



# Metropolitan Sewerage District

of

**Buncombe County, North Carolina**

2023-2024 BUDGET DOCUMENT



# 2023-2024 Budget Document

## PRINCIPAL OFFICIALS

Board Member	Representative of	Board Member	Representative of
M. Jerry VeHaun, Chairman	Town of Woodfin	Esther Manheimer	City of Asheville
Jackie W. Bryson, Secretary/Treasurer	Woodfin Sanitary Water & Sewer District	Chris Pelly	City of Asheville
Matt Ashley, Jr,	Town of Montreat	Robert Pressley	Buncombe County
Sheila Franklin	Henderson County	Douglas Dearth	Town of Weaverville
Nathan Pennington	Buncombe County	Robert C. Watts	Town of Black Mountain
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William G. Lapsley	Henderson County	Gwen Wisler	City of Asheville
Roberts & Stevens, P.A.	Legal Counsel	Thomas E. Hartye, P.E.	General Manager
McGill & Associates	Engineer of Record	W. Scott Powell, CLGFO	Director of Finance



## 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, 2022. This is the twenty-fifth (25) 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 FY2024 budget continues to conform to the program requirements, and we are submitting it to the GFOA to determine its eligibility for another award.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Metropolitan Sewerage District of Buncombe County  
North Carolina**

For the Fiscal Year Beginning

**July 01, 2022**

*Christopher P. Morill*

Executive Director

# Table of Contents

Introduction	<b>1</b>	Budget Message	1-8		
		About MSD, City of Asheville, and Buncombe County	9-18		
			Financial Plan	19-23	
			Rate Projections & Budgetary Forecast	24-25	
			Budgetary Forecast Based on Current Business Plan	26	
			Fiscal Policies	27-33	
			Budget Process	34-36	
	<b>19</b>		Budget Calendar	37	
			Budgetary Basis of Accounting	38-39	
			Fund Structure	40-43	
		Flow of Funds – Bond Order	44		
		Budget Summary	45		
		Component Fund Chart	46-47		
		Revenue	48-52		
			Operation & Maintenance Fund	53-55	
			FY2024 Budget – All Department Summary	56	
			Office of the General Manager Department	57-61	
Policies & Budget Process	<b>53</b>	Human Resources Department	62-68		
		Information Technology Department	69-76		
		Financial Services Department	77-85		
		Water Reclamation Facility Department	86-91		
		SS Maintenance Department	92-100		
		SS Construction Department	101-107		
		Engineering Department	108-114		
		Operation & Maintenance Fund	<b>115</b>	Insurance Overview	115
				Self-Funded Employee Medical Program Budget	116-117
				Post-Employment Insurance Budget	118
Worker’s Compensation Financial Plan	119				
General Liability Financial Plan	120				
Insurance Funds					

# Table of Contents

Replacement Funds	<b>121</b>	Replacement Fund Overview	121
		Fleet & Heavy Equipment	122
		Wastewater Treatment Plant Replacement	123
		Pump Maintenance Replacement Fund	124
		Capital Reserve Fund	125
CIP Program	<b>127</b>	Capital Improvement Program	127-135
		Program Summary	136-151
		Impact of CIP on Operations	152
		Operational Impact Summary	153-161
Debt Financing	<b>163</b>	Debt Financing	163-165
		Outstanding Debt as of June 30, 2023	166-167
		Aggregate Debt Service	168
		Current Debt Service Structure as of June 30, 2023	169
Statistical Information	<b>171</b>	Overview	171
		Net Position by Component	172
		General Revenues by Source	173
		Expenses by Function (Non-GAAP)	174
		Principal Commercial Users	185
		Demographic & Economic Statistics	176
		Principal Employers	177
Appendix	<b>179</b>	Classification of Accounts	179-185
		Job Classification by Grade Order (effective July 1, 2023)	186-190
		Staffing History	191-197
		Budget Resolution	198-201
		Schedule of Rates & Fees – FY2024	202-204
Glossary	<b>205</b>	Glossary of Terms	205-216



# Introduction





# Metropolitan Sewerage District

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## OF BUNCOMBE COUNTY, NORTH CAROLINA

June 14, 2023

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

Subject: FY2024 Budget and Proposed Sewer Rates

Dear Members of the Board,

We respectfully present the FY2024 Budget for the Metropolitan Sewerage District of Buncombe County, North Carolina. The budget incorporates staff recommendations presented to and accepted by the Capital Improvement Program Committee, which met on April 25, 2023, the Personnel Committee, which met on April 27, 2023.

We have developed the FY2024 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 FY2023, the District's domestic and industrial revenue are expected to meet budgeted projections. The economic impacts pertaining to the COVID-19 pandemic has had effects on revenue and cash flows for FY2023.

The District has proposed 5.00% 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 5.0% 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 sewerline rehabilitation and replacement efforts to maximize service and minimize SSOs. Goals for FY2024 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 600,000 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 2022, the District completed the construction of the \$17.2 million High Rate Primary Treatment system and is currently running operational performance testing of the system.

## Operating Budget

The proposed \$20.7 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 6.3% salary adjustment—CPI for the Southern Urban Wage Earners increased 6.3% for the last twelve-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. On April 27, 2023, the Personnel Committee has recommended a wage increase, which has an approximate \$495,000 impact.



- A 6.1% 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 8.95% of total salary and wages. Over the next five years, contribution rates are projected to increase to an amount slightly over 12.85%. This has an approximate \$35,000 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 \$183,000 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 FY2024 funding should remain at approximately \$283,000. Current funding has been implemented into the proposed FY2024 budget, in addition to the current business plan, and represents 1.3% of total operations.
-  **Materials, Supplies, and Service expenditures increased 5.8% 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. Discretionary expenditures have been limited where practicable. This has an approximate \$487,000 impact on budget 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 FY2024 is \$26.4 million, which is comprised of an estimated \$25.3 million in construction, \$140,000 of reimbursement, and \$1 million in contingency. The total 10-year CIP budget is \$531.6 million.

A detailed list of individual projects and planned expenditures by year was presented at the April 25, 2023 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, 2023, the District will have \$82 million in outstanding revenue bond debt, with total debt service of \$8.7 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 initiated 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 \$255.2 million.

MSD's focus is to rehabilitate over 400,000 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 FY2024 include the Christian Creek Interceptor with 2,000 linear feet \$2.4 million, Buchanan Avenue with 2,200 linear feet \$1.3 million, Lining Contract No. 9 with 19,000 linear feet \$1.8 million, Cherokee Road with 2,000 linear feet \$873,000. In FY2024, MSD will incur \$2.2 million on the Incinerator Rehabilitation Project and \$1.5 million on the Weaverville Pump Station Replacement. 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 consisted 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 equalization storage at the plant using existing decommissioned tanks to provide more effective treatment during peak flow events. The project was completed in FY2019.
- ▶ High Rate Primary Treatment Project—This \$17.2 million project will provide primary settling of solids to enhance the downstream biological process which will be upgraded starting in FY2028. Construction was completed in 2022 and is currently undergoing performance testing.
- ▶ Biological System Upgrades—This \$90.7 million project is being driven by the future 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 FY2026 with construction starting in FY2028.

### 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 5.0% increase in domestic and industrial sewer rates and meter fees for FY2024.

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

- ✓ Meet current and future regulations at the Water Reclamation Facility and for the Collection System
- ✓ Replace and rehabilitate approximately 41,000 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 a projection for FY2024 are shown below:

	FY19	FY20	FY21	FY22	FY23	FY24
Rate Increase %	2.5%	2.5%	0%	2.75%	3.00%	5.0%
Meter, Maintenance & Billing Fees	\$9.51	\$9.74	\$9.74	\$9.99	\$10.38	\$10.94
Flow Rate (per ccf)	\$4.61	\$4.73	\$4.73	\$4.86	\$ 5.01	\$ 5.26
Avg. Monthly Bill (5ccf)	\$31.36	\$32.17	\$32.17	\$33.04	\$34.10	\$35.83

### Distinguished Budget Award

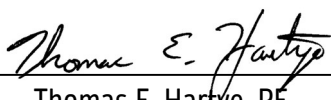
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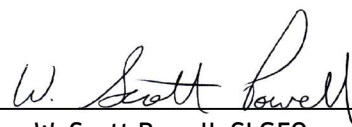
### In Closing

The Budget represents the combined efforts and guidance of the Board, its Committees, and staff. A special thanks to Jody Germaine/Budget Analyst for assembling the budget documents, Pam Thomas/HR Director, Hunter Carson/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.

Respectfully submitted,



Thomas E. Hartye, PE  
General Manager



W. Scott Powell, CLGFO  
Director of Finance

## 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	

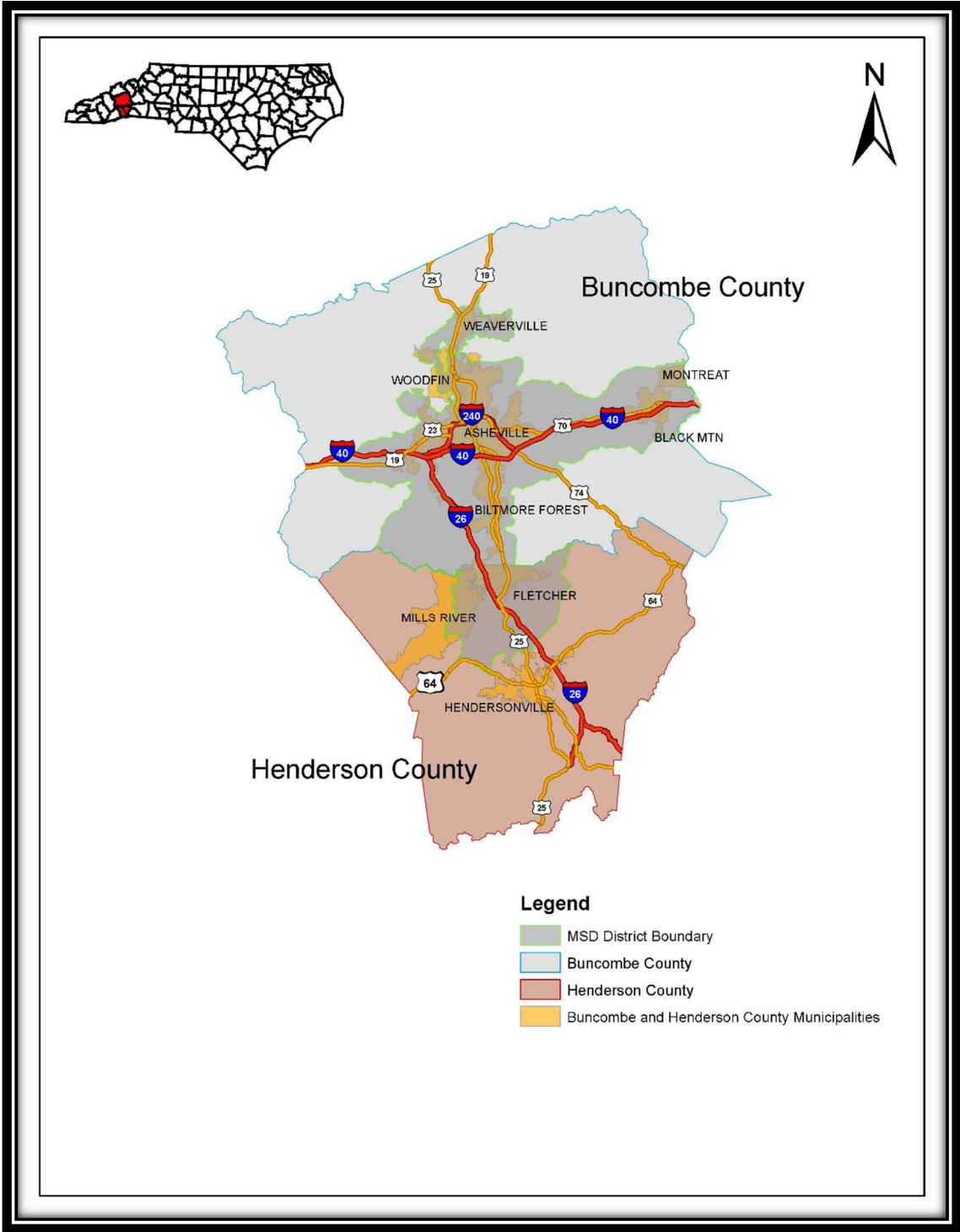
The District Board consists of fourteen (14) appointed members. Three (3) from the County of Buncombe, three (3) from the City of Asheville, and one (1) each from the Woodfin Sanitary Water & Sewer District, and the Towns of Biltmore Forest, Black Mountain, Montreat, Woodfin, and Weaverville. With the 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)

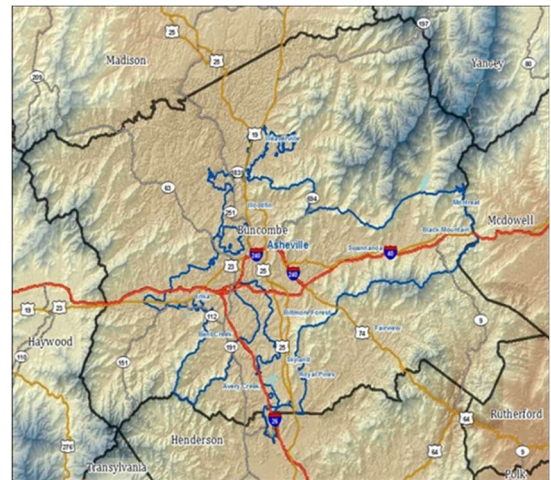
### Population and Growth Statistics

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 260-square mile service area, comprised of approximately 32% of the total land area of Buncombe County and 13% of the land area of Henderson County. The District’s service area corresponds generally with the urbanized core of Buncombe County and stretches down into northern Henderson County.

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

Year	Buncombe County	Henderson County
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
2020	269,452	116,281
2022	273,589	118,106

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 Buncombe County, and Biltmore Forest is contiguous to the City of Asheville on its southern boundary. Approximately eight percent (8%) of the county’s population lives in these five towns.



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

### Population and Growth Statistics (continued)

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 36° for the City of Asheville and the average temperature in July is 76°. The City of Asheville receives an average of 45 inches of precipitation per 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 precipitation.

### 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, 141,046 people were employed in Buncombe County as of June 2023. The number of persons in the labor force has increased by 2,048 from 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 rooms and over 60 treatment selections which has augmented its appeal to the tourism and hospitality industry.

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

### Employment and Major Industries (continued)

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 2021, median household income in the City of Asheville was \$58,193 and in Buncombe County was \$59,699. This compares with \$60,516 for the State of North Carolina and \$69,021 for the nation as a whole.

### Education

Buncombe County has two public school systems: the Asheville City Administrative Unit, which serves about 4,121 students, consisting of (1) primary school, (5) elementary magnet schools, (2) middle schools, (1) high school, and several alternative classrooms/programs including a preschool program; and the Buncombe County Administrative Unit, which serves about 21,803 students, consisting of (23) elementary schools, (4) intermediate schools, (7) middle schools, (6) high schools , and (4) unit-wide special high 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 five campus locations throughout the College's service area.

Warren Wilson College is a private, four-year liberal arts college with an enrollment of about 825 students offering academics in 44 programs of study 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 991 students at the (4) campuses which strives to be Christ-centered, student-focused, and service-driven. In addition, Montreat College offers accelerated programs for adult students, including graduate, professional, and online degree programs.

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

### Education (continued)

The University of North Carolina at Asheville (“UNCA”) is an undergraduate, state-supported liberal arts college with an enrollment of about 3,000 students. 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, jetBlue, Sun Country Airlines, and United. These carriers offer many daily non-stop flights to 25 popular destinations and enplaned 487,897 (971,564) passengers as of calendar year to date ending June 2023.

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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 58,000 residences and businesses located in several municipalities and certain unincorporated areas in Buncombe County. The governing board is comprised of fourteen members appointed by nine 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 1,140 miles of collector sewers, 33,890 manholes, and 40 pump stations. The District is responsible for current operation and maintenance of this infrastructure, as well as for planning for future operations and capacity.

## Financial Plan (continued)

### Background of Entity (continued)

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 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.

## Financial Plan (continued)

### Background of Entity (continued)

Finally, communication with and education of stakeholders is designed to 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 in the "Operation & Maintenance Fund" section of this Budget Document. 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 of approximately 5% for the next nine 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 FY2024 reflects a continuation of a major rehabilitation project at the Wastewater Treatment Plant.

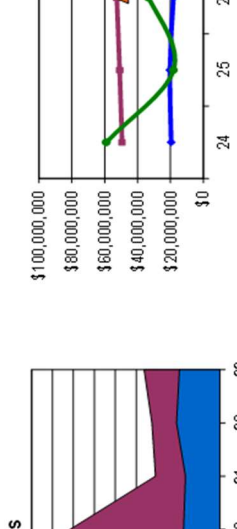
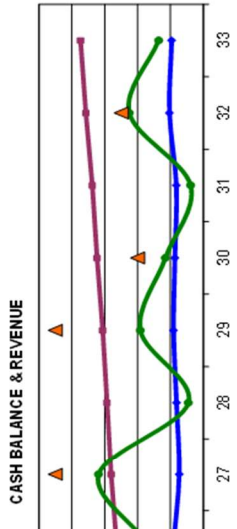
This long-range budgetary projection also shows how the District plans to finance these projects with a combination of bond proceeds and pay-as-you-go funding from sewer revenues. Overall, the ten-year projection indicates the District's continuing ability to provide wastewater collection and treatment 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 - FY24											Sewer Rate Increase			
	2.5%	0.0%	2.75%	3.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	Average Monthly Bill	Assumptions		
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
July 1 - Available for Construction	\$2,570,373	64,919,355	66,789,880	72,946,502	66,775,368	59,109,187	18,258,162	33,576,828	63,781,125	9,170,444	38,365,667	23,112,361	7,838,463	45,085,684
<b>REVENUE:</b>														
Domestic Users (No growth)	33,092,478	34,081,773	36,767,180	36,801,493	38,928,326	41,162,846	43,569,940	46,091,550	48,730,786	51,554,248	54,666,691	57,708,652	60,089,481	63,576,884
Industrial Users (No growth)	3,426,103	3,497,070	3,816,103	3,576,488	3,410,895	3,536,962	3,669,333	3,808,322	3,954,261	4,107,496	4,268,394	4,437,336	4,614,725	4,800,197
Billing and Collections (User Fee)	852,981	983,058	1,021,457	1,019,478	1,157,474	1,203,773	1,251,924	1,302,001	1,354,081	1,408,244	1,464,574	1,523,157	1,584,083	1,647,446
Tap Fees	632,174	740,513	716,432	600,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Facility Fees	5,105,437	4,351,547	5,249,579	4,250,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Interest & Non-operating Revenues	1,121,638	217,271	238,640	1,750,000	2,517,691	1,547,347	777,525	1,094,274	713,042	922,170	464,262	1,058,483	1,446,221	0
City of Asheville (annex-Enk'a)	31,898	30,586	29,274	35,000	35,000	0	0	0	0	0	0	0	0	0
Rental Income	76,982	79,445	69,961	96,000	96,000	96,000	96,000	96,000	96,000	96,000	96,000	96,000	96,000	96,000
Transfer from Reserves (to / from)	(76,752)	0	(347,008)	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	218,441	1,894,732	0	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
<b>Total Revenues</b>	<b>44,461,380</b>	<b>45,865,995</b>	<b>47,561,618</b>	<b>48,268,459</b>	<b>49,485,396</b>	<b>50,896,928</b>	<b>52,704,722</b>	<b>55,098,242</b>	<b>58,563,400</b>	<b>61,219,030</b>	<b>64,657,829</b>	<b>67,569,407</b>	<b>71,469,383</b>	<b>74,721,276</b>
<b>EXPENSES:</b>														
State and Federal (EPA) Grants	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenue Bonds/Stimulus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Funds Available</b>	<b>114,051,752</b>	<b>110,786,350</b>	<b>114,351,498</b>	<b>121,214,962</b>	<b>116,260,755</b>	<b>109,996,115</b>	<b>120,962,884</b>	<b>129,675,071</b>	<b>136,810,143</b>	<b>144,089,476</b>	<b>151,925,650</b>	<b>160,389,474</b>	<b>169,681,788</b>	<b>179,806,960</b>
Operations & Maintenance	14,772,938	14,923,174	15,681,916	19,920,325	21,034,740	21,700,518	22,478,996	23,290,235	24,135,871	25,017,630	25,937,315	26,896,512	27,910,277	28,968,507
Replacement Funds (WRF & Fleet)	750,000	750,000	850,000	850,000	905,000	905,000	905,000	905,000	905,000	905,000	905,000	905,000	905,000	905,000
Debt Service	9,826,547	9,811,696	9,797,850	8,899,361	8,833,835	8,805,928	12,005,679	18,069,149	18,069,614	21,383,423	24,207,420	22,882,055	26,431,228	29,882,870
CIP (including Bond Projects)	23,782,912	18,510,600	15,075,230	24,769,907	26,377,983	60,326,507	51,996,581	73,629,542	78,071,320	78,041,583	74,685,397	30,834,383	32,524,820	36,276,874
<b>Total Expenses</b>	<b>49,132,397</b>	<b>43,995,470</b>	<b>41,404,996</b>	<b>54,439,593</b>	<b>57,151,568</b>	<b>91,737,953</b>	<b>87,386,056</b>	<b>113,180,081</b>	<b>122,023,807</b>	<b>119,911,135</b>	<b>82,843,315</b>	<b>84,222,152</b>	<b>92,581,609</b>	<b>99,800,000</b>
Pay-as-you-go (Current Revenue only)	19,881,895	21,131,125	22,081,852	19,448,773	19,616,811	20,380,482	18,220,047	14,738,868	16,365,639	18,141,786	17,337,091	16,465,475	20,677,051	19,321,541
Debt Coverage (User Fees only)	2.3	2.4	2.6	2.4	2.6	2.8	2.2	1.6	1.7	1.8	1.6	1.5	1.7	1.6
Debt Coverage with Total Revenue	3.0	3.1	3.2	3.2	3.2	3.3	2.5	1.8	1.9	2.0	1.8	1.7	1.9	1.7
<b>April 12, 2023</b>														
<b>10-Year Capital Improvement Program</b>														
<b>Active Plan CIP</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>FY 2030</b>	<b>FY 2031</b>	<b>FY 2032</b>	<b>FY 2033</b>
Intercept/Wet Weather Rehabilitation	4,090,464	123,500	5,232,420	6,740,715	3,443,803	0	53,478	1,382,686	1,691,144	15,509,883	16,589,896	14,364,589	16,674,935	24,304,113
General Sewer Rehabilitation	7,547,700	8,719,182	5,441,318	9,319,001	9,930,098	9,266,947	12,113,889	12,102,353	16,701,037	15,011,382	12,671,845	11,973,322	11,173,058	7,027,766
Private Sewer Rehabilitation	6,500	14,400	221,500	210,250	177,900	228,041	274,130	429,883	0	0	0	0	0	0
Treatment Plant / Pump Stations	9,006,250	6,346,317	1,179,021	5,363,362	8,402,202	46,415,413	33,494,322	56,028,102	47,896,694	43,574,878	38,382,024	361,908	443,645	610,404
Engineering Force Account	2,795,998	2,870,201	2,900,971	3,096,554	3,281,040	3,402,856	3,493,385	3,586,538	3,682,445	3,845,400	3,938,632	4,034,564	4,133,182	4,234,591
Reimbursements	336,000	437,000	100,000	40,025	142,950	1,023,250	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Continuance	0	0	0	0	1,000,000	0	0	0	0	0	0	0	0	0
<b>Capital Improvement Program Totals</b>	<b>23,782,912</b>	<b>18,510,600</b>	<b>15,075,230</b>	<b>24,769,907</b>	<b>26,377,983</b>	<b>60,326,507</b>	<b>51,996,581</b>	<b>73,629,542</b>	<b>78,071,320</b>	<b>78,041,583</b>	<b>71,685,397</b>	<b>30,834,383</b>	<b>32,524,820</b>	<b>36,276,874</b>

- ▬ Pay-as-you-go
- ▬ Revenue w/o Bonds
- ▲ Bond Issues
- ▬ Cash Balance



## 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 an annual comprehensive financial report (ACFR) 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

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					

DATE	TIME	SUBJECT
April 25	9:00 a.m.	CIP Committee Meeting
		<ul style="list-style-type: none"> <li>Update of Ten-Year Capital Improvement Program</li> </ul>
		<ul style="list-style-type: none"> <li>Update Construction Program Financing</li> </ul>
		<ul style="list-style-type: none"> <li>2023-2024 Construction Fund Budget</li> </ul>
April 27	9:00 a.m.	Personnel Committee Meeting
		<ul style="list-style-type: none"> <li>Cost of Living &amp; Merit Pay</li> </ul>
		<ul style="list-style-type: none"> <li>Benefit Allocations</li> </ul>
May 2	2:00 p.m.	Finance Committee Meeting
		<ul style="list-style-type: none"> <li>Nine Month Revenue/Expenditure Report</li> </ul>
		<ul style="list-style-type: none"> <li>Self-Funded Medical &amp; Dental Program</li> </ul>
		<ul style="list-style-type: none"> <li>Proposed FY2024 Construction Fund Budget</li> </ul>
		<ul style="list-style-type: none"> <li>Proposed FY2024 Operating Budget &amp; Sewer Rates</li> </ul>
May 17	2:00 p.m.	Board Meeting
		<ul style="list-style-type: none"> <li>Preliminary FY2024 Budgets &amp; Sewer Rates</li> </ul>
June 14	2:00 p.m.	Board Meeting
		<ul style="list-style-type: none"> <li>Public Hearing</li> </ul>
		<ul style="list-style-type: none"> <li>Adoption of FY2024 Budgets &amp; Sewer Rates</li> </ul>
July 1		Start of Fiscal Year 2023-2024

## 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 FY2024 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.

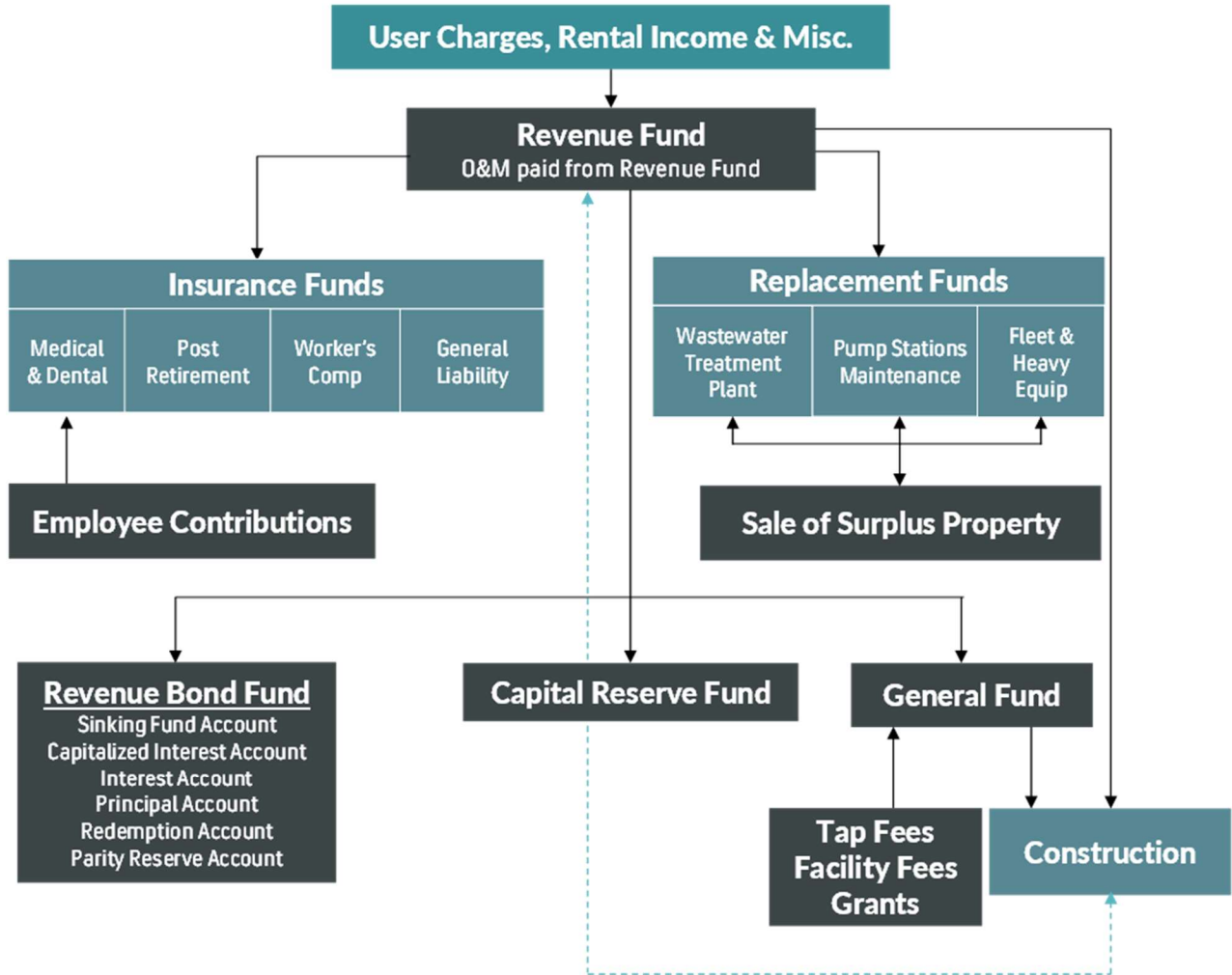
**Pump Maintenance**—Various large pumps require replacement from time to time, usually at costs well in excess of what may be budgeted as routine maintenance. The SS Maintenance Director prepares a schedule by year of anticipated major projects needed to refurbish or replace obsolete equipment.

**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

- Income Sources
- Trustee Funds
- Expenditures

————— 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 ❶ the Revenue Fund from which operational and maintenance expenditures are made, ❷ the General Fund that transfers pay-as-you-go funding authorized for construction, ❸ the Construction Fund that incorporates CIP expenditures, ❹ the Replacement Funds providing funding for Fleet, WRF, and Pump Stations equipment, and ❺ 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 2022 Actual Total	FY 2023 Amended Budget	FY 2024 Proposed Budget	Increase (Decrease)	% Change
<b>REVENUES &amp; FINANCING SOURCES</b>					
Domestic User Fees	\$ 36,661,486	\$ 36,801,493	\$ 38,928,326	\$ 2,126,833	5.78%
Industrial User Fees	3,816,103	3,370,488	3,410,895	40,407	1.20%
Billing and Collection	1,021,457	1,019,478	1,157,474	137,996	13.54%
Facility and Tap Fees	5,966,012	3,175,000	3,200,000	25,000	0.79%
Interest and Misc. Income	276,338	1,145,536	2,902,076	1,756,540	153.34%
Rental Income	69,961	96,000	96,000	-	0.00%
City of Asheville (Enka Bonds)	29,274	35,000	35,000	-	0.00%
Employee Contributions to Health Fund	372,182	379,669	385,800	6,131	1.61%
Use of (Contributions to) Available Funds	(6,480,937)	14,029,434	6,454,394	(7,575,040)	-53.99%
<b>Total Revenues &amp; Financing Sources</b>	<b>\$ 41,731,876</b>	<b>\$ 60,052,098</b>	<b>\$ 56,569,965</b>	<b>\$ (3,482,133)</b>	<b>-5.80%</b>
<b>EXPENDITURES</b>					
Operations and Maintenance	\$ 16,531,916	\$ 19,762,020	\$ 20,862,488	\$ 1,100,468	5.57%
Construction	14,994,227	30,314,882	26,377,993	(3,936,889)	-12.99%
Capital Equipment	652,082	1,075,835	594,817	(481,018)	-44.71%
Bond Principal and Interest	9,553,651	8,899,361	8,734,667	(164,694)	-1.85%
Other Long-Term Obligation	-	-	-	-	N/A
<b>Total Expenditures</b>	<b>\$ 41,731,876</b>	<b>\$ 60,052,098</b>	<b>\$ 56,569,965</b>	<b>\$ (3,482,133)</b>	<b>-5.80%</b>

**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 6/30/23	66,250,368	25,000	500,000	993,086	197,274	110,289	6,361,000	74,437,017
Revenues and Other Financing Sources								
Domestic User Charges	38,928,326	-	-	-	-	-	-	38,928,326
Industrial User Charges	3,410,895	-	-	-	-	-	-	3,410,895
Billing and Collection Fees	1,157,474	-	-	-	-	-	-	1,157,474
Facility and tap fees	-	3,200,000	-	-	-	-	-	3,200,000
Proceeds from Revenue Bonds	-	-	-	-	-	-	-	-
Stimulus Loan/Grant	-	-	-	-	-	-	-	-
Sale of Surplus Property	-	-	-	14,362	-	-	-	14,362
Non-governmental Grants	-	-	-	-	-	-	-	-
Capital Contributions	-	-	-	-	-	-	-	-
Investment interest & misc.	2,657,066	125	500	34,758	6,905	3,860	500	2,703,714
City of Asheville for Enka Bond	35,000	-	-	-	-	-	-	35,000
Rental Income	96,000	-	-	-	-	-	-	96,000
Employee/Retirees Medical Contributions	-	-	-	-	-	-	-	-
<b>Total Revenues and Fin. Sources</b>	<b>46,284,761</b>	<b>3,200,125</b>	<b>500</b>	<b>49,120</b>	<b>6,905</b>	<b>3,860</b>	<b>500</b>	<b>49,545,771</b>
Expenditures and Other Financing Uses								
Operating Expenses	(16,711,927)	-	-	-	-	-	-	(16,711,927)
Debt--Principal	-	-	-	-	-	-	(5,631,824)	(5,631,824)
Debt--Interest	-	-	-	-	-	-	(3,102,843)	(3,102,843)
Construction	-	-	(26,377,993)	-	-	-	-	(26,377,993)
Capitalized Equipment Expenditures	(110,198)	-	-	(193,619)	(217,000)	(74,000)	-	(594,817)
<b>Total Expenditures and Other Financing Uses</b>	<b>(16,822,125)</b>	<b>-</b>	<b>(26,377,993)</b>	<b>(193,619)</b>	<b>(217,000)</b>	<b>(74,000)</b>	<b>(8,734,667)</b>	<b>(52,419,404)</b>
Interfund/account transfers	(37,005,275)	(3,225,000)	26,377,993	595,000	250,000	60,000	8,734,667	(4,212,615)
Excess (Deficit) of Revenues over Expenditures	(7,542,639)	(24,875)	500	450,501	39,905	(10,140)	500	(7,086,248)
Projected Net Position at 06/30/24	58,707,729	125	500,500	1,443,587	237,179	100,149	6,361,500	67,350,769

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.

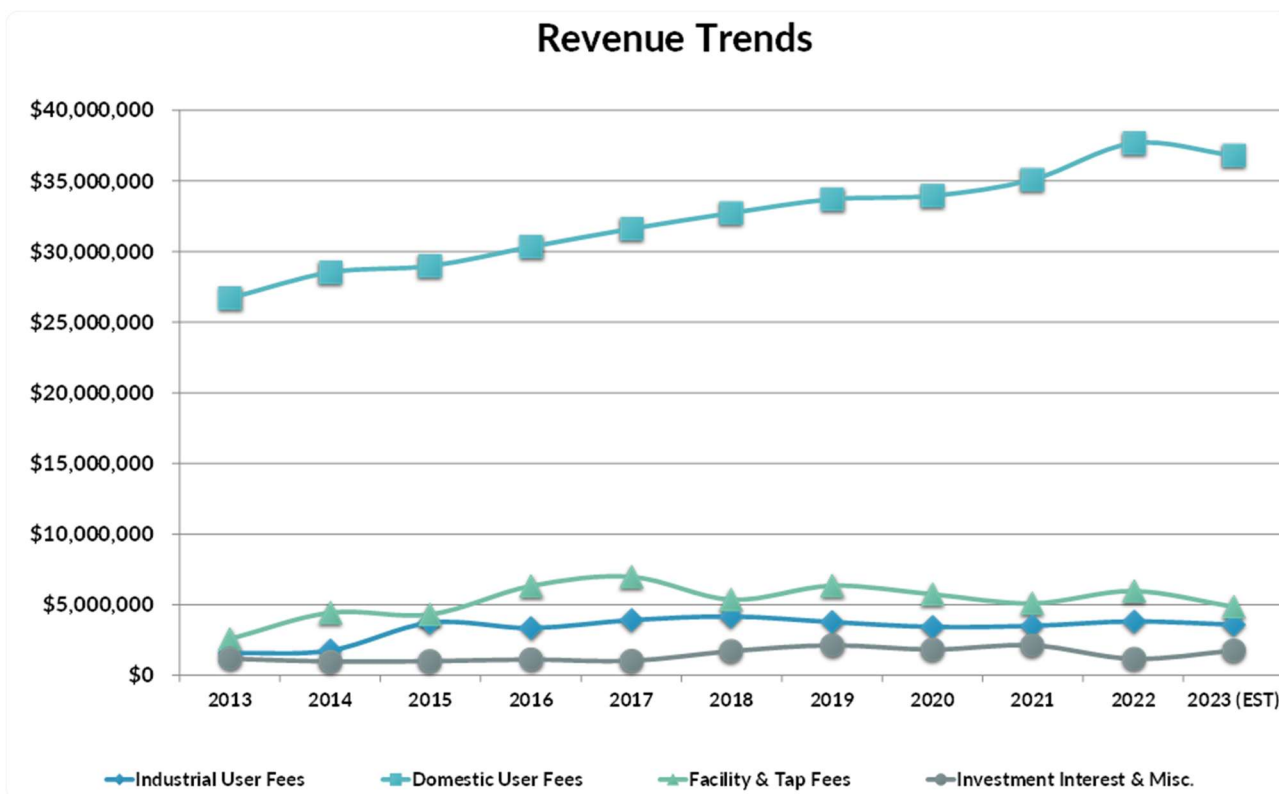
	Designated for Insurance				Bond Covenant Requirement	Non- Appropriated	Budget Summary
	Insurance Medical	Insurance Post Employment	Insurance Prop & Liab	Insurance Work Comp	Capital Reserve		District Totals
Projected Net Position at 6/30/23	3,161,582	(1,995,986)	680,284	575,260	1,228,398	3,649,538	78,086,555
Revenues and Other Financing Sources:							
Domestic User Charges	-	-	-	-	-	-	38,928,326
Industrial User Charges	-	-	-	-	-	-	3,410,895
Billing and Collection Fees	-	-	-	-	-	-	1,157,474
Facility and tap fees	-	-	-	-	-	-	3,200,000
Proceeds from Revenue Bonds	-	-	-	-	-	-	-
Stimulus Loan/Grant	-	-	-	-	-	-	-
Sale of Surplus Property	-	-	-	-	-	-	14,362
Non-governmental Grants	-	-	-	-	-	-	-
Capital Contributions	-	-	-	-	-	-	-
Investment interest & misc.	50,000	80,000	10,000	14,000	30,000	184,000	2,887,714
City of Asheville for Enka Bond	-	-	-	-	-	-	35,000
Rental Income	-	-	-	-	-	-	96,000
Employee/Retirees Medical Contributions	370,800	15,000	-	-	-	385,800	385,800
<b>Total Revenues and Fin. Sources</b>	<b>420,800</b>	<b>95,000</b>	<b>10,000</b>	<b>14,000</b>	<b>30,000</b>	<b>569,800</b>	<b>50,115,571</b>
Expenditures and Other Financing Uses							
Operating Expenses	(3,236,561)	-	(774,000)	(140,000)	-	(4,150,561)	(20,862,488)
Debt--Principal	-	-	-	-	-	-	(5,631,824)
Debt--Interest	-	-	-	-	-	-	(3,102,843)
Construction	-	-	-	-	-	-	(26,377,993)
Capitalized Equipment Expenditures	-	-	-	-	-	-	(594,817)
<b>Total Expenditures and Other Financing Uses</b>	<b>(3,236,561)</b>	<b>-</b>	<b>(774,000)</b>	<b>(140,000)</b>	<b>-</b>	<b>(4,150,561)</b>	<b>(56,569,965)</b>
Interfund/account transfers	3,143,840	133,000	812,775	123,000	-	4,212,615	-
Excess (Deficit) of Revenues over Expenditures	328,079	228,000	48,775	(3,000)	30,000	631,854	(6,454,394)
Projected Net Position at 06/30/24	3,489,661	(1,767,986)	729,059	572,260	1,258,398	4,281,392	71,632,161

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.

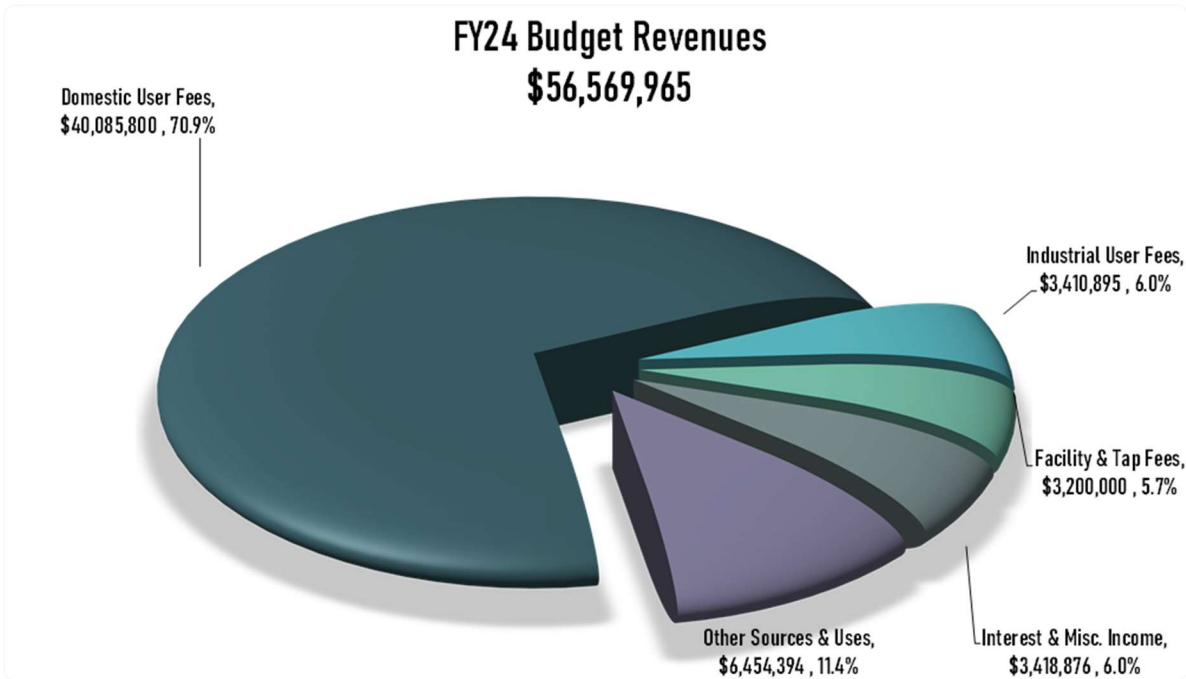


A graph of historical revenues by type reveals the overwhelming percentage of the District’s income derives from domestic (residential & commercial) customers and has increased for the past ten consecutive years. Industrial user fees clearly show the effect of the shrinking textile industry in Buncombe 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 FY2023 is estimated to be higher than in FY2022.

## Revenue (continued)

### Revenue Summary

When projecting FY2024 revenues, a 5.00% 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 58,000 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									
14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	0.0%	2.75%	3.0%	5.0%



## 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 increased rapidly during the current year due to adverse economic conditions. The projected yield for the current fiscal year will be 4.00%.

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. In FY 2024, Raftelis Financial Consultants, Inc. was engaged to perform a study which conforms to the conditions and limitations of Article 8.

## Revenue (continued)

### Sewer System Development Fee (continued)

Effective in FY 2024, sewer facility fees ranged from \$844 to \$3,568 for residential users based on size of structure, and from \$3,568 to \$945,452 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. The cost for installing a tap that does not involve payment restoration is \$1,300. This fee is to provide connections to the MSD system where the public main is on the same side of the street as the residence.

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 requires that a licensed utility contractor install any sewer connection/service line within public rights-of-way extending over 75 feet or that requires pavement disturbance or boring to reach across a paved thoroughfare. The installation shall be constructed to MSD Standards. All work will be subject to MSD inspection.

### Billings & Collections

The District will pay the municipalities \$2.83 per customer bill for meter reading, billing, and collection services.

### Rental Income

Pace Analytical Services, Inc. has entered into a lease to utilize a portion of a building in the Wastewater Treatment Plant facilities along with laboratory equipment. 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.

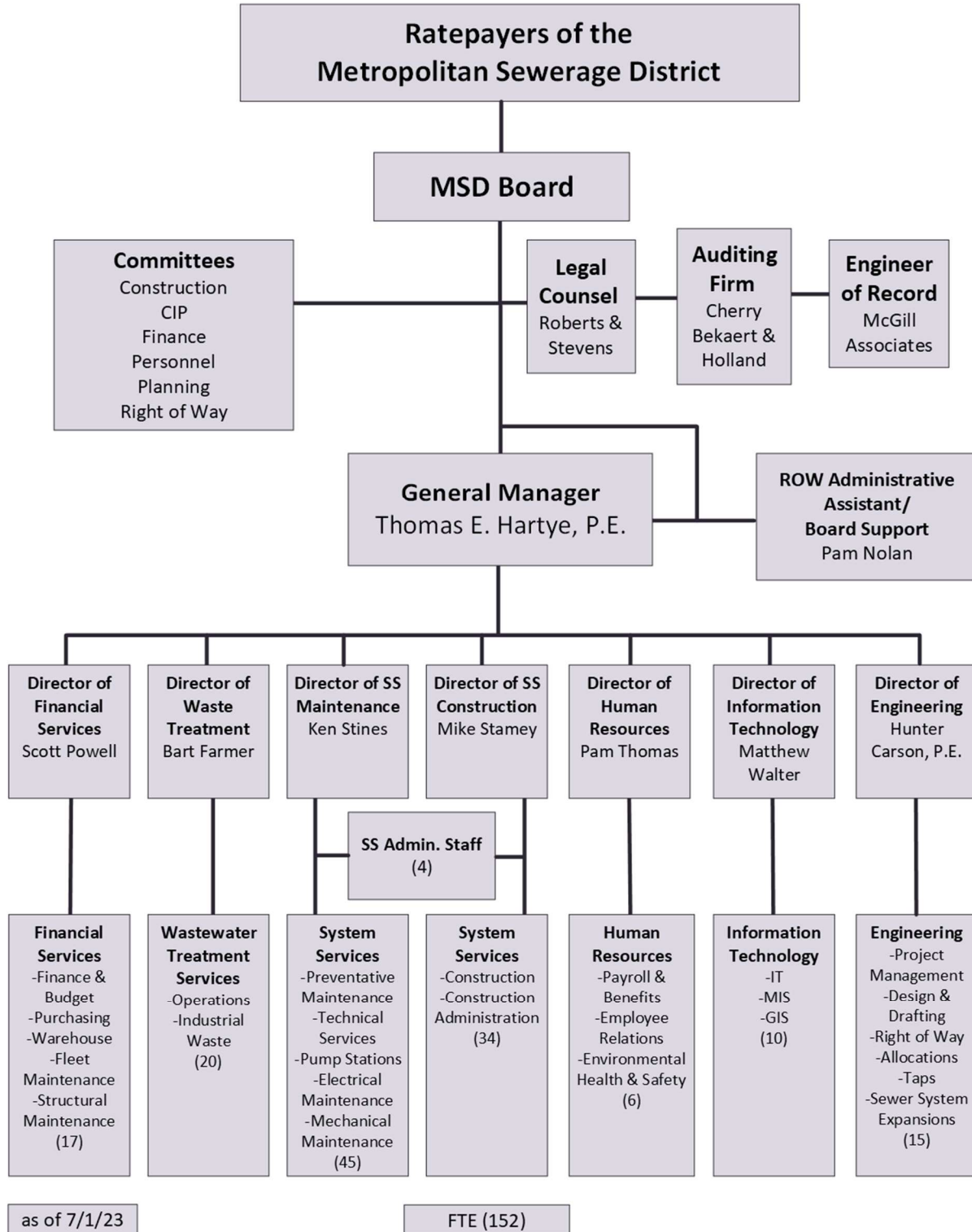


# Operation & Maintenance



## 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 FY2024 Operation & Maintenance Fund budget totals \$21,939,740. This represents a 5.63% increase over the previous year. The District budgets to the Departmental level and are as follows:

Office of the General Manager	\$	2,072,923
Human Resources		1,061,594
Information Technology		1,800,915
Financial Services		3,133,468
Wastewater Treatment Plant		5,823,095
SS Maintenance		6,918,802
SS Construction		4,405,515
Engineering		2,103,698
<b>Total Expenditures</b>	<b>\$</b>	<b>27,320,010</b>
<b>Less: Capitalized in Construction Funds</b>		<b>(5,380,270)</b>
<b>Net Operation &amp; Maintenance Fund</b>	<b>\$</b>	<b>21,939,740</b>

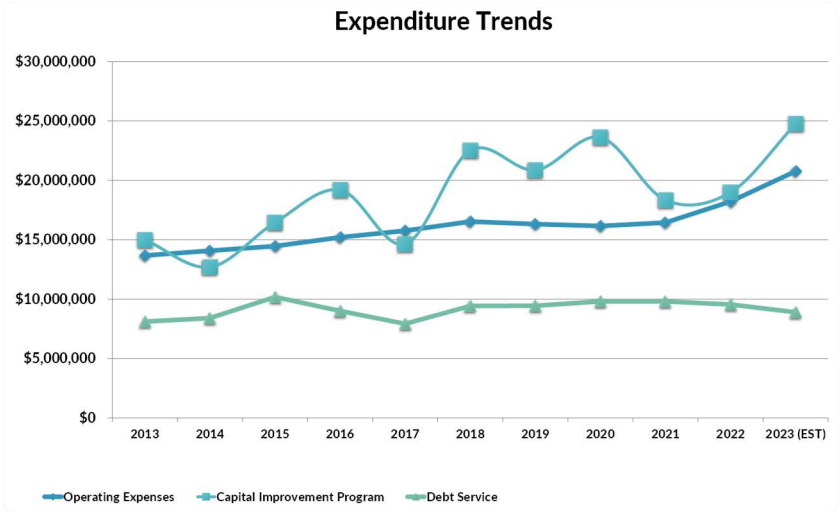
### O & M Overview

	ACTUAL 2021-2022	APPROVED 2022-2023 BUDGET	ESTIMATED 2022-2023 ACTUAL	PROPOSED 2023-2024 BUDGET	INC(DEC) OVER PRIOR YR BUDGET
SALARIES & WAGES	\$ 9,049,198	\$ 10,349,484	\$ 10,296,466	\$ 10,856,674	4.90%
BENEFITS	5,312,244	5,942,543	5,934,033	6,341,220	6.71%
MATERIALS, SUPPLIES & SERVICES	6,132,881	8,478,624	7,653,279	8,965,855	5.75%
REPLACEMENT FUNDS & TRANSFERS	972,582	998,373	998,373	1,046,063	4.78%
CAPITAL EQUIPMENT	69,479	103,049	95,049	110,198	6.94%
<b>SUB-TOTAL O&amp;M FUND</b>	<b>21,536,383</b>	<b>25,872,073</b>	<b>24,977,200</b>	<b>27,320,010</b>	<b>5.60%</b>
<b>LESS:</b>					
Capitalized Construction Expenses	(4,362,175)	(5,101,748)	(5,101,043)	(5,380,270)	5.46%
<b>NET OPERATION &amp; MAINTENANCE FUND</b>	<b>\$ 17,174,208</b>	<b>\$ 20,770,325</b>	<b>\$ 19,876,157</b>	<b>\$ 21,939,740</b>	<b>5.63%</b>

## Operation & Maintenance Fund (continued)

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

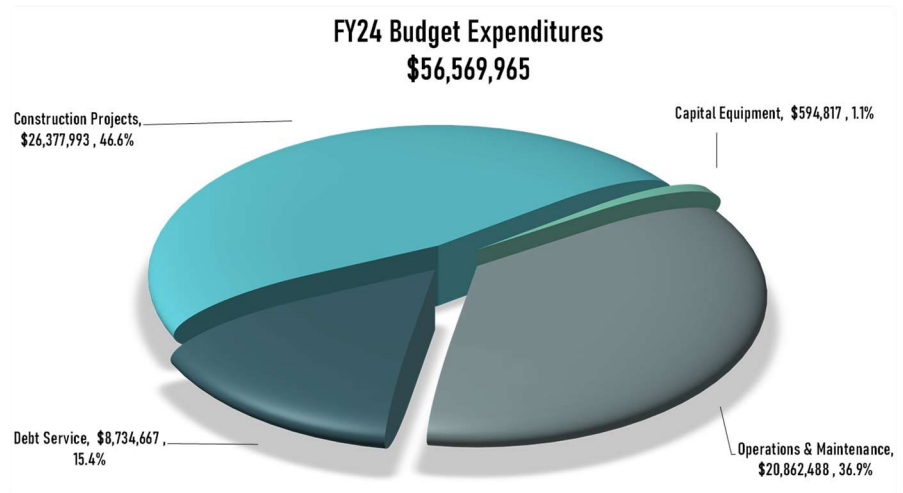
1. Repairs and Maintenance—A majority of the Districts' approximately 1,140 miles of collection lines are between thirty and one hundred years old. While many capital projects are planned and in process, these aging facilities often require frequent repairs and maintenance costs prior to commencement of a major rehabilitation funded in the CIP. The Asset Management Plan calls for periodic maintenance and



and repairs. The District has 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 6.3% 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 FY2009, GASB45 required the recognition of cost for Post-Employment Health Benefits. Current funding represents 1.4% of total operations.



**METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY, NORTH CAROLINA**

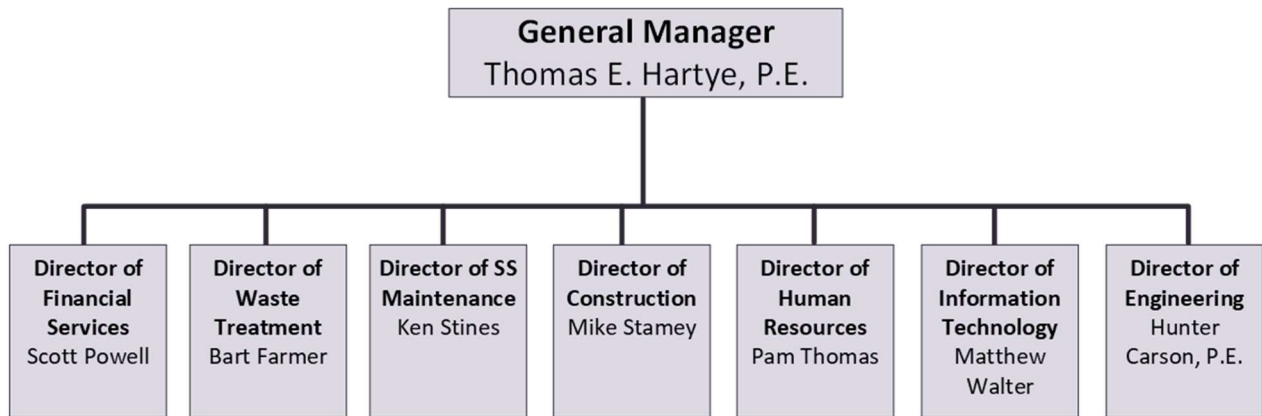
## FY2024 Budget – All Departments Summary

No.	Name	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc (Dec) Over Prior Year
<b>Salaries &amp; Wages</b>									
51100	Salaries & Wages	\$ 8,980,201	\$ 8,838,699	\$ 8,812,963	\$ 10,009,984	\$ 9,956,966	99.47%	\$ 10,505,074	4.95%
51150	Overtime	276,671	228,385	236,235	339,500	339,500	100.00%	351,600	3.56%
<b>Total Salaries &amp; Wages</b>		<b>9,256,872</b>	<b>9,067,084</b>	<b>9,049,198</b>	<b>10,349,484</b>	<b>10,296,466</b>	<b>99.49%</b>	<b>10,856,674</b>	<b>4.90%</b>
<b>Benefits</b>									
51200	North Carolina Retirement	855,631	945,243	1,036,056	1,256,429	1,251,337	99.59%	1,399,426	11.38%
51250	Payroll Taxes	679,958	666,404	671,220	791,737	789,670	99.74%	830,534	4.90%
51300	Medical, Dental & Life	2,327,175	2,478,441	2,639,540	2,811,110	2,811,110	100.00%	2,993,840	6.50%
51325	Post Retirement Insurance	283,000	283,000	276,555	283,000	283,000	100.00%	283,000	0.00%
51350	Worker's Compensation	273,000	273,000	273,000	273,000	273,000	100.00%	273,000	0.00%
51360	State Unemployment Benefits	1,211	2,150	323	32,560	32,560	100.00%	32,560	0.00%
51450	Automobile Allowance	-	3,600	3,600	3,600	3,600	100.00%	3,600	0.00%
51500	401-K/457 Plan	405,998	403,299	411,949	491,107	489,756	99.72%	525,260	6.95%
<b>Total Benefits</b>		<b>4,825,973</b>	<b>5,055,138</b>	<b>5,312,244</b>	<b>5,942,543</b>	<b>5,934,033</b>	<b>99.86%</b>	<b>6,341,220</b>	<b>6.71%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>14,082,845</b>	<b>14,122,222</b>	<b>14,361,442</b>	<b>16,292,027</b>	<b>16,230,499</b>	<b>99.62%</b>	<b>17,197,894</b>	<b>5.56%</b>
<b>Materials, Supplies &amp; Services</b>									
52010	Advertising	20,447	12,157	27,692	35,500	35,100	98.87%	36,000	1.41%
52050	Dues & Subscriptions	56,164	54,883	48,441	66,045	61,745	93.49%	70,255	6.37%
52100	Postage	12,379	13,978	10,077	14,000	12,000	85.71%	14,000	0.00%
52150	Travel, Mtgs & Training	109,854	60,590	114,963	180,337	178,202	98.82%	205,120	13.74%
52160	Tuition Assistance	3,752	683	2,738	8,000	6,000	75.00%	9,000	12.50%
52170	Directors Fees & Expenses	23,626	19,858	18,399	24,000	20,000	83.33%	22,000	-8.33%
52180	Liability Insurance	547,746	547,746	602,521	662,775	662,775	100.00%	662,775	0.00%
52200	Telephone/Telefax	32,243	43,945	24,509	30,200	30,200	100.00%	30,200	0.00%
52210	Communications	116,755	112,951	124,267	161,740	153,740	95.05%	157,004	-2.93%
52240	Uniforms	70,761	67,991	67,756	92,130	87,135	94.58%	94,285	2.34%
52250	Office Supplies	15,578	16,517	15,748	23,150	23,050	99.57%	23,200	0.22%
52260	Special Dept Supplies	371,347	369,374	368,678	492,795	492,695	99.98%	507,370	2.96%
52270	Safety Equip/Supplies	75,345	52,067	65,393	91,050	91,050	100.00%	91,100	0.05%
52280	Maint Supp/Small Tools	116,886	121,363	116,553	155,650	155,650	100.00%	155,650	0.00%
52290	Chemical Supplies	377,527	408,502	341,289	1,508,100	774,000	51.32%	1,543,187	2.33%
52300	Line Cleaning Supplies	53,965	49,675	44,207	53,750	53,750	100.00%	53,750	0.00%
52330	Legal Fees	46,054	24,593	14,860	39,000	37,000	94.87%	40,000	2.56%
52350	Prof/Contractual Svcs	431,549	478,081	462,439	712,354	672,555	94.41%	742,938	4.29%
52410	Maint-Buildings & Grounds	192,651	191,120	208,337	271,500	271,500	100.00%	281,500	3.68%
52420	Maintenance-Equipment	461,976	463,812	357,184	505,800	505,800	100.00%	515,500	1.92%
52430	Landscape Restoration	8,797	8,502	8,147	13,701	13,701	100.00%	13,701	0.00%
52440	Pump Maintenance	59,170	82,519	87,005	102,500	102,500	100.00%	102,500	0.00%
52450	Equipment Rental	16,105	16,633	8,703	41,500	41,500	100.00%	41,500	0.00%
52460	Motor Fuel & Lubricants	138,984	127,190	217,277	270,000	270,000	100.00%	290,000	7.41%
52470	Outside Vehicle Maint	2,773	16,351	23,237	28,000	28,000	100.00%	30,000	7.14%
52500	Rents/Leases	42,594	44,429	48,159	50,000	50,000	100.00%	56,000	12.00%
52510	Permits/Fees/Software Licenses	249,314	283,688	290,853	341,778	323,412	94.63%	385,288	12.73%
52650	Utilities	1,065,903	958,184	1,308,441	1,349,500	1,349,500	100.00%	1,500,000	11.15%
52690	Freight	5,435	5,391	7,926	7,000	7,000	100.00%	8,000	14.29%
52715	Safety Incentive Program	1,287	1,393	2,166	2,500	2,500	100.00%	2,500	0.00%
52725	Wellness Program	6,995	442	3,019	7,500	7,500	100.00%	7,500	0.00%
52730	Employee Asst Program	4,355	4,355	4,355	5,000	5,000	100.00%	5,000	0.00%
52900	Other Operating Expenses	1,307	4,810	390	2,000	2,000	100.00%	2,000	0.00%
52910	Non-Capital Equipment	82,207	77,041	65,693	105,291	102,241	97.10%	104,558	-0.70%
52915	Copiers Printers & Faxes	-	-	-	5,000	5,000	100.00%	5,000	0.00%
52920	Billing & Collections	852,981	983,058	1,021,457	1,019,478	1,019,478	100.00%	1,157,474	13.54%
<b>Total Materials, Supplies &amp; Services</b>		<b>5,674,813</b>	<b>5,723,877</b>	<b>6,132,881</b>	<b>8,478,624</b>	<b>7,653,279</b>	<b>90.27%</b>	<b>8,965,855</b>	<b>5.75%</b>
<b>Interfund Transfers</b>									
52340	Debt Administration Expenses	163,685	132,255	122,582	148,373	148,373	100.00%	141,063	-4.93%
53040	Fleet Replacement Charges	500,000	500,000	595,000	595,000	595,000	100.00%	595,000	0.00%
53050	WWTP Replacement Charges	200,000	200,000	200,000	200,000	200,000	100.00%	250,000	25.00%
53070	Pump Replacement Charges	50,000	50,000	55,000	55,000	55,000	100.00%	60,000	9.09%
<b>Total Interfund Transfers</b>		<b>913,685</b>	<b>882,255</b>	<b>972,582</b>	<b>998,373</b>	<b>998,373</b>	<b>100.00%</b>	<b>1,046,063</b>	<b>4.78%</b>
<b>Capital Outlay</b>									
54010	Capital Equipment - New	62,702	63,658	29,138	39,454	37,454	94.93%	43,550	10.38%
54020	Capital Equip-Software	-	-	-	-	-	-	-	-
54030	Capital Equip - Replacement	89,601	64,143	40,341	63,595	57,595	90.57%	66,648	4.80%
<b>Total Capital Outlay</b>		<b>152,303</b>	<b>127,801</b>	<b>69,479</b>	<b>103,049</b>	<b>95,049</b>	<b>92.24%</b>	<b>110,198</b>	<b>6.94%</b>
<b>Sub-Total O&amp;M Fund</b>		<b>\$ 20,823,646</b>	<b>\$ 20,856,154</b>	<b>\$ 21,536,383</b>	<b>\$ 25,872,073</b>	<b>\$ 24,977,200</b>	<b>96.54%</b>	<b>27,320,010</b>	<b>5.60%</b>
<b>59200 LESS:</b>									
	Chargebacks to General Fund for CIP	(2,670,068)	(2,655,960)	(2,659,532)	(3,104,950)	(3,104,245)	99.98%	(3,281,040)	5.67%
	Chargebacks to General Fund for SSD	(1,766,213)	(1,782,378)	(1,702,644)	(1,996,798)	(1,996,798)	100.00%	(2,099,230)	5.13%
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 16,387,365</b>	<b>\$ 16,417,816</b>	<b>\$ 17,174,208</b>	<b>\$ 20,770,325</b>	<b>\$ 19,876,157</b>	<b>95.69%</b>	<b>\$ 21,939,740</b>	<b>5.63%</b>



## 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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
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 2022-2023

- Construction for High-Rate Primary Treatment (HRPT) Project is complete. Start-up testing is underway.
- Incorporated \$275 million of Treatment Plant/Pump Station improvements within 10-year CIP for MSD to meet future regulations and growth for next 50 years
- Design of Carrier Bridge Pump Station (\$65 million) over 90% complete, environmental permitting underway.
- Replaced or rehabbed approximately 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 2023-2024

- ▲ 5.0% rate increase for customers.
- ▲ 6.3% wage increase for employees for Cost of Living Adjustment (COLA).
- ▲ Keep rate increases low and consistent based on long-term financial model
- ▲ Includes completing Capital Improvements of approximately \$26 Million
- ▲ Reflects 6.5% increase in medical plan contributions
- ▲ Includes 6.2% 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)
- ⊙ 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)

## Office of the General Manager (continued)

### Performance Measures

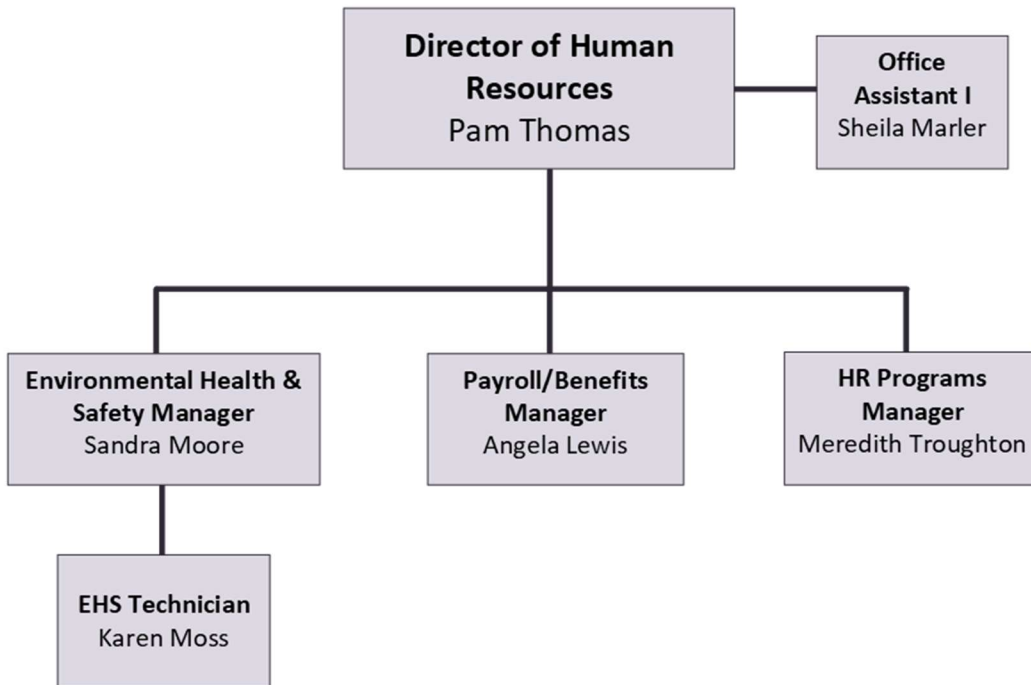
1. Oversight of compliance matters—see performance measures for Systems Services and Water Reclamation facility departments
2. Fiscal management—see performance measures for Finance Department

## FY2024 Budget – Office of the General Manager

No.	Name	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc (Dec) Over Prior Year
<b>Salaries &amp; Wages</b>									
51100	Salaries & Wages	\$ 223,699	\$ 213,238	\$ 204,179	\$ 225,358	\$ 225,358	100.00%	\$ 239,556	6.30%
<b>Total Salaries &amp; Wages</b>		<b>223,699</b>	<b>213,238</b>	<b>204,179</b>	<b>225,358</b>	<b>225,358</b>	<b>100.00%</b>	<b>239,556</b>	<b>6.30%</b>
<b>Benefits</b>									
51200	North Carolina Retirement	20,526	22,202	24,673	27,105	27,105	100.00%	30,879	13.92%
51250	Payroll Taxes	12,729	11,040	11,656	17,081	17,081	100.00%	18,326	7.29%
51300	Medical, Dental & Life	15,412	16,306	17,366	18,493	18,493	100.00%	19,696	6.51%
51325	Post Retirement Insurance	1,874	1,862	1,862	1,862	1,862	100.00%	1,862	0.00%
51350	Worker's Compensation	1,808	1,796	1,796	1,796	1,796	100.00%	1,796	0.00%
51360	State Unemployment Benefits	-	14	-	215	215	100.00%	215	0.00%
51500	401-K/457 Plan	10,167	10,119	10,491	11,164	11,164	100.00%	11,978	7.29%
<b>Total Benefits</b>		<b>62,516</b>	<b>63,340</b>	<b>67,843</b>	<b>77,716</b>	<b>77,716</b>	<b>100.00%</b>	<b>84,752</b>	<b>9.05%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>286,215</b>	<b>276,578</b>	<b>272,023</b>	<b>303,074</b>	<b>303,074</b>	<b>100.00%</b>	<b>324,308</b>	<b>7.01%</b>
<b>Materials, Supplies &amp; Services</b>									
52010	Advertising	5,635	4,861	10,757	10,000	10,000	100.00%	10,000	0.00%
52050	Dues & Subscriptions	13,654	12,400	7,378	11,000	11,000	100.00%	14,000	27.27%
52100	Postage	12,379	13,978	10,077	14,000	12,000	85.71%	14,000	0.00%
52150	Travel, Mtgs & Training	4,312	42	615	4,000	3,000	75.00%	4,000	0.00%
52170	Directors Fees & Expenses	23,626	19,858	18,399	24,000	20,000	83.33%	22,000	-8.33%
52180	Liability Insurance	105,099	105,099	115,609	127,170	127,170	100.00%	127,170	0.00%
52210	Communications	2,381	2,550	1,870	4,000	4,000	100.00%	4,000	0.00%
52250	Office Supplies	301	5	681	400	400	100.00%	900	125.00%
52260	Special Dept Supplies	471	595	172	645	645	99.98%	300	-53.50%
52270	Safety Equip/Supplies	-	824	-	-	-	-	-	-
52330	Legal Fees	43,540	14,144	8,524	29,000	27,000	93.10%	30,000	3.45%
52350	Prof/Contractual Svcs	60,812	21,756	21,102	29,805	24,000	80.52%	29,000	-2.70%
52410	Maint-Buildings & Grounds	136,817	144,391	159,085	200,000	200,000	100.00%	210,000	5.00%
52420	Maintenance-Equipment	-	-	-	300	300	100.00%	-	-100.00%
52500	Rents/Leases	3,192	4,148	3,289	5,000	5,000	100.00%	5,000	0.00%
52510	Permits/Fees/Software Licenses	223	184	192	350	350	100.00%	400	14.29%
52650	Utilities	66,858	74,216	90,537	100,000	100,000	100.00%	100,000	0.00%
52690	Freight	5,435	5,391	7,926	7,000	7,000	100.00%	8,000	14.29%
52900	Other Operating Expenses	1,307	4,810	390	2,000	2,000	100.00%	2,000	0.00%
52910	Non-Capital Equipment	-	-	-	-	-	-	-	-
52920	Billing & Collections	852,981	983,058	1,021,457	1,019,478	1,019,478	100.00%	1,157,474	13.54%
<b>Total Materials, Supplies &amp; Services</b>		<b>1,339,022</b>	<b>1,412,309</b>	<b>1,478,061</b>	<b>1,588,148</b>	<b>1,573,343</b>	<b>99.07%</b>	<b>1,738,244</b>	<b>9.45%</b>
<b>Interfund Transfers</b>									
53040	Fleet Replacement Charges	8,715	8,715	10,371	10,371	10,371	100.00%	10,371	0.00%
<b>Total Interfund Transfers</b>		<b>8,715</b>	<b>8,715</b>	<b>10,371</b>	<b>10,371</b>	<b>10,371</b>	<b>100.00%</b>	<b>10,371</b>	<b>0.00%</b>
<b>Capital Outlay</b>									
54010	Capital Equipment - New	-	-	-	-	-	-	-	-
<b>Total Capital Outlay</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Sub-Total O&amp;M Fund</b>		<b>1,633,952</b>	<b>1,697,601</b>	<b>1,760,454</b>	<b>1,901,593</b>	<b>1,886,788</b>	<b>99.22%</b>	<b>2,072,923</b>	<b>9.01%</b>
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 1,633,952</b>	<b>\$ 1,697,601</b>	<b>\$ 1,760,454</b>	<b>\$ 1,901,593</b>	<b>\$ 1,886,788</b>	<b>99.22%</b>	<b>\$ 2,072,923</b>	<b>9.01%</b>

## 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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
<b>Department of Human Resources</b>			
<b>Management:</b>			
Director of Human Resources	1	1	1
<b>Total Management</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Human Resources:</b>			
Floater	1	0	0
Office Assistant I	1	1	1
HR Programs Manager	1	1	1
Payroll/Benefits Manager	1	1	1
<b>Total Human Resources</b>	<b>4</b>	<b>3</b>	<b>3</b>
<b>Environmental, Health &amp; Safety:</b>			
EHS Safety Technician	1	1	1
Environmental, Health & Safety Manager	1	1	1
<b>Total Environmental, Health &amp; Safety</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Total - Human Resources Department</b>	<b>7</b>	<b>6</b>	<b>6</b>

### Accomplishments for FY 2022-2023

- Conducted & implemented a pay study.
- Re-vamped our succession planning program and interviewed all district employees.
- Attended 3 job fairs.
- Completed paperless pay checks for all employees.
- Streamlined case management to reduce costs.
- Pharmaceuticals that started in 2022 have saved the district 75% savings.
- Bought 5 blood pressure monitors on campus.
- Established an in house CDL program.
- Obtained a UST number for our underground gas tank.
- The Safety Department initiated MSD vehicle lights to be mounted on top of vehicles based on the Manual Uniform Traffic Control Devices (MUTCD), NCDOT.



## Human Resources (continued)

### Accomplishments for FY 2022-2023 (continued)

- Safety Manuals updated and new ones printed.
- ISO 14001 has newly trained auditors (3).
- Replaced 2 eye wash stations.

### Budget Highlights for FY 2023-2024

- ▲ Change our HRIS system from Sage to Navision.
- ▲ Change programs for pre-employment background check.
- ▲ Provide more training on retirement and Social Security.

### 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
- ⊙ Goal: Process payroll in a timely and accurate manner (MSD Objective #3)
  - ↪ Objective: No errors in paychecks
- ⊙ 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

## Human Resources (continued)

### Goals & Objectives (continued)

- ⦿ 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: 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

## Human Resources (continued)

### Performance Measures

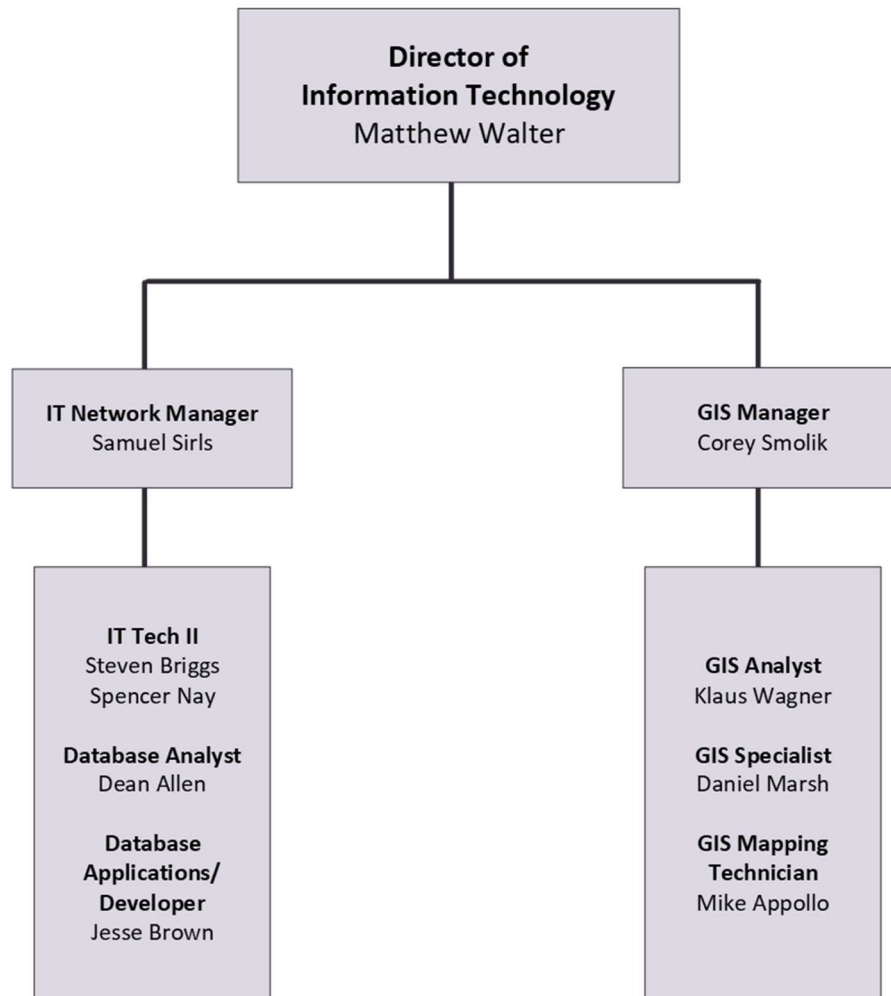
Task	FY21-22	FY22-23	FY23-24 (est.)
1. Monitor and evaluate Skill Based Pay System	Yes	Yes	Yes
2. Assist in the administration of the Employee Wellness Program	Yes	Yes	Yes
3. # of external vacancies	14	15	14
4. Avg. # of days to fill vacancies	40	40	45
5. Avg. advertising cost per vacancy	\$400	\$400	\$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	5	5	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>	4	6	3
11. Number of Lost Time Injuries <small>(calendar year)</small>	2	2	2
12. Incident Rate NAICS <small>(calendar year) *(total case)</small>	1.91	4	1.97
13. Inspections/Audits <small>(calendar year)</small>	25/75+	25/75+	61
14. Random Alcohol and Drug Tests for Safety Sensitive drivers <small>(calendar year)</small>	36	40	28
15. EHS Training classes conducted <small>(calendar year)</small>	77	112	45

## FY2024 Budget – Human Resources

No.	Name	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc (Dec) Over Prior Year
<b>Salaries &amp; Wages</b>									
51100	Salaries & Wages	\$ 384,230	\$ 385,458	\$ 384,326	\$ 455,294	\$ 455,294	100.00%	\$ 485,200	6.57%
51150	Overtime	81	-	-	-	-	-	-	-
<b>Total Salaries &amp; Wages</b>		<b>384,311</b>	<b>385,458</b>	<b>384,326</b>	<b>455,294</b>	<b>455,294</b>	<b>100.00%</b>	<b>485,200</b>	<b>6.57%</b>
<b>Benefits</b>									
51200	North Carolina Retirement	35,516	40,144	44,126	55,526	55,526	100.00%	62,543	12.64%
51250	Payroll Taxes	30,973	28,872	30,774	34,990	34,990	100.00%	37,118	6.08%
51300	Medical, Dental & Life	107,883	114,139	121,558	129,460	129,460	100.00%	137,876	6.50%
51325	Post Retirement Insurance	13,119	13,033	13,033	13,033	13,033	100.00%	13,033	0.00%
51350	Worker's Compensation	12,656	12,573	12,573	12,573	12,573	100.00%	12,573	0.00%
51360	State Unemployment Benefits	-	99	-	1,499	1,499	100.00%	1,499	0.00%
51500	401-K/457 Plan	18,010	18,964	18,740	22,870	22,870	100.00%	24,261	6.08%
<b>Total Benefits</b>		<b>218,158</b>	<b>227,824</b>	<b>240,803</b>	<b>269,951</b>	<b>269,951</b>	<b>100.00%</b>	<b>288,903</b>	<b>7.02%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>602,469</b>	<b>613,282</b>	<b>625,129</b>	<b>725,245</b>	<b>725,245</b>	<b>100.00%</b>	<b>774,103</b>	<b>6.74%</b>
<b>Materials, Supplies &amp; Services</b>									
52010	Advertising	8,075	3,907	10,046	15,000	15,000	100.00%	15,000	0.00%
52050	Dues & Subscriptions	4,564	4,249	4,401	6,505	5,505	84.63%	6,505	0.00%
52150	Travel, Mtgs & Training	7,828	7,598	9,737	23,100	22,500	97.40%	23,000	-0.43%
52160	Tuition Assistance	3,752	683	2,738	8,000	6,000	75.00%	9,000	12.50%
52180	Liability Insurance	1,695	1,695	1,864	2,050	2,050	100.00%	2,050	0.00%
52210	Communications	5,502	21,174	18,016	26,060	26,060	100.00%	26,060	0.00%
52240	Uniforms	364	772	1,578	1,385	1,385	100.00%	1,385	0.00%
52250	Office Supplies	1,988	2,681	2,669	3,450	3,450	100.00%	3,450	0.00%
52260	Special Dept Supplies	2,081	2,004	1,874	4,300	4,300	100.00%	4,300	0.00%
52270	Safety Equip/Supplies	15,629	9,281	14,168	23,000	23,000	100.00%	23,000	0.00%
52280	Maint Supp/Small Tools	-	-	-	-	-	-	-	-
52330	Legal Fees	1,574	10,019	5,770	8,000	8,000	100.00%	8,000	0.00%
52350	Prof/Contractual Svcs	42,320	46,283	50,986	123,805	122,955	99.31%	125,630	1.47%
52410	Maint-Buildings & Grounds	-	-	-	500	500	100.00%	500	0.00%
52420	Maintenance-Equipment	258	11	2,619	6,000	6,000	100.00%	6,000	0.00%
52510	Permits/Fees/Software Licenses	68	67	67	100	100	100.00%	100	0.00%
52715	Safety Incentive Program	1,287	1,393	2,166	2,500	2,500	100.00%	2,500	0.00%
52725	Wellness Program	6,995	442	3,019	7,500	7,500	100.00%	7,500	0.00%
52730	Employee Asst Program	4,355	4,355	4,355	5,000	5,000	100.00%	5,000	0.00%
52910	Non-Capital Equipment	11,425	18,323	10,076	10,500	10,500	100.00%	15,828	50.74%
<b>Total Materials, Supplies &amp; Services</b>		<b>119,758</b>	<b>134,939</b>	<b>146,149</b>	<b>276,755</b>	<b>272,305</b>	<b>98.39%</b>	<b>284,808</b>	<b>2.91%</b>
<b>Interfund Transfers</b>									
53040	Fleet Replacement Charges	2,254	2,254	2,683	2,683	2,683	100.00%	2,683	0.00%
<b>Total Interfund Transfers</b>		<b>2,254</b>	<b>2,254</b>	<b>2,683</b>	<b>2,683</b>	<b>2,683</b>	<b>100.00%</b>	<b>2,683</b>	<b>0.00%</b>
<b>Capital Outlay</b>									
54010	Capital Equipment - New	-	-	2,499	-	-	-	-	-
<b>Total Capital Outlay</b>		<b>-</b>	<b>-</b>	<b>2,499</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Sub-Total O&amp;M Fund</b>		<b>724,481</b>	<b>750,474</b>	<b>776,460</b>	<b>1,004,683</b>	<b>1,000,233</b>	<b>99.56%</b>	<b>1,061,594</b>	<b>5.66%</b>
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 724,481</b>	<b>\$ 750,474</b>	<b>\$ 776,460</b>	<b>\$ 1,004,683</b>	<b>\$ 1,000,233</b>	<b>99.56%</b>	<b>\$ 1,061,594</b>	<b>5.66%</b>

## 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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
<b>Department of Information Technology</b>			
<b>Management:</b>			
Director of IT	1	1	1
<b>Total Management</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Information Technology:</b>			
IT Technician II	2	2	2
IT Manager	1	1	1
Database Analyst	1	1	1
Network Database Administrator	1	1	1
<b>Total IT</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Geographic Information Systems (GIS):</b>			
GIS Mapping Technician	1	1	1
GIS Analyst	1	1	1
GIS Specialist	1	1	1
GIS Manager	1	1	1
<b>Total GIS</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Total – Information Technology Department</b>	<b>10</b>	<b>10</b>	<b>10</b>

### Accomplishments for FY 2022-2023

- Provided on-going training, support, and application customization to all divisions.
- Increased CityWorks report library for multiple divisions, SQL automation processes, and numerous software customizations for MSD.
- Upgraded Cityworks to latest major release for AMS, PLL, and Public Portal.
- CityWorks PLL workflows expended for Planning and Development.
- Completed MFA rollout for servers, workstations, and Office 365 accounts for all employees.
- Extended computer networks into new Plant, Storage, and Training buildings.
- Installed 6 computers and 2 large displays at the new Training Center.
- Replaced all security badge door/gate readers and software for MSD campus.

## Information Technology (continued)

### Accomplishments for FY 2022-2023 (continued)

- Network quazite near Septage Receiving Station replaced to support more weight and improved visibility.
- Installed 11 cameras at the new MSD Storage Buildings.
- Upgraded NVR for Treatment Plant camera system.
- Replaced/configured new Board Room iPads.
- 25+ laptops and PCs configured and deployed for MSD employees.
- Updated pump station mapping suitable for expanded integration of Cityworks, including use of drone aerial image capture of pump station alterations in real-time.
- Expanded web and mobile solutions to streamline field navigation and workflows as needed, including providing permit application support for MSD's engineering division.
- Participate in presentations for mapping use in wastewater classes and in-house general instruction classes.
- Mapped changes to subterranean infrastructure, such as new fiber optic and telephone lines, around MSD campus.
- Made improvements to GIS system to accommodate changes in data acquired from other agencies.
- Updated MSD's information on population served using 2020 US Census Bureau data, as modified by US Census Bureau projection for the fiscal year.
- Intensified configuration and testing of next generation ArcGIS desktop, web, and mobile applications.
- Began preparation of training courses for ArcGIS desktop users who will be using next generation ArcGIS tools this coming fiscal year.
- Ongoing preparation of street maintenance layer for MSD service area within Henderson County
- Ongoing integration of CCWSD CCTV inspections into MSD's CCTV inspection management system.
- Improved the quality and accuracy of billed service locations through improved coordination with City of Asheville and Town of Weaverville IT staff.



## Information Technology (continued)

### Goals & Objectives

- ⦿ Goal: Provide all MSD staff with outstanding customer service.
- ⦿ 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: 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: Upgrade existing servers and software.
  - ↪ Objective: Upgrade the Business server and GraniteNet software.
  - ↪ Objective: Implement Cityworks Storeroom for Plant Maintenance.
- ⦿ Goal: Complete network segregation.
  - ↪ Separate networks for workstations, internal-only servers, and public-facing servers.
- ⦿ 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: 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.
- ⦿ 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: Add to observational capacity of technician, including push camera capacity and potentially drone use to capture new development in real-time.
  - ↪ Objective: Report observations to GIS for system update.
  - ↪ Objective: Report infrastructure condition to System Services Division.
- ⦿ Goal: Improve efficiency of system-wide accuracy verification and improvement project.
  - ↪ Objective: Develop improved fieldwork planning methodologies to minimize trips needed for map improvement projects.
  - ↪ Objective: Add advanced queries and visual aids to place focus on the areas in most need of map accuracy improvements.
- ⦿ Goal: Processing 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.
  - ↪ Objective: All submitted field locates will be measured and entered using high-accuracy GPS.

## Information Technology (continued)

### Goals & Objectives (continued)

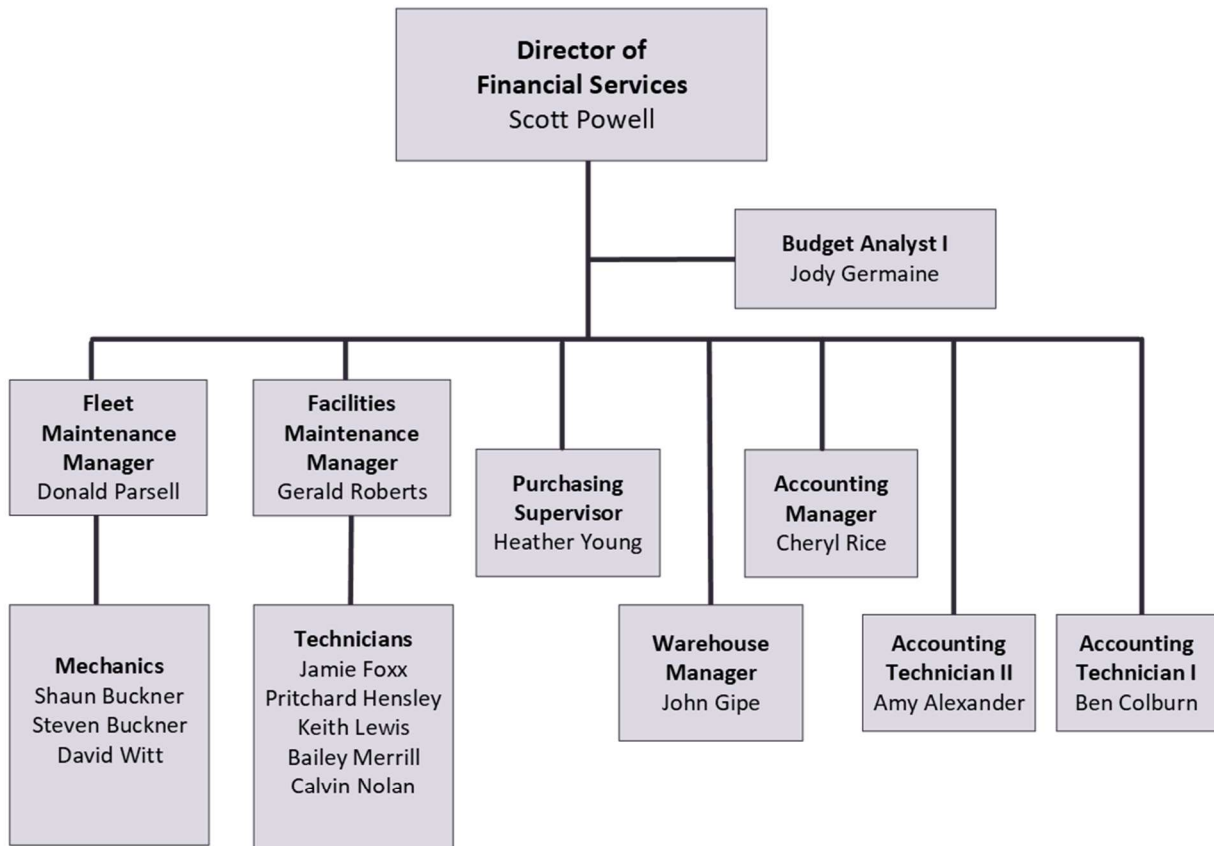
- ⦿ Goal: Upgrade ArcGIS database and desktop to ArcGIS Pro
  - ↪ Objective: Convert desktop applications from ArcMap to ArcGIS Pro.
  - ↪ Objective: Upgrade Enterprise Geodatabases to most current version of ArcGIS.
  - ↪ Objective: Convert automated operations to work with ArcGIS Pro programming environment.
  - ↪ Objective: Upgrade ArcGIS Enterprise server and provisioning environment.
  - ↪ Objective: Develop and deliver training classes for users converting from ArcMap to ArcGIS Pro.
  - ↪ Objective: Preserve a legacy environment for users who are near retirement.
- ⦿ Goal: Improve data sharing between MSD and our billing partners.
  - ↪ Objective: Streamline information sharing of address and billing data with all organizations who perform billing services on behalf of MSD.
  - ↪ Objective: Improve quality and accuracy of information produced and shared with MSD billing staff.
  - ↪ Objective: Improve the feedback loop between MSD and billing partners when inaccuracies are discovered.

## FY2024 Budget – Information Technology

No.	Name	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc (Dec) Over Prior Year
<b>Salaries &amp; Wages</b>									
51100	Salaries & Wages	\$ 746,836	\$ 736,836	\$ 719,973	\$ 805,329	\$ 805,329	100.00%	\$ 849,062	5.43%
51150	Overtime	-	-	-	-	-	-	-	-
<b>Total Salaries &amp; Wages</b>		<b>746,836</b>	<b>736,836</b>	<b>719,973</b>	<b>805,329</b>	<b>805,329</b>	<b>100.00%</b>	<b>849,062</b>	<b>5.43%</b>
<b>Benefits</b>									
51200	North Carolina Retirement	69,346	76,855	83,452	97,766	97,766	100.00%	109,444	11.94%
51250	Payroll Taxes	55,741	54,024	53,661	61,607	61,607	100.00%	64,953	5.43%
51300	Medical, Dental & Life	154,116	163,055	173,653	184,940	184,940	100.00%	196,962	6.50%
51325	Post Retirement Insurance	18,742	18,618	18,618	18,618	18,618	100.00%	18,618	0.00%
51350	Worker's Compensation	18,078	17,960	17,960	17,960	17,960	100.00%	17,960	0.00%
51360	State Unemployment Benefits	-	141	-	2,142	2,142	100.00%	2,142	0.00%
51500	401-K/457 Plan	36,748	36,671	36,202	40,267	40,267	100.00%	42,454	5.43%
<b>Total Benefits</b>		<b>352,770</b>	<b>367,325</b>	<b>383,546</b>	<b>423,300</b>	<b>423,300</b>	<b>100.00%</b>	<b>452,533</b>	<b>6.91%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>1,099,606</b>	<b>1,104,161</b>	<b>1,103,519</b>	<b>1,228,629</b>	<b>1,228,629</b>	<b>100.00%</b>	<b>1,301,595</b>	<b>5.94%</b>
<b>Materials, Supplies &amp; Services</b>									
52050	Dues & Subscriptions	433	762	598	500	500	100.00%	500	0.00%
52150	Travel, Mtgs & Training	1,066	2,005	-	5,452	5,452	100.00%	1,500	-72.49%
52180	Liability Insurance	10,557	10,557	11,613	12,775	12,775	100.00%	12,775	0.00%
52200	Telephone/Telefax	32,243	43,945	24,509	30,200	30,200	100.00%	30,200	0.00%
52210	Communications	7,507	6,294	7,948	9,680	9,680	100.00%	10,984	13.47%
52240	Uniforms	359	933	233	700	700	100.00%	500	-28.57%
52250	Office Supplies	727	61	328	500	500	100.00%	500	0.00%
52260	Special Dept Supplies	1,499	464	521	500	500	100.00%	500	0.00%
52270	Safety Equip/Supplies	261	38	-	1,000	1,000	100.00%	1,000	0.00%
52280	Maint Supp/Small Tools	48	-	-	1,650	1,650	100.00%	1,650	0.00%
52350	Prof/Contractual Svcs	4,204	9,283	4,357	12,200	12,200	100.00%	12,500	2.46%
52500	Rents/Leases	38,602	39,481	44,070	44,000	44,000	100.00%	50,000	13.64%
52510	Permits/Fees/Software Licenses	199,791	200,596	216,024	229,528	229,528	100.00%	276,888	20.63%
52910	Non-Capital Equipment	52,221	38,811	29,108	49,746	49,746	100.00%	55,000	10.56%
52915	Copiers Printers & Faxes	-	-	-	5,000	5,000	100.00%	5,000	0.00%
<b>Total Materials, Supplies &amp; Services</b>		<b>349,518</b>	<b>353,230</b>	<b>339,308</b>	<b>403,431</b>	<b>403,431</b>	<b>100.00%</b>	<b>459,497</b>	<b>13.90%</b>
<b>Capital Outlay</b>									
54010	Capital Equipment - New	12,400	10,347	2,610	11,514	11,514	100.00%	13,500	17.25%
54020	Capital Equip-Software	-	-	-	-	-	-	-	-
54030	Capital Equip - Replacement	29,053	14,970	21,910	15,000	15,000	100.00%	26,323	75.49%
<b>Total Capital Outlay</b>		<b>41,452</b>	<b>25,317</b>	<b>24,520</b>	<b>26,514</b>	<b>26,514</b>	<b>100.00%</b>	<b>39,823</b>	<b>50.20%</b>
<b>Sub-Total O&amp;M Fund</b>		<b>\$ 1,490,576</b>	<b>\$ 1,482,708</b>	<b>\$ 1,467,347</b>	<b>\$ 1,658,574</b>	<b>\$ 1,658,574</b>	<b>100.00%</b>	<b>\$ 1,800,915</b>	<b>8.58%</b>
<b>59200 LESS:</b>									
	Chargebacks to General Fund for CIP	(319,791)	(322,577)	(296,199)	(359,740)	(359,740)	100.00%	(370,971)	3.12%
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 1,170,785</b>	<b>\$ 1,160,131</b>	<b>\$ 1,171,148</b>	<b>\$ 1,298,834</b>	<b>\$ 1,298,834</b>	<b>100.00%</b>	<b>\$ 1,429,944</b>	<b>10.09%</b>

## 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, 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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
<b>Accounting, Investments &amp; Cash Flow Management:</b>			
Accounting Technician I	1	1	1
Accounting Technician II	1	1	1
Accounting Manager	1	1	1
<b>Total Acct., Investments &amp; Cash Flow Management</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>Purchasing &amp; Warehouse:</b>			
Purchasing Agent I	1	0	0
Warehouse Manager	0	1	1
Purchasing Supervisor	1	1	1
<b>Total Purchasing &amp; Warehouse</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Facilities Maintenance: (moved to Finance Division in FY20)</b>			
Facility Maintenance Technician	5	5	5
Facilities Maintenance Supervisor	1	1	1
<b>Total Structural Maintenance</b>	<b>6</b>	<b>6</b>	<b>6</b>
<b>Fleet Maintenance: (moved to Finance Division in FY20)</b>			
Fleet Mechanic I	0	0	1
Fleet Mechanic III	3	3	2
Fleet Maintenance Supervisor	1	1	1
<b>Total Fleet Maintenance</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Total – Financial Services Department</b>	<b>17</b>	<b>17</b>	<b>17</b>

### Accomplishments for FY 2022-2023

- Received the GFOA “Excellence in Financial Reporting” award for the Annual Comprehensive Financial Report (ACFR) for FY ending June 30, 2022.
- Received the GFOA “Distinguished Budget” award for the Budget Document prepared for FY ending June 30, 2023.
- Continue to offer high level of Customer Service to all customers internal and external to the District.
- Purchasing and Finance Team continue to implement and enhance its E-Payables program with Bank of America.



## Financial Services (continued)

### Accomplishments for FY 2022-2023 (continued)

- 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 ACFR and other financial information, which effectively meet manager, investor, regulator, and other user needs
  - ↪ *Objective:* Obtain outside verification of the effectiveness of the ACFR 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, 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	FY20-21	FY21-22	FY22-23 (est.)
1. Receive the Distinguished Budget Presentation Award	yes	yes	Yes
2. Receipt of GFOA Excellence in Financial Reporting Award for ACFR	yes	yes	Yes
3. ACFR and budget document available on website	yes	yes	Yes
4. District debt rating Moody's/Standard & Poor's/Fitch	Aaa/AA+	Aaa/AA+	Aaa/AA+
5. Fitch Ratings	AA+	AA+	AAA
6. Compliance with all provisions of bond order	yes	yes	yes
7. Southern Urban COL % increase	1.35%	8.1%	6.3%
8. MSD rate increase	0.00%	2.75%	3.0%
Comments: Assesses affordability of sewer rate increases when compared to overall regional price increases.			
9. Ratio of actual to budgeted sewer revenues	108.69%	105.32%	102.00%
10. Ratio of operating and maintenance total expenditures actual to budgeted	89.50%	90.01%	95.69%
Comments: These illustrate the accuracy of financial projections and adequacy of revenues to meet expenditures.			
11. Interest and debt management costs as a percentage of outstanding debt	3.83%	3.48%	4.13%
12. MSD Investment Yield	0.03%	1.49%	4.98%
13. NC Cash Management Trust (Money Market)	0.01%	0.98%	5.00%
14. 6-Month T-Bill Secondary Market (Calendar)	0.05%	2.11%	5.19%
Comments: Rates of return reflect overall declining interest rates in the fixed income market.			

**Financial Services** (continued)

**Performance Measures** (continued)

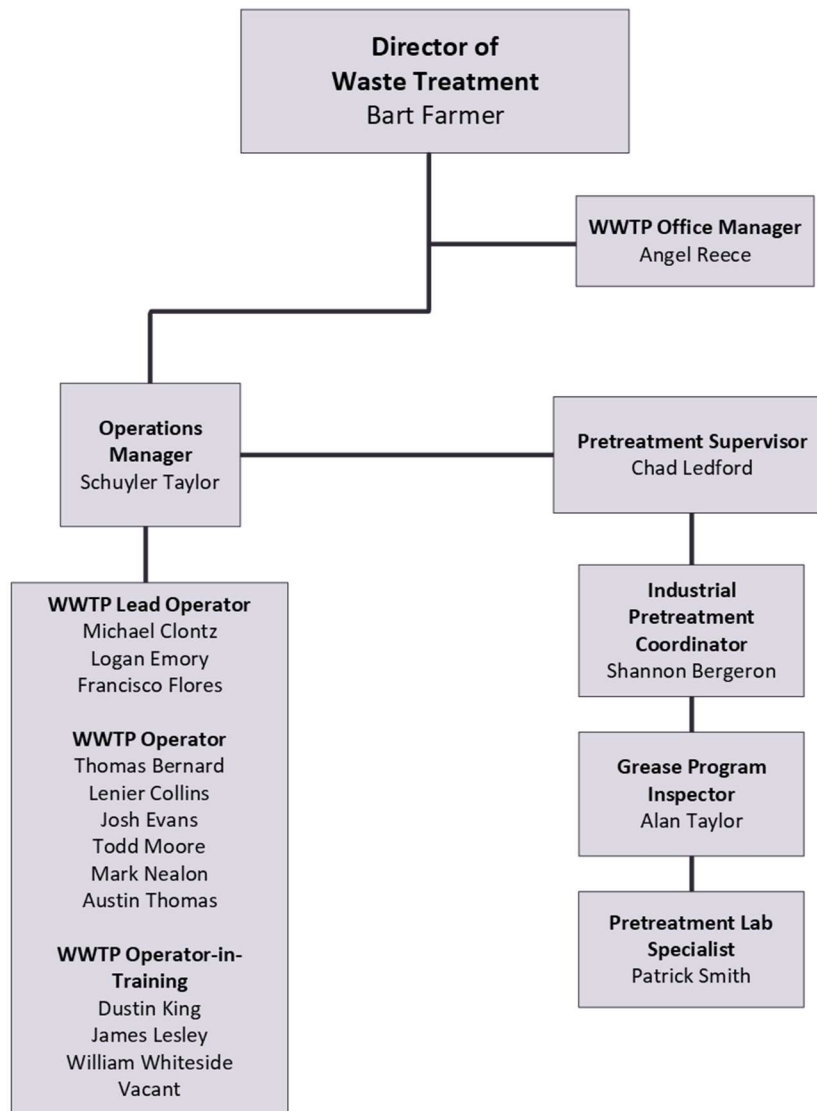
Task	FY20-21	FY21-22	FY22-23 (est.)
15. Collection of internally billed residential accounts	95.15%	95.25%	95.00%
16. Collection of internally billed industrial accounts	100.00%	100.00%	100.00%
17. Percentage of voided accounts payable checks	0.03%	0.03%	0.02%
Comments: This ratio illustrates the effectiveness of the cash disbursement process.			
18. Percentage of total O&M costs expended on Finance function	4.50%	4.80%	4.50%
19. Purchase orders placed within 3 business days	98.00%	97.75%	97.50%
20. Requisitions for capital equipment to be bid within two (2) weeks from receipt of detailed specifications from division	98.75%	98.75%	98.80%
21. Maintain loss of inventory at Warehouse below 3% in value (Goal 2)	0.88%	1.85%	.28%
22. Obtain the 12% goal for purchases with minority owned/operated businesses	10.85%	10.75%	10.75%

## FY2024 Budget – Financial Services

No.	Name	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc(Dec) Over Prior Year
<b>Salaries &amp; Wages</b>									
51100	Salaries & Wages	\$ 1,159,634	\$ 1,127,965	\$ 1,113,764	\$ 1,182,474	\$ 1,156,471	97.80%	\$ 1,253,384	6.00%
51150	Overtime	18,727	13,118	4,362	28,500	28,500	100.00%	28,500	0.00%
<b>Total Salaries &amp; Wages</b>		<b>1,178,360</b>	<b>1,141,083</b>	<b>1,118,126</b>	<b>1,210,974</b>	<b>1,184,971</b>	<b>97.85%</b>	<b>1,281,884</b>	<b>5.86%</b>
<b>Benefits</b>									
51200	North Carolina Retirement	109,600	119,286	128,337	147,013	147,013	100.00%	165,235	12.39%
51250	Payroll Taxes	86,768	84,654	82,575	92,640	92,640	100.00%	98,064	5.85%
51300	Medical, Dental & Life	261,999	277,194	295,212	314,401	314,401	100.00%	334,838	6.50%
51325	Post Retirement Insurance	31,861	31,650	31,650	31,650	31,650	100.00%	31,650	0.00%
51350	Worker's Compensation	30,735	30,532	30,532	30,532	30,532	100.00%	30,532	0.00%
51360	State Unemployment Benefits	-	240	-	3,641	3,641	100.00%	3,641	0.00%
51500	401-K/457 Plan	51,363	54,169	54,050	59,125	59,125	100.00%	62,670	6.00%
<b>Total Benefits</b>		<b>572,326</b>	<b>597,726</b>	<b>622,356</b>	<b>679,002</b>	<b>679,002</b>	<b>100.00%</b>	<b>726,630</b>	<b>7.01%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>1,750,687</b>	<b>1,738,809</b>	<b>1,740,482</b>	<b>1,889,976</b>	<b>1,863,973</b>	<b>98.62%</b>	<b>2,008,514</b>	<b>6.27%</b>
<b>Materials, Supplies &amp; Services</b>									
52050	Dues & Subscriptions	1,210	1,776	1,759	2,000	2,000	100.00%	3,500	75.00%
52150	Travel, Mtgs & Training	6,867	1,202	4,812	21,000	21,000	100.00%	21,000	0.00%
52180	Liability Insurance	132,144	132,144	145,359	159,895	159,895	100.00%	159,895	0.00%
52210	Communications	7,001	7,121	7,406	7,700	7,700	100.00%	7,700	0.00%
52240	Uniforms	6,374	5,988	5,606	7,700	7,250	94.16%	7,250	-5.84%
52250	Office Supplies	3,139	3,504	3,305	3,750	3,750	100.00%	3,750	0.00%
52260	Special Dept Supplies	330,768	325,124	318,644	440,100	440,100	100.00%	450,400	2.34%
52270	Safety Equip/Supplies	1,539	1,084	956	1,350	1,350	100.00%	1,350	0.00%
52280	Maint Supp/Small Tools	5,323	3,479	5,766	18,500	18,500	100.00%	18,500	0.00%
52290	Chemical Supplies	1,122	1,170	2,079	4,000	4,000	100.00%	4,000	0.00%
52350	Prof/Contractual Svcs	77,894	73,999	70,567	104,500	104,500	100.00%	104,500	0.00%
52410	Maint-Buildings & Grounds	394	-	-	-	-	-	-	-
52450	Equipment Rental	8,901	-	-	10,000	10,000	100.00%	10,000	0.00%
52460	Motor Fuel & Lubricants	138,984	127,190	217,277	270,000	270,000	100.00%	290,000	7.41%
52470	Outside Vehicle Maint	2,773	16,351	23,237	28,000	28,000	100.00%	30,000	7.14%
52500	Rents/Leases	-	-	-	-	-	-	-	-
52510	Permits/Fees/Software Licenses	3,391	4,772	4,964	4,400	4,400	100.00%	4,400	0.00%
52910	Non-Capital Equipment	-	4,093	1,230	1,650	1,500	90.91%	1,500	-9.09%
<b>Total Materials, Supplies &amp; Services</b>		<b>727,823</b>	<b>708,998</b>	<b>812,965</b>	<b>1,084,545</b>	<b>1,083,945</b>	<b>99.94%</b>	<b>1,117,745</b>	<b>3.06%</b>
<b>Interfund Transfers</b>									
53040	Fleet Replacement Charges	6,058	6,058	7,209	7,209	7,209	100.00%	7,209	0.00%
<b>Total Interfund Transfers</b>		<b>6,058</b>	<b>6,058</b>	<b>7,209</b>	<b>7,209</b>	<b>7,209</b>	<b>100.00%</b>	<b>7,209</b>	<b>0.00%</b>
<b>Capital Outlay</b>									
54010	Capital Equipment - New	-	-	7,047	-	-	-	-	-
54030	Capital Equip - Replacement	-	2,894	-	-	-	-	-	-
<b>Total Capital Outlay</b>		<b>-</b>	<b>2,894</b>	<b>7,047</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Sub-Total O&amp;M Fund</b>		<b>\$ 2,484,568</b>	<b>\$ 2,456,759</b>	<b>\$ 2,567,703</b>	<b>\$ 2,981,730</b>	<b>\$ 2,955,127</b>	<b>99.11%</b>	<b>\$ 3,133,468</b>	<b>5.09%</b>
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 2,484,568</b>	<b>\$ 2,456,759</b>	<b>\$ 2,567,703</b>	<b>\$ 2,981,730</b>	<b>\$ 2,955,127</b>	<b>99.11%</b>	<b>\$ 3,133,468</b>	<b>5.09%</b>

## 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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY 23-24
<b>Department of Water Reclamation Facility</b>			
<i>Management:</i>			
Director of Waste Treatment & Maintenance Facility	1	1	1
<b>Total Management</b>	<b>1</b>	<b>1</b>	<b>1</b>
<i>Plant Operations:</i>			
Operator in Training	0	3	3
Lead Operator	4	4	4
WRF Operator	8	6	6
WRF Operations Manager	1	1	1
<b>Total Plant Operations</b>	<b>13</b>	<b>14</b>	<b>14</b>
<i>Office Support:</i>			
WRF Office Manager	1	1	1
<b>Total Office Support</b>	<b>1</b>	<b>1</b>	<b>1</b>

## Wastewater Treatment Plant (continued)

### Staffing History (continued)

Division & Position	Approved Positions FY21-22	Approved Positions FY22-23	Budgeted Positions FY 23-24
<i>Field Operations:</i>			
Grease Program Inspector	1	1	1
Industrial Pretreatment Supervisor	1	1	1
Pretreatment/Lab Specialist	1	1	1
Pretreatment Coordinator	1	1	1
Total Industrial Waste	4	4	4
Total – Wastewater Treatment Plant Department	19	20	20

### Accomplishments for FY 2022-2023

- Maintained compliance with all National Pollution Discharge Elimination Systems, Stormwater Permit, Asheville-Buncombe Air Quality Agency & EPA Air Quality Title V permit and standards during FY2023.
- Recognized for a Peak Performance Award by the National Association of Clean Water Agencies (NACWA) at the Silver Level Award for calendar 2022.
- Estimated total gallons treated: 7,650 million gallons.
- Estimated total solids incinerated: 4,823 tons.
- Estimated total solids hauled: 1,954 tons.
- Estimated total cubic yards removed by fine screens: 237 cubic yards.
- Estimated total cubic yards removed by bar screens: 217 cubic yards.
- Estimated total cubic yards removed by grit vortex: 285 cubic yards.
- Compliant Stationary Source Testing (Stack Test) for Fluidized Bed Incinerator (FBI) Title V permit
- High-Rate Primary Treatment project; completed July 2022.
- Treatment plant staff conducted guided tours of the facility with approximately 293 student and adult individuals attending.
- Replaced polymer system in Fluidized Bed Incinerator building; completed July 2022.
- Removed vegetation from ash lagoon.
- Replaced influent gates on RBC basin #3; completed December 2022.



## Wastewater Treatment Plant (continued)

### Budget Highlights/Changes for FY 2023-2024

- ▲ Maintain compliance with all National Pollution Discharge Elimination Systems, Stormwater Permit and Asheville-Buncombe Air Quality Agency & EPA Air Quality Title V permit and standards.
- ▲ 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.
- ▲ FBI heat exchanger replacement.
- ▲ Rehab of final clarifier effluent troughs.

### 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 (H<sub>2</sub>S) levels below 0.5 mg/L
  - ↪ *Objective:* Maintain treatment costs (cost/MG) at/below NACWA average
- ⊙ 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.

## Wastewater Treatment Plant (continued)

### Performance Measures

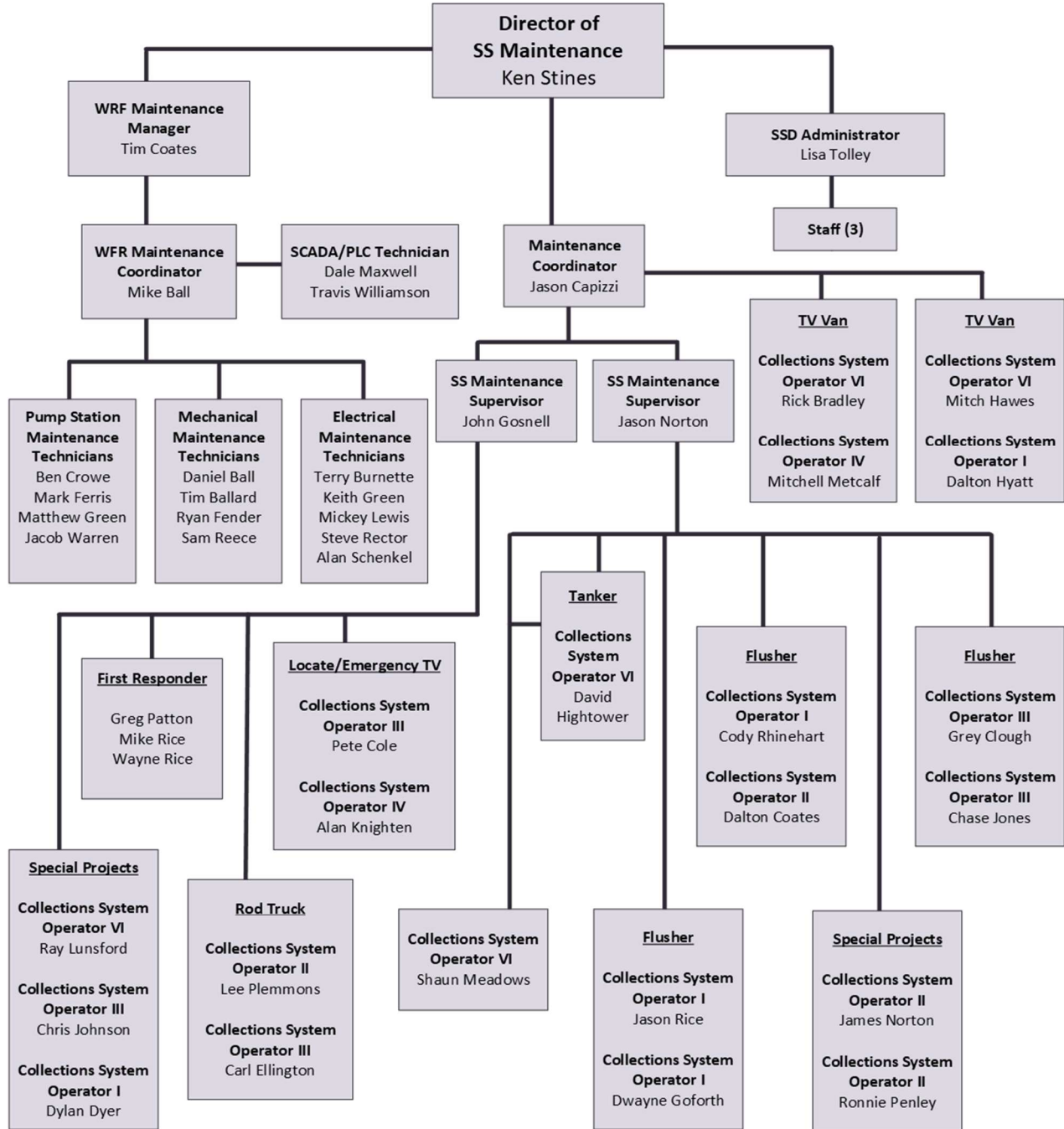
Task	FY20-21	FY21-22	FY22-23 (est.)
1. Average monthly flow treated in million gallons/day (MGD)	24.3	22.1	20.96
2. Maximum daily flow treated in MGD	67.3	74.06	37.28
3. Bio-solids processed in dry tons	6411	8985	6777
4. Cost per million gallons (MG) treated	\$577	\$577	\$722
5. Energy costs per MG treated	\$113	\$148	\$163
6. CBOD removal efficiency percentage	93%	93%	93%
7. TSS removal efficiency percentage	94%	94%	95%
8. Number of NPDES permit violations (non-compliance)	1	1	0

## FY2024 Budget – Wastewater Treatment Plant

No.	Name	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc (Dec) Over Prior Year
<b>Salaries &amp; Wages</b>									
51100	Salaries & Wages	\$ 1,059,921	\$ 1,059,702	\$ 1,121,169	\$ 1,295,212	\$ 1,268,197	97.91%	\$ 1,299,173	0.31%
51150	Overtime	71,973	73,008	76,831	77,000	77,000	100.00%	89,100	15.71%
<b>Total Salaries &amp; Wages</b>		<b>1,131,894</b>	<b>1,132,711</b>	<b>1,198,000</b>	<b>1,372,212</b>	<b>1,345,197</b>	<b>98.03%</b>	<b>1,388,273</b>	<b>1.17%</b>
<b>Benefits</b>									
51200	North Carolina Retirement	104,195	118,095	135,889	166,586	161,494	96.94%	178,948	7.42%
51250	Payroll Taxes	83,230	83,976	89,033	104,975	102,908	98.03%	106,202	1.17%
51300	Medical, Dental & Life	277,412	309,805	329,942	351,388	351,388	100.00%	374,229	6.50%
51325	Post Retirement Insurance	33,735	35,375	35,375	35,375	35,375	100.00%	35,375	0.00%
51350	Worker's Compensation	32,543	34,125	34,125	34,125	34,125	100.00%	34,125	0.00%
51360	State Unemployment Benefits	-	269	-	4,070	4,070	100.00%	4,070	0.00%
51450	Automobile Allowance	-	3,600	3,600	3,600	3,600	100.00%	3,600	0.00%
51500	401-K/457 Plan	49,018	47,391	51,871	60,788	59,437	97.78%	64,959	6.86%
<b>Total Benefits</b>		<b>580,133</b>	<b>632,635</b>	<b>679,836</b>	<b>760,907</b>	<b>752,397</b>	<b>98.88%</b>	<b>801,508</b>	<b>5.34%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>1,712,027</b>	<b>1,765,346</b>	<b>1,877,836</b>	<b>2,133,119</b>	<b>2,097,594</b>	<b>98.33%</b>	<b>2,189,781</b>	<b>2.66%</b>
<b>Materials, Supplies &amp; Services</b>									
52010	Advertising	3,401	3,389	3,149	5,500	5,100	92.73%	6,000	9.09%
52050	Dues & Subscriptions	22,543	21,914	21,976	27,300	24,000	87.91%	27,850	2.01%
52150	Travel, Mtgs & Training	16,653	9,283	22,814	29,450	29,450	100.00%	42,950	45.84%
52180	Liability Insurance	101,454	101,454	111,599	122,759	122,759	100.00%	122,759	0.00%
52210	Communications	17,822	9,893	8,242	13,500	12,000	88.89%	14,620	8.30%
52240	Uniforms	8,533	8,987	7,414	11,300	11,150	98.67%	15,450	36.73%
52250	Office Supplies	1,797	3,571	2,586	3,050	3,050	100.00%	3,100	1.64%
52260	Special Dept Supplies	34,649	35,998	41,422	42,300	42,300	100.00%	44,530	5.27%
52270	Safety Equip/Supplies	10,330	8,083	11,581	13,000	13,000	100.00%	13,000	0.00%
52280	Maint Supp/Small Tools	1,927	1,449	1,460	3,400	3,400	100.00%	3,400	0.00%
52290	Chemical Supplies	376,405	407,332	339,210	1,504,100	770,000	51.19%	1,539,187	2.33%
52350	Prof/Contractual Svcs	151,850	225,457	231,998	286,144	253,000	88.42%	295,408	3.24%
52510	Permits/Fees/Software Licenses	14,417	14,875	28,433	55,500	37,134	66.91%	51,500	-7.21%
52650	Utilities	999,045	883,968	1,217,905	1,249,500	1,249,500	100.00%	1,400,000	12.04%
52910	Non-Capital Equipment	2,577	3,767	3,814	6,800	6,800	100.00%	5,000	-26.47%
<b>Total Materials, Supplies &amp; Services</b>		<b>1,763,402</b>	<b>1,739,420</b>	<b>2,053,615</b>	<b>3,373,603</b>	<b>2,582,643</b>	<b>76.55%</b>	<b>3,584,754</b>	<b>6.26%</b>
<b>Interfund Transfers</b>									
53040	Fleet Replacement Charges	28,202	28,202	33,560	33,560	33,560	100.00%	33,560	0.00%
<b>Total Interfund Transfers</b>		<b>28,202</b>	<b>28,202</b>	<b>33,560</b>	<b>33,560</b>	<b>33,560</b>	<b>100.00%</b>	<b>33,560</b>	<b>0.00%</b>
<b>Capital Outlay</b>									
54010	Capital Equipment - New	5,032	14,050	8,981	13,200	11,200	84.85%	15,000	13.64%
54030	Capital Equip - Replacement	13,537	1,969	-	8,000	2,000	25.00%	-	-100.00%
<b>Total Capital Outlay</b>		<b>18,568</b>	<b>16,019</b>	<b>8,981</b>	<b>21,200</b>	<b>13,200</b>	<b>62.26%</b>	<b>15,000</b>	<b>-29.25%</b>
<b>Sub-Total O&amp;M Fund</b>		<b>\$ 3,522,199</b>	<b>\$ 3,548,987</b>	<b>\$ 3,973,992</b>	<b>\$ 5,561,482</b>	<b>\$ 4,726,997</b>	<b>85.00%</b>	<b>\$ 5,823,095</b>	<b>4.70%</b>
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 3,522,199</b>	<b>\$ 3,548,987</b>	<b>\$ 3,973,992</b>	<b>\$ 5,561,482</b>	<b>\$ 4,726,997</b>	<b>85.00%</b>	<b>\$ 5,823,095</b>	<b>4.70%</b>

## System Services - Maintenance

### Organizational Chart



## System Services - 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, 39 pump stations, and the treatment process until discharged into the French Broad River.

### Key Responsibilities

Include maintenance and inspection of 1,140 miles of sanitary sewer line, operation, and maintenance of 40 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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY 23-24
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

**System Services - Maintenance** (continued)

**Staffing History** (continued)

Division & Position	Approved Positions FY21-22	Approved Positions FY22-23	Budgeted Positions FY 23-24
<i>Pump Station Maintenance:</i>			
Technicians	4	4	4
Pump Station Maintenance Crew Leader	1	1	0
<b>Total Pump Station Maintenance</b>	<b>5</b>	<b>5</b>	<b>4</b>
<i>Maintenance:</i>			
Collections System Operator I	0	6	6
Collections System Operator II	6	1	1
Collections System Operator III	7	5	5
Collections System Operator IV	1	3	3
Collections System Operator V	2	1	1
Collections System Operator VI	5	5	5
First Responder	3	3	3
Collection System Maintenance Supervisor	2	2	2
Maintenance Coordinator	1	1	1
<b>Total Maintenance</b>	<b>27</b>	<b>27</b>	<b>27</b>
<i>Maintenance/Electrical Maintenance:</i>			
Electrical Maintenance Crew Leader	1	1	0
Electrician II	1	1	2
Senior Electrician	2	2	3
Mechanical Maintenance Crew Leader	1	1	0
Maintenance Mechanic II	3	3	3
Scada PLC Technician	2	2	2
Senior Maintenance Mechanic	1	1	1
Maintenance Coordinator	0	0	1
Maintenance Manager	1	1	1
<b>Total Maintenance/Electrical Maintenance</b>	<b>12</b>	<b>12</b>	<b>13</b>
<b>Total - SS Maintenance Department</b>	<b>49</b>	<b>49</b>	<b>49</b>

## System Services - Maintenance (continued)

### Accomplishments for FY 2022-2023

- Cleaned over 792,700 LF of pipeline with in-house crews.
- CCTV'd over 233,000 LF of sanitary sewer lines.
- Mechanically rodded over 30,050 LF of pipeline for root removal.
- Achieved an average 38-minute response time to Collections System customer service calls during working hours, nights, and weekends.
- Performed over 170,900 LF of acoustic inspection on the Collection System.
- Smoke tested over 4,875 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 the problem with disposable wipes through public education.
- Recovery of over \$250,000 in electric power savings from the Hydro Electric Generation Facility.
- New Polymer PLC installation wiring and SCADA development completed.
- Cane Creek RTU installation, seven of the nine are installed and connected to the SCADA system.
- New SCADA Technician up to speed with plant and pump equipment, attended formal training for iFix software (SCADA) and Rockwell RS Logix 5000.
- Many changes to plant and pump SCADA per requests from staff.
- Down time for plant equipment is under one hour for most requests.
- Avery Creek check and gate valves replaced.
- School House Road pump station ATS replaced.
- IPS #2 wear rings replaced.
- FBI 3<sup>rd</sup> floor blower replaced.
- Repaired side gate and coupling at Hydro.
- Arboretum on Charter modem for communication issues.
- ARC Flash labels updated at pump stations.
- Lake Julian ACC power circuits upgraded.
- Removed Albemarle pump station from service.
- Polymer System installation completed at FBI building.

## System Services - Maintenance (continued)

### Accomplishments for FY 2022-2023 (continued)

- IPS #3 wear rings replaced.
- Repaired heat exchanger at FBI building.
- #1, #2, and #3 motor circuits upgraded at Carrier Bridge.
- Rebuilt rotating assembly on pump #2 at Carrier Bridge.
- Mud Creek dosing panel complete and in service.
- Quinch pump #2 installed on the 3<sup>rd</sup> floor of FBI building.
- Replaced 16 tons HVAC equipment campus wide.
- Replaced filter media in Quad 5 Aqua Disk Filtration.
- Performed all preventative maintenance in a timely manner to keep plant operations running efficiently.
- Assisted various surrounding towns and cities with four mutual aid projects.
- Participated in two career day events for Buncombe County Schools.
- Participated in Asheville Parks and Recreation's Truck City Asheville show giving kids and adults a chance to get an up-close look at trucks and equipment.
- Cleaned over 100,000 LF of North Swannanoa Interceptor.
- Added a second portable flusher to the vehicle inventory by replacing a pickup truck to reduce response time and the time spent on site.
- Conducted bypasses of the District's pump stations for emergency and pump station maintenance improvement projects for the following: Ridgefield #1, Leicester Village, and Lake Julian.
- Developed and implemented a standard operating procedure for horizontal confined space entry.
- Removed the fluidized bed incinerator media four times. Implemented a SOP to improve the safety and efficiency of the removal process.
- Continued to improve customer service and interdepartmental feedback to improve overall service.
- Continual improvement to SCADA system.
- Continuing education and onsite training for SCADA Technician, Wastewater Collection System Operator Certification.



## System Services - Maintenance (continued)

### Budget Highlights/Changes for FY 2023-2024

- ▲ Preheat Burner installation and SCADA interface.
- ▲ Complete the installation and connection of Rockwell and Mountain Home RTU's.
- ▲ Install bypass at Mud Creek pump station.
- ▲ Install bypass at New Bern pump station.
- ▲ Rehabilitate New Bern pump station.
- ▲ Install new river seals for Hydro.
- ▲ New filter media for Aqua Disk Filtration.
- ▲ Complete an IR Scan of all pump station and treatment plant motors and panels.
- ▲ Replace troughs at Clarifier.
- ▲ Install splash guards at Waightstill Mountain and Biltmore Lade #2 pump stations.
- ▲ Install a new sand line at the FBI building.
- ▲ Add an additional 480-volt service for Maintenance Shop.
- ▲ Install a new hypochlorite tank.
- ▲ Get all turbines operational at Hydro.

### 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

## System Services - Maintenance (continued)

### Goals & Objectives (continued)

- ⊙ 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
  
- ⊙ 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

## System Services - Maintenance (continued)

### Goals & Objectives (continued)

- ⊙ 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

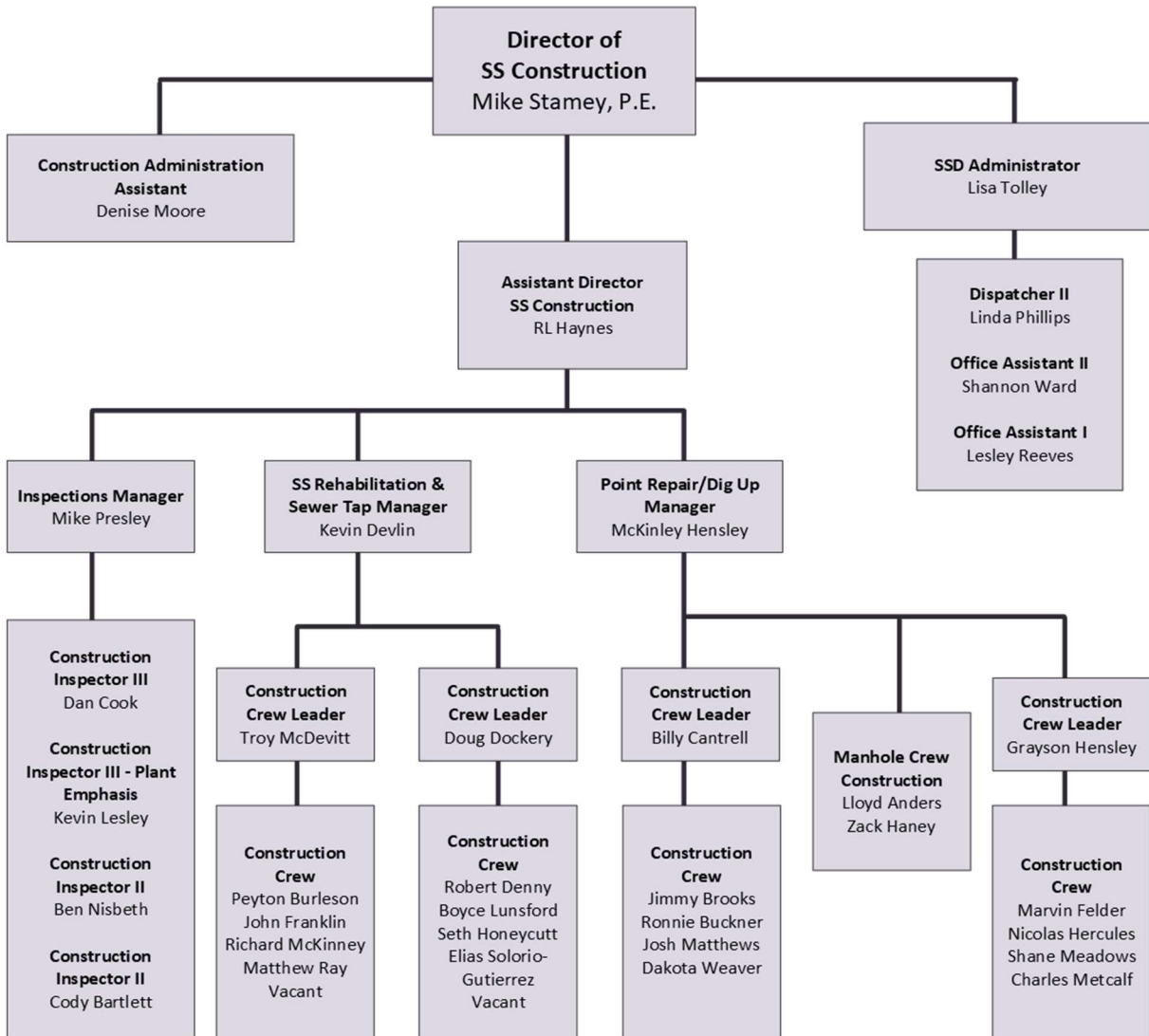
Task	FY20-21	FY21-22	FY22-23 (est.)
1. Customer Service Response calls during normal working hours	1,428	1,266	1,285
2. Average Response Time (in hours)	.48	.52	.48
3. Customer Service Request calls (after hours & holidays)	835	800	925
4. Average Response Time (after hours & holidays)	.62	.68	.72
5. Lines Washed (lineal feet)	891,700	844,902	792,070
6. Root Control chemical & rod (lineal feet)	26,278	29,997	30,050
7. TV Report (lineal feet)	271,237	266,532	233,000
8. Sanitary Sewer Overflow Totals	11	26	24
9. Smoke Testing	107,864	9,803	4,875
10. SL Rat Testing	501,573	72,799	170,900
11. Hydro Electric Generated KWH	9,547,000	6,855,000	5,347,500

## FY2024 Budget – System Services - Maintenance

No.	Name	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc (Dec) Over Prior Year
<b>Salaries &amp; Wages</b>									
51100	Salaries & Wages	\$ 2,451,767	\$ 2,400,595	\$ 2,457,655	\$ 2,792,804	\$ 2,792,804	100.00%	\$ 2,936,142	5.13%
51150	Overtime	137,487	111,276	118,206	159,000	159,000	100.00%	159,000	0.00%
<b>Total Salaries &amp; Wages</b>		<b>2,589,254</b>	<b>2,511,870</b>	<b>2,575,862</b>	<b>2,951,804</b>	<b>2,951,804</b>	<b>100.00%</b>	<b>3,095,142</b>	<b>4.86%</b>
<b>Benefits</b>									
51200	North Carolina Retirement	239,219	261,643	293,323	358,350	358,350	100.00%	398,964	11.33%
51250	Payroll Taxes	189,746	185,237	190,871	225,813	225,813	100.00%	236,778	4.86%
51300	Medical, Dental & Life	724,353	766,360	816,173	869,225	869,225	100.00%	925,726	6.50%
51325	Post Retirement Insurance	88,086	87,507	81,062	87,507	87,507	100.00%	87,507	0.00%
51350	Worker's Compensation	84,974	84,416	84,416	84,416	84,416	100.00%	84,416	0.00%
51360	State Unemployment Benefits	1,211	665	-	10,068	10,068	100.00%	10,068	0.00%
51500	401-K/457 Plan	107,386	104,118	110,118	134,214	134,214	100.00%	146,808	9.38%
<b>Total Benefits</b>		<b>1,434,975</b>	<b>1,489,946</b>	<b>1,575,963</b>	<b>1,769,593</b>	<b>1,769,593</b>	<b>100.00%</b>	<b>1,890,267</b>	<b>6.82%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>4,024,229</b>	<b>4,001,816</b>	<b>4,151,824</b>	<b>4,721,397</b>	<b>4,721,397</b>	<b>100.00%</b>	<b>4,985,409</b>	<b>5.59%</b>
<b>Materials, Supplies &amp; Services</b>									
52010	Advertising	3,332	-	3,740	4,500	4,500	100.00%	4,500	0.00%
52050	Dues & Subscriptions	5,302	5,107	4,658	7,100	7,100	100.00%	7,100	0.00%
52150	Travel, Mtgs & Training	41,189	20,894	28,741	48,300	48,300	100.00%	57,500	19.05%
52180	Liability Insurance	74,050	74,050	81,455	89,601	89,601	100.00%	89,601	0.00%
52210	Communications	52,937	42,433	52,359	71,000	64,500	90.85%	64,500	-9.15%
52240	Uniforms	33,384	28,758	30,085	41,100	37,100	90.27%	39,600	-3.65%
52250	Office Supplies	4,716	3,640	2,831	5,500	5,500	100.00%	5,500	0.00%
52260	Special Dept Supplies	863	1,215	1,486	1,750	1,750	100.00%	2,000	14.29%
52270	Safety Equip/Supplies	27,248	19,860	19,931	29,000	29,000	100.00%	29,000	0.00%
52280	Maint Supp/Small Tools	64,565	66,645	76,203	76,000	76,000	100.00%	76,000	0.00%
52290	Chemical Supplies	-	-	-	-	-	-	-	-
52300	Line Cleaning Supplies	53,835	49,449	43,284	53,000	53,000	100.00%	53,000	0.00%
52350	Prof/Contractual Svcs	77,236	86,163	78,469	130,400	130,400	100.00%	130,400	0.00%
52410	Maint-Buildings & Grounds	55,440	46,729	49,252	71,000	71,000	100.00%	71,000	0.00%
52420	Maintenance-Equipment	461,417	463,250	354,475	498,000	498,000	100.00%	508,000	2.01%
52430	Landscape Restoration	863	842	277	2,000	2,000	100.00%	2,000	0.00%
52440	Pump Maintenance	59,170	82,519	87,005	102,500	102,500	100.00%	102,500	0.00%
52450	Equipment Rental	4,242	1,683	4,203	12,500	12,500	100.00%	12,500	0.00%
52510	Permits/Fees/Software Licenses	16,950	34,958	19,435	26,300	26,300	100.00%	26,300	0.00%
52910	Non-Capital Equipment	6,311	3,760	7,888	13,820	13,820	100.00%	12,025	-12.99%
<b>Total Materials, Supplies &amp; Services</b>		<b>1,043,052</b>	<b>1,031,957</b>	<b>945,777</b>	<b>1,283,371</b>	<b>1,272,871</b>	<b>99.18%</b>	<b>1,293,026</b>	<b>0.75%</b>
<b>Interfund Transfers</b>									
53040	Fleet Replacement Charges	247,935	247,935	295,042	295,042	295,042	100.00%	295,042	0.00%
53050	WWTP Replacement Charges	200,000	200,000	200,000	200,000	200,000	100.00%	250,000	25.00%
53070	Pump Replacement Charges	50,000	50,000	55,000	55,000	55,000	100.00%	60,000	9.09%
<b>Total Interfund Transfers</b>		<b>497,935</b>	<b>497,935</b>	<b>550,042</b>	<b>550,042</b>	<b>550,042</b>	<b>100.00%</b>	<b>605,042</b>	<b>10.00%</b>
<b>Capital Outlay</b>									
54010	Capital Equipment - New	33,853	28,506	8,000	8,200	8,200	100.00%	15,050	83.54%
54030	Capital Equip - Replacement	23,019	19,802	-	18,550	18,550	100.00%	20,275	9.30%
<b>Total Capital Outlay</b>		<b>56,872</b>	<b>48,307</b>	<b>8,000</b>	<b>26,750</b>	<b>26,750</b>	<b>100.00%</b>	<b>35,325</b>	<b>32.06%</b>
<b>Sub-Total O&amp;M Fund</b>		<b>\$ 5,622,088</b>	<b>\$ 5,580,015</b>	<b>\$ 5,655,644</b>	<b>\$ 6,581,560</b>	<b>\$ 6,571,060</b>	<b>99.84%</b>	<b>6,918,802</b>	<b>5.12%</b>
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 5,622,088</b>	<b>\$ 5,580,015</b>	<b>\$ 5,655,644</b>	<b>\$ 6,581,560</b>	<b>\$ 6,571,060</b>	<b>99.84%</b>	<b>\$ 6,918,802</b>	<b>5.12%</b>

## System Services - Construction

### Organizational Chart



## System Services - 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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
<b>Department of System Services - Construction</b>			
<i>Management:</i>			
Director of Construction	1	1	1
<b>Total Management</b>	<b>1</b>	<b>1</b>	<b>1</b>
<i>Construction Administration:</i>			
Administrative Assistant – Construction	1	1	1
Construction Inspector I	1	1	0
Construction Inspector II	0	0	1
Construction Inspector III	2	2	2
Industrial Infrastructure Inspector	0	0	1
System Services Rehabilitation Manager	1	1	0
Inspections Manager	1	1	1
<b>Total Construction Administration</b>	<b>6</b>	<b>6</b>	<b>6</b>

## System Services - Construction (continued)

### Staffing History (continued)

Division & Position	Approved Positions FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
<i>Construction:</i>			
Construction Operator I	1	1	7
Construction Operator II	6	6	4
Construction Operator III	4	4	0
Construction Operator IV	1	1	2
Construction Operator V	1	1	1
Construction Operator VI	1	1	0
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	1	2
Heavy Equipment Excavator II	3	3	1
Heavy Equipment Excavator III	1	2	3
Assistant Director of System Services Construction	1	1	1
Total Construction	27	27	27
Total – SS Construction Department	34	34	34

### Accomplishments for FY 2022-2023

- Completed over 850 work order requests during the year. Through these work orders, approximately 9,600 LF of sewer rehabilitation, 390 point repairs, and 295 sewer taps were undertaken. These activities were completed with reduced staffing levels due to the current labor shortage issues in the construction field.
- Coordinated (5) joint venture projects with the other agencies to facilitate overall cost savings and/or other benefits for both agencies
- In teamwork efforts, assisted other MSD departments with various projects. This includes paving restoration at the Lake Julian pump station, installing a by-pass valve at the Mud Creek pump station site, installing a valve on the 30" air line at the Water Reclamation Facility, making multiple repairs to the 4-inch force main that transports ash to the lagoon, and hauling 347 loads/3,053 tons of sludge to the Buncombe County landfill while repairs were underway at the incinerator facility.

## System Services - Construction (continued)

### Accomplishments for FY 2022-2023 (continued)

- Coordinated a 1,233 LF sewer rehabilitation project on Charlotte Street @ North Ridgeway Avenue with the adjacent Black Mountain Primary School to minimize impact on school functions and traffic.
- Utilizing Trenchless Technologies to maintain approximately 1,650 LF of existing asphalt/concrete surfaces.
- 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.
- 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 eight (8) Collection System CIP projects, three (3) Water Reclamation Facility related projects, fifty-seven (57) Planning and Development related sewer extensions, and twenty-two (22) contractor installed sewer taps.
- Four System Services Construction employees participated in leadership training through the WCI Supervisory Development Institute. Twelve employees maintained their NCDOT Work Zone Supervisor Certification, 10 employees maintained their NCDOT Work Zone Installer Certification, 23 employees maintained their Wastewater Operators Certification, 1 employee maintained his NC Professional Engineer Certification, 1 employee maintained his Professional Geologist Certification, 1 employee maintained his Water System Distribution Certification, and 12 employees were retrained for their CPR and First Aid Certification.
- Continued utilizing recycled asphalt and concrete materials for select backfill on current sewer rehabilitation projects. A total of 4,752 tons of asphalt and concrete was crushed/recycled this year.

### Budget Highlights/Changes for FY 2023-2024

- ▲ Purchase of a brush cutter attachment for our excavation equipment.
- ▲ Purchase of a 6 x 8 shoring box and several shoring-related components for the safety of our working employees.



## System Services - 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 16,000 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 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.

## System Services - 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

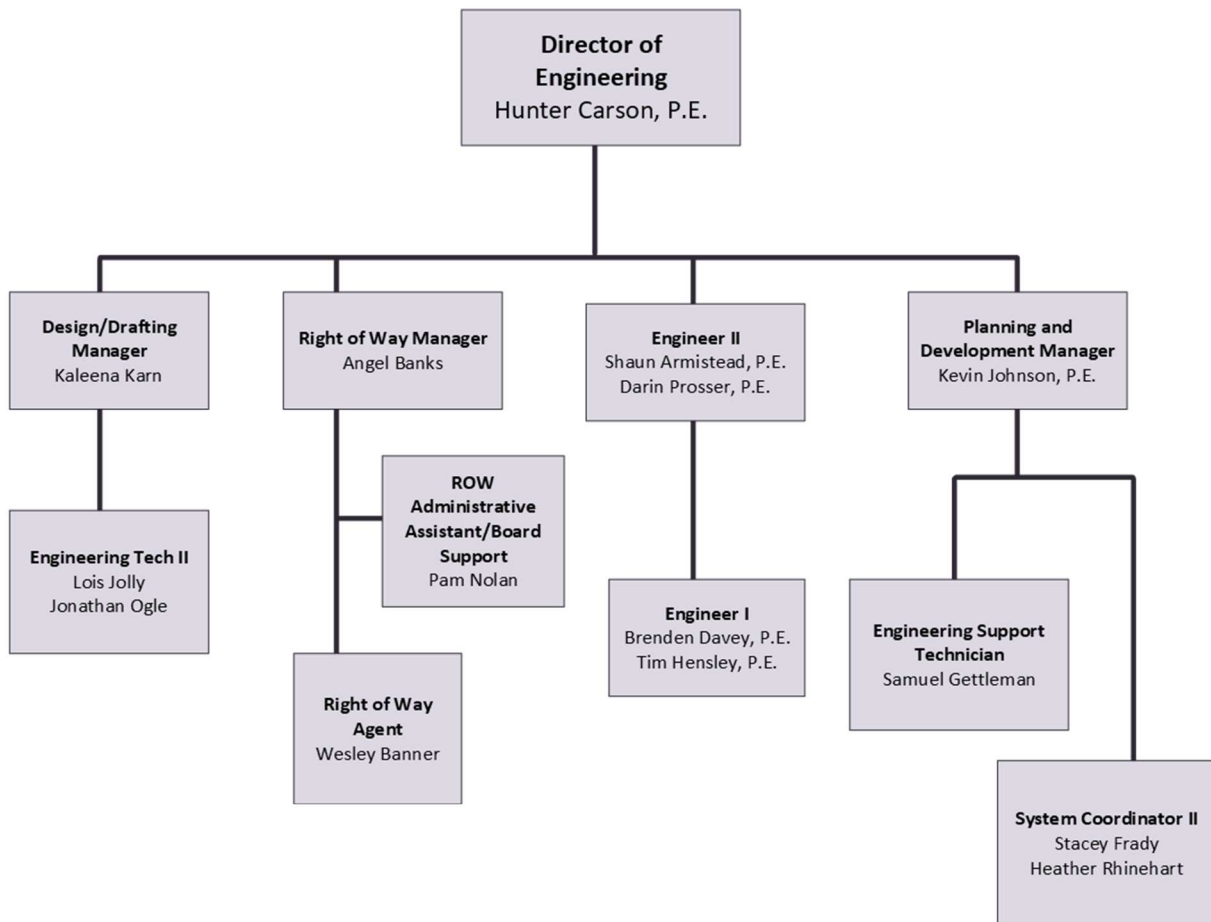
Task	FY20-21	FY21-22	FY22-23 (est.)
1. Construction Repairs	467	433	390
2. Taps Installed	285	317	295
3. Manhole Repairs	183	178	175
4. Right-of-Way Clearing (lineal feet)	80,110	83,718	97,930
5. Other Trenchless Line Rehabilitation (lineal feet)	244	748	315
6. Dig & Replace Rehabilitation (lineal feet)	12,859	7,860	7,715
7. IRS (lineal feet)	0	128	400
8. Construction Rehabilitation (lineal feet)	3,644	3,543	1,680
9. Pipe Bursting Main Line (lineal feet)	75	0	30
10. Boring Main Line (lineal feet)	260	223	0
11. Total Construction Rehabilitation Footage (lineal feet) (Items 6, 7, 8, 9, 10)	16,838	11,754	9,825
12. Sewer Rehabilitation Inspected on CIP Projects (lineal feet)	16,859	10,450	16,000
13. Sewer Extensions Inspected from Development Projects (lineal feet)	62,494	27,308	47,370

## FY2024 Budget – System Services - Construction

No.	Name	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc (Dec) Over Prior Year
<b>Salaries &amp; Wages</b>									
51100	Salaries & Wages	\$ 1,808,940	\$ 1,791,990	\$ 1,705,199	\$ 2,023,636	\$ 2,023,636	100.00%	\$ 2,152,752	6.38%
51150	Overtime	48,404	30,983	36,837	73,000	73,000	100.00%	73,000	0.00%
<b>Total Salaries &amp; Wages</b>		<b>1,857,344</b>	<b>1,822,973</b>	<b>1,742,036</b>	<b>2,096,636</b>	<b>2,096,636</b>	<b>100.00%</b>	<b>2,225,752</b>	<b>6.16%</b>
<b>Benefits</b>									
51200	North Carolina Retirement	171,457	189,900	199,411	254,532	254,532	100.00%	286,899	12.72%
51250	Payroll Taxes	136,312	135,185	130,068	160,392	160,392	100.00%	170,270	6.16%
51300	Medical, Dental & Life	554,825	586,999	625,155	665,791	665,791	100.00%	709,068	6.50%
51325	Post Retirement Insurance	67,470	67,027	67,027	67,027	67,027	100.00%	67,027	0.00%
51350	Worker's Compensation	65,087	64,657	64,657	64,657	64,657	100.00%	64,657	0.00%
51360	State Unemployment Benefits	-	509	323	7,711	7,711	100.00%	7,711	0.00%
51500	401-K/457 Plan	80,932	78,893	77,194	101,183	101,183	100.00%	107,639	6.38%
<b>Total Benefits</b>		<b>1,076,083</b>	<b>1,123,170</b>	<b>1,163,835</b>	<b>1,321,293</b>	<b>1,321,293</b>	<b>100.00%</b>	<b>1,413,271</b>	<b>6.96%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>2,933,427</b>	<b>2,946,143</b>	<b>2,905,870</b>	<b>3,417,929</b>	<b>3,417,929</b>	<b>100.00%</b>	<b>3,639,023</b>	<b>6.47%</b>
<b>Materials, Supplies &amp; Services</b>									
52010	Advertising	4	-	-	500	500	100.00%	500	0.00%
52050	Dues & Subscriptions	3,386	3,753	2,938	5,000	5,000	100.00%	5,000	0.00%
52150	Travel, Mtgs & Training	17,958	12,047	24,048	28,000	28,000	100.00%	29,000	3.57%
52180	Liability Insurance	88,006	88,006	96,807	106,488	106,488	100.00%	106,488	0.00%
52210	Communications	18,867	18,987	23,874	24,000	24,000	100.00%	24,000	0.00%
52240	Uniforms	20,676	20,673	21,263	26,200	26,200	100.00%	26,200	0.00%
52250	Office Supplies	1,237	566	804	2,900	2,900	100.00%	2,900	0.00%
52260	Special Dept Supplies	562	295	381	1,000	1,000	100.00%	1,000	0.00%
52270	Safety Equip/Supplies	20,280	12,859	18,718	23,450	23,450	100.00%	23,450	0.00%
52280	Maint Supp/Small Tools	45,023	49,787	33,124	56,100	56,100	100.00%	56,100	0.00%
52300	Line Cleaning Supplies	130	226	923	750	750	100.00%	750	0.00%
52350	Prof/Contractual Svcs	8,770	1,120	1,888	13,000	13,000	100.00%	13,000	0.00%
52420	Maintenance-Equipment	302	551	90	1,500	1,500	100.00%	1,500	0.00%
52430	Landscape Restoration	7,934	7,660	7,857	11,701	11,701	100.00%	11,701	0.00%
52450	Equipment Rental	2,962	14,950	4,500	19,000	19,000	100.00%	19,000	0.00%
52510	Permits/Fees/Software Licenses	14,474	28,236	21,738	25,600	25,600	100.00%	25,700	0.39%
52910	Non-Capital Equipment	7,532	8,287	13,578	12,875	12,875	100.00%	12,955	0.62%
<b>Total Materials, Supplies &amp; Services</b>		<b>258,104</b>	<b>268,003</b>	<b>272,531</b>	<b>358,064</b>	<b>358,064</b>	<b>100.00%</b>	<b>359,244</b>	<b>0.33%</b>
<b>Interfund Transfers</b>									
52340	Debt Administration Expenses	163,685	132,255	122,582	148,373	148,373	100.00%	141,063	-4.93%
53040	Fleet Replacement Charges	206,836	206,836	246,135	246,135	246,135	100.00%	246,135	0.00%
<b>Total Interfund Transfers</b>		<b>370,521</b>	<b>339,091</b>	<b>368,717</b>	<b>394,508</b>	<b>394,508</b>	<b>100.00%</b>	<b>387,198</b>	<b>-1.85%</b>
<b>Capital Outlay</b>									
54010	Capital Equipment - New	11,418	10,755	-	6,540	6,540	100.00%	-	-100.00%
54030	Capital Equip - Replacement	23,993	24,508	18,431	22,045	22,045	100.00%	20,050	-9.05%
<b>Total Capital Outlay</b>		<b>35,411</b>	<b>35,264</b>	<b>18,431</b>	<b>28,585</b>	<b>28,585</b>	<b>100.00%</b>	<b>20,050</b>	<b>-29.86%</b>
<b>Sub-Total O&amp;M Fund</b>		<b>\$ 3,597,462</b>	<b>\$ 3,588,501</b>	<b>\$ 3,565,549</b>	<b>\$ 4,199,086</b>	<b>\$ 4,199,086</b>	<b>100.00%</b>	<b>\$ 4,405,515</b>	<b>4.92%</b>
<b>59200 LESS:</b>									
	Chargebacks to General Fund for CIP	(770,296)	(744,979)	(736,484)	(940,516)	(940,516)	100.00%	(991,723)	5.44%
	Chargebacks to General Fund for SSD	(1,766,213)	(1,782,378)	(1,702,644)	(1,996,798)	(1,996,798)	100.00%	(2,099,230)	5.13%
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 1,060,953</b>	<b>\$ 1,061,145</b>	<b>\$ 1,126,421</b>	<b>\$ 1,261,772</b>	<b>\$ 1,261,772</b>	<b>100.00%</b>	<b>\$ 1,314,562</b>	<b>4.18%</b>

# 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 FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
<b>Department of Engineering</b>			
<b>Management:</b>			
Director of Engineering	1	1	1
<b>Total Management</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Engineers:</b>			
Engineer I	1	1	2
Engineer II	2	3	2
Assistant Director of Engineering	1	0	0
<b>Total Engineers</b>	<b>4</b>	<b>4</b>	<b>4</b>

**Engineering** (continued)

**Staffing History** (continued)

Division & Position	Approved Positions FY21-22	Approved Positions FY22-23	Budgeted Positions FY23-24
Department of Engineering			
Design and Drafting:			
Engineering Technician II	2	1	1
Engineering Technician III	0	1	1
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 II	2	2	2
Engineering Support Technician	0	1	1
Assistant Manager of Planning & Development	1	0	0
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 2023-2024

- 25,825 Linear Feet (LF) of collection system were rehabilitated during FY2023. This included 16,000 LF rehabilitated through contract construction and development projects, plus 9,825 LF rehabilitated in-house by System Services. (Estimated as of May 2023)
- Managed over 83 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 and sealed 12 of the 22 projects completed in-house by System Services. These are designed and then constructed by in-house forces. (Estimated as of May 2023.)
- Processed 1,032 applications and reviewed 60 plans for new connections and extensions to the collection system. (Estimated as of May 2023)
- Acquired Rights-of-Way across 50 properties. (Estimated as of May 2023.)
- Completed construction 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. System optimization is still in progress.
- Continued the design phase for the replacement of the Carrier Bridge Pump Station (construction scheduled to begin FY2024-2025).
- Completed construction of the Equipment Storage Facility at the WRF. This facility replaced the old Nutri-Lime Building that burned in November 2020 and provides storage space for MSD's vehicles, equipment and materials.
- Continued the design phase and began ROW acquisition for the replacement of the Weaverville Pump Station system (construction scheduled to begin FY2024-2025).
- Installed a replacement polymer system for the WRF sludge incinerator with in-house staff.
- Completed Phase I and began Phase II of the RBC slide gate replacement project at the WRF.
- Began the Biological Treatment Alternatives Evaluation and Solids Handling PER, two studies that will guide major treatment improvements at the WRF.

### Budget Highlights/Changes for FY 2023-2024

- ▲ Rehabilitate approximately 41,235 LF of MSD's collection system through contract construction and in-house System Services. Of this, approximately 24,450 LF will be rehabilitated utilizing trenchless technology.
- ▲ Complete construction of the Christian Creek Interceptor, a 12,200LF project that has spanned multiple fiscal years.

## Engineering (continued)

### Budget Highlights/Changes for FY 2022-2023

- ▲ Acquire property for the future Swannanoa Equalization Storage Tank.
- ▲ Complete the Solids Handling PER and continue the Biological Treatment Alternatives Evaluation.
- ▲ Complete the design and permitting for the replacement of the Carrier Bridge Pump Station, to be ready for construction in FY2024-2025.
- ▲ Complete the design phase and ROW acquisition for the Weaverville Pump Station replacement project.
- ▲ Begin the Hydroelectric Power Plant Rehabilitation study to determine necessary upgrades to MSD's hydroelectric facility.
- ▲ Initiate annual arc-flash labeling program for all MSD-owned electrical panels.
- ▲ Replace the heat exchanger and preheat burner system on MSD's sewage sludge incinerator.
- ▲ Complete the final phase of MSD's Mull Building HVAC system rehabilitation project.

### 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: Meet the time and budget predictions established in the CIP for FY2024. (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)



## Engineering (continued)

### Goals & Objectives (continued)

- ⦿ Goal: Reduce use of paper when possible and minimize file space needs.

### Performance Measures

Task	FY20-21	FY21-22	FY22-23 (est.)
1. Linear footage rehabilitated	34,932	22,627	25,825
2. CIP expenditures	\$18.5M	\$19.0M	\$24.8M
3. CIP projections vs. actual expenditures (*)	66%	62%	82%
4. Allocations	203	206	205
5. Sewer Tap Applications	1,167	1,114	1,032
6. Plans Reviewed	62	60	60
7. Value of accepted systems	\$7,929,986	\$3,348,200	\$6,514,625

(\*) Percentages include Contingency and Developer Reimbursements.

## FY2024 Budget – Engineering

No.	Name	ACTUAL 2018-2019	ACTUAL 2019-2020	ACTUAL 2020-2021	ACTUAL 2021-2022	ADOPTED 2022-2023 Budget	ESTIMATED Actual 6/30/2023	Percent Expended To Total Budget	PROPOSED 2023-2024 Budget	Inc (Dec) Over Prior Year
<b>Salaries &amp; Wages</b>										
51100	Salaries & Wages	\$ 1,107,994	\$ 1,145,174	\$ 1,122,914	\$ 1,106,698	\$ 1,229,877	\$ 1,229,877	100.00%	\$ 1,289,805	4.87%
51150	Overtime	1,004	-	-	-	2,000	2,000	100.00%	2,000	0.00%
<b>Total Salaries &amp; Wages</b>		<b>1,108,998</b>	<b>1,145,174</b>	<b>1,122,914</b>	<b>1,106,698</b>	<b>1,231,877</b>	<b>1,231,877</b>	<b>100.00%</b>	<b>1,291,805</b>	<b>4.86%</b>
<b>Benefits</b>										
51200	North Carolina Retirement	87,135	105,771	117,118	126,845	149,551	149,551	100.00%	166,514	11.34%
51250	Payroll Taxes	81,637	84,460	83,417	82,583	94,239	94,239	100.00%	98,823	4.86%
51300	Medical, Dental & Life	219,981	231,175	244,583	260,481	277,412	277,412	100.00%	295,445	6.50%
51325	Post Retirement Insurance	30,962	28,113	27,928	27,928	27,928	27,928	100.00%	27,928	0.00%
51350	Worker's Compensation	27,484	27,119	26,941	26,941	26,941	26,941	100.00%	26,941	0.00%
51360	State Unemployment Benefits	333	-	212	-	3,214	3,214	100.00%	3,214	0.00%
51500	401-K/457 Plan	49,387	52,374	52,974	53,283	61,496	61,496	100.00%	64,491	4.87%
<b>Total Benefits</b>		<b>496,919</b>	<b>529,012</b>	<b>553,173</b>	<b>578,062</b>	<b>640,781</b>	<b>640,781</b>	<b>100.00%</b>	<b>683,356</b>	<b>6.64%</b>
<b>Total Salaries, Wages &amp; Benefits</b>		<b>1,605,917</b>	<b>1,674,185</b>	<b>1,676,087</b>	<b>1,684,760</b>	<b>1,872,658</b>	<b>1,872,658</b>	<b>100.00%</b>	<b>1,975,161</b>	<b>5.47%</b>
<b>Materials, Supplies &amp; Services</b>										
52050	Dues & Subscriptions	4,573	5,072	4,923	4,734	6,640	6,640	100.00%	5,800	-12.65%
52150	Travel, Mtgs & Training	7,820	13,981	7,520	24,197	21,035	20,500	97.46%	26,170	24.41%
52180	Liability Insurance	34,741	34,741	34,741	38,215	42,037	42,037	100.00%	42,037	0.00%
52210	Communications	3,722	4,739	4,499	4,553	5,800	5,800	100.00%	5,140	-11.38%
52240	Uniforms	1,318	1,071	1,879	1,576	3,745	3,350	89.45%	3,900	4.14%
52250	Office Supplies	2,154	1,674	2,489	2,543	3,600	3,500	97.22%	3,100	-13.89%
52260	Special Dept Supplies	2,256	453	3,678	4,179	2,200	2,100	95.45%	4,340	97.27%
52270	Safety Equip/Supplies	107	59	40	39	250	250	100.00%	300	20.00%
52330	Legal Fees	722	940	430	566	2,000	2,000	100.00%	2,000	0.00%
52350	Prof/Contractual Svcs	6,912	8,462	14,021	3,072	12,500	12,500	100.00%	32,500	160.00%
52420	Maintenance-Equipment	-	-	-	-	-	-	-	-	-
52500	Rents/Leases	800	800	800	800	1,000	1,000	100.00%	1,000	0.00%
52910	Non-Capital Equipment	-	2,142	-	-	9,900	7,000	70.71%	2,250	-77.27%
<b>Total Materials, Supplies &amp; Services</b>		<b>65,125</b>	<b>74,134</b>	<b>75,021</b>	<b>84,474</b>	<b>110,707</b>	<b>106,677</b>	<b>96.36%</b>	<b>128,537</b>	<b>16.11%</b>
<b>Capital Outlay</b>										
54010	Capital Equipment - New	-	-	-	-	-	-	-	-	-
<b>Total Capital Outlay</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Sub-Total O&amp;M Fund</b>		<b>1,671,042</b>	<b>1,748,319</b>	<b>1,751,109</b>	<b>1,769,234</b>	<b>1,983,365</b>	<b>1,979,335</b>	<b>99.80%</b>	<b>2,103,698</b>	<b>6.07%</b>
<b>59200 LESS:</b>										
	Chargebacks to General Fund for CIP	(1,512,304)	(1,579,981)	(1,588,404)	(1,626,849)	(1,804,694)	(1,803,989)	99.96%	(1,918,346)	6.30%
<b>Net Operation &amp; Maintenance Fund</b>		<b>\$ 158,738</b>	<b>\$ 168,339</b>	<b>\$ 162,705</b>	<b>\$ 142,385</b>	<b>\$ 178,671</b>	<b>\$ 175,346</b>	<b>98.14%</b>	<b>\$ 185,352</b>	<b>3.74%</b>



# 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 FY2024 includes an employer contribution increase of 6.5% to cover anticipated expenditures needs.

**Insurance Funds** (continued)

**Self-funded Employee Medical Program** (continued)

*FY2024 Self-funded Employee Medical Program Budget*

	Actual 2021-2022	Estimated Actual 2022-2023	Budget 2023-2024
Beginning Balance	\$ 2,307,417	\$ 2,893,387	\$ 3,161,582
Income:			
District Contributions	2,639,540	2,811,110	2,993,840
Employee Contributions	349,602	360,000	370,800
Transfer from Other Insurance Funds	150,000	150,000	150,000
Interest	<u>2,882</u>	<u>50,000</u>	<u>50,000</u>
Total Income	3,142,024	3,371,110	3,564,640
Total Funds Available	5,449,441	6,264,497	6,726,222
Expenses:			
Expected Claim Liability	2,131,940	2,672,915	2,806,561
Fixed Costs	<u>424,114</u>	<u>430,000</u>	<u>430,000</u>
Total Expenses	2,556,054	3,103,915	3,236,561
Ending Balance	\$ <u>2,893,387</u>	\$ <u>3,161,582</u>	\$ <u>3,489,661</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. FY2024 funding of \$283,000 represents a 1.3% of total operations. As of July 2022, the District has twenty-one (21) eligible participants in the post-employment insurance plan.

#### *FY2024 Post-Employment Insurance Budget*

	Actual 2021-2022	Estimated Actual 2022-2023	Budget 2023-2024
Beginning Balance	\$ (1,633,447)	\$ (1,875,097)	\$ (1,995,986)
<b>Income</b>			
District Contributions	283,000	283,000	283,000
Interfund Transfer In	-	-	-
Employee Contributions	22,580	15,000	15,000
Interest Income	<u>3,770</u>	<u>81,111</u>	<u>80,000</u>
<b>Total Income</b>	<b>309,350</b>	<b>379,111</b>	<b>378,000</b>
<b>Total Funds Available</b>	<b>(1,324,097)</b>	<b>(1,495,986)</b>	<b>(1,617,986)</b>
<b>Expenses</b>			
Interfund Transfer Out	150,000	150,000	150,000
OPEB Expense	401,000	350,000	-
Transfer to Other Insurance Funds	-	-	-
<b>Total Expenses</b>	<b>551,000</b>	<b>500,000</b>	<b>150,000</b>
<b>Ending Balance</b>	<b>\$ (1,875,097)</b>	<b>\$ (1,995,986)</b>	<b>\$ (1,767,986)</b>

## 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 FY2024 does not include an increase in contributions.

#### *FY2024 Worker's Compensation Financial Plan*

	Actual 2021-2022	Estimated Actual 2022-2023	Budget 2023-2024
Beginning Balance	\$ 452,727	\$ 525,903	\$ 575,260
Income			
District Contributions	273,000	273,000	273,000
Interfund Transfer In	-	-	-
Interest Income	501	14,000	14,000
Total Income	273,501	287,000	287,000
Total Funds Available	726,228	816,903	862,260
Expenses			
Interfund Transfer Out	100,000	120,000	150,000
Deductibles for Individual Claims	4,642	10,000	10,000
Premiums to commercial carrier	95,683	111,643	130,000
Total Expenses	200,325	241,643	290,000
Ending Balance	\$ 525,903	\$ 575,260	\$ 572,260



## Insurance Funds (continued)

### General Liability

The District's general liability insurance fund was established to ① allocate insurance costs to all departments, divisions, and sectional budgets, ② provide funds for payment of no-fault sewer back-ups and ③ establish reserves to offset future unanticipated increases in sewer back-up liabilities in excess of budgeted amounts. The budget for FY2024 does not include an increase in contributions.

#### *FY2024 General Liability Financial Plan*

	Actual 2021-2022	Estimated Actual 2022-2023	Budget 2023-2024
Beginning Balance	\$ 549,439	\$ 589,839	\$ 680,284
Income			
District Contributions	602,527	662,775	662,775
Interfund Transfer In	100,000	120,000	150,000
Interest Income	495	10,000	10,000
Total Income	703,016	792,775	822,775
Total Funds Available	1,252,455	1,382,614	1,503,059
Expenses			
Interfund Transfer Out	-	-	-
Premiums to commercial carrier	532,160	581,468	640,000
No Fault Sewer Back-Up Claims	4,717	8,000	20,000
Claim Deductibles	114,460	100,000	100,000
Flood Insurance	11,279	12,862	14,000
Total Expenses	662,616	702,330	774,000
Ending Balance	\$ 589,839	\$ 680,284	\$ 729,059



# 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 FY2024 contribution is \$595,000, with anticipated expenditures of \$193,619, including (2) 1/2-Ton Pickups and (1) 1-Ton Utility Pickup.

#### *FY2024 Fleet & Heavy Equipment Fund Budget*

	Actual 2021-2022	Projected 2022-2023	Budget 2023-2024
Beginning Balance:	\$ 695,853	\$ 1,057,103	\$ 993,086
Revenue:			
District Contributions	595,000	595,000	595,000
Sale of Surplus Property	425,214	100,000	14,362
Interest Income	858	25,000	34,758
Total Revenue	1,021,072	720,000	644,120
Expenditures:			
Capital Expenditures	659,822	691,000	193,619
Transfer Out	-	93,017	-
Total Expenditure Replacements	659,822	784,017	193,619
Ending Balance:	\$ 1,057,103	\$ 993,086	\$ 1,443,587

## 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 FY2024 contribution is \$250,000 with anticipated expenditures of \$217,000 including General Rehab; General Rehab @ Incinerator Building, Intermediate Pumps and Intermediate Clarifiers; Dechlor Pumps; RBC Bearings; Belt Filter Press for Solids; AquaDisk 1-cell repl. Filters; Barscreen Rake rehab @ Hydro Building.

#### *FY2024 Wastewater Treatment Plant Fund Budget*

	Actual 2021-2022	Projected 2022-2023	Budget 2023-2024
Beginning Balance:	\$ 132,654	\$ 222,774	\$ 197,274
Revenue:			
District Contributions	200,000	200,000	250,000
Sale of Salvage Materials	-	-	-
Interest Income	<u>331</u>	<u>5,550</u>	<u>6,905</u>
Total Revenue	200,331	205,500	256,905
Expenditures:			
Capital Expenditures	<u>110,211</u>	<u>231,000</u>	<u>217,000</u>
Total Expenditure Replacements	110,211	231,000	217,000
Ending Balance:			
	<u>\$ 222,774</u>	<u>\$ 197,274</u>	<u>\$ 237,179</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 FY2024 contribution is \$60,000 with anticipated expenditures of \$74,000, which includes General Pump Station Rehab and Equipment; and rehab at the following pump stations: Arboretum, Ashley Woods, Mud Creek #1, Mud Creek #2, and ITT.

#### *FY2024 Pump Maintenance Replacement Fund Budget*

	Actual 2021-2022	Projected 2022-2023	Budget 2023-2024
Beginning Balance:	\$ 160,164	\$ 184,489	\$ 110,289
Revenue:			
District Contributions	55,000	55,000	60,000
Transfer In	-	-	-
Sale of Surplus Property	6,105	-	-
Interest Income	209	4,000	3,860
Total Revenue	61,314	59,000	63,860
Expenditures:			
Capital Expenditures	36,989	56,200	74,000
Transfer Out	-	77,000	-
Total Expenditure Replacements	36,989	133,200	74,000
Ending Balance:	\$ 184,489	\$ 110,289	\$ 100,149

## 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 \$170,017 transfer to the fund to meet the FY2024 requirements.

#### *FY2024 Capital Reserve Fund*

	Actual 2021-2022	Projected 2022-2023	Budget 2023-2024
Beginning Balance:	\$ 1,026,733	\$ 1,028,381	\$ 1,228,398
Revenue:			
Interfund Transfer	-	170,017	-
Interest Income	1,648	30,000	30,000
Total Revenue	1,648	200,017	30,000
Ending Balance:	<u>\$ 1,028,381</u>	<u>\$ 1,228,398</u>	<u>\$ 1,258,398</u>

NOTE: Ending balance must be at least 6% of the annual O&M current expenses. FY2023-2024 O&M Budget (\$21,939,740 - \$905,000 transfer to reserves - \$110,198 capital equipment) x 6% = \$1,256,013)

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# Capital Improvement 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 Hunter Carson, Director of Engineering at (828) 225-8241 or [hcarson@msdbc.org](mailto:hcarson@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, 2023, the District will have \$82.0 million in outstanding revenue bond debt, with total debt service of \$8.73 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

- Facilities Plan— The District completed an update to this Facilities Plan in 2015. This significant, comprehensive study examined the various unit processes within the plant, with a focus on headworks, biological treatment alternatives, and the future regulatory requirement. After extensive research of various options, the Plan recommends Plant Headworks Improvements adding new grit removal, a fine screening system, storage for peak flows (using existing decommissioned digesters), and chemically enhanced primary clarification.

## Capital Improvement Program (continued)

### Background (continued)

#### Wastewater System Master Planning (continued)

- Facilities Plan (continued)—

Construction of the High-Rate Primary Treatment project was completed earlier this year and the system is still being optimized by the process manufacturer, Veolia. The Plant Headworks (completed in early 2019) and High-Rate Primary projects are the short and mid-term recommendations of the Plant Facility Plan. These two projects totaled approximately \$28 million and will significantly improve the plant's treatment process.

Another major project in the ten-year CIP is the Solids Handling Capacity Improvements project. This project will replace the existing fluidizing bed incinerator which is over thirty years old and has undergone multiple rebuilds. The project will increase capacity of the solids handling processes at the plant to accommodate future growth and solids generation. The Solids Handling Preliminary Engineering Report (currently in progress) will provide a phased plan and CIP recommendations for upgrading solids thickening, dewatering, and disposal.

- 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. This plan was updated in 2021 to include the Cane Creek Water and Sewer District.

### 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.

## Capital Improvement Program (continued)

### Types of Projects (continued)

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

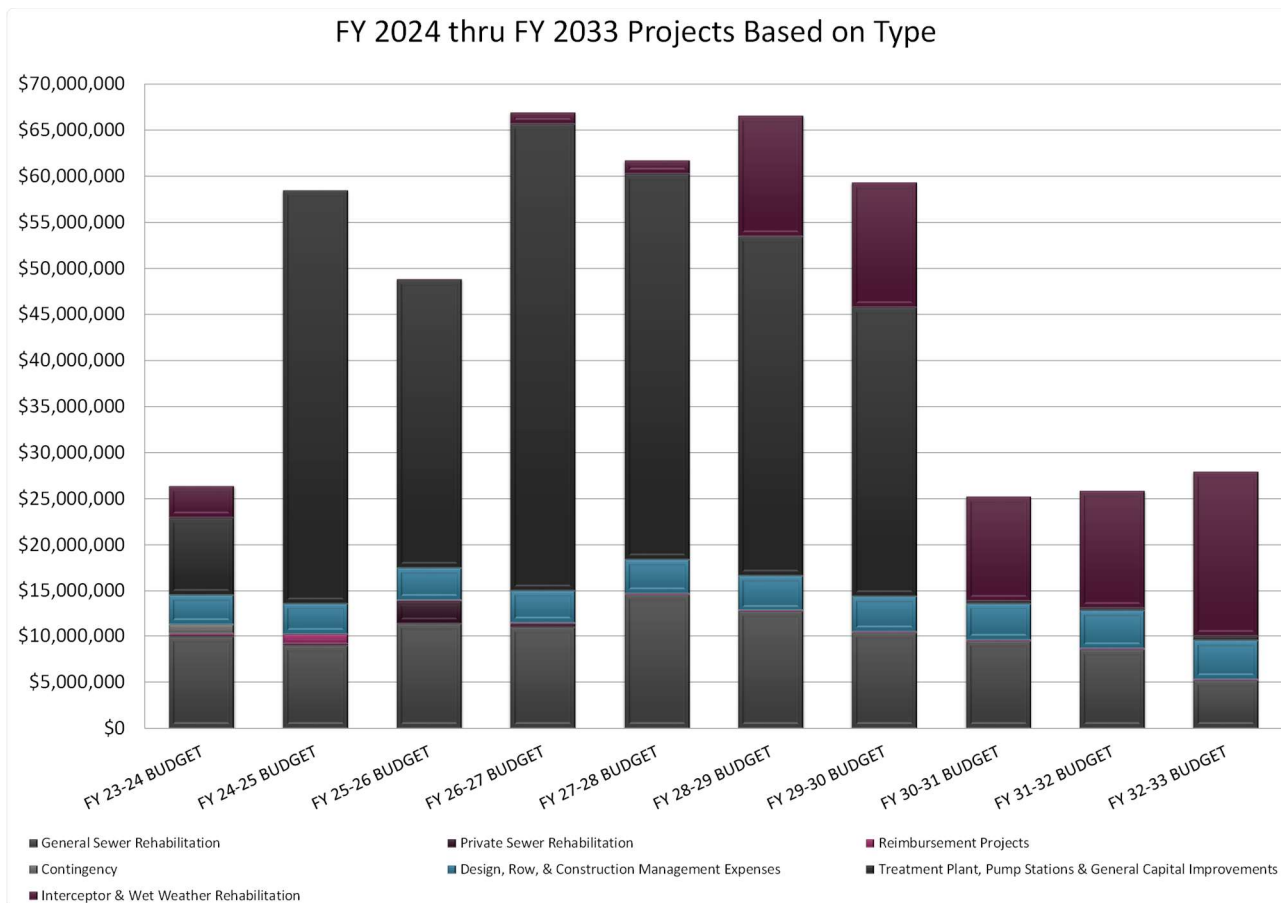
- ▶ Interceptor & Wet Weather Rehabilitation
- ▶ General Sewer Rehabilitation
- ▶ Private Sewer Rehabilitation
- ▶ Treatment Plant, Pump Stations, and General Capital Improvements
- ▶ Design, ROW, and Construction Management Expenses
- ▶ Reimbursement Projects

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)



### Proposed FY2023-2024 Budget

The proposed Capital Budget for FY2024 is \$26,377,993 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 \$142,950. For these types of projects, the District will reimburse a developer for constructing a system, which will serve larger areas upstream of their development.

## Capital Improvement Program (continued)

### Proposed FY2023-2024 Budget (continued)

Total project costs over the ten-year window are estimated at \$531.8 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 3.42%, which is a ten-year average of the annual increases in the ENR Construction Cost Index. This factor is also updated each year.

Approximately 62 infrastructure projects are included in the CIP for FY2024, ranging in length from 121 linear feet to over 36,000 linear feet. Five (5) new Collection System Projects have been added to the CIP for FY2024 and beyond. In-house forces, as well as outside contractors will be used to rehabilitate or replace approximately 40,000 linear feet per year.

### 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.

The District's focus has been to rehabilitate approximately 400,000 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 \$254.2 million out of a total CIP budget of \$531.8 million.

Significant collection system projects currently underway or completed over the past year are the Toxaway Street, Aurora Drive, Bent Tree Road, Caledonia Road, Le An Hurst Road, CIPP Lining Contract No. 9, and Christian Creek Interceptor projects. Combined with in-house rehabilitation projects, the total rehabilitated footage as of April 2023 is over 20,693 LF.



## Capital Improvement Program (continued)

### Current Year Highlights (continued)

Major projects for FY2024 include:

Project Name	Footage (LF)	Budget (\$)
Buchanan Avenue	2,204	\$1,296,000
Christian Creek Interceptor	2,000	\$2,409,503
Incinerator Rehabilitation	NA	\$2,150,000
Lining Contract No. 9	24,450	\$2,155,900

✦ **Collection System Capital Improvements:**

Design of the new Carrier Bridge Pump Station (the District's largest) is 90% complete and the District is in the permitting process. Carrier Bridge is a regional pump station which serves large areas of Buncombe County and Northern Henderson County. This significant \$65 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:**

- **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. The project was completed in FY2019.
- **High-Rate Primary Treatment Project:** This \$17.2 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 was completed in FY2022 and is currently undergoing performance testing.

## Capital Improvement Program (continued)

### Current Year Highlights (continued)

- **Biological System Upgrades:** This \$90.7 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 FY2026 with construction starting in FY2028.

## Capital Improvement Program (continued)

### Program Summary

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>Interceptor &amp; Wet Weather Rehabilitation</b>						
<b>Beaverdam Creek WW (CDM #10)</b>	\$ -	\$ -	\$ -	\$ -	\$ 33,000	\$ 2,424,350
This was identified as a potential rehabilitation project to improve wet weather flow conveyance, as specified in the Master Plan developed by CDM. It is located in the North Asheville area and is comprised of 5,500 LF of 8-inch through 12-inch diameter pipe.						
<b>Christian Creek Interceptor</b>	2,409,503	-	-	-	-	-
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.						
<b>South French Broad Relief Interceptor</b>	-	-	50,000	-	226,800	34,578,445
This project is to implement the recommendations of the French Broad/Carrier Bridge Preliminary Engineering Report. This project includes paralleling the existing 36-inch interceptor from Dingle Creek north to Hominy Creek with a new 36-inch interceptor. It also includes installing a new 60-inch interceptor between Hominy Creek and Carrier Bridge PS. The new interceptor will provide relief to the existing system during wet weather.						
<b>South Swannanoa Wet Weather</b>	42,000	-	93,000	100,000	3,844,000	3,865,000
This was identified as a potential rehabilitation project to improve wet weather flow conveyance, as specified in the Master Plan developed by CDM. It is located in the Biltmore area near Sweeten Creek, and is comprised of 8,040 LF of 18-inch through 42-inch diameter pipe.						
<b>Swannanoa Equalization Tank</b>	1,034,300	-	-	1,250,000	1,251,500	26,040,000
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.						
<b>SUBTOTAL</b>	3,485,803	-	143,000	1,350,000	5,322,300	66,907,795
Inflation per ENR Const. Cost Index	1.0000	1.0342	1.0696	1.1061	1.1440	1.30692
<b>SUBTOTAL with inflation</b>	3,485,803	-	152,948	1,493,301	6,088,601	87,443,426

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Antique Lane @ Canie Street</b>	-	-	-	45,000	-	2,386,000
<p>This project is in the Starnes Cove area of west Asheville. The project runs along Canie Creek and north to Pisgah View Road and south to Starnes Cove Drive through residential property. The existing 6-inch and 8-inch clay pipes have numerous joint and structural defects that has led to root problems, infiltration, and overflows.</p>						
<b>Atkins Street</b>	-	-	2,550	52,000	716,600	-
<p>This project is located in Arden just north of Lake Julian. Approximately 1,833 LF of existing 6-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, fractures, and sags in the line. The line is undersized and has flooded houses in the area.</p>						
<b>Avon Avenue @ Haywood Road</b>	5,950	43,000	78,200	-	-	-
<p>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.</p>						
<b>Beale Road at Copney Lane</b>	-	18,000	217,000	37,000	1,919,000	-
<p>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.</p>						
<b>Bellevue Road</b>	-	8,000	62,500	455,500	-	-
<p>This project is located in South Asheville along properties on Bellevue Road and will replace 1,100 LF of 6-inch VCP and PVC. The existing line is in poor condition and has too many point repairs.</p>						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Braddock Way - PRP 20002</b>	-	97,250	105,837	-	1,651,400	-
<p>This project will replace, line, and pipe burst several existing sewer mains in Park Avenue and Braddock Way subdivisions. Problems with these lines include leaking joints, broken pipes, high inflow and infiltration. In some areas, the existing lines will be relocated from private property to public rights of way for better access and maintenance.</p>						
<b>Buchanan Avenue</b>	1,296,000	-	-	-	-	-
<p>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.</p>						
<b>Caledonia Road</b>	207,400	-	-	-	-	-
<p>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.</p>						
<b>Calvin Trail @ Greybeard Trail</b>	-	-	7,020	4,400	32,000	335,450
<p>This project is located in Montreat and consists of replacing the existing 780 LF of 6" VCP line on Calvin Trail to the intersection of Greybeard Trail with 8" DIP. The existing line is in severely poor structural condition with multiple fractured sections.</p>						
<b>Carver Avenue @ Owenby Lane</b>	5,000	7,500	38,000	4,000	-	-
<p>This project is located in Black Mountain just north of US 70 Highway. The project runs along Carver Ave through residential properties. The existing 4-inch and 6-inch clay private sewer is undersized and in poor structural condition. These issues have created numerous customer service calls.</p>						
<b>Central Avenue @ I-240</b>	-	6,000	2,000	15,000	-	423,000
<p>This project is located in downtown Asheville near Woodfin Street and is comprised of 990 LF of 12-inch ductile iron pipe. The existing line is 6, 10, and 12-inch vitrified clay pipe.</p>						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Chatham Road</b>	-	-	44,500	1,000	547,625	-
<p>This project is located in North Asheville near W.T. Weaver Boulevard and is comprised of 1,330 LF of 8-inch ductile iron pipe. The existing line is 6-inch vitrified clay pipe in poor condition with heavy root intrusion.</p>						
<b>Cherokee Road</b>	873,100	-	-	-	-	-
<p>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.</p>						
<b>Cub Road</b>	-	-	-	-	10,100	442,700
<p>This project is located south of Elk Mountain Road between I-26 and the French Broad River. It is comprised of approximately 1,204 LF of 8-inch ductile iron pipe. The existing vitrified clay sewer line is in poor condition and has experienced SSO's.</p>						
<b>Dover Street @ Merrimon Avenue</b>	-	-	-	1,900	1,700	113,700
<p>This project is located in Asheville across Merrimon Ave of Bearverdam Lake. The line is an 8" VCP that lays flat with structural defects. If line is being replaced then would make sense to replace the next 5 upstream segments and place in the road with a more desirable slope than existing.</p>						
<b>East Chestnut Avenue @ Five Points</b>	-	34,679	86,800	123,500	1,836,750	-
<p>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-inch VCP in poor shape with multiple structural defects per segment.</p>						
<b>Edwards Avenue @US 70 Hwy</b>	-	14,400	-	6,800	39,000	909,200
<p>This project is located in Swannanoa, approximately 0.5 mile east of the Patton Cove Rd exit (I-40 exit 59). The project includes pipe replacement on Edwards Ave, Richmond Ave, and Young St. Approximately 2,400 LF of existing 6-inch and 8-inch vitrified clay pipe will be replaced with 8-inch ductile iron pipe. This line was constructed in the 1920s and has numerous structural defects which contributed to one flooded structure.</p>						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Elk Mountain Place</b>	11,000	1,446,000	12,500	-	-	-
This project is located south of Elk Mountain Rd. between I-26 and the French Broad river. It is comprised of approximately 4,137 LF of 8-inch ductile iron pipe. The existing vitrified clay sewer line is in poor condition and has experienced SSO's.						
<b>Erwin Hills Road @ High School</b>	62,500	-	-	-	-	-
This project is in Western Buncombe County, in the Erwin Hills neighborhood. The purpose is to replace an aging creek crossing with difficult access and a history of SSO's. Approximately 130 LF of DIP that allows improved access will be replaced with a re-engineered crossing.						
<b>Fairmont Road</b>	-	-	25,000	-	10,000	1,676,500
This project is located in North Asheville approximately 0.25 miles east of Charlotte Street. The project will run along roads and properties from Glendale Road to Sunset Drive. The 6-inch clay lines are in poor condition which have caused manhole overflows and SSOs.						
<b>Forestdale Drive</b>	17,000	-	30,500	223,000	-	1,010,500
This project begins at Carnell Street and ends at Caribou Road. The system runs along side roads and properties parallel to Hendersonville Road. System Services crews have reported numerous problems including multiple SSO's. The existing pipes will be replaced with 8-inch ductile iron pipe.						
<b>Harmony Lane</b>	-	-	-	2,500	-	238,000
This project runs along Harmony Lane in Asheville's Oakley area. The existing system has two parallel lines that collect on both side of the street. Problems with the system consist of root intrusion, poor access for maintenance, and close proximity to houses.						
<b>Hazel Mill Road @ Richland Street</b>	132,500	136,500	1,988,000	-	-	-
This project is located in West Asheville, near the Bowen Bridge and consists of 4,400 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.						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Hill Street @ Cross Place</b>	-	-	15,200	245,080	-	-
<p>This project runs along Hill Street to the intersection of Cross Place abutting the I-240 &amp; I-26 Interchange. It consists of replacing approximately 641 LF of existing 6-inch VCP with 8-inch DIP. The line has numerous structural issues, experienced frequent stoppages, and flooded structures over the years.</p>						
<b>Howland Road @ Sunset Trail</b>	-	5,000	66,000	394,000	-	-
<p>This project will replace an existing 8-inch main from 5 Howland Road up to the rear of 371 Sunset Drive. System Services recently completed another portion of this system due to SSO's and line condition.</p>						
<b>Johnston Boulevard @ Providence Road</b>	-	-	12,000	86,000	708,000	-
<p>This project is located in West Asheville, approximately 0.6 miles west of New Leicester Highway. The project consists of replacing 2,000 LF of existing 6-inch vitrified clay and PVC pipe with new 8-inch ductile iron pipe. The existing line contains many offset joints and bends and is in poor structural condition.</p>						
<b>Jonestown Road @ Riverside Drive</b>	28,000	45,000	796,800	6,500	-	-
<p>This project is located upstream from MSD's WWTP along Riverside Drive on Jonestown Road. It consists of approximately 1,992 LF of existing 6-inch VCP to be replaced with 8-inch DIP. This system is full of structural defects, has heavy I &amp; I issues, and deteriorating manholes.</p>						
<b>Joyner Avenue @Amboy Road</b>	3,500	21,500	95,500	-	-	-
<p>This project is located in West Asheville and is comprised of 241 LF of 8-inch ductile iron pipe. The existing line is aging 8" VCP and PVC in poor condition, exposed in a hillside with erosion issues.</p>						
<b>Kimberly Avenue @ Sedley Avenue</b>	23,550	3,500	1,452,740	-	-	-
<p>This project is located in North Asheville along Kimberly Avenue. The existing 6-inch VCP will be replaced with 3,514 LF of 8-inch HDPE through pipe bursting operations. This 6-inch VCP line is in poor structural condition, roots present throughout, mis-aligned joints, and problematic spur lines.</p>						



## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Lakeview @ Glen Falls Road</b>	-	-	-	-	15,000	1,514,000
<p>This project is just south of Beaver Lake on Lakeview Rd., Glen Falls Rd., and through properties on Glen Falls Rd. The existing 6-inch clay pipe will be replaced with 8-inch ductile iron pipe. System Services has experienced numerous problems with this line. Approximately 1,450 LF along Lakewview Rd was removed from this project and will be constructed by In-House crew.</p>						
<b>Lincoln Avenue</b>	-	-	-	-	-	609,300
<p>This project is located in the Oakley neighborhood in southeast Asheville, just north of I-40. It consists of replacing approximately 1,415 LF of existing 6-inch vitrified clay pipe with 8-inch ductile iron pipe. The existing line is in very poor structural condition.</p>						
<b>Lining Contract No. 9</b>	1,755,900	-	-	-	-	-
<p>This is a trenchless technology project that includes lining substandard sewer lines with either CIPP or Fold and Form pipe. Existing manholes will be repaired or replaced as part of this project.</p>						
<b>Logan Avenue</b>	13,200	1,500	121,000	942,300	-	-
<p>This project is located in West Asheville near Craven Street and consists of 2,150 LF of 8" DIP. The existing clay pipe is undersized and has a large number of pipe defects.</p>						
<b>Manetta Road @ Johnson Drive</b>	43,000	-	-	1,000	-	2,152,343
<p>This project is located in North Asheville near Merrimon Avenue and consists of 6,500 LF of 8-inch ductile iron pipe. The existing clay pipe is undersized, has voids, fractures, and root intrusions which have contributed to multiple SSO's. Portions of Ottari Rd were constructed in FY 22 in conjunction with a CoA paving project. The project has approximately 5,340 LF remaining.</p>						
<b>McDowell Street @ Lily Carmichael</b>	-	11,000	1,000	-	-	709,500
<p>This project is located in downtown Asheville, along McDowell St near Mission Hospital's main campus. The existing line is 6 and 8-inch vitrified clay pipe, with many structural defects, requiring extensive maintenance. This line will be replaced with approximately 1,660 LF of 8-inch DIP.</p>						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Meadow Road @ Train Yard</b>	-	-	-	3,000	92,500	1,526,000
<p>This project is located in Asheville on Meadow Road between the Biltmore Estate and Asheville-Buncombe Technical Community College. It consists of replacing 2,001 LF of existing 6-inch VCP with new 8-inch DIP. The existing line is in poor condition, is undersized, and runs underneath various structures.</p>						
<b>Montford Avenue @ Montford Park</b>	9,400	83,000	445,800	-	-	-
<p>This project is located just south of Montford Park and includes the replacement of approximately 1,258 LF of existing 8-inch VCP with new 8-inch DIP. The existing pipe has sags, multiple structural defects, and areas where the pipe is almost non-existent.</p>						
<b>New Haw Creek Road @ Dogwood Grove</b>	3,600	12,750	54,000	1,000	-	904,500
<p>This project is in East Asheville near Haw Creek Road and consists of 3,000 LF of 8-inch ductile iron pipe. Existing 4-inch and 6-inch clay pipe is undersized, with fractures, root intrusion, and misaligned joints. Existing 8-inch ductile iron pipe has corrosion issues and existing manholes are in poor condition.</p>						
<b>New Stock Road</b>	-	10,000	163,000	3,037,000	-	-
<p>This project runs along New Stock Road in Woodfin, beginning at Nichols Hill Drive &amp; New Stock Road, running under I-26, and ending at Weaverville Road. The existing 8-inch lines have structural issues which have led to root intrusion and multiple SSOs.</p>						
<b>Oakland Drive @ Church Street</b>	-	-	-	-	35,000	240,500
<p>This project is located in Black Mountain running through properties from Pine Street to Oakland Drive. The project will replace 575 LF of 4-inch orangeburg and 6-inch VCP. The existing lines are in poor condition and have too many point repairs.</p>						
<b>Parkwood Avenue</b>	-	-	-	-	11,485	439,850
<p>This project is located in Woodfin. The existing line is approximately 1,165 LF of 6" VCP with known SSO's and I/I due to structural defects.</p>						
<b>Riverview Drive</b>	-	-	-	-	-	989,000
<p>This project is located in Asheville near the Haywood Rd. bridge. The project consists of replacing approx. 2,302 LF of existing 6-inch vitrified clay pipe with 8-inch ductile iron pipe. The existing line is in poor condition and has experienced multiple overflows.</p>						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Rosewood Avenue @ Riverside Cemetery</b>	-	-	-	-	-	87,900
<p>This project is located off of Rosewood Avenue in Montford, adjacent to Riverside Cemetery. This project includes the replacement of approximately 180 LF of 6-inch VCP pipe with new 8-inch DIP. The existing line is in poor structural condition and is located next to a broken storm drain, causing heavy I &amp; I.</p>						
<b>Royal Pines Drive - PRP 47009</b>	35,000	6,000	1,000	33,000	-	2,653,750
<p>This project is located in South Asheville and is comprised of 2,888 LF of 8-inch ductile iron pipe. The existing line is 8-inch vitrified clay pipe which has had a history of root problems.</p>						
<b>Sand Hill Road @ Baker Place</b>	122,150	854,000	-	-	-	-
<p>This project is located in West Asheville and is comprised of 1,600 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.</p>						
<b>Somerset Road @ Greene Road</b>	41,500	190,350	-	-	-	-
<p>This project is located in South Asheville off of Somerset Rd. 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&amp;I. The 840 linear feet VCP section needs to be replaced with 8-inch DIP.</p>						
<b>Sulphur Springs Road @ Covington Street</b>	-	18,000	201,000	-	506,500	-
<p>This project begins in the area of the Sulphur Springs Road/Delaware Avenue intersection and runs through the back properties along Belmont Avenue. The existing 6-inch clay pipe will be replaced with 8-inch ductile iron pipe. The 6-inch clay line has had numerous problems and runs under a house.</p>						
<b>Sweeten Creek Road @ Buck Shoals Road</b>	48,348	665,900	-	-	-	-
<p>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.</p>						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Walnut Street @ N. Lexington Avenue</b>	-	-	8,000	-	604,514	-
<p>This project runs along Walnut Street in downtown Asheville. The project begins at N. Lexington Avenue, runs along Walnut Street and down the side roads of Langren Alley, Market Street, Lawyers Walk, and ends near the corner of E. Walnut Street. The existing 6-inch and 8-inch clay pipes have structural issues and yearly maintenance is needed.</p>						
<b>Waynesville Avenue @ Brownwood Avenue</b>	-	19,500	-	28,000	444,000	914,500
<p>This project is located in West Asheville between Haywood Road and Craven Street and is comprised of 3,022 LF of 8-inch ductile iron pipe. The existing line is 8-inch vitrified clay pipe that is in poor condition with heavy root intrusion, structural defects, and I &amp; I problems, resulting in a long history of SSO's.</p>						
<b>SSD Rehabilitation &amp; Replacement</b>	5,142,500	5,142,500	5,142,500	5,142,500	5,142,500	25,712,500
<p>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.</p>						
<b>Surveys for Design</b>	50,000	50,000	50,000	50,000	50,000	250,000
<p>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.</p>						
<b>SUBTOTAL</b>	\$ 9,930,098	\$ 8,950,829	\$ 11,325,947	\$ 10,940,980	\$ 14,373,674	\$ 46,238,693
Inflation per ENR Const. Cost Index	1.0000	1.0342	1.0696	1.1061	1.1440	1.2513
<b>SUBTOTAL with inflation</b>	\$ 9,930,098	\$ 9,256,947	\$ 12,113,889	12,102,353	16,443,184	57,860,383

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>PRIVATE SEWER REHABILITATION</b>						
<b>Homeland Park</b>	\$ 25,000	\$ 184,500	\$ -	\$ 388,630	\$ -	\$ -
<p>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.</p>						
<b>Old County Home Road PSR</b>	152,900	36,000	2,563,000	-	-	-
<p>This project is located in West Asheville and is comprised of 507 LF of 18-inch ductile iron pipe, 2,004 LF 12-inch ductile iron pipe, and 1,815 LF 8-inch ductile iron pipe. Additionally, 85 LF of 8" PVC force main will be installed to redirect flow from Erwin Hills Pump Station into the top of this rehabilitated system. The existing line is a problematic 4" and 8" sewer line composed of PVC and VCP with many defects.</p>						
<b>SUBTOTAL</b>	\$ 177,900	\$ 220,500	\$ 2,563,000	\$ 388,630	\$ -	\$ -
Inflation per ENR Const. Cost Index	1.0000	1.0342	1.0696	1.1061	1.1440	
<b>SUBTOTAL with inflation</b>	\$ 177,900	\$ 228,041	\$ 2,741,307	\$ 429,883	\$ -	\$ -

### Treatment Plant, Pump Stations & General Capital Improvements

<b>Arc Flash Labeling</b>	75,000	75,000	16,000	69,000	181,000	416,000
<p>This item is for the replacement of arc flash labels on all MSD-owned electrical panels within the District (located at various MSD buildings, pump stations and treatment plant). Arc flash labels are required by the National Fire Protection Assoc. (NFPA) and warn of potential arc flash hazards. Labeling must be updated every five (5) years per NFPA 70, Section 1160.16.</p>						
<b>Biological Treatment</b>	600,000	1,025,000	3,000,000	2,630,000	15,770,000	67,510,000
<p>This project is the final and most significant recommendation from the Plant Facilities Plan. It will replace the Rotating Biological Contactors (RBC's) with an alternative biological treatment technology. This project will be driven by regulatory requirements.</p>						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>						
<b>Building and Facility Rehabilitation</b>	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.						
<b>Carrier Bridge Pump Station Replacement</b>	563,587	21,040,000	21,020,000	21,030,000	-	-
This project will increase the capacity of the Carrier Bridge Pump Station to 40MGD to accommodate future growth in south and west Asheville, as well as CCWSD. This project includes replacement of the pump station, screening, odor control, electrical building, and an emergency generator. The project also includes two new 36-inch force mains and a 60-inch influent gravity line coming into the pump station.						
<b>Collection System Master Plan Update</b>	-	250,000	-	-	-	-
The District's Collection System Master Plan was completed in 2008 and needs to be updated. The Master Plan Update will include the merger with Cane Creek Water & Sewer District and any updates from MSD member agencies.						
<b>Equipment Storage Facility</b>	100,000	-	-	-	-	-
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.						
<b>Flow Monitoring</b>	90,000	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.						
<b>HVAC Rehabilitation</b>	40,000	10,000	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 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>						
<b>Hydroelectric Power Plant Rehabilitation</b>	195,274	100,000	1,040,000	-	-	-
<p>This project includes an evaluation of the existing hydroelectric plant and its aging infrastructure. The study will consider the cost benefit of replacing various components with more efficient technology. The project also includes rehabilitation of the influent bar screen structure.</p>						
<b>Incinerator Rehabilitation FY24</b>	2,150,000	2,890,000	-	-	-	-
<p>This project is for the rehabilitation of the incinerator and includes replacement of the heat exchanger, preheat burner system, and high temperature refractory lining inside the fluidizing bed incinerator. The refractory was last replaced in 2004 and protects the steel shell of the incinerator from high temps and corrosive gases. The heat exchanger and preheat burner both show signs of significant wear and need to be replaced.</p>						
<b>Intermediate Clarifier Effluent Trough Rehab</b>	852,000	-	-	-	-	-
<p>The intermediate clarifier was placed into service in 1990. Clarified water flows upward through one of four clarifier basins and overflows into a series of aluminum effluent troughs. These troughs are in poor condition and are leaking. This project includes surface preparation and coating application to make the existing troughs watertight and resistant to further corrosion.</p>						
<b>ITT Pump Station Upgrade</b>	125,000	57,500	999,000	-	-	-
<p>The ITT pump station is located in the Broadpointe Industrial Park in south Asheville. The station is generally in fair to poor condition. Additional wet well capacity and pumping capacity will be necessary in the future. The existing access to the pump station is located in a flood plain area and is unaccessible with a flusher truck. The project should involve the negotiation of a new access route through the Broadpointe Ind. Park in addition to the PS upgrade.</p>						
<b>Mud Creek Pump Station Replacement</b>	120,000	175,000	1,700	1,005,000	-	-
<p>This project is to increase firm capacity of the Mud Creek Pumping System and to consolidate the two existing pump stations into a single station. The replacement project will also include upgrades to pump controls and emergency backup power supply.</p>						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>						
<b>Mull Building HVAC - Phase III</b>	218,000	-	-	-	-	-
MSD's Mull Building HVAC system is approaching 20 years of service life and experiences hot/cold zones and frequent service calls. As suggested per McGill Associates HVAC study completed in 2019, MSD will be performing a complete overhaul on these aging core components. This will include the replacement of the air handlers, cooling tower (with two air cooled chillers), pumps, and electrical components. Phases I and II are complete, which include the replacement of the air handlers, cooling tower (with two air cooled chillers), pumps, and electrical components. Phase III is replacement of the boilers and hot water pumps as well as adding the boilers and pumps to the BAS controls.						
<b>MSD Board Room Improvements</b>	190,000	-	-	-	-	-
This project is to improve the aesthetics and layout of MSD's Board Room. The Board of Directors has grown to 14 members and the board room will be redesigned to improve functionality and optimize available space.						
<b>Plant Headworks Switchgear Improvements</b>	60,000	-	-	-	-	-
This project is located in the old Waukesha Building and consists of enclosing the electrical switchgear into it's own climate controlled room to protect the switchgear from elements such as dust and heat.						
<b>Plant High Rate Primary Treatment</b>	160,000	-	-	-	-	-
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.						
<b>Plant NPW Filter System</b>	-	200,000	-	-	-	-
This project will install a filtration system ahead of the non-potable water pumps at the Water Reclamation Facility, and is intended to mitigate problems with silt and debris clogging individual filters at various processes throughout the WRF.						



## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY26-27 BUDGET	FY27-28 BUDGET	FY28-29 thru FY32-33 BUDGET
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>						
<b>RBC Removal</b>	458,241	-	-	-	-	-
This project is for the removal of multiple broken, non-functional RBC units at the treatment plant. The broken units do not provide any biological treatment and create a damming effect in the basin that negatively impacts operation.						
<b>RBC Slide Gate Replacement</b>	200,000	-	-	-	-	-
This project will replace failing slide gates in the RBC Basins 2 and 3 at the Water Reclamation Facility.						
<b>Sand Hill Rd Odor Control Station</b>	75,000	-	-	-	-	-
This project will replace the odor control station that was washed away by a flood located on Hominy Creek. Project will consist of constructing a raised platform to hold a chemical tank, installing cabinets for pumps and SCADA, installing electric and water services, and trenching a small discharge line into an existing manhole.						
<b>Solids Handling Capacity Improvements</b>	-	1,520,000	2,500,000	25,647,500	25,647,500	-
This project will increase the capacity of the solids handling processes at the treatment plant. Additional capacity is needed to accommodate future flow rates and increased sludge generation from the High Rate Primary Treatment process. A Prelim. Engineering Report will confirm exact timing and costs of these capital investments. The project will include a new incinerator and dewatering equipment.						
<b>South Storage Building</b>	-	25,000	360,000	-	-	-
This building will be located at MSD's south storage facility in Arden. The site used to be the location of an old wastewater treatment plant that was abandoned in the 1990's. The existing building on the site is unusable in its current condition. The new building will be 800 - 1,000 SF						
<b>Weaverville Pump Station Replacement</b>	1,520,100	17,253,000	2,109,000	-	-	-
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.						

## Capital Improvement Program (continued)

### Program Summary (continued)

PROJECT NAME	FY 23-24	FY 24-25	FY 25-26	FY26-27	FY27-28	FY28-29 thru
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	FY32-33 BUDGET
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>						
<b>General Capital Equipment</b>	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.						
<b>SUBTOTAL</b>	\$ 8,002,202	\$ 44,880,500	\$ 31,315,700	\$ 50,651,500	\$ 41,868,500	\$ 69,276,000
Inflation per ENR Const. Cost Index	1.0000	1.0296	1.0601	1.0915	1.1238	1.2035
<b>SUBTOTAL with inflation</b>	\$ 8,002,202	\$ 46,208,963	\$ 33,197,027	\$ 55,283,803	\$ 47,050,207	\$ 83,372,859
<b>Design, Row, &amp; Construction Management Expenses</b>						
<b>Design, ROW, &amp; Const. Mgmt. Exp.</b>	\$ 3,281,040	\$ 3,402,856	\$ 3,493,385	3,586,538	3,682,445	20,186,369
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.						
<b>SUBTOTAL</b>	\$ 3,281,040	\$ 3,402,856	\$ 3,493,385	3,586,538	3,682,445	20,186,369
<b>Budget Summary</b>						
<b>SUBTOTAL with Inflation</b>	\$ 25,235,043	\$ 59,303,258	\$ 51,896,381	\$ 73,529,562	\$ 69,971,320	\$ 248,863,037
<b>CONTINGENCY</b>	\$ 1,000,000					
<b>REIMBURSEMENT PROJECTS</b>						
(Developer Reimbursements)	142,950	1,023,250	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. For FY23-24 there are two reimbursement agreements: 1) English Drive Subdivision \$129,350; 2) Mission Campus \$13,600.						
<b>TOTAL</b>	\$ 26,377,993	\$ 60,326,508	\$ 51,996,381	\$ 73,629,562	\$ 70,071,320	\$ 249,363,037

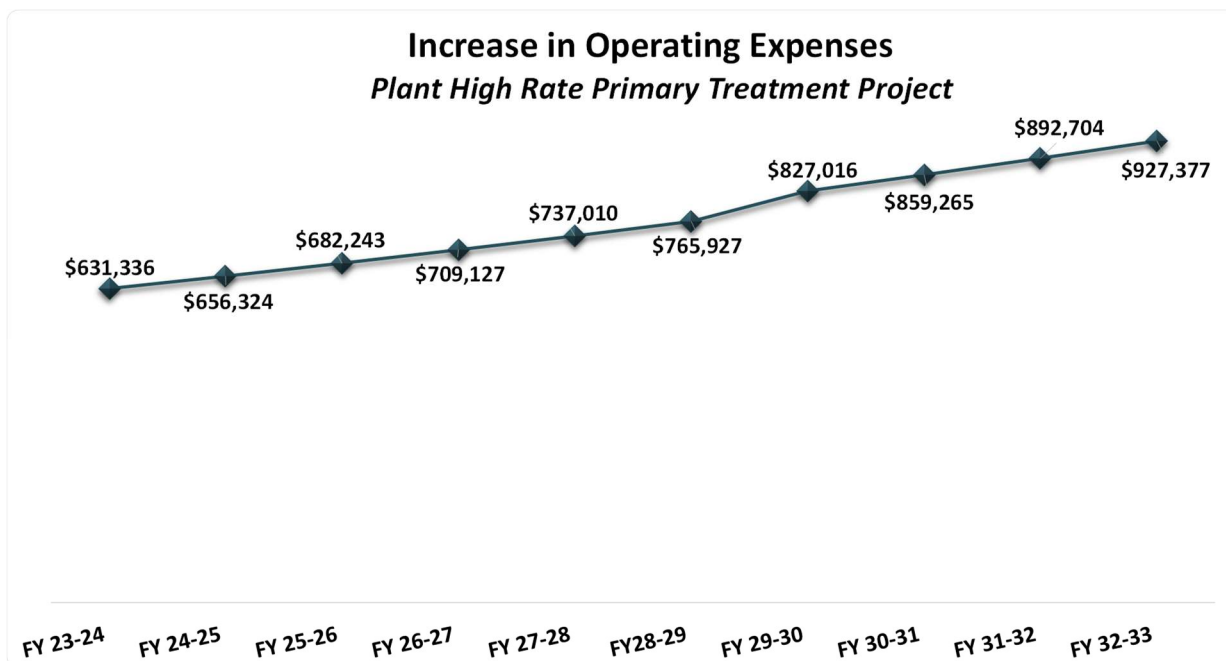
## Capital Improvement Program (continued)

### 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 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 BUDGET	FY 27-28 BUDGET	FY 28-29 thru FY 32-33 BUDGET
<b>Interceptor &amp; Wet Weather Rehabilitation</b>						
<b>Beaverdam Creek WW (CDM #10)</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Christian Creek Interceptor</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>South French Broad Relief Interceptor</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>South Swannanoa Wet Weather</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Swannanoa Equalization Tank</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Interceptor &amp; Wet Weather Rehabilitation</b>						
<b>General Sewer Rehabilitation</b>						
<b>Antique Lane @ Canie Street</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Atkins Street</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Avon Avenue @ Haywood Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Beale Road @ Copney Lane</b>	-	-	-	-	-	-
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 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 BUDGET	FY 27-28 BUDGET	FY 28-29 thru FY 32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Bellevue Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Braddock Way - PRP 20002</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Buchanan Avenue</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Caledonia Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Calvin Trail @ Greybeard Trail</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Carver Avenue @ Owenby Lane</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Central Avenue @ I-240</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Chatham Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Cherokee Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Cub Road</b>	-	-	-	-	-	-
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 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29 thru
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	FY 32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Dover Street @ Merrimon Avenue</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>East Chestnut Avenue @ Five Points</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Edwards Avenue @ US 70 Hwy</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Elk Mountain Place</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Erwin Hills Road @ High School</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Fairmont Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Forestdale Drive</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Harmony Lane</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Hazel Mill Road @ Richland Street</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Hill Street @ Cross Place</b>	-	-	-	-	-	-
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 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29 thru
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	FY 32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Howland Road @ Sunset Trail</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Johnston Boulevard @ Providence Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Jonestown Road @ Riverside Drive</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Joyner Avenue @ Amboy Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Kimberly Avenue @ Sedley Avenue</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Lakeview @ Glen Falls Road</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Lincoln Avenue</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Lining Contract No. 9</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Logan Avenue</b>	-	-	-	-	-	-
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.						
<b>Manetta Road @ Johnson Drive</b>	-	-	-	-	-	-
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 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 BUDGET	FY 27-28 BUDGET	FY 28-29 thru FY 32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>McDowell Street @ Lily Carmichael Drive</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Meadow Road @ Train Yard</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Montford Avenue @ Montford Park</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>New Haw Creek Road @ Dogwood Grove</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>New Stock Road</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Oakland Drive @ Church Street</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Parkwood Avenue</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Riverview Drive</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Rosewood Avenue @ Riverside Cemetery</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Royal Pines Drive - PRP 47009</b> 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 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 BUDGET	FY 27-28 BUDGET	FY 28-29 thru FY 32-33 BUDGET
<b>General Sewer Rehabilitation</b>						
<b>Sand Hill Road @ Baker Place</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Somerset Road @ Greene Road</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Sulphur Springs Road @ Covington Street</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Sweeten Creek Road @ Buck Shoals Road</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Walnut Street @ N. Lexington Avenue</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Waynesville Avenue @ Brownwood Avenue</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>SSD Rehabilitation &amp; Replacement</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Surveys for Design</b> No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>General Sewer Rehabilitation</b>						

## Capital Improvement Program (continued)

### Operational Impact Summary (continued)

PROJECT NAME	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29 thru
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	FY 32-33 BUDGET
<b>Private Sewer Rehabilitation</b>						
<b>Homeland Park</b>						
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Old County Home Road PSR</b>						
No Impact to Operating Budget - efficiencies gained will be used in the District's collector system preventative maintenance program.	-	-	-	-	-	-
<b>Private Sewer Rehabilitation</b>						
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>						
<b>ARC Flash Labeling</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Biological Treatment</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Building and Facility Rehabilitation</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Carrier Bridge Pump Station Replacement</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Collection System Master Plan Update</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Equipment Storage Facility</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Flow Monitoring</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>HVAC Rehabilitation</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Hydroelectric Power Plant Rehabilitation</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Incinerator Rehabilitation FY24</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Intermediate Clarifier Effluent Trough Rehabilitatoin</b>						
Impact to Operating Budget will be negligible.	-	-	-	-	-	-

## Capital Improvement Program (continued)

### Operational Impact Summary (continued)

PROJECT NAME	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29 thru
	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	FY 32-33 BUDGET
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>						
<b>ITT Pump Station Upgrade</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Mud Creek Pump Station Replacement</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Mull Building HVAC - Phase III</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>MSD Board Room Improvements</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Plant Headworks Switchgear Improvements</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Plant High Rate Primary Treatment</b> The process will not be online until 2020. Impact to operating budget includes additional materials, energy, and disposal costs.	631,336	656,324	682,243	709,127	737,010	4,272,289
<b>Plant NPW Filter System</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>RBC Removal</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>RBC Slide Gate Replacement</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Sand Hill Rd Odor Control Station</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Solids Handling Capacity Improvements</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>Solids Handling Capacity Improvements</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-
<b>South Storage Building</b> Impact to Operating Budget will be negligible.	-	-	-	-	-	-

## Capital Improvement Program (continued)

### Operational Impact Summary (continued)

PROJECT NAME	FY 23-24 BUDGET	FY 24-25 BUDGET	FY 25-26 BUDGET	FY 26-27 BUDGET	FY 27-28 BUDGET	FY 28-29 thru FY 32-33 BUDGET
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>						
<b>Weaverville Pump Station Replacement</b>	-	-	-	-	-	-
Impact to Operating Budget will be negligible.						
<b>General Capital Equipment</b>	-	-	-	-	-	-
Impact to Operating Budget will be negligible.						
<b>Treatment Plant, Pump Stations &amp; General Capital Improvements</b>	\$ 631,336	\$ 656,324	\$ 682,243	\$ 709,127	\$ 737,010	\$ 4,272,289
<b>Design, Row, &amp; Construction Management Expenses</b>						
<b>Design, ROW, &amp; Const. Mgmt. Exp.</b>	-	-	-	-	-	-
No Impact to Operating Budget						
<b>Design, Row, &amp; Construction Management Expenses</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Operational Impact Summary</b>						
Interceptor & Wet Weather Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General Sewer Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Private Sewer Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Treatment Plant, Pump Station and General Capital Improvements	\$ 631,336	\$ 656,324	\$ 682,243	\$ 709,127	\$ 737,010	\$ 4,272,289
Design, ROW, & Construction Management Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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# 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+	AAA

In October 2021, the District received a ratings upgrade from AA+ to AAA from Fitch Ratings. Fitch Ratings recognized the District’s sound financial performance characterized by ample liquidity, healthy debt service coverage, and comprehensive fiscal planning.

## Debt Financing (continued)

### Debt Management (continued)

The rating also 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 \$50 million in debt is anticipated to be issued in FY2026 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 FY2018, 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 FY2026.

As of June 30, 2023, the District will have \$82 million par value of outstanding revenue bond debt. During FY2024, over \$5.6 million in principal will be repaid. The District anticipates issuing an additional \$50 million in revenue bonds in FY2026. 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, 2023 and anticipated principal repayment during FY2024 begin below and continue on the following two (2) pages.

**Debt Financing** (continued)

Outstanding Debt as of June 30, 2023

	Balance 6/30/2023	Additions	Retirements	Balance 6/30/2024
--	----------------------	-----------	-------------	----------------------

**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.	\$ 20,000	\$ -	\$ 20,000	\$ 0
<b>Total Bonds - Enka Candler Series</b>	<b>\$ 20,000</b>	<b>\$ -</b>	<b>\$ 20,000</b>	<b>\$ 0</b>

**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.	\$ 20,675,000	\$ -	\$ 2,320,000	\$ 18,355,000
<b>Total Bonds - Series 2008A</b>	<b>\$ 20,675,000</b>	<b>\$ -</b>	<b>\$ 2,320,000</b>	<b>\$ 18,355,000</b>

**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.	\$ 117,765	\$ -	\$ 16,824	\$ 100,941
<b>Total State Revolving Fund</b>	<b>\$ 117,765</b>	<b>\$ -</b>	<b>\$ 16,824</b>	<b>\$ 100,941</b>

**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	\$ 8,220,000	\$ -	\$ 1,065,000	\$ 7,155,000
<b>Total Bond - Series 2013</b>	<b>\$ 8,220,000</b>	<b>\$ -</b>	<b>\$ 1,065,000</b>	<b>\$ 7,155,000</b>

**Debt Financing** (continued)

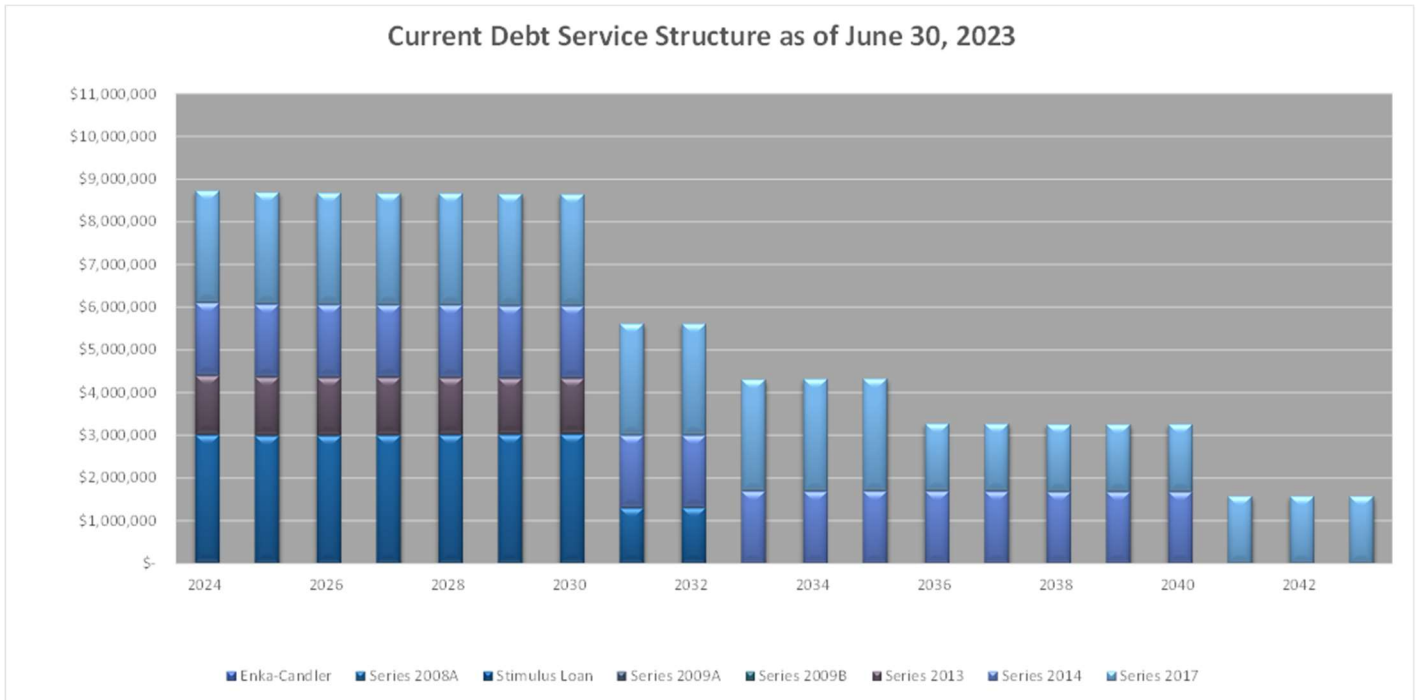
Outstanding Debt as of June 30, 2023

	Balance 6/30/2023	Additions	Retirements	Balance 6/30/2024
<b>Revenue Bonds Series 2014 issued to construct certain sewerage projects:</b>				
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	\$ 15,755,000	\$ -	\$ 870,000	\$ 14,885,000
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
<b>Total Bond - Series 2014</b>	<b>\$ 20,440,000</b>	<b>\$ -</b>	<b>\$ 870,000</b>	<b>\$ 19,570,000</b>
<b>Revenue Bonds Series 2017 issued to refund Series 2009A and to construct certain sewerage projects:</b>				
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	\$ 28,020,000	\$ -	\$ 1,340,000	\$ 26,680,000
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
<b>Total Bond - Series 2017</b>	<b>\$ 35,540,000</b>	<b>\$ -</b>	<b>\$ 1,340,000</b>	<b>\$ 31,200,000</b>
<b>Total Bonds - All Series</b>	<b>\$ 82,012,765</b>	<b>\$ -</b>	<b>\$ 5,631,824</b>	<b>\$ 76,380,941</b>

## 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
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>\$ 21,000</u>	<u>\$ 26,626,041</u>	<u>\$ 117,772</u>	<u>\$9,358,784</u>	<u>\$ 28,833,263</u>	<u>\$ 44,109,344</u>	<u>\$106,066,204</u>

## Current Debt Service Structure as of June 30, 2023



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# Statistical Section



## 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 annual comprehensive financial reports for the relevant year.

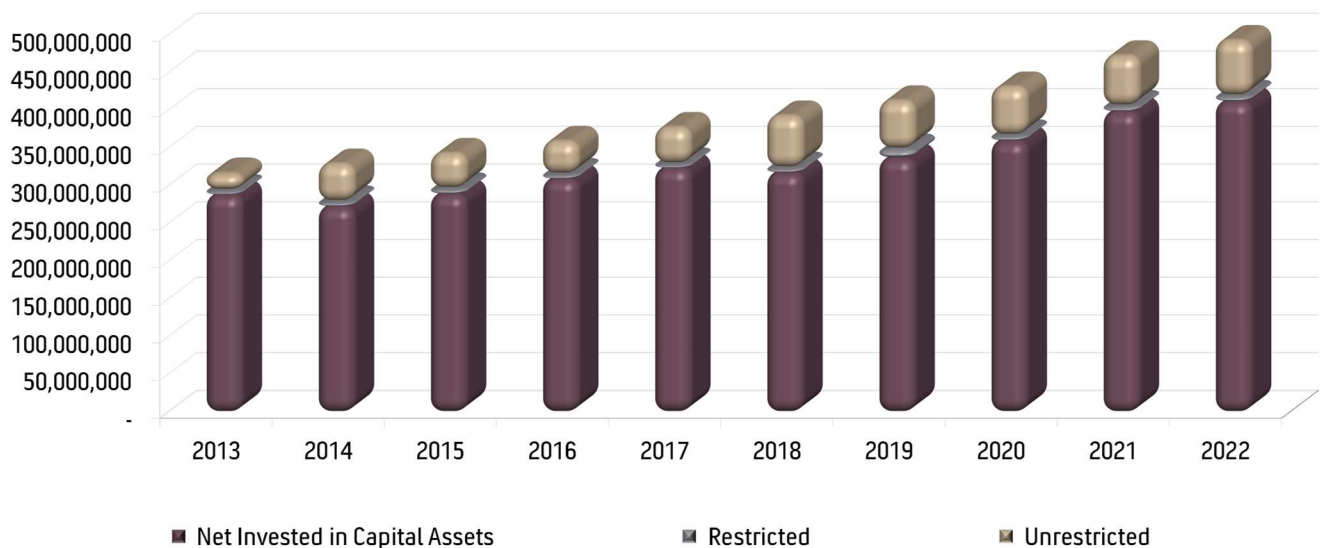


Net Position by Component

FY 2013 to FY 2022

Fiscal Year Ended June 30	Net Invested in Capital Assets	Restricted	Unrestricted	Total Net Position
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
2021	399,621,901	7,016,964	67,107,474	473,746,339
2022	412,955,363	7,288,272	73,822,362	494,065,997

Net Position by Component  
FY 2013 thru FY 2022

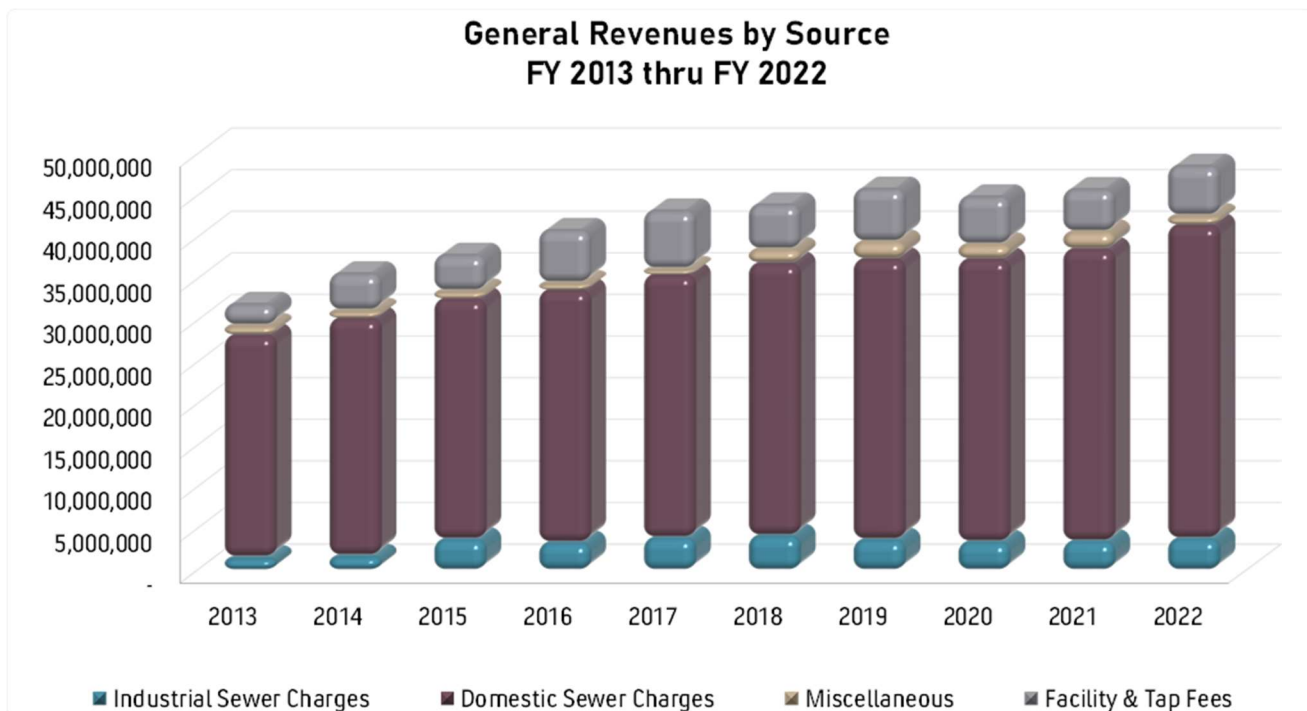


General Revenues by Source

FY 2013 to FY 2022

Fiscal Year Ended June 30	Industrial Sewer Charges	Domestic Sewer Charges	Facility & Tap Fees	Miscellaneous	Total
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	28,892,302	4,311,259	984,097	37,913,242
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
2021	3,497,070	35,094,831	5,092,060	2,123,374	45,807,335
2022	3,816,103	37,668,637	5,966,012	1,166,451	48,617,203

Note: Does not include Capital Contributions.



Expenses by Function (Non-GAAP)

FY 2013 to FY 2022

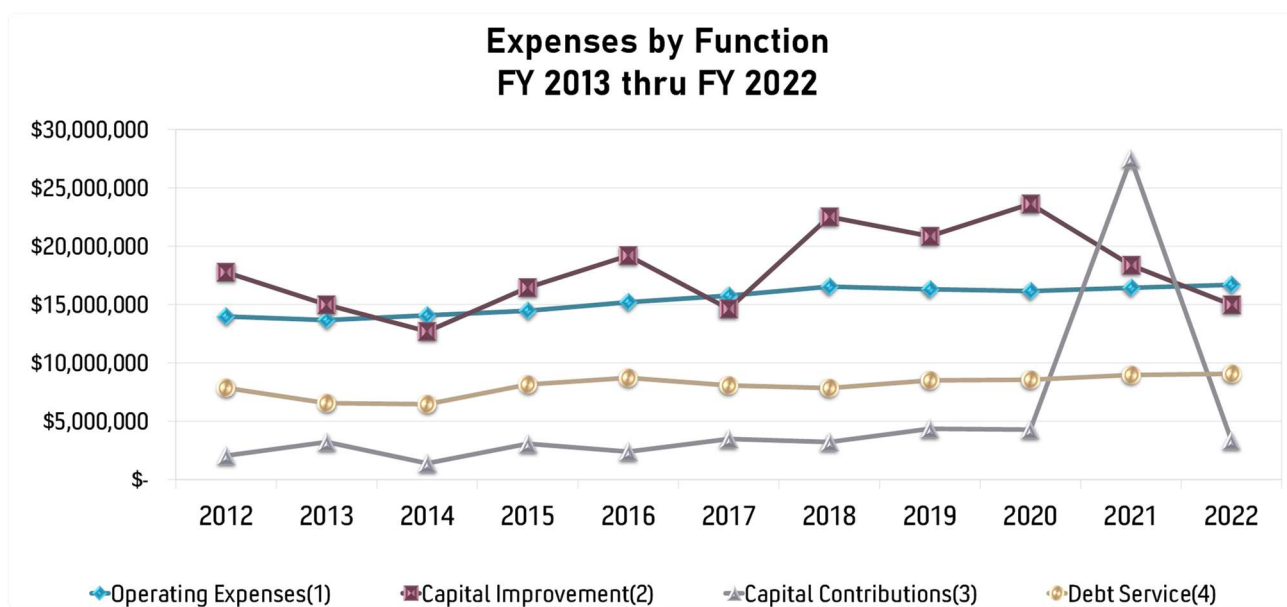
Fiscal Year Ended June 30	Operating Expenses <sup>(1)</sup>	Capital Improvement <sup>(2)</sup>	Capital Contributions <sup>(3)</sup>	Debt Service <sup>(4)</sup>	Total
2012	13,982,269	17,775,391	2,047,550	7,859,771	41,664,981
2013	13,674,518	14,988,922	3,217,846	6,553,956	38,435,242
2014	14,081,697	12,701,810	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
2021	16,441,116	18,377,093	27,495,566	8,966,312	71,280,087
2022	16,698,185	14,984,686	3,348,109	9,070,334	44,101,314

<sup>1</sup>Includes general operations.

<sup>2</sup>Excludes depreciation expense.

<sup>3</sup>This includes collection system infrastructure contributed by developers and Cane Creek Water and Sewer District asset contribution from Henderson County.

<sup>4</sup>Includes Bond Principal Expense and Bond Interest Less Capitalized Interest Portion and excludes early retirement of long-term debt.



Principal Commercial Users

FY 2013 & FY 2022

Commercial User	Type of Business	2013			2022		
		Total Charges	Rank	Percentage of Total Charges	Total Charges	Rank	Percentage of Total Charges
Milkco, Inc.	Dairy Products & Juices	\$ 486,928	1	1.72%	\$ 864,419	1	2.08%
Sierra Nevada	Micro-Brewery Manufacturer	-----			348,516	2	0.84%
Jacob Holm Industries America	Textile Manufacturer	108,275	6	0.38%	322,923	3	0.78%
Duke Energy Progress LLC	Energy Provider	-----			283,489	4	0.68%
New Belgium Brewing	Micro-Brewery Manufacturer	-----			242,485	5	0.58%
Ridgecrest Baptist Conference Center	Christian Conference Center	173,986	3	0.62%	196,904	6	0.47%
University of North Carolina - Asheville	University	-----			178,661	7	0.43%
BONAR - (formerly Colbond)	Chemical Manufacturer	104,016	9	0.37%	171,372	8	0.41%
Arcadia Beverage	Beverage Supplier for local/global retailers	-----			148,965	9	0.36%
The Biltmore Company	Tourist Attraction/Winery/Resort Services	74,364	10	0.26%	146,076	10	0.35%
VA Medical Center - Asheville Department of Veterans Affairs	Veterans Hospital	107,367	8	0.38%	175,478	5	0.42%
Givens Estates, Inc.	Continuing Care Retirement Community	139,403	4	0.49%	136,826	9	0.33%
Mission Health System	Health & Emergency Services	257,420	2	0.91%	126,279	10	0.30%
Cooperative Laundry Services	Laundry Services Provider	110,296	5	0.39%	-----		
Flint Group - (formerly Day International)	Textile Machine Parts	-----			-----		
Continental Automotive Systems	Automotive Parts Manufacturer	107,558	7	0.38%	-----		
<b>TOTAL</b>		<b>\$ 1,669,613</b>		<b>5.91%</b>	<b>\$ 3,342,393</b>		<b>8.06%</b>

Source: District Billing Records

Demographic & Economic Statistics

FY 2013 to FY 2022

Fiscal Year Ended June 30	Population Estimates <sup>1</sup>	Per Capita Income <sup>2</sup>	Median Age <sup>1</sup>	Civilian Labor Force <sup>3</sup>		Unemployment Rate
				Employed	Unemployed	
2013	246,952	38,141	40.8	121,521	7,929	6.1%
2014	249,265	40,797	41.0	122,480	5,898	4.6%
2015	252,160	42,996	41.1	125,355	6,131	4.7%
2016	255,222	44,403	41.7	129,324	5,412	4.0%
2017	257,408	46,323	41.9	130,418	4,801	3.6%
2018	259,726	48,819	42.1	133,710	4,501	3.3%
2019	262,049	50,804	42.2	135,749	4,554	3.2%
2020	263,477	53,309	42.3	116,658	16,817	12.6%
2021	Unavailable	Unavailable	Unavailable	129,655	6,648	4.9%
2022	Unavailable	Unavailable	Unavailable	136,819	4,682	3.3%

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:

<sup>1</sup>U.S. Census Bureau

<sup>2</sup>Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce; Last updated: November 16, 2021– new statistics for 2020; revised statistics for 1998-2019.

<sup>3</sup>U.S. Department of Labor - Bureau of Labor Statistics; Local Area Unemployment Statistics

## Principal Employers

FY 2013 to FY 2022

Employer	FY 2013			FY 2022		
	Employees	Rank	% of Total County Employment	Employees*	Rank	% of Total County Employment
Mission Health System & Hospitals	6,994	1	5.81%	1,000+	1	0.73%
Ingles Markets, Inc.	1,137	6	0.95%	1,000+	2	0.73%
Buncombe County Board of Education	-	-	-	1,000+	3	0.73%
VA Medical Center - Asheville	1,593	4	1.32%	1,000+	4	0.73%
The Biltmore Company	1,770	3	1.47%	1,000+	5	0.73%
Buncombe County Government	1,380	5	1.15%	1,000+	6	0.73%
City of Asheville	1,000	9	0.84%	1,000+	7	0.73%
Wal-Mart Associates, Inc.	-	-	-	1,000+	8	0.73%
Eaton Corporation	-	-	-	500-999	9	0.36%-0.73%
Kendro Laboratory Products Lp	-	-	-	500-999	10	0.36%-0.73%
<b>Total for Principal Employers</b>	<b><u>13,874</u></b>		<b><u>11.54%</u></b>	<b><u>9,000 - 9,998</u></b>		<b><u>6.56%-7.3%</u></b>

\* 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 6.3%.

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

**51200-NC Retirement**—The District contributes 12.89% 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.

**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.

**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.

## Classification of Accounts (continued)

**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.

**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.

## Classification of Accounts (continued)

**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, 2023)

Grade	Annual Salary Range - July 1, 2023			Title
	Minimum	Mid-Point	Maximum	
<b>11</b>	\$38,472	\$47,148	\$55,823	Collections System Operator I
				Construction Operator I
				Office Assistant I - HR
				Office Assistant I - SSD
<b>12</b>	\$42,238	\$51,763	\$61,287	Office Assistant II - SSD
<b>13</b>	\$43,293	\$53,057	\$62,820	Collections System Operator II
				Construction Operator II
<b>14</b>	\$44,377	\$54,384	\$64,390	Dispatcher II
				Electrician I
<b>15</b>	\$45,485	\$55,743	\$66,001	Collections System Operator III
				Construction Operator III
				WWTP Operator in Training
<b>16</b>	\$46,623	\$57,137	\$67,650	Accounting Technician I
				Collections System Operator IV
				Construction Administrative Assistant
				Construction Operator IV
				Heavy Equipment Excavator I
				Maintenance Mechanic I
				Warehouse Manager
<b>17</b>	\$47,789	\$58,565	\$69,342	Accounting Technician II
				Electrician II
				Fleet Mechanic I
				Pump Station Technician I
				System Coordinator II



**Job Classification by Grade Order** (effective July 1, 2023) (continued)

Grade	Annual Salary Range - July 1, 2023			Title
	Minimum	Mid-Point	Maximum	
18	\$48,983	\$60,029	\$71,076	Collections System Operator V
				Construction Operator V
19	\$50,207	\$61,530	\$72,852	Construction Inspector I
				GIS Data Mapping Technician
				Heavy Equipment Excavator II
				ROW Admin Assistant/Board Support
				Senior Electrician
20	\$51,463	\$63,068	\$74,674	Collections System Operator VI
				Environmental Health & Safety Technician
				Fleet Mechanic II
				Maintenance Mechanic II
				WWTP Office Manager
				WWTP Operator I
21	\$52,750	\$64,645	\$76,540	Heavy Equipment Excavator III
				WWTP Operator II
22	\$54,068	\$66,261	\$78,454	Collections System Operator VII
				First Responder
23	\$55,420	\$67,918	\$80,415	Budget Analyst
				Construction Crew Leader
				Construction Inspector II
				Grease Program Inspector
				Pretreatment/Laboratory Specialist
				Senior Maintenance Mechanic
				WWTP Operator III

**Job Classification by Grade Order** (effective July 1, 2023) (continued)

Grade	Annual Salary Range - July 1, 2023			Title
	Minimum	Mid-Point	Maximum	
<b>24</b>	\$56,805	\$69,615	\$82,425	Engineering Support Technician
				Engineering Technician II
				Fleet Mechanic III
<b>25</b>	\$58,225	\$71,356	\$84,486	WWTP Lead Operator
<b>26</b>	\$59,682	\$73,140	\$86,598	Construction Inspector III
				Electrical Maintenance Crew Leader
				Engineering Technician III
				GIS Specialist
				Industrial Infrastructure Inspector
				IT Technician II
				Mechanical Maintenance Crew Leader
				Payroll/Benefits Manager
				Point Repair/Dig Up Manager
				Pump Station Maintenance Crew Leader
				Purchasing Supervisor
				SSD Administrator
				SS Maintenance Supervisor
SS Rehab/Sewer Tap Manager				
<b>29</b>	\$64,271	\$78,764	\$93,257	GIS Analyst
				HR Programs Manager
				Industrial Pretreatment Coordinator
				Inspections Manager
				Right of Way Agent
				PLC Technician

**Job Classification by Grade Order** (effective July 1, 2023) (continued)

Annual Salary Range - July 1, 2023				Title
Grade	Minimum	Mid-Point	Maximum	
<b>30</b>	\$65,877	\$80,733	\$95,588	Database Analyst
				Design/Drafting Manager
				Environmental Health & Safety Manager
				Maintenance Coordinator
				SCADA/PLC Technician
<b>33</b>	\$70,942	\$86,940	\$102,738	Senior SCADA/PLC Technician
<b>34</b>	\$72,716	\$89,114	\$105,511	Database Applications/Developer
				Engineer I
<b>36</b>	\$76,397	\$93,625	\$110,853	Accounting Manager
				Facilities Maintenance Manager
				Fleet Maintenance Manager
				Maintenance Manager
<b>37</b>	\$78,306	\$95,966	\$113,624	Pretreatment Supervisor
<b>38</b>	\$80,265	\$98,365	\$116,464	Engineer II
				GIS Manager
				IT Manager
				Right of Way Manager
<b>39</b>	\$82,271	\$100,824	\$119,376	Assistant Director SS Construction
				Planning and Development Manager
<b>40</b>	\$84,328	\$103,345	\$122,361	Engineer III
<b>44</b>	\$93,082	\$114,073	\$135,064	Operations Manager
<b>52</b>	\$113,412	\$138,987	\$164,562	Director of Human Resources

**Job Classification by Grade Order** (effective July 1, 2023) (continued)

Annual Salary Range - July 1, 2023				Title
Grade	Minimum	Mid-Point	Maximum	
<b>53</b>	\$116,247	\$142,462	\$168,676	Director of Construction
				Director of Information Technology
				Director of SS Maintenance
				Director of WWTP
<b>55</b>	\$122,133	\$149,674	\$177,215	Director of Engineering
				Director of Finance
		Contract		General Manager
		Skill-Based		
	\$43,305	\$58,074	\$72,841	Facilities Maintenance Technician

## Staffing History (FTE's)

Division & Position	Approved Positions									
	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
<b>Management</b>										
<b>Division Heads:</b>										
Director of Engineering	1	1	1	1	1	1	1	1	1	1
Director of Financial Services	1	1	1	1	1	1	1	1	1	1
Director of Human Resources	1	1	1	1	1	1	1	1	1	1
Director of Information Technology	1	1	1	1	1	1	1	1	1	1
Director of System Services – Construction	1	1	1	1	1	1	1	1	1	1
Director of System Services – Maintenance	1	1	1	1	1	1	1	1	1	1
Director of Water Reclamation Facility	1	1	1	1	1	1	1	1	1	1
<b>Total Division Heads</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>
<b>Department of Office of the General Manager</b>										
General Manager	1	1	1	1	1	1	1	1	1	1
<b>Total General Manager</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Office Support:</b>										
Executive Secretary	1	1	1	0	0	0	0	0	0	0
<b>Total Office Support</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Department of Human Resources</b>										
Floater	0	0	0	0	0	1	1	1	0	0
Office Assistant I	1	1	1	1	1	1	1	1	1	1
HR Programs Manager	1	1	1	1	1	1	1	1	1	1
Payroll/Benefits Manager	1	1	1	1	1	1	1	1	1	1
<b>Total Human Resources</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>
<b>Environmental, Health &amp; Safety:</b>										
EHS Administrative Assistant	1	1	1	1	1	1	1	1	1	1
Environmental, Health & Safety Manager	1	1	1	1	1	1	1	1	1	1
<b>Total Environmental, Health &amp; Safety</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>

**Staffing History (FTE's)** (continued)

Division & Position	Approved Positions									
	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
<b>Department of Information Technology</b>										
<b>Information Systems (IT):</b>										
IT Technician I	1	1	1	1	0	0	0	0	0	0
IT Technician II	1	1	1	1	2	2	2	2	2	2
IT Network Manager	1	1	1	1	1	1	1	1	1	1
<b>Total IT</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>Management Information Systems (MIS):</b>										
Database Analyst	1	1	1	1	1	1	1	1	1	1
Database Administrator/Developer	1	1	1	1	1	1	1	1	1	1
<b>Total MIS</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Geographic Information Systems (GIS):</b>										
Technical Services Data Manager	1	1	1	1	0	0	0	0	0	0
GIS Analyst	1	1	1	1	1	1	1	1	1	1
GIS Mapping Technician	0	0	0	0	1	1	1	1	1	1
GIS Specialist	0	0	0	0	1	1	1	1	1	1
GIS Technician I	1	1	1	1	0	0	0	0	0	0
GIS Manager	1	1	1	1	1	1	1	1	1	1
<b>Total GIS</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Department of Financial Services</b>										
<b>Finance &amp; Budget:</b>										
Budget Analyst	1	1	1	1	1	1	1	1	1	1
<b>Total Finance &amp; Budget</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Accounting/Investments/Cash Flow</b>										
Accounting Technician I	2	1	1	1	1	1	1	1	1	1
Accounting Technician II	1	1	1	1	1	1	1	1	1	1
Accounting Manager	1	1	1	1	1	1	1	1	1	1
<b>Total Acct., Investments &amp; Cash Flow</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>Purchasing &amp; Warehouse:</b>										
Purchasing Agent I	1	1	1	1	1	1	1	1	0	0
Purchasing Agent II	1	1	1	1	1	0	0	0	0	0
Warehouse Manager	0	0	0	0	0	0	0	0	1	1
Purchasing Supervisor	1	1	1	1	1	1	1	1	1	1
<b>Total Purchasing &amp; Warehouse</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>

Staffing History (FTE's) (continued)

Division & Position	Approved Positions									
	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
<b>Department of Financial Services</b>										
<b>Fleet Maintenance:</b>										
Fleet Mechanic I	0	0	0	0	0	0	0	0	0	1
Fleet Mechanic III	3	3	3	3	3	3	3	3	3	2
Fleet Maintenance Manager	1	1	1	1	1	1	1	1	1	1
<b>Total Fleet Maintenance</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Facilities Maintenance:</b>										
Facility Maintenance Technician	5	5	5	5	5	5	5	5	5	5
Facilities Maintenance Manager	1	1	1	1	1	1	1	1	1	1
<b>Total Facilities Maintenance</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>
<b>Department of Engineering</b>										
<b>Office Support:</b>										
Office Manager	1	0	0	0	0	0	0	0	0	0
<b>Total Office Support</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Engineers:</b>										
Engineer I	2	2	2	3	2	2	1	1	1	2
Engineer II	1	1	1	0	1	1	2	2	3	2
Senior Engineer/Construction Manager	1	1	1	1	0	0	0	0	0	0
Assistant Director of Engineering	0	0	0	0	1	1	1	1	0	0
<b>Total Engineers</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Design and Drafting:</b>										
Engineering Technician I	1	1	1	1	1	1	1	0	0	0
Engineering Technician II	1	1	1	1	1	1	1	2	1	1
Engineering Technician III	0	0	0	0	0	0	0	0	1	1
Design and Drafting Manager	1	1	1	1	1	1	1	1	1	1
<b>Total Design and Drafting</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>Right of Way:</b>										
Administrative Assistant – Right of Way	1	1	1	1	1	1	1	1	1	1
Right of Way Agent	1	1	1	1	1	1	1	1	1	1
Right of Way Manager	1	1	1	1	1	1	1	1	1	1
<b>Total Right of Way</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>

**Staffing History (FTE's)** (continued)

Division & Position	Approved Positions									
	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
<b>Department of Engineering</b>										
<b>Planning &amp; Development</b>										
Engineering Support Technician	0	0	0	0	0	0	0	0	1	1
Systems Coordinator II	0	0	0	0	0	0	2	2	2	2
Systems Coordinator III	2	2	2	2	2	2	0	0	0	0
Planning & Development Technician	0	0	0	1	1	0	0	0	0	0
Planning & Development Asst. Manager	0	0	0	0	0	1	1	1	0	0
Planning & Development Manager	0	0	1	1	1	1	1	1	1	1
Private Development Inspector	1	1	0	0	0	0	0	0	0	0
Private Development Project Manager	1	1	0	0	0	0	0	0	0	0
Private Development Coordinator/Plan Review	1	0	0	0	0	0	0	0	0	0
<b>Total Planning and Development</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Department of Water Reclamation Facility</b>										
<b>Plant Operations:</b>										
Operator in Training	0	0	0	2	0	0	2	0	3	3
Lead Operator	2	2	2	3	3	4	4	4	4	4
Operations Manager	1	1	1	1	1	1	1	1	1	1
WWTP Office/Administrative Manager	0	1	1	1	1	1	1	1	1	1
WWTP Operator	8	8	8	6	8	8	6	8	6	6
<b>Total Plant Operations</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>15</b>
<b>Industrial Waste:</b>										
Field Operations Manager	1	1	1	1	0	0	0	0	0	0
Industrial Waste Chemist	1	1	1	1	1	0	0	0	0	0
Grease Program Inspector	0	0	0	0	0	0	1	1	1	1
Pretreatment/Lab Specialist	0	0	0	0	0	1	1	1	1	1
Industrial Pretreatment Coordinator	1	1	1	1	1	1	1	1	1	1
Industrial Pretreatment Supervisor	0	0	0	0	1	1	1	1	1	1
<b>Total Industrial Waste</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>



Staffing History (FTE's) (continued)

Division & Position	Approved Positions									
	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
<b>Department of System Services – Construction</b>										
<b>Construction:</b>										
Construction Worker I	1	1	1	5	1	1	0	0	0	0
Construction Worker II	6	6	6	2	6	6	0	0	0	0
Construction Worker III	4	4	4	4	4	4	0	0	0	0
Construction Operator I	1	1	1	2	1	1	1	1	7	7
Construction Operator II	2	2	2	0	1	1	6	6	4	4
Construction Operator III	0	0	0	1	1	1	4	4	0	0
Construction Operator IV	0	0	0	0	0	0	1	1	2	2
Construction Operator V	0	0	0	0	0	0	1	1	1	1
Construction Operator VI	0	0	0	0	0	0	1	1	0	0
Construction Crew Leader	4	4	4	4	3	3	4	4	4	4
Senior Construction Crew Leader	0	0	0	1	1	1	0	0	0	0
Construction & Repair Supervisor	2	2	2	1	1	1	0	0	0	0
Point Repair/Dig Up Manager	0	0	0	0	0	0	1	1	1	1
Sewer Tap Manager	0	0	0	0	0	0	1	1	1	1
Heavy Equipment Excavator I	5	5	5	3	2	2	2	1	2	2
Heavy Equipment Excavator II	1	1	1	3	5	5	3	3	1	1
Heavy Equipment Excavator II	0	0	0	0	0	0	1	2	3	3
Assistant Director of SS Construction	1	1	1	1	1	1	1	1	1	1
<b>Total System Services Construction</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>
<b>Construction Administration:</b>										
Admin. Assistant – Construction	1	1	1	1	1	1	1	1	1	1
Construction Inspector I	0	0	0	0	1	1	1	1	1	0
Construction Inspector II	1	1	1	0	0	0	0	0	0	1
Construction Inspector III	2	2	2	3	2	2	2	2	2	2
Construction Inspector IV	1	1	1	0	0	0	0	0	0	0
Lead Construction Inspector	0	0	0	0	1	1	1	0	0	0
Industrial Infrastructure Inspector	0	0	0	0	0	0	0	0	0	1
Inspections Manager	0	0	0	0	0	0	0	1	1	1
Senior Field Representative	0	0	0	1	1	1	0	0	0	0
System Services Rehabilitation Manager	0	0	0	0	0	0	1	1	1	0
<b>Total Construction Administration</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>

Staffing History (FTE's) (continued)

Division & Position	Approved Positions									
	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
<b>Department of System Services – Maintenance</b>										
<b>Office Support:</b>										
Dispatcher II	1	1	1	1	1	1	1	1	1	1
Office Assistant I	0	0	0	0	1	1	1	1	1	1
Office Assistant II	2	2	2	2	1	1	1	1	1	1
SSD Administrator	1	1	1	1	1	1	1	1	1	1
<b>Total Office Support</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>SCADA/PLC:</b>										
SCADA/PLC Technician	2	2	2	2	2	2	2	2	2	2
<b>Total SCADA/PLC</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Pump Station Maintenance:</b>										
Pump Station Maintenance Technician	2	2	2	2	4	4	4	4	4	4
Pump Station Maintenance Crew Leader	1	1	1	1	1	1	1	1	1	0
<b>Total Pump Station Maintenance</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>4</b>
<b>Maintenance:</b>										
Collections System Operator I	0	0	0	0	0	0	0	0	6	6
Collections System Operator II	0	0	0	0	0	0	6	6	1	1
Collections System Operator III	0	0	0	0	0	0	7	7	5	5
Collections System Operator IV	0	0	0	0	0	0	1	1	3	3
Collections System Operator V	0	0	0	0	0	0	2	2	1	1
Collections System Operator VI	0	0	0	0	0	0	5	5	5	5
First Responder	2	2	3	2	2	2	2	3	3	3
Technical Services Worker I	2	2	2	2	0	0	0	0	0	0
Technical Services Worker II	4	4	4	5	6	6	0	0	0	0
Technical Services Worker III	2	2	4	6	7	7	0	0	0	0
Technical Services Operator I	1	1	1	1	1	1	0	0	0	0
Technical Services Operator II	3	3	2	2	2	2	0	0	0	0
Technical Services Operator III	7	7	7	5	5	5	0	0	0	0
Night Supervisor	0	0	1	1	1	1	1	0	0	0
Assistant Supervisor – SS Maintenance	2	2	0	0	0	0	0	0	0	0
Collection System Maint. Supervisor	2	2	2	2	2	2	2	2	2	2
Maintenance Coordinator	0	0	1	1	1	1	1	1	1	1
<b>Total System Services Maintenance</b>	<b>25</b>	<b>25</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>

**Staffing History (FTE's)** (continued)

Division & Position	Approved Positions									
	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
<b>Department of System Services – Maintenance</b> (continued)										
<b>Mechanical/Electrical Maintenance:</b>										
Electrician II	1	1	1	0	0	0	0	0	1	2
Electrical Maintenance Crew Leader	1	1	1	1	1	1	1	1	1	0
Electrical Specialist	1	0	0	1	1	1	1	1	0	0
Instrumentation Specialist	1	1	1	0	0	0	0	0	0	0
Maintenance Mechanic II	2	2	2	3	3	3	3	3	3	3
Mechanical Maint. Crew Leader	1	1	1	1	1	1	1	1	1	0
Mechanical Specialist	1	1	1	1	0	0	0	0	0	0
Senior Electrician	2	2	2	2	2	2	2	2	2	3
Senior Maintenance Mechanic	2	2	2	1	1	1	1	1	1	1
Maintenance Coordinator	0	0	0	0	0	0	0	0	0	1
Maintenance Manager	1	1	1	1	1	1	1	1	1	1
<b>Total Mechanical/Electrical</b>	<b>13</b>	<b>12</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>11</b>
<b>Total District:</b>	<b>150</b>	<b>147</b>	<b>149</b>	<b>148</b>	<b>150</b>	<b>151</b>	<b>152</b>	<b>152</b>	<b>152</b>	<b>152</b>

## Budget Resolution

RESOLUTION ADOPTING PRELIMINARY BUDGET AND SEWER USE CHARGES  
FOR THE  
METROPOLITAN SEWERAGE DISTRICT  
OF BUNCOMBE COUNTY, NORTH CAROLINA  
FOR THE FISCAL YEAR July 1, 2023 THRU June 30, 2024

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 2023-2024 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, 2023 and ending June 30, 2024:

Operating and Maintenance Expenses	\$	16,822,125
Transfer to Insurance Accounts	\$	4,212,615
Transfer to Fleet & Heavy Equipment Fund	\$	595,000
Transfer to Wastewater Treatment Plant Reserve	\$	250,000
Transfer to Pump Station Maintenance	\$	60,000
Subtotal O&M	\$	21,939,740
Transfer to the General Fund	\$	23,152,993
Transfer to Debt Service Fund	\$	8,734,667
	\$	<u>53,827,400</u>

It is estimated that the following revenues will be available in the Revenue Fund for the fiscal year beginning July 1, 2023 and ending June 30, 2024:

Domestic User Fees	\$	38,928,326
Industrial User Fees	\$	3,410,895
Billing and Collection Fees	\$	1,157,474
Investment Interest	\$	2,657,066
Reimbursement for Debt Service from COA	\$	35,000
Rental Income	\$	96,000
Appropriated from Net Position	\$	7,542,639
	\$	<u>53,827,400</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, 2023 and ending June 30, 2024:

Transfer into Construction	\$	<u>26,377,993</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, 2023 and ending June 30, 2024:

Facility and Tap Fees	\$ 3,200,000
Investment Income	\$ 125
Transfer In from Revenue Fund	\$ 23,152,993
Appropriated from Net Position	\$ 24,875
	<u>\$ 26,377,993</u>

- 3** The following amounts are hereby appropriated in the Construction Fund for Capital Improvement Plan expenditures for the fiscal year beginning July 1, 2023 and ending June 30, 2024.

Capital Improvements Projects	<u>\$ 26,377,993</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, 2023 and ending June 30, 2024.

Investment Income	\$ 500
Transfer In from General Fund	\$ 26,377,993
Contribution to Net Position	\$ (500)
	<u>\$ 26,377,993</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, 2023 and ending June 30, 2024 are:

Operating Expenditures	<u>\$ 4,150,561</u>
------------------------	---------------------

It is estimated that the following revenues will be available in the Insurance Funds for the fiscal year beginning July 1, 2023 and ending June 30, 2024:

Transfer In from the Revenue Fund	\$ 4,212,615
Investment Income	\$ 154,000
Employee/Retirees Medical Contributions	\$ 385,800
Contribution To Net Position	\$ (601,854)
	<u>\$ 4,150,561</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, 2023 and ending June 30, 2024 estimated as follows:

Transfer to Capital Reserve	\$ -
Capital Equipment	\$ 193,619
	<u>\$ 193,619</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, 2023 and ending June 30, 2024:

Transfer In from the Revenue Fund	\$	595,000
Sale of Surplus Property	\$	14,362
Investment Income	\$	34,758
Contribution To Net Position	\$	<u>(450,501)</u>
	\$	<u>193,619</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, 2023 and ending June 30, 2024 estimated as follows:

Capital Equipment	\$	<u>217,000</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, 2023 and ending June 30, 2024:

Transfer In from the Revenue Fund	\$	250,000
Investment Income	\$	6,905
Transfer Out to Pump Station Replacement Fund	\$	-
Contribution To Net Position	\$	<u>(39,905)</u>
	\$	<u>217,000</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, 2023 and ending June 30, 2024 estimated as follows:

Capital Equipment	\$	<u>74,000</u>
	\$	<u>74,000</u>

It is estimated that the following revenues will be available in the Pump Station Replacement Fund for the fiscal year beginning July 1, 2023 and ending June 30, 2024:

Transfer In from the Revenue Fund	\$	60,000
Investment Income	\$	3,860
Appropriated from Net Position	\$	<u>10,140</u>
	\$	<u>74,000</u>

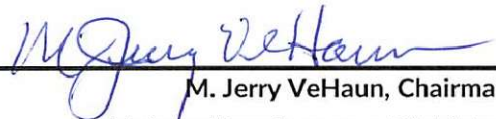
- 8 The following amounts are hereby appropriated in the Debt Service Fund for principal and interest payments for the fiscal year beginning July 1, 2023 and ending June 30, 2024:

Debt Service	\$	<u>8,734,667</u>
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**Budget Resolution** (continued)

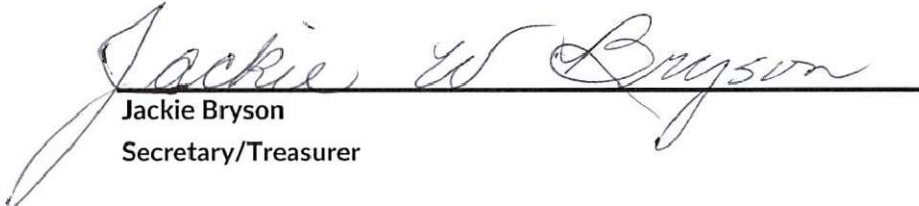
- 9 That the Board of the Metropolitan Sewerage District does hereby approve an increase in the Budgets to the amount necessary to reflect any contributions to the Debt Service Reserve Fund or Capital Reserve Fund as determined by the Bond Trustee to be necessary to comply with covenants in the Bond 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.
  - b. He may transfer any amounts within Debt Service and Reserve Funds designated as excess by the Trustee into another fund.
  - c. He may transfer up to 10% of Insurance Fund reserves to meet current year expenditures in excess of budget.
- 11 That the attached Schedule of Fees and Charges be adopted as effective July 1, 2023.
- 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 14th day of June 2023



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

Attest:



Jackie Bryson  
Secretary/Treasurer

## Schedule of Rates, Fees, and Charges – FY2024

Effective July 1, 2023

	ADOPTED FY2023 RATE	PROPOSED FY2024 RATE
<b>Collection Treatment Charge</b>		
Residential & Commercial Volume Charges (per CCF) Inside	\$ 5.01	\$ 5.26
Industrial Volume Charges (per CCF) Inside	5.01	5.26
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	\$ 5.02	\$ 5.27
Industrial Volume Charges (per CCF) Outside	5.02	5.27
Industrial Surcharge for BOD (per lb., BOD >250 mg/l) Outside	0.300	0.300
Industrial Surcharge for TSS (per lb., TSS >250 mg/l) Outside	0.250	0.250
<b>Base Meter/Maintenance Charge &amp; Billing Fee</b>		
5/8"	\$ 7.72	\$ 8.11
3/4"	11.23	11.79
1"	19.94	20.94
1 1/2"	45.60	47.88
2"	80.65	84.68
3"	178.85	187.79
4"	319.16	335.12
6"	718.97	754.92
8"	1,276.60	1,340.43
10"	1,999.09	2,099.04
Billing Fee (per bill)	2.66	2.83
<b>Sewer System Development Fees</b>		
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.		
<b>Residential</b>		
Per Unit	\$ 2,836.00	\$ 3,568.00
Mobile Home	2,836.00	3,568.00
Multifamily Unit	1,900.00	2,390.00
Affordable Housing	670.00	844.00



**Schedule of Rates, Fees, and Charges – FY2024** (continued)  
 Effective July 1, 2023

	ADOPTED FY2023 RATE	PROPOSED FY2024 RATE
<b>Sewer System Development Fees</b> (continued)		
<i>Nonresidential</i>		
5/8"	\$ 2,836.00	\$ 3,568.00
3/4"	4,254.00	5,352.00
1"	7,090.00	8,919.00
1 1/2"	14,180.00	17,839.00
2"	22,688.00	28,542.00
3"	45,376.00	57,084.00
4"	70,900.00	89,194.00
6"	141,800.00	178,387.00
8"	226,800.00	285,319.00
10"	595,560.00	749,226.00
12"	751,540.00	945,452.00
<b>Sewer Connection Fees</b>		
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 will install sewer connections where the public main is on the same side of the street as the residence or business		
MSD requires that a licensed utility contractor install any sewer connection/service line within public rights-of-way extending over 75 feet or that requires pavement disturbance or boring to reach across a paved thoroughfare. The installation shall be constructed to MSD Standards. All work will be subject to MSD inspection.		
Sewer Connection by MSD	\$ 1,300.00	\$ 1,300.00
Contractor installed Sewer Connection	Varies	Varies
Inspection Fee for Utility Contractor Installed Sewer Connection	\$ 140.00	\$ 140.00
<b>Manhole Installation/Replacement</b>		
Cost per foot	\$ 250.00	\$ 250.00
Pavement replacement (if required)	1,800.00	1,800.00

**Schedule of Rates, Fees, and Charges – FY2024** (continued)  
 Effective July 1, 2023

	ADOPTED FY2023 RATE	PROPOSED FY2024 RATE
<b>Other Fees</b>		
Allocation Fee	170.00	170.00
Non-Discharge Permit	200.00	200.00
Plan Review Fee	450.00	450.00
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.		
<b>Bulk Charges</b>		
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
<b>Returned Check Charge</b>		
Returned Check (per event)	\$ 25.00	\$ 25.00
Dishonored Draft (per event)	25.00	25.00
<b>Copy/Printing Fees/Miscellaneous (each)</b>		
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.

**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).

## Glossary of Terms (continued)

**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 AAA by 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.

**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.

## Glossary of Terms (continued)

**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.

**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.

## Glossary of Terms (continued)

**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.

**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.

## Glossary of Terms (continued)

**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.

**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, 2024, begins on July 1, 2023, and will continue until June 30, 2024.

**Flow**—Volume of domestic or industrial wastewater.



## Glossary of Terms (continued)

**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.

**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.

## Glossary of Terms (continued)

**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.

**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.

## Glossary of Terms (continued)

**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.

**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.

## Glossary of Terms (continued)

**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.

**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.

## Glossary of Terms (continued)

**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.

**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.

## Glossary of Terms (continued)

**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.

**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 (WRF)**—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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