



San José-Santa Clara
Regional Wastewater Facility

Capital Improvement Program Monthly Status Report for March 2014

May 8, 2014

This report provides a summary of the progress and accomplishments of the Capital Improvement Program (CIP) for the San José-Santa Clara Regional Wastewater Facility (“Wastewater Facility”) for the period of March 2014.

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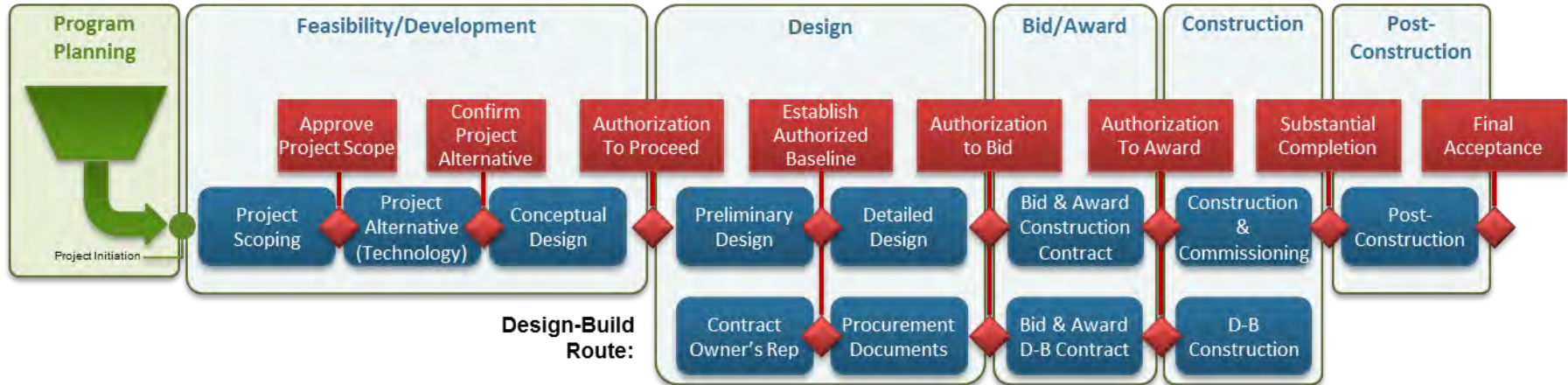


Project Delivery Model



San José-Santa Clara
Regional Wastewater Facility

Project Delivery Model



Active Projects

Project Type	Project Name	Phase
Design-Build	Biosolids Transition Projects	Iron Salt Feed Station
		Plant Instrument Air System Upgrade
Design-Bid-Build	Cogeneration Facility	Digester & Thickener Facilities Upgrade
		Filtration Building B2 & B3 Pipe & Valve Replacement
Design-Bid-Build	Digester Gas Compressor Upgrade	Digester Gas Storage Replacement
		Emergency Diesel Generators
Design-Bid-Build	RWF Street Treatment - Phase III	115 KV Circuit Breaker Replacement
		DCS Fiber Optic Network Expansion
Design-Bid-Build	Training Trailer Replacement	DCS Upgrade/Replacement
		Dissolved Air Flotation Dissolution Impr.
Design-Bid-Build	Headworks No. 2 Actuator Replacement	DCS Upgrade/Replacement
		Headworks No. 2 Actuator Replacement
Design-Bid-Build	Cooling Tower Replacement	DCS Upgrade/Replacement
		DCS Upgrade/Replacement
Design-Bid-Build	Handrail Replacement - Phase V	DCS Upgrade/Replacement
		DCS Upgrade/Replacement
Design-Bid-Build	A5-A6 Nitrification Mag. Meter & Valve Repl.	DCS Upgrade/Replacement
		DCS Upgrade/Replacement

Note: Projects shown in bold and italics have moved phase in the reporting period

Key

- Stage Gates (Red box)
- Stages (Blue box)



Program Summary

March 2014

In 2008 the Wastewater Facility undertook a Plant Master Plan (PMP) effort which ultimately resulted in its adoption in November 2013. The Project Validation process held between October 2013 and January 2014 reviewed the projects identified in the Plant Master Plan in order to develop a five-year and ten-year CIP. This monthly report provides a summary of the progress and accomplishments of the CIP for the month of March 2014 within Fiscal Year 2013-2014.

In the month of March the focus was on finishing our program start-up efforts, assessing future resource needs for the CIP Program, moving forward with key programmatic studies, three of which were initiated on March 25, and continuing to work with the various groups involved in budget and rate setting, and financing discussions.

We presented updates to the Technical Advisory Committee (TAC) and to the Treatment Plant Advisory Committee (TPAC) at their regular meetings on March 10th and March 13th, respectively. Further updates and study sessions will be held with TAC and TPAC in April, as financing discussions continue.

Look Ahead

In April, important study sessions will be held with TAC and TPAC regarding the ten-year funding strategy and the biosolids transition. We will be finalizing our detailed assessment of our future staffing needs on the program and developing a new organization structure for program delivery. We will also continue to roll out our web-based SharePoint platform (called the "CIP Portal") which contains many of our CIP team collaboration tools and processes. Training and implementation of these tools and processes will also continue.

Program Highlight – Project Start-Up

In March, we successfully completed our program start-up activities. This effort focused on creating the tools needed for project delivery, with a focus on people, processes, and plans. It resulted in numerous key deliverables, examples of which include a health and safety plan, decision-making process, document management plan, and an operations and maintenance staff engagement plan.

The key written start-up deliverable was the Program Execution Plan (PEP), which now resides on the CIP Portal, our web-based collaboration site (see figure below). The PEP serves as the "user's manual" for CIP delivery, and will be a key training tool for new staff brought onto the program.















Figure 1: Program Execution Plan Page on the CIP Portal



Program Performance Summary

Seven KPIs have been established to measure the overall success of the CIP. Each KPI represents a metric which will be monitored on a regular frequency. Through the life of the CIP, KPIs will be selected and measured which best reflect the current maturity of the program. In this initial report, six of the seven KPIs have measurement data available and are reported below. The target for the "Staff Count" KPI will be established as part of the analysis of future staffing needs.

Program Key Performance Indicators – Fiscal Year 2013-2014

KPI Description	Target	Actual	Status	Trend	Measurement
Schedule	85%	100% (1/1)			Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. Target: 85% of projects delivered within 2 months of approved baseline schedule or better.
Budget	90%	100% (2/2)			Percentage of CIP projects that are completed within the approved baseline budget. Target: 90% of projects total expenditures do not exceed 101% of the baseline budget.
Expenditure	≥\$72.7M	\$88.6M			Total CIP actual + forecast committed cost for the fiscal year compared to CIP fiscal year budget. Target: Forecast committed cost meets or exceeds 50% of budget for Fiscal Year 13/14 (\$145.4 / 2 = \$72.7M)
Procurement	100%	100% (12/12)			Number of actual + forecast consultant and contractor procurements compared to planned for the fiscal year. Target: Forecast /actual procurements for fiscal year meet or exceed planned.
Safety	0	0			Number of OSHA reportable incidents associated with CIP construction for the fiscal year. Target: zero incidents.
Environment/Permits	0	0			Number of permit violations caused by CIP construction for the fiscal year. Target: zero violations.
Staff Count¹	TBD	TBD	TBD	TBD	Number of additional staff started in the previous quarter compared to planned (City/Consultant). Target: Number of City and Consultant Staff joined the program team for the quarter meets or exceeds planned.

Footnote:1 – Staff count KPI measured quarterly; all other KPIs measured monthly

Footnote 2 – For the Procurement KPI, the number of forecasted procurements increased from 11 to 12, This count now includes the procurement of environmental review and permitting consultant services.

KEY:

Cost:		Meets or exceeds KPI target		Does not meet KPI target
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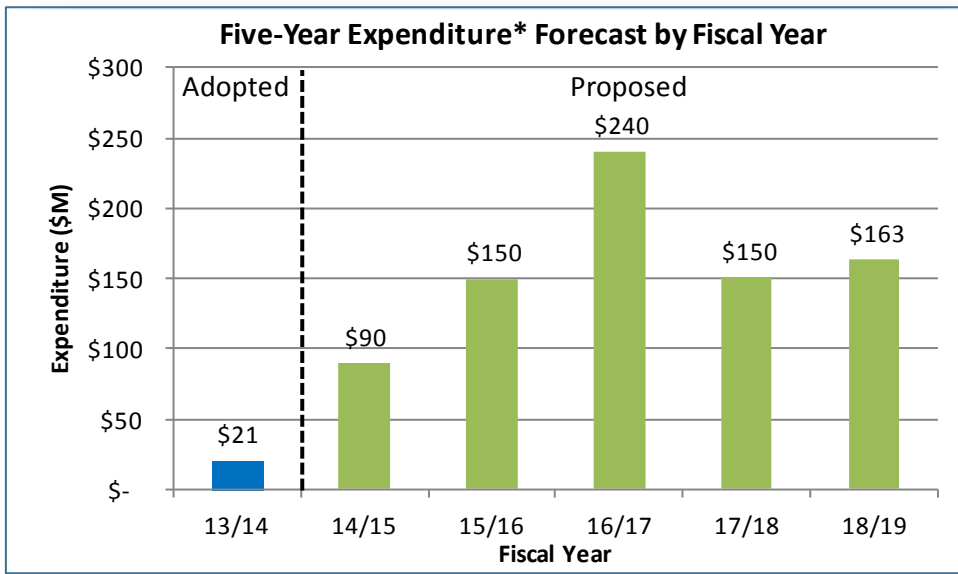


Program Cost Performance

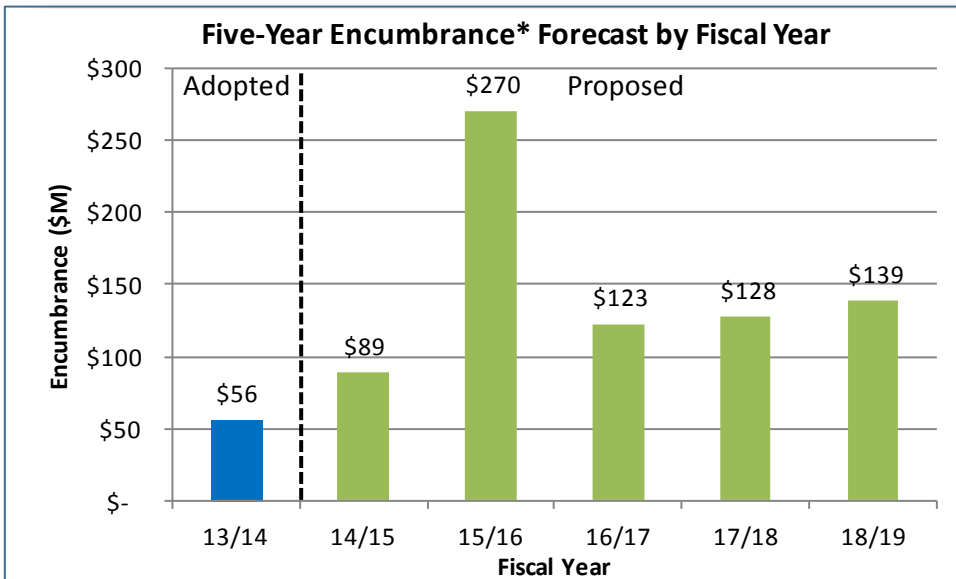
This section provides a summary of CIP cost performance for all construction projects and non-construction activities for FY13-14 and the Five-Year CIP.

Proposed 2015-2019 CIP Expenditure and Encumbrances

To accommodate the proposed increase in expenditures and encumbrances over the next five years, the City is developing a long-term financial strategy to fund the needed, major capital improvements while minimizing the impact to ratepayers. The City will be holding special study sessions with TAC and TPAC in April to discuss ten-year funding strategy and the financing plan.



*Expenditure defined as: Actual cost expended associated with services and construction of physical assets



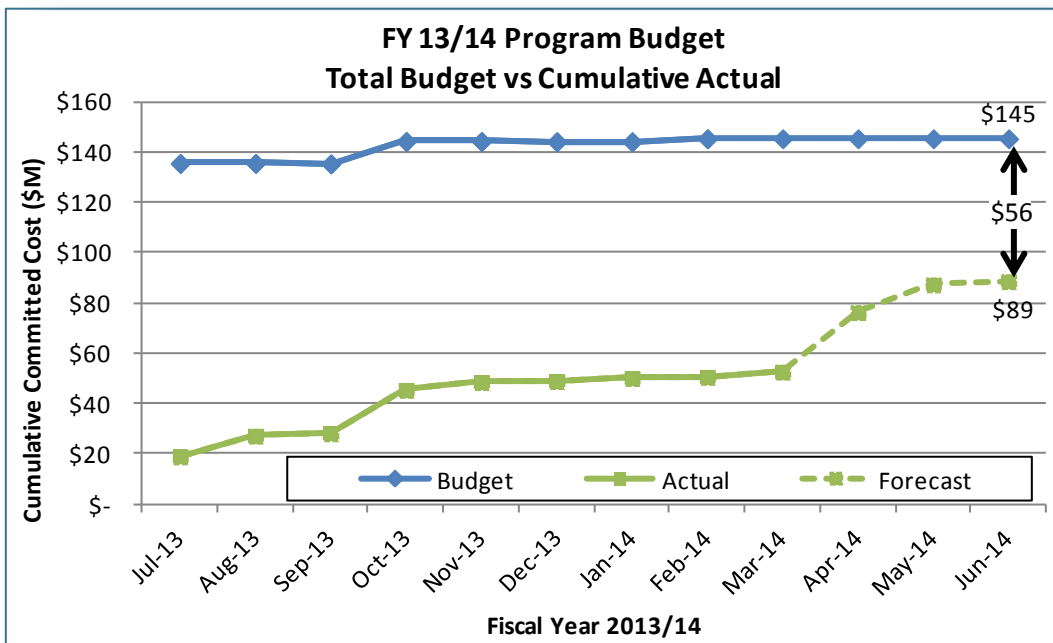
*Encumbrance defined as: Financial commitments, such as purchase orders or contracts, which are chargeable to an appropriation and for which a portion of the appropriation is reserved



Fiscal Year 2013-2014 Program Budget Performance

The fiscal year began with an initial program budget of \$135 million, with a \$9 million adjustment in October and a \$1 million adjustment in February, for a total program budget of \$145 million. Committed costs are expenditures and encumbrance balances, including carryover (encumbrance balances from the previous fiscal year). As of the close of the March reporting period, \$53 million in cumulative program spending had been achieved. This represents approximately 36% of the total program budget for FY13-14.

Committed costs are forecasted to reach \$89 million by the end of the fiscal year resulting in a projected year-end variance of approximately \$56 million as shown in the chart below. The last fiscal quarter will see a number of large construction contract awards including Digester Gas Storage Replacement, Fire Main Replacement – Phase III, Digester Gas Compressor, and Emergency Diesel Generators.















The projected year-end variance shrank from \$61 million to \$56 million due to the inclusion of construction contingencies and service orders in the forecast.







Project Performance

There are currently six active projects in the construction phase with a further twelve projects in feasibility/development, design or bid and award phases (see PDM graphic at the front of this report). All active projects are listed in the table below. Projects in the construction phase have cost and schedule baselines established and are monitored using the City's Capital Project Management System (CPMS). These projects have green/red icons included in the table below to indicate whether they are on budget and schedule using the CPMS data as a source.

Project Name	Phase	Estimated Beneficial Use Date ¹	Cost Performance ²	Schedule Performance ²
Baselined Projects				
115KV Circuit Breaker Replacement	Construction	Jun 2014		
A5-A6 Nitrification Mag. Meter & Valve Replacement	Construction	Jul 2014		
DCS Fiber Optic Network Expansion	Construction	May 2014		
DCS Upgrade/Replacement	Construction	Jun 2016		
Dissolved Air Flotation (DAF) Dissolution Improvement	Construction	Apr 2014		
Handrail Replacement - Phase V	Construction	Mar 2015		
Pre-Baseline Projects				
BNR-2 Clarifier Guardrail Replacement	Bid & Award	Dec 2014	N/A	N/A
Digester Gas Compressor Upgrade	Bid & Award	Jul 2016	N/A	N/A
Digester Gas Storage Replacement	Bid & Award	Mar 2015	N/A	N/A
Emergency Diesel Generators	Bid & Award	Jul 2016	N/A	N/A
Fire Main Replacement - Phase III	Bid & Award	Mar 2015	N/A	N/A
RWF Street Rehabilitation - Phase III	Bid & Award	Jan 2015	N/A	N/A
Training Trailer Replacement	Bid & Award	May 2015	N/A	N/A
Filtration Building B2 & B3 Pipe & Valve Replacement	Design	Apr 2015	N/A	N/A
Digester & Thickener Facilities Upgrade	Feasibility/Development	Feb 2018	N/A	N/A
Cogeneration Facility	Feasibility/Development	Mar 2017	N/A	N/A
Plant Instrument Air System Upgrade	Feasibility/Development	Dec 2015	N/A	N/A
Iron Salt Feed Station	Feasibility/Development	Apr 2016	N/A	N/A

KEY:

Cost:		On Budget		>1% Over Budget
Schedule:		On Schedule		>2 months delay

Footnote 1 – Beneficial Use is defined as when the work is sufficiently complete, in accordance with the contract documents, so that the City can occupy or use the work.

Footnote 2 – An explanation of cost and schedule variances on specific projects identified in this table is provided on the next page.



Significant Accomplishments

On March 27, the City opened bids for the Emergency Diesel Generators project, which includes the installation of four 3 MW generators, two on-site fuel storage tanks, and auxiliary systems. Six of the eight pre-qualified design-build entities submitted bids. Five of the bids were lower than the Engineer's Estimate, with the apparent low bid being 10% under. Staff is currently evaluating the bids. The project is scheduled for TPAC and City Council consideration in June. Project Budget: \$21,800,000.

Explanation of Project Performance Issues

DAF Dissolution Improvement

No changes since the last report. Please refer to the Monthly Status Report for February 2014 for a detailed explanation.



Project Profile

Digester Gas Storage Replacement

The existing gas holder at the Wastewater Facility was originally built in 1984. In 2002, the gas holder cover experienced a major failure and was repaired. A second major failure occurred in 2012. An inspection of the gas holder's interior established that its floating cover could no longer be safely operated resulting in the unit being taken permanently out of service. As an interim measure, a backup gas holder unit was put back into service. This backup unit, while operable, is older, smaller, and does not provide for long term reliable gas system control due to outdated components.

This project will demolish and replace the existing wet seal digester gas holder with a new dry seal digester gas holder, and will be located at the same site as the existing gas holder. This project will also install a new foundation system, electrical conduits, utility piping, and concrete pavement around the gas holder. Bids were opened on February 6 with a total of six bids received. The lowest responsive bidder was Anderson Pacific Engineering Construction, Inc for the total bid in the amount of \$1,825,100. This project is scheduled for TPAC and City Council consideration on April 17 and April 22, respectively. Construction is estimated to commence in June 2014 with an anticipated construction completion in March 2015. Project Budget: \$3,200,000.

Project Location:

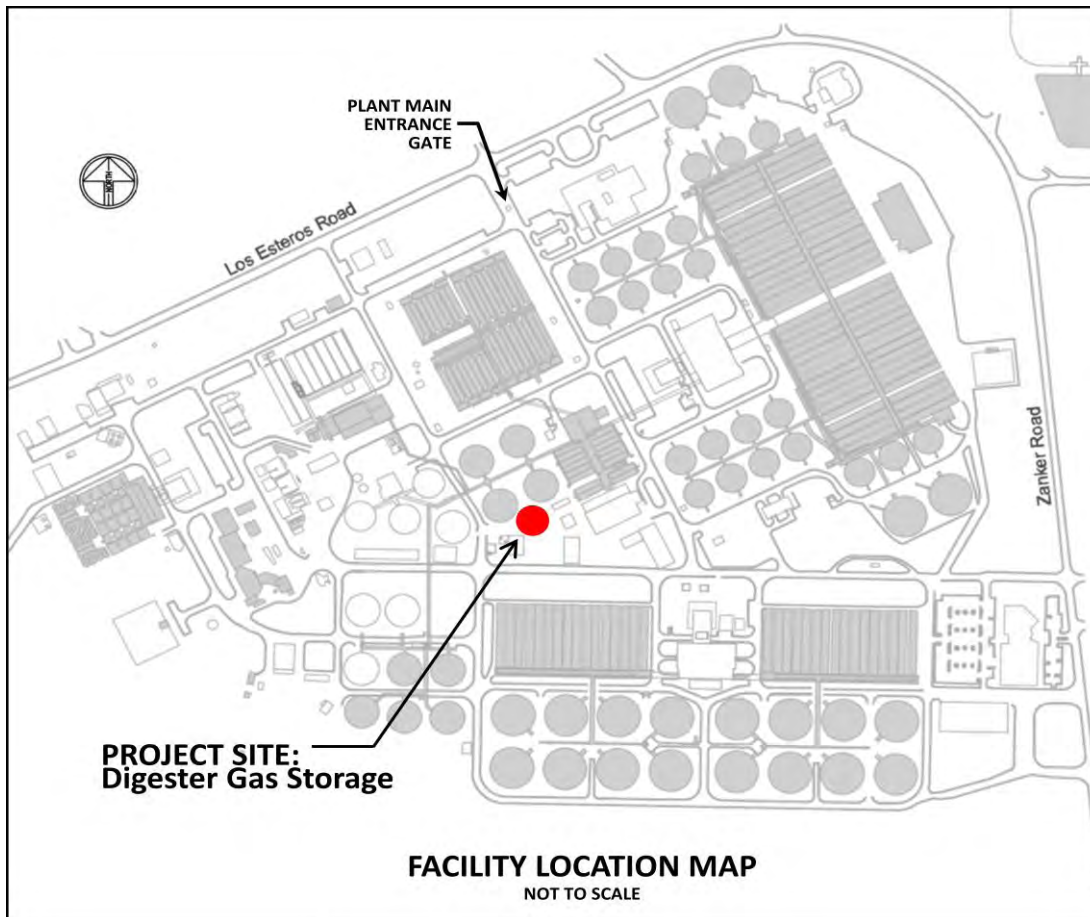


Figure 2: Digester Gas Storage Location Plan

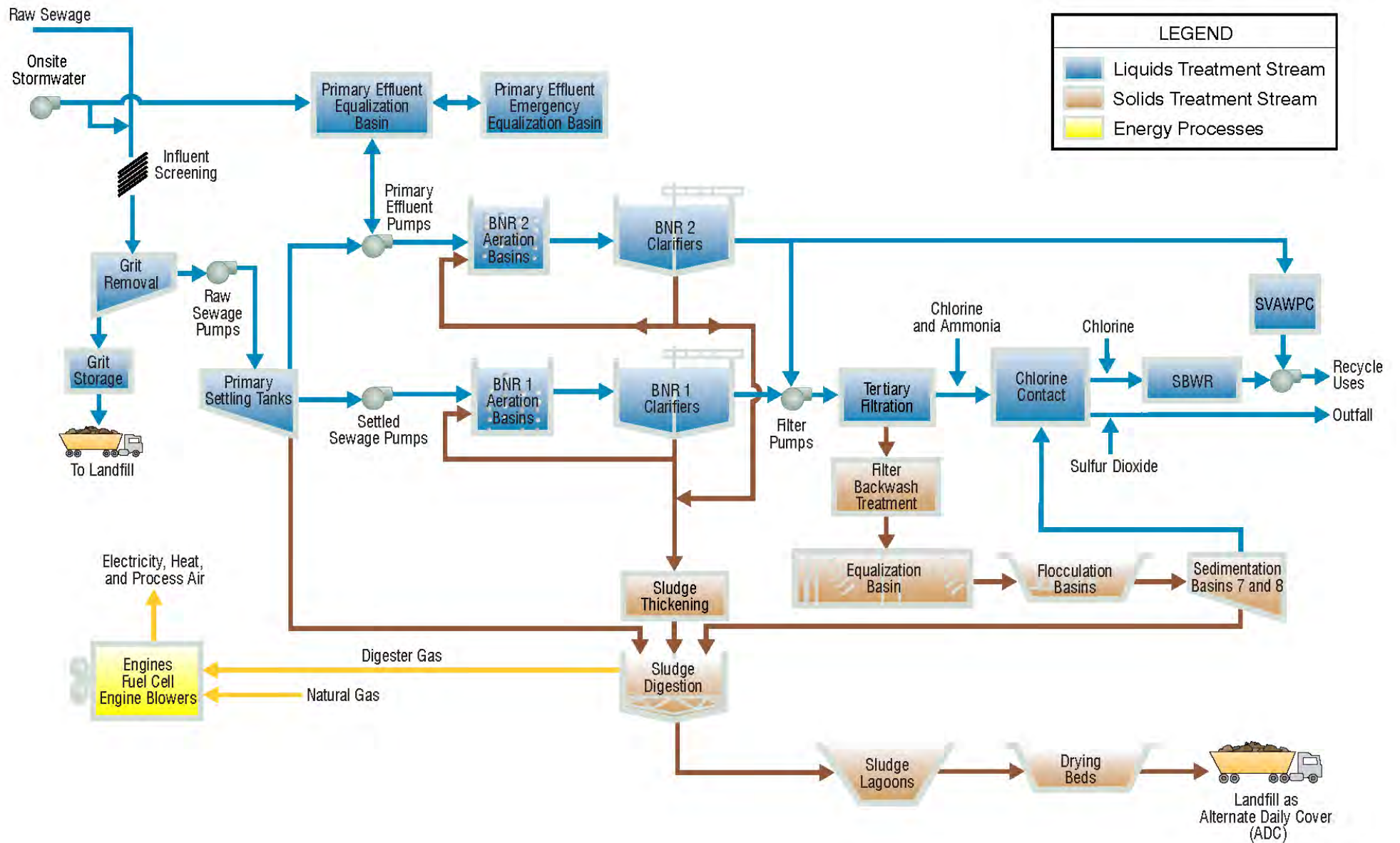


Figure 3: Existing Gas Storage Tank

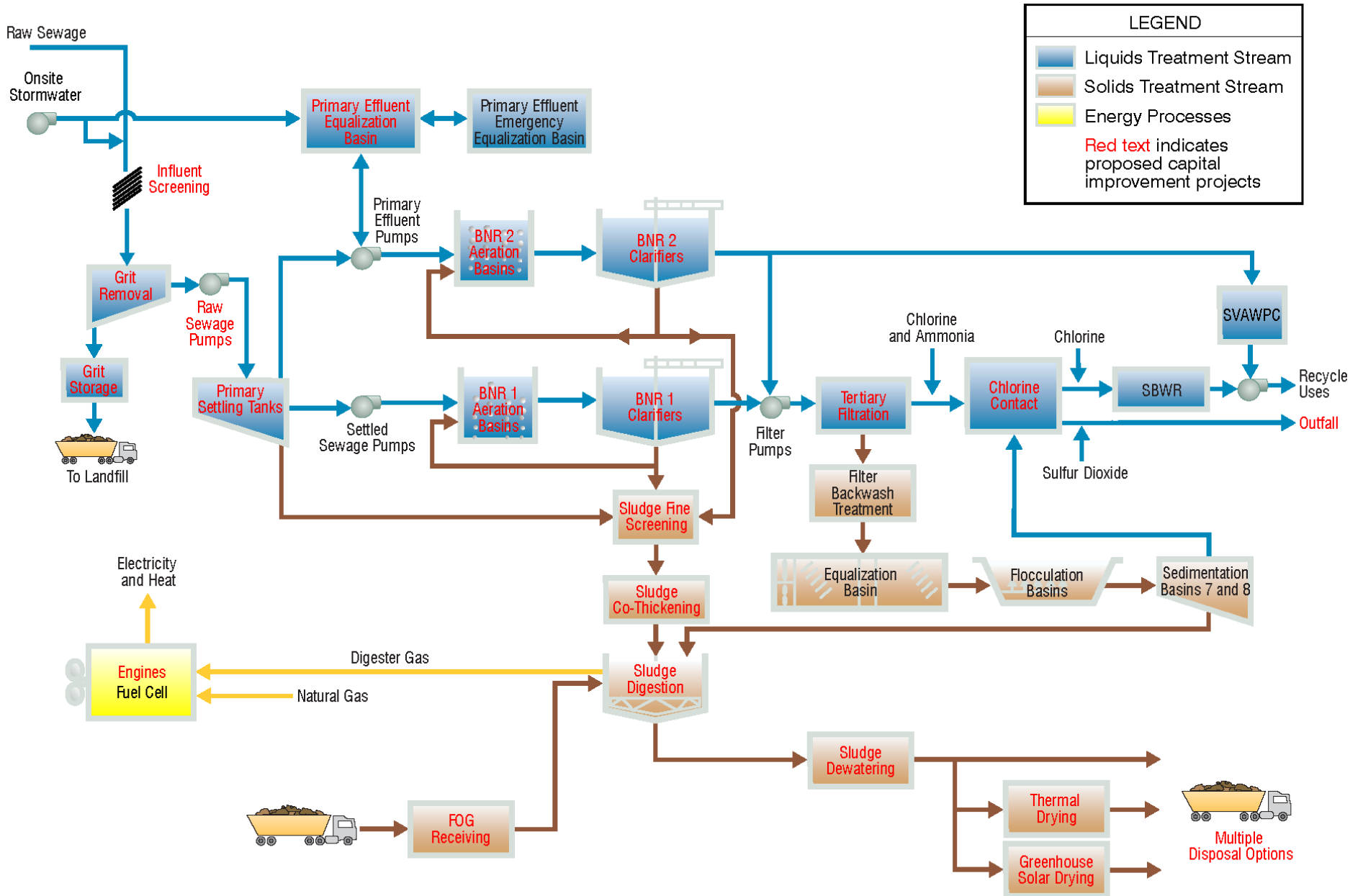
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Regional Wastewater Facility Treatment – Current Treatment Process Flow Diagram



Regional Wastewater Facility Treatment – Proposed Treatment Process Flow Diagram



Active Construction Projects – Aerial Plan

