



City of Huntington Beach Public Works Department

Sewer Service Fund Performance Audit Fiscal Year 2021/22

Introduction

Per Chapter 14.54 Sewer Service User Charge of the *Huntington Beach Municipal Code* (HBMC), the Sewer Service Fund shall be subject to an annual review and performance audit by the Public Works Commission.

On September 4, 2001, the Huntington Beach City Council adopted a Sewer Service User Charge and established the Sewer Service Fund per HBMC Section 14.54.050 Sewer Service Fund. Pursuant to *California Health and Safety Code Section 5470 et seq.*, the City is authorized to adopt fees and charges for the acquisition, construction, reconstruction, maintenance, and operation of sewerage facilities.

The Sewer Service Fund is an enterprise fund that provides for the operations, maintenance, and capital needs of the City's sanitary sewer system. The funds come from user fees charges to resident and businesses and are restricted or these uses. Fees are set in accordance with Proposition 218, which was enacted in 1996 to ensure that rates and fees are reasonable and proportional to the cost of providing service.

The information presented in this report complies with the requirements outlined therein Section 14.54.070 Annual Program Review of the HBMC.

Operations and Maintenance Program

Operations and maintenance of the sanitary sewer system within the public right-of-way is the responsibility of the Department of Public Works, Utilities Division.

The City's wastewater collection system consists of approximately 360 miles of City-owned sewer lines and 27 sewer lift stations, which transport a combined, estimated 20.3 million gallons of wastewater per day.

Wastewater Section Personnel utilize the *City of Huntington Beach Sewer System Management Plan* (SSMP) to effectively operate, maintain, and manage the City's wastewater collection system. The SSMP helps the City ensure compliance with the State Water Board (Board) *Water Quality Order 2006-0003-DWQ Statewide Waste Discharge Requirements for Sanitary Sewer Systems* (Order). To monitor and measure effectiveness, the SSMP establishes performance measures with a goal of zero sanitary sewer overflows (SSOs). These measures have been included in this audit.

Regarding programming, the following programmatic elements are included in the latest SSMP Update adopted by the City Council on March 15, 2022:

- Mapping: The City of Huntington Beach currently utilizes a Geographic Information System (GIS) based mapping system for its sanitary sewer system. GIS information regarding sewer pipelines and manholes is continuously maintained to ensure compliance with Government Accounting Standards Board (GASB) 34 requirements.
- Line Cleaning: The majority of the City's sewer system is proactively cleaned with all gravity sewer pipe segments routinely cleaned and serviced every two (2) years. Even with a regular cleaning schedule, some locations may still develop problems. These locations are placed on an "enhanced cleaning" location list and are cleaned more frequently. The City currently has 235 enhanced cleaning locations and assigns two (2) full-time employees to their maintenance.
- Lift Station Maintenance: The City's 27 sewer lift stations are generally reliable. To maintain their reliability the City performs preventative maintenance on daily, monthly, quarterly, and yearly schedules. Lift stations are inspected weekly at a minimum. This includes visual inspection of all lift stations, exercising of valves and replacement of worn parts. Wet wells are typically pumped down and cleaned at least four (4) times a year, or more often if necessary to prevent solids and grease build-up. Inspection of pumps (submersible and dry) and impellers are typically performed quarterly, but may be adjusted depending on pump motor hours. Inspection and exercising of all gate and check valves are also performed quarterly to ensure proper working order.
- Manhole Monitoring System: 27 Smart Covers with sensor technology are installed at strategic locations in the sewer system pipelines to generate an alert with any potential capacity constraints in manholes with potential for vandalism or illegal dumping. Maintenance is performed on an annual basis and involves inspection of the unit and replacement of the battery. Defective units are replaced and/or repaired on an as-needed basis.
- Closed Circuit Television (CCTV) Program: The City intends to CCTV its entire system over the next five (5) years via Contractors, with the long-term goal of updating Citywide CCTV inspections every 5-10 years. Based upon these CCTV inspections and evaluations, routine maintenance is tailored to meet the actual needs of the system including updating the City's capital improvement program (CIP) for system rehabilitation and replacement.
- Sewer Lateral Program: Per Section 14.54.035 Maintenance and Repair of the Huntington Beach Municipal Code, the *"City will pay the cost of repair and*

maintenance of all lateral lines from the City-owned sewer main through the public right-of-way to the private property line.”

The Sewer Lateral Program was added effective January 3, 2008, and the sewer service charge was adjusted to cover the projected expenses. The program transferred the responsibility to the City for sewer lateral repairs within the public right-of-way. Initially, the cost of the program exceeded the additional revenue generated by the adjustment to the Sewer Service User Charge; however, costs for this program have decreased significantly since its inception.

Routine preventative maintenance, along with any needed corrective and/or emergency repairs are normally completed within the allotted budget.

For declared emergency and/or disaster events, emergency construction contracts, purchases, and or procurements may be made under Section 3.02.190 Exempt and Emergency Procurements of the HBMC as needed to preserve the health, safety, life, or property of City residents and the public. Expenditures above and beyond budgeted amounts may require the drawdown of reserves.

Sewer Service Fund Reserve Policy

The City Council adopted a Reserve Policy for enterprise funds in Fiscal Year (FY) 2014/15. The reserve policy for the Sewer Service Fund states that the City will maintain a reserve equal to the sum of the following:

- Operations and Maintenance: Thirty-three percent (33%) of the adopted annual budget to ensure adequate working capital for operating expenses. For FY 2022-23, this amount is \$3.5 million.
- CIP: One-hundred percent (100%) of the average annual planned CIP for the following five (5) years. For FY 2022/23, this amount is \$3.6 million.
- Emergency: An amount equal to the estimated cost, as determined by the City Engineer, to replace one (1) sewer lift station. For FY 2022/23, this amount is \$4.5 million.

Based on the amounts hereinabove, the total reserve requirement for FY 2022/23 equals \$11.6 million.

Capital Improvement Program

A capital improvement is the addition of a permanent structure, change or restoration of infrastructure that will enhance its overall value, prolong its useful life, or create new uses.

In general, the City's CIP includes new projects and upgrades to existing facilities of \$50,000 or more, and is adopted annually in conjunction with the City Budget. The primary funding source for sewer-related capital projects is the Sewer Service fund.

Typical sewer CIP projects include, but are not limited to: construction of gravity sewer mains, in-situ lining of existing sewer mains, sewer lift stations rehabilitation, and new sewer lift station construction.

Detailed descriptions regarding recently completed and planned CIP projects are included herein this report.

FY 2021/22 Review

Personnel and operating expenditures accounted for approximately sixty percent (60%) of the FY 2021/22 Sewer Service Fund budget and are directed toward preventative and routine maintenance.

The budget included salaries and benefits, sewer line maintenance, CCTV pipeline and lateral inspection, lift station services, manhole upgrades, the Sewer Lateral Program and cost allocation charges to the City's General Fund. The balance of the expense budget was earmarked for capital equipment replacement and CIP projects, which included slip lining, pipeline rehabilitation, and lift station replacement. In general, the Wastewater Maintenance Section of the Utilities Division oversees and expends the operating and equipment replacement budgets, and the Engineering Division is responsible for the implementation of capital projects.

FY 2021/22 Capital Improvement Program (CIP) Projects

Engineering staff completed construction of three (3) sewer CIP projects totaling approximately \$10.2 million. Additionally, staff completed the design of two (2) sewer CIP projects, McFadden Sewer Lift Station and Humboldt Sewer Lift Station, with both projects tentatively scheduled for completion in Fall/Winter of 2023.

- Slater Sewer Lift Station (\$4.9 million): Staff recently completed construction of the project in March of 2022. Built in 1968, the existing Slater Sewer Lift Station, located at the Northwest corner of Slater Avenue and Springdale Street, was replaced due to its age and insufficient wet well capacity. The project is funded by the Sewer Service Fund (\$2,480,000) and the Sewer Development Fee Fund (\$2,462,476).
- FY 2021/22 Sewer Lining (\$701,988): Approximately 25,600 linear feet of aged sewer main lines were rehabilitated using trenchless technology that inserts a liner inside the existing pipe which cures in place to form a replacement pipe. Staff completed the project in May of 2022 with funding from the Sewer Service Fund.
- Saybrook Sewer Lift Station (\$4.6 million): Staff recently completed construction of the project in May of 2022. Built in 1967, the existing Saybrook Sewer Lift Station was replaced due to its age and insufficient wet well capacity. The project is funded by the Sewer Service Fund (\$2,228,800) and the Sewer Development Fee Fund (\$2,341,200).
- McFadden Sewer Lift Station (\$4.5 million): City Council recently awarded construction of the project in February 2022. Built in 1972, the existing McFadden Sewer Lift Station is being replaced due to its age, insufficient wet well capacity, and structural deficiencies. The project is currently in construction and is tentatively scheduled to be complete by Spring 2023. The

project is funded by the Sewer Service Fund (\$3,103,302), and the Sewer Development Fee Fund (\$1,428,898).

Performance Measures

As part of the SSMP, the City identified the following performance measures in order to quantify Operations and Maintenance activities:

Performance Measure	FY2021/22
Miles of Sewer Cleaned	394.25
Miles of Laterals Cleaned	5
Miles of Sewer Inspected	7.5
Miles of Sewer Repaired/Replaced	0.01
Number of Laterals Repaired	284
Number of Sewer Cleanouts Installed	96
Number of Sewer Lateral Investigations	76
Number of Manholes Treated (Roach Control)	1,285
Number of Stoppages Cleared	0
Number of Sanitary Sewer Overflows (SSO)	2
Time from SSO Call Received Until Responders Arrive	36 min.
Time Elapsed Until Overflow is Stopped	5 min.
Number of Food Service Establishment (FSE) Inspections	396
Number of FSE Enforcement Actions Initiated	88
Number of FSE Enforcement Actions Resolved	55
Number of Wet Wells Cleaned	102
Number of Lift Station Inspections	1,119
Number of Force Main Air Relief Valves Inspected	2

FY 2021/22 Expenditures¹

Personnel	Original Budget	Revised Budget ²	Projected
Salaries, Permanent	\$2,582,657	\$2,532,637	\$2,434,088
Salaries, Temporary	\$97,500	\$97,500	\$19,092
Salaries, Overtime	\$100,000	\$100,000	\$103,796
Benefits	\$1,490,701	\$1,564,645	1,585,664
Total Personnel =	\$4,270,858	\$4,294,782	\$4,142,640

Operating			
Utilities	\$140,000	\$221,381	\$194,694
Equipment and Supplies	\$353,600	\$402,420	\$268,318
Repairs and Maintenance	\$1,847,000	\$1,978,934	\$1,688,291
Conferences and Training	\$28,000	\$28,000	\$26,543
Professional Services	\$400,000	\$986,191	\$507,477
Other Contract Services	\$60,000	\$85,000	\$102,552
Rental Expense	\$3,500	\$3,500	\$1,115
Cost Allocation	\$1,410,498	\$1,410,498	\$1,410,498
Auto Allowance	\$5,800	\$5,800	\$5,800
Other Expenses	\$75,000	\$75,000	
Total Operating =	\$4,323,398	\$5,196,724	\$4,205,288

Capital			
Vehicles	\$587,500	\$961,873	\$919,873
Total Capital	\$587,500	\$961,873	\$919,873

CIP ³			
Improvements	\$4,450,000	\$12,627,255	\$3,877,570
Total CIP =	\$4,450,000	\$12,627,255	\$3,877,570

TOTAL =	\$13,631,756	\$23,080,634	\$13,145,371
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¹ Actuals for Expenditures and Revenues are unaudited and may change slightly due to accruals.

² Revised budget is carry-over encumbrances from prior fiscal year.

³ The list of projects on page 5 totals \$10.2 million. This reflects the total costs of these projects. The capital expenditures shown in this table are the expenditures on these projects in FY 21/22 only.

FY 2021/22 Revenues⁴

Source	Original Budget	Projected
Customer Charges	\$10,722,168	\$11,033,804
Interest/Investment Income	\$5,000	-\$196,268
Other	\$20,000	\$20,000
Total =	\$10,747,168	\$10,857,536

Projected FY 2021/22 Fund Balance

Beginning Balance 7/1/2021	\$35,575,464
Revenues FY 2021/22	\$10,857,536
Expenditures FY 2021/22	(\$13,145,371)
Projected End Balance 6/30/2022 =	\$33,287,629

⁴ Actuals for Expenditures and Revenues are unaudited and may change slightly due to accruals.

FY 2022/23 Budget

Sewer Service User Charge Adjustments

In accordance with *HBMC Section 14.54.040 Authority to Adopt Rates and Charges*, sewer service charges may be adjusted via an annual percentage adjustment reflecting the increase in the Consumer Price Index for all Urban Consumers (“CPIU”) in Los Angeles, Orange and Riverside Counties established by the U.S. Bureau of Labor Statistics. It is standard practice for the majority of agencies to adjust rates annually to ensure that the revenues continue to fully fund the needs of the program.

To accommodate the billing system, all service charge rates are calculated to four decimal places, and charged on a daily factor. The daily factor converts the monthly charge based on a 365-day year. This is a modification from the initially adopted rate schedule. The customer’s bill reflects a charge based on the number of days between water meter readings. A resolution was adopted by the City Council to authorize the daily rate methodology.

Historically, the City received a significant increase in sewer development revenues since FY 2011/12. These revenues are designated for the Sewer Development Fund (Fund 210), and can only be spent on increasing sewer collection capacity. Though these funds have been used to fund the Edgewater, Slater, Saybrook and McFadden Sewer Lift Stations, we still received a marked increase to the Sewer Service Fund (Fund 511) reserves. As a result, City Council approved a reduction in sewer rates of \$1.00 for single family residential customers (prorated for other account types) in FY 2019/20.

It should be noted that there is no rate adjustment for FY 2022/23. For the past two (2) years, the CPIU based adjustments were deferred due to the impacts of the COVID-19 pandemic. Staff recently began efforts to update the 2003 Sewer Master Plan, which is scheduled to be complete in Winter 2023. Once complete, the updated Sewer Master Plan will help inform staff for future potential rate adjustments.

FY 2022/23 Budget

Personnel	Budget
Salaries, Permanent	\$3,042,083
Salaries, Temporary	\$65,000
Salaries, Overtime	\$105,000
Benefits	\$1,359,995
Total Personnel =	\$4,572,078

Operating	
Utilities	\$150,000
Equipment and Supplies	\$334,000
Repairs and Maintenance	\$2,505,000
Conferences and Training	\$4,000
Professional Services	\$1,100,000
Other Contract Service	\$70,000
Rental Expense	\$3,500
Cost Allocation	\$1,452,813
Auto Allowance	\$5,800
Other Expenses	\$75,000
Total Operating =	\$5,700,113

Capital	
Equipment	\$230,600
Vehicles	\$60,000
Total Capital =	\$290,600

CIP (new) ⁵	\$8,345,000
Total CIP (new) =	\$8,345,000

TOTAL =	\$18,907,791
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⁵ Includes \$100,000 for Street overlay costs associated with the costs of making the streets flush with manhole covers.

FY 2022/23 Revenue

Customer Charges	\$10,722,168
Interest	\$5,000
Other	\$20,000
Total =	\$10,747,168

FY 2022/23 Projected Fund Balance

Projected Beginning Balance 7/1/2021	\$33,287,629
Projected Revenues FY 2021/22	\$10,747,168
Proposed Expenditures FY 2021/22	(\$18,907,791)
Anticipated Carry-Over Expenses	(\$9,228,399)
Projected End Balance 6/30/2022 =	\$15,898,607

The projected fund balance for the Sewer Service Fund at the end of the current fiscal year is \$33,287,629, over \$20 million above the reserve policy. The budget has an \$8.2 million deficit, prior to accruing CIP carry-over funds of \$9.2 million. This aggressive CIP will bring reserves to \$3.1 million above the policy level.

As mentioned previously, staff is currently updating the Sewer Master Plan to better determine future sanitary sewer system requirements. The study will include a financial plan to determine the appropriate sanitary sewer system user charges and timeline to implement system improvements.

Additionally, the sewer lateral program continues to have unpredictable demand. Though current demand is less when the program was introduced in FY 2008/09, the past two (2) years have seen increases in spending on this program.

FY 2022/23 Capital Projects⁶

Approximately \$8.3 million in new funding is budgeted for sewer related CIP projects in FY 2022/23. Two (2) of the projects are sewer lift station related, with the other projects focused on sewer pipeline replacement and rehabilitation.

- PCH Restroom Sewer Lift Station (\$570,000): Funding is budgeted to design a gravity sewer main between four (4) public restrooms along the lower beach path on PCH between 9th St and 22nd St. The existing septic tanks are pumped twice a week. Replacing with a gravity sewer will provide an enhanced sewer infrastructure.

⁶ CIP budget numbers presented are rounded for simplicity. Please refer to the City's Adopted FY 2022/23 CIP document for more detailed information.

- Edinger Sewer (\$1.9 million): Funding is budgeted to construct a 12-inch vitrified clay pipe (VCP) sewer from Murdy Channel to 400 feet east of Parkside Lane to increase its capacity for proposed development along Edinger Avenue.
- FY 2022/23 Sewer Lining (\$1.4 million): Funding budgeted to line various sewer mains through the City as identified through CCTV inspection. A lining project is bid once a sufficient number of sewer defects are identified.
- Humboldt Sewer Lift Station (\$400,000): The project is currently in its 100% design phase with construction award tentatively scheduled for Fall 2022. Built in 1964, staff targeted the existing Humboldt Sewer Lift Station for replacement due to its age and insufficient wet well capacity. This multi-year project was budgeted over two (2) years. The total project cost is \$4,390,000 with \$3,990,000 approved previously. The project is funded by the Sewer Service Fund (\$3,690,000) and the Sewer Development Fund (\$700,000).
- Davenport Sewer Lift Station (\$4 million): The project is currently in its 100% design phase with construction award tentatively scheduled for Fall 2022. This project will rebuild the Davenport Lift Station which is over 50 years old and nearing the end of its useful designed life. Funding for the award of the Davenport Sewer Lift Station has been incorporated in the FY 2022/23 CIP. The total project cost is \$4,357,916 with \$357,916 approved previously. The project is funded by the Sewer Service Fund.