.
 - The current contractual Final Acceptance Date is April 3, 2022.
 - Contractor's Oct/Nov CPM schedule update indicates project commissioning in June/July 2022. The WRF DB Team's current schedule updates indicate plant commissioning in April/May 2022.
 - Contractor and City continue to evaluate impacts of various pending change orders, and are also coordinating to mitigate potential impacts from the current estimated project completion.
- The City continued its public relations/outreach effort as described in previous quarterly reports.

Pump Station A

- Contractor corrected dewatering systems and achieved geotechnical approval of structure subgrade.
- Contractor set forms, installed rebar, and placed concrete for the wet well slab-on-grade.
- Contractor set forms, installed rebar, and placed concrete for the wet well walls.
- Contractor removed wet well forms, leak tested wet well, and began wet well structure backfill.
- Contractor prepared subgrade and set the 3 each 96" diameter (precast concrete) underground influent storage tanks including backfilling below spring-line with CLSM and above with import select fill. Installing tank manhole access shafts (there are 2 ea. precast concrete shafts per tank).
- Installing main influent sewer manhole and sanitary sewer yard piping between each tank and the wet well.

Pump Station B

- Contractor continued installing yard piping including force main (FM) 1, FM2, indirect potable reuse (IPR) pipeline, 24" sanitary sewer, 8" sanitary sewer, etc.
- Electricians installed electrical building under slab conduits and stub-ups, and backfilled with red CLSM.

Pipeline

The contractor is currently working at two different locations within the City for the pipeline installation of the Conveyance facilities. Note: Throughout this report "Joint Trench" refers to FM1 & FM2 (wastewater force mains), BR (brine/outfall line), FO (fiber optic conduit), and in some locations IPR (purified water) in casing. Work was performed at each of the different segments listed below:

- Segment 1 - Atascadero Road (Existing City Wastewater Treatment Plant to Bike Path).
- Segment 2 – Bike Path (Atascadero Road to Morro Creek Foot Bridge)
- Segment 3 – Bike Path (Morro Creek Foot Bridge to Main Street).
- Segment 4 – Main Street (Bike Path to Quintana Road)
- Segment 5 – Quintana Road (Main Street to Morro Bay Blvd).
- Segment 6 – Quintana Road (Morro Bay Blvd to La Loma Avenue).
- Segment 7 – Quintana Road (La Loma Avenue to South Bay Blvd).
- Segment 8 – South Bay Blvd (Quintana Road to New MB WRF)
- Segment 9 – Vistra Property (Bike Path to Existing Lift Station 2)

The following items were completed along Segment 1:

- Pump Station A is located along this segment; there was no trenching work in street this period.
- Contractor continues to stage equipment and materials on City property along Atascadero Road.

The following items were completed along Segment 2:

- Contractor has closed the Bike Path in this segment; there was no trenching activity this period.

The following items were completed along Segment 3:

- Contractor has closed the bike path in this segment; there was no trenching activity this period.
- Contractor began clearing and grubbing, and installing temporary fencing, for the 70 foot wide construction easement provided in this segment. Clearing and grubbing was stopped due to Coastal Commission's tentative denial of the City's request to remove additional trees as necessary to complete the joint trench installation.
- Subcontractor (Pacific Boring) completed the jack & bore casing installation for the trenchless crossing of Willow Camp Creek (Jurisdictional Wetlands). Pacific Boring encountered a concrete obstruction during the work causing approximately a one-week delay while crews removed concrete by hand from within the 60-inch casing pipe. Jack & Bore work was completed on Friday, Nov. 19, 2021.
- Contractor continues using assigned staging area on Vistra property (using bike path for access).

The following items were completed along Segment 4:

- Pump Station B is located along this segment. Contractor connected pump station yard piping to pipelines in the street right-of-way, including the 24-inch gravity sewer (influent), and FM1/FM2 (effluent).
- Completed joint trench installations, backfill, paving, etc., from approximately station 58+00 to Sta 64+00
- Completed separate IPR pipeline installation, backfill, paving, etc. from approximately stations 58+00 to Sta 64+00.
- Contractor implemented partial road closures in this segment during the reporting period.

The following items were completed along Segment 5:

- Completed joint trench from Sta 64+28 (angle point) toward Segment 4 (Main St). This work included the joint trench penetrating an existing retaining wall at Quintana and Main Street.
- Contractor previously completed the 60-inch microtunnel boring machine casing pipe below the Morro Bay Boulevard Roundabout. This period, the Contractor inserted multiple joint trench carrier pipelines into the 60-inch casing pipe.
- Contractor implemented partial road closures in this segment during the reporting period.

The following items were completed along Segment 6:

- Continued Joint Trench installation, backfill, partial paving, etc. from approximately Sta. 101+00 to Sta 113+00.
- Contractor implemented partial road closures in this segment during the reporting period.
- Contractor maintaining temporary above-grade sewer by-pass pipe along this segment.

The following items were completed along Segment 7:

- Completed IPR pipeline installation, backfill, paving, etc. from approximately Sta 126+00 to Sta 144+00.
- Contractor implemented partial road closures in this segment during the reporting period.
- Contractor maintaining temporary above-grade sewer by-pass pipe along this segment.

The following items were completed along Segment 8:

- On December 27th, after significant planning and coordination, South Bay Blvd was closed to all traffic between Quintana and Caltrans R/W (at CA Route-1). Caltrans has approved the closure and all ramps at the Route-1 interchange remain open. South Bay Blvd traffic between Morro Bay and Los Osos is being detoured along Quintana to Morro Bay Blvd.
- Contractor began potholing existing utilities on South Bay Blvd during the last week of the period (no joint trench work occurred).

The following items were completed along Segment 9:

- No trenching or potholing activities.

Existing Lift Station 2

- No activities.

Existing Lift Station 3

- Contractor maintaining temporary above-grade sewer by-pass pipe from Lift Station 3.

8.2.5 Upcoming Activities

Anvil is scheduled to complete the following activities during Q3 FY 21/22:

- Preparation and excavation of Morro Creek utility bridge abutments.
- Preparation and installation of pipelines between stations 27+00 to 37+00.
- Installation of pipeline along bike path.
- Assisting Far Westerns archaeological monitoring and mitigation at cultural resources site between stations 27+00 and 37+00.
- Installation of pipelines in South Bay Boulevard between Quintana Road and HWY 1 on-ramp/off-ramps.
- Installation of carrier pipes within 60-inch steel casing beneath roundabout.
- Installation of carrier pipes within Willow Camp Creek steel casing.
- Above ground mechanical and electrical at Pump Station A.
- Above ground mechanical and electrical at Pump Station B.

8.2.6 Project Challenges

- Atascadero Gravity Sewer Pipeline Addition – PCO #6:
 - Contractor submitted a quote to perform the associated work in excess of City's budgeted amount. The City has decided to bid the work as a separate project (part of a separate City capital improvements budget). This item is not resolved.

- Archaeological Site between stations 27+00 and 37+00 Work Revisions and SHPO Delays – PCO #13:
 - Caltrans has approved work revisions at CA-SLO-16 to partially mitigate ground disturbance. However, the City continues to petition SHPO for resolution of remaining items. Currently SHPO is requiring additional field investigations and submissions of information to proceed. This item is not resolved.
- SLO County APCD Determination – PCO #28:
 - The City has received APCD notice of non-compliance for Pump Station A and Pump Station B emergency standby generators. The City is currently (1) performing Health Risk Assessments at both pump stations, and (2) procuring the additional required Best Available Control Technology (BACT) to achieve the mandated Tier 4 compliance level. This item is not resolved.
- Microtunnel Boring Machine Obstruction Claim – PCO #14 and PCO #27:
 - The City and Anvil have tentatively resolved the MTBM subcontractor (Vadnais) claims. A settlement amount is included in pending Amendment No. 2. The MTBM casing installation is also completed. This item is resolved.
- Bike Path Joint Trench and Waterline Re-Design – PCO #30:
 - The City is currently working on Joint Trench alignment revisions along the Bike Path to better utilize the 70-ft wide utility easements obtained from Vistra and PG&E, between Morro Creek and Camp Willow Creek. City will provide authorization to proceed with revisions once realignments are finalized. This item is not resolved.
- Bike Path Tree Removal Concerns:
 - Contractor began clearing/grubbing, and installing temporary fencing, for the 70-ft wide utility easement along the Bike Path. However, clearing/grubbing work was stopped due to Coastal Commission's preliminary denial of a City request to remove additional trees as necessary to complete the project work. The Program team is currently working on a follow up request to Coastal with justifications of the needed tree removals, which state the removals are absolutely necessary to safely complete the project work and the City has begun developing landscaping plans to restore, replace, and improve Bike Path vegetation after the work. This item is not resolved.

Table 29 Conveyance Facilities Performance Measures

Performance Measures	Target	Current
Construction Cost	\$24.2M	\$32.2M
Construction Contingency ⁽¹⁾	\$2.5M	\$0.8M
Number of Feet of Pipelines Constructed	37,089 lf	22,459 lf
Number of Days of Full Road Closures	N/A	10 Days
Number of Hours of Night Work	N/A	15 Hours

Notes:

(1) For Q2 of FY 21/22, the total contingency remaining for all components is approximately \$1.6M. Approximately \$0.8M is allocated to the Conveyance Facilities.

Table 30 Conveyance Facilities Summary

Schedule				
Request for Bid / Bid Advertisement			June 16, 2020	
Bid Opening Date			August 12, 2020	
Contract Award / Council Award Date			November 10, 2020	
Notice to Proceed for Construction			December 14, 2020	
Original Final Completion Date			February 22, 2022	
Original Duration (Calendar Days)			435	
Days Changed by Change Order			40	
Actual Final Completion Date			April 22, 2022	
Schedule Percent Complete			87.8% (382 days /435 days)	
Budget				
Engineer's Estimate (Construction Cost + 10% Construction Contingency)			\$26,657,000	
Award Amount			\$31,493,675	
Change Order Total			\$674,485	
Current Contract Value			\$32,168,160	
Percent Change			2.10%	
Work Completed				
Actual Cost -to-Date			\$17,150,442	
Percent Complete (Percent Expended)			53.3%	
Length of Pipe Installed (Actual to Date/Planned Total)			22,459 lf / 37,089 lf	
Construction Management Statistics				
	RFIs	Submittals	PCOs	COs
Total Received	107	245	39	1
Total Responded To	85	229	11	1
Total Pending	22	16	28	1

8.3 Recycled Water Facilities

8.3.1 Designer

Procurement activities for the final design of the Recycled Water Facilities have not yet begun. Phase 1 and Phase 2 of the hydrogeological work has been completed by GSI and work on Phase 3 (i.e., pilot injection testing) will be completed in Spring 2022. The Program Manager also anticipates the injection well final design to begin in Fall 2022.

8.3.2 Contractor

This element of the Project is being delivered via a conventional design-bid-build procurement process. The Recycled Water Facilities will begin construction in late 2022 or early 2023.

8.3.3 Project Scope

Since the potable reuse pipeline from the WRF to the selected injection site was moved into WWE's scope for design of the Conveyance Facilities, this element of the Project consists primarily of full-scale injection wells at the west injection site. It is anticipated that the scope of work for the final injection well field design will include, but is not limited to, the following:

- Alternatives analysis and preliminary design report
- Injection well design
- Electrical and instrumentation design and integration
- On-site linear infrastructure
- Above and below-ground mechanical piping and supporting infrastructure
- Injection well back-wash facilities and supporting infrastructure
- Facility and infrastructure flood proofing
- Engineer's estimate of potential cost
- Regulatory permitting

8.3.4 Current Progress

GSI has completed Phase 1 and is currently working on Phase 2 of the hydrogeological work, which has culminated in the selection of the west injection area and preliminary siting of the injection wells. In Q2, the following preliminary design and construction items were progressed for the Recycled Water Facilities by the Program Management Team:

- GSI continued to develop and refine their groundwater injection and extraction model of the Morro groundwater basin and the City's existing well infrastructure.
- The City, Carollo, and GSI continued to make progress toward bidding the Pilot Inject Well Project. Bidding Documents for the project were finalized by the City on November 2nd, 2021.
- The pilot injection well went out to bid on November 2, 2021.
- A pre-bid conference was held onsite on November 18, 2021 with 4 prospective bidders in attendance.
- Bid opening was scheduled for December 9, 2021 at 10:00 AM. The City received no bids for this contract.
- Photo below shows the staked pilot injection well. It was decided that the pilot injection well would be shifted 10 feet north in order to accommodate constructability within the easement.
- ABC Liovin, the selected contractor to install the monitoring well, completed the installation of the pilot injection well monitoring well.
- With the installation of the monitoring well, GSI Water Solutions, extracted intact soil samples to be used for a geochemical analysis. Results of the geochemical analysis are expected in early 2022.

8.3.5 Upcoming Activities

The next phase of hydrogeological work is pilot injection testing, which consists of the following elements:

- Design of the pilot injection well (Completed November 2021).
- Construction of the pilot injection well monitoring well (April/May 2022)
- Conducting pilot testing (Anticipated May to June 2022).

8.3.6 Project Challenges

The pilot injection well bid opening was scheduled for December 9th, 2021. The City did not receive any bids at bid opening, therefore the procurement of a well driller is postponed until another bid package can be advertised. The Program team anticipates that the pilot injection well will go to bid in early 2022 with revised procurement requirements attracting more prospective bidders. The Recycled Water Facilities pilot injection well installation and injection testing plan are the critical path items to the begin the Recycled Water Final design.

Table 31 and 32 show anticipated construction information for the Recycled Water Facilities component of the WRF Project.

Table 31 Recycled Water Facilities Performance Measures

Performance Measures	Target	Current
Construction Cost	\$5.7M	\$0.0M
Construction Contingency Available	\$0.5M	\$0.5M

Notes:

- (1) For Q2 of FY 21/22, the total contingency remaining for all components is approximately \$1.6M. Approximately \$0.5M is allocated to the Recycled Water Facilities.

Table 32 Recycled Water Facilities Summary

Schedule				
Selection of the Injection Site			N/A	
Request for Bid / Bid Advertisement			N/A	
Bid Opening Date			N/A	
Contract Award / Council Award Date			N/A	
Notice to Proceed for Construction			N/A	
Original Final Completion Date			N/A	
Original Duration (Calendar Days)			N/A	
Days Changed by Change Order			0	
Actual Final Completion Date			N/A	
Schedule Percent Complete			0%	
Budget				
Engineer's Estimate (Construction Cost + 10% Construction Contingency)			\$6,307,785	
Award Amount			\$0	
Change Order Total			\$0	
Current Contract Value			\$0	
Percent Change			0%	
Work Completed				
Actual Cost -to-Date			\$0	
Percent Complete (Percent Expended)			0%	
Work Completed				
	RFIs	Submittals	PCOs	COs
Total Received	0	0	0	0
Total Responded to	0	0	0	0
Total Pending	0	0	0	0
Average Turnaround (calendar days)	NA	NA	N/A	N/A