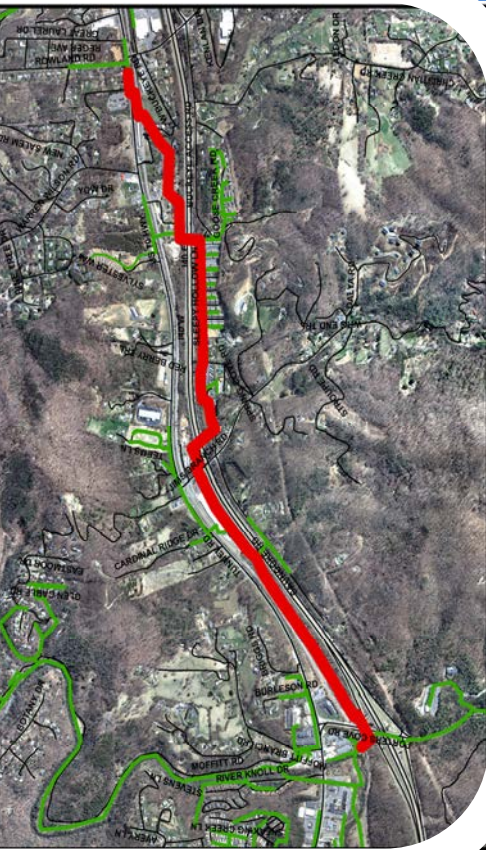
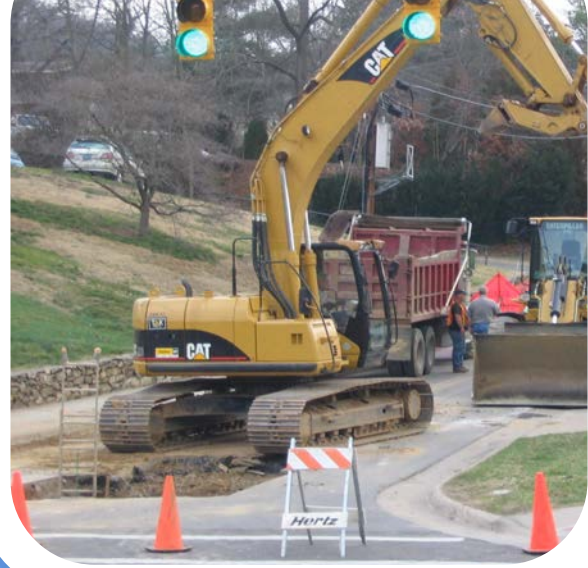


Metropolitan Sewerage District of
Buncombe County, North Carolina



2021-2022 BUDGET DOCUMENT



2021-2022 Budget Document

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Roberts & Stevens, P.A.

Legal Counsel

McGill & Associates

Engineer of Record

Thomas E. Hartye, P.E.
W. Scott Powell, CLGFO

General Manager
Director of Finance



Phone: (828) 254-9646
Website: www.msdbc.org



Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to the Metropolitan Sewerage District of Buncombe County, North Carolina (MSD) for its annual budget for the fiscal year beginning July 1, 2020. This is the twenty-fourth consecutive year that the MSD has received this award.

In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communication device.

This award is valid for a period on one year only. We believe our FY2022 budget continues to conform to the program requirements, and we are submitting it to the GFOA to determine its eligibility for another award.



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Introduction





Metropolitan Sewerage District

OF BUNCOMBE COUNTY, NORTH CAROLINA

June 9, 2021

Members of the Board
Metropolitan Sewerage District of Buncombe County, North Carolina
W. H. Mull Building
2028 Riverside Drive
Asheville, North Carolina 28804

Subject: FY2022 Budget and Proposed Sewer Rates

Dear Members of the Board,

We respectfully present the FY2022 Budget for the Metropolitan Sewerage District of Buncombe County, North Carolina. The budget incorporates staff recommendations presented to and accepted by the Personnel Committee, which met on April 27, 2021 and the Capital Improvement Program Committee, which met on April 29, 2021.

We have developed the FY2022 Budget to advance the organization's mission *"to provide wastewater collection and treatment to its users which promotes the health and safety of affected citizens in the most effective and efficient manner possible today and in the future"*. The following Operational and Capital budget is designed to provide services meeting or exceeding all state regulations and Bond Order covenants with which the District must comply, with any rate changes to be at the lowest responsible level.

Current Year Highlights

In FY2021, the District's domestic and industrial revenue are expected to meet budgeted projections. The economic impacts pertaining to the COVID-19 pandemic have had negative effect on revenue and cash flows which will continue for the remainder of the fiscal year and into FY2022.

The District has proposed 2.75% rate increase for the upcoming year. Additionally, the District's long-range business plan incorporates this change and projects that future rate increases will be approximately 2.75% for the remaining nine (9) years.

This budget continues several recent initiatives to maintain the District's overall strategy of keeping collection lines and the plant functioning effectively while rehabilitating significant portions of aging infrastructure. The most important goal remains meeting all regulatory permit requirements.

The SS Construction Department continues to expand its participation in sewer line rehabilitation and replacement efforts to minimize SSOs. Goals for FY2022 include utilizing Infrastructure Rehabilitation System (IRS) lining, pipe bursting, and dig-and-replacement construction to rehabilitate and replace at least 20,000 linear feet, while providing preventative maintenance for approximately 500,000 linear feet of the system by employing in-house jet wash cleaning and both chemical and mechanical root control. In addition, the SS Maintenance Department will manage the District's Right-of-Way maintenance program whereby easements will be periodically cleared or mowed.

The Wastewater Treatment Plant is continuing systematic improvements as part of the District's detailed Facilities Plan. In FY2020, the District completed the construction phase of the \$9.6 million Headworks project. This project included installing new bar screens and grit removal systems along with fine screens and a surge system for peak flows. This project is now operational. The District is 85% complete with the \$17 million High- Rate Primary Treatment (HRPT) project which will significantly increase the treatment effectiveness at the Wastewater Treatment Plant.

Operating Budget

The proposed \$19.0 million Operating Budget represents routine expenditures and capital equipment acquisitions needed for the day-to-day operations of the District. Highlights of significant components and changes include:

Compensation and Benefits—The staff and employees considered salary and health insurance increases together as part of a comprehensive compensation package.

A 3.5% salary adjustment—CPI increased 3.5% for the last twenty-four-month period; Division Directors in conjunction with Employee Advisory Committee have requested a cost-of-living increase to keep pace with industry salary increases as well as to encourage retention of valued employees. The Personnel Committee has recommended a wage increase, which has an approximate \$186,000 net impact on current year expenditures.

A 11.8% increase in funding for North Carolina retirement cost—In 2016, the Local Governmental Employees' Retirement Systems (LGERS) adopted a rate stabilization policy to allow for predictability and stability in the contribution rates, while continuing keeping the local retirement system one of the best-funded systems in the country. Subsequently, LGERS raised the District's contribution rate from 7.75% to 11.35% of total salary and wages. This has an approximate \$133,000 impact on current year expenditures.

A 6.5% increase in funding for Self-Insured Medical Plan—During FY2016, staff worked with its consultant and initiated a top to bottom review of our medical insurance plan. The effort was to ensure the District had a medical plan in line with our sister agencies as well as to limit certain benefits and increase cost sharing by employees in the amount of \$175,000. The Employee Advisory Committee endorsed these changes. The two groups continue to work on a long-term strategic plan to address controllable medical issues. The 6.5% increase in the employer contribution is in line with medical and prescription trend and has an approximate \$161,000 impact on current year expenditures.

Funding for Post-Employment Health Benefit—Starting in FY2009, GASB 45/75 required recognition of cost for Post-Employment Health Benefits. An actuarial study was done in the current year, staff is recommending FY2022 funding should remain at approximately \$283,000. Current funding has been implemented into the proposed FY2022 budget, in addition to the current business plan, and represents 1.5% of total operations.

Materials, Supplies, and Service expenditures increased 7.0% over prior year—The District has made a concerted effort to hold materials, supplies, and services cost close to the prior year's level, taking into account inflationary cost increases and continued expansion of the District. The District

has increased specific line items to address regulatory and operational needs, including the (HPRT) process which will be coming online in the fall of 2021. Discretionary expenditures have been limited where practicable. This has an approximate \$505,000 impact on year expenditures.

Capital Improvement Program

The District prepares a ten-year Capital Improvement Program as required by its State Collection System Permit and the Consolidation Agreements. The estimated construction expenditure for FY2022 is \$30.6 million, which is comprised of an estimated \$29.5 million in construction, \$100,000 of reimbursement, and \$1 million in contingency. The total 10-year CIP budget is \$353.5 million.

A detailed list of individual projects and planned expenditures by year was presented at the April 28, 2020 CIP meeting. This signifies a large increase in the 10-year CIP due largely to major improvements at the Plant along with upgrades to the interceptor network. MSD will be positioned to meet future regulations and to provide capacity to serve the estimated growth for the next 50 years.

The Board has consistently financed its Capital Improvement Program through revenue bonds and pay-as-you-go moneys. As of June 30, 2021, the District will have \$94.5 million in outstanding revenue bond debt, with total debt service of \$9.8 million due before the end of the fiscal year. Unlike counties and cities, the District does not have a legally mandated debt limit. However, the District does have a rate covenant. The covenant requires the District to set rates and charges so that income available for debt service will not be less than 120% of fiscal year debt service requirement.

Collection System Capital Improvements:

MSD initiates and maintains an aggressive program to rehabilitate its Wastewater Collection System. This program will conform to the North Carolina Department of Environmental and Natural Resources (NCDENR) Collection System Permit requirements, will improve the operational performance, and extend the life of the collection system. The estimated cost over a 10-year period is approximately \$224.6 million.

MSD's focus to rehabilitate over 403,000 feet of sewer lines for the next 10 years and other projects identified in the Master Plan. This rehabilitation has been made more cost-effective by the

development of the Pipe Rating Program. Pipe Rating is a proactive planning tool, which utilizes Closed Circuit Television (CCTV) information, a GIS database, actual maintenance history to view, rate, and computer-score pipe segments based on a number of factors.

These factors, for any given manhole-to-manhole segment, include maintenance work order history, number, severity of defects, record of overflows on that segment, and are combined to yield a rating useful for prioritizing rehabilitation efforts.

Pipe Rating minimizes costs by helping the District focus rehabilitation dollars where they are needed most, rather than the previous replacement of collector lines throughout an entire basin. In recognition of this innovative program, the Association of Metropolitan Sewerage Agencies (AMSA) awarded the District one of only two 2003 National Environmental Achievement Awards.

Major projects for FY2022 include the Christian Creek Interceptor with 8,200 linear feet \$3.9 million, French Broad Interceptor at Amboy Road with 2,180 linear feet \$3.9 million, Mountainbrook Road at Chunns Cove with 3,024 linear feet \$1.2 million, Springside Road at Overlook Road with 3,922 linear feet \$1.5 million. In FY2022, Plant High-Rate Primary Treatment is scheduled to cost \$2.2 million, and an Equipment Storage Facility is scheduled to cost \$2.7 million. These are in addition to numerous smaller projects completed throughout the collection system. Further details are available in the CIP section of the budget document.

The District's Collection System Master Plan addresses the orderly extension of the District's collection system into future service areas. The plan has been prepared in close cooperation with the District's member agencies and regional stakeholders. The land use policies and zoning regulations of each agency were used for land usage, growth projections/densities, and line locations. For areas outside of corporate or jurisdictional limits, Buncombe County's Zoning Ordinance has played an integral role in defining future service areas.

The Plan will serve as a basis to ensure that the sewer system will be extended in an orderly fashion and is done so in accordance with the planning policies of the various local governments within the District's service area.

Wastewater Treatment Plant Capital Improvements:

During FY2015, the Treatment Facilities Plan was updated for the Water Reclamation Facility. This Plan provides short, medium, and long-term recommendations for each specific process and facility.

This update primarily expanded on several of the original plan's longer-term recommendations. It focused specifically on improvements to the WRF Headwork's (i.e., bar screens, influent pumping station, and the problematic grit & grease removal system), including surge control for short-term peak flows. It also investigated in detail the installation of a primary clarification process and has evaluated alternatives for the biological treatment process.

Another key aspect of the Facility Plan Update was to gain a solid understanding of regulatory issues that may influence (impact) future treatment requirements and identify long-term biological treatment alternatives to comply with anticipated future regulation changes.

Near-term and mid-term project recommendations from the Plan include:

Plant Headworks Project—This \$9.6 million project spanned 2 years and consists of a new grit removal system to replace the existing problematic system, a fine screening facility which will supplement the WRF's existing bar screens, and storage at the plant using existing decommissioned tanks to provide more effective treatment during peak flow events. In addition, by removing more grit than the current process, it will help to better protect downstream processes within the plant. Construction of the Plant Headworks Project began in early April 2017 and is currently operational.

High-Rate Primary Treatment Project—This \$15.1 million project will provide primary clarification by removing solids before the biological treatment stage. This will provide a more effective treatment and will help the Rotating Biological Contactors (RBC's) to better perform. During high flow (storm) events, this treatment can be ramped-up in order to match the higher flows. Construction began in FY2019 and will be completed in the fall 2021.

Biological System Upgrades—This \$51 million project is being driven by the water quality regulations as set forth in MSD's NPDES permit (effluent discharge permit). Compliance with effluent ammonia levels must be achieved by October 2030 and will require significant upgrades to the existing biological treatment system. Design will begin in FY2025 with construction starting in FY2027.

Impact of CIP on Operations

For most municipal and county governments, capital improvements often result in higher operating costs. New buildings typically result in higher utility cost as well as cost for additional personnel.

The CIP for the District is largely made up of upgrades to existing facilities such as pump stations, sewer mains, and treatment plant facilities. Although some new chemicals may be added to treatment methods on occasion, the overall net effect of the CIP is actually one of reduced cost.

The marginal increase in the size of replacement facilities (seen as up-front capital cost) is offset by increases in efficiencies of the new mechanical and electrical equipment replacements. In addition, as the level of service of the sewer mains increase with the new replacements, the operational cost will decrease for general maintenance and for emergency spill response.

Sewer Rate Increase

Staff recommends a 2.75% increase in domestic and industrial sewer rates and meter fees for FY2022. This amount is in line with past increases.

We believe this rate increase is prudent under the current economic situation and is necessary to provide for the following District responsibilities and objectives:

- ü Meet current and future regulations at the Water Reclamation Facility and for the Collection System
- ü Replace and rehabilitate approximately 40,000 linear feet of sewer mains a year

- ☐ Debt coverage ratio attractive to investors and rating agencies
- ☐ Support of the pay-as-you-go element of the CIP in addition to bonds
- ☐ Continue with goal of periodic smaller rate increases in lieu of large increases in future years
- ☐ Adequate current funding and maintenance of prudent reserves for Self-Insured Medical/Dental Plan
- ☐ Continue with necessary Treatment Plant upgrades

In the past, the MSD Board has endeavored to keep rate increases to a minimum. The District's Bond Order requires sewer rates be set to ensure that the excess of revenues over current expenditures is at least 120% of debt service.

Additionally, the Board balances the bond order requirements while maintaining all regulatory and fiduciary responsibilities.

Domestic sewer rates for the past five years as well as FY2022 are shown below:

	FY17	FY18	FY19	FY20	FY21	FY22
Rate Increase %	2.5%	2.5%	2.5%	2.5%	0%	2.75%
Meter, Maintenance & Billing Fees	\$9.08	\$9.30	\$9.51	\$9.74	\$9.74	\$9.99
Flow Rate (per ccf)	\$4.39	\$4.50	\$4.61	\$4.73	\$4.73	\$4.86
Avg. Monthly Bill (5 ccf)	\$29.88	\$30.62	\$31.36	\$32.17	\$32.17	\$33.04

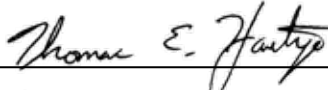
Distinguished Budget Award

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to the Metropolitan Sewerage District of Buncombe County, North Carolina for its annual budget for the fiscal year beginning July 1, 2020. This is the twenty-fourth (24) consecutive year that the MSD has received this award. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communication device.

This award is valid for a period of one year only. We believe our FY2022 budget continues to conform to program requirements and we are submitting it to GFOA to determine its eligibility for another award.

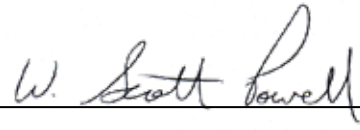
In Closing

The Budget represents the combined efforts and guidance of the Board, its Committees, and staff. A special thanks to Teresa Gilbert for assembling the budget documents, Pam Thomas/HR Director, Ed Bradford/CIP Director, and Cheryl Rice/Accounting Manager for assembling the CIP Section of the Budget. We look forward to working with you, staff, and our ratepayers as we implement this financial plan and policy document.



Thomas E. Hartye, PE
General Manager

Respectfully submitted,



W. Scott Powell, CLGFO
Director of Finance

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About MSD, City of Asheville, & Buncombe County

About MSD

The MSD is a public body and body politic and corporate of the State of North Carolina, exercising public and essential governmental functions and organized under the provisions of the North Carolina Metropolitan Sewerage Districts Act, being Article 5, Chapter 162A of the General Statutes of North Carolina, as amended. The District was established in 1962 by the North Carolina State Stream Sanitation Committee to construct and operate facilities for sewage treatment for municipalities and sanitary districts within Buncombe County.

In 1967, the District completed the construction of a 25 million gallon per day (MGD) wastewater treatment plant adjacent to the French Broad River. Nineteen miles of interceptor sewer were initially built, connecting the collector sewer systems located within the municipalities and other political subdivisions, which comprised the District. Then, in the late 1980's, the District expanded the capacity of the Water Reclamation Facility to its current capacity of 40 MGD, rehabilitated the hydroelectric dam and powerhouse to mitigate energy costs, and built a thermal converter for sludge disposal.

In July 1990, the political subdivisions comprising the District transferred their respective sewerage systems to the District. These systems had been previously owned, operated, and maintained separately by each political subdivision. The purpose of this sewer consolidation was to create a consolidated sewerage system in the urbanized portion of Buncombe County with ownership of all components of the system and responsibility for their operation, maintenance, and capital improvement centralized with the District. Before the sewer consolidation, the District had little control over the condition, operation, and maintenance of individual collector systems, which significantly affect the operational efficiency of the wastewater plant.

About MSD, City of Asheville, & Buncombe County^(continued)

About MSD ^(continued)

Buncombe County is located in the Blue Ridge Mountains of Western North Carolina. The District is comprised of the following political subdivisions located within Buncombe County:

City of Asheville	Busbee Sanitary Sewer District
County of Buncombe	Caney Valley Sanitary Sewer District
Town of Biltmore Forest	Crescent Hill Sanitary Sewer District
Town of Black Mountain	Enka-Candler Water & Sewer District
Town of Montreat	Fairview Sanitary Sewer District
Town of Weaverville	Skyland Sanitary Sewer District
Town of Woodfin	Swannanoa Water & Sewer District
Woodfin Sanitary Water & Sewer District	Venable Sanitary District
Beaverdam Water & Sewer District	

The District Board consists of fourteen (14) appointed members. Three (3) from the County of Buncombe, three (3) from the City of Asheville, and one (1) each from the Woodfin Sanitary Water & Sewer District, and the Towns of Biltmore Forest, Black Mountain, Montreat, Woodfin, and Weaverville. With the acquisition of the Cane Creek Water & Sewer District in northern Henderson County effective July 1, 2020, the District increased by two (2) the number of appointed members that are representing Henderson County.

Under the North Carolina Metropolitan Sewerage Districts Act, the District is authorized, among other things, to: (a) acquire, lease, construct, reconstruct, improve, extend, enlarge, equip, repair, maintain, and operate any sewerage system or part thereof (including facilities for the generation and transmission of electric power and energy) within or without the District; (b) to issue revenue bonds to pay the costs of any of the foregoing; and (c) to fix and revise from time to time and collect rents, rates, fees and other charges for the use of or the services and facilities furnished by any sewerage system.

About MSD, City of Asheville, & Buncombe County^(continued)

District Boundary Map



About MSD, City of Asheville, & Buncombe County^(continued)

Population and Growth Statistics

Population growth in Buncombe County has occurred largely in a linear fashion along major transportation routes, which is reflected in the configuration of the District's service area. The District is approximately a 180-square mile service area, comprising nearly 25% of the total land area of Buncombe County. The District's service area corresponds generally with the urbanized core of Buncombe County and includes small portions of northern Henderson County.

The population of the area has steadily increased, as illustrated in the following chart:

Year	Buncombe County	Henderson County
1970	145,056	42,804
1980	160,897	58,580
1990	174,727	69,378
2000	206,316	89,173
2010	238,318	106,740
2015	252,149	111,975
2016	255,334	113,758
2017	257,607	115,708
2018	259,259	116,500
2019	261,191	117,417

Located in the geographic center of Buncombe County, the City of Asheville is the major population center in the District. About 35% of the County's residents live in Asheville. Five (5) incorporated towns in Buncombe County—Black Mountain, Biltmore Forest, Weaverville, Woodfin, and Montreat—are included in the District's service area. Weaverville and Woodfin are north of Asheville, Black Mountain and Montreat are in eastern



About MSD, City of Asheville, & Buncombe County^(continued)

Population and Growth Statistics^(continued)

Buncombe County, and Biltmore Forest is contiguous to the City of Asheville on its southern boundary. Approximately seven percent (7%) of the county's population lives in these five towns.

Buncombe County's topography ranges from fertile valleys to rugged mountains. Mt. Mitchell, the highest point in eastern North America (6,684 feet), is found 35 miles northeast of the City of Asheville in adjacent Yancey County. The topography of Buncombe County's urbanized core is, however, a long flat plain, which has allowed Buncombe County to develop differently from the more mountainous counties of Western North Carolina.

The plain, with an elevation of 2,000 feet, averages about 45 miles in width. It is bisected from south to north by the French Broad River and from east to west by the Swannanoa River and Hominy Creek, two major tributaries of the French Broad. Because of extremes in elevation, the climate varies significantly from one section of Buncombe County to another. The mean elevation of the City of Asheville is about 2,300 feet, the summers are cool, and the winters are moderate with small amounts of snow. The higher elevations in Buncombe County receive considerable amounts of snow and the summers are cooler. The average January temperature is 47° for the City of Asheville and the average temperature in July is 84°. The City of Asheville receives an average of 46 inches of rainfall a year.

However, because the City of Asheville is found within a "rain shadow" caused by the shielding effect of the nearby mountain barriers, other areas of Buncombe County, especially to the south and southwest, receive significantly higher amounts of rainfall.

Employment and Major Industries

Buncombe County serves as a regional economic center for Western North Carolina. Its diverse commercial and industrial base includes manufacturing, distribution, travel and tourism, retail trade, health care and governmental services. According to the N. C. Department of Commerce-Labor & Economic Analysis Division, 129,830 people were employed in Buncombe County as of June 2021. The number of persons in the labor force has increased by 2,652 over the previous year.

About MSD, City of Asheville, & Buncombe County^(continued)

Employment and Major Industries^(continued)

Buncombe County's economy has been expanding and becoming more diverse. Recognizing that textile industries no longer dominate the manufacturing base, the public and private sectors in Buncombe County have been working together to encourage the relocation and development of new industries and other economic endeavors. In addition, the Buncombe County Tourism Development Authority works to foster the continued growth of tourism and convention business. Downtown redevelopment efforts by the City of Asheville have also provided additional office, retail shop, and parking space.

Employment in the service sector is increasing, but manufacturing remains a significant part of the local economy. The diverse products manufactured include food, textiles, apparel, wood products, printing and publishing, rubber and plastic products, fabricated metal products, industrial machinery and equipment, electrical equipment, and transportation equipment. Health care, retail sales, education, and government services are the principal employers in the growing service sector of Buncombe County's labor force. Buncombe County serves as a regional medical center for most of western North Carolina.

There are two major hospital complexes located in Buncombe County: Mission Health System, an acute care medical center licensed for 815 beds on (2) two adjoining campuses, Memorial and St. Joseph, and the federally funded Veteran's Administration Medical Center, Charles George VA Medical Center consisting of a 119-bed acute care hospital and 120-bed nursing facility serving veterans from four (4) locations in a 23-county area in Western North Carolina, parts of Eastern Tennessee, and upstate South Carolina and Georgia.

Also located in Buncombe County is CarePartners Health Services, a private nonprofit acute care 80-bed rehabilitation facility for the treatment of stroke and ambulation dysfunction victims, traumatic brain/head injuries, and amputation. In addition, CarePartners provides home health, adult care, and hospice care (27-beds).

About MSD, City of Asheville, & Buncombe County^(continued)

Employment and Major Industries^(continued)

Tourism and the hospitality industry also constitute major segments of employment in the service sector and are projected to increase significantly. The impact of tourism is multi-dimensional and includes conventioners, commercial visitors, and tourists taking advantage of the mountain scenery, moderate climate, and craft skills of persons living in the area. Closely related to the tourism industry is the growth of discount malls and outlet stores. The seasonal influx of persons from outside the region is strengthening Buncombe County's position as the primary regional retail center for area and tourist commerce.

To provide a source of funds for promoting the recreational, cultural, and other attractions of the area, Buncombe County has imposed an occupancy tax on hotel and motel rooms in Buncombe County. The revenues from this tax are used by Buncombe County's Tourism Development Authority to promote the growth of tourism and convention business.

Western North Carolina is known as a recreational area, which makes tourism and the hospitality industry a major contributing force to the economic vitality of Buncombe County. The Great Smoky Mountains National Park is found 70 miles west of the City of Asheville.

Approximately 160 miles of the Blue Ridge Parkway are in western North Carolina, and the Parkway bisects Buncombe County from east to west. Two national forests, Pisgah and Nantahala, are located within an easy drive of the City of Asheville. These outdoor recreational resources attract thousands of visitors each year to the area for such activities as camping, hiking, canoeing, white-water rafting, fishing, and hunting. Also, south of the City of Asheville is the 255-room "chateau" known as the Biltmore House. Constructed from 1889 to 1895 by George Vanderbilt, the Biltmore House is one of North Carolina's most visited tourist attractions, which includes self-guided tours of the House & Gardens, Antler Hill Village, featuring the Winery, The Biltmore Legacy, Village Green, and Farm. Another attraction is The Omni Grove Park Inn with 510 guest rooms, 42 meeting rooms, an 18-hole, 6,720-yard, par 70 Donald Ross designed golf course, a 43,000 square-foot spa with 31 treatment

About MSD, City of Asheville, & Buncombe County^(continued)

Employment and Major Industries^(continued)

rooms and over 60 treatment selections which has augmented its appeal to the tourism and hospitality industry.

This favorable economic environment has resulted in lower unemployment rates for Buncombe County than across the state and nation. According to the U. S. Department of Commerce, for the year 2019, median household income in the City of Asheville was \$57,428 and in Buncombe County was \$54,970. This compares with \$57,341 for the State of North Carolina and \$65,712 for the nation as a whole.

Education

Buncombe County has two public school systems: the Asheville City Administrative Unit, which serves about 4,421 students, consisting of (5) elementary schools and (3) secondary (high schools) and the Buncombe County Administrative Unit, which serves 31,966 students, consisting of (23) elementary schools, (17) secondary schools (high schools) and (2) combined schools.

Asheville-Buncombe Technical Community College is a public, two-year college, serving more than 25,000 students in a variety of business, technical, and health care curricula. In addition, community enrichment classes, such as art, languages, and practical skills are offered year-round at each campus location throughout the College's service area.

Warren Wilson College is a private, four-year liberal arts college with an enrollment of about 920 students offering academics with work for the school (15 hours per week) and service to the community (100 hours over four years).

Montreat College is a private four-year liberal arts college with an enrollment of about 800 students at the (4) campuses which strives to be Christ-centered, student-focused, and service-driven.

About MSD, City of Asheville, & Buncombe County^(continued)

Education^(continued)

In addition, Montreat College offers accelerated programs for adult students, including graduate, professional, and online degree programs.

The University of North Carolina at Asheville ("UNCA") is an undergraduate, state-supported liberal arts college with an enrollment of about 3,600 students from 38 states and 24 countries. UNCA is one of the nation's top public liberal arts universities and one of the (17) institutions in the University of North Carolina system offering more than 30 majors.

Transportation

An integrated network of highway, rail, and air services serves Buncombe County. Interstate Highway 40, Interstate Highway 26, Interstate 240 (Billy Graham Freeway), U.S. Highway 19-23 and U.S. Highway 74 link Buncombe County to the Piedmont area of North Carolina (including the cities of Charlotte, Greensboro, Raleigh, and Winston-Salem), the Piedmont area of South Carolina (including the cities of Greenville and Spartanburg), and the Tennessee-Ohio Valley area.

Rail service to Buncombe County is served by the Norfolk Southern Railroad Corporation providing rail lines through Knoxville, Tennessee to the west and Greenville, South Carolina to the south. To the east, rail lines adjoin North Carolina's 3,600-mile rail network an hour away in Greer, South Carolina.

Major air passenger and cargo services are available through the Asheville Regional Airport and served by Allegiant, American Airlines, Delta, Sun Country Airlines, and United. These carriers offer 23 daily non-stop flights to 10 popular destinations and enplaned 77,489(154,749) passengers as of calendar year to date ending June 30, 2021.

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Policies & Budget Process



Financial Plan

Guide to the Budget Document

This Budget presentation has four major objectives:

Policy Document—To show how resources have been allocated in response to the mission statement and supporting goals/objectives set forth by the Board of Directors.

Financial Plan—To present the District's Financial Plan for the fiscal year, showing where the money will come from and how it will be spent.

Operations Guide—To describe services provided along with goals and objectives for each unit within the District, and a method for measuring progress towards the District's mission of providing cost-effective and efficient wastewater collection and treatment. In addition, a Budget is a required management tool for compliance with state wastewater management licensure and local government fiscal control regulations.

Communications Device—To explain the District budgetary procedures and interactions with other District planning processes and within the larger context of local and regional economic and environmental conditions.

This document has been divided into sections as follows to assist the reader's understanding and ability to easily locate information:

Introduction—The transmittal letter provides current year trends and highlights.

Policies & Budget Process—Presents the policies forming the basis for all management decisions, a narrative of the overall budget process, the underlying fund structure, and a discussion of revenue.

Operation & Maintenance Fund—Provides detail of departmental expenditure budgets including underlying goals and objectives, as well as accomplishments and performance measures.

Financial Plan^(continued)

Guide to the Budget Document^(continued)

Insurance Funds—Describes internal service-type funds used to allocate premiums and associated expenses among various departments.

Replacement Funds—Provides funding status of various replacement and reserve funds.

CIP Program—Details the Capital Improvement Program, including budgetary process, current year highlights, and summarizes planned projects for the upcoming 10 years.

Debt Financing—Provides further detail on debt philosophy and management, including current and future debt service.

Statistical Information—Includes historical summaries of District financial information, plant operational data, and local demographic and economic statistics.

Appendix—Provides a description of the line item accounts that are currently used and staffing information for the previous (4) years plus the upcoming budget year.

Glossary—Definitions of technical terms and acronyms.

Background of Entity

The Metropolitan Sewerage District of Buncombe County, North Carolina (the District), established under an act of the state legislature, is a local governmental agency providing wastewater collection and treatment services to approximately 56,000 residences and businesses located in several municipalities and certain unincorporated areas in Buncombe County. The governing board is comprised of twelve members appointed by eight local governments who serve three-year overlapping terms.

The District owns a 40 million gallon per day (MGD) wastewater treatment plant and the associated collection network of approximately 1,043 miles of collector sewers, 31,000 manholes, and 30 pump

Financial Plan^(continued)

Background of Entity^(continued)

stations. The District is responsible for current operation and maintenance of this infrastructure, as well as for planning for future operations and capacity.

The budgetary process starts with the mission statement promulgated by the District Board. To achieve the purpose articulated in the mission statement, staff is charged with developing long-term goals and the short-term objectives designed to achieve these goals. Using this framework, annual operating and construction budgets are proposed to fulfill these short-term objectives and thus meet or reach toward long-term goals.

Therefore, an understanding of the mission statement and the underlying goals and objectives provide a context for the decisions made in developing the annual budget. Each departmental goal and objective are tied to one or more of the non-financial or financial policies to coordinate and prioritize the District's focus, initiatives, and efforts.

Mission Statement—To provide wastewater collection and treatment to its users which promotes the health and safety of affected citizens in the most effective and efficient manner possible today and in the future.

Long-Term Goals—Staff has developed four goals to be pursued in support of the Mission Statement adopted by the Board:

1. Protection of health, safety, and the environment
2. Excellence in customer service
3. Cost-effectiveness
4. Continuous improvement

Managers and employees use these goals to determine appropriateness of and to enhance coordination and consistency of decisions, activities, and initiatives throughout the District.

Financial Plan (continued)

Background of Entity (continued)

Short-Term Objectives—Objectives are specific achievements or strategies, which support or lead to long-term goals and are used to determine how resources are allocated in this budget.

1. Maintain Collection System Permit. (Goal #1)
2. Maintain Discharge Permit to French Broad River for Water Reclamation Facility. (Goal #1)
3. Maintain a qualified and motivated workforce. (Goals #1-4)
4. Coordinate, to the extent practicable, with other governmental and private entities for cooperative provision of sewer service to gain optimum economies of scale, reduced capital cost, and improved efficiency. (Goals # 1-4)
5. Participate in two-way communications with customers, elected officials, and other stakeholders in matters of mutual concern such as regulations, policies, and fees. (Goals # 1-4)
6. Provision of information and education concerning stewardship of water resources. (Goals # 1-4)

Authority for the District's first goal of protection of health, safety, and the environment is received from the Collection System and Discharge Permits issued by the North Carolina Department of Environment and Natural Resources, Division of Water Quality. Therefore, the major emphasis of the District's activities is to fulfill or comply with the terms of these permits. In addition to specifying certain measures of water quality and minimum standards for maintenance of lines, the permits expect steady progress towards rehabilitation of aged lines and planned replacement of plant assets.

The remaining four objectives are strategies designed to complement the efforts to fulfill the requirements of the permits in achieving the District's goals. Obviously, a competent, well-trained, and committed workforce will not only be technically accomplished, but will also provide excellent

Financial Plan (continued)

Background of Entity (continued)

customer service, and will explore ways to do the job better and at less cost. Similarly, leveraging resources with others can improve service delivery and reduce costs.

Finally, communication with and education of stakeholders is designed result in wide-ranging improvements to service delivery, customer relations, and cost containment.

Using key objectives identified as critical to the District's mission, Departments develop their individual initiatives and objectives, and the performance measures by which to assess progress. As the budgets for each division or department are presented in the next section, each departmental goal will reference the number of the overall District's goal, objective, or the fiscal policy supported. In this way, each department establishes its accountability and demonstrates the linkage between activities and the achievement of the District's objectives.

The Systems Services Division bears responsibility for maintaining the Collection System Permit (Objective #1) and the Water Reclamation Facility for maintaining the Discharge Permit (Objective #2). Details of the requirements of these permits and related performance measurements may be found in these respective departmental budgets behind the "Operation & Maintenance Fund" tab. The other objectives have no legal or regulatory basis but are underlying principles of how the Board intends the District to carry out the primary mission and are referenced as appropriate in the departmental goals and objectives.

Rate Projections & Budgetary Forecast

The District is required by its Bond Order to set rates at such a level that the excess of revenues over current expenditures equals at least 120% of debt service. The Board established a revenue policy that the goal for debt coverage ratio be 150% or 1.5, and sufficient to meet all operating and capital needs with modest level increases.

The Board has also established a budget policy that calls for a ten-year projected operating budget and capital improvement program for long-term planning purposes. Revenue and expenditure projections are integrated with anticipated capital expenditures to anticipate rate increases and timing of debt issuance based on cash flow levels and debt coverage ratios.

Consumer revenue projections are based on consumption rates, growth in number of taps during the previous year, and projected rate increase. Industrial revenue is developed from anticipated fees of actual individual companies, since there are relatively few industrial customers and the charges are determined by effluent strength, as well as volume, which may vary greatly depending on the particular entity. As there are a limited number of large customers, any major change to a particular facility such as announced layoffs or closings, may be immediately factored into the industrial revenue computation.

Operating expenditures are anticipated to increase at the regional cost of living rate, and capital expenditures at the general inflation rate. Future debt service is projected to be issued at slightly above prevailing rates. As this forecast is updated at least semiannually, management is able to adjust timing of capital projects and discuss in advance with Board members proposed timing and levels of rate increases.

Using consumption data projected from the recent historical population growth statistics within the Asheville-Buncombe County area, the District anticipates annual rate increases 2.75% for the next ten years.

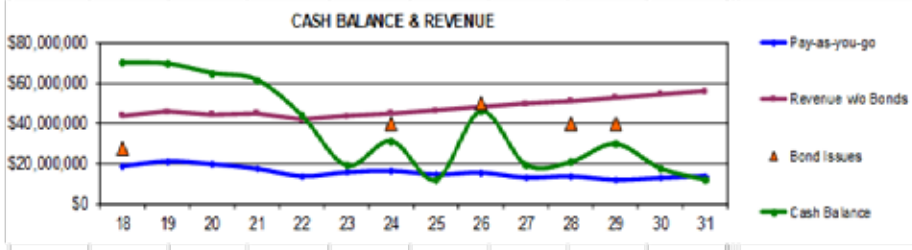
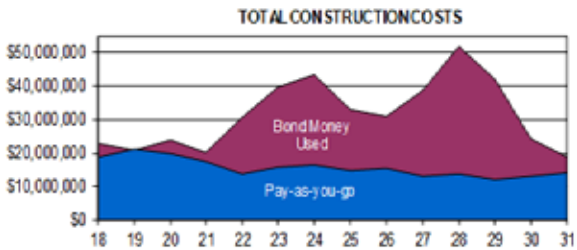
Rate Projections & Budgetary Forecast (continued)

Construction costs are fairly level reflecting the District's Master Plan to consistently rehabilitate approximately 40,000 linear feet of pipe per year. The CIP expenditure forecast for FY22 reflects a continuation of a major rehabilitation project at the Wastewater Treatment Plant.

This long-range budgetary projection also shows how the District plans to finance these projects with a combination of bond proceeds and pay-as-you-go funding from sewer revenues. Overall, the ten-year projection indicates the District's continuing ability to provide wastewater collection and treatment for customers, infrastructure maintenance in accordance with state regulations, and debt service in compliance with Bond Order, all with minimal, uniform rate increases.

Budgetary Forecast Based on Current Business Plan

Business Plan - FY22	2.5%	2.5%	2.5%	0.0%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	Sewer Rate Increase
	\$30.62	\$31.36	\$32.17	\$32.17	\$33.04	\$33.93	\$34.86	\$35.81	\$36.75	\$37.79	\$38.77	\$39.84	\$40.91	\$42.05	Average Monthly Bill
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	Assumptions
July 1- Available for Construction	46,619,902	70,079,187	69,570,373	64,922,355	61,552,380	43,996,711	19,217,998	31,326,326	12,189,994	46,086,761	19,683,232	20,889,733	29,959,315	17,856,277	Minimum of 365 Days Cash on Hand
REVENUE:															Consumption and Account Growth
Domestic Users	31,935,658	32,884,861	33,092,478	32,964,286	34,939,096	36,664,650	37,972,421	39,302,674	41,005,845	42,444,835	43,906,589	45,480,983	47,040,070	48,710,717	0.75% Increase
Industrial Users (No growth)	4,262,516	3,771,616	3,426,103	3,319,570	3,509,420	3,522,833	3,437,969	3,504,937	3,223,726	3,294,406	3,367,031	3,441,652	3,518,326	3,597,108	
Billing and Collections (User Fee)	795,574	821,024	852,981	904,101	952,783	971,839	991,275	1,011,101	1,031,323	1,051,949	1,072,988	1,094,448	1,116,337	1,138,664	
Tap Fees	604,047	648,068	632,174	600,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	165,000	105,000	
Facility Fees	4,752,960	5,695,771	5,105,437	4,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	
Interest & Non-operating Revenues	865,718	1,715,479	1,121,638	269,044	263,773	157,937	186,541	217,582	364,106	493,125	355,014	508,491	478,156	300,321	
City of Asheville (amex-Enka)	34,522	32,210	31,898	35,000	35,000	35,000	35,000	0	0	0	0	0	0	0	
Rental Income	81,826	74,915	76,962	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	71,641	
Transfer from Reserves (to / from)	298,619	159,485	(76,752)	0	0	0	0	0	0	0	0	0	0	0	
Miscellaneous	171,067	175,401	218,441	2,882,512	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	
Total Revenues	43,842,537	45,978,851	44,481,380	45,096,154	42,086,713	43,738,899	45,012,867	46,422,934	48,011,640	49,670,957	51,090,262	52,882,215	54,469,530	56,083,452	Bond Issues figured at: 4.0% yield FY24 4.5% yield FY26 5.0% yield FY28 5.0% yield FY29
State and Federal (EPA) Grants															3% Inflation in O & M, Replacement Funds and Engineering Force Account
Revenue Bonds/Stimulus	28,003,632						40,000,000		50,000,000		40,000,000	40,000,000			ENR 10-year Construction Index @ 2.68%
Total Funds Available	118,466,071	116,058,038	114,051,752	110,018,509	103,639,093	87,695,611	104,230,860	77,749,260	110,201,633	95,737,737	110,773,494	113,781,948	84,426,845	73,919,729	General Sewer Rehab to cover approx. 45,000 lineal ft / year
EXPENSES:															Target Debt Coverage 1.5
Operations & Maintenance	15,538,788	15,312,654	14,772,938	17,300,226	18,122,890	18,752,792	19,405,279	20,085,023	20,793,373	21,531,712	22,301,570	23,104,564	23,942,383	24,735,525	No growth in Industries - Rate Parity for Flow in 2020
Replacement Funds (WRF & Fleet)	660,000	730,000	750,000	750,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000	District 10yr CIP \$353.5 Million
Debt Service	9,423,689	9,412,540	9,823,547	10,179,074	10,087,360	9,155,305	9,083,523	11,603,583	11,586,480	14,956,132	14,942,361	17,765,927	17,535,858	17,322,116	District total 10yr Budget \$706.8 Million
CIP (including Bond Projects)	22,764,407	21,032,471	23,782,912	20,236,830	30,622,532	39,719,520	43,965,732	33,020,661	30,895,000	38,716,661	51,799,830	42,102,142	24,244,327	18,836,283	
Total Expenses	48,385,364	46,487,665	49,129,397	48,486,130	59,682,362	68,477,617	72,904,534	65,559,267	64,134,853	76,054,505	89,883,761	83,822,633	66,572,568	61,743,824	
Pay-as-you-go (Current Revenue only)	18,880,060	21,253,657	19,854,895	17,616,854	13,876,864	15,830,802	16,524,065	14,734,326	15,621,787	13,183,112	13,846,331	12,021,724	12,991,289	14,005,810	
Debt Coverage (User Fees only)	2.3	2.4	2.3	2.0	2.1	2.5	2.5	2.1	2.1	1.7	1.8	1.5	1.6	1.7	
Debt Coverage with Total Revenue	3.0	3.2	3.0	2.7	2.4	2.7	2.8	2.3	2.3	1.9	1.9	1.7	1.7	1.8	
April 20, 2021															
Active Plan CIP	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	
Interceptor/Wet Weather Rehabilitation	1,726,500	1,366,293	4,090,464	123,500	8,871,900	2,787,249	1,438,697	10,369,435	12,147,200	15,950,750	13,358,073	9,488,613	9,804,689	0	
General Sewer Rehabilitation	13,213,448	10,377,703	7,547,700	10,445,412	9,964,140	11,124,634	7,589,352	10,793,533	11,420,333	7,076,411	10,128,544	11,101,136	10,372,459	14,635,661	
Private Sewer Rehabilitation	51,200	0	6,500	14,400	221,500	25,670	1,797,085	0	387,388	0	0	0	0	0	
Treatment Plant / Pump Stations	5,291,691	6,480,893	9,006,250	6,346,317	7,964,021	22,685,349	29,515,639	8,602,133	3,601,542	12,201,325	24,735,523	17,862,900	333,619	380,622	
Engineering Force Account	2,481,568	2,667,819	2,796,998	2,870,201	2,900,971	2,996,618	3,074,959	3,155,586	3,238,537	3,388,175	3,467,690	3,549,494	3,633,560	3,719,960	
Reimbursements	0	139,963	336,000	437,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	
Contingency	0	0	0	0	1,000,000										
Capital Improvement Program Total	22,764,407	21,032,471	23,782,912	20,236,830	30,622,532	39,719,520	43,965,732	33,020,661	30,895,000	38,716,661	51,799,830	42,102,142	24,244,327	18,836,283	



Fiscal Policies

Overview

The Metropolitan Sewerage District of Buncombe County, North Carolina (the District) fiscal policies compiled below comprises the basic framework for the overall financial management of the District. These policies assist Board and Management decision-making and provide guidelines for evaluating both current and long-range activities and programs. They are reviewed annually in conjunction with the budgetary process to verify continued applicability and benefit to the District.

The primary objectives of these policies are to ensure that moderate rate increases will be adequate to provide current and future funds to support the District's mission and goals; and to provide accountability for cost-effective stewardship of ratepayer's funds to stakeholders through fairly presented financial information supported by full disclosures.

Revenue Policy

1. **Revenue Recognition**—Revenues shall be recorded on the full accrual basis in accordance with Generally Accepted Accounting Principles (GAAP) for proprietary governmental entities.
2. **Setting User Charges**—Charges for domestic and industrial sewer users shall be set at such a level to provide sufficient revenues to cover all annual operating and debt service expenditures, to accumulate funds for timely acquisition and replacement of capital equipment and facilities, and to finance the pay-as-you-go portion of the long-term Capital Improvement Plan as approved by the Board.
3. **Revenue Projections**—To assist in setting annual user rate charges, District staff will prepare projections of revenues and expenditures for a minimum of five years.
4. **Daily Deposits**—In accordance with NC General Statutes Section 159-32, the Board shall require daily deposits of receipts only when the moneys on hand amount to at least two hundred fifty dollars (\$250.00). Any funds not immediately deposited shall be appropriately safeguarded.

Fiscal Policies (continued)

Revenue Policy (continued)

5. **Monitoring Revenue**—District staff shall monitor revenues as billed and collected by participating entities for reasonableness and completeness and shall report to the Board no less than quarterly.
6. **Direct Billing**—For those users who are billed directly by District staff, such bills shall be computed accurately, recorded properly, and distributed in a timely manner.
7. **Billing Adjustments**—The Billing Coordinator shall be authorized to create and post credit memoranda for adequately documented adjustments incurred by customers billed directly by the District. The Billing Coordinator may also make adjustments of up to \$10 to correct errors or remove disputed charges.
8. **Bad Debt**—The District shall consider as bad debt any domestic revenue for customers when written off by the member agencies who provide collection services. All delinquent customer accounts billed directly by the District shall be subject to reasonable collection efforts.

After such efforts have been exhausted, writing off uncollectible accounts shall be authorized as follows: The Billing Coordinator may write off amounts up to \$10, the Director of Finance amounts up to \$1,000, and the General Manager amounts over \$1,000. The Director of Finance shall prepare an annual reporting of bad debts to be submitted to the Finance Committee.

9. **Authority for Revenue Procedures**—The Director of Finance shall be responsible for designing, implementing, monitoring, and amending as necessary, accounting procedures, including internal controls, for the billing, recording, and reporting of all revenues of the District in compliance with GAAP and State law. Any changes to revenue procedures will be reported to the Finance Committee at their next meeting.

Fiscal Policies (continued)

Operating Budget Policy

1. **Funding**—Debt or bond financing will not be used to finance current expenditures.
2. **Service Efforts and Accomplishments**—The District will integrate performance measures and productivity indicators into its budgetary process.
3. **Planning**—The District will prepare a ten-year operating budget projection, which will include projections of annual growth plus allowances for operating costs of new capital facilities.
4. **Risk Management**—The District will utilize a risk management program to protect against loss and reduce exposure to liability. A comprehensive safety program shall be an integral component and will investigate property damage and workers' compensation incidents to minimize liability and take proactive measures to reduce the number and severity of future claims.
5. **Authority for Budget Procedures**—The District will prepare the budget in accordance with GAAP and the Local Government Budget and Fiscal Control Act (LGBFCA) established by the state legislature.
6. **Periodic Reporting**—The Finance Department shall submit quarterly budget to actual financial reports to the Board of Directors and monthly to Division Heads.
7. **Balanced Budget**—The District shall submit a balanced budget wherein budgeted expenditures shall equal budgeted revenues. Budgeted revenues may include transfers from another fund, reserves, or fund equity (available funds) defined as the excess of revenues over expenditures accumulated from prior years that are present in the form of cash at the beginning of the fiscal year.

Fiscal Policies (continued)

Asset Management Policy

1. **Planning for Operational and Maintenance Assets**—The District shall utilize an Equipment Replacement Review Committee to plan major operational and maintenance asset acquisitions on a systematic, comprehensive, and entity-wide basis.
2. **Asset Condition**—The District will maintain all assets at a level adequate to comply with all regulatory requirements and to minimize future replacement and maintenance costs. This process will be coordinated with the planning in the Capital Improvement Program.

Capital Improvement Policy

1. **Planning**—The District will annually update and re-adopt a ten-year Capital Improvement Program, identifying and describing each capital project along with the estimated cost and funding source, in accordance with requirements of the State of North Carolina Collection System Permit.
2. **Capitalization**—The District will charge engineering division salaries and related costs used to plan for and oversee construction of major infrastructure to the Capital Improvement Program.
3. **Reporting**—The District will provide annual reports of expenditures by project to the Capital Improvement Program Committee.
4. **Funding**—The District will fund the construction program from revenue bonds and current revenues including grants as available.

Accounting Policy

1. **Authority for Accounting Procedures**—The District will establish and maintain the accounting system according to the North Carolina Local Government Budget and Fiscal Control Act (LGBFCA), generally accepted accounting principles (GAAP) for governments, and in compliance with applicable provisions in the Bond Order.

Fiscal Policies (continued)

Accounting Policy (continued)

2. **Annual Audit**—An annual audit will be performed by an independent public accounting firm, which will issue an official opinion on the annual financial statements, and a management letter indicating any suggestions for improvement or areas of concern.
3. **Transparency**—Full disclosure will be provided in the financial statements and bond representations.
4. **Due Diligence**—The District will monitor the audited financial statements of member agencies and compare with reports of revenues remitted to the District and accounts receivable billed by member governments.
5. **Financial Reporting**—The District shall prepare a comprehensive annual financial report (CAFR) upon completion of the financial audit, which will be submitted to the Government Finance Officers' Association (GFOA) for the Certificate of Achievement for Excellence in Financial Reporting award.
6. **Written Accounting Procedures**—The District will maintain currently updated written accounting procedures

Debt Policy

1. **Duration**—Capital projects financed through the issuance of bonds shall be financed for a period not to exceed the lesser of the expected useful life of the project or thirty years.
2. **Capitalization**—Interest, operating, and/or maintenance expenses will be capitalized only for facilities of enterprise activities and will be strictly limited to those expenses incurred prior to actual operation of the facilities.
3. **Ratings**—The District will endeavor to maintain its financial condition at no lower than Moody's "A1" and Standard & Poor's "AA-" bond rating.

Fiscal Policies (continued)

Debt Policy (continued)

4. **Unfunded Liabilities**—The District’s debt policy extends beyond capital financing and includes not knowingly entering into any contracts creating significant unfunded liabilities.
5. **Coverage Ratio**—The District shall prepare an annual budget to maintain a debt ratio (coverage) of at least 1.5 net revenues to bonded debt. This exceeds the minimum 1.2 ratio as set forth in the Bond Order.
6. **Compliance**—The District shall follow terms and conditions of its Bond Order and any requirements of the Local Government Commission.

Cash Management and Investment Policy

1. **Written Policy**—The District Board’s investment policy, written to be in compliance with NC General Statutes and its Bond Order, shall be reviewed on an annual basis by the Board’s Finance Committee.
2. **Objectives**—The primary objectives of investment activities, in priority order, shall be preservation of principal, liquidity, and yield.
3. **Periodic Reporting**—The District shall provide monthly investment reports to its Board and submit semi-annual reports to the North Carolina Local Government Commission.
4. **Treasury Services**—The District shall consider the advisability of preparing a Request for Proposal (RFP) for banking services every three (3) years.

Reserve Policy

1. **Capital Reserves**—The District shall maintain a Capital Reserve Fund in the amount of 6% of current expenses in the adopted annual Operation & Maintenance Fund Budget as set forth in the Bond Order. This fund may be used only for debt service payments in the event of inadequate revenues or for unusual and extraordinary repair and maintenance expenses.

Fiscal Policies (continued)

Reserve Policy (continued)

2. **Fleet & Heavy Equipment**—The District shall maintain a Fleet & Heavy Equipment Fund for vehicles and rolling stock with a value greater than \$10,000. Periodic budgeted transfers from the operating fund along with proceeds from sale of equipment shall be deposited in said fund along with interest earnings to provide funding to replace vehicles on a systematic basis as required.
3. **Plant Equipment**—The District shall maintain a Wastewater Treatment Equipment Replacement Fund for capital expenditures of \$10,000 or more with a useful life of at least (3) years. Periodic budgeted transfers from operations are intended to stabilize rate increases by planning funding for major repairs and rehabilitations.

Purchasing Policy

1. **Authority for Purchasing Procedures**—The District will follow procedures and guidelines as prescribed by North Carolina General Statutes and Board approved resolutions.
2. **Centralized Procurement**—The District shall operate centralized purchase and warehouse functions to obtain materials, supplies, and services in the most cost-efficient manner for the District.

Budget Process

Budgetary Adoption

The District's budget process must comply with North Carolina General Statutes and the MSD Revenue Bond Order as amended to date. The Bond Order requires that the District adopt its final budget on or before June 15 of each year. North Carolina General Statutes mandate an annual balanced budget ordinance based upon expected revenues, along with a budget message, to be presented to the governing board no later than June 1 and mandates a public hearing be held. The Bond Order calls for a preliminary budget hearing 30 days prior to adoption if requested by a certain percentage of bondholders. The budget calendar is designed to provide for input by all stakeholders into a systematic and deliberate process.

For the Operations and Maintenance Budget, the process begins with the mission statement as approved by the Board. Each Division or section of the District develops a specific mission statement setting forth its role in supporting the overall mission of the District. Next, key responsibilities are defined for each unit, with associated goals and objectives. To evaluate progress, performance measures are identified and tracked for the previous three years. Once the District staff develops the operational activities required to implement the mission-directed strategies, necessary resources can be quantified and presented in a budgetary format.

Because payroll and benefits represent such a large proportion of expenditures, and because an experienced and appropriately compensated, well-trained staff is necessary to accomplish the District's mission, extra effort is made to ensure salaries and benefits are competitive without being excessive. To this end, a human resources consultant prepares a salary survey every three to five years that compares District pay scales with other utilities and governmental entities in the area. During those years a consultant is not retained, the Human Resources Director and other staff take surveys among regional governments and wastewater utilities of intended increases and types/levels of benefits considered.

Budget Process (continued)

Budgetary Adoption (continued)

After reviewing comparative data, the Finance and Personnel Committees take an active role in ratifying increases of cost of living and merit pay, as well as contributions to health insurance and other employee benefit programs. Before approval of any new positions, the Board must be convinced of the cost-benefit, efficiency, and programmatic benefit.

The Capital Budget incorporates short-term improvements mandated by the State-issued Collection System Permit with long-term needs identified and prioritized by the 20-year Wastewater System Master Plan to handle wet-weather flow conditions, to improve the performance at the wastewater treatment plant, and to prepare the system to handle expected future wastewater flows. Engineering staff prepare annual estimates of expenditures over the life of projects in a proposed timetable for construction in a 10-year Capital Improvement Plan (CIP).

Meanwhile, Administrative staff prepares an update of the District's ten-year financial forecast based on estimated revenues, expenditures, and debt issuance, which is integrated with the 10-year CIP, along with projections for fleet and wastewater plant replacement funds.

The effect of current expenditures on cash flows and debt coverage ratios are verified for adequacy, and any indicated adjustments to expenditures are made to sustain services within the desired user rate levels, which are set annually in connection with budget adoption.

Budget Administration

The Budget Resolution is adopted at the fund level and allows for the carry forward of encumbered contracts and purchase orders from the previous fiscal year. This budget book illustrates the initial allocations among departments and between line items for authorized expenditures not including carryover amounts. Authority for modifying these allocations varies.

Budget Process (continued)

Budget Administration (continued)

The General Manager has the authority to transfer amounts between departments within a fund without limitation. Division Directors may transfer amounts between line items and sections within their departments without limitation.

The entire allocation is available at the beginning of the year, and the unexpended balance will remain available during the year, unless otherwise limited by the General Manager and Director of Finance due to cash flow considerations.

Several strategies are used to monitor expenditures throughout the year. The General Manager and Division Directors receive monthly expenditure reports, which compare actual to budgeted amounts for the period and for the year to date.

In addition, the procurement software is designed to require approval from the General Manager or Director of Finance if the line item has insufficient funds to cover the requisition or if the expenditure is over a certain amount. Purchasing staff make periodic reviews of outstanding inventory levels, requisitions, and purchase orders to update available line-item balances.

Budget Amendment

Budget Amendments require approval by the Board of Directors and as such are submitted through the agenda process for consideration at a regularly scheduled Board meeting.

Budget Calendar

April						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

May						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

June						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

July						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

D A T E	T I M E	S U B J E C T
April 27	9:00 a.m.	Personnel Committee Meeting
		• Cost of Living & Merit Pay
		• Benefit Allocations
April 29	8:30 a.m.	CIP Committee Meeting
		• Update of Ten-Year Capital Improvement Program
		• Update Construction Program Financing
		• 2021-2022 Construction Fund Budget
May 3	9:00 a.m.	Finance Committee Meeting
		• Nine Month Revenue/Expenditure Report
		• Self-Funded Medical & Dental Program
		• Proposed FY2022 Construction Fund Budget
		• Proposed FY2022 Operating Budget & Sewer Rates
May 19	2:00 p.m.	Board Meeting
		• Preliminary FY2022 Budgets & Sewer Rates
June 9	2:00 p.m.	Board Meeting
		• Public Hearing
		• Adoption of FY2022 Budgets & Sewer Rates
July 1		Start of Fiscal Year 2021-2022

Budgetary Basis of Accounting

The District accounts for its activities as an Enterprise Fund, which is similar to that of a private business where the costs of providing wastewater collection and treatment on a continuing basis are recovered primarily from user charges. Therefore, the accrual basis of accounting is used for financial reporting purposes, where revenues are recognized as soon as they are earned and expenses at the time the liability is incurred.

However, state law requires local governments to budget on the modified accrual basis, wherein revenues are only recognized to the degree that they are available to finance expenditures of the current period. Similarly, debt service payments and other liabilities are recognized when payment is due because it is only at that time that they normally are liquidated with expendable available financial resources.

There are no significant differences between the full and modified accrual basis of budgeting for District revenues, because the majority of revenues are collected shortly after billing, and as such, are available to pay period liabilities. The major difference resulting from the modified accrual method is noted in budgeting debt service and capital expenditures.

The Bond Order requires the District to have remitted all debt service to the Trustee at least one business day prior to the payment date, so that in the event of default, the Trustee will have time to secure payment for the bondholders from the Debt Service Reserve Fund for payment on the due date. Therefore, the District budgets for the amount of principal due on July 1 of the subsequent fiscal year, but reports the principal reduction paid on July 1 of the current year as reducing loans payable in the audited financial statements.

Capital outlays, which are defined as equipment or construction with an acquisition value over \$1,000 and a useful life of three years or longer, are budgeted as an expense in the year incurred, but depreciation is not budgeted, as it does not involve expenditure of cash. In the audited financial statements, buildings, and equipment over \$15,000 are capitalized and depreciated over future years.

Budgetary Basis of Accounting (continued)

The District does not budget for barter transactions such as the exchange of building space for laboratory services, but the fair market value of such transactions is reflected as income and expense in the audited financial statements in accordance with generally accepted accounting principles.

The ten-year Capital Improvement Plan presented in this budget manual documents the District's long-term asset management strategy to achieve and maintain compliance with state environmental permit conditions but does not authorize expenditures for any years beyond the current budget year.

The Capital Improvement Plan identifies specific projects with anticipated expenditures broken down by each year but based on the best estimates of the District. The General Manager is authorized to accelerate or postpone the start date of any particular project and to authorize the encumbrance of funds for projects continuing into a future fiscal year, provided that the total amount of funds expended and encumbered for any one year does not exceed the total appropriation in the Construction Fund for that fiscal year.

However, any projects included in a Capital Projects Ordinance may have expenditures authorized for the entire project crossing fiscal years, regardless of when contracts are signed, or costs are incurred or paid.

In accordance with the District's Bond Order, separate accounts for debt service and extraordinary maintenance reserves have been established. The District utilizes other reserve accounts to minimize or moderate the effect of unanticipated large expenditures and substantial equipment replacement on rate increases.

Fund Structure

For financial statement purposes, all the District's transactions are reported in one enterprise fund. However, to be in compliance with the District's Bond Order, which prescribes certain procedures for financial planning and budgetary process, the enterprise fund is divided into several funds.

Appropriated major funds whose expenditures exceed 10% of the budget include: the Revenue Fund from which operational and maintenance expenditures are made, the General Fund that transfers pay-as-you-go funding authorized for construction, the Construction Fund that incorporates CIP expenditures, the Insurance Funds that provides funding for Self-funded Employee Medical, General Liability, Worker's Compensation, and Post-Employment, the Replacement Funds that provides funding for Fleet/Heavy Equipment, WRF equipment, and Pump Maintenance. the Debt Service Funds.

Financial plans are prepared for other non-appropriated funds whose expenditures are determined by external parties and contractual agreements, namely the insurance funds, debt reserve, and the capital reserve fund.

Revenue Fund—The Bond Order requires all revenues from user charges to be deposited to a revenue fund. The first order of payments is current expenses, defined as the costs of controlling, operating, managing, and maintaining the sewerage system and wastewater treatment plant, which are paid directly from the revenue fund. Remaining revenues may be transferred as budgeted to other funds for use in debt service, construction, or any other lawful purpose.

General Fund—The District may use funds from the General Fund for any lawful purpose. Due to the provisions of the 1985 and 1999 Bond Orders, the former which provided that operating expenses were to be paid from the O&M fund, and the latter which calls for current expenditures to be paid from the Revenue Fund, the General Fund has been used primarily to accumulate pay-as-you-go financing for construction.

Construction Fund—This fund was established in accordance with the bond order to account for construction projects funded by sewer revenue bonds. The fund is currently used to record expenditures of capital construction, regardless of funding source.

Fund Structure (continued)

Insurance Funds—Financial plans for the four insurance funds—Self-Funded Employee Medical, General Liability, Worker’s Compensation, and Post Employment are included in the FY18 budget document. Each Department and Section budget is charged a proportionate share of employer insurance costs based upon the number of covered employees. Separate funds are maintained to track the excess or deficit of actual expenses over estimated cost. To ameliorate the effect of large unanticipated losses on the annual rate setting process, any excess of cost assessed over claims paid is retained by the fund as designated for any deficit in future years. There are no trust documents or other legal restrictions on these funds, and they are combined with other funds and accounts into one enterprise fund for financial reporting purposes.

A brief discussion of each follow.

Self-Funded Employee Medical—Revenues consist of both employee and employer contributions. Expenditures include charges for stop-loss and aggregate premiums, third party administration of claims, as well as medical, dental, and prescription claims. Employer contributions are currently based on actuarially determined expected funding, which is approximately 80% of potential maximum cost if stop-loss and aggregate limits are reached. Prudent management of reserves should provide adequate funding for claims in excess of those anticipated, as well as for claims incurred during the year but paid after the year-end outside of the aggregate coverage.

General Liability—The District purchases commercial coverage for Automobile, General Liability, Public Officials Liability, and Employee Blanket Bond. Each year, the Engineer of Record reviews the adequacies of the Districts’ insurance coverage to comply with the District’s Bond Order.

Reimbursement for each loss is reduced by the amount of the particular coverage deductible, so the budgeted expenditure includes both contractual premiums and an estimate of the potential liability to be incurred from paying the deductible amount on each claim. Any excess of amounts transferred from the Operations and Maintenance Fund over premiums and deductibles expense is retained in the fund to be appropriated in a future year with unanticipated losses.

Fund Structure (continued)

Insurance Funds (continued)

Worker's Compensation—The District purchases commercial insurance coverage for Worker's Compensation. This policy also includes provisions for deductible amounts for each claim; so similarly budgeted insurance expense includes both contractual premium and an estimate of deductible amounts. Any excess is retained in the fund to be appropriated in a future year in the event of unanticipated losses.

Post-Employment—The District has established a post-employment insurance fund to accumulate funds now, which will reduce future operational expenditures when retirees begin taking advantage of this benefit. The District will annually fund the equivalent of the annual required contribution less expenses as determined by an actuarial study as required by GASB45.

Equipment Replacement Funds—Three (3) equipment replacement funds are included with the budget. Responsible departments are assessed proportional amounts to provide planned funding for the systematic replacement of assets and to moderate the impact in any one year on sewer rates from major capital acquisitions.

Any excess of revenues over expenditures are retained in fund equity to provide for large future capital expenditures, and for replacement or repair of any mission-critical equipment resulting from an accident, natural disaster, or other unforeseeable event.

Fleet & Heavy Equipment—The District owns a variety of vehicles including pickup trucks, specialized vans, dump trucks, tankers, and excavating equipment, some costing up to \$250,000. The Fleet Supervisor and WRF Director are responsible for maintaining an inventory of all equipment including anticipated replacement dates and cost for all items. Departments are assessed determined amounts in the annual budget, which are estimated to provide funding for new vehicles when those in their use may no longer be efficiently maintained.

Fund Structure (continued)

Equipment Replacement Funds (continued)

Wastewater Treatment Plant—Various specialized machinery require replacement from time to time, usually at costs well in excess of what may be budgeted as routine maintenance. The WRF Director prepares a schedule by year of anticipated major projects needed to refurbish or replace obsolete equipment. The plant maintenance department is assessed amounts in the annual operations budget estimated to provide adequate funding for these projects when needed in the future.

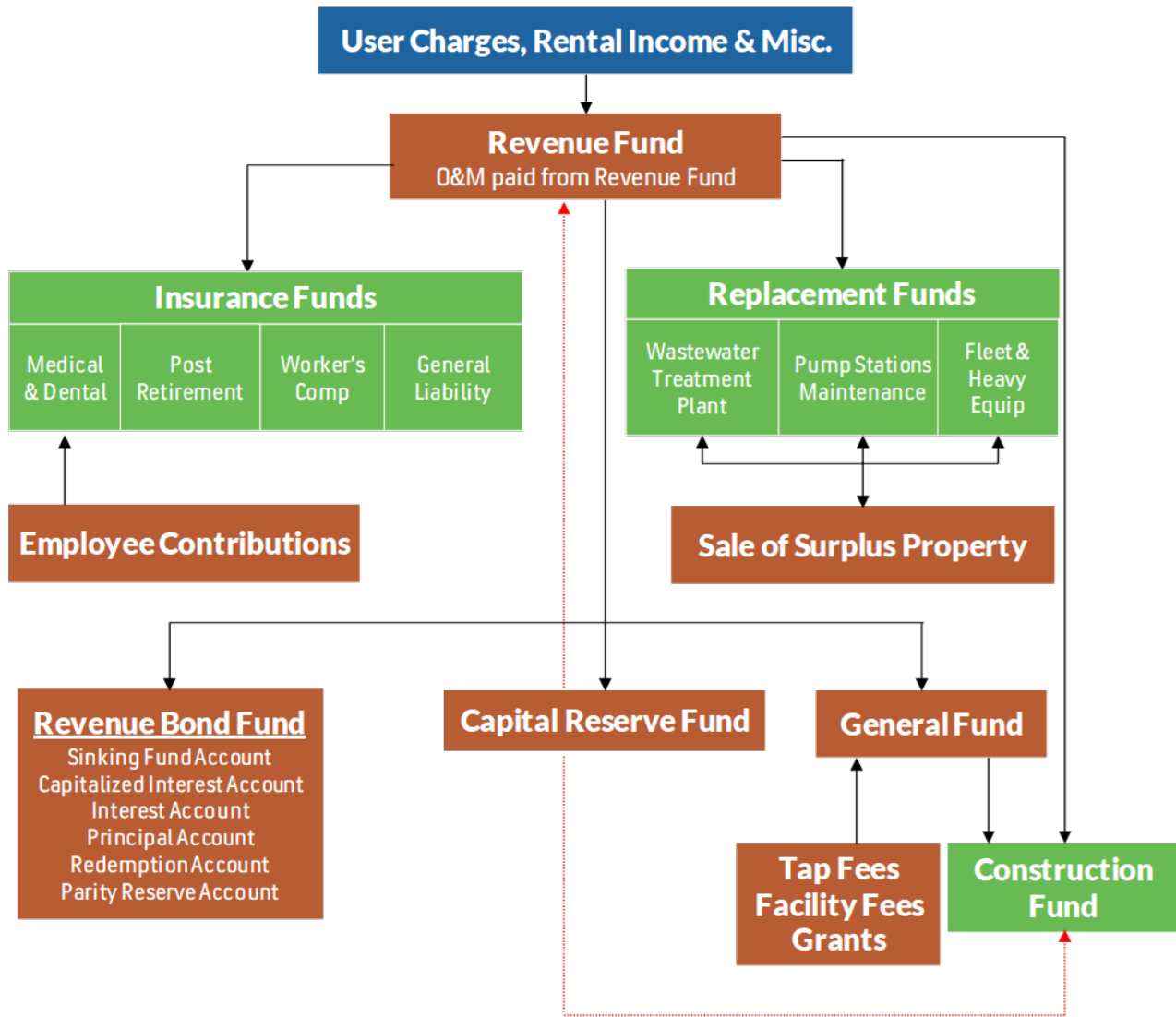
Pump Maintenance—Various large pumps require replacement from time to time, usually at costs well in excess of what may be budgeted as routine maintenance. The SS Maintenance Director prepares a schedule by year of anticipated major projects needed to refurbish or replace obsolete equipment.

Debt Service Funds—These funds are required under the District's Bond Order to accumulate and transmit all District debt service payments.

Revenue Bond Fund—This fund is used to accumulate periodic deposits from the revenue fund to pay principal and interest as scheduled.

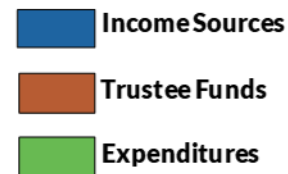
Capital Reserve Fund—While technically not a debt service fund, this fund is mandated by the Bond Order to contain six percent (6%) or such greater percentage, as may be determined from time to time by the Board, of the amount shown by the annual budget to be necessary for current expenses for the current fiscal year. As this fund is to be kept for unusual and unforeseen expenditures, none is included in the financial plan as coming from this account.

Flow of Funds – Bond Order



Priority of expenditures per Bond Order

1. Current Expenditures
2. Debt Service
3. Capital Reserve
4. Any Lawful Purpose



— Flow of Funding

- - - Flow of Funding if required for
emergency repairs or maintenance

Budget Summary

The District utilizes a fund structure developed to accommodate mandates of the District's Bond Order with generally accepted accounting principles for proprietary governments. Appropriated funds, which are those funds that must have a board-approved budget, include the Revenue Fund from which operational and maintenance expenditures are made, • the General Fund that transfers pay-as-you-go funding authorized for construction, the Construction Fund that incorporates CIP expenditures, • the Replacement Funds providing funding for Fleet, WRF, and Pump Stations equipment, and • Debt Service Funds.

Financial plans are approved for those other funds whose expenditures are determined by external parties or contractual agreements such as the insurance, debt reserve, and capital reserve funds.

The budget summary chart below shows total activity for all funds and consolidates the effect of transfers between funds.

	FY 2020 Actual Total	FY 2021 Budget	FY 2022 Proposed Budget	Increase (Decrease)	% Change
REVENUES & FINANCING SOURCES					
Domestic User Fees	\$ 33,493,106	\$ 32,234,286	\$ 34,939,096	\$ 2,704,810	8.39%
Industrial User Fees	3,426,103	2,881,690	3,509,420	627,730	21.78%
Billing and Collection	852,981	934,101	952,783	18,682	2.00%
Facility and Tap Fees	5,737,611	2,175,000	2,175,000	-	0.00%
Interest and Misc. Income	1,486,760	505,517	468,475	(37,042)	-7.33%
Rental Income	76,982	71,641	71,641	-	0.00%
City of Asheville (Enka Bonds)	31,898	35,000	35,000	-	0.00%
Employee Contributions to Health Fund	351,890	389,048	393,600	4,552	1.17%
Use of (Contributions to) Available Funds	4,164,546	17,374,543	17,006,411	(368,132)	-2.12%
Total Revenues & Financing Sources	\$ 49,621,877	\$ 56,600,826	\$ 59,551,426	\$ 2,950,600	5.21%
EXPENDITURES					
Operations and Maintenance	\$ 15,366,576	\$ 17,225,141	\$ 18,035,167	\$ 810,026	4.70%
Construction	23,782,912	28,131,316	30,622,532	2,491,216	8.86%
Capital Equipment	659,641	1,406,987	1,069,784	(337,203)	-23.97%
Bond Principal and Interest	9,812,748	9,837,382	9,823,943	(13,439)	-0.14%
Total Expenditures	\$ 49,621,877	\$ 56,600,826	\$ 59,551,426	\$ 2,950,600	5.21%

NOTE: Both Operation and Maintenance and Capital Equipment expenditures represent actual amounts to be spent in the respective reserve funds. These amounts do not include current year reserve funds funding request.

Component Fund Chart

The following chart shows revenues, expenditures, and transfers by individual fund and provides the detail supporting the summary amounts.

	Operating and Construction			Equipment Replacement			Debt Service	Appropriated Funds
	Revenue & O&M	General	Construction	Fleet & Heavy Reserve	WWTP Reserve	Pump Station Reserve	Bond Service	
Projected Net Position at 6/30/21	61,027,380	25,000	500,000	432,975	112,645	154,809	6,120,825	68,373,634
Revenues and Other Financing Sources:								
Domestic User Charges	34,939,096	-	-	-	-	-	-	34,939,096
Industrial User Charges	3,509,420	-	-	-	-	-	-	3,509,420
Billing and Collection Fees	952,783	-	-	-	-	-	-	952,783
Facility and tap fees	-	2,175,000	-	-	-	-	-	2,175,000
Proceeds from Revenue Bonds	-	-	-	-	-	-	-	-
Stimulus Loan/Grant	-	-	-	-	-	-	-	-
Sale of Surplus Property	-	-	-	57,200	-	-	-	57,200
Non-governmental Grants	-	-	-	-	-	-	-	-
Capital Contributions	-	-	-	-	-	-	-	-
Investment interest & misc.	401,148	125	2,500	2,165	563	774	500	407,775
City of Asheville for Enka Bond	35,000	-	-	-	-	-	-	35,000
Rental Income	71,641	-	-	-	-	-	-	71,641
Employee/Retirees Medical Contributions	-	-	-	-	-	-	-	-
Total Revenues and Fin. Sources	39,909,088	2,175,125	2,500	59,365	563	774	500	42,147,915
Expenditures and Other Financing Uses								
Operating Expenses	(14,212,454)	-	-	-	-	-	-	(14,212,454)
Debt--Principal	-	-	-	-	-	-	(6,360,825)	(6,360,825)
Debt--Interest	-	-	-	-	-	-	(3,463,118)	(3,463,118)
Construction	-	-	(30,622,532)	-	-	-	-	(30,622,532)
Capitalized Equipment Expenditures	(112,175)	-	-	(715,000)	(192,609)	(50,000)	-	(1,069,784)
Total Expenditures and Other Financing Uses	(14,324,629)	-	(30,622,532)	(715,000)	(192,609)	(50,000)	(9,823,943)	(55,728,713)
Interfund/account transfers	(42,894,536)	(2,200,000)	30,622,532	595,000	200,000	1,659	9,823,943	(3,851,402)
Excess (Deficit) of Revenues over Expenditures	(17,310,077)	(24,875)	2,500	(60,635)	7,954	(47,567)	500	(17,432,200)
Projected Net Position at 06/30/22	43,717,303	125	502,500	372,340	120,599	107,242	6,121,325	50,941,434

Funding comes primarily from the Revenue Fund, from which Operations and Maintenance expenditures are paid. Revenues are transferred to other funds, including construction, insurance internal funds, debt service and replacement reserve funds. Infrastructure over \$15,000 is capitalized and budgeted through the Construction Fund. Capitalized equipment such as trucks and rolling stock are budgeted through the Fleet Replacement Fund and capitalized equipment such as pumps and plant machinery are budgeted through the Water Reclamation Facility Replacement Fund. While the O&M budget contains line items entitled "Capital Equipment," while such expenditures are below the capitalization threshold, they are in excess of \$1,000 and budgeted and tracked internally for managerial purposes.

Component Fund Chart (continued)

The following chart shows revenues, expenditures, and transfers by individual fund and provides the detail supporting the summary amounts.

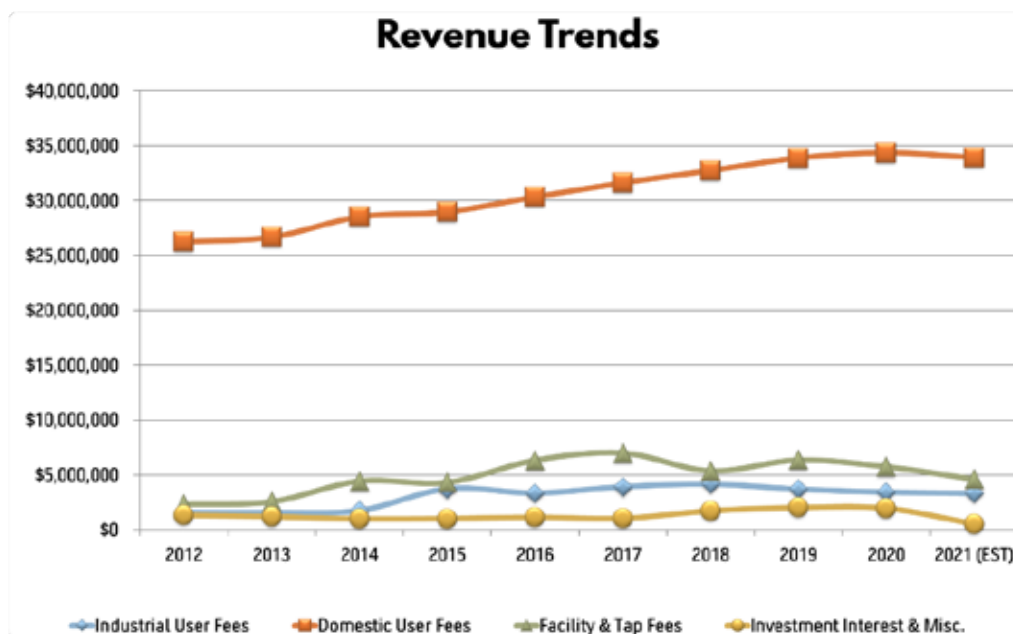
	Designated for Insurance				Bond Covenant Requirement	Non- Appropriated	Budget Summary
	Insurance Medical	Insurance Post Employment	Insurance Prop & Liab	Insurance Work Comp	Capital Reserve		District Totals
Projected Net Position at 6/30/21	2,014,091	(1,650,013)	538,949	456,146	1,026,790	2,385,963	70,759,597
Revenues and Other Financing Sources:							
Domestic User Charges	-	-	-	-	-	-	34,939,096
Industrial User Charges	-	-	-	-	-	-	3,509,420
Billing and Collection Fees	-	-	-	-	-	-	952,783
Facility and tap fees	-	-	-	-	-	-	2,175,000
Proceeds from Revenue Bonds	-	-	-	-	-	-	-
Stimulus Loan/Grant	-	-	-	-	-	-	-
Sale of Surplus Property	-	-	-	-	-	-	57,200
Non-governmental Grants	-	-	-	-	-	-	-
Capital Contributions	-	-	-	-	-	-	-
Investment interest & misc.	1,500	500	500	500	500	3,500	411,275
City of Asheville for Enka Bond	-	-	-	-	-	-	35,000
Rental Income	-	-	-	-	-	-	71,641
Employee/Retirees Medical Contributions	370,800	22,800	-	-	-	393,600	393,600
Total Revenues and Fin. Sources	372,300	23,300	500	500	500	397,100	42,545,015
Expenditures and Other Financing Uses							
Operating Expenses	(2,975,633)	-	(667,080)	(180,000)	-	(3,822,713)	(18,035,167)
Debt--Principal	-	-	-	-	-	-	(6,360,825)
Debt--Interest	-	-	-	-	-	-	(3,463,118)
Construction	-	-	-	-	-	-	(30,622,532)
Capitalized Equipment Expenditures	-	-	-	-	-	-	(1,069,784)
Total Expenditures and Other Financing Uses	(2,975,633)	-	(667,080)	(180,000)	-	(3,822,713)	(59,551,426)
Interfund/account transfers	2,789,540	133,000	702,521	173,000	53,341	3,851,402	-
Excess (Deficit) of Revenues over Expenditures	186,207	156,300	35,941	(6,500)	53,841	425,789	(17,006,411)
Projected Net Position at 06/30/22	2,200,298	(1,493,713)	574,890	449,646	1,080,631	2,811,752	53,753,186

Now that the Districts' financial overview has been presented, we will examine revenues and various expenditures in detail.

Revenue

Overview

The District has the authority to establish rates and charges for service to be approved by a budget resolution of the District Board of Directors. The District has established separate rates for domestic and industrial customers, adopted a schedule of facility and sewer connection fees applying to new customers, and receives minor amounts of income from rental of real property and investment of surplus cash. The various types of revenues and other financing sources are described in detail on the following pages.

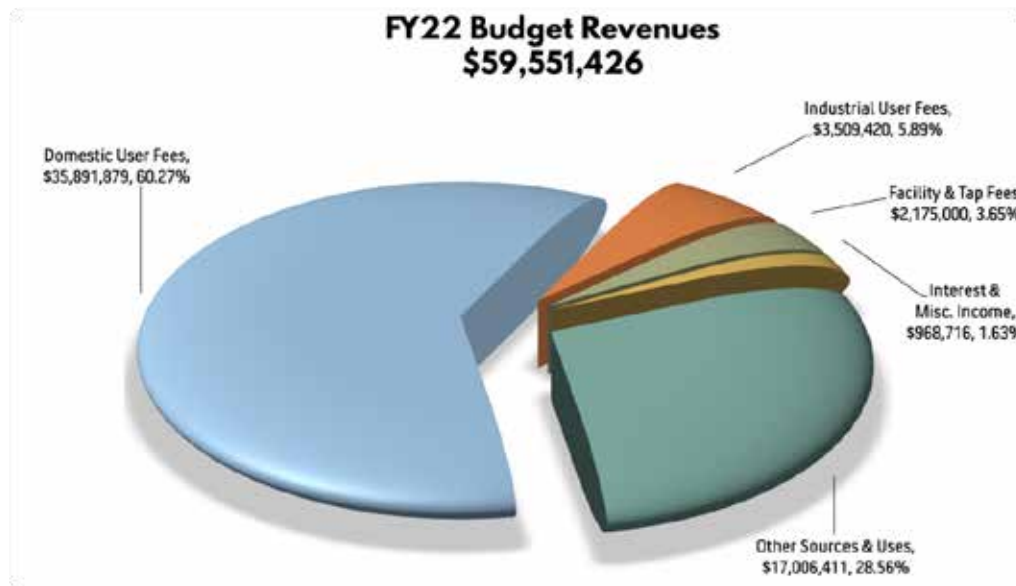


A graph of historical revenues by type reveals the overwhelming percentage of the District's income derives from domestic (residential & commercial) customers and has increased for the past ten consecutive years. Industrial user fees clearly show the effect of the shrinking textile industry in Buncombe County and are diminishing as larger industries wind down and are replaced with smaller new enterprises. Facility and tap fees testify to the growth fueled by population in-migration and expansion of non-industrial type businesses. Overall, income for FY21 is estimated to be slightly higher than in FY20.

Revenue (continued)

Revenue Summary

When projecting FY22 revenues, a 2.75% domestic customer rate increase was considered in conjunction with a projected .75% increase in domestic consumption. In addition, the budget reflects no growth in industrial users. Conservative assumptions based on recent income trends underlie other budgeted income amounts as explained below.



Domestic User Charges

The primary source of District revenues are domestic charges. The District has approximately 56,000 accounts. The District direct bills approximately 500 of these domestic users all of which are on private well systems but are connected to MSD's sewer collector system. Billing and collection of the remainder of District domestic customers is performed by the member agencies providing water, who charge a fee for this service, which is added to the monthly bill and paid by MSD customers.

Domestic sewer rate increases for the past ten years are shown below:

Fiscal Year									
12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22
2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	0.0%	2.75%

Revenue (continued)

Industrial User Charges

Prior to FY 2001, industrial users were charged decreasing tiered rates based on total volume so that actual rates charged were considerably below those paid by residential consumers. In FY 2001, the Board approved a plan to achieve rate parity between industrial and residential customers over the upcoming twenty years. The annual increases from this parity plan are incorporated in adopted rates.

Fortunately, the number of new residential customers continues to increase which is anticipated to mitigate the impact from the decline of industrial revenue.

Investment Interest

This revenue source reflects interest earned on public funds held by the District and the Revenue Bond Trustee. Investment income is determined by interest rates and cash balances available for investment. Interest rates decreased rapidly during the current year due to adverse economic conditions. The projected yield for the current fiscal year will be 0.05%.

All MSD investments conform to its Bond Order and the North Carolina General Statutes governing investments, and due to the minimum acceptable level of risk, produce fairly conservative rates of return.

Sewer System Development Fee

This revenue source represents the buying of equity in completed wastewater facilities paid by consumers who are added to the sewer collection system. In June 2006, the actual cost was determined to be significantly greater than the fee charged. To moderate the impact on customers, the board determined to implement 20% of this increase over each of the subsequent five years.

On July 20, 2017 the North Carolina General Assembly passed into law North Carolina General Statute 162A Article 8 ("Article 8"). Article 8 provides for the uniform authority to implement system development fees for public water and sewer systems.

Revenue (continued)

Sewer System Development Fee (continued)

Raftelis Financial Consultants, Inc. was engaged to perform a study which conforms to the conditions and limitations of Article 8.

Effective in FY18, sewer facility fees ranged from \$670 to \$2,836 for residential users based on size of structure, and from \$2,836 to \$751,540 for nonresidential customers based on meter size.

Sewer Connection Fees

This revenue source represents the cost of physically installing new connections to the sewer system. Sewer Connection Fees were last changed in June of 2009. The cost for installing a tap is \$1,300, with additional charges up to \$2,300 if pavement disturbance or boring is involved.

The Sewer Connection Fee will apply to new home construction, as well as existing homes, which have been demolished or remodeled, and sewer service is reinstated under new property ownership. MSD reserves the right to require that a licensed utility contractor install any sewer connection, and such connections will be subject to MSD inspection. Sewer connections in excess of 75 feet will be evaluated on a case-by-case basis. If constructed by MSD, they will be billed at cost. Property owners may choose to utilize a licensed utility contractor, which will be subject to MSD inspection.

Billings & Collections

The District will pay the municipalities \$2.50 per customer bill for meter reading, billing, and collection services.

Rental Income

Buncombe County Partnership for Children has entered into a lease to utilize the District's former Administration Building. The District also leases land to a private company for a cell tower.

Revenue (continued)

City of Asheville (Enka Bonds Annexation)

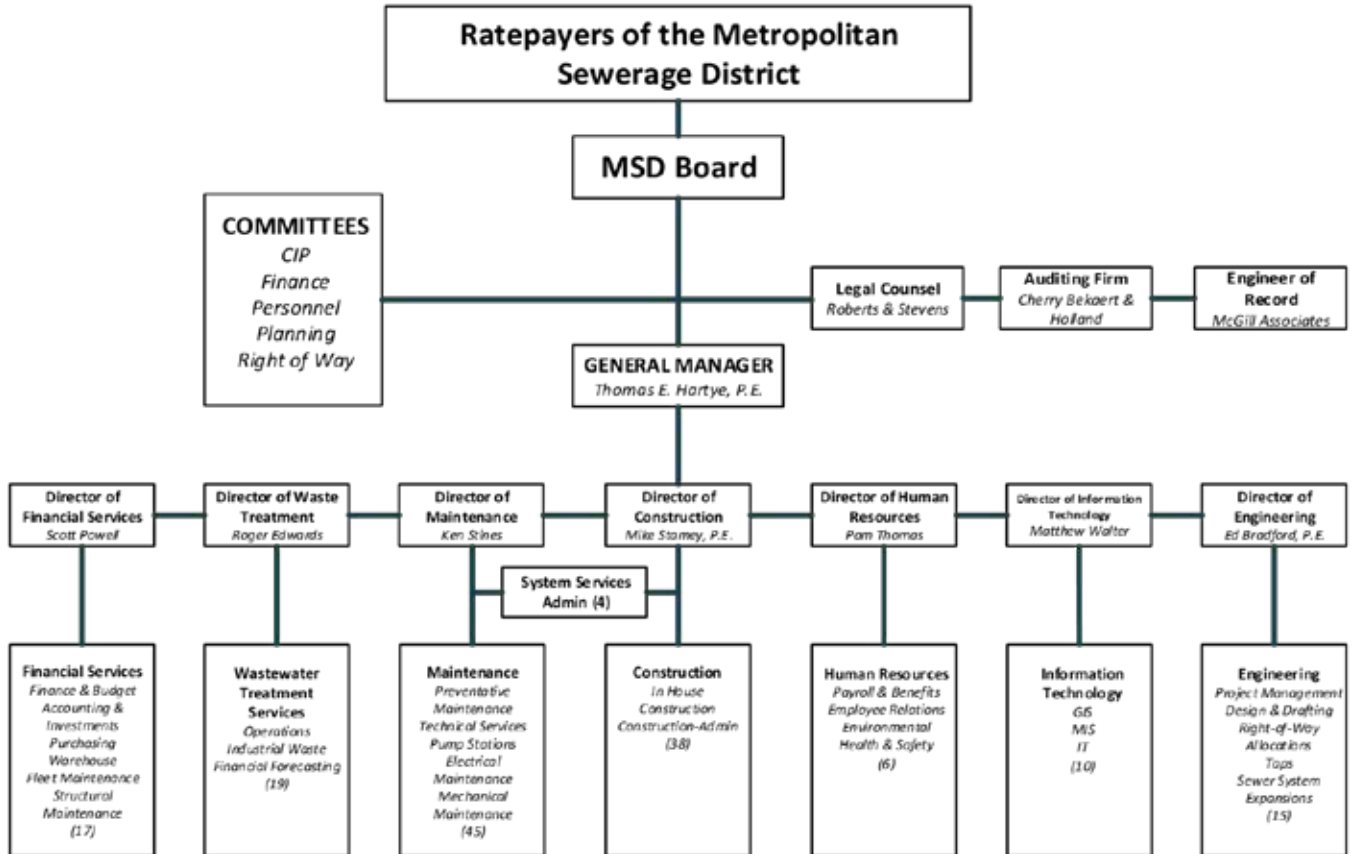
In the Consolidation Agreements, MSD agreed to assume debt service on the \$1,500,000 sanitary sewer bond issued by the Enka-Candler Water and Sewer District. This debt was used to pay a part of constructing the sewer system in Enka-Candler, which at that time was located in an unincorporated area of western Buncombe County. After the consolidation, the City of Asheville annexed a portion of the Enka-Candler Sewer District, so the City of Asheville reimburses the District for its proportionate amount (41%) of the annual principal and interest payment.

Operation & Maintenance Fund



Operation & Maintenance Fund

Organizational Chart



Operation & Maintenance Fund (continued)

Overview

The Operation & Maintenance Fund budget finances the program and administrative activities for the wastewater treatment plant, pump stations, and collection system. The FY22 Operation & Maintenance Fund budget totals \$18,972,690. This represents a 5.11% increase over the previous year. The District budgets to the Departmental level and are as follows:

Office of the General Manager	\$ 1,800,352
Human Resources	959,099
Information Technology	1,611,300
Financial Services	2,753,476
Wastewater Treatment Plant	4,655,926
SS Maintenance	6,185,491
SS Construction	3,945,297
Engineering	1,863,324
Total Expenditures	\$ 23,774,265
Less: Capitalized in Construction Funds	(4,801,575)
Net Operation & Maintenance Fund	\$ 18,972,690

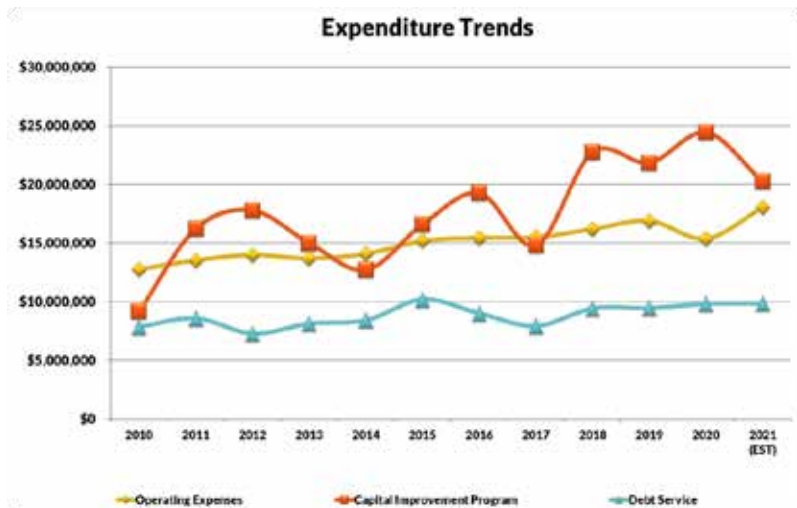
O & M Overview

	ACTUAL 2018-2019	APPROVED 2019-2020 BUDGET	ESTIMATED 2019-2020 ACTUAL	PROPOSED 2020-2021 BUDGET	INC(DEC) OVER PRIOR YR BUDGET
SALARIES & WAGES	\$ 9,031,621	\$ 9,345,175	\$ 9,345,175	\$ 9,537,624	2.06%
BENEFITS	\$ 4,536,862	\$ 5,188,166	\$ 5,188,166	\$ 5,506,257	6.13%
MATERIALS, SUPPLIES & SERVICES	\$ 5,626,646	\$ 7,103,212	\$ 7,050,572	\$ 7,612,809	7.17%
REPLACEMENT FUNDS & TRANSFERS	\$ 855,765	\$ 912,183	\$ 912,183	\$ 1,005,400	10.22%
CAPITAL EQUIPMENT	\$ 113,043	\$ 131,654	\$ 126,654	\$ 112,175	-14.80%
SUB-TOTAL O&M FUND	\$ 20,163,938	\$ 22,680,390	\$ 22,622,750	\$ 23,774,265	4.82%
LESS:					
Capitalized Construction Expenses	\$ (4,294,732)	\$ (4,630,164)	\$ (4,614,040)	\$ (4,801,575)	3.70%
NET OPERATION & MAINTENANCE FUND	\$ 15,869,206	\$ 18,050,226	\$ 18,008,710	\$ 18,972,690	5.11%

Operation & Maintenance Fund (continued)

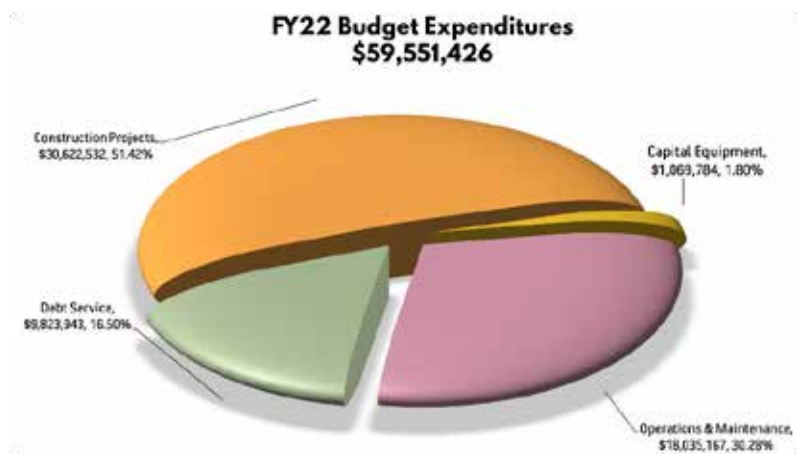
The major factors that impact our operating and maintenance budget include:

1. Repairs and Maintenance—A majority of the Districts' approximately 1041 miles of collection lines are between thirty and one hundred years old. While many capital projects are planned and in process, these aging facilities often require frequent repairs and maintenance costs prior to commencement of a major rehabilitation funded in the CIP. The Asset Management Plan calls for periodic maintenance and repairs. The District has well as for in-house sewer line repair and maintenance budgeted significant amounts for maintenance of equipment, buildings, and grounds as well as for in-house sewer line repair and maintenance.



2. Salaries and Benefits—A 3.5% salary adjustment as well as a 6.5% increase for the Self-Funded Health Insurance Plan. Personnel costs represent over 63% of the Operating and Maintenance budget.

3. Post-Employment Health Benefit—Starting in FY09, GASB45 required the recognition of cost for Post-Employment Health Benefits. Current funding represents 1.5% of total operations.

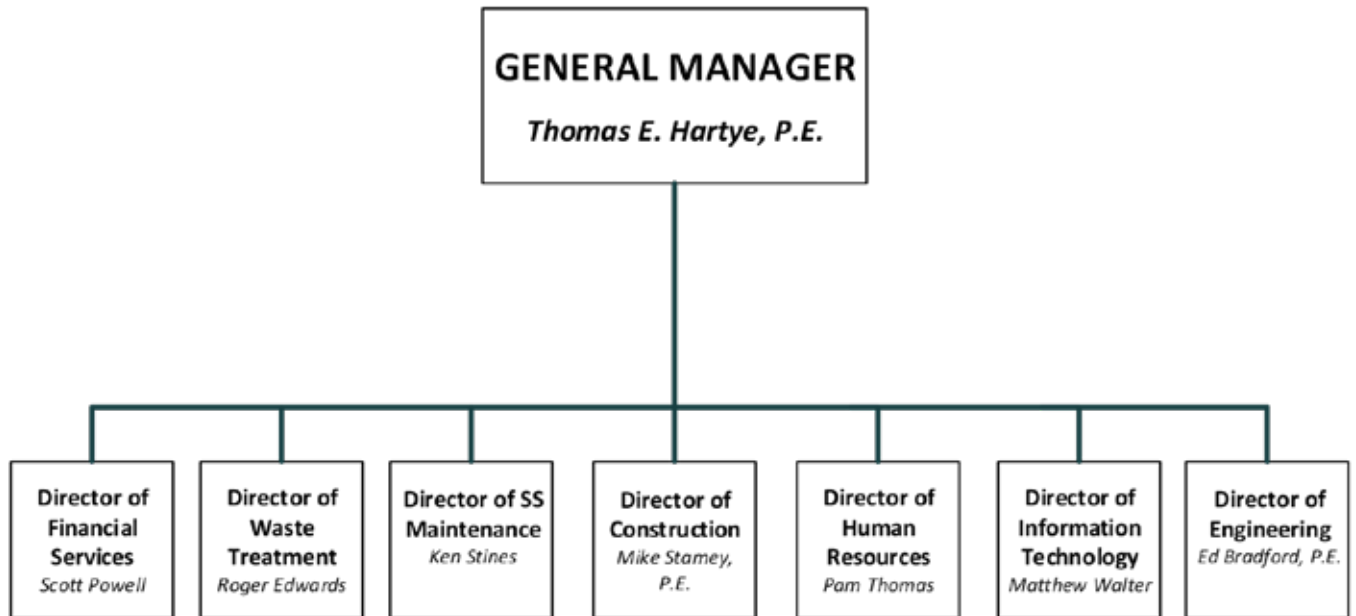


FY22 Budget – All Departments Summary

No.	Name	ACTUAL 2016-2017	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	Adopted 2020-2021 Budget	Estimated Actual 06/30/2021	Percent Expended To Total Budget	Proposed 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages										
51100	Salaries & Wages	\$ 8,256,868.46	\$ 8,470,591.31	\$ 8,716,040.85	8,980,200.71	\$ 9,020,175	\$ 9,020,175	100.00%	9,206,124.00	2.06%
51150	Overtime	256,322.95	282,826.59	315,580.24	276,671.43	325,000	325,000	100.00%	331,500.00	2.00%
Total Salaries & Wages		8,513,191.41	8,753,417.90	9,031,621.09	9,256,872.14	9,345,175	9,345,175	100.00%	9,537,624.00	2.06%
Benefits										
51200	North Carolina Retirement	630,362.92	665,374.99	709,834.29	855,630.83	954,141.00	954,141.00	100.00%	1,087,290.00	13.95%
51250	Payroll Taxes	690,654.00	638,911.88	662,290.00	679,958.25	714,906.00	714,906.00	100.00%	729,629.00	2.06%
51300	Medical, Dental & Life	1,908,628.00	2,051,775.00	2,185,141.00	2,327,175.00	2,478,441.00	2,478,441.00	100.00%	2,639,540.00	6.50%
51325	Post Retirement Insurance	270,000.00	249,500.00	307,560.00	283,000.00	283,000.00	283,000.00	100.00%	283,000.00	0.00%
51350	Worker's Compensation	273,000.00	273,000.00	273,000.00	273,000.00	273,000.00	273,000.00	100.00%	273,000.00	0.00%
51360	State Unemployment Benefits	1,066.51	4,169.82	3,286.82	1,211.10	32,560.00	32,560.00	100.00%	32,560.00	0.00%
51450	Automobile Allowance	-	-	-	-	3,600.00	3,600.00	100.00%	3,600.00	0.00%
51500	401-K/457 Plan	369,243.99	381,363.05	395,749.86	406,998.02	448,518.00	448,518.00	100.00%	457,638.00	2.03%
Total Benefits		4,142,954.42	4,264,094.74	4,536,861.97	4,825,973.20	5,188,166.00	5,188,166.00	100.00%	5,506,257.00	6.13%
Total Salaries, Wages & Benefits		12,656,145.83	13,017,512.64	13,568,483.06	14,082,845.34	14,533,341.00	14,533,341.00	100.00%	15,043,881.00	3.51%
Materials, Supplies & Services										
52010	Advertising	29,872.28	27,073.65	25,232.44	20,447.34	28,500.00	26,500.00	92.98%	29,500.00	3.51%
52050	Dues & Subscriptions	47,248.57	55,087.28	52,721.81	56,164.31	63,255.00	59,705.00	94.39%	60,155.00	-4.90%
52100	Postage	9,607.87	14,793.94	11,056.19	12,379.44	14,000.00	14,000.00	100.00%	14,000.00	0.00%
52150	Travel, Mtgs & Training	135,706.68	123,715.00	123,548.53	109,854.08	190,436.00	185,537.00	97.43%	192,233.00	0.94%
52160	Tuition Assistance	1,499.70	2,153.15	4,129.00	3,751.88	7,000.00	7,000.00	100.00%	8,000.00	14.29%
52170	Directors Fees & Expenses	22,040.26	19,944.57	22,166.98	23,623.60	24,000.00	23,000.00	95.83%	24,000.00	0.00%
52180	Liability Insurance	547,746.00	547,746.00	547,746.00	547,746.00	547,746.00	547,746.00	100.00%	602,521.00	10.00%
52200	Telephone/Telefax	31,559.30	34,442.61	32,046.54	32,243.02	48,195.00	48,195.00	100.00%	52,000.00	7.90%
52210	Communications	93,540.25	106,119.70	121,723.62	116,754.73	144,895.00	144,895.00	100.00%	151,900.00	4.83%
52240	Uniforms	75,502.00	77,392.60	75,171.84	70,761.25	87,550.00	86,800.00	99.14%	88,050.00	0.57%
52250	Office Supplies	17,757.72	16,942.06	16,133.64	15,578.36	26,750.00	25,550.00	95.51%	26,650.00	-0.37%
52260	Special Dept Supplies	405,696.77	429,723.05	413,582.15	371,469.97	487,624.00	485,000.00	99.46%	489,950.00	0.48%
52270	Safety Equip/Supplies	71,485.85	83,212.80	81,302.74	75,222.03	87,250.00	84,050.00	96.33%	85,150.00	-2.41%
52280	Maint Supp/Small Tools	113,327.73	134,273.28	102,450.75	116,885.61	149,150.00	149,150.00	100.00%	152,650.00	2.35%
52290	Chemical Supplies	421,562.83	423,362.80	371,798.13	377,526.71	698,000.00	698,000.00	100.00%	1,044,000.00	49.57%
52300	Line Cleaning Supplies	64,384.72	45,654.89	47,485.00	53,964.84	53,750.00	53,750.00	100.00%	53,750.00	0.00%
52330	Legal Fees	39,364.31	19,166.15	19,781.55	46,053.88	37,612.25	34,712.25	92.29%	40,000.00	6.35%
52350	Prof/Contractual Svcs	583,379.74	518,403.65	509,103.84	431,444.52	619,182.00	593,065.00	95.78%	606,440.00	-2.04%
52410	Maint-Buildings & Grounds	141,341.47	139,012.01	135,354.76	192,651.43	232,490.00	232,490.00	100.00%	261,110.00	12.48%
52420	Maintenance-Equipment	525,057.38	444,035.12	436,326.30	461,976.15	520,800.00	520,800.00	100.00%	524,300.00	0.67%
52430	Landscape Restoration	9,189.87	12,928.86	12,339.53	8,797.32	14,700.00	14,700.00	100.00%	14,700.00	0.00%
52440	Pump Maintenance	80,430.24	105,799.01	48,730.68	59,170.28	102,500.00	102,500.00	100.00%	102,500.00	0.00%
52450	Equipment Rental	9,647.84	9,802.65	9,744.66	16,105.10	37,000.00	37,000.00	100.00%	37,000.00	0.00%
52460	Motor Fuel & Lubricants	128,800.36	156,214.88	146,308.55	138,984.27	211,376.00	211,376.00	100.00%	214,272.00	1.37%
52470	Outside Vehicle Maint	11,376.26	11,585.14	28,644.96	2,772.98	15,030.00	15,030.00	100.00%	15,030.00	0.00%
52500	Rents/Leases	41,020.59	42,848.85	44,051.33	42,593.90	50,000.00	50,000.00	100.00%	50,900.00	1.80%
52510	Permits/Fees/Software Licenses	231,756.42	233,710.24	268,880.64	249,314.25	265,665.00	265,265.00	99.85%	301,110.00	13.34%
52650	Utilities	1,113,988.48	1,161,805.54	1,025,513.34	1,065,903.00	1,288,000.00	1,285,000.00	99.77%	1,290,000.00	0.16%
52690	Freight	4,390.63	3,745.54	4,003.56	5,434.74	6,000.00	5,000.00	83.33%	6,000.00	0.00%
52715	Safety Incentive Program	841.60	689.59	691.76	1,287.38	1,822.00	1,822.00	100.00%	2,500.00	37.21%
52725	Wellness Program	6,222.83	5,828.50	4,382.39	6,994.85	6,887.75	6,887.75	100.00%	8,000.00	16.15%
52730	Employee Asst Program	4,355.00	4,355.00	4,355.00	4,355.00	4,500.00	4,500.00	100.00%	4,500.00	0.00%
52900	Other Operating Expenses	1,866.34	1,002.49	249.14	1,306.52	2,000.00	2,000.00	100.00%	2,000.00	0.00%
52910	Non-Capital Equipment	74,655.70	74,170.54	58,881.53	82,207.38	95,445.00	95,445.00	100.00%	100,765.00	5.57%
52915	Copiers/Printers & Faxes	-	-	-	-	-	-	-	4,000.00	-
52920	Billing & Collections	768,832.93	795,574.21	821,024.44	852,980.70	934,101.00	934,101.00	100.00%	952,783.00	2.00%
Total Materials, Supplies & Services		5,865,039.52	5,882,315.35	5,626,646.32	5,674,710.81	7,103,712.00	7,090,572.00	99.26%	7,612,809.00	7.17%
Interfund Transfers										
52340	Debt Administration Expenses	178,880.66	170,478.25	175,764.91	163,684.82	162,183.00	162,183.00	100.00%	155,400.00	-4.18%
53040	Fleet Replacement Charges	425,000.00	460,000.00	500,000.00	500,000.00	500,000.00	500,000.00	100.00%	595,000.00	19.00%
53050	WWTP Replacement Charges	200,000.00	200,000.00	180,000.00	200,000.00	200,000.00	200,000.00	100.00%	200,000.00	0.00%
53070	Pump Replacement Charges	-	-	-	50,000.00	50,000.00	50,000.00	100.00%	55,000.00	10.00%
Total Interfund Transfers		803,880.66	830,478.25	855,764.91	913,684.82	912,183.00	912,183.00	100.00%	1,006,400.00	10.22%
Capital Outlay										
54010	Capital Equipment - New	49,288.10	91,705.92	37,443.91	63,149.76	48,160.00	48,160.00	100.00%	26,100.00	-45.81%
54020	Capital Equip-Software	354.22	9,830.37	-	-	-	-	-	-	-
54030	Capital Equip - Replacement	84,379.26	93,613.76	75,599.57	89,601.37	83,494.00	78,494.00	94.01%	86,075.00	3.09%
Total Capital Outlay		134,021.58	195,150.05	113,043.48	152,751.13	131,654.00	126,654.00	96.20%	112,175.00	-14.80%
Sub-Total O&M Fund		\$ 19,459,087.59	\$ 19,925,456.29	\$ 20,163,937.77	\$ 20,823,992.10	\$ 22,680,390.00	\$ 22,622,750.00	99.73%	23,774,265.00	4.82%
59200 LESS:										
Chargebacks to General Fund for CIP		(2,288,880.74)	(2,353,594.99)	(2,565,693.44)	(2,670,068.12)	(2,870,202.00)	(2,854,078.00)	99.44%	(2,907,817.00)	1.31%
Chargebacks to General Fund for SSD		(1,565,955.82)	(1,666,399.82)	(1,729,038.74)	(1,766,213.03)	(1,759,962.00)	(1,759,962.00)	100.00%	(1,893,758.00)	7.60%
Net Operation & Maintenance Fund		\$ 15,604,251.03	\$ 15,905,461.48	\$ 15,869,205.59	16,387,710.95	\$ 18,050,226.00	\$ 18,008,710.00	99.77%	18,972,690.00	5.11%

Office of the General Manager

Organizational Chart



Office of the General Manager (continued)

Mission Statement

The mission of Office of the General Manager is to provide overall direction, leadership and coordination of the District and Department activities to ensure that the most efficient and effective services possible are provided within the policies established by the District's Board of Directors and the resources authorized.

Key Responsibilities

Carry out policies and directives of the Board. Monitor and control resources to ensure that the District is operated in a responsible and cost-efficient manner. Operate and maintain a reliable wastewater, collection, and treatment system. Maintain effective communications and relationships with member agencies and the public. Maintain positive media relations through news releases and prompt, accurate responses to media inquiries. Represent MSD in various meetings, forums, and special events. Oversee intermediate and long-range planning. Review and submit the board and committee agenda items; prepare minutes for board meetings; coordinate travel arrangements for board members and staff; provide public relations assistance.

Staffing History

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
Department of Office of the General Manager			
Management:			
General Manager	1	1	1
Total General Manager	1	1	1
Total - Office of the General Manager Department	1	1	1

Office of the General Manager (continued)

Accomplishments for FY 2020-2021

- | The Plant Headworks Project is complete and operational
- | Construction for High-Rate Primary Treatment (HRPT) Project is at 90 % complete
- | Incorporated \$100 million of Treatment Plant improvements within 10-year CIP for MSD to meet future regulations and growth for next 50 years
- | Design of Carrier Bridge Pump Station (\$45 million) 60% complete.
- | Replaced or rehabbed between 40,000 feet of sewer line
- | Incorporated \$100 million Interceptor & Storage improvements for 50-year planning period
- | Kept response time to all customer calls to less than 35 minutes
- | ISO Recertification for entire organization

Budget Highlights/Changes for FY 2021-2022

- © 2.75% rate increase for customers.
- © 3.5% wage increase for employees.
- © Keep rate increases low and consistent based on long-term financial model
- © Includes completing Capital Improvements of approximately \$30 Million
- © Reflects 6.5% increase in medical plan contributions
- © Includes 11.8% increase in state required contributions for the NC Retirement

Goals & Objectives

- ✧ Goal: Oversee compliance with all State & Federal requirements for collection, treatment, and disposal of wastewater. (MSD Objectives 1 & 2)
- ✧ Goal: Manage District in a financially sound manner. (MSD Goal 3)

Office of the General Manager (continued)

Goals & Objectives (continued)

- ✧ Goal: Implement District programs in accordance with Board approved schedules, as modified from time to time as appropriate to provide project flexibility and accommodate ongoing changes in the community. (MSD Goal 4)
- ✧ Goal: Manage community relations and education efforts. (MSD Objective 5)
- ✧ Goal: Establish departmental goals & objectives. (MSD Goal 4)

Performance Measures

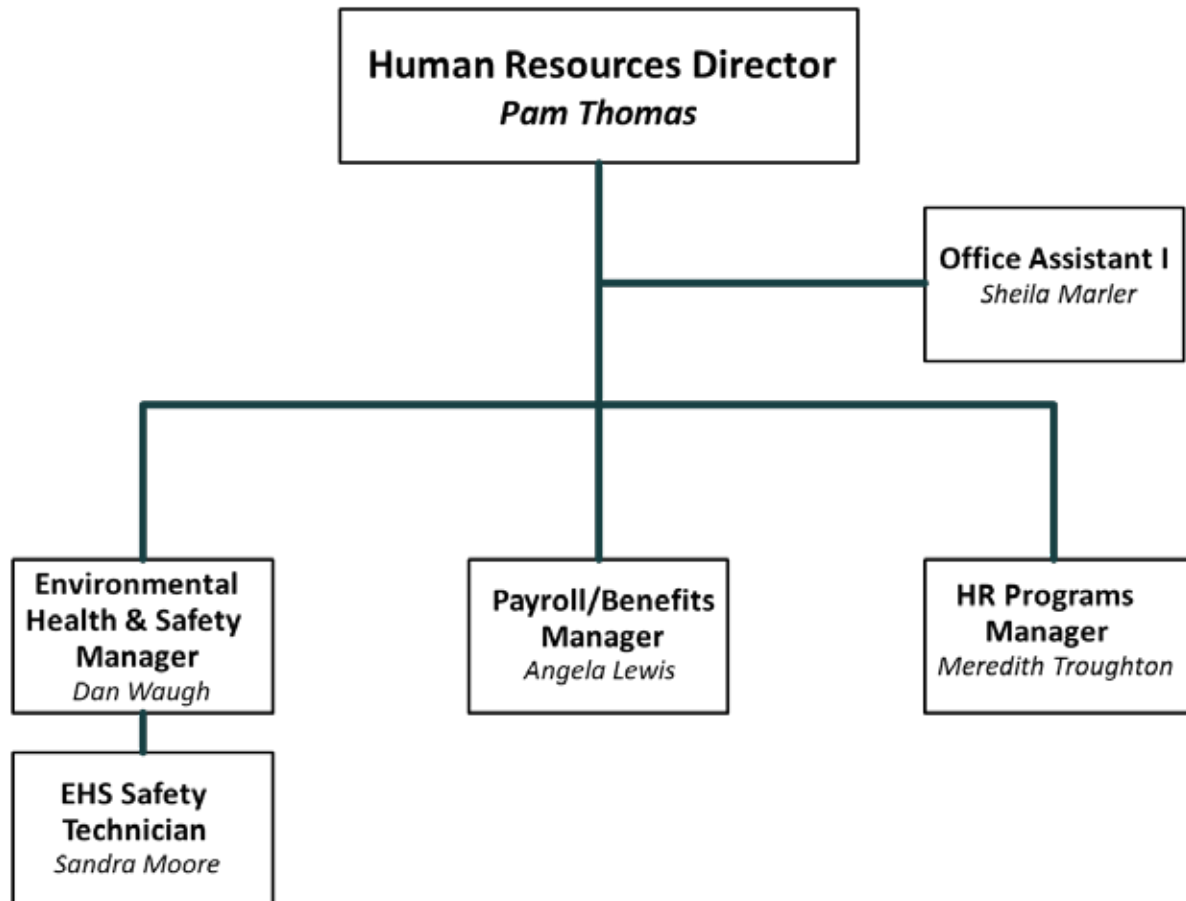
1. Oversight of compliance matters—see performance measures for Systems Services and Water Reclamation facility departments
2. Fiscal management—see performance measures for Finance Department

FY22 Budget – Office of the General Manager

No.	Name	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	ADOPTED 2020-2021 Budget	ESTIMATED Actual 6/30/2021	Percent Expended To Total Budget	PROPOSED 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages									
51100	Salaries & Wages	\$ 200,114	\$ 202,162	\$ 223,699	\$ 201,609	\$ 201,609	100.00%	\$ 208,665	3.50%
Total Salaries & Wages		200,114	202,162	223,699	201,609	201,609	100.00%	208,665	3.50%
Benefits									
51200	North Carolina Retirement	15,192	15,862	20,526	20,584	20,584	100.00%	23,788	15.57%
51250	Payroll Taxes	11,282	11,247	12,729	15,423	15,423	100.00%	15,963	3.50%
51300	Medical, Dental & Life	27,727	14,665	15,412	16,306	16,306	100.00%	17,366	6.50%
51325	Post Retirement Insurance	3,372	2,064	1,874	1,862	1,862	100.00%	1,862	0.00%
51350	Worker's Compensation	3,689	1,833	1,808	1,796	1,796	100.00%	1,796	0.00%
51360	State Unemployment Benefits	57	22	-	215	215	100.00%	215	0.00%
51500	401-K/457 Plan	9,548	9,856	10,167	10,081	10,081	100.00%	10,434	3.50%
Total Benefits		70,866	55,549	62,516	66,267	66,267	100.00%	71,424	7.78%
Total Salaries, Wages & Benefits		270,979	257,711	286,215	267,876	267,876	100.00%	280,089	4.56%
Materials, Supplies & Services									
52010	Advertising	7,306	12,577	5,635	12,000	10,000	83.33%	10,000	-16.67%
52050	Dues & Subscriptions	14,475	12,144	13,654	13,000	10,000	76.92%	10,000	-23.08%
52100	Postage	14,824	11,056	12,379	14,000	14,000	100.00%	14,000	0.00%
52150	Travel, Mtgs & Training	3,105	3,445	4,312	5,000	4,000	80.00%	4,000	-20.00%
52170	Directors Fees & Expenses	19,945	22,167	23,626	24,000	23,000	95.83%	24,000	0.00%
52180	Liability Insurance	105,099	105,099	105,099	105,099	105,099	100.00%	115,609	10.00%
52210	Communications	1,928	2,252	2,381	3,300	3,300	100.00%	4,000	21.21%
52250	Office Supplies	421	453	301	400	400	100.00%	400	0.00%
52260	Special Dept Supplies	339	339	471	600	600	100.00%	600	0.00%
52270	Safety Equip/Supplies	-	-	-	1,000	1,000	100.00%	1,000	0.00%
52330	Legal Fees	16,142	18,106	43,540	30,000	28,000	93.33%	30,000	0.00%
52350	Prof/Contractual Svcs	27,987	31,722	60,838	30,000	30,000	100.00%	30,000	0.00%
52410	Maint-Buildings & Grounds	131,708	130,682	136,817	171,040	171,040	100.00%	200,000	16.93%
52420	Maintenance-Equipment	-	-	-	300	300	100.00%	300	0.00%
52500	Rents/Leases	3,688	3,667	3,192	5,000	5,000	100.00%	5,000	0.00%
52510	Permits/Fees/Software Licenses	78	145	223	200	200	100.00%	200	0.00%
52650	Utilities	96,774	101,588	66,858	103,000	100,000	97.09%	100,000	-2.91%
52690	Freight	3,746	4,004	5,435	6,000	5,000	83.33%	6,000	0.00%
52900	Other Operating Expenses	1,002	249	1,307	2,000	2,000	100.00%	2,000	0.00%
52910	Non-Capital Equipment	-	571	-	-	-	-	-	-
52920	Billing & Collections	795,574	821,024	852,981	934,101	934,101	100.00%	952,783	2.00%
Total Materials, Supplies & Services		1,244,141	1,281,290	1,339,049	1,460,040	1,447,040	99.11%	1,509,892	3.41%
Interfund Transfers									
53040	Fleet Replacement Charges	8,018	8,715	8,715	8,715	8,715	100.00%	10,371	19.00%
Total Interfund Transfers		8,018	8,715	8,715	8,715	8,715	100.00%	10,371	19.00%
Capital Outlay									
54010	Capital Equipment - New	6,636	-	-	-	-	-	-	-
Total Capital Outlay		6,636	-	-	-	-	-	-	-
Sub-Total O&M Fund		1,529,775	1,547,715	1,633,979	1,736,631	1,723,631	99.25%	1,800,352	3.67%
Net Operation & Maintenance Fund		\$ 1,529,775	\$ 1,547,715	\$ 1,633,979	\$ 1,736,631	\$ 1,723,631	99.25%	\$ 1,800,352	3.67%

Human Resources

Organizational Chart



Human Resources (continued)

Mission Statement

The mission of the **Human Resource Management Division** is to develop and implement a comprehensive, consistent program of human resource activities and maintain a qualified, diverse, career-oriented work force.

The mission of the **Payroll and Employee Benefits Division** is to process bi-weekly payroll for the District employees and to provide an attractive employee benefits package at a reasonable cost to the District and employees.

The mission of the **Environmental Safety Division** is to eliminate avoidable personal injuries and accidents through compliance with applicable federal, state, local and MSD rules and regulations governing environmental health and safety.

Key Responsibilities

Human Resources—Includes compliance with all Federal/State regulations and MSD Personnel Policies; coordinate recruitment process and new employee orientation; coordinate employee six-month and annual evaluations; maintain employee personnel files; coordinate updates to personnel pay plan & job descriptions; maintain positive employer-employee relations and develop training program for supervisors.

Payroll & Benefits—Includes bi-weekly processing of payroll and related reports; administering the following benefits: group medical, dental and life insurance; social security, North Carolina Retirement Defined Benefit Plan, 401(k) and 457 Defined Contribution Plans, Section 125 Cafeteria Plan, and voluntary employee deductions such as cancer, disability, and life insurance.

Environmental Safety—To ensure District compliance with laws of regulatory agencies such as OSHA, the North Carolina Department of Transportation, and EPA; to reduce losses to the District such as high worker's compensation premiums, lost production time, damage to property, etc.; and to promote awareness of and participation in environmental, health and safety among all employees.

Human Resources (continued)

Staffing History

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
Department of Human Resources			
Management:			
Director of Human Resources	1	1	1
Total Management	1	1	1
Human Resources:			
Floater	1	1	1
Office Assistant I	1	1	1
HR Programs Manager	1	1	1
Payroll/Benefits Manager	1	1	1
Total Human Resources	4	4	4
Environmental, Health & Safety:			
EHS Safety Technician	1	1	1
Environmental, Health & Safety Manager	1	1	1
Total Environmental, Health & Safety	2	2	2
Total - Human Resources Department	7	7	7

Accomplishments for FY 2020-2021

- ┆ Continued discount contract with Advent Health Hospital, resulting in zero costs for employees
- ┆ Discount contract with Range Urgent Care for employees and the District
- ┆ Set up a new chronic condition program with Advent Health Hospital
- ┆ Changed Third Party Administrators from CWI to HPI
- ┆ Continued Wellness activities and monthly newsletter
- ┆ Set up step program on computer for easier access to Supervisors and Directors
- ┆ Maintained employee medical insurance premium amounts at last year's levels
- ┆ Coordinated retirement and replacements activities

Human Resources (continued)

Accomplishments for FY 2020-2021 (continued)

- | Identified, provided training, and promoted people as part of the Succession Plan
- | New Employees trained on essential job functions before the 6-month OSHA deadline
- | Fall protection and harness inspections performed as required
- | Received Safety Award from the NC Dept of Labor
- | New safety gas program "safety ISO" monitors and stored all data on a cloud
- | MSD was mentioned in MSA gas detectors news article
- | Safety worked with each division to ensure training was completed by OSHA, NFPA, & NCDOT guidelines
- | Set up employees in the NCLM system to aid in continuing education credit hours for their license related to safety classes

Budget Highlights for FY 2021-2022

- © Monitoring & inspections for fire alarms and sensors
- © Increased Advertising budget
- © Update HRIS System

Goals & Objectives

- ✕ Goal: Provide supervisory leadership development training (MSD Objective 3)
 - % Objective: Provide appropriate training sessions for employees
- ✕ Goal: Train supervisors in improving employee relations and managing employee personnel issues (MSD Objective 3)
- ✕ Goal: Keep personnel policies up to date (MSD Objective 3)
 - % Objective: Review 20% of policies per year
- ✕ Goal: Keep job descriptions up to date (MSD Objective 3)
 - % Objective: Review 20% of job descriptions per year

Human Resources (continued)

Goals & Objectives (continued)

- ✧ Goal: Improve the pool of applicants to reflect the diversified community (MSD Objective 3)
 - % Objective: Utilize minority communications tools
- ✧ Goal: Ongoing review of new position classifications or positions with added responsibilities (MSD Objective 3)
 - % Objective: Review Labor Grade of new & existing positions as necessary
- ✧ Goal: Promote Wellness Program (MSD Objective 3)
 - % Objective: Educate and distribute healthy information to lower insurance costs
- ✧ Goal: Minimize time positions are vacant (MSD Goals 1 & 2)
 - % Objective: Have positions filled within 20 days
- ✧ Goal: Minimize cost to fill vacancies (MSD Goal 3)
 - % Objective: Limit average cost to \$400
- ✧ Goal: Maintain consistency throughout District on disciplinary actions (MSD Objective 3)
 - % Objective: Train supervisors to keep personnel informed/involved in all dealings leading up to a disciplinary step
- ✧ Goal: To guard the occupational health and safety of MSD's workforce (MSD Goal #1)
 - % Objective: Maintain an "Incident Rate" below industry standards of 5.30 per 100 employees.
 - % Objective: To ensure compliance with the following: Federal/State OSHA, NFPA, NCDOT, EPA and FMCA. Promote safety focused training and compliance inspections. Have Zero (0) OSHA violations
 - % Objective: Continuously evaluate current safety practices and improve/change as needed.
 - % Objective: Focus on plant involvement in all areas
 - % Objective: Stay abreast of changes and regulations and how they apply with MSD
 - % Objective: Manage safety related contractual efforts including drug testing, hoist testing, fire protection, and gas line inspections.
- ✧ Goal: Process payroll in a timely and accurate manner (MSD Objective 3)
 - % Objective: No errors in paychecks

Human Resources (continued)

Goals & Objectives (continued)

- ✧ Goal: Promote efficient utilization of employee benefits (MSD Objective 3)
 - % Objective: Provide quarterly education or updates to employees concerning different types of benefits or other personal financial issues
- ✧ Goal: Promote efficient utilization of employee benefits (MSD Objective 3)
 - % Objective: Resolve employee payroll and benefit concerns within two business days
- ✧ Goal: Maintain full compliance with all applicable legal requirements and governmental standards.
 - % Objective: Have zero (0) OSHA violations
 - % Objective: Stay abreast of changes and regulations and how they apply to the District

Performance Measures

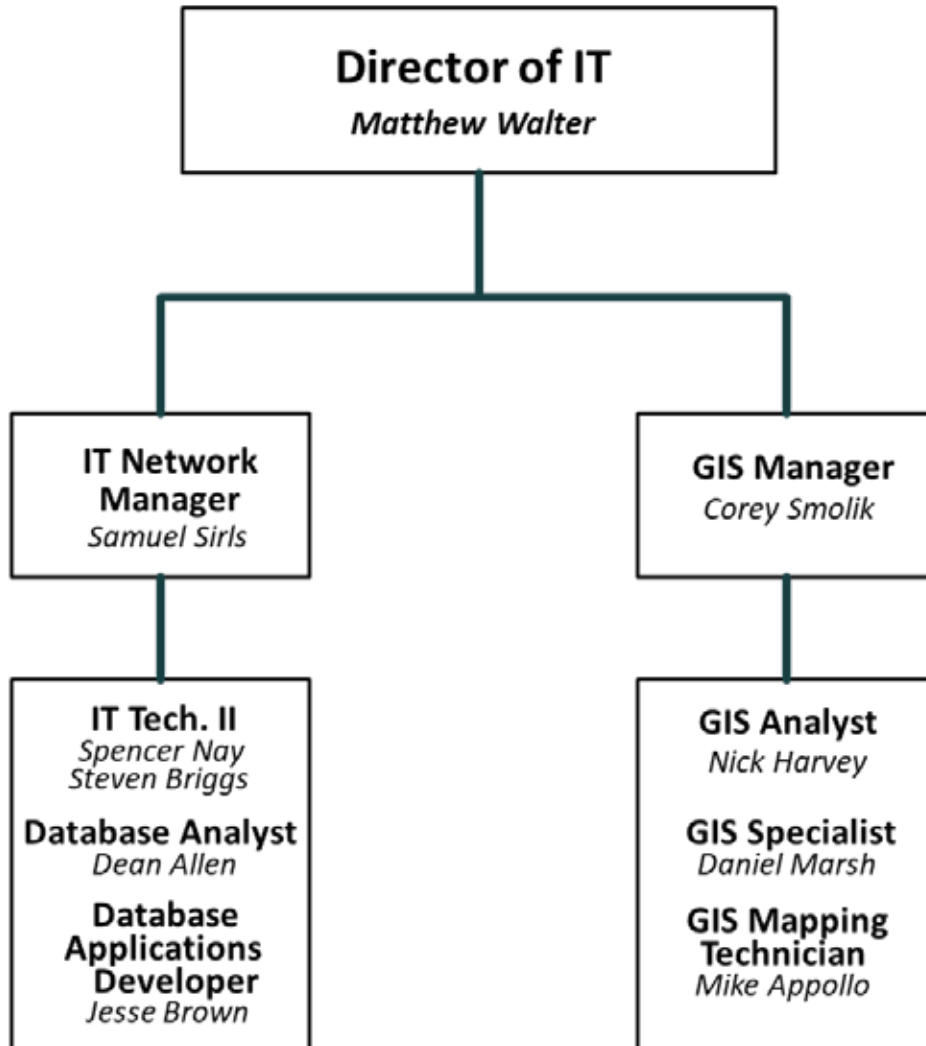
Task	FY18-19	FY19-20	FY20-21
1. Monitor and evaluate Skill Based Pay System	Yes	Yes	Yes
2. Assist in the administration of the Employee Wellness Program	Yes	Yes	Yes
3. # of external vacancies	14	15	14
4. Avg. # of days to fill vacancies	40	45	40
5. Avg. advertising cost per vacancy	\$400	\$400	\$400
6. Percentage of paychecks reissued or modified	<.1%	<.1%	<.1%
7. Percentage of payroll tax and benefit withholdings timely remitted	100%	100%	100%
8. Number of employee benefit education sessions	8	6	5
9. Percentage of employee payroll and benefit concerns resolved within two business days	100%	100%	100%
10. Number of Injuries <small>(calendar year)</small>	3	0	4
11. Number of Lost Time Injuries <small>(calendar year)</small>	1	0	2
12. Incident Rate NAICS <small>(calendar year)</small>	1.97	0	1.91
13. Inspections/Audits <small>(calendar year)</small>	25/75+	25/75+	25/75+
14. Random Alcohol and Drug Tests for Safety Sensitive drivers <small>(calendar year)</small>	32	35	36
15. EHS Training classes conducted <small>(calendar year)</small>	97	58	77

FY22 Budget – Human Resources

No.	Name	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	ADOPTED 2020-2021 Budget	ESTIMATED Actual 6/30/2021	Percent Expended To Total Budget	PROPOSED 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages									
51100	Salaries & Wages	\$ 398,670	\$ 412,478	\$ 384,230	\$ 492,434	\$ 492,434	100.00%	\$ 480,735	-2.38%
51150	Overtime	-	-	81	-	-	-	-	-
Total Salaries & Wages		\$ 398,670	\$ 412,478	\$ 384,311	\$ 492,434	\$ 492,434	100.00%	\$ 480,735	-2.38%
Benefits									
51200	North Carolina Retirement	29,708	32,335	35,516	50,277	50,277	100.00%	54,804	9.00%
51250	Payroll Taxes	31,419	32,650	30,973	37,671	37,671	100.00%	36,776	-2.38%
51300	Medical, Dental & Life	83,180	87,993	107,883	114,139	114,139	100.00%	121,558	6.50%
51325	Post Retirement Insurance	10,115	12,385	13,119	13,033	13,033	100.00%	13,033	0.00%
51350	Worker's Compensation	11,067	10,993	12,656	12,573	12,573	100.00%	12,573	0.00%
51360	State Unemployment Benefits	170	133	-	1,499	1,499	100.00%	1,499	0.00%
51500	401-K/457 Plan	18,162	18,963	18,010	22,123	22,123	100.00%	21,359	-3.45%
Total Benefits		183,821	195,452	218,158	251,315	251,315	100.00%	261,602	4.09%
Total Salaries, Wages & Benefits		582,491	607,930	602,469	743,749	743,749	100.00%	742,337	-0.19%
Materials, Supplies & Services									
52010	Advertising	5,360	7,535	8,075	7,000	7,000	100.00%	9,000	28.57%
52050	Dues & Subscriptions	6,081	5,678	4,564	6,555	6,555	100.00%	6,505	-0.76%
52150	Travel, Mtgs & Training	26,871	32,045	7,828	21,050	21,050	100.00%	22,000	4.51%
52160	Tuition Assistance	2,153	4,106	3,752	7,000	7,000	100.00%	8,000	14.29%
52180	Liability Insurance	1,695	1,695	1,695	1,695	1,695	100.00%	1,864	9.97%
52210	Communications	5,356	5,321	5,502	18,755	18,755	100.00%	24,060	28.29%
52240	Uniforms	954	682	364	1,300	1,300	100.00%	1,300	0.00%
52250	Office Supplies	2,199	2,076	1,988	3,450	3,450	100.00%	3,450	0.00%
52260	Special Dept Supplies	1,803	755	2,081	4,300	4,300	100.00%	4,300	0.00%
52270	Safety Equip/Supplies	18,500	16,873	15,629	17,000	17,000	100.00%	18,000	5.88%
52280	Maint Supp/Small Tools	8	-	-	-	-	-	-	-
52330	Legal Fees	1,944	954	1,574	5,112	5,112	100.00%	8,000	56.49%
52350	Prof/Contractual Svcs	69,022	51,546	42,320	64,305	64,305	100.00%	75,000	16.63%
52410	Maint-Buildings & Grounds	-	-	-	450	450	100.00%	500	11.11%
52420	Maintenance-Equipment	10	-	258	500	500	100.00%	4,000	700.00%
52510	Permits/Fees/Software Licenses	2,154	67	68	100	100	100.00%	100	0.00%
52715	Safety Incentive Program	690	692	1,287	1,822	1,822	100.00%	2,500	37.21%
52725	Wellness Program	5,829	4,382	6,995	6,888	6,888	100.00%	8,000	16.15%
52730	Employee Asst Program	4,355	4,355	4,355	4,500	4,500	100.00%	4,500	0.00%
52910	Non-Capital Equipment	6,946	6,790	11,425	8,000	8,000	100.00%	10,500	31.25%
Total Materials, Supplies & Services		161,930	145,552	119,758	179,782	179,782	100.00%	211,579	17.69%
Interfund Transfers									
53040	Fleet Replacement Charges	2,074	2,254	2,254	2,254	2,254	100.00%	2,683	19.03%
Total Interfund Transfers		2,074	2,254	2,254	2,254	2,254	100.00%	2,683	19.03%
Capital Outlay									
54010	Capital Equipment - New	17,734	-	-	-	-	-	2,500	-
Total Capital Outlay		17,734	-	-	-	-	-	2,500	-
Sub-Total O&M Fund		764,229	755,737	724,481	925,785	925,785	100.00%	959,099	3.60%
Net Operation & Maintenance Fund		764,229	755,737	724,481	925,785	925,785	100.00%	959,099	3.60%

Information Technology

Organizational Chart



Information Technology (continued)

Mission Statement

To provide information technology support, training, management, and development that will benefit the District divisions by facilitating completion of work objectives, improving communication, and creating better and easier access to information.

Key Responsibilities

Information Technology (IT)—Support new systems development based on the plans of the District divisions. Provide ongoing support and enhancements to major on-line operational and administrative systems. Maintain the existing computer equipment and data communications network. Plan and manage the acquisition and installation of new computer equipment, software, and peripherals. Provide computer equipment support, including installations, moving, and troubleshooting. Develop new software applications to meet specific MSD needs. Provide daily operations and product support. Develop long-range goals for computer systems development. Support responsibilities also include the telephone system, radio system, and process control equipment at the Plant. Offer computer software training programs for District staff. All IT work done 100% in-house. No vendor or contractors used for IT support.

Geographical Information Systems (GIS)—Develop, manage, and maintain data sets and digital maps related to the operations of the District. Provide data access and data analysis services for all divisions. Coordinate the acquisition of updated information from the field, external sources (such as other governmental agencies), and the Engineering Division and incorporate it into the GIS data sets. Develop, maintain, and train others in the use of tools for accessing spatial information to support all District activities.

Information Technology (continued)

Staffing History

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
Department of Information Technology			
Management:			
Director of IT	1	1	1
Total Management	1	1	1
Information Technology:			
IT Technician II	2	2	2
IT Manager	1	1	1
Database Analyst	1	1	1
Network Database Administrator	1	1	1
Total IT	5	5	5
Geographic Information Systems (GIS):			
GIS Mapping Technician	1	1	1
GIS Analyst	1	1	1
GIS Specialist	1	1	1
GIS Manager	1	1	1
Total GIS	4	4	4
Total - Information Technology Department	9	9	9

Accomplishments for FY 2020-2021

- Expanded CityWorks report library for multiple divisions, increased SQL automation processes, and numerous software customizations for MSD.
- Upgraded CityWorks components to latest major versions.
- Upgraded Freeance Mobile to latest major version and expanded devices for mobile app use with CityWorks.
- Upgraded the MSD network core switches and expanded wireless coverage at the Plant.

Information Technology (continued)

Accomplishments for FY 2020-2021 (continued)

- | Implemented a web-based password/account self-service utility for MSD employees.
- | Domain and File Server hardware and software upgrade/migration to latest Windows functional/security level.
- | Installed an iPad management system to manage/upgrade iPads and apps in the field.
- | Changed MSD's phone/internet provider to Segra for cost savings and performance improvements.
- | Expanded SCADA monitoring system network loop at the Plant to include Headworks and Thickener building.
- | Made modification/improvements to the Carrier Bridge pump station network.
- | Configured new TV Truck 2123 with a Granite video pc and the latest version of GraniteNet software.
- | 20+ laptops and PCs configured and deployed for MSD employees.
- | Support for MSD employees to work from home with laptops and connections to their accounts and data.
- | Imported CCWSD data into MSD's GIS system and successfully integrated with Granite and CityWorks applications.
- | Added Basins 72, 73, 74, and 75 to new Cane Creek Area.
- | Started adding Cane Creek as-builts into MSD's GIS system.
- | Added City of Hendersonville to MSD's billed sewer services layer.
- | Added City of Hendersonville water and utilities to MSD's GIS.
- | Started adding street maintenance information to Henderson County service area.
- | Completion of cartographic basemap of added Cane Creek areas.
- | Updated GIS applications and maps on Granite Van 1201.
- | Prepared GIS and Granite.Net on TV Van 2123.

Information Technology (continued)

Accomplishments for FY 2020-2021 (continued)

- | All field located mapping requests are now handled by GIS staff using high-accuracy GPS measurements.
- | Started cataloging CCWSD as-builts and matching them to MSD's project numbering.
- | Successful use of backup mobile applications during planned internet service outage.
- | Started transition from ESRI's deprecated Collector application to Field Maps for mobile devices.
- | Started transition from ArcMap to ArcGIS Pro applications for desktop computers.
- | Services for mobile devices were streamlined to be faster and more responsive.
- | Produce bulk mailing address lists for System Services Division.
- | Ongoing updates and improvements of GIS data services in support of CityWorks.
- | Ongoing GIS application and data support for laptops, PCs, and mobile devices in use by MSD staff.
- | Ongoing collection of high-accuracy GPS data for use in mapped infrastructure verification and accuracy improvement.
- | Ongoing coordinated efforts between System Services Division and GIS to identify, locate, and inspect specialized system infrastructure that had previously been unmapped.
- | Ongoing GPS services including inspection reports of manhole condition (broken lids, inverts, infiltration, etc.).
- | Configured GIS web and data servers to use transport layer security 1.2.
- | Moved ROW web-based documents and CCTV pipe video to newer web server.
- | Assisted ROW department with updating railway agreements.
- | Perform training on all GIS applications, data products, and services. The scope was reduced this year due to Covid-19 pandemic restrictions.

Information Technology (continued)

Goals & Objectives

- ✧ Goal: To provide on-going training, support, and application customization to all divisions
 - % Objective: Continue implementation and support of CityWorks software into all divisions
 - % Objective: Continue user support for MSD Web, Mobile, and Desktop GIS users
 - % Objective: Expand web and mobile solutions to help streamline field navigation and workflows where needed
 - % Objective: Staff training to enable GIS work order submittal through CityWorks (things like field edits and tap map requests; this has been an underutilized possibility since CityWorks was in use)
 - % Objective: Participate in presentations for mapping use in wastewater classes and in-house general instruction classes.
- ✧ Goal: Maintain the servers, network, email, websites, public map access, phones, copiers, fax machines, printers, and security systems
 - % Objective: Replace aging servers and desktop hardware as needed
 - % Objective: New Finance server and upgraded Finance software implementation
 - % Objective: New Web server and MSD website implemented
 - % Objective: New Plant and Business servers implemented
 - % Objective: Continue testing and researching in preparation for upgrades, including Windows, Server, Cloud Computing, and Storage
- ✧ Goal: Improve reporting structure for existing CityWorks implementation
 - % Objective: Continue implementing mobile solution for CityWorks to aid in paper reduction as well expanding use of Flex/ESRI Mapping systems.
- ✧ Goal: Provide all MSD staff with outstanding customer service
- ✧ Goal: Data entry of as-built sewer maps
 - % Objective: Ongoing data entry of existing record drawings into the GIS system.

Information Technology (continued)

Goals & Objectives (continued)

- ✧ Goal: Processing of map requests and customer data inquiries
 - % Objective: Map Wastewater Reclamation Facility structures as they are changed and exposed by construction projects
 - % Objective: Assessment of MSD hardcopy maps, survey, and standalone digital data that have not been entered into the GIS system
- ✧ Goal: Provide all MSD staff with outstanding customer service
- ✧ Goal: Continue system-wide accuracy verification and improvement project
 - % Objective: Locate unmapped infrastructure
 - % Objective: Verification that mapped data physically exists
 - % Objective: Improve horizontal accuracy of mapped infrastructure using high-accuracy GPS measurements
 - % Objective: Improve vertical accuracy of mapped infrastructure using physical measurement
 - % Objective: Photograph infrastructure to record existence and condition
 - % Objective: Report infrastructure condition to System Services Division
- ✧ Goal: To input geospatial data changes as requested by users
 - % Objective: Continue application and geospatial data support for CityWorks, Granite XP, Flex, ArcGIS Desktop, and AR for Trucks software and processes
 - % Objective: All submitted field locates will be measured and entered using high-accuracy GPS.
- ✧ Goal: Update MSD's information on population served using 2020 US Census Bureau data
 - % Objective: Obtain US Census Bureau GIS data, including tracts and municipal boundaries
 - % Objective: Perform a review of MSD's District Boundary against most recent municipal boundaries.
 - % Objective: Produce lists of population served by MSD as required by the General Manager and MSD Directors.

Information Technology (continued)

Goals & Objectives (continued)

Goal: Configure new GIS servers with next generation ArcGIS applications and services

- % Objective: Retain current ArcGIS applications and services on existing production servers.
- % Objective: Install next generation server applications on new servers.
- % Objective: Creation and testing of ArcGIS geodatabases supporting Utility Network.

% Goal: Configure and test next generation ArcGIS desktop, web, and mobile applications.

- % Objective: Import user desktop maps from ArcMap into ArcGIS Pro.
- % Objective: Identify tools and common uses between the old and new interface.
- % Objective: Document application features that will require user training.
- % Objective: Prepare training materials and presentations for instructing users

% Goal: Identify agencies responsible for street maintenance within Henderson County service areas.

- % Objective: Obtain data available through NCDOT maintenance data.
- % Objective: Fill gaps in local maintenance data through communication with municipal staff.

% Goal: Ongoing integration of CCWSD information into MSD GIS.

- % Objective: Add CCWSD CCTV inspections into MSD's CCTV inspection management system.
- % Objective: Organize CCWSD scanned as-builts into MSD's scanned as-built storage.
- % Objective: Link CCWSD scanned as-builts to MSD GIS features.

% Goal: Identify adjacent providers of municipal and sewer service operating within MSD's service area to assist MSD's billing and permitting activities.

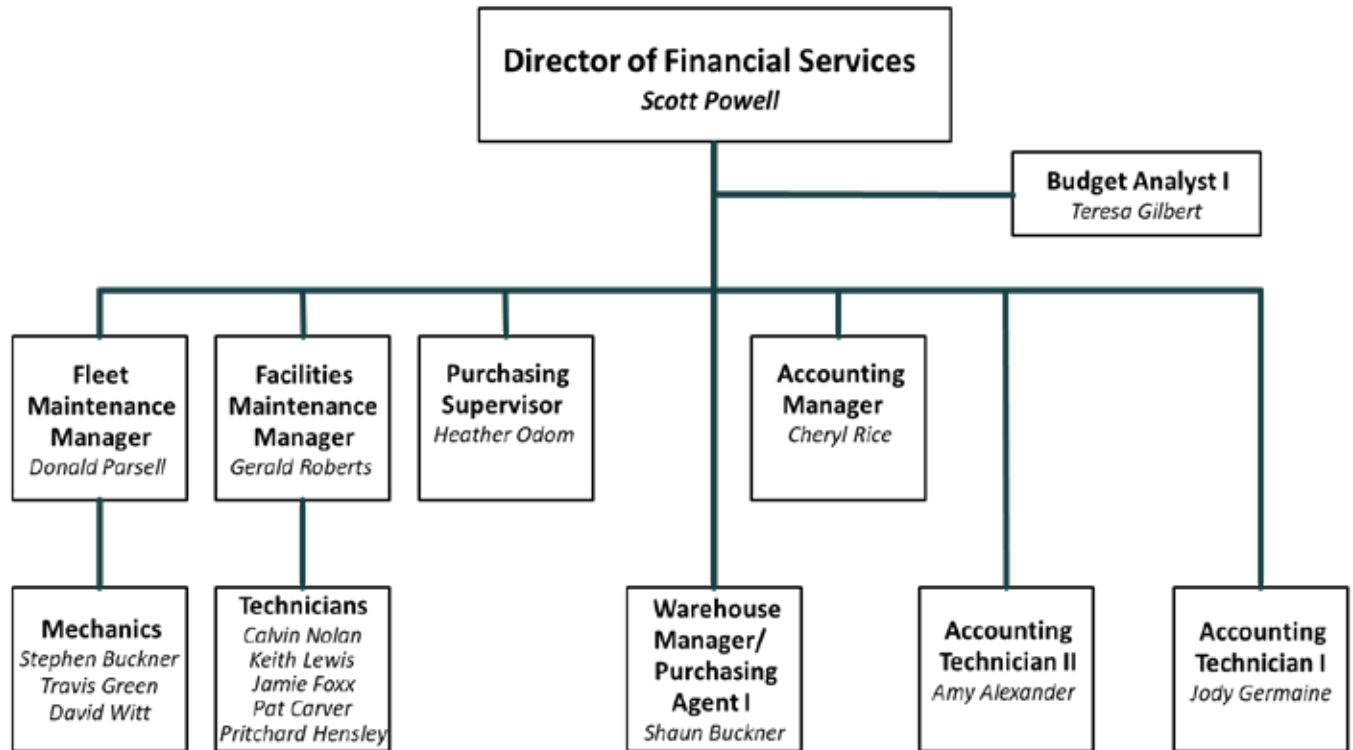
- % Objective: Identify unmapped nearby providers.
- % Objective: Obtain contact information of adjacent providers.
- % Objective: Obtain GIS, plan sets, or addresses from adjacent providers.
- % Objective: Add nearby provider infrastructure to MSD GIS.

FY22 Budget – Information Technology

No.	Name	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	ADOPTED 2020-2021 Budget	ESTIMATED Actual 6/30/2021	Percent Expended To Total Budget	PROPOSED 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages									
51100	Salaries & Wages	\$ 687,663	\$ 709,575	\$ 746,836	\$ 729,353	\$ 729,353	100.00%	\$ 754,881	3.50%
51150	Overtime	-	574	-	-	-	-	-	-
Total Salaries & Wages		687,663	710,149	746,836	729,353	729,353	100.00%	754,881	3.50%
Benefits									
51200	North Carolina Retirement	52,289	56,062	69,346	74,467	74,467	100.00%	86,056	15.56%
51250	Payroll Taxes	50,467	52,392	55,741	55,795	55,795	100.00%	57,749	3.50%
51300	Medical, Dental & Life	138,633	146,654	154,116	163,055	163,055	100.00%	173,653	6.50%
51325	Post Retirement Insurance	16,858	20,642	18,742	18,618	18,618	100.00%	18,618	0.00%
51350	Worker's Compensation	18,445	18,322	18,078	17,960	17,960	100.00%	17,960	0.00%
51360	State Unemployment Benefits	284	222	-	2,142	2,142	100.00%	2,142	0.00%
51500	401-K/457 Plan	33,826	35,609	36,748	36,469	36,469	100.00%	37,745	3.50%
Total Benefits		310,802	329,903	352,770	368,506	368,506	100.00%	393,923	6.90%
Total Salaries, Wages & Benefits		998,465	1,040,052	1,099,606	1,097,859	1,097,859	100.00%	1,148,804	4.64%
Materials, Supplies & Services									
52050	Dues & Subscriptions	439	433	433	850	850	100.00%	850	0.00%
52150	Travel, Mtgs & Training	1,897	2,101	1,066	7,613	7,613	100.00%	5,423	-28.77%
52180	Liability Insurance	10,557	10,557	10,557	10,557	10,557	100.00%	11,613	10.00%
52200	Telephone/Telefax	34,443	32,047	32,243	48,195	48,195	100.00%	52,000	7.90%
52210	Communications	3,983	5,087	7,507	6,700	6,700	100.00%	6,700	0.00%
52240	Uniforms	1,031	610	359	850	850	100.00%	850	0.00%
52250	Office Supplies	68	165	727	500	500	100.00%	500	0.00%
52260	Special Dept Supplies	1,337	624	1,499	2,000	2,000	100.00%	2,000	0.00%
52270	Safety Equip/Supplies	265	94	261	1,000	1,000	100.00%	1,000	0.00%
52280	Maint Supp/Small Tools	-	91	48	1,650	1,650	100.00%	1,650	0.00%
52350	Prof/Contractual Svcs	11,075	17,506	4,204	12,500	12,500	100.00%	12,500	0.00%
52500	Rents/Leases	39,161	39,584	38,602	44,000	44,000	100.00%	44,000	0.00%
52510	Permits/Fees/Software Licenses	176,309	200,968	199,791	192,165	192,165	100.00%	228,110	18.71%
52910	Non-Capital Equipment	44,846	32,811	52,221	55,000	55,000	100.00%	55,000	0.00%
52915	Copiers Printers & Faxes	-	-	-	-	-	-	4,000	-
Total Materials, Supplies & Services		325,409	342,676	349,518	383,580	383,580	100.00%	426,196	11.11%
Capital Outlay									
54010	Capital Equipment - New	8,371	19,476	12,400	11,800	11,800	100.00%	4,800	-59.32%
54020	Capital Equip-Software	9,830	-	-	-	-	-	-	-
54030	Capital Equip - Replacement	25,685	28,710	29,053	15,000	15,000	100.00%	31,500	110.00%
Total Capital Outlay		43,886	48,186	41,452	26,800	26,800	100.00%	36,300	35.45%
Sub-Total O&M Fund		1,367,760	1,430,914	1,490,576	1,508,239	1,508,239	100.00%	1,611,300	6.83%
59200 LESS:									
	Chargebacks to General Fund for CIP	(310,332)	(306,375)	(319,791)	(328,846)	(328,846)	100.00%	(345,720)	5.13%
Net Operation & Maintenance Fund		\$ 1,057,428	\$ 1,124,539	\$ 1,170,785	\$ 1,179,393	\$ 1,179,393	100.00%	\$ 1,265,580	7.31%

Financial Services

Organizational Chart



Financial Services (continued)

Mission Statement

The mission of the Finance, Accounting, and Budget Division is to provide timely, useful, and accurate financial data to all internal and external customers including but not limited to staff, division directors, Board, investors, and the public and to assure prudent control of District cash and investments.

The mission of the Purchasing and Warehouse Division is to provide procurement services to District Departments in the timeliest and cost-effective manner in compliance with all requirements of the District's Purchasing Policy and NC General Statutes while maintaining a complete and sufficient supply of parts and materials required for District operations and asset maintenance.

The mission of Facilities Management Division is to provide professional, crafted, and highly productive trade persons to properly maintain each of the District's (90) structures and facilities. They continuously seek out new and improved products and methods of operation for inclusion into the process of project completion in the longest-term, cost-effective manner.

The mission of the Fleet Maintenance Division is to oversee the maintenance of all District rolling stock in a timely and cost-efficient manner.

Key Responsibilities

Finance, Accounting, and Budget—Coordinates and manages the District's Operating and Capital budget preparation; monitors the annual budget through pre-audit of purchase orders and invoice payment; prepares monthly operation and capital projects financial reports for management and the Board; assists in financial analysis as directed by the General Manager or Board; monitors all debt financing obligations for timely payment and reporting; coordinates issuance of debt with professional advisors; oversees the Insurance Programs; prepares billing for industries and customers using well water.

Financial Services (continued)

Key Responsibilities (continued)

Purchasing and Warehouse—To provide a proper system of internal control for all District acquisitions; to ensure compliance with the North Carolina General Statutes and the Board-approved District Purchasing Policy; to assist and train division requisitioners as required; to effect timely acquisitions and disposals of property.

Facilities Management—Provides masonry (stone, brick, block) concrete (plaster, refractory, resurface, slab), carpentry (form, frame, finish), industrial painting, tile (quarry, vinyl, ceramic), cabinetry (in-house built), glass installation and glazing, signage (engraving, layout), mechanical installation, in-house fabrication, locksmith (unified master system), and drywall. Prepares Annual District facility/structural evaluations and oversees contract work (i.e., plumbing, roofing, HVAC, etc.). Periodically compares in-house estimates with estimates from the private sector to ensure cost effective and quality services.

Fleet Maintenance—To provide fleet maintenance and management; coordinate Fleet Replacement; write specifications for new and replacement vehicles and equipment; manage fueling facilities; inspections at District owned facilities; maintain fleet inventory; service vehicles on a regular basis.

Staffing History

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
Department of Financial Services			
Management			
Director of Financial Services	1	1	1
Total Management	1	1	1
Finance & Budget:			
Budget Analyst	1	1	1
Total Finance & Budget	1	1	1

Financial Services (continued)

Staffing History (continued)

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
Accounting, Investments & Cash Flow Management:			
Accounting Technician I	1	1	1
Accounting Technician II	1	1	1
Accounting Manager	1	1	1
Total Acct., Investments & Cash Flow Management	3	3	3
Purchasing & Warehouse:			
Purchasing Agent I	1	1	1
Purchasing Supervisor	1	1	1
Total Purchasing & Warehouse	2	2	2
Facilities Maintenance: (moved to Finance Division in FY20)			
Facility Maintenance Technician	5	5	5
Facilities Maintenance Supervisor	1	1	1
Total Structural Maintenance	6	6	6
Fleet Maintenance: (moved to Finance Division in FY20)			
Fleet Mechanic III	3	3	3
Fleet Maintenance Supervisor	1	1	1
Total Fleet Maintenance	4	4	4
Total – Financial Services Department	21	21	21

Accomplishments for FY 2020-2021

- Received the GFOA “Excellence in Financial Reporting” award for the Comprehensive Annual Financial Report (CAFR) for FY ending June 30, 2020.
- Received the GFOA “Distinguished Budget” award for the Budget Document prepared for FY ending June 30, 2020.
- Continue to offer high level of Customer Service to all customers internal and external to the District.

Financial Services (continued)

Accomplishments for FY 2020-2021 (continued)

- | Purchasing and Finance Team continue to implement and enhance its E-Payables program with Bank of America.
- | Successfully auctioned MSD surplus materials.
- | Enhanced paper reduction initiative by scanning and attaching receipts, quotations, emails, and other pertinent information and documentation to purchase orders and the vendor database. Also increased use of email and pdf for Request for Quotations (RFQ) and other communications with vendors.

Goals & Objectives

- ✧ Goal: Prepare and administer budget, which effectively meets the short and long-term needs of the District (Operating Budget Policy #6)
 - % *Objective:* Obtain outside verification of the effectiveness of the budget document as a policy, operations, and communications guide by earning GFOA Distinguished Award for Budget Document
 - % *Objective:* Maximize accuracy of budgeted revenues and expenditures by striving for variances between budget and actual amounts of less than 5%
 - % *Objective:* Maintain affordability of rate increases by limiting rate increase to southern urban cost of living percentage
- ✧ Goal: Prepare CAFR and other financial information, which effectively meet manager, investor, regulator, and other user needs
 - % *Objective:* Obtain outside verification of the effectiveness of the CAFR by earning Government Finance Officers' Association Award of Excellence
 - % *Objective:* Maximize availability of financial information to all users by offering CAFR and budget documents on District Website
- ✧ Goal: Manage the District's debt rating to obtain the lowest cost of borrowing (Debt Policy #3)
 - % *Objective:* Achieve compliance with all provisions of Bond Order (Debt Policy #6)
 - % *Objective:* Maintain or improve District's debt rating
 - % *Objective:* Make efficient use of district funds used for debt service

Financial Services (continued)

Goals & Objectives (continued)

- ❏ Goal: Provide services and supplies in a timely manner (LT6 and Purchasing Policy #2)
 - % Objective: Place purchase orders within three business days of requisition
 - % Objective: Bid capital equipment within two weeks of requisition
- ❏ Goal: Operate Finance Department in an efficient manner
 - % Objective: Minimize finance department expenditures in relation to total expenditures
- ❏ Goal: Manage District's investments to maximize rate of return while maintaining safety and meeting cash flow needs
 - % *Objective:* Achieve a total rate of return at least that of a 6-Month T-bill
- ❏ Goal: Prepare sewage treatment bills, which are accurate and collected in a timely manner
 - % *Objective:* Limit rebilling due to errors to less than 1% of total bills
 - % *Objective:* Collect a minimum of 98% of all residential fees and 90% of industrial fees billed
- ❏ Goal: Pay for all services rendered and goods delivered to the District in a timely and accurate manner
 - % *Objective:* Not be assessed any late charges on any District accounts
 - % *Objective:* Limit voided accounts payable checks to 10% of total checks written
- ❏ Goal: Maintain cost-effective and sufficient inventory levels
 - % Objective: To maintain an inventory loss level below 3% (Purchasing Policy #2)
 - % Objective: To minimize emergency purchases
- ❏ Goal: Timely and cost-efficient maintenance and rehabilitation of plant buildings and equipment (Goals # 1 & 3)
 - % Objective: Maintain annual rehab and replacement of key Building systems according to long-range plan (roofs, HVAC systems, Mechanical systems, exteriors, etc.)
- ❏ Goal: For the MSD fleet to have minimal environmental impact to the service area (Goal #1)
 - % Objective: Monitor all vehicles use of biodiesel (B20) and ethanol (E10) for any fuel related problems or repairs

Financial Services (continued)

Goals & Objectives (continued)

- ☒ Goal: Provide high level of quality of service and proficiency
 - % Objective: Continuous improvement and training on software upgrades, diesel engine maintenance, and repairs
- ☒ Goal: Maintain and replace only vehicles and equipment required for efficient and effective operation
 - % Objective: Continue to evaluate heavy-duty vehicles essential for sewer line preventative maintenance

Performance Measures

Task	FY18-19	FY19-20	FY20-21
1. Receive the Distinguished Budget Presentation	yes	yes	yes
2. Receipt of GFOA Excellence in Financial Reporting	yes	yes	yes
3. CAFR and budget document available on website	yes	yes	yes
4. District debt rating Moody's/Standard &	Aaa/AA+	Aaa/AA+	Aaa/AA+
5. Fitch Ratings	AA+	AA+	AA+
6. Compliance with all provisions of bond order	yes	yes	yes
7. Southern Urban COL % increase	1.50%	2.16%	1.35%
8. MSD rate increase	2.50%	2.50%	0.00%
Comments: Assesses affordability of sewer rate increases when compared to overall regional price increases.			
9. Ratio of actual to budgeted sewer revenues	102.44%	98.00%	103.5%
10. Ratio of operating and maintenance total	94.68%	98.92%	94.5%
Comments: These illustrate the accuracy of financial projections and adequacy of revenues to meet expenditures.			
11. Interest and debt management costs as a	4.07%	3.87%	3.95%
12. MSD Investment Yield	2.45%	2.00%	0.15%
13. NC Cash Management Trust (Money Market)	2.11%	1.80%	0.02%
14. 6-Month T-Bill Secondary Market (Calendar)	2.34%	1.72%	0.08%
Comments: Rates of return reflect overall declining interest rates in the fixed income market.			
15. Collection of internally billed residential accounts	95.25%	95.50%	95.15%
16. Collection of internally billed industrial accounts	100.00%	100.00%	100.00%
17. Percentage of voided accounts payable checks	0.02%	0.01%	0.03%
Comments: This ratio illustrates the effectiveness of the cash disbursement process.			

Financial Services (continued)

Performance Measures (continued)

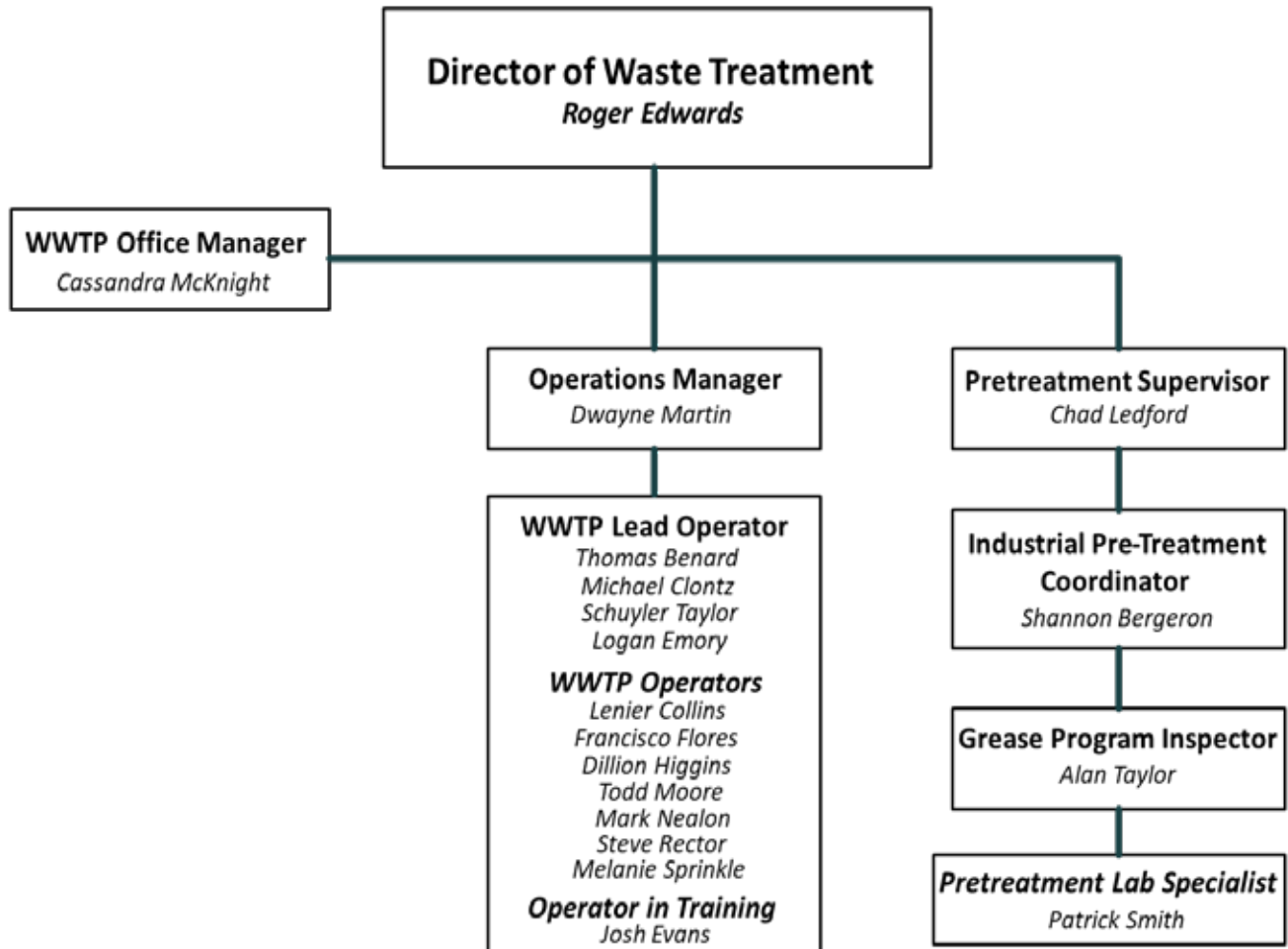
Task	FY18-19	FY19-20	FY20-21
18. Percentage of total O&M costs expended on	5.01%	5.10%	5.00%
19. Purchase orders placed within 3 business days	98.00%	99.00%	97.75%
20. Requisitions for capital equipment to be bid within	99.00%	99.00%	98.75%
21. Maintain loss of inventory at Warehouse below 3%	1.50%	1.50%	1.85%
22. Obtain the 12% goal for purchases with minority	11.00%	11.00%	10.85%

FY22 Budget – Financial Services

No.	Name	ACTUAL 2016-2017	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	ADOPTED 2020-2021 Budget	ESTIMATED Actual 6/30/2021	Percent Expended To Total Budget	PROPOSED 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages										
51100	Salaries & Wages	\$ 1,087,861	\$ 1,095,694	\$ 1,096,495	\$ 1,159,634	\$ 1,124,219	\$ 1,124,219	100.00%	\$ 1,104,917	-1.72%
51150	Overtime	15,313	20,465	14,737	18,727	22,000	22,000	100.00%	28,500	29.55%
Total Salaries & Wages		1,103,173	1,116,158	1,111,232	1,178,360	1,146,219	1,146,219	100.00%	1,133,417	-1.12%
Benefits										
51200	North Carolina Retirement	81,889	85,000	87,497	109,600	117,028	117,028	100.00%	129,209	10.41%
51250	Payroll Taxes	80,412	81,564	81,891	86,768	87,686	87,686	100.00%	86,707	-1.12%
51300	Medical, Dental & Life	232,131	249,540	249,312	261,999	277,194	277,194	100.00%	295,212	6.50%
51325	Post Retirement Insurance	32,837	30,344	35,090	31,861	31,650	31,650	100.00%	31,650	0.00%
51350	Worker's Compensation	33,203	33,203	31,148	30,735	30,532	30,532	100.00%	30,532	0.00%
51360	State Unemployment Benefits	166	511	378	-	3,641	3,641	100.00%	3,641	0.00%
51500	401-K/457 Plan	47,971	50,009	49,595	51,363	56,212	56,212	100.00%	55,248	-1.71%
Total Benefits		508,609	530,170	534,911	572,326	603,943	603,943	100.00%	632,199	4.68%
Total Salaries, Wages & Benefits		1,611,782	1,646,329	1,646,143	1,750,687	1,750,162	1,750,162	100.00%	1,765,616	0.88%
Materials, Supplies & Services										
52050	Dues & Subscriptions	1,485	2,126	1,825	1,210	2,000	2,000	100.00%	2,000	0.00%
52150	Travel, Mtgs & Training	6,100	4,917	4,220	6,867	16,500	16,500	100.00%	16,500	0.00%
52180	Liability Insurance	132,144	132,144	132,144	132,144	132,144	132,144	100.00%	145,359	10.00%
52210	Communications	5,601	6,868	7,348	7,001	8,340	8,340	100.00%	8,340	0.00%
52240	Uniforms	4,714	5,969	6,122	6,374	7,700	7,700	100.00%	7,700	0.00%
52250	Office Supplies	3,053	2,404	3,396	3,139	3,750	3,750	100.00%	3,750	0.00%
52260	Special Dept Supplies	361,043	386,600	370,373	330,768	423,600	423,600	100.00%	423,600	0.00%
52270	Safety Equip/Supplies	1,073	1,604	974	1,539	1,250	1,250	100.00%	1,250	0.00%
52280	Maint Supp/Small Tools	2,943	21,644	4,855	5,323	18,500	18,500	100.00%	18,500	0.00%
52290	Chemical Supplies	2,274	2,243	2,474	1,122	4,000	4,000	100.00%	4,000	0.00%
52350	Prof/Contractual Svcs	141,295	122,875	137,845	77,894	104,300	104,300	100.00%	104,300	0.00%
52410	Maint-Buildings & Grounds	9,392	7,304	4,004	394	-	-	-	-	-
52450	Equipment Rental	-	-	-	8,901	10,500	10,500	100.00%	10,500	0.00%
52460	Motor Fuel & Lubricants	128,800	156,215	146,309	138,984	211,376	211,376	100.00%	214,272	1.37%
52470	Outside Vehicle Maint	11,375	11,585	28,645	2,773	15,030	15,030	100.00%	15,030	0.00%
52500	Rents/Leases	-	-	-	-	-	-	-	-	-
52510	Permits/Fees/Software Licenses	2,983	2,495	3,085	3,391	3,900	3,900	100.00%	3,900	0.00%
52910	Non-Capital Equipment	2,192	549	1,293	-	1,650	1,650	100.00%	1,650	0.00%
Total Materials, Supplies & Services		816,467	867,543	854,911	727,823	964,540	964,540	100.00%	980,651	1.67%
Interfund Transfers										
53040	Fleet Replacement Charges	5,574	5,574	6,058	6,058	6,058	6,058	100.00%	7,209	19.00%
Total Interfund Transfers		5,574	5,574	6,058	6,058	6,058	6,058	100.00%	7,209	19.00%
Capital Outlay										
54010	Capital Equipment - New	448	4,902	-	-	-	-	-	-	-
54030	Capital Equip - Replacement	-	3,882	-	-	2,894	2,894	100.00%	-	-100.00%
Total Capital Outlay		448	8,784	-	-	2,894	2,894	100.00%	-	-100.00%
Sub-Total O&M Fund		2,434,271	2,528,230	2,507,112	2,484,568	2,723,654	2,723,654	100.00%	2,753,476	1.09%
Net Operation & Maintenance Fund		\$ 2,434,271	\$ 2,528,230	\$ 2,507,112	\$ 2,484,568	\$ 2,723,654	\$ 2,723,654	100.00%	\$ 2,753,476	1.09%

Wastewater Treatment Plant

Organizational Chart



Wastewater Treatment Plant (continued)

Mission Statement

The mission of the Wastewater Treatment Facility Division is to maintain the highest level of wastewater quality by meeting Federal and State environment regulations; operating and maintaining facilities in a productive and cost-effective manner; and above all to protect the environment.

Key Responsibilities

Include the operation of the District's regional water reclamation facility and maintain 24-hour shift operation; assure that all treated wastewater meets all discharge requirements; assure that all Title V air quality permits meet Federal, State and Local requirements; assure that State stormwater permit requirements are met; assure that all Federal and State Pretreatment program requirements are met.

Staffing History

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY 21-22
Department of Water Reclamation Facility			
<i>Management:</i>			
Director of Waste Treatment & Maintenance Facility	1	1	1
Total Management	1	1	1
<i>Plant Operations:</i>			
Operator in Training	0	2	0
Lead Operator	4	4	4
WRF Operator	8	6	8
WRF Operations Manager	1	1	1
Total Plant Operations	13	13	13
<i>Office Support:</i>			
WRF Office Manager	1	1	1
Total Office Support	1	1	1

Wastewater Treatment Plant (continued)

Staffing History (continued)

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY 21-22
<i>Field Operations:</i>			
Industrial Pretreatment Supervisor	1	1	1
Pretreatment Specialist	1	1	1
Pretreatment Coordinator	1	1	1
Pretreatment FOG Technician	0	1	1
Total Industrial Waste	3	4	4
Total – Wastewater Treatment Plant Department	18	19	19

Accomplishments for FY 2020-2021

- ┆ Maintained compliance with all National Pollution Discharge Elimination Systems, Stormwater Permit and WNC & EPA Air Quality Title V permit and standards during FY21.
- ┆ Recognized for a Peak Performance Award by the National Association of Clean Water Agencies (NACWA) at the Silver Level Award for calendar 2020.
- ┆ Estimated total gallons treated: 8,865 million gallons.
- ┆ Estimated total solids incinerated: 5702 tons.
- ┆ Estimated total solids hauled: 859 tons.
- ┆ Estimated total cubic yards removed by fine screens: 178 cubic yards.
- ┆ Estimated total cubic yards removed by bar screens: 234 cubic yards.
- ┆ Estimated total cubic yards removed by grit vortex: 279 cubic yards.
- ┆ Compliant Stationary Source Testing (Stack Test) for Fluidized Bed Incinerator (FBI) Title V permit
- ┆ Continued progress of High-Rate Primary Treatment project; slated for completion in in September 2021.
- ┆ Treatment plant staff conducted guided tours of the facility with approximately 53 student and adult individuals attending. Number of tours down due to COVID 19.
- ┆ Replaced two Bio-Set Schwing pump in the Fluidized Bed Incinerator Building (FBI). These pumps are key equipment in the solids processing.

Wastewater Treatment Plant (continued)

Accomplishments for FY 2020-2021 (continued)

- Replaced ash transfer line from outside the FBI Building up to the ash lagoon.
- The Wi-Fi for the Water Reclamation Facility was upgraded to provide better service.
- Replaced cupola on Fluidized Bed Incinerator

Budget Highlights/Changes for FY 2021-2022

- © Maintain compliance with all National Pollution Discharge Elimination Systems, Stormwater Permit and WNC & EPA Air Quality Title V permit and standards during FY21.
- © Complete construction of High-rate Primaries (Actiflo system).
- © Replace Fluidized Bed Incinerator polymer feed system.
- © Install Belt Filter Press (BFP) in-line solids metering equipment.
- © Install a new Belt Filter Press (BFP) for management of increased solids from High-Rate Primary Clarifier.
- © Replace final clarifier piping.
- © Remove vegetation from ash lagoon.

Goals & Objectives

- ✧ Goal: Operate the Water Reclamation Facility in the most efficient and effective manner and in compliance with all requirements of the Discharge Permit (NPDES) (Objective #2)
 - % *Objective:* Achieve a carbonaceous biochemical oxygen demand (CBOD) removal efficiency of at least 85%
 - % *Objective:* Achieve a total suspended solids (TSS) removal efficiency of 85%
 - % *Objective:* Have NPDES permit non-compliance occurrence of zero (0)
 - % *Objective:* Limit odor complaints by maintaining dissolved hydrogen sulfide (H₂S) levels below 0.5 mg/L
 - % *Objective:* Maintain treatment costs (cost/MG) at/below NACWA average

Wastewater Treatment Plant (continued)

Goals & Objectives (continued)

- ✕ Goal: Continual improvement of operations
 - % Objective: Effectively manage divisional objective(s) identified in the ISO 14001 Environmental Management System
 - % Objective: Assist in development of WRF SCADA–integration of controls, reviews of standard operating procedures affecting Operations and Pretreatment.
 - % Continue to advance operator biological certifications.

Performance Measures

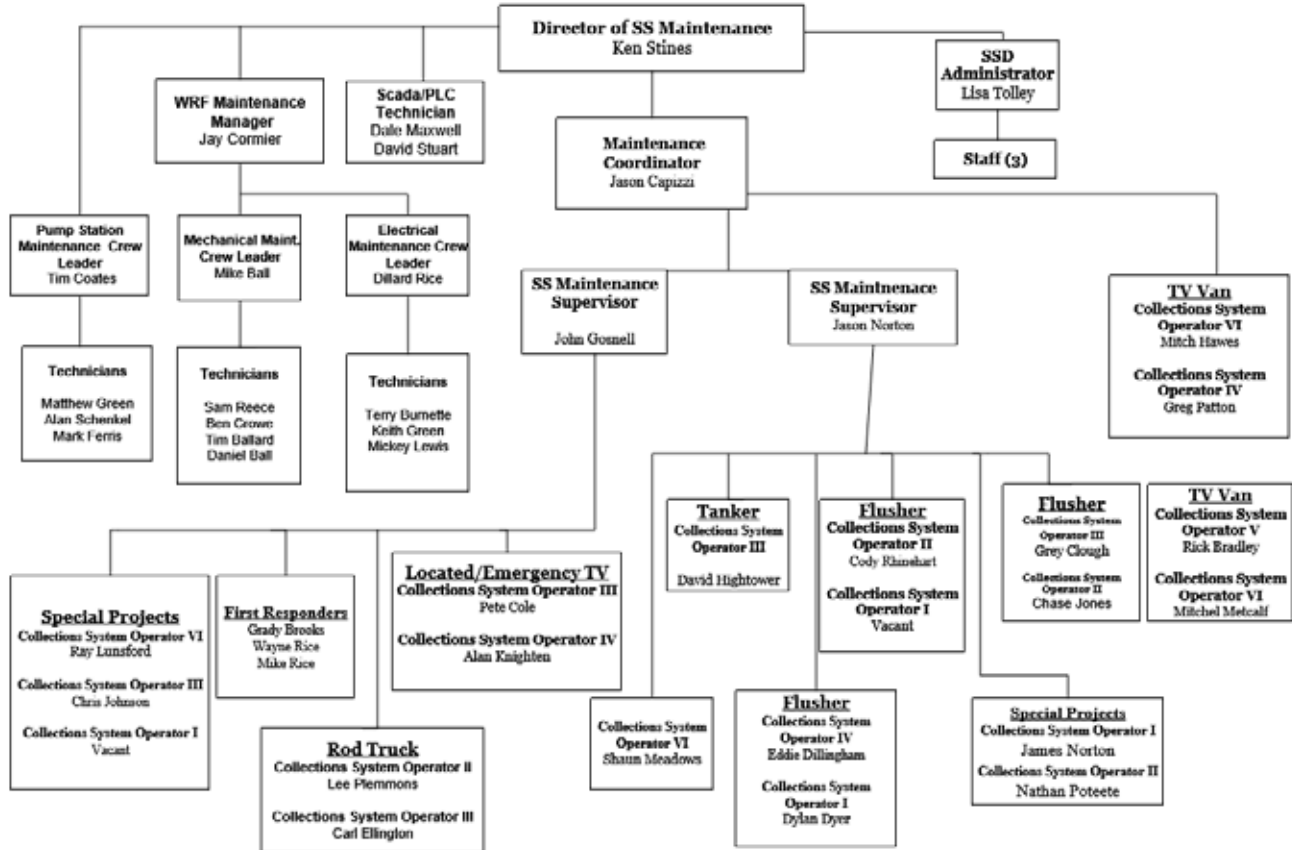
Task	FY18-19	FY19-20	FY20-21 (est.)
1. Average monthly flow treated in million gallons/day (MGD)	25.9	24.2	24.3
2. Maximum daily flow treated in MGD	67.5	67.2	67.3
3. Bio-solids processed in dry tons	7212	7145	6411
4. Cost per million gallons (MG) treated	\$554	\$593	\$577
5. Energy costs per MG treated	\$107	\$115	\$113
6. CBOD removal efficiency percentage	92%	93%	93%
7. TSS removal efficiency percentage	95%	94%	93%
8. Number of NPDES permit violations (non-compliance)	3	0	1

FY22 Budget – Wastewater Treatment Plant

No.	Name	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	ADOPTED 2020-2021 Budget	ESTIMATED Actual 6/30/2021	Percent Expended To Total Budget	PROPOSED 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages									
51100	Salaries & Wages	\$ 1,154,407	\$ 1,023,987	\$ 1,059,921	\$ 1,080,422	\$ 1,080,422	100.00%	\$ 1,116,041	3.30%
51150	Overtime	62,463	66,507	71,973	69,000	69,000	100.00%	69,000	0.00%
Total Salaries & Wages		1,216,870	1,090,494	1,131,894	1,149,422	1,149,422	100.00%	1,185,041	3.10%
Benefits									
51200	North Carolina Retirement	92,551	85,676	104,195	117,356	117,356	100.00%	135,095	15.12%
51250	Payroll Taxes	88,330	79,880	83,230	87,930	87,930	100.00%	90,656	3.10%
51300	Medical, Dental & Life	263,404	249,311	277,412	309,805	309,805	100.00%	329,942	6.50%
51325	Post Retirement Insurance	32,031	35,091	33,735	35,375	35,375	100.00%	35,375	0.00%
51350	Worker's Compensation	33,203	30,828	32,543	34,125	34,125	100.00%	34,125	0.00%
51360	State Unemployment Benefits	511	422	-	4,070	4,070	100.00%	4,070	0.00%
51450	Automobile Allowance	-	-	-	3,600	3,600	100.00%	3,600	0.00%
51500	401-K/457 Plan	52,639	45,742	49,018	54,022	54,022	100.00%	55,803	3.30%
Total Benefits		562,669	526,950	580,133	646,283	646,283	100.00%	688,666	6.56%
Total Salaries, Wages & Benefits		1,779,540	1,617,444	1,712,027	1,795,705	1,795,705	100.00%	1,873,707	4.34%
Materials, Supplies & Services									
52010	Advertising	8,047	2,622	3,401	4,500	4,500	100.00%	5,500	22.22%
52050	Dues & Subscriptions	18,369	17,991	22,543	23,000	23,000	100.00%	23,000	0.00%
52150	Travel, Mtgs & Training	16,959	15,900	16,653	26,440	25,900	97.96%	28,460	7.64%
52180	Liability Insurance	101,454	101,454	101,454	101,454	101,454	100.00%	111,599	10.00%
52210	Communications	34,231	25,284	17,822	12,800	12,800	100.00%	13,500	5.47%
52240	Uniforms	9,713	8,159	8,533	9,450	8,900	94.18%	9,450	0.00%
52250	Office Supplies	2,819	2,405	1,797	3,150	3,050	96.83%	3,150	0.00%
52260	Special Dept Supplies	35,220	34,722	34,649	48,500	47,550	98.04%	52,000	7.22%
52270	Safety Equip/Supplies	9,220	9,006	10,330	13,200	11,200	84.85%	11,200	-15.15%
52280	Maint Supp/Small Tools	3,279	2,041	1,927	2,900	2,900	100.00%	2,900	0.00%
52290	Chemical Supplies	421,007	369,324	376,405	694,000	694,000	100.00%	1,040,000	49.86%
52350	Prof/Contractual Svcs	197,978	193,006	151,850	200,000	200,000	100.00%	229,000	14.50%
52510	Permits/Fees/Software Licenses	14,893	21,170	14,417	16,900	16,500	97.63%	16,900	0.00%
52650	Utilities	1,065,032	923,926	999,045	1,185,000	1,185,000	100.00%	1,190,000	0.42%
52910	Non-Capital Equipment	3,715	4,874	2,577	7,250	7,250	100.00%	6,800	-6.21%
Total Materials, Supplies & Services		1,941,936	1,731,886	1,763,402	2,348,544	2,344,004	99.81%	2,743,459	16.82%
Interfund Transfers									
53040	Fleet Replacement Charges	25,945	28,202	28,202	28,202	28,202	100.00%	33,560	19.00%
Total Interfund Transfers		25,945	28,202	28,202	28,202	28,202	100.00%	33,560	19.00%
Capital Outlay									
54010	Capital Equipment - New	11,332	4,247	5,032	5,000	5,000	100.00%	3,200	-36.00%
54030	Capital Equip - Replacement	18,817	17,836	13,537	3,200	3,200	100.00%	2,000	-37.50%
Total Capital Outlay		30,149	22,083	18,568	8,200	8,200	100.00%	5,200	-36.59%
Sub-Total O&M Fund		3,777,570	3,399,614	3,522,199	4,180,651	4,176,111	99.89%	4,655,926	11.37%
Net Operation & Maintenance Fund		\$ 3,777,570	\$ 3,399,614	\$ 3,522,199	\$ 4,180,651	\$ 4,176,111	99.89%	\$ 4,655,926	11.37%

SS Maintenance

Organizational Chart



SS Maintenance (continued)

Mission Statement

The mission of the System Services Maintenance Division is to maintain MSD's Collection System, Pump Stations, and Water Reclamation Facility in such a way as to protect the health, safety, and environment. In short, our mission is to "Keep it Flowing" through more than one thousand miles of piping, 41 pump stations, and the treatment process until discharged into the French Broad River.

Key Responsibilities

Include maintenance and inspection of 1,128 miles of sanitary sewer line, operation, and maintenance of 41 remote pump stations, maintenance of 40 MGD Water Reclamation Facility, and operation and maintenance of 2.5-megawatt Hydro Electric Generation Facility. Provide customer service and emergency response 24 hours/day, 365 days/year. Provide preventive, proactive, and corrective maintenance of all mechanical, electrical, pneumatic, HVAC, instrumentation/controls, and Scada communication throughout the District. Maintain compliance with MSD's Collection System Permit and provide support to plant operations in maintaining HPDS discharge permit.

Staffing History

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY 21-22
Department of System Services - Maintenance			
<i>Management:</i>			
Director of SS Maintenance	1	1	1
Total Management	1	1	1
<i>Office Support:</i>			
Dispatcher II	1	1	1
Office Assistant I	1	1	1
Office Assistant II	1	1	1
SSD Administrator	1	1	1
Total Office Support	4	4	4

SS Maintenance (continued)**Staffing History** (continued)

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY 21-22
<i>Pump Station Maintenance:</i>			
Technicians	4	4	4
Crew Leader	1	1	1
Total Pump Station Maintenance	5	5	5
<i>Maintenance:</i>			
First Responder	2	2	2
Technical Services Worker II	6	6	6
Technical Services Worker III	7	7	7
Technical Services Operator I	1	1	1
Technical Services Operator II	2	2	2
Technical Services Operator III	5	5	5
Night Supervisor	1	1	1
Collection System Maintenance Supervisor	2	2	2
Maintenance Coordinator	1	1	1
Total Maintenance	27	27	27
<i>Maintenance/Electrical Maintenance:</i>			
Electrical Maintenance Crew Leader	1	1	1
Electrical IV/Specialist	1	1	1
Senior Electrician	2	2	2
Mechanical Maintenance Crew Leader	1	1	1
Mechanic II	3	3	3
Scada PLC Technician	2	2	2
Senior Mechanic	1	1	1
Maintenance Manager	1	1	1
Total Maintenance/Electrical Maintenance	12	12	12
Total - SS Maintenance Department	49	49	49

SS Maintenance (continued)

Accomplishments for FY 2020-2021 (continued)

- | Cleaned over 987,000 LF of pipeline with in-house crews.
- | CCTV'd over 240,650 LF of sanitary sewer lines.
- | Mechanically rodded over 28,000 LF of pipeline for root removal.
- | Achieved an average 35-minute response time to Collections System customer service calls during working hours, nights, and weekends.
- | Performed over 493,500 LF of acoustic inspection on the Collection System.
- | Smoke tested over 81,675 LF of Collection System. Continuing to decrease I & I along with assisting Engineering in flow monitoring studies.
- | Inspected over 700,000 LF of High Priority/Creek Crossings.
- | Continue public awareness education/FOG by handing out information packets when applicable. Increase awareness of problem with disposable wipes through public education.
- | Recovery of over \$518,820 in electric power savings from the Hydro Electric Generation Facility.
- | Built six Cane Creek lift station SCADA RTU panels.
- | Carrier Bridge UPS panel modified with automatic failover to utility power, preventing pump failure.
- | Three Godwin Pump SCADA RTU panels built and installed.
- | Weaverville #1 Bioxide (Calcium Nitrate) system connected to SCADA.
- | Hydro dam PLC upgrade from Automation Direct PLC to Allen Bradley Compact Logix.
- | Plant dewatering system Schwing pump commissioning and SCADA completed.
- | Relocated and consolidated Thickener Pump PLC to allow better access for troubleshooting and repair.
- | Started fiber network switches installation. Completed installation at Aqua Disk Filter PLC panel and Surge Tank PLC panel. Changed the Surge Tank PLC network to function behind a firewall ensuring equipment operation in the event of a system ethernet failure.
- | Lift Station Polling Master PLC installed with automatic failover to back up Polling Master PLC.

SS Maintenance (continued)

Accomplishments for FY 2020-2021 (continued)

- | Preheat Burner Management Panel Upgrade.
- | Replaced 40 tons of HVAC equipment.
- | Added four mini splits to pump station, removing inefficient electric heaters.
- | Rebuilt two RBC motors.
- | Implemented thermography program at plant and pump stations.
- | Conducting monthly vibration analysis throughout plant.
- | Installed new control panels at both Belt Filter Press's.
- | Upgraded the ATS at Clayton Road pump station.
- | Installed a Blue Star Generator and new ATS at Ferry Road.
- | Upgraded one pump at Waightstill Mountain from a Meyers to a Liberty.
- | Upgraded one pump at Cedar Hill pump station from a Hydromatic to a Liberty.
- | Switched ITT over from Guard Dog to MSD SCADA system.
- | Purchases spare pump for Rockwell pump station.
- | Replaced all transducer brackets at pump stations.
- | Installed heated blower air system at Mercury scrubber using incinerator exhaust duct.
- | Sleeved seven stub shafts on RBC's.
- | Replaced exhaust roof fan on FBI and rebuilt old system for spare.
- | Replaced sand line for incinerator.
- | Installed three wear rings on raw pumps.
- | Had thicker wear ring machined adding additional wear time.
- | Plumb plant water to FBI polymer system creating a savings on City water.
- | Rebuilt Lake Julian pump station.

SS Maintenance (continued)

Accomplishments for FY 2020-2021 (continued)

- | Changed seals in Ash transfer pumps and slurry ash to flush water seals and plumbed with plant water.
- | Plumbed both Schwing pumps to plant water.
- | Installed new back flows and replumbed the entire FBI building.
- | Five-year PM Service to main WRF electrical main switch gears, remote switches, and TC PM. Service 1600-amp breakers, 1000 kva transformers, and incoming breakers.
- | Install new double mechanical seals on hydro turbines.
- | Purchased new CCTV inspection van.
- | Purchased new sewer easement machine.
- | Purchase and install entire quad of filter cloth media, backwash shoes, and hoses.
- | Replaced or had rebuilt fire damaged equipment.
- | Continue to deliver excellent customer service both internally and externally during covid.
- | Purchased new S&L grit pump, coat impeller, and volute.
- | Install new stainless steel gear drives for clarifier.
- | Redesigned, fabricated, and installed new TC scrubber nozzles.
- | Repaired #2 hydro turbine hydraulic blade positioning unit.
- | Machined and fabricated sleeve for #3 turbine shaft seal.
- | Retrofitted S/L grit vortex pumps with new style solenoids.
- | Rebuilt and replaced ash thickener rake screw drive.
- | Replaced and reconditioned BFP roller bearings.
- | Replaced and calibrated new fine bar screen AUMA gate valves.
- | Replaced #2 thickener pump piping.

SS Maintenance (continued)

Budget Highlights/Changes for FY 2021-2022

- © Rebuild southeast Clarifier
- © Purchase a new combination flusher truck.
- © Gravel removal at fine screens.
- © Install rake locator on north Thickener.
- © Rebuild New Bern pump station. Fluidized Bed Incinerator (FBI) Sand System. Design and build new control panel and connect to plant SCADA.
- © Develop Human Machine Interface (HMI) for the FBI PLC, Influent Pump Station (IPS) PLC and the Aqua Disk Filter PLC. This will ensure operations can maintain control of these processes in case of a SCADA system failure.
- © Build and install a SCADA Network health Monitoring PLC to predict issues with the network.
- © Install SCADA network switches to facilitate health monitoring.
- © Upgrade the Clarifier PLC from Automation Direct PLC to Allen Bradley Compact Logix.
- © Construct the remaining three Cane Creek RTU panels.
- © High-Rate Treatment startup and commission.
- © Connect the plant generators to the network and create a SCADA interface.
- © Combine our current plant and pump SCADA. Implement new virtual computer technology facilitating future software upgrades and modifications.
- © WIN 911 upgrade to the latest software version. This is also part of the plant and pump SCADA system upgrade.
- © Purchase and install final quad of filter cloth media.
- © Install Aqua filter building exterior sump pump.
- © Design and build gravel wash system at headworks.

SS Maintenance (continued)

Goals & Objectives

- ☒ Goal: Promote safety first (Goals #1 - 4)
 - % *Objective:* Training
 - § Personal Protective Equipment
 - § Traffic Control
 - § Confined Space
 - § Vehicle/Equipment Operation
 - § Arc Flash
 - § Rigging, Chains, and Hoists

- ☒ Goal: Reduce number of Sanitary Sewer Overflows (Goals #1 - 4)
 - % *Objective:* Continue to identify areas with heavy Inflow and Infiltration (I & I)
 - § Flow Monitoring Investigation
 - § Smoke testing Investigation
 - § Identify major/minor sources of I & I
 - % *Objective:* Maintain an aggressive Preventive Maintenance Program
 - § Clean a minimum of 600,000 LF of sanitary sewer lines
 - § Utilize acoustic inspection to help strengthen impact of lines cleaned
 - % *Objective:* Evaluate/update priorities for increased preventive maintenance areas and recommendations of areas for rehabilitation
 - § CCTV Inspection/score 400,000 LF sewer pipeline
 - § Continue to expand pipe rating program
 - § Utilize SL-RAT to prioritize preventive maintenance program to gain optimal performance and save resources
 - § Completion of CCTV'ing and re-scoring of all current CIP lines in Collection System into new PACP format

- ☒ Goal: Provide excellent customer service internal/external (Goals #1 – 4)
 - % *Objective:* Maintain on call status 24 hours/day, 7 days/week
 - % *Objective:* Respond to all customer service requests within one hour
 - % *Objective:* Maintain great relationship with outside entities and internal divisions

SS Maintenance (continued)

Goals & Objectives (continued)

- ☒ Goal: Maintain a qualified and motivated work force (Goals #1 – 4)
 - % *Objective:* Cross train to promote positive employee relationships and teamwork
 - % *Objective:* Provide opportunities for additional trainings that promote increased knowledge and abilities for all SS Maintenance staff
 - % *Objective:* Exploration of new technologies for continuous improvement
- ☒ Goal: Decrease in Equipment Failure (Goals #1 – 4)
 - % *Objective:* Increase predictive/preventive maintenance program.
 - % *Objective:* Continue to develop equipment maintenance SOP's on all equipment.
 - % *Objective:* Continue to develop electrical preventive maintenance program.

Performance Measures

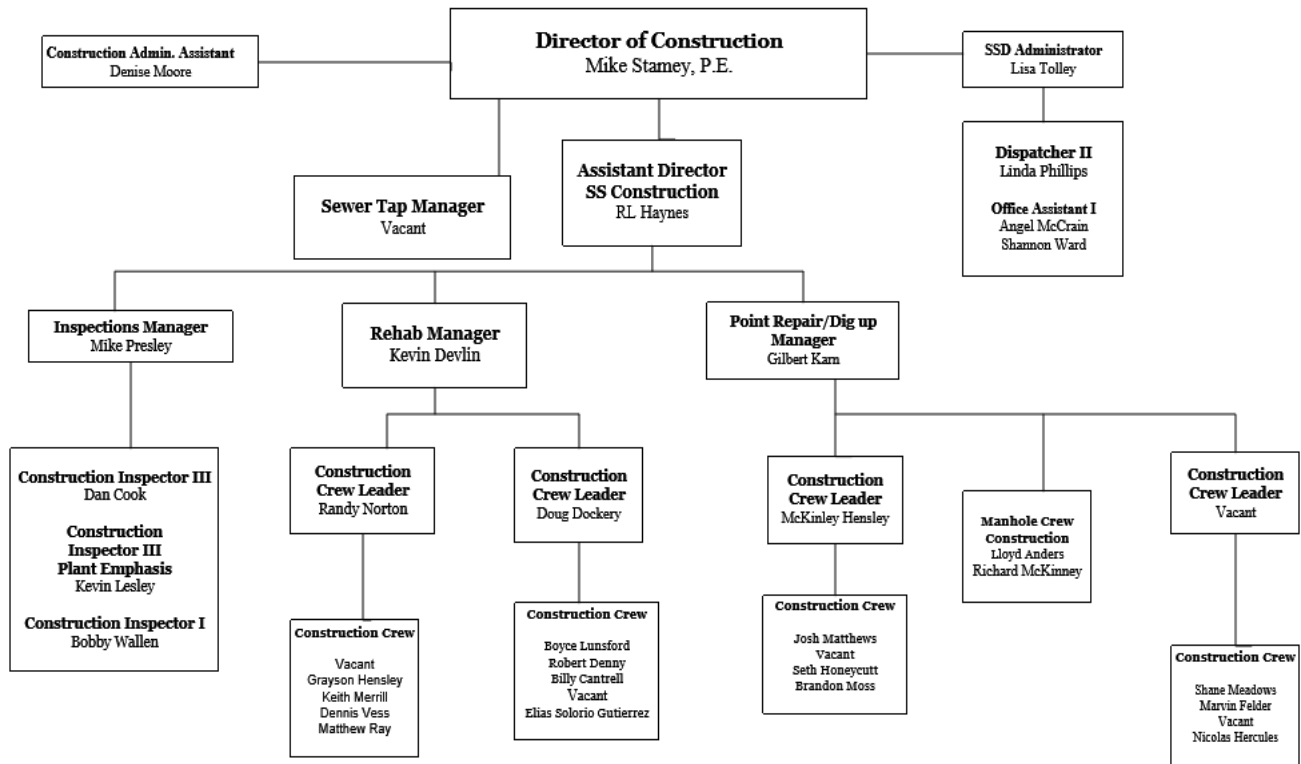
Task	FY18-19	FY19-20	FY20-21 (est.)
1. Customer Service Response calls during normal working hours	1,300	1,193	1485
2. Average Response Time	.43	.45	.47
3. Customer Service Request calls (after hours & holidays)	748	785	855
4. Average Response Time (after hours & holidays)	.59	.62	.65
5. Lines Washed (lineal feet)	900,249	905,778	987,900
6. Root Control chemical & rod (lineal feet)	88,354	53,252	28,050
7. TV Report (lineal feet)	254,168	195,746	240,650
8. Sanitary Sewer Overflow Totals	40	19	13
9. Smoke Testing	148,668	23,696	81,675
10. SL Rat Testing	153,572	267,245	493,525
11. WFR Preventive to Corrective Maintenance Ratio	40/60	80/20	90/10
12. Hydro Electric Generated KWH	10,603,831	6,778,339	9,899,200

FY22 Budget – SS Maintenance

No.	Name	ACTUAL 2016-2017	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	ADOPTED 2020-2021 Budget	ESTIMATED Actual 6/30/2021	Percent Expended To Total Budget	PROPOSED 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages										
51100	Salaries & Wages	\$ 2,186,838	\$ 2,197,032	\$ 2,423,224	\$ 2,451,767	\$ 2,456,381	\$ 2,456,381	100.00%	\$ 2,516,146	2.43%
51150	Overtime	136,440	164,660	173,144	137,487	159,000	159,000	100.00%	159,000	0.00%
Total Salaries & Wages		2,323,278	2,361,691	2,596,368	2,589,254	2,615,381	2,615,381	100.00%	2,675,146	2.29%
Benefits										
51200	North Carolina Retirement	170,859	178,215	202,496	239,219	267,031	267,031	100.00%	304,967	14.21%
51250	Payroll Taxes	169,014	172,201	190,525	189,746	200,077	200,077	100.00%	204,648	2.28%
51300	Medical, Dental & Life	567,429	609,987	689,273	724,353	766,360	766,360	100.00%	816,173	6.50%
51325	Post Retirement Insurance	80,270	74,176	97,016	88,086	87,507	87,507	100.00%	87,507	0.00%
51350	Worker's Compensation	81,163	81,163	86,433	84,974	84,416	84,416	100.00%	84,416	0.00%
51360	State Unemployment Benefits	289	1,220	977	1,211	10,068	10,068	100.00%	10,068	0.00%
51500	401-K/457 Plan	93,545	96,293	106,935	107,386	122,820	122,820	100.00%	125,809	2.43%
Total Benefits		1,162,568	1,213,255	1,373,655	1,434,975	1,538,279	1,538,279	100.00%	1,633,588	6.20%
Total Salaries, Wages & Benefits		3,485,846	3,574,946	3,970,023	4,024,229	4,153,660	4,153,660	100.00%	4,308,734	3.73%
Materials, Supplies & Services										
52010	Advertising	3,991	6,054	2,498	3,332	4,500	4,500	100.00%	4,500	0.00%
52050	Dues & Subscriptions	4,062	4,882	6,878	5,302	7,100	7,100	100.00%	7,100	0.00%
52150	Travel, Mtgs & Training	32,998	33,963	38,178	41,189	56,050	56,050	100.00%	56,150	0.18%
52180	Liability Insurance	74,050	74,050	74,050	74,050	74,050	74,050	100.00%	81,455	10.00%
52210	Communications	29,443	30,803	50,350	52,937	67,000	67,000	100.00%	67,000	0.00%
52240	Uniforms	34,323	35,838	34,920	33,384	41,100	41,100	100.00%	41,100	0.00%
52250	Office Supplies	4,854	5,521	4,510	4,716	8,500	7,500	88.24%	8,500	0.00%
52260	Special Dept Supplies	2,591	1,928	3,619	863	2,250	2,250	100.00%	2,250	0.00%
52270	Safety Equip/Supplies	25,841	28,001	31,068	27,248	30,000	29,000	96.67%	29,000	-3.33%
52280	Maint Supp/Small Tools	57,082	58,074	44,905	64,565	72,500	72,500	100.00%	73,500	1.38%
52290	Chemical Supplies	-	112	-	-	-	-	-	-	-
52300	Line Cleaning Supplies	64,291	45,516	47,141	53,835	53,000	53,000	100.00%	53,000	0.00%
52350	Prof/Contractual Svcs	75,843	66,745	67,945	77,236	143,760	132,960	92.49%	130,140	-9.47%
52410	Maint-Buildings & Grounds	3,499	-	668	55,440	61,000	61,000	100.00%	61,000	0.00%
52420	Maintenance-Equipment	521,850	443,989	436,248	461,417	518,000	518,000	100.00%	518,000	0.00%
52430	Landscape Restoration	1,411	2,143	1,277	863	3,000	3,000	100.00%	3,000	0.00%
52440	Pump Maintenance	80,410	105,799	48,711	59,170	102,500	102,500	100.00%	102,500	0.00%
52450	Equipment Rental	-	3,086	2,805	4,242	7,500	7,500	100.00%	7,500	0.00%
52510	Permits/Fees/Software Licenses	21,984	21,004	24,253	16,950	28,900	28,900	100.00%	26,300	-9.00%
52910	Non-Capital Equipment	3,900	6,359	3,750	6,311	14,545	14,545	100.00%	13,820	-4.98%
Total Materials, Supplies & Services		1,042,421	973,866	923,773	1,043,052	1,295,255	1,282,455	99.01%	1,285,815	-0.73%
Interfund Transfers										
53040	Fleet Replacement Charges	210,602	228,102	247,935	247,935	247,935	247,935	100.00%	295,042	19.00%
53050	WWTP Replacement Charges	200,000	200,000	180,000	200,000	200,000	200,000	100.00%	200,000	0.00%
53070	Pump Replacement Charges	-	-	50,000	50,000	50,000	50,000	100.00%	55,000	10.00%
Total Interfund Transfers		410,602	428,102	477,935	497,935	497,935	497,935	100.00%	550,042	10.46%
Capital Outlay										
54010	Capital Equipment - New	8,911	27,529	3,021	33,853	16,160	16,160	100.00%	12,250	-24.20%
54030	Capital Equip - Replacement	14,683	32,241	15,322	23,019	31,700	26,700	84.23%	28,650	-9.62%
Total Capital Outlay		23,594	59,770	18,344	56,872	47,860	42,860	89.55%	40,900	-14.54%
Sub-Total O&M Fund		4,962,462	5,036,685	5,390,075	5,622,088	5,994,710	5,976,910	99.70%	6,185,491	3.18%
Net Operation & Maintenance Fund		\$ 4,962,462	\$ 5,036,685	\$ 5,390,075	\$ 5,622,088	\$ 5,994,710	\$ 5,976,910	99.70%	\$ 6,185,491	3.18%

SS Construction

Organizational Chart



SS Construction (continued)

Mission Statement

The mission statement of the System Services Construction Division is to undertake construction and repair activities in the MSD Sewer System as "Good Stewards of the Environment," to provide construction related support to other departments of the District and to demonstrate the highest level of customer service and professionalism in all internal and external interactions.

Key Responsibilities

Include timely, quality, and cost effective connections, repairs, and rehabilitation to the MSD Sewer System while protecting the waters of the state and the environment of Buncombe County and the District; working closely with the MSD System Services Maintenance Division in maintaining a properly operating collection system; providing guidance to local contractors, developers, and other construction personnel installing sewer lines, and being exceptional public servants in all activities and interactions with others.

Staffing History

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
Department of System Services - Construction			
<i>Management:</i>			
Director of Construction	1	1	1
Total Management	1	1	1
<i>Construction Administration:</i>			
Administrative Assistant – Construction	1	1	1
Construction Inspector I	1	1	1
Construction Inspector III	2	2	2
System Services Rehabilitation Manager	0	1	1
Inspections Manager	1	1	1
Total Construction Administration	6	6	6

SS Construction (continued)

Staffing History (continued)

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
<i>Construction:</i>			
Construction Operator I	1	1	1
Construction Operator II	6	6	6
Construction Operator III	4	4	4
Construction Operator IV	1	1	1
Construction Operator V	1	1	1
Construction Operator VI	1	1	1
Construction Crew Leader	4	4	4
Point Repair/Dig Up Manager	1	1	1
Sewer Tap Manager	1	1	1
Heavy Equipment Excavator I	2	2	1
Heavy Equipment Excavator II	3	3	3
Heavy Equipment Excavator III	1	1	2
Assistant Director of System Services Construction	1	1	1
Total Construction	27	27	27
Total – SS Construction Department	34	34	34

Accomplishments for FY 2020-2021

- Completed over 900 work order requests during the year
- Coordinated (6) joint venture projects with the other agencies to facilitate overall cost savings and/or other benefits for both agencies
- Utilized recycled asphalt and concrete materials for select backfill on current sewer rehabilitation projects
- Utilizing Trenchless Technologies approximately 630 LF of existing asphalt/concrete surfaces were maintained
- Continued annual paving contract with the City of Asheville Street Department to expedite economical, efficient repairs and restoration to City streets affected by MSD construction and repair work

SS Construction (continued)

Accomplishments for FY 2020-2021 (continued)

- | Worked closely with other MSD departments on four interdepartmental “teamwork” projects. This includes assistance in pole shed construction, replacing a 314 LF section of force main connected to the Lake Julian Pump Station upgrade, replacing 380 LF of the Ash-Line adjacent to the MSD Incinerator, and upgrades to the access road around the lagoon.
- | SSD Construction continued participation in the Buncombe County Utility Coordinating Committee, which promotes safe digging and improved coordination between various utility agencies.
- | MSD in-house construction staff installed the 2,458 LF section of the Jarnaul Avenue Phase 1 project which was originally scheduled for installation by a contractor. This work allowed timely completion during COVID 19 difficulties and was directly related to communications with property owners during the easement process. This was the largest single sewer rehabilitation project completed by MSD in-house staff to date.
- | Continued participation in the City of Asheville joint task force for Infrastructure Committee. This committee plans and coordinates projects to facilitate cost savings for multiple utility departments. These efforts contributed to several joint venture activities throughout the year between MSD and various City departments.
- | The Construction Administration group provided inspection services for five (5) Collection System CIP projects, six (6) Water Reclamation Facility related projects, one (1) HVAC/electrical related project at the WH Mull Building, eighty-five (85) Planning and Development related sewer extensions, thirty-six (36) contractor installed sewer taps, and six (6) miscellaneous projects.

Budget Highlights/Changes for FY 2021-2022

- © Purchase a new 8’ x 16’ aluminum trench box and a 6’ x 8’ shield hydraulic shoring box to assist with jobsite trench safety.
- © Purchase of two 6’ x 12’ equipment trailers to assist with transporting shoring boxes and other safety equipment to jobsites.

SS Construction (continued)

Goals & Objectives

- ✧ Goal: Operate collection system in compliance with all provisions of State Permit (Goal #1)
 - % *Objective:* Clear a minimum of 20,000 LF of sewer line easement each year.
 - % *Objective:* Rehabilitate 20,000 LF of sewer line with in-house staff utilizing dig-and-replace, IRS, and other trenchless technology rehabilitation methods.
 - % *Objective:* Provide inspection services to ensure new sewer extensions and sewer rehabilitation projects meet standards and permit requirements.
- ✧ Goal: Promote a "Safety First" work environment (Goal #1).
 - % *Objective:* Continue working closely with the MSD Safety Division to ensure safety policies and procedures are followed.
 - % *Objective:* Provide safety training classes to advance employee safety knowledge on the various equipment used and activities undertaken within our construction division.
 - % *Objective:* Provide equipment and resources needed to promote a safe work environment.
- ✧ Goal: Maintain a qualified and motivated work force (Goal #1-4).
 - % *Objective:* Continue cross training schedule for employees.
 - % *Objective:* Continue step training and promotion programs for operator and excavator employees.
 - % *Objective:* Provide opportunities for additional trainings that promote increased knowledge and abilities for all construction staff including Collection System Operator Certifications.
- ✧ Goal: Work with City of Asheville Street, Storm Water, and Water Departments as well as other agencies where possible on strategic planning and joint projects (Goal #3-4).
 - % *Objective:* Participate in bi-quarterly City of Asheville Infrastructure Task Force meetings.
 - % *Objective:* Participate in monthly NC811 Buncombe County Utility Coordinating Committee meetings.
 - % *Objective:* Work with field representatives for municipalities and other utility agencies to promote joint efforts and improve project efficiency at time of construction.
 - % *Objective:* Remove service lines from water meter boxes.
 - % *Objective:* Establish specific joint ventures for pavement overlays and other beneficial activities.

SS Construction (continued)

Goals & Objectives (continued)

- ☒ Goal: Explore various cost savings options for the division (Goal #3).
 - % *Objective:* Continue exploring and developing pipe-bursting, boring, and other trenchless technology options.
 - % *Objective:* Facilitate cost savings through the recycling and reuse of excavated concrete and asphalt materials.
 - % *Objective:* Perform constructability reviews during project design to promote cost savings during construction.
 - % *Objective:* Competitively bid asphalt/concrete restoration work on in-house sewer rehabilitation CIP projects.

Performance Measures

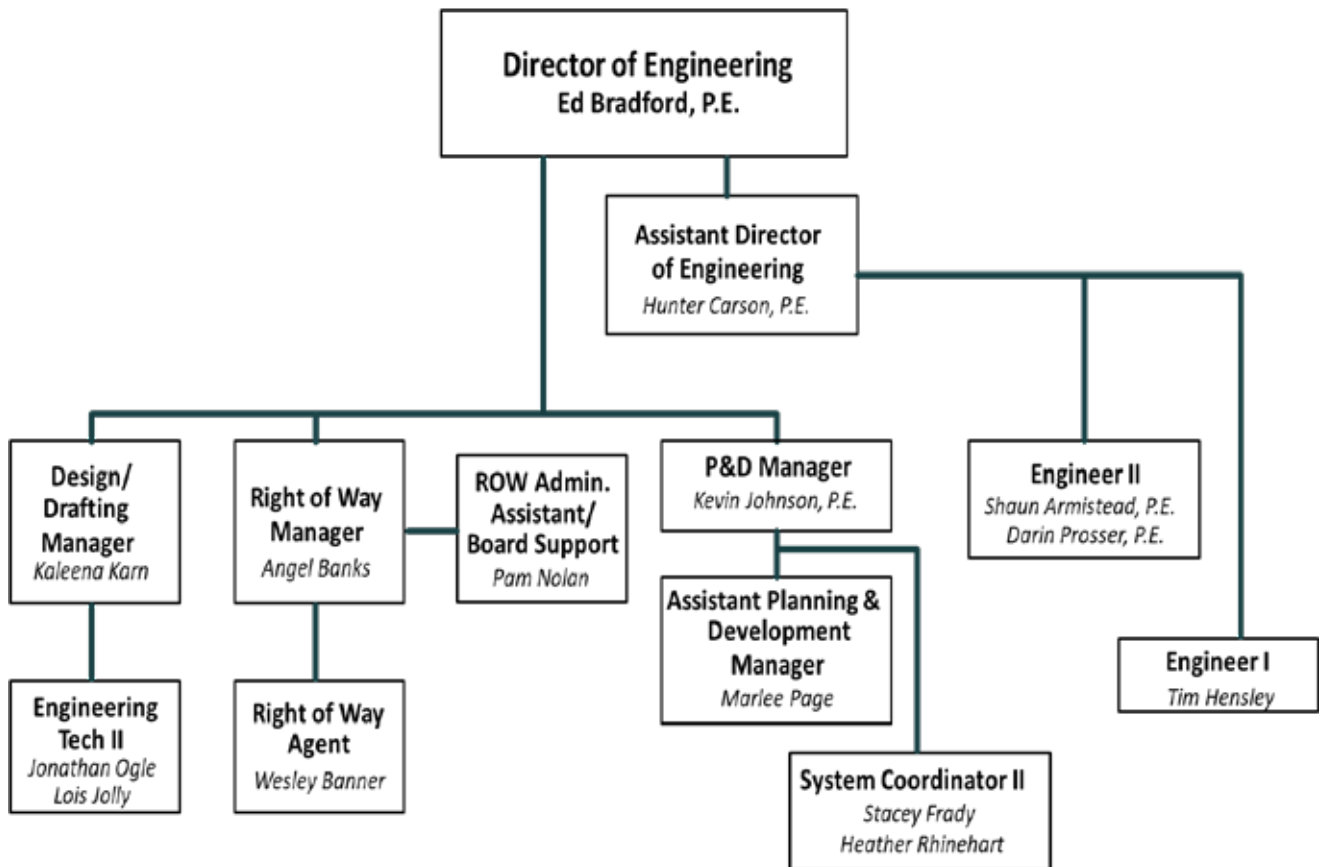
Task	FY18-19	FY19-20	FY20-21 (est.)
1. Construction Repairs	493	403	475
2. Taps Installed	324	294	275
3. Manhole Repairs	286	217	185
4. Right-of-Way Clearing (lineal feet)	74,620	49,991	51,400
5. Other Trenchless Line Rehabilitation (lineal feet)	1,159	649	280
6. Dig & Replace Rehabilitation (lineal feet)	16,912	7,013	13,200
7. IRS (lineal feet)	0	0	0
8. Construction Rehabilitation (lineal feet)	2,209	2,847	3,300
9. Pipe Bursting Main Line (lineal feet)	459	100	0
10. Boring Main Line (lineal feet)	1,343	1,623	350
11. Total Construction Rehabilitation Footage (lineal feet) (Items 6, 7, 8, 9, 10)	20,923	11,583	16,850
12. Sewer Rehabilitation Inspected on CIP Projects (lineal feet)	23,907	13,698	17,506
13. Sewer Extensions Inspected from Development Projects (linear feet)	48,200	23,699	38,000

FY22 Budget – SS Construction

No.	Name	ACTUAL 2016-2017	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	ADOPTED 2020-2021 Budget	ESTIMATED Actual 6/30/2021	Percent Expended To Total Budget	PROPOSED 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages										
51100	Salaries & Wages	\$ 1,617,819	\$ 1,705,912	\$ 1,740,125	\$ 1,808,940	\$ 1,803,666	\$ 1,803,666	100.00%	\$ 1,868,139	3.57%
51150	Overtime	37,745	34,113	59,615	48,404	73,000	73,000	100.00%	73,000	0.00%
Total Salaries & Wages		1,655,564	1,740,025	1,799,740	1,857,344	1,876,666	1,876,666	100.00%	1,941,139	3.44%
Benefits										
51200	North Carolina Retirement	124,080	133,911	142,772	171,457	191,607	191,607	100.00%	221,290	15.49%
51250	Payroll Taxes	122,295	128,532	132,068	136,312	143,565	143,565	100.00%	148,497	3.44%
51300	Medical, Dental & Life	451,366	485,217	527,952	554,825	586,999	586,999	100.00%	625,155	6.50%
51325	Post Retirement Insurance	63,852	59,004	74,310	67,470	67,027	67,027	100.00%	67,027	0.00%
51350	Worker's Compensation	64,561	64,561	65,959	65,087	64,657	64,657	100.00%	64,657	0.00%
51360	State Unemployment Benefits	253	993	800	-	7,711	7,711	100.00%	7,711	0.00%
51500	401-K/457 Plan	70,296	75,238	79,663	80,932	90,185	90,185	100.00%	93,409	3.57%
Total Benefits		896,702	947,455	1,023,523	1,076,083	1,151,751	1,151,751	100.00%	1,227,746	6.60%
Total Salaries, Wages & Benefits		2,552,266	2,687,480	2,823,264	2,933,427	3,028,417	3,028,417	100.00%	3,168,885	4.64%
Materials, Supplies & Services										
52010	Advertising	313	306	-	4	500	500	100.00%	500	0.00%
52050	Dues & Subscriptions	3,218	3,961	3,199	3,386	5,000	5,000	100.00%	5,000	0.00%
52150	Travel, Mtgs & Training	21,098	21,150	19,839	17,958	27,500	27,500	100.00%	28,500	3.64%
52180	Liability Insurance	88,006	88,006	88,006	88,006	88,006	88,006	100.00%	96,807	10.00%
52210	Communications	16,192	20,079	22,360	18,867	23,600	23,600	100.00%	23,600	0.00%
52240	Uniforms	25,770	22,138	23,362	20,676	24,800	24,800	100.00%	25,200	1.61%
52250	Office Supplies	1,305	1,371	974	1,237	2,900	2,900	100.00%	2,900	0.00%
52260	Special Dept Supplies	463	716	895	562	1,000	1,000	100.00%	1,000	0.00%
52270	Safety Equip/Supplies	22,514	25,504	23,181	20,280	23,450	23,450	100.00%	23,450	0.00%
52280	Maint Supp/Small Tools	48,557	51,257	50,560	45,023	53,600	53,600	100.00%	56,100	4.66%
52300	Line Cleaning Supplies	94	139	344	130	750	750	100.00%	750	0.00%
52350	Prof/Contractual Svcs	10,842	8,021	2,816	8,770	13,000	13,000	100.00%	13,000	0.00%
52420	Maintenance-Equipment	1,225	36	78	302	1,500	1,500	100.00%	1,500	0.00%
52430	Landscape Restoration	7,779	10,786	11,062	7,934	11,700	11,700	100.00%	11,700	0.00%
52450	Equipment Rental	9,648	6,717	6,940	2,962	19,000	19,000	100.00%	19,000	0.00%
52510	Permits/Fees/Software Licenses	15,695	16,778	19,196	14,474	23,500	23,500	100.00%	25,600	8.94%
52910	Non-Capital Equipment	9,679	11,755	8,792	7,532	9,000	9,000	100.00%	12,995	44.39%
Total Materials, Supplies & Services		282,396	288,720	281,604	258,104	328,806	328,806	100.00%	347,602	5.72%
Interfund Transfers										
52340	Debt Administration Expenses	178,881	170,478	175,765	163,685	162,183	162,183	100.00%	155,400	-4.18%
53040	Fleet Replacement Charges	172,787	190,287	206,836	206,836	206,836	206,836	100.00%	246,135	19.00%
Total Interfund Transfers		351,668	360,765	382,601	370,521	369,019	369,019	100.00%	401,535	8.81%
Capital Outlay										
54010	Capital Equipment - New	6,248	6,365	10,700	11,418	12,700	12,700	100.00%	3,350	-73.62%
54030	Capital Equip - Replacement	16,731	12,989	13,731	23,993	30,700	30,700	100.00%	23,925	-22.07%
Total Capital Outlay		22,979	19,354	24,430	35,411	43,400	43,400	100.00%	27,275	-37.15%
Sub-Total O&M Fund		3,209,309	3,356,319	3,511,899	3,597,462	3,769,642	3,769,642	100.00%	3,945,297	4.66%
59200 LESS:										
	Chargebacks to General Fund for CIP	(647,644)	(655,735)	(747,014)	(770,296)	(869,521)	(869,521)	100.00%	(846,885)	-2.60%
	Chargebacks to General Fund for SSD	(1,565,956)	(1,666,400)	(1,729,039)	(1,766,213)	(1,759,962)	(1,759,962)	100.00%	(1,893,758)	7.60%
Net Operation & Maintenance Fund		\$ 995,709	\$ 1,034,184	\$ 1,035,846	\$ 1,060,953	\$ 1,140,159	\$ 1,140,159	100.00%	\$ 1,204,654	5.66%

Engineering

Organizational Chart



Engineering (continued)

Mission Statement

The mission of the Engineering Division is to produce, manage, and complete engineering projects for the planning, repair, and rehabilitation of the District's Collection System and Water Reclamation Facility (WRF), and to ensure that new extensions to the Collection System are designed and constructed to District Standards. This shall be undertaken in the most efficient and effective manner necessary to ensure the reliable delivery and treatment of wastewater at an equitable price and in an environmentally sensitive manner.

Key Responsibilities

Prepare a complete budget and schedule for all Capital Improvement Projects each fiscal year and adhere to it. For all capital projects: Produce quality, timely, and cost-effective engineering designs, plans, and specifications; acquire necessary rights-of-way; and administer construction through each project's completion. Prepare CIP cash flows quarterly to be submitted to the Finance Director for accurate cash flow management. Procure, manage, and direct design work performed by various consulting engineers, as needed. Provide various special studies and analyses, including master planning of the collection system and treatment facilities, evaluation of projected flow allocations, plan review, and quality control of developer-constructed extensions; perform specialized related duties; and serve as a technical resource for the District.

Staffing History

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
Department of Engineering			
Management:			
Director of Engineering	1	1	1
Total Management	1	1	1

Engineering(continued)**Staffing History** (continued)

Division & Position	Approved Positions FY19-20	Approved Positions FY20-21	Budgeted Positions FY21-22
Department of Engineering			
Engineers:			
Engineer I	2	2	2
Engineer II	1	1	1
Assistant Director of Engineering	1	1	1
Total Engineers	4	4	4
Design and Drafting:			
Engineering Technician II	2	2	2
Design & Drafting Manager	1	1	1
Total Design and Drafting	3	3	3
Right of Way:			
Administrative Assistant – Right of Way	1	1	1
Right of Way Agent	1	1	1
Right of Way Manager	1	1	1
Total Right of Way	3	3	3
Planning & Development:			
Systems Coordinator III	2	2	2
Planning & Development Technician	1	0	0
Assistant Manager of Planning & Development	0	1	1
Planning & Development Manager	1	1	1
Total Planning and Development	4	4	4
Total – Department of Engineering	15	15	15

Engineering (continued)

Accomplishments for FY 2020-2021 (continued)

- | 30,041 Linear Feet (LF) of collection system were rehabilitated during FY20. This included 18,458 LF rehabilitated through contract construction and development projects, plus 11,583 LF rehabilitated in-house by System Services.
- | Managed over 87 projects and line items within the CIP. Projects are within the various stages of lifecycles - from preliminary design, to active construction, to complete/closeout.
- | Designed 12 in-house projects for System Services. These are designed and then constructed by in-house forces. (Estimated as of April 2021.)
- | Processed over 1,200 applications and reviewed 60 plans for new connections and extensions to the collection system. (Estimated as of April 2021.)
- | Acquired Rights-of-Way across 60 properties. Settled four condemnation actions, saving expenses of trial. (Estimated as of April 2021.)
- | Continued to manage the construction phase of the Plant High-Rate Primary Treatment Project. This \$17.1 million project is the mid-term recommendation of the Plant Facility Plan and will provide much needed primary treatment for the plant. Construction of this project is expected to be complete in Fall 2021.
- | Continued the design phase for the replacement of the Carrier Bridge Pump Station (construction scheduled to begin FY22-23).
- | Completed the Chestnut Lodge Road sewer rehabilitation project, which replaced over 4,650 LF of old clay line in poor structural condition.
- | Completed the Jarnaul Avenue sewer rehabilitation project. This was the largest sewer line project for FY20-21 at over 4,680LF. It was completed in two phases - System Services completed the first phase, and the second phase was contracted.
- | Completed the replacement of the HVAC system for the District's Administration Building. This two-year, two-phase project replaced the problematic portions of the older HVAC system.

Engineering (continued)

Accomplishments for FY 2020-2021 (continued)

- i Continued to emphasize the use of MSD's online sewer application/plan review process. During the COVID-19 pandemic and shutdown, this system has played an important role to help maintain the sewer application process for new development.
- i Assisted with the merger process of the District and Cane Creek Water and Sewer District (CCWSD). This was a collaborative process among several MSD departments and Henderson County staff.

Budget Highlights/Changes for FY2021-2022

- © Begin construction of the Christian Creek Interceptor, which is over 12,000LF and will span two fiscal years.
- © Begin and complete construction of the French Broad Interceptor @ Amboy Road project. This relatively short 2,180LF project will replace a section of large diameter critical interceptor along the French Broad River
- © Complete the design for the replacement of the Carrier Bridge Pump Station, to be ready for construction in FY22-23.
- © Begin design for the replacement for the Weaverville Pump Station system.

Goals & Objectives

- ✧ Goal: Rehabilitate approximately 40,000 feet of the collection system each year, in close collaboration with System Services Construction Division. (MSD Objective #1)
- ✧ Goal: Verify adequate capacity of lines prior to authorizing construction of new lines or connection of any new facility, and ensure that all developer-constructed projects conform to MSD requirements (MSD Goal #1)
- ✧ Goal: Begin construction of the Christian Creek Interceptor project.
- ✧ Goal: Complete the construction phase of the Plant High-Rate Primary Treatment project.

Engineering (continued)

Goals & Objectives (continued)

- ☒ Goal: Meet the time and budget predictions established in the CIP for FY22. (MSD Goal #3)
- ☒ Goal: Utilize consulting engineers for unexpected rehabilitation projects, or those requiring specialized expertise, as necessary to produce a timely response for other Divisions' engineering requests. (MSD Goal #2)
- ☒ Goal: Coordinate projects with member agencies whenever possible. This is accomplished by sharing information on upcoming projects.
- ☒ Goal: Prepare special studies and designs as necessary for other Divisions. (MSD Goal #2)
- ☒ Goal: Safeguard the structural integrity and accessibility of MSD sewer lines against damage from grading activities by other jurisdictions and private parties (MSD Objective #4)
- ☒ Goal: Obtain feedback from developers and engineers concerning the District's regulations and process for sewer lines to be accepted for public use. (MSD Objective #5)
- ☒ Goal: Reduce use of paper when possible and minimize file space needs.

Performance Measures

Task	FY18-19	FY19-20	FY20-21 (est. April '21)
1. Linear footage rehabilitated	44,790	30,041	34,506
2. CIP expenditures	\$20.9M	\$23.8M	\$20.2M
3. CIP projections vs. actual expenditures (*)	89%	80%	72%
4. Allocations	197	168	193
5. Sewer Tap Applications	1,169	1,004	1,204
6. Plans Reviewed	68	69	60
7. Value of accepted systems	\$4,494,034	\$4,609,894	\$4,500,000

(*) Percentages include Contingency and Developer Reimbursements.

FY22 Budget – Engineering

No.	Name	ACTUAL 2017-2018	ACTUAL 2018-2019	ACTUAL 2019-2020	ADOPTED 2020-2021 Budget	ESTIMATED Actual 6/30/2021	Percent Expended To Total Budget	PROPOSED 2021-2022 Budget	Inc (Dec) Over Prior Year
Salaries & Wages									
51100	Salaries & Wages	\$ 1,031,100	\$ 1,107,994	\$ 1,145,174	\$ 1,132,091	\$ 1,132,091	100.00%	\$ 1,156,600	2.16%
51150	Overtime	1,126	1,004	-	2,000	2,000	100.00%	2,000	0.00%
Total Salaries & Wages		1,032,226	1,108,998	1,145,174	1,134,091	1,134,091	100.00%	1,158,600	2.16%
Benefits									
51200	North Carolina Retirement	78,509	87,135	105,771	115,791	115,791	100.00%	132,081	14.07%
51250	Payroll Taxes	75,117	81,637	84,460	86,759	86,759	100.00%	88,633	2.16%
51300	Medical, Dental & Life	194,087	219,981	231,175	244,583	244,583	100.00%	260,481	6.50%
51325	Post Retirement Insurance	23,600	30,962	28,113	27,928	27,928	100.00%	27,928	0.00%
51350	Worker's Compensation	27,669	27,484	27,119	26,941	26,941	100.00%	26,941	0.00%
51360	State Unemployment Benefits	426	333	-	3,214	3,214	100.00%	3,214	0.00%
51500	401-K/457 Plan	45,648	49,387	52,374	56,606	56,606	100.00%	57,831	2.16%
Total Benefits		445,056	496,919	529,012	561,822	561,822	100.00%	597,109	6.28%
Total Salaries, Wages & Benefits		1,477,282	1,605,917	1,674,185	1,695,913	1,695,913	100.00%	1,755,709	3.53%
Materials, Supplies & Services									
52050	Dues & Subscriptions	4,755	4,573	5,072	5,750	5,200	90.43%	5,700	-0.87%
52150	Travel, Mtgs & Training	14,853	7,820	13,981	30,283	26,924	88.91%	31,200	3.03%
52180	Liability Insurance	34,741	34,741	34,741	34,741	34,741	100.00%	38,215	10.00%
52210	Communications	2,872	3,722	4,739	4,400	4,400	100.00%	4,700	6.82%
52240	Uniforms	1,749	1,318	1,071	2,350	2,150	91.49%	2,450	4.26%
52250	Office Supplies	2,139	2,154	1,674	4,100	4,000	97.56%	4,000	-2.44%
52260	Special Dept Supplies	1,781	2,256	453	5,374	3,700	68.85%	4,200	-21.85%
52270	Safety Equip/Supplies	118	107	59	350	150	42.86%	250	-28.57%
52330	Legal Fees	1,080	722	940	2,500	1,600	64.00%	2,000	-20.00%
52350	Prof/Contractual Svcs	15,560	6,912	8,462	51,317	36,000	70.15%	12,500	-75.64%
52420	Maintenance-Equipment	-	-	-	500	500	100.00%	500	0.00%
52500	Rents/Leases	-	800	800	1,000	1,000	100.00%	1,900	90.00%
52910	Non-Capital Equipment	-	-	2,142	-	-	-	-	-
Total Materials, Supplies & Services		79,648	65,125	74,134	142,665	120,365	84.37%	107,615	-24.57%
Capital Outlay									
54010	Capital Equipment - New	8,836	-	-	2,500	2,500	100.00%	-	-100.00%
Total Capital Outlay		8,836	-	-	2,500	2,500	100.00%	-	-100.00%
Sub-Total O&M Fund		1,565,767	1,671,042	1,748,319	1,841,078	1,818,778	98.79%	1,863,324	1.21%
59200 LESS:									
Chargebacks to General Fund for CIP		(1,387,528)	(1,512,304)	(1,579,981)	(1,671,835)	(1,655,711)	99.04%	(1,715,212)	2.59%
Net Operation & Maintenance Fund		\$ 178,239	\$ 158,738	\$ 168,339	\$ 169,243	\$ 163,067	96.35%	\$ 148,112	-12.49%

Insurance Funds



Insurance Funds

Overview

The Insurance Funds are funded through annual appropriations from the Operations and Maintenance Fund Budget. The District has established four (4) Insurance Funds as part of its sewer rate stabilization strategy. Background information and current year budget highlights of the insurance funds are discussed on the following pages.

Insurance Funds (continued)

Self-funded Employee Medical Program

The District offers medical, dental, and life insurance to all employees. Employees may purchase optional dependent coverage through payroll deduction. These benefits are funded by a combination of District contributions as well as commercial insurance premiums.

The District has established a self-insured group health and dental insurance program, with premiums paid to commercial carriers for stop-loss and aggregate coverage to limit the amount of risk the District will assume. A third-party administrator processes all claims, and a commercial healthcare provider network is retained to negotiate fees and authorize payments. Prescription benefits are administered through a private contractor.

Employees pay a nominal amount for individual medical and dental coverage and pay approximately 30% to 36% of the cost for dependent coverage. After employee payment of specified deductibles and co-payments for medical and dental services, the Plan covers the remaining authorized charges in total. The budget for FY22 includes an employer contribution increase of 6.5% to cover anticipated expenditures needs.

Insurance Funds (continued)**Self-funded Employee Medical Program** (continued)*FY22 Self-funded Employee Medical Program Budget*

	Actual 2019-2020	Estimated	
		Actual 2020-2021	Budget 2021-2022
Beginning Balance	\$ 1,361,878	\$ 1,889,312	\$ 2,014,091
Income:			
District Contributions	2,327,175	2,478,441	2,639,540
Employee Contributions	351,869	360,000	370,800
Transfer from Other Insurance Funds	150,000	150,000	150,000
Interest	<u>20,593</u>	<u>750</u>	<u>1,500</u>
Total Income	2,849,637	2,989,191	3,161,840
Total Funds Available	4,211,515	4,878,503	5,175,931
Expenses:			
Expected Claim Liability	1,908,124	2,424,412	2,545,633
Fixed Costs	<u>414,079</u>	<u>440,000</u>	<u>430,000</u>
Total Expenses	2,322,203	2,864,412	2,975,633
Ending Balance	<u>\$ 1,889,312</u>	<u>\$ 2,014,091</u>	<u>\$ 2,200,298</u>

Insurance Funds (continued)

Post-Employment Insurance

The District has established a post-employment insurance fund to accumulate funds now, which will reduce future operational expenditures when retirees begin taking advantage of this benefit. The District will annually fund the equivalent of the annual required contribution less expenses as determined by an actuarial study as required by GASB 75. The accumulated funds will only be used for post-employment insurance. However, the District's Board does reserve the right to use the reserve funds for unforeseen emergencies. FY22 funding of \$283,000 represents a 1.5% of total operations. As of May 2019, the District has eighteen (16) eligible participants in the post-employment insurance

FY22 Post-Employment Insurance Budget

	Actual 2019-2020	Estimated Actual 2020-2021	Budget 2021-2022
Beginning Balance	\$ (1,294,178)	\$ (1,446,013)	\$ (1,650,013)
Income			
District Contributions	283,000	283,000	283,000
Interfund Transfer In	-	-	-
Employee Contributions	-	22,500	22,800
Interest Income	<u>28,683</u>	<u>500</u>	<u>500</u>
Total Income	311,683	306,000	306,300
Total Funds Available	(982,495)	(1,140,013)	(1,343,713)
Expenses			
Interfund Transfer Out			
OPEB Expense	313,518	360,000	-
Transfer to Other Insurance Funds	<u>150,000</u>	<u>150,000</u>	<u>150,000</u>
Total Expenses	463,518	510,000	150,000
Ending Balance	<u>\$ (1,446,013)</u>	<u>\$ (1,650,013)</u>	<u>\$ (1,493,713)</u>

Insurance Funds (continued)

Worker's Compensation

The District established a separate insurance fund for worker's compensation, which will facilitate allocation of costs to respective department, division, and section budgets. The Safety Officer acts as liaison with the insurance carrier to administer claims and to minimize future claims by providing training and equipment designed to prevent injuries. The budget for FY22 includes a 0.0% increase to cover anticipated expenditure needs.

FY22 Worker's Compensation Financial Plan

	Actual 2019-2020	Estimated Actual 2020-2021	Budget 2021-2022
Beginning Balance	\$ 360,573	\$ 423,847	\$ 456,146
Income			
District Contributions	273,000	273,000	273,000
Interfund Transfer In	-	-	-
Interest Income	<u>5,077</u>	<u>500</u>	<u>500</u>
Total Income	278,077	273,500	273,500
Total Funds Available	638,650	697,347	729,646
Expenses			
Interfund Transfer Out	50,000	100,000	100,000
Deductibles for Individual Claims	3,575	8,500	10,000
Premiums to commercial carrier	<u>161,227</u>	<u>132,702</u>	<u>170,000</u>
Total Expenses	264,802	241,202	280,000
Ending Balance	<u>\$ 373,848</u>	<u>\$ 456,145</u>	<u>\$ 449,646</u>

Insurance Funds (continued)

General Liability

The District's general liability insurance fund was established to u allocate insurance costs to all departments, divisions, and sectional budgets, v provide funds for payment of no-fault sewer back-ups and w establish reserves to offset future unanticipated increases in sewer back-up liabilities in excess of budgeted amounts. The budget for FY22 includes a 10.0% increase based on anticipated expenditure needs.

FY22 General Liability Financial Plan

	Actual 2019-2020	Estimated Actual 2020-2021	Budget 2021-2022
Beginning Balance	\$ 384,761	\$ 478,641	\$ 538,949
Income			
District Contributions	547,746	547,746	602,521
Interfund Transfer In	50,000	100,000	100,000
Interest Income	<u>3,202</u>	<u>300</u>	<u>500</u>
Total Income	600,948	648,046	703,021
Total Funds Available	985,709	1,126,687	1,241,970
Expenses			
Interfund Transfer Out	-	-	-
Premiums to commercial carrier	411,460	476,554	505,830
No Fault Sewer Back-Up Claims	10,960	5,000	30,000
Claim Deductibles	73,746	95,000	120,000
Flood Insurance	<u>10,902</u>	<u>11,184</u>	<u>11,250</u>
Total Expenses	507,068	587,738	667,080
Ending Balance	<u>\$ 478,641</u>	<u>\$ 538,949</u>	<u>\$ 574,890</u>

Replacement Funds



Replacement & Equipment Funds

Overview

The replacement funds are funded through annual appropriations from the Operations and Maintenance Fund Budget. The District has established three (3) replacement and equipment funds as part of its sewer rate stabilization strategy, with fourth reserve fund required under the Bond Order. Background information and current year budget highlights of the replacement and equipment funds are discussed on the following pages.

Replacement & Equipment Funds (continued)

Fleet & Heavy Equipment Fund

The District has projected replacement dates and estimated prices for all vehicles and construction-type equipment over \$10,000. This information has been used to develop a funding plan whereby relatively constant amounts are to be transferred in from the annual Operations and Maintenance budget, with annual expenditures to be made in varying amounts to secure new vehicles and equipment as indicated in the plan's timetable. The FY22 contribution is \$595,000, with anticipated expenditures of \$715,000, including Ford Escape, (3) 1-Ton Pickups, (1) SUV, TV Van, and Vactor Flusher Truck.

FY22 Fleet & Heavy Equipment Fund Budget

	Actual 2019-2020	Projected 2020-2021	Budget 2021-2022
Beginning Balance:	\$ 720,887	\$ 727,475	\$ 432,975
Revenue:			
District Contributions	500,000	500,000	595,000
Sale of Surplus Property	23,955	100,000	57,200
Interest Income	14,016	1,500	2,165
Total Revenue	537,971	601,500	654,365
Expenditures:			
Various	531,384	896,000	-
Ford Escape	-	-	30,000
(3) 1-Ton Pickups	-	-	160,000
SUV	-	-	65,000
Vactor Flusher Truck	-	-	460,000
Total Expenditure Replacements	531,384	896,000	715,000
Ending Balance:	\$ 727,475	\$ 432,975	\$ 372,340

Replacement & Equipment Funds (continued)

Wastewater Treatment Plant Replacement

The replacement fund for the wastewater treatment plant was set up to develop a reserve to address general equipment replacement cost at these facilities. A similar strategy of periodic, uniform contributions from the Operations and Maintenance Fund and withdrawals for planned equipment rehabilitation or replacement are employed. The FY22 contribution is \$200,000 with anticipated expenditures of \$192,609 including General Rehab, General Rehab @ Incinerator Building; Dechlor Pumps; RBC Bearings; Thickner-Seepex Pump; AquaDisk 1-cell repl. Filters; General Rehab including new bearing and seal @ Hydro Building.

Replacement & Equipment Funds (continued)**Wastewater Treatment Plant Replacement** (continued)*FY22 Wastewater Treatment Plant Fund Budget*

	Actual 2019-2020	Projected 2020-2021	Budget 2021-2022
Beginning Balance:	\$ 275,767	\$ 231,572	\$ 112,645
Revenue:			
District Contributions	200,000	200,000	200,000
Sale of Salvage Materials	740	-	-
Interest Income	<u>3,568</u>	<u>300</u>	<u>563</u>
Total Revenue	204,308	200,300	200,563
Expenditures:			
Various	248,503	319,227	-
General Rehab	-	-	30,000
RBC System	-	-	35,000
Intermediate Clarifiers	-	-	15,000
Incineration	-	-	10,609
AquaDisk Filtration	-	-	45,000
Chlorination/Dechlor	-	-	10,000
RBC Blower Motor Rebuild	-	-	7,000
Belt Filter Press Overhaul	-	-	5,000
Hydro	<u>-</u>	<u>-</u>	<u>35,000</u>
Total Expenditure Replacements	248,503	319,227	192,609
Ending Balance:	<u>\$ 231,572</u>	<u>\$ 112,645</u>	<u>\$ 120,599</u>

Replacement & Equipment Funds (continued)

Pump Maintenance Replacement Fund

The replacement fund for the pump stations was set up to develop a reserve to address general equipment replacement cost at these facilities. A similar strategy of periodic, uniform contributions from the Operations and Maintenance Fund and withdrawals for planned equipment rehabilitation or replacement are employed. The FY22 contribution is \$55,000 with anticipated expenditures of \$50,000, which includes General rehab, Crest Mountain #1 Rehab, in addition to rehab at the Lake Julian Pump Station.

FY22 Pump Maintenance Replacement Fund Budget

	Actual 2019-2020	Projected 2020-2021	Budget 2021-2022
Beginning Balance:	\$ 184,092	\$ 185,382	\$ 154,809
Revenue:			
District Contributions	-	50,000	55,000
Transfer In	50,000	-	-
Sale of Surplus Property	-	-	-
Interest Income	2,998	927	774
Total Revenue	52,998	50,927	55,774
Expenditures:			
Various	51,708	65,000	-
General Rehab	-	-	20,000
Crest Mountain #1	-	-	15,000
Lake Julian Pump Station	-	-	15,000
Transfer Out	-	16,500	53,341
Total Expenditure Replacements	51,708	81,500	103,341
Ending Balance:	\$ 185,382	\$ 154,809	\$ 107,242

Replacement & Equipment Funds (continued)

Capital Reserve Fund

This fund is mandated by the Bond Order to contain six percent (6%) or such greater percentage, as may be determined from time to time by the Board, of the amount shown by the Annual Budget to be necessary for current expenses for the current Fiscal Year. As this fund is to be tapped only for unusual and unforeseen expenditures, none is budgeted. There will be a \$53,341 FY22 transfer to the fund to meet the FY22 requirements.

FY22 Capital Reserve Fund

	Actual 2019-2020	Projected 2020-2021	Budget 2021-2022
Beginning Balance:	\$ 995,302	\$ 1,010,040	\$ 1,026,790
Revenue:			
Interfund Transfer	-	16,500	53,341
Interest Income	14,738	250	500
Total Revenue	14,738	16,750	53,841
Ending Balance:	<u>\$ 1,010,040</u>	<u>\$ 1,026,790</u>	<u>\$ 1,080,631</u>

NOTE: Ending balance must be at least 6% of the annual O&M current expenses. FY2021-2022 O&M Budget (\$18,972,690 - \$850,000 transfer to reserves - \$112,175 capital equipment) x 6% = \$1,080,631)

CIP Program



Capital Improvement Program

Overview

The District's Capital Improvement Program commands the largest portion of budgeted expenditures, and as such, is planned strategically and in great detail for all infrastructure projects in excess of the \$15,000 infrastructure capitalization threshold. The District updates its ten-year Capital Improvement Program (CIP) annually to comply with state regulatory and bond order requirements. Objectives of constructing these capital projects include replacing and rehabbing structurally defective sewer lines, handling wet-weather flow conditions, improving the performance at the wastewater treatment plant, and preparing the system to handle expected future wastewater flows over the upcoming decade.

The process begins with engineering staff developing projects, which often originate from problem areas identified by field crews during emergency and preventative maintenance procedures and includes consideration of those projects outlined in the 20-year Wastewater System Master Plan. Engineers evaluate and prioritize each proposed project based upon the District's short-term requirements and long-term mission. Engineering staff then prepare cost estimates for identified projects and a proposed timetable for construction.

Once the CIP is drafted, the CIP Committee, consisting of representatives from the member agencies, meet to review the costs, locations, and necessity of proposed projects and make a recommendation to the District's Board. A copy of the CIP summary sheets follows in the succeeding pages of this budget document. A separate document compiling individual pages for each project with detailed costs and location map as presented to the CIP Committee and may be obtained upon request to W. Scott Powell, Director of Finance at (828) 225-8211 or spowell@msdbc.org.

The District maintains a Ten-Year CIP and rehabilitates approximately 40,000 Linear Feet (LF) of the collection system every year. The ten-year CIP prioritizes projects identified by the Board as fulfilling the District's mission but does not obligate District resources for their construction past the end of the current budget year.

Capital Improvement Program (continued)

Background

The Capital Improvement Program is essential to the efficient functioning of the District, as evidenced by the requirement from both the Bond Order and State Collection System Permit. A well-planned CIP provides customers with the assurance of having reliable and affordable wastewater collection and treatment both now and in the future.

The Board has consistently financed its Capital Improvement Program through revenue bonds and pay-as-you-go moneys. As of June 30, 2021, the District will have \$94.5 million in outstanding revenue bond debt, with total debt service of \$9.8 million due before the end of the fiscal year. Unlike counties and cities, the District does not have a legally mandated debt limit. However, the District does have a rate covenant. The covenant requires the District to set rates and charges so that income available for debt service will not be less than 120% of fiscal year debt service requirement.

Throughout the history of the District, staff has continued to seek increasingly effective ways of identifying and prioritizing individual projects, to ensure a more comprehensive and balanced CIP. In 1990, as part of the political process of forming the District, certain construction and rehabilitation projects were identified by the various member municipalities and sanitary districts.

Once these designated projects were completed, the District then focused on rehabilitating aging, undersized collection lines to minimize unregulated discharges of raw sewage (sanitary sewer overflows or SSOs) and inflow/infiltration (I/I). Inflow and infiltration are the intrusion of groundwater and storm water runoff into the collection system, which can deplete capacity in sewer mains and at wastewater treatment plants.

As part of this comprehensive evaluative process, the District developed and implemented a program to monitor wastewater flows from the various parts of the sewerage system. The flow monitoring data was used to develop a computer hydraulic model of the flows of the sewerage system to help identify and remediate the worst areas of inflow and infiltration.

Capital Improvement Program (continued)

Background (continued)

In 1999, MSD began an aggressive line cleaning and television inspection program wherein the District contracted with outside companies to clean the pipes with water under high pressure and then to send a video camera (also known as closed circuit television or CCTV camera) through the line. The videotapes have enabled the District to more accurately determine the condition of the lines and to prioritize necessary repairs. Each year 10% of the pipes will be cleaned and then inspected by CCTV cameras to maintain the efficient operation of the collection system.

The District developed a proactive cost-effective rehabilitation strategy with the development of the Pipe Rating Program. Pipe rating is a proactive planning tool, which utilizes Closed Circuit Television (CCTV) information, GIS database, and actual maintenance history to view, rate, and computer-score pipe segments based on a number of factors. These factors, manhole-to-manhole, include work order history, number and severity of defects, and record overflows on that segment, which are combined to yield a numerical rating used to prioritize efforts. Staff recently updated the District's Pipe Rating Program to include additional parameters over previous versions. Each line project now has an objective numerical rating based upon overflow history, structural issues, customer service requests, and impacts to surface waters. This rating is then used to objectively prioritize collection system projects within the CIP each fiscal year.

Pipe Rating minimizes costs by helping the District focus rehabilitation dollars where they are needed most, rather than the usual full-scale replacement of entire collector lines. In recognition of this innovative program, the Association of Metropolitan Sewerage Agencies (AMSA) awarded the District one of only two 2003 National Environmental Achievement Awards.

Wastewater System Master Planning

- **Comprehensive Master Plan**—This plan was prepared in 2001 by Camp, Dresser & McKee (CDM). It is a comprehensive sewer system management program, which was prepared to identify system improvements needed to handle wet-weather flow conditions, to improve

Capital Improvement Program (continued)

Background (continued)

Wastewater System Master Planning (continued)

- **Comprehensive Master Plan**—performance at the Wastewater Treatment Plant, and to prepare the system to handle future system wastewater flows.

The report contained recommendations for improvements to the collection system as well as the treatment plant. A CIP was developed which included specific projects and their associated costs.

Reduction of Sanitary Sewer Overflows (SSO's) was, and remains, a key objective of this plan. Over the past twelve years, this has been accomplished using a "three-prong" approach, which combines: **U**An effective Management, Operations and Maintenance (MOM) program to reduce line blockages and optimize response time when blockages do occur; **V**An ongoing rehabilitation program to improve the structural condition of the system; and **W**Providing capacity to handle flows during wet-weather and future projected dry-weather flows.

This plan helped to establish the basis for the District's on going, aggressive Preventative Maintenance and Capital Improvement Programs. These two programs have resulted in substantially reducing SSO's over the past twelve years, in addition to greatly improved system integrity.

- **Facilities Plan**—This plan was prepared in 2007 by Camp, Dresser & McKee (CDM) and is a focused, specific study of the Water Reclamation Facility (WRF). The Plan is the result of a process evaluation of the WRF, including a detailed capacity evaluation of the Rotating Biological Contactors (RBCs).

The report also includes a physical facilities evaluation for the major process equipment at the WRF. Recommendations to improve the performance of each process were included in the report.

Capital Improvement Program (continued)

Background (continued)

- **Facilities Plan**—In March 2014, MSD began the process of updating this important plan. The Facilities Plan Update is now complete. This significant, comprehensive study examined the various unit processes within the plant, with a focus on headworks, biological treatment alternatives, and the future regulatory climate. After extensive research of various options, the Plan recommends adding new grit removal, a fine screening system, storage for peak flows (using existing decommissioned digesters), and chemically enhanced primary clarification.
- **Collection System Master Plan**—In 2008, McGill Associates completed a Collection System Master Plan (the “2008 Collection System Plan”). The 2008 Collection System Plan focuses on the District’s comprehensive growth issues by incorporating all of the recent planning and zoning changes from the District’s member agencies. This Plan also describes where and how areas will be served and provides for orderly growth of the sewer system to meet the needs of the region as a whole for the future.

The District’s Collection System Master Plan (Master Plan) addresses the orderly extension of the District’s collection system into future service areas. The Master Plan has been prepared in close cooperation with the District’s member agencies and regional stakeholders. The land use policies and zoning regulations of each agency were used for land usage, growth projections/densities, and line locations. For areas outside of corporate or jurisdictional limits, Buncombe County’s Zoning Ordinance has played an integral role in defining future service areas.

Capital Improvement Program (continued)

Current Year Highlights

Collection System Capital Improvements:

MSD initiated and maintains a major program to rehabilitate its Wastewater Collection System. This program will conform to the North Carolina Department of Environmental and Natural Resources (NCDENR) Collection System Permit requirements and will improve the operational performance and extend the life of the collection system. This Permit ushers in a change in focus of the District's Capital Improvement Plan. In the previous decade, efforts had been directed to expediting completion of certain projects identified by the member agencies and assumed by the District during the consolidation process. For example, construction of the 23.8-mile North Swannanoa Interceptor begun in 1993 was completed during FY2004 at a cost in excess of \$44 million.

Now that most of these "consolidation" projects are completed, our focus has been redirected to rehabilitation of approximately 40,000 linear feet of sewer line every ten (10) years and other projects identified in the Master Plan. The estimated cost over a 10-year period is approximately \$225.6 million out of a total CIP budget of \$353.5 million.

Significant collection system projects currently underway or completed over the past year are the Mud Creek Interceptor Ph. 2, Chestnut Lodge Road, Horizon Hill Road, and Jarnaul Avenue projects. Combined with in-house rehabilitation projects, the total rehabilitated footage as of April 2021 is over 28,000 LF.

Capital Improvement Program (continued)

Current Year Highlights (continued)

Another key aspect of the Facility Plan Update was to gain a solid understanding of regulatory issues that may impact future treatment requirements and identify long-term biological treatment alternatives to comply with anticipated future regulation changes.

Near-term and mid-term project recommendations from the Facility Plan include:

- j **Plant Headworks Project:** This \$9.6 million project consists of a new grit removal system to replace the existing problematic system, a fine screening facility which supplements the WRF's existing bar screens, and storage at the Plant using existing decommissioned tanks to provide more effective treatment during peak flow events.

In addition, by removing more grit than the previous process, it will help to better protect downstream processes within the plant and will significantly improve the plant's treatment process. Construction began in April 2017 and is currently operational.

- j **High-Rate Primary Treatment Project:** This \$15.1 million project will provide primary clarification by removing solids before the biological treatment stage. This will provide a more effective treatment and will help the Rotating Biological Contactors (RBC's) to better perform. During high flow (storm) events, this treatment can be ramped-up in order to match the higher flows. Construction began in FY2019 and completion is expected in the fall 2021.

- j **Biological System Upgrades:** This \$51 million major project is being driven by the water quality regulations as set forth in MSD's NPDES permit (effluent discharge permit). Compliance with effluent ammonia levels must be achieved by October 2030 and will require significant upgrades to the existing biological treatment system. Design will begin in FY25 with construction starting in FY27.

Capital Improvement Program (continued)

Types of Projects

The projects in the CIP are classified into several types, based on the objective of the project. The projects are determined and scheduled based on the Master Plan, the pipe-rating score, and other factors impacting the overall well-being of the District.

The District's Capital Improvement Program is divided into the following six areas, generally based upon type of project or expense category:

- ✓ Interceptor & Wet Weather Rehabilitation
- ✓ General Sewer Rehabilitation
- ✓ Private Sewer Rehabilitation
- ✓ Treatment Plant, Pump Stations, and General Capital Improvements
- ✓ Design, ROW, and Construction Management Expenses
- ✓ Reimbursement Projects

In accordance with the State Collection System Permit, the District maintains a CIP, which details necessary system improvements. The state permit requires a minimum of three years in the CIP; however, the District utilizes a ten-year window for better planning and financial projections. The District rehabilitates approximately 40,000 LF of the collection system each year.

The Interceptor and Wet Weather Rehabilitation projects address the third prong of the Master Plan by providing increased system conveyance. The General Sewer Rehabilitation projects combine the first and second prongs by surveying all lines to plan maintenance activities and to improve the structural condition of the system.

The Private Sewer Rehabilitation projects have the same objectives as the General but are separately presented to address environmental concerns resulting from sewers that were not publicly maintained at the time the District was formed. A limited amount of funding is budgeted annually to address the problem locations on a "worst first" basis as identified.

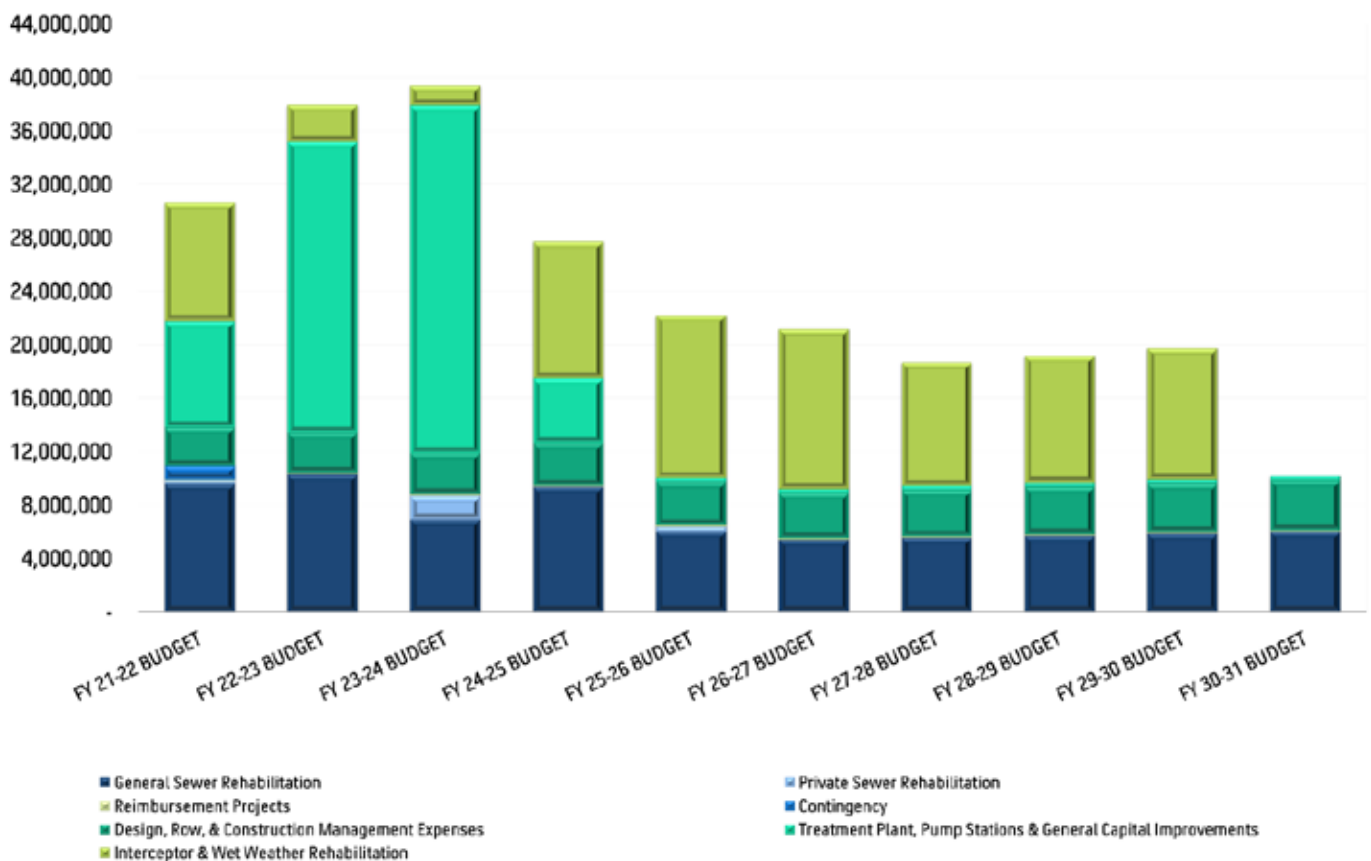
Capital Improvement Program (continued)

Types of Projects (continued)

The District's Water Reclamation Facility (WRF) has a permitted capacity to treat up to 40 million gallons of wastewater a day and uses roughly half of this capacity. In accordance with the Master Plan's twenty-year planning period, there are no plans to replace or expand the plant in the near future. However, Water Reclamation Facility & pump station improvements are included in the CIP to maintain these facilities at their optimum level and to replace equipment that has exceeded its maintenance level.

Reimbursement projects include one Annexation Project from Consolidation, Developer Reimbursements, and NCDOT Reimbursements.

**Projects Based on Type
FY 2022 thru FY 2031**



Capital Improvement Program (continued)

FY2021-2022 Budget

The proposed Capital Budget for FY22 is \$30,622,532 which includes a contingency of \$1,000,000. The \$1,000,000 contingency line item is used for the entire program rather than having a separate contingency for each project. This is more efficient and continues to provide sufficient reserves for the District's capital program. Additionally, a proposed budget for Reimbursement Projects totaling \$100,000. For these types of projects, the District will reimburse a developer for constructing a system, which will serve larger areas upstream of their development.

Total project costs over the ten-year window are estimated at \$353.5 million. Costs are updated each year during budget preparation to accurately reflect current bid pricing and market conditions. Included in future years' is an inflation factor of 2.68%, which is a ten-year average of the annual increases in the ENR Construction Cost Index. This factor is also updated each year.

Approximately 61 infrastructure projects are included in the CIP for FY22, ranging in length from 233 linear feet to over 36,000 linear feet. Nine (9) new Collection System Projects have been added to the CIP for FY2022 and beyond.

Approximately 61 infrastructure projects are included in the CIP for FY22, ranging in length from 233 linear feet to over 36,000 linear feet. Nine (9) new Collection System Projects have been added to the CIP for FY2022 and beyond. In-house forces, as well as, outside contractors will be used to rehabilitate or replace approximately 40,000 linear feet per year.

Capital Improvement Program (continued)

FY2021-2022 Budget (continued)

Major projects for FY22 include:

Project Name	Footage (LF)	Budget (\$)
Christian Creek Interceptor	8,200	\$3,889,000
Springside Road @ Overlook Road	3,922	\$1,478,400
Mountainbrook Road @ Chunns Cove	3,204	\$1,234,500
French Broad Interceptor @ Amboy Road	2,180	\$3,885,000
West Crabapple Lane	1,774	\$465,500

÷ Collection System Capital Improvements:

Design of the new Carrier Bridge Pump Station (the District's largest) is underway. Carrier Bridge is a regional pump station which serves large areas of Buncombe County and Northern Henderson County. This significant \$42 million project will replace an aging pump station first constructed in the 1960's and upgraded multiple times over the years.

÷ Wastewater Treatment Plant Capital Improvements:

The Incinerator System Emissions Upgrades project completed in FY19, received a 2017 NACWA Environmental Achievement Award in February 2017. This \$7.4 million project reduced emissions from the incinerator and utilized a new mercury removal technology, which saved \$5 million over traditional technology.

The Plant Facility Plan is serving as guidance for planning significant capital projects at the Plant. These projects include new bar screens and grit removal, a fine screening system, storage for peak flows using existing decommissioned digesters, and chemically enhanced primary clarification.

Capital Improvement Program (continued)

Program Summary

PROJECT NAME	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27 thru FY 30-31
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET
Interceptor & Wet Weather Rehabilitation						
Christian Creek Interceptor This project is located along Christian Creek, between US 70 Hwy and I-40, east of Asheville. The project includes the replacement of approximately 12,226 LF of existing 8-inch VCP sewer pipe with new 8", 12" and 16" DIP. The existing lines serve a large collection area and are undersized. Additionally, they are in poor structural condition and have experienced multiple SSO's.	\$ 3,889,000	\$ 1,976,000	\$ -	\$ -	\$ -	-
French Broad Interceptor @ Amboy Road This project is located along Lyman Street between Amboy Road and Foundy Street. The project includes replacement of approximately 2,180 LF of existing 48 and 54-inch RCP with new 60-inch C900 PVC. The existing lines in this area are in poor condition due to deterioration from hydrogen sulfide. A sink hole occurred in January of 2021 due to the deterioration of the pipe walls. The design budget for this project is under the associated project 2019045 Carrier Bridge Pump Station Replacement Project.	3,885,000	-	-	-	-	-
Mud Creek Interceptor - Phase 3 This project consists of approximately 9,200 LF of 18-inch and 24-inch pipe that will extend gravity sewer along Mud Creek to the Mountain Home Industrial Park. The extension will allow for the abandonment of an existing CCWSD pump station that connects to the City of Hendersonville system and the abandonment of several private pump stations.	46,000	-	10,500	315,000	1,288,000	2,595,000
South French Broad Relief Interceptor This project is to implement the recommendations of the French Broad/Carrier Bridge Preliminary Engineering Report. This project includes paralleling the existing 36" interceptor from Dingle Creek north to Hominy Creek with a new 36" interceptor. It also includes installing a new 60" interceptor between Hominy Creek and Carrier Bridge Pump Stations. The new interceptor will provide relief to the existing system during wet weather.	32,900	-	-	8,500	514,800	31,590,000

Capital Improvement Program (continued)

Program Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
Interceptor & Wet Weather Rehabilitation						
Swannanoa Equalization Tank	1,019,000	700,000	1,401,500	9,125,000	9,125,000	-
This project is to implement the recommendations of the French Broad/Carrier Bridge Preliminary Engineering Report. This project will help mitigate wet weather impacts to the Swannanoa Interceptor by shaving peak wet weather flows. Equalizing flow will help reduce SSOs and prevent inundation and surcharging of downstream infrastructure, including the treatment plant. The estimated costs shown are planning level only, and incorporate a new 8.1MG EQ tank, 16MGD pump station and associate piping.						
SUBTOTAL	\$ 8,871,900	\$ 2,676,000	\$ 1,412,000	\$ 9,448,500	\$ 10,927,800	\$ 34,185,000
Inflation per ENR Const. Cost Index	1.0000	1.0268	1.0543	1.0826	1.1116	1.18461
SUBTOTAL with inflation	\$ 8,871,900	\$ 2,747,717	\$ 1,488,697	\$ 10,228,700	\$ 12,147,200	\$ 40,495,892
General Sewer Rehabilitation						
Albemarle Commons Pump Station	49,000	-	230,000	3,000	-	-
This project is located in East Asheville just off Winkworth Place at MSD's Albemarle Commons Pump Station. This project will eliminate the existing pump station by installing approximately 832 LF of 8-inch DIP gravity line.						
Aurora Drive	42,500	969,000	-	-	-	-
This project runs along Aurora Drive in the Kenilworth area of Asheville, runs through several properties, and ends on Springdale Road. The existing 6-inch clay pipes have structural defects, heavy root intrusion, and deteriorating manholes. All of these problems contribute to I/I issues.						
Avon Avenue @ Haywood Road	1,500	-	5,250	43,000	72,000	-
This project is located in West Asheville near Avon Ave, approximately 0.25 mile west of the Haywood Rd. bridge. Approximately 233 LF of existing 6-inch and 8-inch vitrified clay pipe will be replaced with new 8-inch ductile iron pipe. The existing sewer line is in poor condition due to roots and cannot be washed or rodded due to lack of access.						

Capital Improvement Program (continued)

Program Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
General Sewer Rehabilitation						
Beale Road at Copney Lane This project ties into the Lake Julian Phase 4 project just west of Glenn Bridge Road, extending northward to Ducker Road, and Lower Glenn Bridge Road. It serves several major manufacturing sites. The lines are in poor condition with broken segments and leaking joints, have resulted in SSO's, and are difficult to access for maintenance and repairs.	19,200	230,250	-	1,323,000	-	-
Bryson Street This project is a high priority project in Biltmore Village, at the intersection of Bryson Street and Biltmore Avenue. It will replace a failing 4-inch PVC line serving multiple businesses with a 210 LF 8-inch DIP line.	442,500	-	-	-	-	-
Buchanan Avenue This project is located in downtown Asheville near Biltmore Avenue and is comprised of 2,228 LF of 8-inch ductile iron pipe. The existing line is 6-inch clay with heavy root intrusion, fractures, and one section exposed along a steep grade.	98,500	1,007,500	-	-	-	-
Caledonia Road This project is located at the Caledonia Road entrance to the Kenilworth neighborhood, approximately 0.3 mile south of the Mission Hospital campus. The project includes replacement of approximately 2,291 LF of 8-inch VCP pipe with new 8-inch DIP. The existing pipe has structural defects which have resulted in multiple SSO's.	131,500	902,750	-	-	-	-
Chatham Road This project is located in North Asheville near W.T. Weaver Boulevard and is comprised of 1,450 LF of 8-inch ductile iron pipe. The existing line is 6-inch vitrified clay pipe in poor condition with heavy root intrusion.	3,500	1,000	40,000	-	590,400	-
Cherokee Road This project will replace (or pipe burst) the existing sewer main from the end of the Macon Avenue @ Sunset Parkway project to an existing manhole east of Cambridge Road in North Asheville. The line is old vitrified clay pipe and is in very poor condition. Several segments are under houses, walls, or other physical features which make repairs very difficult.	213,500	656,000	-	-	-	-

Capital Improvement Program (continued)

Program Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
General Sewer Rehabilitation						
Elk Mountain Place This project is located in North Asheville and is comprised of 5,225 LF of 8-inch ductile iron pipe. The existing line is aging 6", 8", and 10" VCP in poor shape with multiple structural defects per segment.	115,000	155,000	-	1,177,250	-	-
Hazel Mill Road @ Richland Street This project is located in West Asheville, near the Bowen Bridge and consists of 3,300 LF of 8-inch ductile iron pipe. The current pipe is 6-inch, 8-inch clay, and PVC. Lines are undersized and in poor condition with multiple pipe sags, cracks, and fractures.	17,000	9,400	116,000	1,114,300	-	-
Le An Hurst Road This project is located in South Asheville running along the rear of properties fronting Le An Hurst Road. It parallels a tributary to Sweeten Creek. The existing 8-inch VCP is in very poor condition due to heavy root intrusion and has to be routinely rodded.	32,500	256,750	-	-	-	-
Manetta Road @ Maywood Road This project is located in North Asheville between Kimberly Avenue and Manetta Road at the rear of properties fronting Maywood Road. The rehabilitation consists of approximately 605 LF of existing 8-inch VCP to be replaced with 8-inch DIP. The existing 8-inch VCP system is full of structural defects, has heavy root intrusion, and has been a source of SSO's.	89,000	-	178,500	-	-	-
Mountainbrook Road @ Chunns Cove This project will relocate lines from the rear yards of lots fronting on Mountainbrook Road (off Chunns Cove Road) where access and maintenance is extremely difficult to public street rights of way. This project will also eliminate one high aerial creek crossing where existing support piers are failing due to erosion.	1,234,500	-	-	-	-	-
Sand Hill Road @ Baker Place This project is located in West Asheville and is comprised of 1,100 LF of 8-inch ductile iron pipe. The existing line is a 6-inch VCP with multiple structural defects and access issues due to being located under several houses.	94,000	522,500	-	-	-	-

Capital Improvement Program (continued)

Program Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
General Sewer Rehabilitation						
Somerset Road @ Green Road This project is located in South Asheville off of Somerset Road. The line cuts behind houses and follows a stream where it lays flat with misaligned joints and erosion has exposed the pipe causing heavy I&I. The 840 linear feet VCP section needs to be replaced with 8-inch DIP.	6,040	6,000	34,000	235,100	-	-
Springside Road @ Overlook Road This project is located in South Asheville near Overlook Road and is comprised of 3,922 LF of 8-inch ductile iron pipe. The existing line is 6-inch and 8-inch vitrified clay pipe in poor shape, with a history of SSO's at various points.	1,478,400	-	-	-	-	-
Sweeten Creek Road @ Buck Shoals Road This project is located in Royal Pines on Buck Shoals Road between Hendersonville Road (US 25) and Sweeten Creek Road (US 25A). Approximately 1,558 LF of existing 6-inch vitrified clay pipe will be replaced with 8-inch ductile iron pipe. The existing line is in poor condition and is undersized.	102,500	543,900	-	-	-	-
Sweeten Creek Road @ Mills Gap Road This project is located in South Asheville near Mills Gap Road and is comprised of 2,572 LF of 8-inch ductile iron pipe. The existing line is 6-inch and 8-inch vitrified clay pipe in poor condition, with a history of SSO's.	158,500	-	1,204,000	-	-	-
West Crabapple Lane This project is on West Crabapple Lane which is a private road. The existing 8-inch clay pipe is in poor condition and will be replaced with 8-inch ductile iron pipe. System Services crews have reported multiple structural defects which are resulting in major infiltration and inflow.	465,500	-	-	-	-	-
White Oak Road This project is located in Arden along White Oak Road, near Hendersonville Road. The project will replace 960 LF of 6-inch orangeburg and VCP. The existing lines are in bad condition and have too many point repairs. Construction will be done by System Services In-House crew.	44,500	-	-	-	-	-

Capital Improvement Program (continued)

Program Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
General Sewer Rehabilitation						
SSD Rehabilitation & Replacement	4,675,000	4,675,000	4,675,000	4,675,000	4,675,000	23,375,000
This line item is for the replacement of capital assets using in-house construction crews and materials. This includes new taps, small repairs, lining, as well as larger rehabilitation projects. Also included is paving when required for these repairs and rehabilitation projects. The total estimated project cost shown is the total within the ten year window.						
Surveys for Design	50,000	50,000	50,000	50,000	50,000	250,000
New rehabilitation projects are generated continuously throughout the year. This line item provides the surveying needs for these new projects, in order that preliminary work may begin prior to being formally incorporated into the next year's CIP. This helps to ensure projects are completed efficiently.						
SUBTOTAL	\$ 9,564,140	\$ 9,985,050	\$ 6,532,750	\$ 8,620,650	\$ 5,387,400	\$ 23,625,000
Inflation per ENR Const. Cost Index	1.0000	1.0268	1.0543	1.0826	1.1116	1.204217
SUBTOTAL with inflation	\$ 9,564,140	\$ 10,252,649	\$ 6,887,597	\$ 9,332,491	\$ 5,988,564	\$ 28,449,626
PRIVATE SEWER REHABILITATION						
Homeland Park	\$ 145,000	\$ -	\$ -	\$ -	\$ 348,500	\$ -
This project is located in East Asheville just south of the intersection of Swannanoa River Road and Tunnel Road in Homeland Park. This project consists of 921 LF of existing 4-inch VCP replacing with new 8-inch DIP. The existing 4-inch private sewer is the main line for this subdivision and is full of roots, which has triggered numerous service calls.						
Old County Home Road	76,500	25,000	1,704,500	-	-	-
This project is located in West Asheville and is comprised of 4,600 LF of 8-inch ductile iron pipe and 182 LF of 12-inch ductile iron pipe. The existing line is a problematic 4 and 8-inch sewer line composed of PVC and VCP with many defects.						
SUBTOTAL	\$ 221,500	\$ 25,000	\$ 1,704,500	\$ -	\$ 348,500	\$ -
Inflation per ENR Const. Cost Index	1.0000	1.0268	1.0543	1.0826	1.1116	1.1414
SUBTOTAL with inflation	\$ 221,500	\$ 25,670	\$ 1,797,085	\$ -	\$ 387,388	\$ -

Capital Improvement Program (continued)

Program Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
Treatment Plant, Pump Stations & General Capital Improvements						
Building and Facility Rehabilitation	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 300,000
This item is for the replacement of larger capital items such as roofing systems, HVAC, and subcontracts on buildings and structures within the MSD campus and treatment plant facility. Total estimated project cost shown is the total within the ten year window.						
Carrier Bridge Pump Station Replacement	638,521	20,245,000	20,235,000	-	-	-
This project is to implement the recommendations of the French Broad/Carrier Bridge Preliminary Engineering Report. This project will increase the capacity of the Carrier Bridge Pump Station to 34 MGD to accommodate future growth in south and west Asheville, as well as CCWSD. The estimated costs shown are planning level only and incorporate a new pump station with screening, odor control, electrical building, and emergency generator. The project also includes a new 36" force main.						
Equipment Storage Facility	2,654,000	-	-	-	-	-
On November 10, 2020 a fire destroyed MSD's Alkaline Stabilization Building, also known as the "Nutri-Lime Building", which is located on the main plant property. This facility was utilized for equipment storage. This project is to design and construct a new storage facility at the same location.						
Flow Monitoring	50,000	50,000	50,000	50,000	50,000	250,000
This project is for expenses related to the continued operation, maintenance, and improvements of the District's flow monitoring program.						
HVAC Rehabilitation	\$ 50,000	\$ 25,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000
This item is for replacement of HVAC systems within the MSD campus, treatment plant facility, and pump stations. Total estimated project cost shown is the total within the ten year window.						

Capital Improvement Program (continued)

Program Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
Treatment Plant, Pump Stations & General Capital Improvements						
Incinerator Ash Lagoon Restoration This project is for the restoration of the existing incinerator ash lagoon. The lagoon has approximately 9 acres of surface area and is overgrown with vegetation. The vegetation will be removed to increase lagoon capacity. Once complete, the overflow structure will be rehabilitated.	720,000	20,000	50,000	-	-	-
Incinerator Polymer System Replacement This project is for the replacement of the polymer system at the Incinerator Building. Polymer is added to thickened sludge to improve its dewatering characteristics prior to the belt filter presses. The polymer system consists of a feed hopper, aging tanks, mixers and dosing pumps. The existing system was installed when the incinerator was placed online and is now approximately 28 years old.	352,000	-	-	-	-	-
Plant High Rate Primary Treatment This project is a recommendation from the Facilities Plan Update, a WRF master planning document completed by HDR in April 2015. High rate primary treatment will improve water quality ahead of the RBC's thereby extending their useful life and improving treatment efficiency.	2,207,000	-	-	-	-	-
RBC Slide Gate Replacement This project will replace failing slide gates in the RBC Basins 2 and 3 at the Water Reclamation Facility.	280,000	270,000	-	-	-	-
Weaverville Pump Station Replacement This project is for the replacement of Weaverville Pump Stations No. 1 & No. 2. Heavy growth has led to an increased demand for sewer allocations in Weaverville and as a result both stations are low on available capacity. This project includes replacing pump station No. 1, replacing the existing 12" force main with 18", and converting pump station No. 2 into a smaller residential station. Pump Station No. 1 will be designed to pump directly to the WRF.	802,500	383,250	4,115,000	4,228,000	-	-

Capital Improvement Program (continued)

Program Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
Treatment Plant, Pump Stations & General Capital Improvements						
General Capital Equipment	150,000	150,000	150,000	150,000	150,000	750,000
This is for the purchase of capital equipment in excess of \$15,000. Examples include pumps, plant equipment, computer servers, large concrete saws, etc.						
SUBTOTAL	\$ 7,964,021	\$ 21,203,250	\$ 24,670,000	\$ 4,498,000	\$ 270,000	\$ 1,350,000
Inflation per ENR Const. Cost Index	1.0000	1.0268	1.0543	1.0826	1.1116	1.204217
SUBTOTAL with inflation	\$ 7,964,021	\$ 21,771,497	\$ 26,010,031	\$ 4,869,418	\$ 300,128	\$ 1,625,693
Design, Row, & Construction Management Expenses						
Design, ROW, & Const. Mgmt. Exp.	\$ 2,900,971	\$ 2,996,618	\$ 3,074,959	\$ 3,155,560	\$ 3,238,537	\$ 17,758,901
This line item is for expenses related to the District's Capital Improvement Program (CIP). Included are salaries for the CIP Division, capital equipment, and bond debt expenses related to the financing of the CIP program.						
SUBTOTAL	\$ 2,900,971	\$ 2,996,618	\$ 3,074,959	\$ 3,155,560	\$ 3,238,537	\$ 17,758,901
Budget Summary						
SUBTOTAL with Inflation	\$ 29,522,532	\$ 37,794,151	\$ 39,258,371	\$ 27,586,169	\$ 22,061,817	\$ 88,330,111
CONTINGENCY	\$ 1,000,000					
REIMBURSEMENT PROJECTS (Developer Reimbursements)	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
This is for reimbursements for extensions that qualify under the District's Extension Policy. Refer to the "Policy and Procedures for the Extension of Sewer Service" for further information.						
TOTAL	\$ 30,622,532	\$ 37,894,151	\$ 39,358,371	\$ 27,686,169	\$ 22,161,817	\$ 88,830,112

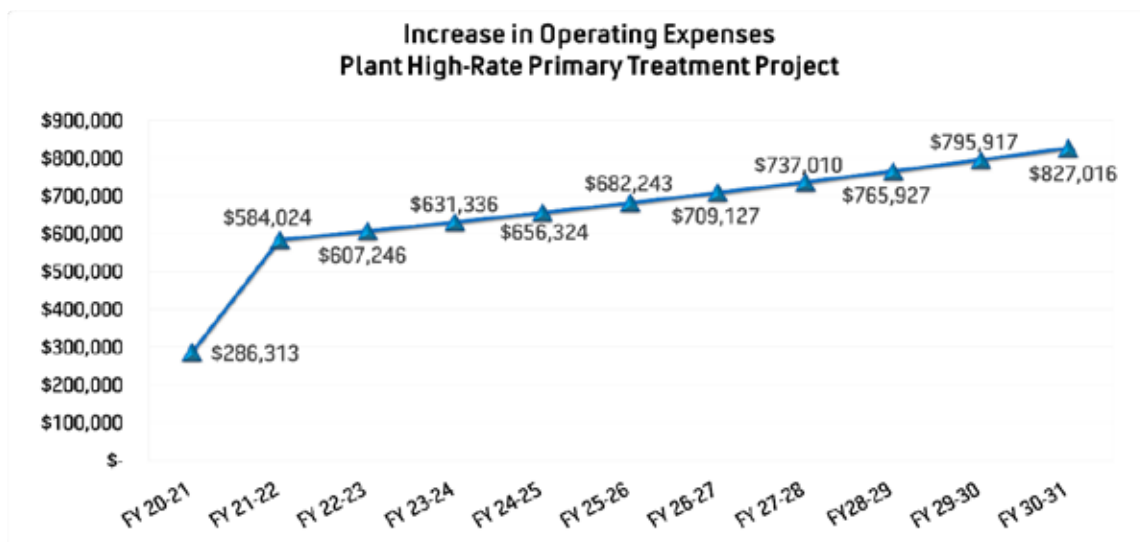
Capital Improvement Program (continued)

Impact of CIP on Operations

One of the purposes of a budget document is to describe the impact of significant non-routine capital expenditures on a government's current and future operating budgets. For most municipal and county governments, non-routine capital improvements consist of expansion of facilities, which often result in higher operating costs. For example, larger buildings increase utility expenses, and new structures such as libraries or swimming pools involve hiring additional staff. In addition, for most municipal and county governments, non-routine capital improvements are, for the most part, based upon the decisions of the local governing authority.

The District's CIP is different in two respects. First, almost all non-routine capital expenditures involve rehabilitation of already existing sewer pipe infrastructure, and secondly, the District's capital improvements to infrastructure are mandated by the state environmental regulatory department, imposing limits on discretionary action and cost. Through major capital improvements to the sewer collection system, the District expects to realize long-term cost reduction in wastewater treatment operations.

The following detail illustrates the impact of the Capital Improvement Program on the District's current and future operational budgets.



Capital Improvement Program (continued)

Operational Impact Summary

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
Interceptor & Wet Weather Rehabilitation						
Christian Creek Interceptor No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
French Broad Interceptor @ Amboy Rd. No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Mud Creek Interceptor - Phase 3 No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
South French Broad Relief Interceptor No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Swannanoa Equalization Tank No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Interceptor & Wet Weather Rehabilitation	-	-	-	-	-	-
General Sewer Rehabilitation						
Albemarle Commons Pump Station Elimination No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-

Capital Improvement Program (continued)

Operational Impact Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
General Sewer Rehabilitation						
Aurora Drive No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Beale Road at Copney Lane No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Bryson Street No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Buchanan Avenue No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Caledonia Road No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Chatham Road No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Cherokee Road No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-

Capital Improvement Program (continued)

Operational Impact Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
General Sewer Rehabilitation						
Elk Mountain Place No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Hazel Mill Road @ Richland Street No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Le An Hurst Road No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Manetta Road @ Maywood Road No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Mountainbrook Road @ Chunns Cove No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Sand Hill Road @ Baker Place No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Springside Road @ Overlook Road No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-

Capital Improvement Program (continued)

Operational Impact Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
General Sewer Rehabilitation						
Sweeten Creek Road @ Buck Shoals Road	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
Sweeten Creek Road @ Mills Gap Road	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
West Crabapple Lane	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
White Oak Road	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
SSD Rehabilitation & Replacement	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
Surveys for Design	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
General Sewer Rehabilitation	-	-	-	-	-	-

Capital Improvement Program (continued)

Operational Impact Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
Private Sewer Rehabilitation						
Homeland Park No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Old County Home Road No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
Private Sewer Rehabilitation						
Treatment Plant, Pump Stations & General Capital Improvements						
Building and Facility Rehabilitation Impact to Operating Budget will be negligible.	-	-	-	-	-	-
Carrier Bridge Pump Station Replacement Impact to Operating Budget will be negligible.	-	-	-	-	-	-
Equipment Storage Facility Impact to Operating Budget will be negligible.	-	-	-	-	-	-
Flow Monitoring Impact to Operating Budget will be negligible.	-	-	-	-	-	-
HVAC Rehabilitation Impact to Operating Budget will be negligible.	-	-	-	-	-	-

Capital Improvement Program (continued)

Operational Impact Summary (continued)

PROJECT NAME	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31 BUDGET
Incinerator Ash Lagoon Restoration Impact to Operating Budget will be negligible.	-	-	-	-	-	-
Incinerator Polymer System Replacement Impact to Operating Budget will be negligible.	-	-	-	-	-	-
Plant High Rate Primary Treatment The process will not be online until 2021. Impact to operating budget includes additional materials, energy, and disposal costs.	584,024	607,246	631,336	656,324	682,243	3,834,996
RBC Slide Gate Replacement Impact to Operating Budget will be negligible.	-	-	-	-	-	-
Weaverville Pump Station Replacement Impact to Operating Budget will be negligible.	-	-	-	-	-	-
General Capital Equipment Impact to Operating Budget will be negligible.	-	-	-	-	-	-
Treatment Plant, Pump Stations & General Capital Improvements	\$ 584,024	\$ 607,246	\$ 631,336	\$ 656,324	\$ 682,243	\$3,834,996

Design, Row, & Construction Management Expenses

Design, ROW, & Const. Mgmt. Exp. No Impact to Operating Budget	-	-	-	-	-	-
Design, Row, & Construction Management Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Capital Improvement Program (continued)

Operational Impact Summary (continued)

PROJECT NAME							FY 26-27 thru FY 30-31
	FY 21-22 BUDGET	FY 22-23 BUDGET	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 thru FY 30-31	BUDGET
Operational Impact Summary							
Interceptor & Wet Weather Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General Sewer Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Private Sewer Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Treatment Plant, Pump Station and General Capital Improvements	\$ 584,024	\$ 607,246	\$ 631,336	\$ 656,324	\$ 682,243	\$ 3,834,996	
Design, ROW, & Construction Management Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total - Operational Impact Summary	\$ 584,024	\$ 607,246	\$ 631,336	\$ 656,324	\$ 682,243	\$3,834,996	

Debt Financing



Debt Financing

Debt Management

Prior to the 1990s, the District's policy was to fund capital improvements from user fees. Having inherited aging collector lines, some in excess of 100 years old, this policy forced the District to increase rates dramatically yet never provided enough funding to keep up with the magnitude of desperately needed repairs. Coming to realize the benefit of integrating capital-planning and debt-financing activities, the District Board developed a long-range plan to utilize bonds and pay-as-you-go in a coordinated capital improvement plan.

This combined strategy allows for more equity between long-term and new ratepayers while providing the necessary funding for an adequately functioning system. Issuing debt provides the capital to rehabilitate crumbling infrastructure while allowing present and future ratepayers who will enjoy the benefit to share the cost through annual principal and interest payments. This contrasts with a strategy that uses only pay-as-you-go whereby a resident will pay higher rates for many years to accumulate the funds needed for rehabilitation before enjoying any benefit, yet new users joining after completion of a project will have immediate use of the new facilities without sharing in any of the cost. Another advantage of combining borrowed funds with current funding is the ability to structure debt repayment schedules to avoid dramatic rate increases otherwise needed to provide adequate amounts for multi-million-dollar projects.

The District's bonds are rated by national rating agencies as follows:

Moody's Investors Service	Standard & Poor's	Fitch Ratings
Aaa	AA+	AA+

In June 2017, the District received a ratings upgrade from Aa1 to Aaa from Moody's Investors Service. Moody's Investors Service recognized the District's sound financial performance characterized by ample liquidity, healthy debt service coverage, and comprehensive fiscal planning. The rating also

Debt Financing (continued)

Debt Management (continued)

incorporates MSD's regional customer base, adequate system capacity, manageable debt levels, and satisfactory protections for bondholders. These high ratings enable the District to pay a lower rate of interest than many other utilities, which has a positive effect on the current and future budgets.

Unlike North Carolina's cities and counties, MSD does not have a debt limit. However, provisions in the District's Bond Order require minimum debt coverage of 120% of net revenues to bonded debt service.

The Board established a revenue policy, which sets a goal for debt coverage ratio to be approximately 150% for forecasting and planning purposes, realizing the impact of the increased debt coverage ratio on bond ratings.

The District maintains a ten-year forecast to budget capital improvements financed by a combination of debt and current fees. Based on projections using modest, consistent rate increases and capital improvement projects as outlined in the District's 10-year Capital Improvement Plan, an additional \$40 million in debt is anticipated to be issued in FY2024 without affecting the planned rate of user charge increases.

Capital Projects Funding

Funding for capital projects comes from a combination of revenue bonds and pay-as-you-go financing. Details may be found in the Policies & Budget Process tab of this budget document where Debt Policy is presented and, in the schedule, "Budget/Rate Forecast" which illustrates the timing of debt issues and accumulation of revenues over expenditures anticipated to be available for capital financing.

Generally speaking, half of the funds for capital improvements come from debt financing, with the other half funded by the excess of revenues over expenditures (pay-as-you-go).

Debt Financing (continued)

Capital Projects Funding (continued)

During FY18, the District issued \$37.5 million fixed rate revenue bonds. \$11.4 million was used to refund portions of the 2009A Series bonds. The remaining \$26.1 million has been expended. The District will accumulate funding from operations to finance a portion of the capital budget until the next debt issuance, anticipated to be in FY24.

As of June 30, 2021, the District will have \$94.5 million par value of outstanding revenue bond debt. During FY22, over \$6.1 million in principal will be repaid. The District anticipates issuing an additional \$40 million in revenue bonds in FY24. Debt service from this future bond issue has been included in the District's long-term business plan and sewer rate increases. A summary of outstanding debt at June 30, 2021 and anticipated principal repayment during FY22 begin below and continue on the following two (2) pages.

Debt Financing (continued)

Outstanding Debt as of June 30, 2021

	Balance 6/30/2021	Additions	Retirements	Balance 6/30/2022
Enka-Candler Water and Sewer District Bonds liability assumed by Metropolitan Sewerage District of Buncombe County, North Carolina on July 2, 1990 as stated in the sewer consolidated agreement:				
5.00% serial bonds assumed July 2, 1990 with maturities on each June 1 through 2024 varying from \$19,000 to \$64,000, interest payable annually.	\$ 148,000	\$ -	\$ 64,000	\$ 84,000
Total Bonds - Enka Candler Series	\$ 148,000	\$ -	\$ 64,000	\$ 84,000

Revenue Bonds, Series 2008A issued to refund Series 2005 Revenue Bonds

Interest at variable rates in the weekly mode, payable monthly, due serially until 2031.	\$ 25,070,000	\$ -	\$ 2,160,000	\$ 22,910,000
Total Bonds - Series 2008A	\$ 25,070,000	\$ -	\$ 2,160,000	\$ 22,910,000

2009 North Carolina Water Pollution Control Revolving Fund used to construct certain sewerage projects:

\$672,980 revolving loan issued August 18, 2009 unpaid principal sum is reduced by one-half as "Principal Forgiveness", interest accrues at 0%, 20 annual installments May 1, 2011 to 2030.	\$ 151,415	\$ -	\$ 16,825	\$ 134,590
Total State Revolving Fund	\$ 151,415	\$ -	\$ 16,825	\$ 134,590

Revenue Bonds Series 2013 issued to refund Series 2003 and Series 2008B Revenue Refunding Bonds:

2.0% to 5.00% serial bonds issued May 1, 2013, with maturities on each July 1, 2014 through 2029 varying from \$1,065,000 to \$4,255,000; interest payable semi-annually	\$ 11,965,000	\$ -	\$ 1,830,000	\$ 10,135,000
Total Bond - Series 2013	\$ 11,965,000	\$ -	\$ 1,830,000	\$ 10,135,000

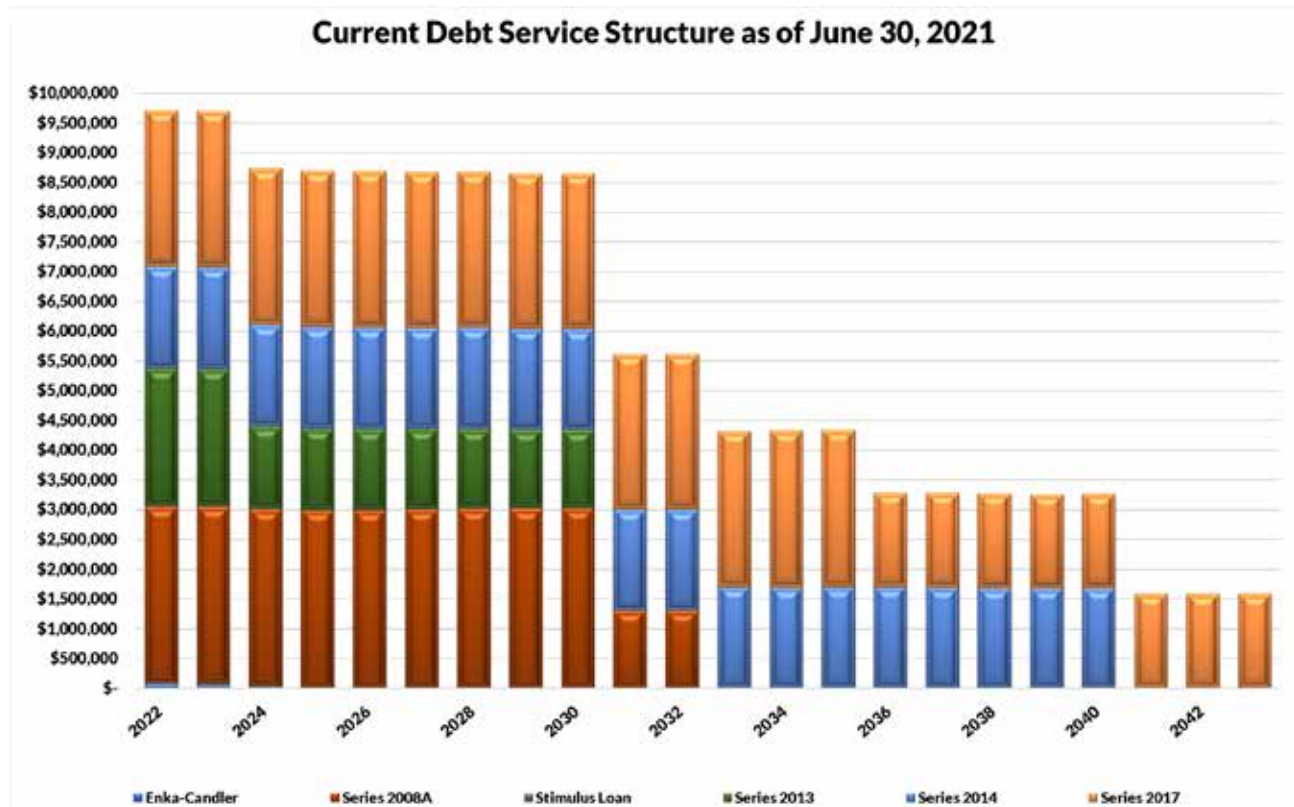
Debt Financing (continued)**Outstanding Debt as of June 30, 2021** (continued)

	Balance 6/30/2021	Additions	Retirements	Balance 6/30/2022
Revenue Bonds Series 2014 issued to construct certain sewerage projects:				
2.0% to 5.00% serial bonds issued May 21, 2014, with maturities on each July 1, 2015 through 2039 varying from \$535,000 to \$1,430,000; interest payable semi-annually	\$ 17,400,000	\$ -	\$ 810,000	\$ 16,590,000
5.00% term bonds issued May 21, 2014, at 112.950%, due July 1, 2039; interest payable semi-annually.	\$ 4,685,000	\$ -	\$ -	\$ 4,685,000
Total Bond - Series 2014	\$ 22,085,000	\$ -	\$ 810,000	\$ 21,275,000
Revenue Bonds Series 2017 issued to refund Series 2009A and to construct certain sewerage projects:				
3.0% to 5.00% serial bonds issued July 11, 2017, with maturities on each July 1, 2018 through 2039 varying from \$620,000 to \$2,260,000; interest payable semi-annually	\$ 30,555,000	\$ -	\$ 1,240,000	\$ 29,315,000
5.00% term bonds issued July 11, 2017, at 97.704%, due July 1, 2042; interest payable semi-annually.	\$ 4,520,000	\$ -	\$ -	\$ 4,520,000
Total Bond - Series 2017	\$ 35,075,000	\$ -	\$ 1,240,000	\$ 33,835,000
Total Bonds - All Series	\$ 94,494,415	\$ -	\$ 6,120,825	\$ 88,373,590

Aggregate Debt Service

Year Ending June 30	Enka Candler Bonds	Series 2008A Refunding	North Carolina Water Pollution Control Revolving Fund	Series 2013 Refunding	Series 2014	Series 2017	Aggregate Debt Service
2022	71,400	2,979,356	16,825	2,302,844	1,709,625	2,629,200	9,709,249
2023	68,200	2,979,445	16,825	2,298,219	1,705,775	2,633,775	9,702,238
2024	21,000	2,986,599	16,825	1,377,719	1,706,675	2,625,850	8,734,668
2025	-	2,986,194	16,825	1,363,469	1,708,025	2,622,225	8,696,737
2026	-	2,987,324	16,825	1,352,944	1,703,275	2,625,100	8,685,467
2027	-	3,000,803	16,825	1,341,444	1,695,775	2,619,350	8,674,196
2028	-	3,010,738	16,825	1,323,644	1,706,625	2,614,975	8,672,806
2029	-	3,017,451	16,825	1,304,644	1,695,475	2,621,475	8,655,870
2030	-	3,025,226	16,825	1,294,922	1,697,675	2,618,600	8,653,247
2031	-	1,304,929	-	-	1,698,175	2,616,350	5,619,454
2032	-	1,306,777	-	-	1,696,875	2,614,475	5,618,127
2033	-	-	-	-	1,698,675	2,612,725	4,311,400
2034	-	-	-	-	1,693,575	2,637,675	4,331,250
2035	-	-	-	-	1,698,138	2,635,850	4,333,988
2036	-	-	-	-	1,697,325	1,583,050	3,280,375
2037	-	-	-	-	1,692,850	1,584,650	3,277,500
2038	-	-	-	-	1,682,125	1,580,125	3,262,250
2039	-	-	-	-	1,681,000	1,579,475	3,260,475
2040	-	-	-	-	1,681,000	1,582,550	3,263,550
2041	-	-	-	-	-	1,578,438	1,578,438
2042	-	-	-	-	-	1,577,109	1,577,109
2043	-	-	-	-	-	1,579,297	1,579,297
	<u>\$160,600</u>	<u>\$29,584.84</u>	<u>\$ 151,421</u>	<u>\$13,959.8</u>	<u>\$32,248.66</u>	<u>\$49,372.31</u>	<u>\$125,477.6</u>

Current Debt Service Structure as of June 30, 2021



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Statistical Information



Introduction

This part of MSD's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the District's overall financial health.

Financial Trends

These schedules contain trend information to help the reader understand how the District's financial performance and well-being have changed over time.

- © Net Position by Component
- © General Revenue by Source
- © Expenses by Function

Revenue Capacity

These schedules contain information to help the reader assess the District's most significant revenue sources.

- © Principal Commercial Users

Demographic and Economic Information

These schedules offer demographic and economic indicators to help the reader understand the environment within which the District's financial activities take place.

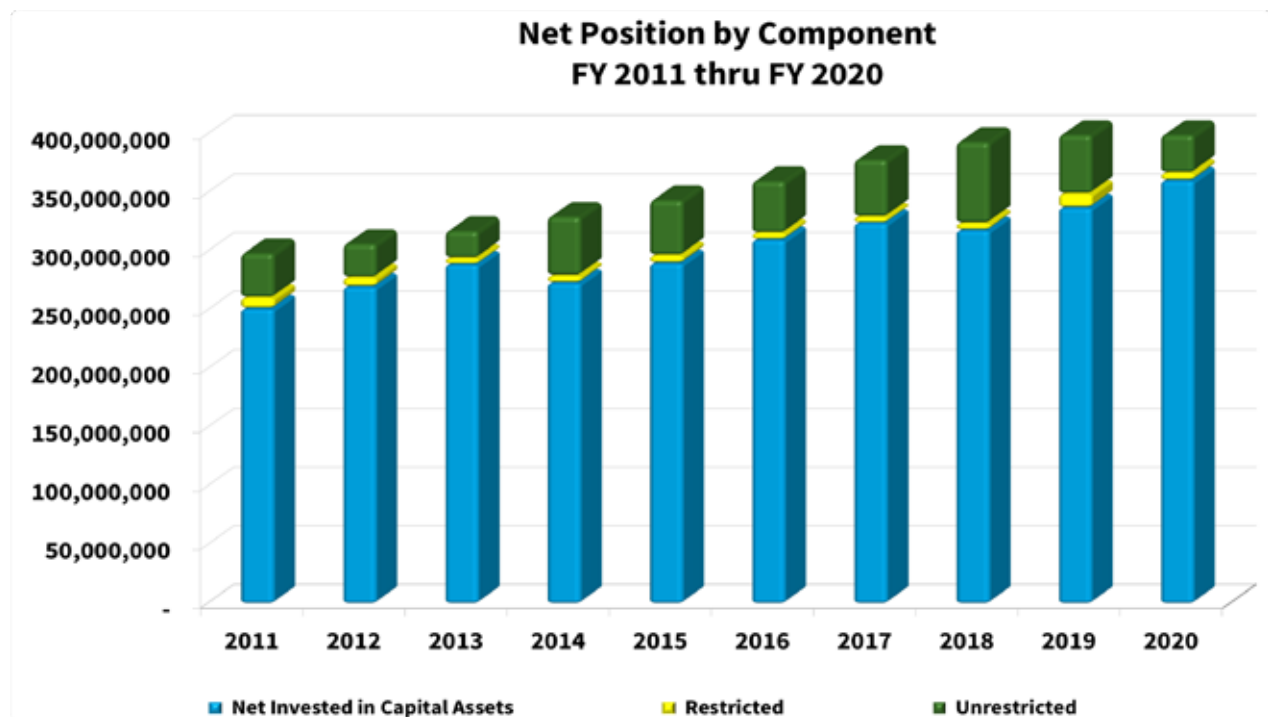
- © Demographic & Economic Statistics
- © Principal Employers

Source: Unless otherwise noted, the information in these schedules is derived from the comprehensive annual financial reports for the relevant year.

Net Position by Component

FY 2011 to FY 2020

Fiscal Year Ended June 30	Net Invested in Capital Assets	Restricted	Unrestricted	Total Net Position
2011	251,754,578	9,294,955	38,170,812	299,220,345
2012	270,297,021	8,117,494	28,687,702	307,102,217
2013	289,369,009	5,472,550	23,332,868	318,174,427
2014	273,702,824	6,238,648	50,388,726	330,330,198
2015	290,329,700	6,930,286	47,164,270	344,424,256
2016	310,277,965	6,087,649	44,227,370	360,592,984
2017	324,826,191	5,169,667	48,827,214	378,823,072
2018	318,591,132	6,045,516	69,374,003	394,010,651
2019	337,729,290	11,860,481	64,530,210	414,119,981
2020	360,881,071	6,747,582	64,850,064	432,478,717

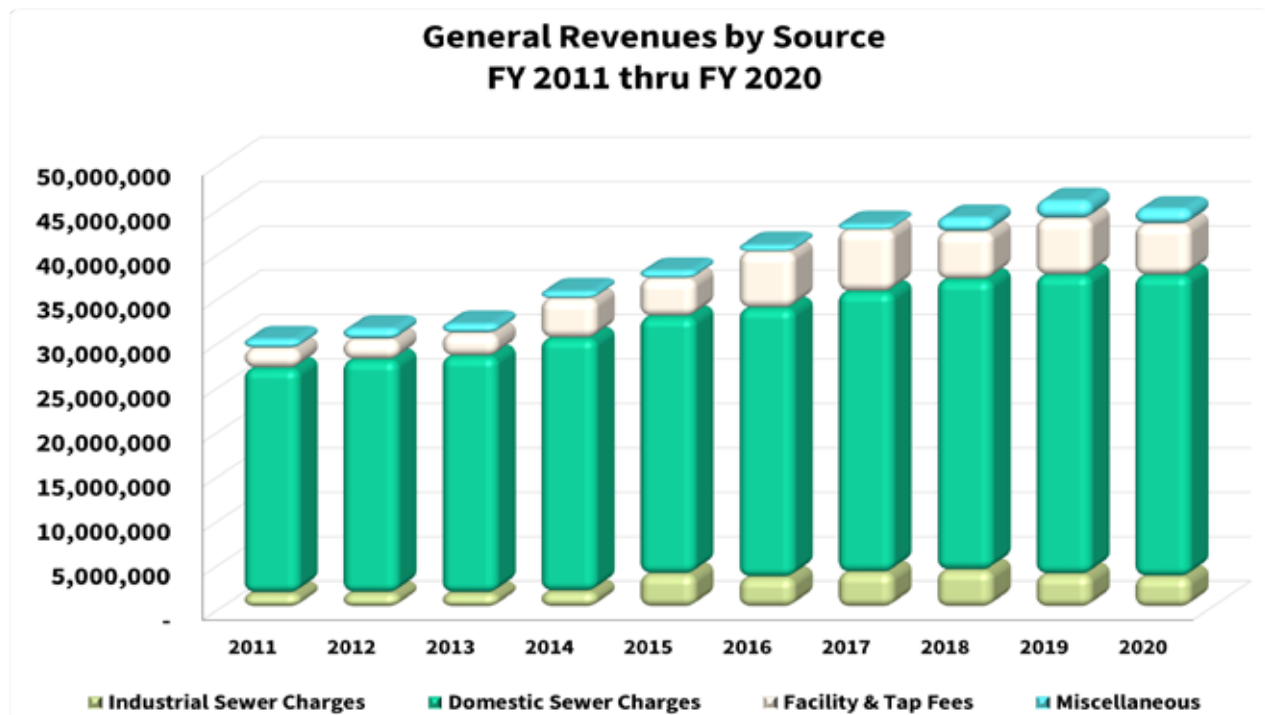


General Revenues by Source

FY 2011 to FY 2020

Fiscal Year Ended June 30	Industrial Sewer Charges	Domestic Sewer Charges	Facility & Tap Fees	Miscellaneous	Total
2011	1,565,402	25,329,492	2,238,171	1,147,955	30,281,020
2012	1,599,819	26,249,357	2,321,474	1,305,959	31,476,609
2013	1,577,916	26,690,934	2,566,635	1,185,057	32,020,542
2014	1,758,818	28,528,622	4,430,475	972,397	35,690,312
2015	3,725,584	28,978,958	4,311,259	984,097	37,999,898
2016	3,344,074	30,335,486	6,324,596	895,535	40,899,691
2017	3,909,925	31,611,295	6,977,097	744,894	43,243,211
2018	4,159,767	32,731,233	5,357,008	1,715,431	43,963,439
2019	3,687,703	33,705,906	6,343,842	2,125,732	45,863,183
2020	3,426,103	33,945,459	5,737,611	1,826,347	44,935,520

Note: Does not include Capital Contributions.

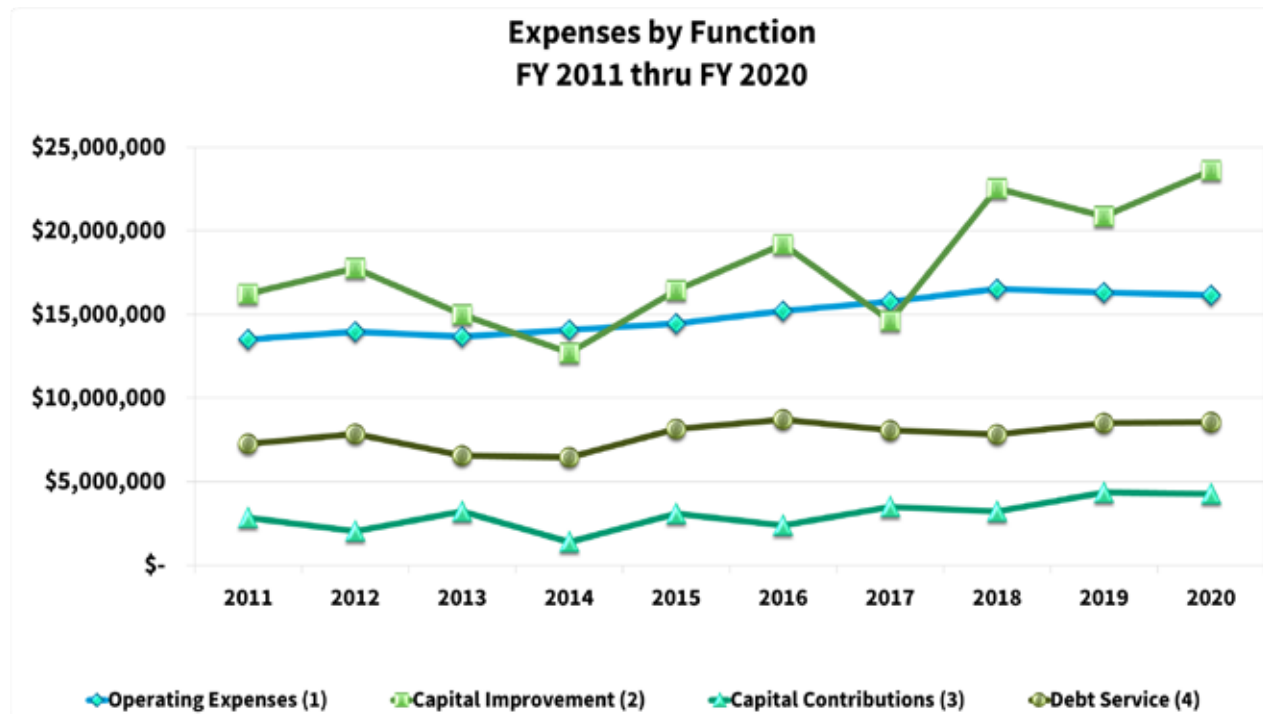


Expenses by Function (Non-GAAP)

FY 2011 to FY 2020

Fiscal Year Ended June 30	Operating Expenses ⁽¹⁾	Capital Improvement ⁽²⁾	Capital Contributions ⁽³⁾	Debt Service ⁽⁴⁾	Total
2011	13,522,468	16,226,145	2,841,859	7,255,856	39,846,328
2012	13,982,269	17,775,391	2,047,550	7,859,771	41,664,981
2013	13,674,518	14,988,922	3,217,846	6,553,956	38,435,242
2014	14,081,697	12,701,810	1,396,385	6,464,583	34,644,475
2015	14,468,184	16,455,653	3,078,520	8,154,350	42,156,707
2016	15,204,117	19,201,501	2,392,781	8,722,495	45,520,894
2017	15,767,824	14,631,155	3,478,337	8,069,902	41,947,218
2018	16,536,830	22,528,740	3,222,031	7,841,626	50,129,227
2019	16,315,760	20,860,363	4,354,071	8,505,560	50,035,754
2020	16,158,239	23,629,714	4,281,722	8,558,107	52,627,782

Includes general operations.

²Excludes depreciation expense.³This includes collection system infrastructure contributed by developers.⁴Includes Bond Principal Expense and Bond Interest Less Capitalized Interest Portion and excludes early retirement of long-term debt.

Principal Commercial Users

FY 2011 & FY 2020

Commercial User	Type of Business	2011			2020		
		Total Charges	Rank	Percentage of Total Charges	Total Charges	Rank	Percentage of Total Charges
Milkco, Inc.	Dairy Products & Juices	\$ 507,417	1	1.89%	\$ 724,302	1	1.94%
Jacob Holm Industries America	Textile Manufacturing	118,375	5	0.44%	573,937	2	1.54%
Sierra Nevada	Micro-Brewery Manufacturer	-----			305,179	3	0.82%
Ridgecrest Baptist Conference Center	Christian Conference Center	168,202	3	0.63%	201,015	4	0.54%
VA Medical Center	Veterans Hospital	116,196	6	0.43%	175,478	5	0.47%
- Asheville Department of Veterans Affairs							
Arcadia Beverage	Beverage Supplier for local/global retailers	73,876	9	0.27%	160,212	6	0.43%
New Belgium Brewing	Micro-Brewery Manufacturer	-----			145,113	7	0.39%
The Biltmore Company	Tourist Attraction/Winery/Resort Services	64,574	10	0.24%	138,035	8	0.37%
Givens Estates, Inc.	Continuing Care Retirement Community	130,550	4	0.49%	136,826	9	0.37%
Mission Health System	Health & Emergency Services	243,939	2	0.91%	126,279	10	0.34%
BONAR	Chemical Manufacturer	101,740	7	0.38%	-----		
- (formerly Colbond)							
Day International	Textile Machine Parts	99,335	8	0.37%	-----		
TOTAL		\$ 1,624,204		6.04%	\$ 2,686,376		7.19%

Source: District Billing Records

Demographic & Economic Statistics

FY 2011 to FY 2020

Fiscal Year Ended June 30	Population Estimates ¹	Per Capita Income ²	Median Age ¹	Civilian Labor Force ³		
				Employed	Unemployed	Unemployment Rate
2011	241,172	36,040	41.0	115,209	10,337	8.2%
2012	243,655	38,205	41.3	117,764	9,628	7.6%
2013	246,807	37,995	41.4	120,887	8,218	6.4%
2014	249,084	40,634	41.7	121,859	6,086	4.8%
2015	251,973	43,164	41.9	125,221	6,171	4.7%
2016	254,955	44,412	41.9	129,454	5,327	4.0%
2017	257,071	46,143	42.2	132,144	4,661	3.4%
2018	259,259	48,592	42.3	135,430	4,447	3.2%
2019	261,191	Unavailable	42.5	138,002	4,642	3.3%
2020	Unavailable	Unavailable	Unavailable	120,507	12,991	9.7%

Note: The information above is for Buncombe County, North Carolina. The District believes that the above information is representative of the service area, which extends over approximately 80% of the county.

Sources:

¹U.S. Census Bureau, Population Division; Estimates for 2010-2018 reflect county population estimates available as of March 2019.

²Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce; Last updated: November 14, 2019-- new statistics for 2018; revised statistics for 2010-2017.

³U.S. Department of Labor - Bureau of Labor Statistics; Local Area Unemployment Statistics

Principal Employers

FY 2011 to FY 2020

Employer	FY2011			FY2020		
	Employees	Rank	% of Total County Employment	Employees*	Rank	% of Total County Employment
Mission Health System & Hospitals	6,994	1	6.07%	3,000+	1	2.49%+
Buncombe County Public Schools	4,000	2	3.47%	3,000+	2	2.49%+
Buncombe County Government	1,673	3	1.45%	1,000-2,999	3	0.83% - 2.49%
The Biltmore Company	1,583	4	1.37%	1,000-2,999	4	0.83% - 2.49%
VAMedical Center - Asheville	1,139	5	0.99%	1,000-2,999	5	0.83% - 2.49%
Ingles Markets, Inc.	1,137	6	0.99%	1,000-2,999	6	0.83% - 2.49%
Walmart	-----			1,000-2,999	7	0.83% - 2.49%
Eaton Corporation - Electrical Division	1,010	8	0.88%	1,000-2,999	8	0.83% - 2.49%
City of Asheville	1,000	9	0.87%	1,000-2,999	9	0.83% - 2.49%
Asheville-Buncombe Technical Community College	-----			500-999	10	0.41% - 0.83%
Omni Grove Park Inn	1,100	7	0.95%	-----		
CarePartners	<u>917</u>	10	<u>0.80%</u>	-----		-----
Total for Principal Employers	20,553		<u>17.84%</u>	13,500 - 21,992		<u>11.20% - 18.25%</u>

* Employee range is the only public information available

Note: The information above is for Buncombe County, North Carolina. The District believes that the above information is representative of the entire service area, which extends over approximately 80% of the County.

Source: Asheville Area Chamber of Commerce, Economic Development Department & NC Employment Security Commission

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Appendix



Classification of Accounts

51100-Salaries & Wages—This includes salaries & wages for 152 department personnel. Also includes a Cost of Living increase of 3.5%.

51150-Overtime—This includes compensation as necessary for non-exempt personnel.

51200-NC Retirement—The District contributes 11.4% of gross salaries and wages to the North Carolina Local Government Employees' Retirement System. The employees contribute an additional 6.00% through payroll deduction, but the employee portion is not budgeted, as it is not an expense of the District. The above contribution includes 0.05% death benefit.

51250-Payroll Taxes—The District contributes 6.20% of gross salaries and wages to Social Security and 1.45% for Medicare as the employer share. The employees contribute equal amounts through payroll deduction, but this is not included in the budgeted amount.

51300-Medical, Dental & Life—This includes the employer allocation of the self-funded employee medical and dental program.

51325-Post-Employment Insurance—The District implemented GASB Statement No. 45: Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. Included are postretirement benefits other than pension, for example, medical, dental, and vision.

51350-Worker's Compensation—This includes the allocation of worker's compensation premiums and deductible costs.

Classification of Accounts (continued)

51360-State Unemployment Benefits—Beginning FY14, the District was required to maintain a reserve equaling 1% of unemployment insurance taxable wages. In August of 2014, and every August subsequent, the Division of Employment Security (DES) calculates the amount that each employer should have in its reserve. Unemployment claims will be deducted from the reserve in the fall of that year. Employers will then receive a bill from the DES indicating the amount they must pay to replenish their reserve to the 1% level. This payment will cover both the costs of unemployment claims and increases in the employer's total number of employees or total taxable wages.

51500-401(k)—The District contributes up to 5.0% of matching contributions based upon the level of employee participation in the 401(k)-retirement plan. A professional investment institution administers this as contracted with the North Carolina Retirement System.

52010-Advertising—This includes newspaper ads for vacant positions, quarterly informational reports, and mandatory public SSO notices. In addition, the advertising account covers Annual Report and System Performance Annual Report distribution, door hangers and any other miscellaneous communications from the District to the public.

52050-Dues & Subscriptions—This includes memberships to professional organizations and subscriptions to water utility periodicals, local newspapers, etc.

52100-Postage—This includes the charges for mailing of all official correspondence.

52150-Travel, Meetings & Training—This includes attendance at regional, state, and national professional associations and various continuing education requirements including supervisory training, skill-based pay training, operator's seminar, etc.

Classification of Accounts (continued)

52160-Tuition Assistance—This includes pre-authorized monetary assistance to employees who take educational courses that directly relate to their positions at the District.

52170-Director's Fees & Expenses—This includes all costs pertaining to the Board of Directors such as stipends, meeting expenses, and travel to national water and wastewater conferences.

52180-Insurance—This represents allocation of general liability insurance premium and deductible costs.

52210-Communications (other than landline telephone)—This includes charges for cellular telephones, mobile radios, and pagers.

52240-Uniforms—This includes charges for the purchase of work shirts, pants, outerwear, safety boots and other related items, as well as the rental and cleaning of certain uniforms.

52250-Office Supplies—This includes paper, printing charges, and other miscellaneous office-related supplies.

52260-Special Departmental Supplies—This includes specialty paper, bindery supplies, and printing services for employee manual, index tabs, ID badges, film, film developing, business cards, and vellum.

52270-Safety Equipment/Supplies—This includes goggles, vests, trench-shoring equipment, gas monitors, and related items to prevent work-related injuries.

52280-Supplies/Small Tools—This includes chainsaw blades, drill bits, gloves, miscellaneous hand tools, axes, shovels, batteries, sewer tape, paint, and paint brushes, etc.

Classification of Accounts (continued)

52290-Chemicals—This includes all chemicals used in the treatment of wastewater.

52300-Line Cleaning & Supplies—This includes chemicals, rat bait, nozzles, hose, root cutters & replacement rods, root killer, degreaser, etc.

52330-Legal Fees—This includes professional services of the District's attorney for various matters not related to capital projects.

52340-Debt Administration Fees—This includes trustee fees, liquidity facility fees for variable debt, arbitrage calculation fees, and incidental expenditures incurred by the Bond Trustee.

52350-Professional & Contractual Services—This includes external audit fees, building security, emissions testing, effluent analysis, testing of samples, service contract on pumps, lab instrumentation, emergency line repairs, plumbing repairs, tree service, fence service, software annual support fees, and other outsourced services.

52400-Repairs (Office Equipment)—This includes charges for repairs of various office equipment not under a maintenance agreement.

52410-Maintenance (Bldgs. & Grounds)—This includes janitorial fees, outsourced repairs, mowing services, landscaping supplies, and elevator inspections.

52420-Maintenance (Equipment)—This includes maintenance expense on the forklift and pallet jack for the Purchasing/Warehouse Division, maintenance, and repair of various equipment items, such as gas detectors, chlorinators, parts and repairs for the camera equipment, cable, pumps, and various other maintenance of non-vehicular equipment.

Classification of Accounts (continued)

52430-Landscape Restoration—This includes manholes, rims & lids, blacktop patch and concrete materials, asphalt & concrete work, pipe, couplings, adapters, straw, grass seed, mulch, pine needles and plants required to recover excavated areas, etc.

52440-Pump Maintenance—This includes all parts and supplies necessary to maintain all MSD pumps.

52430-Landscape Restoration—This includes manholes, rims & lids, blacktop patch and concrete materials, asphalt & concrete work, pipe, couplings, adapters, straw, grass seed, mulch, pine needles and plants required to recover excavated areas, etc.

52440-Pump Maintenance—This includes all parts and supplies necessary to maintain all MSD pumps.

52450-Equipment Rental—This includes the rental of equipment used occasionally like chippers and bulldozers.

52460-Motor Fuel and Lubricants—This includes gasoline, diesel fuel, motor oil, brake fluid, and similar supplies to operate and maintain the District fleet of trucks, vans, and heavy equipment.

52470-Outside Vehicle Maintenance—This includes expenditures paid to factory-authorized dealer service departments or similar enterprises to perform needed repairs to vehicles beyond the capabilities of the District's in-house fleet maintenance employees.

52500-Rents & Leases—This includes the rental of any equipment for the treatment plant, and operating leases for copiers and other office equipment.

Classification of Accounts (continued)

52510-Permits, Fees, & Software Licenses—This includes charges for annual radiation license, stormwater permit, lab certification renewal, state operating permits, air permit, City of Asheville pavement cutting permits, and MSD manholes raised by the City during their paving programs and water usage by preventative maintenance trucks.

52650-Utilities—This includes charges for electricity, gas, water, and trash collection.

52690-Freight—This includes freight charges ONLY for items that are not clearly and easily defined as pertaining to a certain division and/or line item(s).

52715-Safety Incentive Program—Rewards to employees for compliance with safety rules and procedures are distributed by the Safety Officer based upon observations during routine and surprise inspections.

52725-Wellness Program—One of the ways the District attempts to manage costs for self-funded health insurance plan is to encourage employees to achieve and maintain healthy lifestyles. Wellness program costs include education, fitness equipment, and auxiliary supplies.

52730-Employee Assistance Program—The District contracts with an agency to provide resources for dealing with employee performance issues to assist management.

52910-Non-Capital Equipment—This includes any item under \$1,000 consisting of various tools and assorted information technology components such as computers or monitors.

52915-Copiers, Printers and Faxes—This includes routine supplies and purchase of any machines under \$1,000.

Classification of Accounts (continued)

52920-Billing & Collections—This represents the billing and collection of sewer charges by the member agencies.

53040-Fleet Equipment Replacement Fund—This includes the proposed annual funding for the future acquisition of vehicles, trucks, and trailers. Current acquisition of replacement vehicles is budgeted in the replacement fund itself.

54010-Capital Equipment (New)—This includes requests for new equipment over \$1,000 or more and having a useful life of three years or longer.

54020-Capital Equipment (Software)—This includes license and other nonrecurring software charges of at least \$1,000 and having a useful life of three years or longer.

54030-Capital Equipment (Replacement)—This includes requests for replacement equipment over \$1,000 or more and having a useful life of three years or longer.

59200-Chargebacks to Construction Fund—Direct labor and materials costs incurred to acquire right-of-ways, design, plan, and monitor construction projects budgeted in the Systems Services and Engineering Services departments are transferred to the capital projects fund to be included in the capitalized cost of self-constructed assets.

Job Classification by Grade Order (effective July 1, 2021)

Grade	Annual Salary Range - July 1, 2021			Title
	Minimum	Mid-Point	Maximum	
5	\$28,730	\$37,026	\$45,322	Construction Operator I
				Collections System Operator I
9	\$31,710	\$40,869	\$50,027	Construction Operator II
				Collections System Operator II
11	\$33,818	\$43,189	\$52,559	Construction Operator III
				Collections System Operator III
				Office Assistant I – Human Resources
				Office Assistant I – System Services Division
12	\$37,129	\$45,502	\$53,875	Construction Operator IV
				Collections System Operator IV
				Dispatcher II
				Heavy Equipment Excavator I
13	\$38,056	\$46,638	\$55,220	Electrician I
14	\$39,007	\$47,805	\$56,602	Construction Administrative Assistant
				Construction Operator IV
				Operating in Training
				Systems Coordinator II
15	\$39,983	\$49,000	\$58,017	Accounting Technician I
				Heavy Equipment Excavator II
				Purchasing Agent I
16	\$40,983	\$50,224	\$59,465	Accounting Technician II
				Electrician II
				Maintenance Mechanic II
				Collections System Operator VI

Job Classification by Grade Order (effective July 1, 2021) (continued)

Grade	Annual Salary Range - July 1, 2019			Title
	Minimum	Mid-Point	Maximum	
17	\$42,008	\$51,480	\$60,951	ROW Admin Assistant/Board Support
18	\$43,059	\$52,768	\$62,477	Heavy Equipment Excavator III
19	\$44,136	\$54,087	\$64,038	Construction Inspector I
				GIS Data Mapping Technician
				Grease Program Inspector
				Senior Electrician
				Senior Maintenance Mechanic
20	\$45,238	\$55,440	\$65,641	Environmental, Health & Safety Technician
				Fleet Mechanic III
				WWTP Office Manager
				WWTP Operator I
21	\$46,367	\$56,825	\$67,283	First Responder
				Pretreatment/Laboratory Specialist
22	\$47,526	\$58,246	\$68,965	Construction Crew Leader
				Engineering Technician II
23	\$48,720	\$59,706	\$70,691	Budget Analyst I
24	\$49,934	\$61,196	\$72,457	Construction Inspector III
				Lead Operator
25	\$51,184	\$62,726	\$74,268	Electrical Maintenance Crew Leader
				IT Technician II
				Mechanical Maintenance Crew Leader
				Payroll/Benefits Manager
				Point Repair/Dig up Manager

Job Classification by Grade Order (effective July 1, 2021) (continued)

Grad	Annual Salary Range - July 1, 2019			Title
	Minimum	Mid-Point	Maximum	
25	\$51,184	\$62,726	\$74,268	Pump Station Maintenance Crew Leader
				Purchasing Supervisor
				Sewer Tap Manager
				SSD Administrator
				SS Maintenance Supervisor
26	\$52,464	\$64,296	\$76,127	GIS Specialist
28	\$55,119	\$67,550	\$79,981	HR Programs Manager
				Industrial Pretreatment Coordinator
				Inspectors Manager
				Right of Way Agent
				SS Rehabilitation Manager
29	\$56,495	\$69,237	\$81,979	Database Analyst
				Environmental, Health & Safety Manager
				GIS Analyst
				SCADA/PLC Technician
30	\$57,908	\$70,970	\$84,032	Assistant Planning & Development Manager
				Design/Drafting Manager
				Maintenance Coordinator
34	\$63,922	\$78,338	\$92,753	Database Applications/Developer
				Engineer I
36	\$67,157	\$82,302	\$97,446	Accounting Manager
				Engineer II
				Facilities Maintenance Manager
				Fleet Maintenance Manager
				Maintenance Manager

Job Classification by Grade Order (effective July 1, 2021) (continued)

Grad	Annual Salary Range - July 1, 2019			Title
	Minimum	Mid-Point	Maximum	
36	\$67,157	\$82,302	\$97,446	Pretreatment Supervisor
				Right-of-Way Manager
38	\$70,562	\$86,472	\$102,382	Assistant Director of SS Construction
				GIS Manager
				IT Manager
				Planning & Development Manager
43	\$79,832	\$97,973	\$116,114	Operations Manager
45	\$83,875	\$102,787	\$121,699	Assistant Director of Engineering
				Director of Human Resources
47	\$88,121	\$107,991	\$127,860	Director of Construction
				Director of Information Technology
49	\$92,582	\$113,457	\$134,332	Director of Finance
				Director of SS Maintenance
				Director of Waste Treatment Plant
53	\$102,190	\$125,234	\$148,277	Director of Engineering
		contract		General Manager
		Skill-Based		
	\$38,056	\$51,047	\$64,038	Facilities Maintenance Technician

Staffing History (FTE's)

Division & Position	Approved Positions						
	15-16	16-17	17-18	18-19	19-20	20-21	21-22
Management							
Division Heads:							
Director of Engineering	1	1	1	1	1	1	1
Director of Financial Services	1	1	1	1	1	1	1
Director of Human Resources	1	1	1	1	1	1	1
Director of Information Technology	1	1	1	1	1	1	1
Director of System Services – Construction	1	1	1	1	1	1	1
Director of System Services – Maintenance	1	1	1	1	1	1	1
Director of Water Reclamation Facility	1	1	1	1	1	1	1
Total Division Heads	7	7	7	7	7	7	7
Department of Office of the General							
General Manager	1	1	1	1	1	1	1
Total General Manager	1	1	1	1	1	1	1
Office Support:							
Executive Secretary	1	1	0	0	0	0	0
Total Office Support	1	1	0	0	0	0	0
Department of Human Resources							
Floater	0	0	0	0	1	1	1
Public Relations Representative	1	1	1	1	1	1	1
HR Programs Manager	1	1	1	1	1	1	1
Payroll/Benefits Manager	1	1	1	1	1	1	1
Total Human Resources	3	3	3	3	4	4	4
Environmental, Health & Safety:							
EHS Administrative Assistant	1	1	1	1	1	1	1
Environmental, Health & Safety Manager	1	1	1	1	1	1	1
Total Environmental, Health & Safety	2	2	2	2	2	2	2

Staffing History (FTE's) (continued)

Division & Position	Approved Positions						
	15-16	16-17	17-18	18-19	19-20	20-21	21-22
Department of Information Technology							
Information Systems (IT):							
IT Technician I	1	1	1	1	1	1	1
IT Technician II	1	1	1	1	1	1	1
IT Network Manager	1	1	1	1	1	1	1
Total IT	3	3	3	3	3	3	3
Management Information Systems (MIS):							
Database Analyst	1	1	1	1	1	1	1
Database Administrator/Developer	1	1	1	1	1	1	1
Total MIS	2	2	2	2	2	2	2
Geographic Information Systems (GIS):							
Technical Services Data Manager	1	1	1	1	1	1	1
GIS Analyst	1	1	1	1	1	1	1
GIS Technician I	1	1	1	1	1	1	1
GIS Manager	1	1	1	1	1	1	1
Total GIS	4	4	4	4	4	4	4
Department of Financial Services							
Finance & Budget:							
Budget Analyst	1	1	1	1	1	1	1
Total Finance & Budget	1	1	1	1	1	1	1
Accounting/Investments/Cash Flow							
Accounting Technician I	1	1	1	2	2	2	1
Accounting Technician II	1	1	1	1	1	1	1
Accounting Manager	1	1	1	1	1	1	1
Total Acct., Investments & Cash Flow	3	3	3	4	4	4	3
Purchasing & Warehouse:							
Purchasing Agent I	1	1	1	1	1	1	1
Purchasing Agent II	1	1	1	1	1	1	1
Purchasing Supervisor	1	1	1	1	1	1	1
Total Purchasing & Warehouse	3	3	3	3	3	3	3

Staffing History (FTE's) (continued)

Division & Position	Approved Positions						
	15-16	16-17	17-18	18-19	19-20	20-21	21-22
Department of Financial Services							
Fleet Maintenance:							
Fleet Mechanic III	3	3	3	3	3	3	3
Fleet/Mechanical Maintenance Supervisor	1	1	1	1	1	1	1
Total Fleet Maintenance	4	4	4	4	4	4	4
Facilities Maintenance:							
Facility Maintenance Technician	5	5	5	5	5	5	5
Facilities Maintenance Manager	1	1	1	1	1	1	1
Total Facilities Maintenance	6	6	6	6	6	6	6
Department of Engineering							
Office Support:							
Office Manager	1	0	0	0	0	0	0
Total Office Support	1	0	0	0	0	0	0
Engineers:							
Engineer I	2	2	2	2	2	1	1
Engineer II	1	1	1	1	1	2	2
Senior Engineer/Construction Manager	1	1	1	1	1	0	0
Assistant Director of Engineering	0	0	0	0	0	1	1
Total Engineers	4	4	4	4	4	4	4
Design and Drafting:							
Engineering Technician I	1	1	1	1	1	1	1
Engineering Technician II	1	1	1	1	1	1	1
Design and Drafting Manager	1	1	1	1	1	1	1
Total Design and Drafting	3	3	3	3	3	3	3
Right of Way:							
Administrative Assistant – Right of Way	1	1	1	1	1	1	1
Right of Way Agent	1	1	1	1	1	1	1
Right of Way Manager	1	1	1	1	1	1	1
Total Right of Way	3	3	3	3	3	3	3

Staffing History (FTE's) (continued)

Division & Position	Approved Positions						
	15-16	16-17	17-18	18-19	19-20	20-21	21-22
Department of Engineering							
Planning & Development							
Systems Coordinator III	2	2	2	2	2	2	2
Private Development Inspector	1	0	0	0	0	0	0
Private Development Project Manager	1	1	1	1	1	1	1
Private Development Coordinator/Plan view	1	1	1	1	1	1	1
Total Planning and Development	5	5	5	5	5	4	4
Department of Water Reclamation Facility							
Plant Operations:							
Operator in Training	0	0	0	0	0	2	1
Lead Operator	2	2	2	3	3	4	4
Operations Manager	1	1	1	1	1	1	1
WWTP Office/Administrative Manager	0	1	1	1	1	1	1
WWTP Operator	8	8	8	8	8	8	7
Total Plant Operations	11	12	12	13	13	16	14
Industrial Waste:							
Industrial Waste Chemist	1	1	1	1	0	0	0
Pretreatment FOG Technician	0	0	0	0	1	1	1
Industrial Pretreatment Coordinator	1	1	1	1	1	1	1
Field Operations Manager	1	1	1	1	1	1	1
Total Industrial Waste	3	3	3	3	4	4	4
Department of System Services – Construction							
Construction:							
Construction Worker I	1	2	2	1	1	1	1
Construction Worker II	6	6	6	6	6	2	6
Construction Worker III	4	4	4	4	4	3	4
Construction Operator I	1	1	1	1	1	7	1
Construction Operator II	2	2	2	1	1	2	2
Construction Crew Leader	4	4	4	4	4	4	4
Construction & Repair Supervisor	2	2	2	1	1	1	2
Heavy Equipment Excavator I	5	5	5	2	2	2	5
Heavy Equipment Excavator II	1	1	1	4	5	3	1
Total System Services Construction	26	27	27	26	27	27	26

Staffing History (FTE's) (continued)

Division & Position	Approved Positions						
	15-16	16-17	17-18	18-19	19-20	20-21	21-22
Department of System Services – Construction							
Construction Administration:							
Administrative Assistant – Construction	1	1	1	1	1	1	1
Construction Inspector I	0	0	0	1	1	1	1
Construction Inspector II	1	1	1	1	1	1	1
Construction Inspector III	2	2	2	2	2	2	2
Construction Inspector IV	1	1	1	1	1	1	1
Total Construction Administration	5	5	5	6	6	6	6
Department of System Services – Maintenance							
Office Support:							
Dispatcher	1	1	1	1	1	1	1
Office Assistant II	2	2	2	2	2	2	2
SSD Administrator	1	1	1	1	1	1	1
Total Office Support	4	4	4	4	4	4	4
SCADA/PLC:							
SCADA/PLC Technician	2	2	2	2	2	2	2
Total SCADA/PLC	2	2	2	2	2	2	2
Pump Station Maintenance:							
Pump Station Maintenance Technician	1	1	1	2	3	3	3
Pump Station Maintenance Crew Leader	1	1	1	1	1	1	1
Total Pump Station Maintenance	2	2	2	3	4	4	4
Department of System Services – Maintenance							
Maintenance:							
First Responder	2	2	2	2	2	2	2
Technical Services Worker I	2	2	2	0	0	0	2
Technical Services Worker II	4	4	5	6	6	6	4
Technical Services Worker III	2	2	6	6	6	7	2
Technical Services Operator I	1	1	1	1	1	1	1
Technical Services Operator II	3	3	2	2	2	2	3
Technical Services Operator III	7	7	5	5	5	5	7
Assistant Supervisor - SS Maintenance	2	2	2	2	2	2	2

Staffing History (FTE's) (continued)

Division & Position	Approved Positions						
	15-16	16-17	17-18	18-19	19-20	20-21	21-22
Department of System Services - Maintenance							
Maintenance:							
Collection System Maintenance Supervisor	2	2	2	2	2	2	2
Total System Services - Maintenance	25	25	25	27	27	27	27
Mechanical/Electrical Maintenance:							
Electrician II	1	1	1	0	0	0	0
Electrical Maintenance Crew Leader	1	1	1	1	1	1	1
Electrical Specialist	1	0	0	0	0	0	0
Instrumentation Specialist	1	1	1	0	0	0	0
Mechanic II	2	3	3	4	4	3	2
Mechanical Maintenance Crew Leader	1	1	1	1	1	1	1
Mechanical Specialist	1	1	1	0	0	0	0
Senior Electrician	2	2	2	2	2	2	2
Senior Mechanic	2	2	2	2	2	2	2
Electrical Maintenance Manager	1	1	1	1	1	1	1
Total Mechanical/Electrical Maintenance	13	13	13	11	11	10	9
Total:	148	148	148	149	151	152	152

Budget Resolution

**RESOLUTION ADOPTING FINAL BUDGET AND SEWER USE CHARGES
FOR THE
METROPOLITAN SEWERAGE DISTRICT
OF BUNCOMBE COUNTY, NORTH CAROLINA
FOR THE FISCAL YEAR July 1, 2021 THRU June 30, 2022**

WHEREAS, the Board of Directors has reviewed the Operations and Maintenance, Bond, Reserves, Construction Expenditures of the District, and the sources of revenue and allocations (uses) of expenditures for the 2021-2022 fiscal year; and

NOW, THEREFORE, BE IT RESOLVED:

- 1** The following amounts are hereby appropriated in the Revenue Fund for the Operations and Maintenance of the District and for transfers to the Debt Service, General Fund, and Insurance Funds for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Operating and Maintenance Expenses	\$ 14,324,629
Transfer to Insurance Accounts	\$ 3,798,061
Transfer to Fleet & Heavy Equipment Fund	\$ 595,000
Transfer to Wastewater Treatment Plant Reser	\$ 200,000
Transfer to Pump Station Maintenance	\$ 55,000
Subtotal O&M	\$ 18,972,690
Transfer to the General Fund	\$ 28,422,532
Transfer to Debt Service Fund	\$ 9,823,943
	<u>\$ 57,219,165</u>

It is estimated that the following revenues will be available in the Revenue Fund for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Domestic User Fees	\$ 34,939,096
Industrial User Fees	\$ 3,509,420
Billing and Collection Fees	\$ 952,783
Investment Interest	\$ 401,148
Reimbursement for Debt Service from COA	\$ 35,000
Rental Income	\$ 71,641
Appropriated from Net Position	\$ 17,310,077
	<u>\$ 57,219,165</u>

- 2** The following amounts are hereby appropriated in the General Fund for the transfers to the Construction Fund for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Transfer into Construction	<u>\$ 30,622,532</u>
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Budget Resolution (continued)

It is estimated that the following revenues will be available in the General Fund for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Facility and Tap Fees	\$ 2,175,000
Investment Income	\$ 125
Transfer In from Revenue Fund	\$ 28,422,532
Appropriated from Net Position	\$ 24,875
	<u>\$ 30,622,532</u>

- 3 The following amounts are hereby appropriated in the Construction Fund for Capital Improvement Plan expenditures for the fiscal year beginning July 1, 2021 and ending June 30, 2022.

Capital Improvements Projects	<u>\$ 30,622,532</u>
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It is estimated that the following revenues will be available to the Construction Fund for the fiscal year beginning July 1, 2021 and ending June 30, 2022.

Investment Income	\$ 2,500
Transfer In from General Fund	\$ 30,622,532
Contribution to Net Position	\$ (2,500)
	<u>\$ 30,622,532</u>

- 4 The following amounts are presented as the financial plan of the Insurance Funds that are used to provide insurance services. Estimated operating expenditures for the fiscal year beginning July 1, 2021 and ending June 30, 2022 are:

Operating Expenditures	<u>\$ 3,822,713</u>
------------------------	---------------------

It is estimated that the following revenues will be available in the Insurance Funds for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Transfer In from the Revenue Fund	\$ 3,798,061
Investment Income	\$ 3,000
Employee/Retirees Medical Contributions	\$ 393,600
Contribution To Net Position	\$ (371,948)
	<u>\$ 3,822,713</u>

- 5 The following amounts are presented as the financial plan of the Fleet & Heavy Equipment Fund designated for capital equipment expenditures for the fiscal year beginning July 1, 2021 and ending June 30, 2022 estimated as follows:

Capital Equipment	<u>\$ 715,000</u>
-------------------	-------------------

Budget Resolution (continued)

It is estimated that the following revenues will be available in the Fleet & Heavy Equipment Fund for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Transfer In from the Revenue Fund	\$ 595,000
Sale of Surplus Property	\$ 57,200
Investment Income	\$ 2,165
Appropriated from Net Position	<u>\$ 60,635</u>
	<u>\$ 715,000</u>

- 6 The following amounts are presented as the financial plan of the Wastewater Treatment Plant Replacement Fund designated for wastewater treatment plant capital expenditures for the fiscal year beginning July 1, 2021 and ending June 30, 2022 estimated as follows:

Capital Equipment	<u>\$ 192,609</u>
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It is estimated that the following revenues will be available in the Wastewater Treatment Plant Replacement Fund for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Transfer In from the Revenue Fund	\$ 200,000
Investment Income	\$ 563
Contribution to Net Position	<u>\$ (7,954)</u>
	<u>\$ 192,609</u>

- 7 The following amounts are presented as the financial plan in the Pump Station Replacement Fund designated for pump capital expenditures for the fiscal year beginning July 1, 2021 and ending June 30, 2022 estimated as follows:

Transfer to Capital Reserve	\$ 53,341
Capital Equipment	<u>50,000</u>
	<u>\$ 103,341</u>

It is estimated that the following revenues will be available in the Pump Station Replacement Fund for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Transfer In from the Revenue Fund	\$ 55,000
Investment Income	\$ 774
Appropriated from Net Position	<u>\$ 47,567</u>
	<u>\$ 103,341</u>

- 8 The following amounts are hereby appropriated in the Debt Service Fund for principal and interest payments for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

Debt Service	<u>\$ 9,823,943</u>
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Budget Resolution (continued)

It is estimated that the following revenues will be available in the Debt Service Fund for the fiscal year beginning July 1, 2021 and ending June 30, 2022:

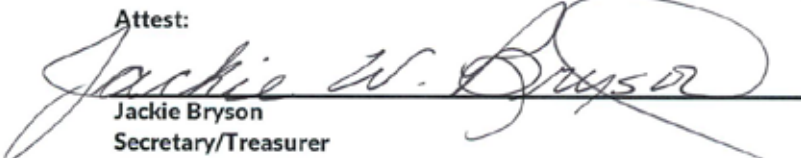
Transfer In from the Revenue Fund	\$ 9,823,943
Investment Income	\$ 500
Contribution To Net Position	\$ (500)
	<u>\$ 9,823,943</u>

- 9 That the Board of the Metropolitan Sewerage District does hereby approve an increase in the Budgets to the amount necessary to reflect any contributions to the Debt Service Reserve Fund or Capital Reserve Fund as determined by the Bond Trustee to be necessary to comply with covenants in the Bond Order.
- 10 The General Manager is hereby authorized to transfer appropriations as contained herein under the following conditions:
 - a. He may transfer amounts without limitation between departments in a fund.
He may transfer any amounts within Debt Service and Reserve Funds designated
 - b. as excess by the Trustee into another fund.
He may transfer up to 10% of Insurance Fund reserves to meet current year
 - c. expenditures in excess of budget.
- 11 That the attached Schedule of Fees and Charges be adopted as effective July 1, 2021.
- 12 That this resolution shall be entered in the minutes of the District and within five (5) days after its adoption, copies thereof are ordered to be filed with the Finance and Budget Officer and Secretary of the Board as required by G.S. 159-13 (d).

Adopted this 9th day of June 2021


 M. Jerry VeHaun, Chairman
 Metropolitan Sewerage District of
 Buncombe County, North Carolina

Attest:


 Jackie Bryson
 Secretary/Treasurer

Schedule of Rates, Fees, and Charges – FY2022

Effective July 1, 2021

	ADOPTED FY2021 RATE	PROPOSED FY2022 RATE
Collection Treatment Charge		
Residential & Commercial Volume Charges (per CCF) Inside	\$ 4.73	\$ 4.86
Industrial Volume Charges (per CCF) Inside	4.73	4.86
Industrial Surcharge for BOD (per lb., BOD >250 mg/l) Inside	0.300	0.300
Industrial Surcharge for TSS (per lb., TSS >250 mg/l) Inside	0.250	0.250
Residential & Commercial Volume Charges (per CCF) Outside	4.74	4.87
Industrial Volume Charges (per CCF) Outside	4.74	4.87
Industrial Surcharge for BOD (per lb., BOD >250 mg/l) Outside	0.300	0.30
Industrial Surcharge for TSS (per lb., TSS >250 mg/l) Outside	0.250	0.25
Base Meter/Maintenance Charge & Billing Fee		
5/8"	7.29	7.49
3/4"	10.61	10.90
1"	18.83	19.35
1 1/2"	43.09	44.27
2"	76.20	78.30
3"	168.99	173.64
4"	301.57	309.86
6"	679.34	698.02
8"	1,206.24	1,239.41
10"	1,888.91	1,940.86
Billing Fee (per bill)	2.45	2.50
Sewer System Development Fees		
This impact fee is for allotted capacity in the treatment and transmission system. A differential fee will be charged for increases to an existing meter size.		
<u><i>Residential</i></u>		
Per Unit	2,836.00	2,836.00
Mobile Home	2,836.00	2,836.00
Multifamily Unit	1,900.00	1,900.00
Affordable Housing	670.00	670.00
<u><i>Nonresidential</i></u>		
5/8"	2,836.00	2,836.00
3/4"	4,254.00	4,254.00

Schedule of Rates, Fees, and Charges – FY2022 (continued)

Effective July 1, 2021

	ADOPTED FY2021 RATE	PROPOSED FY2022 RATE
Sewer System Development Fees <i>(continued)</i>		
<u><i>Nonresidential (continued)</i></u>		
1"	7,090.00	7,090.00
1 1/2"	14,180.00	14,180.00
2"	22,688.00	22,688.00
3"	45,376.00	45,376.00
4"	70,900.00	70,900.00
6"	141,800.00	141,800.00
8"	226,800.00	226,800.00
10"	595,560.00	595,560.00
12"	751,540.00	751,540.00
Sewer Connection Fees**		
This fee is to provide new or re-establish existing service connections to the MSD system.		
Sewer Connection by MSD	1,300.00	1,300.00
Pavement Disturbance and Boring Fee	2,300.00	2,300.00
Inspection Fee for Developer (or Utility Contractor) Installed Sewer Connection	140.00	140.00
 **The Sewer Connection Fee will apply to all new construction, as well as existing structures which have been demolished/rebuilt and sewer service is reinstated under new property ownership. MSD reserves the right to require that a licensed utility contractor install any sewer connection/service line. Sewer service lines within public rights-of-way between 75 and 300 feet shall be constructed by a licensed utility contractor to MSD Standards. All work will be subject to MSD inspection.		
Manhole Installation/Replacement		
Cost per foot	250.00	250.00
Pavement replacement (if required)	1,800.00	1,800.00
Other Fees		
Allocation Fee	170.00	170.00
Non-Discharge Permit	200.00	200.00
Plan Review Fee	450.00	450.00

Schedule of Rates, Fees, and Charges – FY2022 *(continued)*

Effective July 1, 2021

	ADOPTED FY2021 RATE	PROPOSED FY2022 RATE
Other Fees, <i>(continued)</i>		
Plan re-review Fee	350.00	350.00
Pump Station Acceptance Fee	Note 1	Note 1
Note 1–See policy for details of computation of O&M and equipment replacement costs for upcoming 20 years; 50% discount for affordable housing.		
Bulk Charges		
Volume Charge for Septic Haulers (per 1,000 Gal.)	45.00	45.00
Biochemical Oxygen Demand >250 mg/l (per lb.)	0.300	0.300
Total Suspended Solids >250 mg/l (per lb.)	0.250	0.250
Returned Check Charge		
Returned Check (per event)	25.00	25.00
Dishonored Draft (per event)	25.00	25.00
Copy/Printing Fees/Miscellaneous (each)		
8x11 first print of standard GIS inquiry	1.00	1.00
8x14 first print of standard GIS inquiry	1.00	1.00
11x17 first print of standard GIS inquiry	2.00	2.00
24x36 first print of standard GIS inquiry	7.00	7.00
34x44 first print of standard GIS inquiry	12.00	12.00
36x48 first print of standard GIS inquiry	14.00	14.00
8x11 or 8x14 copies after first print	0.11	0.11
11x17 copies after first print	0.20	0.20
24x36 copies after first print	0.94	0.94
34x44 copies after first print	1.76	1.76
36x48 copies after first print	2.03	2.03
Foam Core mounting per sq. foot	3.00	3.00
Data CD	30.00	30.00
Shipping for CD	5.00	5.00
Permit Decals for Septic Haulers	50.00	50.00

Glossary



Glossary of Terms

Accrual Basis of Accounting—Method of accounting where revenues are recognized as soon as they are earned and expenses as soon as the liability is incurred. Used most often with business-type governmental funds.

Actuary—A professional trained in mathematics, statistics and economic techniques that allow them to put a financial value on future events. The District retains a consulting actuarial firm to perform the regular annual actuarial valuations of the post retirement plan.

Actuarial Report—A report performed annually by the actuary to examine whether the contributions made to a post-retirement plan is adequate.

Adopted Budget—The budget approved by District Board of Directors and enacted via a budget resolution, on or before June 15 of each year.

AMSA (American Metropolitan Sewerage Association)—Nationwide organization established to help improve operations.

Annual Budget—The District's adopted budget for a fiscal year.

Basis of Accounting—The criteria governing the timing of the recognition of financial transactions and events. There are three major methods of accounting—cash, accrual, and modified accrual.

Billing Fee—Charge assessed by member agencies that collect sewer user fees from ratepayers to recover the administrative cost of collection.

Glossary of Terms (continued)

BOD (Biochemical Oxygen Demand)—A measure of the amount of oxygen used up in the anaerobic decomposition of organic matter. The BOD test uses the oxygen from air dissolved in water and reflects treatability or stage of decomposition. It gives a direct measurement of the strength of wastewater, usually expressed in mg/l (milligrams per liter).

Bond—A written promise to pay a specific sum of money (the principal) at a date or dates in the future (the maturity) together with periodic interest at a specified rate.

Bond Rating—Rating for bonds to be issued that primarily reflects the ability of the issuer to repay the bonds. Better bond ratings result in lower interest rates for the bonds issued. Current bond rates for the District are Aaa by Moody's, AA+ by Standard & Poor's, and Fitch Ratings.

Budget—A plan of financial operation comprised of an estimate of proposed expenditures for a fiscal year and the proposed means of financing those expenditures (revenue estimates).

Budget Calendar—The schedule of key dates or milestones, which the District follows in the preparation and adoption of the budget.

Budget Document—The official written statement prepared by the District's Director of Finance, which presents the proposed budget to the District Board of Directors.

Budget Resolution—The official statement by the District Board of Directors establishing the legal authority for the District Budget administrative staff to obligate and expend funds.

Glossary of Terms (continued)

Budget Transmittal—A general discussion of the proposed budget presented to the Board by the General Manager and the Director of Finance as a part of the budget document. The budget message explains principal budget issues against the background of financial experience in recent years and presents recommendations made by the General Manager.

Capital Budget—The capital budget is responsible for all infrastructure projects in excess of the \$15,000 infrastructure capitalization threshold. Projects include replacing and rehabbing structurally defective sewer lines, handling wet-weather flow conditions, improving the performance at the wastewater treatment plant, and preparing the system to handle expected future wastewater flows

over the upcoming decade. A capital budget appropriation is limited to the cost of a project and may be spent over a long period until the project is completed.

Capital Expenditure—An amount paid out that creates a benefit in more than one year, usually costs that are incurred in the acquisition or improvement of real or personal property. Capital expenditure includes both the cost of the asset itself as well as expenditures necessary to put it in place. Capital expenditure for equipment, for example, means the net invoice price of the equipment including the cost of any modifications, attachments and accessories or auxiliary apparatus necessary to make it usable for the purposes for which it is acquired. Ancillary charges such as taxes, duty, and protective in transit insurance, freight, and installation are also included in the total purchase price.

Capital Improvement Program (CIP)—Projects established to account for the cost of capital improvements. Typically, the District's capital projects include a purchase of land and/or the construction or rehabilitation of infrastructure such as major interceptors and pump stations as well as major renovations and additions to the hydroelectric and wastewater treatment plant facilities.

Glossary of Terms (continued)

Capital Reserve Fund—The Metropolitan Sewerage District of Buncombe County Capital Reserve Fund, a special fund created by the provisions the District's Bond Order established to provide funding for unusual and extraordinary expenditures and debt service in the event of insufficient revenues.

Cash Basis of Accounting—Under cash basis, all transactions is recognized when cash is received or spent. This method is not acceptable for use by governmental entities.

Collector Sewers—That portion of the collection and transportation system, which gathers wastewater from individual buildings and transports it through a network of sanitary sewers to interceptor sewers.

Coverage Ratio—The excess of current revenues over current expenses divided by required debt service expressed as a ratio. This ratio is used to gauge the adequacy of utility rates to provide cash required for current operations and debt payments.

Current Expenses—The Districts' reasonable and necessary annual expenses of maintenance, repair, and operation of the Sewerage System.

Debt Service—Payment of interest and repayment of principal on bonded indebtedness.

Department—A management unit.

District—The Metropolitan Sewerage District of Buncombe County, North Carolina, a public body, and body politic and corporate in the County of Buncombe, State of North Carolina exercising public and essential governmental functions to provide for the preservation and promotion of the public health and welfare.

Glossary of Terms (continued)

District Board—The sewerage district board established under the provisions of the Enabling Act as the governing body of the District.

Division—A term used to describe a cost center with distinct objectives and activities within a Department.

Domestic User—Users whose sewer charges are based upon flow and meter size, predominately residences and small businesses.

Enabling Act—The North Carolina Metropolitan Sewerage Districts Act (Article 5, Chapter 162A, General Statutes of North Carolina, 1982 Replacement Volume, as amended) and, pursuant to the provisions thereof, The State and Local Government Revenue Bond Act (Article 5, Chapter 159, General Statutes of North Carolina, 1982 Replacement).

Encumbrance—Commitment of money to meet an obligation that is expected to be incurred to pay for goods or services received by the District.

Enterprise Fund—A type of proprietary fund set up to account for the financing of services to the general public where all or most of the operating expenses involved are recovered in the form of user charges.

Environmental Protection Agency (EPA)—The federal agency responsible for regulating water quality and the Federal Clean Water Act.

Expansion—Expenditures to enlarge capacity of facilities or extend system to new areas.

Glossary of Terms (continued)

Expenditures—The cost of goods received or services rendered whether payment for such goods and services has been made or not.

Federal Energy Regulatory Commission (FERC)—An independent government agency, officially organized as part of the Department of Energy, and is responsible for regulating the interstate transmission of natural gas, oil, and electricity.

Fiscal Year—The calendar on which the District operates for financial and budget purposes. The District's fiscal year begins on July 1 and ends on June 30. The current fiscal year, 2022, begins on July 1, 2021, and will continue until June 30, 2022.

Flow—Volume of domestic or industrial wastewater.

Full-time equivalent (FTE)—A method of calculating employment and enrollment to adjust for part-time or part-year participation. One FTE is equivalent to one full-time employee who works 40 per week for 52 weeks, for a total of 2,080 work hours.

Fund—A fiscal entity with a self-balancing set of accounts used to account for an activity(s) with common objectives.

Fund Equity—The excess of revenues over expenditures accumulated from prior years within a fund that are present in the form of cash at the beginning of the fiscal year.

GAAP (Generally Accepted Accounting Principles)—These are standards for measuring and reporting financial data promulgated by an authoritative body.

Glossary of Terms (continued)

GIS (Geographical Information System)—An organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.

Goal—The underlying reason(s) for the provision of essential District services.

Improvements—Betterments or upgrades to increase value, quality, or usefulness.

Industrial User—Any user of the Sewerage System who discharges industrial waste (the liquid and waterborne pollutants resulting from processes or operations employed in industrial establishments). Charges based on flow, BOD and TSS.

I/I (Inflow/Infiltration)—Water entering the collection system from rain, water table, streams, and other non-user sources, unnecessarily driving up cost of treatment and likelihood of SSOs.

Influent—The wastewater entering the reclamation facility.

Infrastructure Rehabilitation System (IRS)—A method of lining existing deteriorating sewer pipes in the ground to save the cost of having to dig them up and replace them. This procedure is performed by in-house staff, at a lower cost than hiring contractors.

Interceptor—A sewer that carries sanitary waste that is built by the District. These are large sewers that collect wastewater from local trunk sewers and convey it to the water reclamation facility.

Laterals—Privately owned building sewer lines and smaller collection system lines (4-6 inch in diameter) which connect to larger public main sewer lines.

Glossary of Terms (continued)

Lift Station—A facility in a sewer system consisting of a receiving chamber, pumping equipment, and associated drive and control devices which collect and lift wastewater to a higher elevation when the continuance of the sewer at reasonable slopes would involve excessive trench depths; or that collects and raises wastewater through the use of force mains from areas too low to drain into available sewers.

Line-item Budget—A budget detailing categories of expenditure for goods and services that the District intends to purchase during the fiscal year.

Local Government Budget & Fiscal Control Act—The legal guidelines of the State of North Carolina, which govern budgetary and fiscal affairs of local governments, found in Chapter 159 of the North Carolina General Statutes.

Local Government Commission (LGC)—The nine-member body established as a division of the Department of the State Treasurer to serve the citizens of North Carolina by issuing debt for units of local government and public authorities, monitoring the repayment of their debt, and overseeing the fiscal activities and financial soundness of all local governments and public authorities.

Modified Accrual Basis of Accounting—Under modified accrual, revenue is recognized when earned provided it is collected in time to pay liabilities of the current period. Similarly, liabilities are recognized as expenditures when payment is due because it is only at that time that they normally are liquidated with expendable available financial resources.

Net Assets—The difference of total assets and total liabilities for any period.

Net Position—The difference between assets and deferred outflows of resources, and liabilities and deferred inflows of resources.

Net Revenues—The excess of revenues over current expenses for any period.

Glossary of Terms (continued)

NPDES (National Pollutant Discharge Elimination System)—Permit to operate wastewater treatment issued by the EPA.

Objective—A measurable statement of the actual service(s), which the District expects to achieve.

Operations and Maintenance (O&M) Budget—The annual budget for activities related to controlling, operating, managing, and maintaining the sewerage system. Operating costs include such expenses as personal services (salaries and benefits for classified employees and hourly workers), contractual services, and supplies.

Order—The Amended and Restated 1999 Bond Order. To request a copy, contact the Director of Finance at the address on the cover of this document.

OSHA (Occupational Safety and Health Administration)—Federal agency responsible for issuing and monitoring standards to minimize workplace deaths, injuries, and illnesses.

PLC (Programmable Logic Controller)—Instrumentation hardware used for automated control of equipment.

Preliminary Budget—Budget that Board approves prior to adoption of Final Budget.

Pretreatment—Any process used by local industries to reduce pollution load before wastewater is introduced into a main sewer system or delivered to a reclamation facility.

Proprietary Fund—A type of fund that accounts for governmental operations that are financed and operated in a manner similar to private business enterprises. It is financed primarily from charges to users of services provided.

Glossary of Terms (continued)

Pumping Station—A relatively large sewage pumping installation designed not only to lift sewage to a higher elevation but also to convey it through force mains to gravity flow points located relatively long distances from the pumping station.

Recommended Budget—The budget proposed by the General Manager and Director of Finance to District Board for adoption.

Rehabilitation—Expenditures for repair due to damage, wear, or decay to restore facilities to normal or optimum condition.

Replacements—Expenditures for components replacing existing units.

Revenue (for purposes of Bond Order coverage)—All payments, proceeds, fees, charges, and all other income derived by or for the account of the District from its ownership and operation of the Sewerage System, excluding all acreage, connection, front-footage, tap-on, assessment and similar fees and charges and grants derived by the District in connection with the provision of or payment for capital improvements constituting a part of the Sewerage System and excluding the proceeds of any taxes levied by the District.

Rotating Biological Contactor (RBC)—Large rotating plates housing bacteria, which consume dissolved solids in wastewater.

Satellite System—Any sewer system maintained by another entity without a state-issued discharge permit, but which is connected to an MSD line for wastewater treatment and discharge by MSD. The State requires reporting for all satellite systems with a flow over 200,000 gallons per day. MSD has one reportable satellite system.

Glossary of Terms (continued)

Sewage—Sewage refers to the wastewater flow from residential, commercial, and industrial establishments, which flows through the pipes to a reclamation facility.

Sewerage—Sewerage refers to the system of sewers and physical facilities employed to transport, treat, and discharge sewage.

SCADA (Supervisory control and data acquisition)—A computer system for gathering and analyzing real time data. SCADA systems are used to monitor and control a plant or equipment in industries such as telecommunications, water and waste control, energy, oil and gas refining and transportation.

Sludge—The accumulated settled solids deposited from sewage or industrial wastes, raw or treated, in tanks and basins, and containing more or less water forming a semi-liquid mass.

SS (Suspended Solids)—Solid matter that either floats on the surface of or is suspended in wastewater and which is removable by laboratory filtration.

SSO (Sanitary System Overflow)—Untreated wastewater escapes from the collection system.

Treatment System—Wastewater Treatment Plant of the District.

User Charge—Fees levied upon residential, commercial, and industrial users of a wastewater treatment system based upon the volume and characteristics of the waste.

Water Reclamation Facility—Wastewater Treatment Plant of the District.

WNCRAQA Western North Carolina Regional Air Quality Agency—A self-supporting, local air quality regulatory agency formed by an interlocal agreement between Buncombe County and the City of Asheville.

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