FY 2019-2020
LONG BEACH WATER DEPARTMENT
CAPITAL IMPROVEMENT PROGRAM
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## WATER FUND PROJECT BUDGETS (thousands)

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<tr>
<th>Project Description</th>
<th>Fiscal Year 2019/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water CIP by In-House Work Force (a)</td>
<td>2,050</td>
</tr>
<tr>
<td>Pipeline System Improvements</td>
<td>3,389</td>
</tr>
<tr>
<td>Reservoir/Treatment Plant System Improvements</td>
<td>2,398</td>
</tr>
<tr>
<td>Water Supply</td>
<td>5,708</td>
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<tr>
<td>Recycled Water Facility Improvements</td>
<td>0</td>
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<tr>
<td>Water Facility Improvements (a)(b)</td>
<td>10,473</td>
</tr>
<tr>
<td>Developer Reimbursed Projects - Water (a)</td>
<td>700</td>
</tr>
<tr>
<td>Interest Expense Capitalized - Water Fund (a)</td>
<td>800</td>
</tr>
</tbody>
</table>

Note:  
(a) Budget numbers for FY 2019/20 provided by Accounting/Finance  
(b) Facility Improvement projects for FY 2019/20 to be administered by LBWD Support Services

TOTAL FOR WATER FUND PROJECTS 25,518

## SEWER FUND PROJECT BUDGETS (thousands)

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Fiscal Year 2019/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer Pipeline Improvements</td>
<td>3,891</td>
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<tr>
<td>Sewer Lift Station Rehabilitations</td>
<td>1,157</td>
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<tr>
<td>Sewer Facility Improvements (a)(b)</td>
<td>0</td>
</tr>
<tr>
<td>Interest Expense Capitalized - Sewer Fund (a)</td>
<td>150</td>
</tr>
</tbody>
</table>

Note:  
(a) Budget numbers for FY 2019/20 provided by Accounting/Finance  
(b) Facility Improvement projects for FY 2019/20 to be administered by LBWD Support Services

TOTAL FOR SEWER FUND PROJECTS 5,198

TOTAL CIP PROJECTS 30,715
PROJECT CATEGORY: WATER CIP BY IN-HOUSE WORK FORCE

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-House Main Replacements</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Meter Replacements</td>
<td>$50,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$2,050,000</strong></td>
</tr>
</tbody>
</table>

**SUMMARY:**

The Long Beach Water Department (LBWD) continues its program of replacing aging cast iron mains with ductile iron pipe. The design and construction of this replacement work is performed by LBWD’s own workforce. The criteria for replacing water mains are based upon their age, flow, pressure and main break history. Additionally, old and malfunctioning meters are replaced on a regular cycle by LBWD’s field personnel.
PROJECT: IN-HOUSE MAIN REPLACEMENTS

Fund: Water

Project Category: Water CIP by In-house Work Force

Project Description: These projects will include removing and replacing cast iron water mains with ductile iron pipe.

Purpose: Improve fire flow protection and preserve water quality to areas throughout the City.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $2,000,000
PROJECT: METER REPLACEMENTS

Fund: Water

Project Category: Water CIP by In-house Work Force

Project Description:
This project will include replacing outdated meters.

Purpose: Maximize water system performance.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $50,000
LONG BEACH WATER DEPARTMENT
CAPITAL IMPROVEMENT PROGRAM
FY 2019/20 WATER FUND PROJECTS

PROJECT CATEGORY: PIPELINE SYSTEM IMPROVEMENTS

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alley Water Main Conversion – Daisy Avenue</td>
<td>$1,922,000</td>
</tr>
<tr>
<td>Alley Water Main Conversion – TBD</td>
<td>$75,800</td>
</tr>
<tr>
<td>Cathodic Protection, Phase 5</td>
<td>$100,000</td>
</tr>
<tr>
<td>Large Valve Replacement – Redondo Avenue/Kilroy Airport Way</td>
<td>$1,003,000</td>
</tr>
<tr>
<td>Large Valve Replacement – Redondo Avenue/Kilroy Airport Way, Phase 2</td>
<td>$25,000</td>
</tr>
<tr>
<td>Large Valve Replacement – TBD</td>
<td>$9,300</td>
</tr>
<tr>
<td>Water Main Lining Pilot Project</td>
<td>$216,600</td>
</tr>
<tr>
<td>2018 Water Master Plan</td>
<td>$37,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$3,338,700</strong></td>
</tr>
</tbody>
</table>

SUMMARY:

As part of the Long Beach Water Department’s (LBWD) cast iron main replacement program, old cast iron mains in alleys will be replaced by new ductile iron mains in City streets, and the existing service laterals in the alleys will be reconnected to the new mains as part of the alley service connection conversion. LBWD’s large valve replacement program will improve water system reliability and restore operations functionality. LBWD is also undertaking a couple of first: its first water main lining project, as well as its first Water Master Plan.
PROJECT: DAISY AVENUE ALLEY WATER MAIN CONVERSION

Fund: Water

Project Category: Pipeline System Improvements

Project Description:
This project will include replacing approximately 3,900 linear feet of 6-inch and 8-inch cast iron main with ductile iron pipes, and constructing water service laterals to new water mains moved from alleys to streets.

Purpose: Improve fire flow protection and preserve water quality to the area.

Location: Area bounded by Daisy Avenue, San Francisco Avenue, W Hill Street and W 20th Street

Council District: 7

FY 2019/20 Budget: $1,922,000
PROJECT: ALLEY WATER MAIN CONVERSION - TBD

Fund: Water

Project Category: Pipeline System Improvements

Project Description: This project will include replacing cast iron mains with ductile iron pipes, and constructing water service laterals to the new water mains moved from alleys to streets.

Purpose: Improve fire flow protection and preserve water quality to the area.

Location: TBD

Council District: TBD

FY 2019/20 Budget: $75,800
PROJECT: CATHODIC PROTECTION, PHASE 5

Fund: Water

Project Category: Pipeline System Improvements

Project Description: This project will include repairing and replacing missing cathodic protection test stations.

Purpose: Ensure the integrity, dependability, and prolonged life of the water system.

Location: TBD

Council District: TBD

FY 2019/20 Budget: $100,000
PROJECT: LARGE VALVE REPLACEMENT - REDONDO AVENUE/KILROY AIRPORT WAY

Fund: Water

Project Category: Pipeline System Improvements

Project Description:
This project will include replacing broken and inoperable valves in the water transmission system.

Purpose: Improve water system reliability and restore operations functionality.

Location: Redondo Avenue and Kilroy Airport Way

Council District: 5

FY 2019/20 Budget: $1,003,000
PROJECT: LARGE VALVE REPLACEMENT - REDONDO AVENUE/KILROY AIRPORT WAY, PHASE 2

Fund: Water

Project Category: Pipeline System Improvements

Project Description:
This project will include replacing broken and inoperable valves in the water transmission system.

Purpose: Improve water system reliability and restore operations functionality.

Location: Redondo Avenue and Kilroy Airport Way

Council District: 5

FY 2019/20 Budget: $25,000
PROJECT: LARGE VALVE REPLACEMENT - TBD

Fund: Water

Project Category: Pipeline System Improvements

Project Description:
This project will include replacing broken and inoperable valves in the water transmission system.

Purpose: Improve water system reliability and restore operations functionality.

Location: TBD

Council District: TBD

FY 2019/20 Budget: $9,300
PROJECT: WATER MAIN LINING PILOT PROJECT

Fund: Water

Project Category: Pipeline System Improvements

Project Description:
This project will include rehabilitation of approximately 2,300 linear feet of cast iron water mains.

Purpose: Improve fire flow protection and preserve water quality to the area.

Location: Area bounded by E Pacific Coast Highway, E 15th Street, Stanton Place, and Cherry Avenue

Council District: 4

FY 2019/20 Budget: $216,600
PROJECT: 2018 WATER MASTER PLAN

Fund: Water

Project Category: Pipeline System Improvements

Project Description:
This project will include developing a hydraulic model, evaluating the potable water system, and performing pipeline assessments using available technology.

Purpose: Develop a near- and long-term capital improvement program for the water distribution system.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $37,000
PROJECT CATEGORY: RESERVOIR/TREATMENT PLANT SYSTEM

IMPROVEMENTS

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alamitos Tank No. 5 Rehabilitation</td>
<td>$5,000</td>
</tr>
<tr>
<td>Alamitos Tank No. 6 Rehabilitation</td>
<td>$1,163,200</td>
</tr>
<tr>
<td>North Collection Main Control Valve Upgrade</td>
<td>$188,000</td>
</tr>
<tr>
<td>Treatment Plant HVAC System Improvements</td>
<td>$299,500</td>
</tr>
<tr>
<td>SCADA Design, Phase II</td>
<td>$742,317</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$2,398,017</strong></td>
</tr>
</tbody>
</table>

SUMMARY:

The Long Beach Water Department (LBWD) has 24 steel water storage tanks at the Alamitos Reservoir, and another 12 tanks at the J. Will Johnson Reservoir. Each tank holds 3.5 million gallons of water, and all but one of these tanks was constructed between the 1920’s and 1960’s. LBWD's tank rehabilitation program ensures the integrity, dependability, and prolonged life of these tanks. LBWD also operates the second largest groundwater treatment plant in the United States. Improvement projects at the plant and related infrastructure ensure the City's high quality drinking water consistently meets or betters all Federal and State drinking water regulations.
PROJECT: ALAMITOS RESERVOIR TANK NO. 4 REHABILITATION

Fund: Water

Project Category: Reservoir/Treatment Plant System Improvements

Project Description:
This project will include recoating the tank and constructing seismic and structural improvements.

Purpose: Ensure the integrity, dependability, and prolonged life of water infrastructure.

Location: Alamitos Reservoir Site

Council District: 4

FY 2019/20 Budget: $5,000
PROJECT: ALAMITOS RESERVOIR TANK NO. 5 REHABILITATION

Fund: Water

Project Category: Reservoir/Treatment Plant System Improvements

Project Description: This project will include recoating the tank and constructing seismic and structural improvements.

Purpose: Ensure the integrity, dependability, and prolonged life of water infrastructure.

Location: Alamitos Reservoir Site

Council District: 4

FY 2019/20 Budget: $1,163,200
PROJECT: NORTH COLLECTION MAIN CONTROL VALVE UPGRADE

Fund: Water

Project Category: Reservoir/Treatment Plant System Improvements

Project Description:
This project will include replacing an inoperable valve and pressure sensor/transmitter in the collection main system.

Purpose: Improve water system reliability and restore operations functionality.

Location: E Wardlow Road east of Cherry Avenue

Council District: 5

FY 2019/20 Budget: $188,000
PROJECT: GROUNDWATER TREATMENT PLANT HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) SYSTEM IMPROVEMENTS

Fund: Water

Project Category: Reservoir/Treatment Plant System Improvements

Project Description:
This project will include modernizing the existing HVAC systems at the Groundwater Treatment Plant.

Purpose: Ensure the integrity and dependability of water infrastructure.

Location: Long Beach Water Department Groundwater Treatment Plant

Council District: 5

FY 2019/20 Budget: $299,500
PROJECT: SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) DESIGN, PHASE II

Fund: Water

Project Category: Reservoir/Treatment Plant System Improvements

Project Description:
This project will include the design and construction of the necessary improvements to replace out-dated hardware, software, and communication interfaces.

Purpose: Ensure and improve overall SCADA system reliability, accessibility, maintainability, and security.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $742,317
PROJECT CATEGORY: WATER SUPPLY PROJECTS

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Coast Basin Groundwater Well Equipping</td>
<td>$1,478,100</td>
</tr>
<tr>
<td>Wilson 1A and Citizens 7A Water Well Rehabilitations</td>
<td>$873,900</td>
</tr>
<tr>
<td>Alamitos 9, North Long Beach 4, and Commission 15 Water Well Rehabilitations</td>
<td>$225,000</td>
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<tr>
<td>Commission 14 and Commission 18 Water Well Rehabilitations</td>
<td>$100,000</td>
</tr>
<tr>
<td>Commission 22A Well Equipping</td>
<td>$1,953,200</td>
</tr>
<tr>
<td>New Wells 1 and 2</td>
<td>$750,000</td>
</tr>
<tr>
<td>New Wells 3 and 4</td>
<td>$150,000</td>
</tr>
<tr>
<td>32nd Street Booster Pump Station Improvements</td>
<td>$178,000</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$5,708,200</strong></td>
</tr>
</tbody>
</table>

SUMMARY:

The Long Beach Water Department (LBWD) currently has 31 groundwater wells it operates and maintains. LBWD’s well rehabilitation program aims to restore wells to their most efficient production condition. LBWD’s endeavors also include projects such as the West Coast Basin and Commission 22A wells, as well as an additional 4 new wells, that are part of a long-term strategy to supplement LBWD’s water supply and meet future demands.
PROJECT: WEST COAST BASIN GROUNDWATER WELL EQUIPPING

Fund: Water

Project Category: Water Supply

Project Description: This project will include equipping a new groundwater production well within the West Coast Basin.

Purpose: Ensure future groundwater production.

Location: Delta Avenue and W Wardlow Road

Council District: 7

FY 2019/20 Budget: $1,478,100
PROJECT: WILSON 1A AND CITIZENS 9 WATER WELL REHABILITATIONS

Fund: Water

Project Category: Water Supply

Project Description:
This project will include rehabilitating groundwater production wells.

Purpose: Restore a well to its most efficient condition.

Location: Palo Verde Avenue south of Wardlow Road; Clark Avenue and E Conant Street

Council District: 5

FY 2019/20 Budget: $873,900
PROJECT: ALAMITOS 9, NORTH LONG BEACH 4, AND COMMISSION 15 WATER WELL REHABILITATIONS

Fund: Water

Project Category: Water Supply

Project Description:
This project will include rehabilitating groundwater production wells.

Purpose: Restore a well to its most efficient condition.

Location: Stearns Park, Jackson Park, and Heartwell Park

Council District: 4, 5, and 8

FY 2019/20 Budget: $225,000
PROJECT: COMMISSION 14 AND 18 WATER WELL REHABILITATIONS

Fund: Water

Project Category: Water Supply

Project Description:
This project will include rehabilitating groundwater production wells.

Purpose: Restore a well to its most efficient condition.

Location: Heartwell Park

Council District: 5

FY 2019/20 Budget: $100,000
PROJECT: COMMISSION 22A WATER WELL EQUIPPING

Fund: Water

Project Category: Water Supply

Project Description:
This project will include equipping a new groundwater production well.

Purpose: Ensure future groundwater production.

Location: El Dorado Park

Council District: 5

FY 2019/20 Budget: $1,953,200
PROJECT: NEW WELLS 1 AND 2

Fund: Water

Project Category: Water Supply

Project Description:
This project will include drilling, developing and equipping new groundwater production wells.

Purpose: Ensure future groundwater production.

Location: To be determined (TBD)

Council District: To be determined (TBD)

FY 2019/20 Budget: $750,000
PROJECT: NEW WELLS 3 AND 4

Fund: Water

Project Category: Water Supply

Project Description:
This project will include drilling, developing and equipping new groundwater production wells.

Purpose: Ensure future groundwater production.

Location: To be determined (TBD)

Council District: To be determined (TBD)

FY 2019/20 Budget: $150,000
PROJECT: 32ND STREET BOOSTER PUMP STATION REHABILITATION

Fund: Water

Project Category: Water Supply

Project Description:
This project will include assessing the existing 32nd Street Booster Pump Station.

Purpose: Ensure the integrity and dependability of water infrastructure.

Location: 1420 E 32nd Street

Council District: 7

FY 2019/20 Budget: $178,000
PROJECT CATEGORY: WATER FACILITY IMPROVEMENTS

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost Estimate</th>
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<tbody>
<tr>
<td>Water Advanced Metering Infrastructure (AMI)</td>
<td>$9,872,783</td>
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<tr>
<td>Space Planning</td>
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<tr>
<td>Facilities Roofing</td>
<td>$350,000</td>
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<tr>
<td>Building Flashing/Seals</td>
<td>$200,000</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$10,472,783</strong></td>
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</table>

**SUMMARY:**

Water facility improvement projects ensure the integrity, dependability, and prolonged life of vital infrastructures. LBWD oversees a large network of water infrastructure water to residents through more than 90,000 individual water connections. All water customers across the City will be transitioned to Advanced Metering Infrastructure (AMI) “smart meters.” AMI technology enables seamless communication between LBWD and their customers and improves customer awareness of water use.
PROJECT: ADVANCED METERING INFRASTRUCTURE

Fund: Water

Project Category: Water Facility Improvements

Project Description:
This project will begin the process to deploy Advanced Metering Infrastructure (AMI). Over 90,000 water customers will be transitioned to AMI "smart meters" over the next several years.

Purpose: Ensure sustainable and efficient operations through proactive monitoring of water usage.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $9,872,783
PROJECT: SPACE PLANNING

Fund: Water

Project Category: Water Facility Improvements

Project Description:
This project will include reorganization of existing work space.

Purpose: Accommodate staffing and workflow efficiencies.

Location: Long Beach Water Department Administration Building and Operations Service Center

Council District: 7

FY 2019/20 Budget: $50,000
PROJECT: FACILITIES ROOFING

Fund: Water

Project Category: Water Facility Improvements

Project Description:
This project will include repairing and/or replacing existing building roofs at the Operations Service Center and Groundwater Treatment Plant

Purpose: Ensure the integrity, dependability, and prolonged life of department facilities

Location: Long Beach Water Department Operations Service Center and Groundwater Treatment Plant

Council District: 5, 7

FY 19/20 Budget: $350,000
PROJECT: BUILDING FLASHING/SEALS

Fund: Water

Project Category: Water Facility Improvements

Project Description:
This project will include repairing and/or replacing existing flashing and seals at the Operations Service Center and Groundwater Treatment Plant

Purpose: Ensure the integrity, dependability, and prolonged life of department facilities

Location: Long Beach Water Department Operations Service Center and Groundwater Treatment Plant

Council District: 5, 7

FY 19/20 Budget: $200,000

Long Beach Water Department
Capital Improvement Program
FY 2019/20
PROJECT: DEVELOPER REIMBURSED PROJECTS - WATER

Fund: Water

Project Category: Water Miscellaneous

Project Description:
These projects include plan checking and inspecting new water infrastructure paid for by developers

Purpose: Support the development and economic growth of the City

Location: City-wide

Council District: Various

FY 2019/20 Budget: $700,000
PROJECT: INTEREST EXPENSE CAPITALIZED - WATER FUND

Fund: Water

Project Category: Water Miscellaneous

Project Description:
Interest on debt used to finance water capital improvements.

Purpose: Finance requirement to account for total cost of water capital improvements.

Location: N/A

Council District: N/A

FY 2019/20 Budget: $800,000
LONG BEACH WATER DEPARTMENT
CAPITAL IMPROVEMENT PROGRAM
FY 2019/20 SEWER FUND PROJECTS

PROJECT CATEGORY: SEWER PIPELINE IMPROVEMENTS

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost Estimate</th>
</tr>
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<tbody>
<tr>
<td>Sanitary Sewer Rehabilitation/Replacement Project (SSRRP) No. 5</td>
<td>$690,000</td>
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<tr>
<td>Sanitary Sewer Rehabilitation/Replacement Project (SSRRP) No. 6</td>
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<tr>
<td>Sanitary Sewer Rehabilitation/Replacement Project (SSRRP) No. 7</td>
<td>$120,000</td>
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<tr>
<td>Sewer Operations Repairs</td>
<td>$800,000</td>
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<tr>
<td>Manhole Rehabilitations</td>
<td>$125,000</td>
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<tr>
<td>Sewer Master Plan Update</td>
<td>$315,000</td>
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<tr>
<td>Arbor and Locust Sewer Improvements</td>
<td>$250,000</td>
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<tr>
<td>47th Street Sewer Improvements</td>
<td>$789,000</td>
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<tr>
<td>Sewer Project 2</td>
<td>$111,500</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$3,890,500</strong></td>
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SUMMARY:

In order to maintain sanitary sewer system reliability and capacity, and be in compliance with the State of California’s Waste Discharge Requirements, it is the Long Beach Water Department’s (LBWD) priority to overhaul deficient and aging sewer infrastructure to ensure the swift removal of sanitary sewage from Long Beach residences and businesses. Pipes that are capacity deficient are upsized and those that are structurally deficient and cannot be rehabilitated are replaced.
PROJECT: SANITARY SEWER REHABILITATION/REPLACEMENT PROJECT (SSRRP) NO. 5

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description: This project will include cleaning, CCTV inspecting and potential repairing, replacing and/or rehabilitating of approximately 9,000 linear feet of sewer mains.

Purpose: Improve the reliability and capacity of the existing sanitary sewer system.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $690,000
Long Beach Water Department
Capital Improvement Program
FY 2019/20

PROJECT: SANITARY SEWER REHABILITATION/REPLACEMENT PROJECT (SSRRP) NO. 6

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description:
This project will include cleaning, CCTV inspecting and potential repairing, replacing and/or rehabilitating of approximately 9,000 linear feet of sewer mains.

Purpose: Improve the reliability and capacity of the existing sanitary sewer system.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $690,000
PROJECT: SANITARY SEWER REHABILITATION/REPLACEMENT PROJECT (SSRRP) NO. 7

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description:
This project will include cleaning, CCTV inspecting and potential repairing, replacing and/or rehabilitating of approximately 9,000 linear feet of sewer mains.

Purpose: Improve the reliability and capacity of the existing sanitary sewer system.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $690,000
PROJECT: SEWER OPERATIONS REPAIRS

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description: These projects will include repairing sewer laterals and sections of mains.

Purpose: Improve the reliability and capacity of the existing sanitary sewer system.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $800,000
PROJECT: MANHOLE REHABILITATIONS

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description:
This project will include rehabilitating existing sewer manholes.

Purpose: Improve the reliability and capacity of the existing sanitary sewer system.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $125,000
PROJECT: SEWER MASTER PLAN UPDATE

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description: This project will include an expansion of the existing sanitary sewer system hydraulic model, evaluation of the existing sanitary sewer system, and development of a phased capital improvement program.

Purpose: Improve the reliability and capacity of the existing sanitary sewer system.

Location: City-wide

Council District: Various

FY 2019/20 Budget: $315,000
PROJECT: ARBOR AND LOCUST SEWER IMPROVEMENTS

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description:
This project will include evaluating existing sewer pipeline deficiencies within the project area and providing recommended improvements.

Purpose: Improve the reliability and capacity of the existing sanitary sewer system.

Location: Area bounded by Del Amo Boulevard, 46th Street, Atlantic Avenue, and Long Beach Boulevard

Council District: 8

FY 2019/20 Budget: $250,000
PROJECT: 47TH STREET SEWER IMPROVEMENTS

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description:
This project will include installing 1,300 linear feet of new vitrified clay pipe.

Purpose: Improve reliability and capacity of the existing sanitary sewer system.

Location: 47th Street between the alley east of Grisham Avenue and Pacific Avenue

Council District: 8

FY 2019/20 Budget: $789,000
PROJECT: SEWER PROJECT NO. 2

Fund: Sewer

Project Category: Sewer Pipeline Improvements

Project Description:
This project will include improvements to the existing sanitary sewer system.

Purpose: Improve the reliability and capacity of the existing sanitary sewer system.

Location: TBD

Council District: TBD

FY 2019/20 Budget: $111,500
PROGRESS REPORT PREPARED FOR THE BUDGET YEAR 2019/2020

LONG BEACH WATER DEPARTMENT
CAPITAL IMPROVEMENT PROGRAM
FY 2019/20 SEWER FUND PROJECTS

PROJECT CATEGORY: SEWER LIFT STATION REHABILITATIONS

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-25 Sewer Lift Station Rehabilitation</td>
<td>$124,000</td>
</tr>
<tr>
<td>S-18 Sewer Lift Station Rehabilitation</td>
<td>$855,400</td>
</tr>
<tr>
<td>Future Sewer Lift Station Rehabilitation</td>
<td>$177,700</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,157,100</strong></td>
</tr>
</tbody>
</table>

SUMMARY:

In order to maintain sanitary sewer system reliability and capacity, and be in compliance with the State of California’s Waste Discharge Requirements, it is the Long Beach Water Department’s (LBWD) priority to overhaul deficient and aging sewer infrastructure to ensure the swift removal of sanitary sewage from Long Beach residences and businesses. Sewer lift stations are rehabilitated to ensure the integrity, dependability, and prolonged life of critical sewer facilities.
PROJECT: S-25 SEWER LIFT STATION REHABILITATION

Fund: Sewer

Project Category: Sewer Lift Station Rehabilitations

Project Description:
This project will include interior wet well repairs, ventilation and odor control system upgrades, and structural and seismic improvements.

Purpose: Improve the station's overall reliability.

Location: Queens Way and W Shoreline Drive

Council District: 2

FY 2019/20 Budget: $124,000
PROJECT: S-18 SEWER LIFT STATION REHABILITATION

Fund: Sewer

Project Category: Sewer Lift Station Rehabilitations

Project Description: This project will include interior wet well repairs, ventilation and odor control system upgrades, and structural and seismic improvements.

Purpose: Improve the station's overall reliability.

Location: Hart Place and E Seaside Way

Council District: 2

FY 2019/20 Budget: $855,400
PROJECT: FUTURE LIFT STATION REHABILITATION

Fund: Sewer

Project Category: Sewer Lift Station Rehabilitations

Project Description:
This project will include improvements to an existing sewer lift station.

Purpose: Improve the station's overall reliability.

Location: TBD

Council District: TBD

FY 2019/20 Budget: $177,700
PROJECT: INTEREST EXPENSE CAPITALIZED - SEWER FUND

Fund: Sewer

Project Category: Sewer Miscellaneous

Project Description:
Interest on debt used to finance water capital improvements.

Purpose: Finance requirement to account for total cost of sewer capital improvements.

Location: N/A

Council District: N/A

FY 2019/20 Budget: $150,000