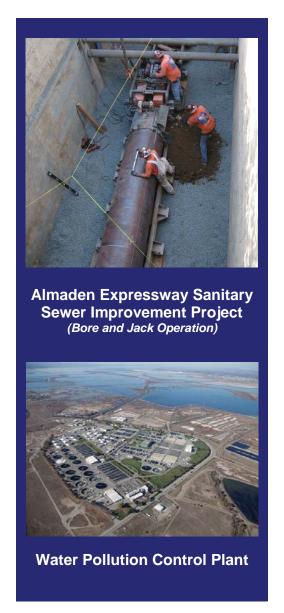
2016-2017 CAPITAL BUDGET

2017-2021 CAPITAL IMPROVEMENT PROGRAM

ENVIRONMENTAL
AND
UTILITY SERVICES
CSA

City Service Area

Environmental and Utility Services



Mission: Delivering world class utility services and programs to improve our health, environment, and economy.

The Sanitary Sewer System Capital Improvement Program (CIP) constructs sewer improvement projects that enhance sewer capacity to meet economic development goals and rehabilitates existing sewers to minimize sanitary sewer overflows.

The Storm Sewer System CIP continues to replace or rehabilitate pump stations to reduce the risk of local flooding during storm events and storm water quality improvements for regulatory compliance. The program addresses the drainage needs in residential neighborhoods, business districts, and walking routes to schools and public facilities.

The Water Pollution Control Plant (Plant) is a regional advanced wastewater treatment facility that serves the cities of San José, Santa Clara, and Milpitas, as well as the Cupertino Sanitary District, West Valley Sanitation District, County Sanitation Districts 2-3, and Burbank Sanitary District. The Plant is one of the largest tertiary wastewater treatment works in the western United States, serving more than 1.4 million residents and approximately 17,000 businesses. A major master planning effort was completed in late 2013, resulting in Environmental Impact Report certification and formal adoption of a 30-year master plan. The master plan provides the framework for over \$1.0 billion in new construction at the Plant over the next 10 to 15 years, and responds to aging infrastructure, future regulations, population growth, and treatment technology improvements.

The Water Utility System CIP ensures reliable utility infrastructure for the San José Municipal Water System and includes the construction of new facilities, maintenance of existing infrastructure, and improvements to existing facilities.

CSA CAPITAL PROGRAMS

- Sanitary Sewer System
- Storm Sewer System
- Water Pollution Control Plant
- Water Utility System

City Service Area

Environmental and Utility Services

Recent Accomplishments

- Mackey Avenue Sanitary Sewer Replacement – Replaced approximately 2,300 feet of 6-inch sanitary sewer pipe along Mackey Avenue (completed in Aug. 2015)
- Northern Gate Structure Replacement at the Water Pollution Control Plant – Replaced the existing gate structure at the former salt production pond (completed in Aug. 2015)
- Coleman Road Sanitary Sewer Improvements Replaced approximately 6,300 feet of 8- and 10-inch sewer pipe with 12- and 18-inch pipe, respectively, along Coleman Road to increase capacity (completed in Feb. 2016)
- Handrail Replacements at the Water Pollution Control Plant Replaced approximately 8,500 feet of railing and repaired cracked concrete at 32 secondary aeration tanks (completed in Aug. 2015)
- Almaden Expressway Sanitary Sewer Improvements – Upsized 7,300 feet of sewer mains along Almaden Expressway between Greystone and Randol Creek to increase capacity (completed in Nov. 2015)

Program Highlights

Sanitary Sewer System Capital Program

2017-2021 Proposed CIP: \$219.2 million

Sanitary Sewer Rehabilitation Projects:

- Cast Iron Pipe Remove and Replace
- Condition Assessment Sewer Repairs

Sanitary Sewer Interceptor/Capacity Improvement Projects:

- 60" Brick Interceptor, Phase VIA and VIB
- Trimble Road and Capewood Lane Sanitary Sewer Improvements

Storm Sewer System Capital Program

2017-2021 Proposed CIP: \$39.3 million

- Large Trash Capture Devices
- Storm Sewer Master Plan City-wide

Water Pollution Control Capital Program

2017-2021 Proposed CIP: \$953.3 million

Preliminary Wastewater Treatment:

- Headworks Improvements
- New Headworks

Primary Wastewater Treatment:

 East Primary Rehabilitation, Seismic Retrofit, and Odor Control

Secondary Wastewater Treatment:

Aeration Tanks and Blower Rehabilitation

Biosolids:

Digester and Thickener Facilities Upgrade

Electrical Systems and Power Generation:

Energy Generation Improvements

Water Utility System Capital Program

2017-2021 Proposed CIP: \$32.1 million

- Edenvale Reservoir Rehabilitation
- Meter Replacements
- North San José Well #5 Development and Construction

CSA OUTCOMES

(Supported by the Capital Programs)

- ✓ Reliable Utility Infrastructure
- ✓ Healthy Streams, Rivers, Marsh and Bay
- ✓ Safe, Reliable and Sufficient Water Supply

City Service Area Environmental and Utility Services

Performance Measures

A set of consistent and comprehensive performance measurements along with targets and goals has been established for the entire capital program and adopted for each individual CSA. Measures focus on schedule (cycle time) and project delivery cost. Please see the Budget Guide section narrative for additional information on capital performance measurements.

Outcome: Quality CIP Projects Delivered On-Time and On-Budget

Strategic Goals	CSA Performance Measures	2014-2015 Actual*	2015-2016 Target	2015-2016 Estimate	2016-2017 Target	5-Year Goal
Environmental and Utility Services CSA delivers quality Capital Improvement Program (CIP) projects	% of CIP projects delivered within 2 months of approved baseline schedule**	89% (24/27)	85%	67% (20/30)	85%	85%
on-time and on-budget	2. % of CIP projects that are completed within the approved baseline budget***	96% (25/26)	90%	94% (32/34)	90%	90%

^{*} The 2014-2015 Actual number of projects may vary from the 2014-2015 Adopted Budget Estimate as documented in the 2015-2016 Adopted Budget as a result of the date of the estimated beneficial use of the project being revised and the project expected to be delivered in the following fiscal year. Also, the number of projects may change with the inclusion of projects in the 2014-2015 Actual not originally included in the 2014-2015 Adopted Budget Estimate due to incomplete project information at that time.

** Projects are considered to be "delivered" when they are available for their intended use and are considered "on schedule" if delivered within two months of baseline schedule.

In 2015-2016, the Environmental and Utility Services CSA is estimated to deliver 20 of 30 (67%) projects within two months of the approved baseline schedule, which is below the performance target of 85%. Significant weather-related construction delays have contributed to several projects being delivered beyond two months of the baseline schedule. Some of the notable capital projects delivered in 2015-2016 include sanitary and storm sewer improvements (Coleman Road, Mackey Avenue, Story Road, and Eleventh Street), and various projects at the Water Pollution Control Plant, such as the Pond A18 Northern Gate Replacement and the Handrail Replacement Phase V projects.

In 2015-2016, an estimated 32 of 34 (94%) of the projects either have been, or are expected to be completed within their baseline budgets, which is above the one-year performance target of 90%. A few of the notable capital projects completed in 2015-2016 include the Almaden Expressway Sanitary Sewer Improvements, Husted-Richland Sanitary Sewer Improvements, Story Road Easement Sanitary Sewer Replacement, and Fire Main Replacement Phase III project at the Water Pollution Control Plant. The CSA continues to work to strengthen the alignment of project scopes, schedules, and budgets, while also accounting for external market conditions that may affect the delivery of capital projects. Staff relies heavily on the cost estimating and tracking tools that are available through the City's Capital Project Management System (CPMS). These tools allow project management staff to effectively track project costs on an ongoing basis and assist in ensuring that expenditures remain within budgeted levels.

^{***} Projects are considered "completed" when final cost accounting has occurred and the project has been accepted. Projects are considered "on budget" when the total expenditures do not exceed 101% of the baseline budget.

	2016-2017 Budget	2017-2021 CIP Budget	Total Budget (All Years)	Start Date	End Date
Sanitary Sewer System					
30" Old Bayshore Supplement	863,000	863,000	5,646,000	3rd Qtr. 2008	2nd Qtr. 2017
60" Brick Interceptor, Phase VIA and VIB	29,038,000	30,381,000	68,479,382	3rd Qtr. 2009	2nd Qtr. 2019
Almaden Supplement Sewer Rehabilitation (North)		2,730,000	2,960,000	3rd Qtr. 2020	2nd Qtr. 2021
Bollinger Road - Moorpark Avenue - Williams Road Sanitary Sewer Improvements	353,000	8,931,000	13,241,000	3rd Qtr. 2012	2nd Qtr. 2021
Capital Program and Public Works Department Support Service Costs	1,594,000	5,605,000	*	Ongoing	Ongoing
Capitol Avenue Sanitary Sewer Improvements	303,000	303,000	2,612,000	3rd Qtr. 2014	4th Qtr. 2016
Cast Iron Pipe - Remove and Replace	4,500,000	22,500,000	*	Ongoing	Ongoing
Coleman Road Sanitary Sewer Improvements	217,000	217,000	1,811,000	3rd Qtr. 2013	4th Qtr. 2016
Condition Assessment Sewer Repairs	5,500,000	27,500,000	*	Ongoing	Ongoing
Fee Administration	84,000	422,000	*	Ongoing	Ongoing
Flow Monitoring Program (Master Planning)	760,000	3,850,000	*	Ongoing	Ongoing
Fourth Major Interceptor, Phase IIB/IIIB	686,000	686,000	3,449,000	3rd Qtr. 2009	2nd Qtr. 2017
Fourth Major Interceptor, Phase VIIA		5,500,000	5,500,000	3rd Qtr. 2018	2nd Qtr. 2020
Immediate Replacement and Diversion Projects	6,000,000	23,500,000	*	Ongoing	Ongoing
Inflow and Infiltration Reduction	200,000	1,000,000	*	Ongoing	Ongoing
Infrastructure - Sanitary Sewer Condition Assessment	3,000,000	15,000,000	*	Ongoing	Ongoing
Infrastructure Management System	30,000	170,000	*	Ongoing	Ongoing
Master Planning Updates	1,200,000	6,310,000	*	Ongoing	Ongoing
Montague Sanitary Sewer Pump Station Reserve	2,400,000	2,400,000	2,400,000	N/A	N/A
Monterey-Riverside Relief Sanitary Sewer Improvements	81,000	81,000	8,438,000	3rd Qtr. 2011	4th Qtr. 2016
Payments to West Valley Sanitation District	10,000	50,000	*	Ongoing	Ongoing
Permit Review and Inspection for Outside Agencies	50,000	150,000	*	Ongoing	Ongoing
Preliminary Engineering	950,000	4,750,000	*	Ongoing	Ongoing
Program Management	300,000	1,500,000	*	Ongoing	Ongoing
Public Art	125,000	522,000	*	Ongoing	Ongoing
Public Works Engineering Services Equipment (Materials Lab)	40,000	200,000	*	Ongoing	Ongoing
Rehabilitation of Sanitary Sewer Pump Stations	1,098,000	1,098,000	7,245,000	3rd Qtr. 2008	2nd Qtr. 2017
Reinforced Concrete Pipe Rehabilitation Program	500,000	2,500,000	*	Ongoing	Ongoing

	2016-2017 Budget	2017-2021 CIP Budget	Total Budget (All Years)	Start Date	End Date
Sanitary Sewer System (Cont'd.)					
Rincon Avenue - Virginia Avenue Sanitary Sewer Improvements		3,467,000	3,621,000	3rd Qtr. 2017	2nd Qtr. 2019
Spreckles Sanitary Sewer Force Main Supplement, Phase II	325,000	325,000	3,606,000	3rd Qtr. 2013	2nd Qtr. 2017
Stevens Creek Boulevard Sanitary Sewer Improvements	232,000	232,000	3,478,000	3rd Qtr. 2012	2nd Qtr. 2017
Transfer to the City Hall Debt Service Fund	389,000	2,108,000	*	Ongoing	Ongoing
Transfer to the General Fund - Human Resources/Payroll/ Budget Systems Upgrade	7,000	7,000	9,551,000	N/A	N/A
Trimble Road and Capewood Lane Sanitary Sewer Improvements	4,840,000	4,840,000	5,522,000	2nd Qtr. 2014	2nd Qtr. 2017
Urgent Rehabilitation and Repair Projects	8,000,000	32,000,000	*	Ongoing	Ongoing
Westmont Avenue and Harriet Avenue Sanitary Sewer Improvements		4,075,000	4,075,000	3rd Qtr. 2017	2nd Qtr. 2020
Total: Construction/Non-Construction	73,675,000	215,773,000			
Ending Fund Balance	4,317,401	3,425,401 **			
Total: Sanitary Sewer System	77,992,401	219,198,401 **			
Storm Sewer System					
Alviso Storm Pump Station	100,000	100,000	10,243,000	3rd Qtr. 2013	2nd Qtr. 2017
Capital Program and Public Works Department Support Service Costs	792,000	1,586,000	*	Ongoing	Ongoing
Charcot Storm Pump Rental	300,000	1,500,000	1,800,000	4th Qtr. 2015	2nd Qtr. 2021
Chynoweth Avenue Green Street	2,187,000	2,187,000	2,637,000	3rd Qtr. 2014	2nd Qtr. 2017
Condition Assessment Storm Sewer Repairs	500,000	2,500,000	*	Ongoing	Ongoing
Fee Administration	25,000	125,000	*	Ongoing	Ongoing
Flow Monitoring Program	350,000	1,750,000	*	Ongoing	Ongoing
Infrastructure Management System	6,000	30,000	*	Ongoing	Ongoing
Large Trash Capture Devices	6,000,000	6,000,000	13,170,000	3rd Qtr. 2014	2nd Qtr. 2017
Minor Neighborhood Storm Sewer Improvements	500,000	2,100,000	*	Ongoing	Ongoing
Ocala Avenue Green Street Project	2,250,000	2,526,000	2,787,000	1st Qtr. 2015	2nd Qtr. 2018
Outfall Rehabilitation - Capital	1,000,000	2,700,000	*	Ongoing	Ongoing
Park Avenue Green Street Pilot	1,200,000	1,200,000	1,413,000	3rd Qtr. 2014	2nd Qtr. 2017

	2016-2017 Budget	2017-2021 CIP Budget	Total Budget (All Years)	Start Date	End Date
Storm Sewer System (Cont'd.)			_		
Permit Review and Inspection for Outside Agencies	50,000	250,000	*	Ongoing	Ongoing
Preliminary Engineering	180,000	900,000	*	Ongoing	Ongoing
Program Management	150,000	750,000	*	Ongoing	Ongoing
Public Art	102,000	144,000	*	Ongoing	Ongoing
Stockton Avenue - Julian Street Storm Sewer Improvements	350,000	350,000	350,000	3rd Qtr. 2016	2nd Qtr. 2017
Storm Pump Station Rehabilitation and Replacement	500,000	1,900,000	*	Ongoing	Ongoing
Storm Sewer Improvements - Special Corridors	500,000	1,900,000	*	Ongoing	Ongoing
Storm Sewer Master Plan - City-wide	1,100,000	5,500,000	*	Ongoing	Ongoing
Transfer to the City Hall Debt Service Fund	104,000	563,000	*	Ongoing	Ongoing
Transfer to the General Fund - Human Resources/Payroll/ Budget Systems Upgrade	2,000	2,000	16,000	N/A	N/A
Transfer to the General Fund - Interest Earnings	2,000	10,000	*	Ongoing	Ongoing
Urgent Flood Prevention and Repair Projects	600,000	2,000,000	*	Ongoing	Ongoing
Total: Construction/Non-Construction	18,850,000	38,573,000			
Ending Fund Balance	1,168,719	742,719 **			
Total: Storm Sewer System	20,018,719	39,315,719 **			
Water Pollution Control					
Advanced Facility Control and Meter Replacement	2,025,000	24,579,000	27,909,000	3rd Qtr. 2010	2nd Qtr. 2022
Aeration Basin Future Modifications		5,120,000	50,277,000	3rd Qtr. 2019	4th Qtr. 2030
Aeration Tanks and Blower Rehabilitation	15,717,000	115,875,000	119,299,000	1st Qtr. 2015	1st Qtr. 2024
Capital Program and Public Works Department Support Service Costs	856,000	4,359,000	*	Ongoing	Ongoing
Combined Heat and Power Equipment Repair and Rehabilitation	120,000	120,000	17,520,000	3rd Qtr. 2012	1st Qtr. 2017
Construction-Enabling Improvements	785,000	785,000	4,261,000	3rd Qtr. 2015	1st Qtr. 2017
Digested Sludge Dewatering Facility	2,927,000	94,804,000	99,022,000	2nd Qtr. 2014	1st Qtr. 2023
Digester and Thickener Facilities Upgrade	10,259,000	23,033,000	213,158,000	3rd Qtr. 2006	4th Qtr. 2025
East Primary Rehabilitation, Seismic Retrofit, and Odor Control	195,000	35,899,000	113,209,000	3rd Qtr. 2010	2nd Qtr. 2026
Energy Generation Improvements	31,986,000	89,161,000	120,349,000	3rd Qtr. 2012	2nd Qtr. 2019

	2016-2017 Budget	2017-2021 CIP Budget	Total Budget (All Years)	Start Date	End Date
Water Pollution Control (Cont'd.)					
Equipment Replacement	1,663,000	8,315,000	*	Ongoing	Ongoing
Equipment Replacement Reserve	5,000,000	5,000,000	5,000,000	N/A	N/A
FOG Receiving		416,000	12,850,000	3rd Qtr. 2019	2nd Qtr. 2026
Facility Wide Water Systems Improvements	1,528,000	13,847,000	15,625,000	3rd Qtr. 2014	3rd Qtr. 2022
Filter Rehabilitation	1,395,000	34,751,000	36,698,000	3rd Qtr. 2013	4th Qtr. 2022
Final Effluent Pump Station & Stormwater Channel Improvements		6,901,000	47,358,000	3rd Qtr. 2019	3rd Qtr. 2025
Headworks Improvements	3,085,000	28,527,000	30,449,000	3rd Qtr. 2012	2nd Qtr. 2021
Iron Salt Feed Station	434,000	460,000	8,804,000	1st Qtr. 2012	3rd Qtr. 2017
Lagoons and Drying Beds Retirement	1,358,000	10,796,000	34,382,000	1st Qtr. 2016	2nd Qtr. 2028
Master Plan Updates		3,000,000	3,000,000	4th Qtr. 2017	4th Qtr. 2019
New Disinfection Facilities		7,131,000	56,977,000	2nd Qtr. 2019	4th Qtr. 2027
New Headworks	2,725,000	92,610,000	95,798,000	3rd Qtr. 2012	3rd Qtr. 2022
Nitrification Clarifier Rehabilitation	3,773,000	48,734,000	51,630,000	3rd Qtr. 2009	4th Qtr. 2022
Outfall Bridge and Levee Improvements	1,027,000	9,213,000	9,832,000	3rd Qtr. 2014	3rd Qtr. 2022
Payment for Clean Water Financing Authority Trustee	5,000	25,000	*	Ongoing	Ongoing
Plant Electrical Reliability		4,926,000	29,193,000	3rd Qtr. 2003	4th Qtr. 2020
Plant Infrastructure Improvements	1,000,000	5,000,000	*	Ongoing	Ongoing
Plant Instrument Air System Upgrade	3,400,000	3,499,000	4,814,000	3rd Qtr. 2014	1st Qtr. 2018
Preliminary Engineering	1,000,000	5,000,000	10,190,000	N/A	N/A
Program Management	8,175,000	15,730,000	39,186,000	N/A	N/A
Public Art	360,000	2,820,000	*	Ongoing	Ongoing
Record Drawings	250,000	13,577,000	14,264,000	3rd Qtr. 2014	2nd Qtr. 2020
Secondary Clarifier Rehabilitation	104,000	26,040,000	26,559,000	1st Qtr. 2017	2nd Qtr. 2024
State Revolving Fund Loan Repayment	4,464,000	10,732,000	87,272,000	3rd Qtr. 1998	2nd Qtr. 2019
Support Building Improvements	2,300,000	54,085,000	55,134,000	3rd Qtr. 2015	1st Qtr. 2022
Transfer to Clean Water Financing Authority Debt Service 2017-2018		53,135,000	53,135,000	3rd Qtr. 2015	2nd Qtr. 2045
Transfer to the City Hall Debt Service Fund	172,000	929,000	*	Origonia	Ongoing
Transfer to the Clean Water Financing Authority Debt Service Payment Fund	6,788,000	29,246,000	51,070,000	2nd Qtr. 1996	4th Qtr. 2020

	2016-2017 Budget	2017-2021 CIP Budget	Total Budget (All Years)	Start Date	End Date
Water Pollution Control (Cont'd.)					
Transfer to the General Fund - Human Resources/Payroll/ Budget Systems Upgrade	3,000	3,000	24,000	N/A	N/A
Treatment Plant Distributed Control System	670,000	3,295,000	6,919,000	1st Qtr. 2012	3rd Qtr. 2019
Tunnel Rehabilitation		9,103,000	27,702,000	3rd Qtr. 2017	3rd Qtr. 2027
Urgent and Unscheduled Treatment Plant Rehabilitation	1,500,000	7,500,000	*	Ongoing	Ongoing
Yard Piping and Road Improvements	1,047,000	42,255,000	*	Ongoing	Ongoing
Total: Construction/Non-Construction	118,096,000	950,336,000			
Ending Fund Balance	4,517,493	2,978,493 **			
Total: Water Pollution Control	122,613,493	953,314,493 **			
Water Utility System					
Advance System Design	200,000	1,000,000	*	Ongoing	Ongoing
Cadwallader Reservoir Rehabilitation	20,000	20,000	2,233,000	3rd Qtr. 2014	2nd Qtr. 2017
Capital Program and Public Works Department Support Service Costs	15,000	59,000	*	Ongoing	Ongoing
Edenvale Reservoir Rehabilitation	1,100,000	1,100,000	1,175,000	2nd Qtr. 2016	2nd Qtr. 2017
Elkins Way Main Replacement		1,030,000	1,030,000	3rd Qtr. 2017	3rd Qtr. 2019
Fowler Pump Station Replacement		1,565,000	2,065,000	3rd Qtr. 2019	2nd Qtr. 2022
Gumdrop Drive Main Replacement	60,000	1,140,000	1,140,000	3rd Qtr. 2016	2nd Qtr. 2019
Infrastructure Improvements	780,000	4,000,000	*	Ongoing	Ongoing
Major Facilities Fee Administration	15,000	75,000	*	Ongoing	Ongoing
Master Plan Engineering	145,000	775,000	*	Ongoing	Ongoing
Meter Installations	50,000	250,000	*	Ongoing	Ongoing
Meter Replacements	1,200,000	1,200,000	4,517,000	3rd Qtr. 2013	2nd Qtr. 2017
Network System Flow Improvements	6,000	30,000	*	Ongoing	Ongoing
North Coyote Valley Water System Reserve	168,000	168,000	168,000	N/A	N/A
North San José Reliability Well #6 Construction		1,450,000	1,450,000	3rd Qtr. 2018	2nd Qtr. 2021
North San José Well #5 Development and Construction	1,500,000	1,500,000	1,560,000	2nd Qtr. 2016	2nd Qtr. 2017
Orinda Drive Main Replacement		1,290,000	1,290,000	3rd Qtr. 2018	2nd Qtr. 2021

	2016-2017 Budget	2017-2021 CIP Budget	Total Budget (All Years)		Start Date	End Date
Water Utility System (Cont'd.)				_		
Preliminary Engineering	130,000	700,000		*	Ongoing	Ongoing
Public Art	137,000	165,000		*	Ongoing	Ongoing
Public Works GIS Support	65,000	325,000		*	Ongoing	Ongoing
Repayment of Commercial Paper	627,000	1,254,000	1,254,000	3	3rd Qtr. 2016	2nd Qtr. 2018
Safety and Security Improvements	100,000	300,000	1,100,000	•	1st Qtr. 2015	2nd Qtr. 2019
Service Installations	200,000	1,000,000		*	Ongoing	Ongoing
System Growth Related Projects Reserve	1,600,000	1,600,000	1,600,000		N/A	N/A
System Maintenance/Repairs	740,000	3,720,000		*	Ongoing	Ongoing
System Rehabilitation/Replacement Reserve	2,692,000	4,349,000	4,349,000		N/A	N/A
Transfer to the City Hall Debt Service Fund	13,000	68,000		*	Ongoing	Ongoing
Transfer to the General Fund - Human Resources/Payroll/ Budget Systems Upgrade	1,000	1,000	5,000		N/A	N/A
Total: Construction/Non-Construction	11,564,000	30,134,000				
Ending Fund Balance	1,765,293	1,951,293	**			
Total: Water Utility System	13,329,293	32,085,293	**			
CSA Total: Construction/Non-Construction	222,185,000	1,234,816,000	**			
Ending Fund Balance	11,768,906	9,097,906	**			
CSA Total:	233,953,906	1,243,913,906	**			

^{*} Total Budget information is not provided due to the ongoing nature of this project.

^{**}The 2016-2017 through 2019-2020 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

