

**BOARD OF THE METROPOLITAN SEWERAGE DISTRICT**  
**September 18, 2024**

**1. Call to Order and Roll Call:**

The regular monthly meeting of the Metropolitan Sewerage District Board was held in the Boardroom of MSD's Administration Building at 2:00 pm, Wednesday, September 18, 2024. Chairman Vebaun presided with the following members present: Ashley, Bryson, Dearth, Franklin, Kelly, Manheimer, Pelly, Watts and Whitesides. Lapsley, Moore, Pennington and Wisler were absent.

Others present were William Clarke, General Counsel; Patty Beaver with CIBO; Seth Eckard with Woodfin Sanitary Water & Sewer District; Tom Hartye, Hunter Carson, Bart Farmer, Wesley Banner, Ken Stines, Pam Thomas, Mike Stamey, Amanda Cutshaw, Spencer Nay and Pam Nolan, MSD.

**2. Inquiry as to Conflict of Interest:**

Mr. VeHaun asked if there were any conflicts of interest with the agenda items. No conflicts were reported.

**3. Approval of Minutes of the August 21, 2024 Board Meeting:**

Mr. VeHaun asked if there were any changes to the Minutes of the August 21, 2024 Board Meeting. Mr. Kelly moved for approval of the minutes as presented. Ms. Bryson seconded the motion. Voice vote in favor of the motion was unanimous.

**4. Discussion and Adjustment of Agenda: None.**

**5. Introduction of Guests:**

Mr. VeHaun welcomed Patty Beaver with CIBO; and Seth Eckard, Executive Director, Woodfin Sanitary Water & Sewer District.

**6. Informal Discussion and Public Comment: None.**

**7. Report of Committees:**

**a. Right of Way Committee – August 28, 2024**

Mr. Kelly reported that the Right of Way Committee met on August 28, 2024. Two of the condemnations discussed at this meeting, Stevens on the Sand Hill Road @ Baker Place Project and McAlister on Weaverville Pump Station Project have signed and removed from this Agenda. Minutes are attached. There were no questions.

**8. Report of General Manager:**

Mr. Hartye reported that attached is an email from Jesse Gram and Julie Harrison of Lawrence Place in Asheville expressing their appreciation of Mitch Metcalf, James Norton and Jimmy Brooks.

Mr. Hartye reported that attached is a link to MSD's System Performance Annual Report (SPAR). Thanks to Bart Farmer and Angel Reece for putting it together: <http://www.msdbc.org/documents/spars/SPAR2024.pdf>.

Mr. Hartye reported that the next Right of Way Committee meeting will be held on September 25<sup>th</sup> at 9 am. The next Regular Board Meeting will be held on October 16<sup>th</sup> at 2 pm.

**9. Consolidated Motion Agenda:**

**a. Consideration of Pilot Testing Services Contract - Biological Treatment - For Information Only:**

Mr. Hartye reported that in 1988 the Rotating Biological Contactors (RBCs) were installed when the plant was expanded from 25mgd to 40mgd. They have performed well over the past 36 years. However, they are getting old and there are failures, as well as new future regulatory requirements coming down the pike. The biological treatment needed to replace them and to meet those regulations will involve new technology capable of meeting ammonia-nitrogen limits and other anticipated nutrient limits due in 2037. In 2023, MSD started a multi-year engineering study with Hazen & Sawyer to evaluate alternative biological treatment technologies to replace the RBCs. Three technologies were "short-listed" for further consideration - Aerobic Granular Sludge (AGS); Densified Activated Sludge; and Membrane Bioreactor. Aerobic Granular Sludge (AGS) appears to be the most viable solution due to process footprint, constructability and phasing options, and solids generation. AGS has about 100 installations globally. However, it is critical that process performance be confirmed at MSD's Treatment Plant prior to construction. This will be around a \$300M project. This will be a small-scale pilot test which will prove how to utilize this to treat to the levels that MSD wants to treat. Aqua-Aerobic Systems, Inc. (AASI) is the primary supplier of this technology. MSD and Hazen & Sawyer requested a pilot test proposal from AASI. This needs to be done for at least 6 months, possibly 12 months to go through different seasons as wastewater characteristics and treatment changes. Due to current availability of AASI's pilot unit, pilot testing will commence approximately 1.5 years earlier than anticipated. No funds were budgeted in FY24-25 for pilot testing. However, sufficient funds are available in the CIP contingency. AASI's cost is \$200,280.00 for 6 months. If somewhere in the next 4 months we determine that we want to go 12 months, it will be an additional \$90,000.00 which will be budgeted for next year. Mr. Ashley asked if there are about 100 of these in operation or installed, is the District's wastewater different or are District requirements different or why would MSD have to have the extensive study. Mr. Hartye stated that everyone's wastewater matrix is different, depending on what kind of industries they have, if they are all residential, or if they have a little bit of commercial or industrial, they all have different wastewater characteristics. We have a pre-treatment program where certain industries over a certain amount of flow or that have a categorical status as far as metal plating or something like that, those types of companies are permitted. MSD is actually the regulator. The EPA requires us to become the regulator for them. They will have all types of waste, so sometimes we require them to pre-treat that waste to meet certain parameters so that we can treat their

waste at the plant. If we let them go without pretreatment, it could disrupt our plant and kill our organisms and then we can't treat for anybody. At the end of the day even after they've treated, their waste may still be a little different. MSD used to have a lot of textiles here, so our water was really dilute and didn't have really heavy biology in it. When they left, our biggest industry became Milco, and Milco had a lot of biology in it, so our waste changed quite a bit. That gives you an idea that you have different waste make-up, and the tested treatment may handle certain things better than it handles others. That is generally why you need to have a pilot test to see how that technology handles the types of waste you are receiving.

**b. Consideration of Condemnation – Sand Hill Road @ Baker Place Sewer Replacement, MSD Project No. 2015223, Radford:**

Mr. Hartye reported that there were nine substantial contacts with owner. MSD Project Engineer revised the alignment to parallel the driveway and to make the project less onerous on them. The alternate alignment was rejected by owner and owner stated they do not desire to grant any permanent easement to MSD. Committee recommends authority to obtain appraisal and proceed with condemnation, if necessary.

**c. Consideration of Developer Constructed Sewer Systems – Henderson County EMS; Rydele Heights Phase 2:**

Mr. Hartye reported that the Henderson County EMS project is located along Howard Gap Road in Henderson County and included extending approximately 132 linear feet of 8-inch public gravity sewer to serve the new emergency medical services facility.

Mr. Hartye reported that the Rydele Heights Phase 2 project is located along Country Oak Drive in Buncombe County and included extending approximately 1,105 linear feet of 8-inch public gravity sewer to serve 22 units in this phase of this residential development.

Staff recommends acceptance of the aforementioned developer constructed sewer system. All MSD requirements have been met.

**d. Procurement of 2024 Mainline Inspection Truck with Camera Equipment – Fleet Replacement:**

Mr. Hartye reported that the District's policy is to annually evaluate the condition of fleet vehicles and purchase replacements when the estimated cost of repair and maintenance will exceed the cost of a new vehicle. At the March 14, 2024 Equipment Replacement Committee meeting, the members recommended the purchase of one new Mainline Inspection Truck Replacement. Funds for this purchase were included in the 2024-2025 Budget. MSD is going to utilize the State Contract procedure. Cues Incorporated was awarded the contract under the NC Sheriffs' cooperative. The cost, per the contract, for the Mainline Inspection Truck is \$317,215.00. This reflects a 6% Sheriffs' Association discount of

\$8,045.70 and a 16.8% Cues loyalty discount of \$35,533 off MSRP. The total cost of this contract will be \$317,215.00. This has been budgeted and Staff recommends that the bid from Cues Incorporated through the NC Sheriffs' Association Heavy Equipment Procurement Program be awarded.

**e. Cash Commitment Investment Report – Month ended July, 2024:**

Mr. Hartye reported that Page 47 presents the average rate of return which is 5.09 %. Total cash and investments is \$93,834,513.00. If you take away all of the current obligations for insurance, current years' budget, etc., that leaves about \$24 Million. Page 49 presents a breakdown of the District's Investment Portfolio. Page 50 presents the Districts Investment Manager's Report. Pages 51 and 52 have year-to-date expenditures and cash receipts, both of which are at budgeted expectations. Page 53 presents the 2008A Series Synthetic Fix Bonds. The savings to date are approximately \$7.8 million.

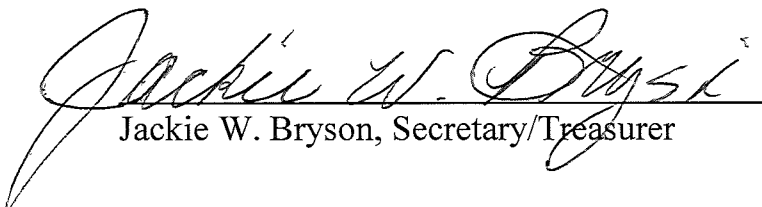
With no further discussion, Mr. VeHaun called for a motion to approve the Consolidated Motion Agenda. Mr. Watts moved, Mr. Ashley seconded the motion. Roll call vote was as follows: 10 ayes; 0 nays.

**10. Old Business:** None.

**11. New Business:** None.

**12. Adjournment:**

With no further business, Mr. VeHaun called for adjournment at 2:24 pm.

  
Jackie W. Bryson, Secretary/Treasurer



# Metropolitan Sewerage District

Regular Board Meeting

September 18, 2024, 2 pm

|  | Agenda Item   | Presenter |
|--|---|-----------|
|  | Call to Order and Roll Call   | VeHaun    |
|  | 01. Inquiry as to Conflict of Interest  | VeHaun    |
|  | 02. <a href="#">Approval of Minutes of the August 21, 2024 Board Meeting</a>  | VeHaun    |
|  | 03. Discussion and Adjustment of Agenda   | VeHaun    |
|  | 04. Introduction of Guests  | VeHaun    |
|  | 05. Informal Discussion and Public Comment  | VeHaun    |
|  | 06. Report of Committees:<br>a. <a href="#">Right of Way Committee – August 28, 2024</a>                                  | Kelly     |
|  | 07. <a href="#">Report of General Manager</a>   | Hartye    |
|  | 08. Consolidated Motion Agenda  | Hartye    |
|  | a. <a href="#">Biological Treatment Pilot Study – For Information Only</a>  |           |
|  | b. Consideration of Condemnation –<br><a href="#">Sand Hill Road @ Baker Place - Radford</a>                              |           |
|  | c. Consideration of Developer Constructed Sewer Systems –<br><a href="#">Henderson County EMS; Rydele Heights Phase 2</a> |           |
|  | d. <a href="#">Procurement of 2024 Inspection Truck – Fleet Replacement</a>   |           |
|  | e. <a href="#">Cash Commitment/Investment Report-Month ended July, 2024</a>   | Powell    |
|  | 09. Old Business  | VeHaun    |
|  | 10. New Business:   | VeHaun    |
|  | 11. Adjournment: (Next Meeting 10/16/2024)  | VeHaun    |
|  | <a href="#">STATUS REPORTS</a>  |           |

# **BOARD OF THE METROPOLITAN SEWERAGE DISTRICT**

**August 21, 2024**

## **1. Call to Order and Roll Call:**

The regular monthly meeting of the Metropolitan Sewerage District Board was held in the Boardroom of MSD's Administration Building at 2:00 pm, Wednesday, August 21, 2024. Chairman VeHaun presided with the following members present: Bryson, Dearth, Franklin, Kelly, Lapsley, Manheimer, Pennington, Watts and Wisler. Ashley, Moore, Pelly and Whitesides were absent.

Others present were Billy Clarke, General Counsel; Forrest Westall, PE, McGill Associates; Patty Beaver with CIBO; Tom Hartye, Ken Stines, Pam Thomas, Mike Stamey, Darin Prosser, Bart Farmer, Scott Powell, Angel Banks, Wesley Banner, Spencer Nay and Pam Nolan, MSD.

## **2. Inquiry as to Conflict of Interest:**

Mr. VeHaun asked if there were any conflicts of interest with the agenda items. No conflicts were reported.

## **3. Approval of Minutes of the June 12, 2024 Board Meeting:**

Mr. VeHaun asked if there were any changes to the Minutes of the June 12, 2024 Board Meeting. Mr. Watts moved for approval of the minutes as presented. Mr. Kelly seconded the motion. Voice vote in favor of the motion was unanimous.

## **4. Discussion and Adjustment of Agenda: None.**

## **5. Introduction of Guests:**

Mr. VeHaun welcomed Patty Beaver with CIBO.

## **6. Informal Discussion and Public Comment: None.**

## **7. Election of Officers:**

Mr. VeHaun called for nominations for Chair of the MSD Board. Mr. Kelly nominated Mr. VeHaun as Chair. Mr. Watts seconded the nomination. With no further nominations, Mr. VeHaun called for a motion that nominations be closed and that, by acclamation, Mr. VeHaun be elected as Chair of the MSD Board for 2024-2025. Mr. Kelly moved and Ms. Wisler seconded the motion. Voice vote in favor of the motion was unanimous.

Mr. VeHaun called for nominations for Vice Chair of the MSD Board. Ms. Bryson nominated Mr. Kelly as Vice Chair. Mr. Watts seconded the nomination. Mr. VeHaun called for a motion that nominations be closed and that, by acclamation, Mr. Kelly be elected as Vice Chair of the MSD Board for 2024-2025. Mr. Watts moved and Ms. Wisler seconded the motion. Voice vote in favor of the motion was unanimous.

Mr. VeHaun nominated Ms. Bryson for re-appointment as Secretary/Treasurer of the MSD Board for 2024-2025. Mr. Watts made the

motion. Mr. Kelly seconded. Voice vote in favor of Ms. Bryson's re-appointment was unanimous.

**8. Report of Committees:**

**a. Right of Way Committee – June 26, 2024**

Mr. Kelly reported that the Right of Way Committee met on June 26, 2024. Minutes are attached if there are any questions. There were no questions. Mr. Clarke added that Item III. in the Right of Way Committee Minutes and Item 09.e. Consideration of Condemnation – Knauth Road, on this agenda, has been signed by the representative of the Estate and may be removed.

**b. Personnel Committee – August 6, 2024**

Ms. Bryson reported that the Personnel Committee met on August 6, 2024 for an update on the General Manager's Goals and Objectives and for a presentation from Mrs. Thomas regarding the current year's self-funded health plan and compensation just put in place. Committee Meeting was in full attendance and expressed their appreciation of succession planning and training efforts.

**9. Report of General Manager:**

Mr. Hartye reported that attached is an excerpt from the "answer man" column in the Asheville Watchdog regarding the MSD Hydroelectric Facility. Mr. Pennington asked Mr. Hartye to explain how much power is produced for the plant. Mr. Hartye stated 2.5 megawatts. This varies different times of the year, creating different amounts of energy based on the flow in the river. MSD has a pretty electrically intensive plant with the blowers and those types of things. Generally, MSD yields from \$300,000.00-\$600,000.00 of avoided power cost. That equates to about half of the total plant usage and is about how much MSD avoids in cost as a result of that green power.

Mr. Hartye reported that Carr Swicegood emailed to express his appreciation that Kevin Johnson, MSD's Planning and Development Manager, goes above and beyond his job responsibilities and that he is knowledgeable of rules and process and is helpful on what is needed to get a CO for a job.

Mr. Hartye reported that Sandra Martin called to express her appreciation for a couple of MSD employees who changed a tire for her. She said she had been waiting 2 ½ hours for AAA to come change a tire for her when two nice gentlemen in an MSD truck stopped to help her. She wanted to convey that she was very grateful.

Mr. Hartye reported that attached is a graph of COVID Monitoring in Wastewater showing the recent surge in comparison to the last 3 years of data here in Buncombe County.

Mr. Hartye reported that the Right of Way Committee Meeting will be held on August 28<sup>th</sup> at 9am. The next Regular Board Meeting will be held on September 18<sup>th</sup> at 2 pm.

**10. Consolidated Motion Agenda:**

**a. Consideration of Bids – Elk Mountain Place Sanitary Sewer Rehabilitation, MSD Project No. 2010094:**

Mr. Hartye reported that the Elk Mountain Place project is located in Woodfin and is comprised of 4,137 LF of 8-inch ductile iron pipe to be installed by dig and replace. The existing 6-inch vitrified clay pipe is in poor condition, is undersized, and has experienced SSO's. The project was advertised formally and four sealed bids were received on July 25, 2024 as follows: Thomas Construction Company in the amount of \$1,684,642.00; T.P. Howard's Plumbing Company Inc. in the amount of \$1,310,000.00; Appalachian Site Work, Inc. with a bid amount of \$1,234,099.88 and Terry Brothers Construction Company in the amount of \$1,133,123.00. The apparent low bidder is Terry Brothers Construction Company with a bid amount of \$1,133,123.00. Terry Brothers Construction Company has extensive experience with District rehabilitation projects and continues to provide excellent workmanship. The FY 24-25 Construction Budget for this project is \$1,457,000.00. Staff recommends award of this contract to Terry Brothers Construction Company in the amount of \$1,133,123.00, contingent upon review and approval by District Counsel.

**b. Consideration of Bids – Incinerator Sand Transport System, MSD Project No. 2024036:**

Mr. Hartye reported that the Incinerator Building's sand storage and transport system was originally installed in the early 1990's. It is responsible for conveying sand from an externally located storage silo into the incinerator. Maintaining a precise sand level in the incinerator bed provides proper sludge distribution and more efficient burn. The conveyance of abrasive sand over 30 years has basically worn the system out. The new system will include a larger storage silo with sufficient volume to fill the incinerator bed, a more efficient conveyance system that is less abrasive, and automatic controls. No bids were received on the projects original bid date of Thursday, July 25, 2024. The project was re-advertised on August 1, 2024 and one bid was received as follows: Dynamic Air, Inc. in the amount of \$202,865.00. The apparent low bidder is Dynamic Air, Inc. with a bid amount of \$202,865.00. Dynamic Air, Inc. has successful installations at other facilities and is the manufacturer of the District's existing system. The FY 24-25 budget for this project is \$275,000.00 and includes both equipment procurement and installation. Staff recommends award of this contract to Dynamic Air, Inc. in the amount of \$202,865.00, contingent upon review and approval by District Counsel.

**c. Consideration of Sole Source Procurement of Equipment: MCC Replacement, MSD Project No. 2024040:**



Mr. Hartye reported that there are tons of Motor Control Centers (MCC's) at the Treatment Plant involved in all facets of the treatment process. Two of these MCC's are the Intermediate Clarifier MCC and the NPW Pump Station MCC. These two MCCs were installed in the late 1980s and are at the end of their service life. The units are obsolete, and replacement parts are difficult to obtain. In lieu of replacing both MCCs in kind, District staff identified an option for consolidating controls into one MCC, resulting in significant cost savings. The cost of the single MCC is \$151,925.02. Ancillary gear, including a small transformer and power panels are required for the consolidation and cost an additional \$6,408.23 for a total purchase price of \$158,333.25. The FY 24-25 budget for this project is \$524,000.00 and includes both equipment procurement and installation, which will be performed in the Spring of 2025. Sole source procurement for purposes of standardization and/or compatibility is allowed per NCGS 143-129(e)(6). Staff recommends that the District approve a sole-source procurement of an Eaton brand MCC, contingent upon review and approval by District Counsel.

**d. Consideration of Engineering Contract – MSD Plant and Pump Station Electrical Arc Flash Study (Fall 2024) MSD Project No. 2023008:**

Mr. Hartye reported that there will be two Arc Flash studies this fiscal year, one in the fall and one in the spring. An Arc Flash review is required a minimum of every five years for all affected electrical panels. This study will ensure that MSD meets the current guidance and standards related to arc flash analysis and associated arc flash labeling. The study will be used to correctly determine fuse, breaker and switch gear ratings. These ratings will be used to evaluate the protective measures needed when working on or near electrical panels. These panels will display labeling as well. This is the first of two studies this fiscal year. The second study in spring of 2025 will address 58 additional panels. Staff advertised a Request for Qualifications (RFQ) in June of 2024 and received one response from McGill Associates, PA. McGill Associates has extensive experience with MSD and the plant's electrical system. McGill has completed several ARC Flash studies for MSD in past years including one recently completed in April, 2024. Staff negotiated a price of \$79,100.00 which was considered reasonable based on scope of work and previous arc flash contracts completed by the District. There are sufficient funds within the CIP for the project. Staff recommends award of the engineering services contract to McGill Associates in the amount of \$79,100.00, contingent upon review and approval by District Counsel.

**e. Consideration of Condemnation – Knauth Road:**

Mr. Hartye reported that this item has been settled and can be removed from this Agenda.

**f. Consideration of Compensation Budgets – 10 Balsam Road, Jonestown Road @ Riverside Drive; Sand Hill Road @ Baker Place:**

Mr. Hartye reported that the Right of Way Committee recommends approval of these compensation budgets.

**g. Consideration of Developer Constructed Sewer Systems: Busbee Ph.1; Clayton Crossing; Ironwood Sewer Relocation; Lake Julian Crossing Ph. 1; Liberty Oaks Ph. 1B; Owenby Lane; Pineview Subdivision; The Ramble Block K; The Ramble – Tea House Ridge; Tap Root Ph. 1; View at Reems Creek:**

Mr. Hartye reported that the Busbee Ph. 1 project is located along Sweeten Creek Road in Buncombe County and included extending approximately 4,240 linear feet of 8-inch public gravity sewer to serve 315 apartments in this residential development.

Mr. Hartye reported that the Clayton Crossing project is located off Long Shoals Road in Buncombe County and included extending approximately 1,110 linear feet of 8-inch public gravity sewer to serve 70 townhomes in this residential development.

Mr. Hartye reported that the Ironwood Sewer relocation project is located off Coxe Avenue in the City of Asheville and included relocating approximately 225 linear feet of 8-inch public gravity sewer and upgrading approximately 440 linear feet of 8-inch public gravity sewer to 12-inch. Additionally, approximately 594 linear feet of existing public sewer had to be abandoned. This will serve 554 apartments and the 60,000 SF commercial space.

Mr. Hartye reported that the Lake Julian Crossing project is located off Long Shoals Road in the City of Asheville and included extending approximately 1,125 linear feet of 8-inch public gravity sewer to serve 218 multi-family residential units and a commercial development with multiple restaurants.

Mr. Hartye reported that the Liberty Oaks Phase 1B project is located off Smokey Park Highway in Buncombe County and included extending approximately 620 linear feet of 8-inch public gravity sewer to serve 24 townhomes in this phase of the residential development.

Mr. Hartye reported that the Owenby Lane project is located along Owenby Lane in the Town of Black Mountain and included extending approximately 180 linear feet of 8-inch public gravity sewer to serve 4 homes in this residential development.

Mr. Hartye reported that the Pineview Subdivision project is located off Pineview Street in the City of Asheville and included extending approximately 70 linear feet of 8-inch public gravity sewer to serve 4 homes in this residential development.

Mr. Hartye reported that the Ramble Block K project is located off Emerald Necklace Drive in Buncombe County and included extending approximately 4,920 linear feet of 8-inch public gravity sewer to serve 38 homes in this phase of the residential development.

Mr. Hartye reported that the Ramble – Tea House Ridge project is located off Emerald Necklace Drive in Buncombe County and included extending approximately 7,430 linear feet of 8-inch public gravity sewer to serve 22 homes in this residential development.

Mr. Hartye reported that the Tap Root Ph. 1 project is located off Butler Bridge Road in Henderson County and included extending approximately 2,180 linear feet of 12-inch and 6,395 linear feet of 8-inch public gravity sewer to serve 113 homes in this phase of the residential development.

Mr. Hartye reported that the Views at Reems Creek project is located along Union Chapel Road in Buncombe County and included extending approximately 610 linear feet of 8-inch public gravity sewer to serve 11 homes in this residential development.

Staff recommends acceptance of the aforementioned developer constructed sewer system. All MSD requirements have been met.

**h. Fourth Quarter Budget to Actual Review 2024:**

Mr. Powell reported that Domestic and Industrial Revenue are above budgeted expectations. Staff believes Domestic User Fee variance will end up around 104% when June accounts receivable data is received from its Member Agencies in September. Facility and Tap Fees are above budgeted expectations. This is due to the District receiving an additional \$6 Million from various developments. Interest and miscellaneous income are above budgeted expectations due to actual short-term interest rates exceeding anticipated yields for the fiscal year. O&M expenditures are at 89.9% of budget. This amount may vary slightly from audited numbers due to final accruals. Bond principal and interest and other long-term obligations are at budgeted expectations. Capital project expenditures are at approximately 80.6% of budget. This reflects delays in projects. All unexpended funds have been included in the FY 2025 budget.

**i. Reimbursement Resolution for Bond Projects:**

Mr. Powell reported that to be in compliance with IRS Regulations concerning tax exempt financing, all expenditures made with non-MSD bond funds and to be reimbursed from MSD bond funds must be properly identified and authorized. The proposed reimbursement resolution identifies major projects intended to be solely or substantially financed by bonds anticipated to be issued in FY2027. Board approval is required to obtain the tax exemption of interest paid on MSD bonds by authorizing reimbursement from bond proceeds of the expenditures for the attached project listing.

**j. Cash Commitment Investment Report – Month ended July, 2024:**

Mr. Powell reported that Page 79 presents the makeup of the District's Investment Portfolio. There has not been a significant change in the makeup of the portfolio from the prior month. Page 80 presents the MSD Investment Manager's report as of the month of August. The weighted average maturity

of the investment portfolio is 34 days and the yield to maturity is 5.21%. Page 83 presents the District's Variable Debt Service Report. The 2008A Series Bond is performing at budgeted expectations. As of the end of July, the issue has saved the District rate payers approximately \$7.8 million in debt service since April of 2008.

With no further discussion, Mr. VeHaun called for a motion to approve the Consolidated Motion Agenda. Mr. Watts moved, Ms. Wisler seconded the motion. Roll call vote was as follows: 10 ayes; 0 Nays.

**11. Old Business:** None.

**12. New Business:**

Mr. Clarke stated that the Board needed to go into a closed session to discuss a settlement of a pending litigation of a condemnation action in Henderson County. Ms. Manheimer asked if her firm was involved. Mr. Clarke stated that it does involve her firm and that she didn't need to leave meeting but could recuse herself from voting on the matter. Mr. VeHaun called for a motion to go into closed session at 2:28 pm. Mr. Watts moved. Mr. Kelly seconded the motion. Voice vote in favor of the motion was unanimous.

At 2:35 pm, the Board went back into open session.

Mr. Lapsley made the motion that the settlement for Jane Coates Owen Trustee Condemnation (Cane Creek Water and Sewer District) 18 CVS 1898, Henderson County Superior Court, in the amount of \$70,000.00, be approved. Mr. Watts seconded the motion. Ms. Manheimer recused herself from the vote. Roll call vote was as follows: 9 ayes; 0 nays.

Mr. Clarke added that he appreciated the efforts of Ms. Banks, Mr. Banner, Mr. Carson, and Mr. Hartye during this process.

**13. Adjournment:**

With no further business, Mr. VeHaun called for adjournment at 2:38 pm.

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Jackie W. Bryson, Secretary/Treasurer

**RIGHT OF WAY  
COMMITTEE RECOMMENDATIONS  
AND MINUTES  
AUGUST 28, 2024**

**I. Call To Order**

The regular monthly meeting of the Right of Way Committee was held in the Boardroom of the William H. Mull Building and called to order at 9:00 a.m. on Wednesday, August 28, 2024. The following Right of Way Committee members were present: Glen Kelly, Chairman, Matt Ashley, Jackie Bryson, Esther Manheimer, Chris Pelly, Nathan Pennington and Al Whitesides.

Others present: Jerry VeHaun, Board Chairman; Doug Dearth, Board Member; William Clarke, MSD Counsel; Tom Hartye, Wesley Banner, Hunter Carson, Shaun Armistead, Darrell Hess and Pam Nolan, MSD.

**II. Inquiry as to Conflict of Interest**

Mr. Kelly inquired if anyone had a conflict of interest with Agenda items. There were none.

**III. Consideration of Condemnation – Sand Hill Road @ Baker Place Sewer Replacement – George A. & Joan S. Radford, Parcel Number 9628-81-2788:**

The subject parcel is located along Sand Hill Road in West Asheville and is improved with a single-family residence, currently a rental. The proposed sewer is in the same alignment as the existing except for a small portion within the driveway. The standard compensation offer for the easement areas on this parcel is \$8,299. A site meeting was held with the owner in May and his concerns were addressed in a Special Provisions Detail Sheet. The owner no longer desires the alignment in his driveway. MSD agreed to increase the compensation offer to \$8,599 in good faith negotiations and the owner rejected.

The MSD Project Engineer revised the alignment to parallel the driveway. The alternate alignment was rejected, and the owner stated he does not desire to grant any permanent easement area to MSD on his property. We have reached an impasse with the property owner, and we must move forward.

Contacts: 9

**STAFF RECOMMENDATION: Authority to obtain appraisal and proceed with condemnation, if necessary.**

Mr. Banner reviewed the above information and presented a map showing the location. There were no questions. Mr. Kelly made the motion to accept Staff's recommendation. Mr. Whitesides seconded the motion. Voice vote was unanimous.

**COMMITTEE RECOMMENDATION: Authority to obtain appraisal and proceed with condemnation, if necessary.**

**IV. Consideration of Condemnation – Sand Hill Road @ Baker Place Sewer Replacement - Lief Stevens, Parcel Number 9628-82-3062:**

Subject parcel is located along Baker Place Extension in West Asheville and is improved with a single-family residence. The existing sewer is located on the adjacent property to the east and runs under a dwelling. The proposed sewer is being shifted to run along the rear property line of both parcels to avoid this dwelling. Due to the shift in alignment, there will be new easement areas on the subject parcel. There will be no loss of buildable area since the proposed permanent easement is located within the setback of the rear property line. Compensation for the easement areas on this parcel is \$2188.

Staff began negotiations back in April. We have been unsuccessful in contacting the owner despite leaving numerous door hangers and mailing the owner a certified letter. This project is scheduled to go out to bid soon therefore we must move forward.

Contacts: 5

**STAFF RECOMMENDATION: Authority to obtain appraisal and proceed with condemnation, if necessary.**

Mr. Banner reviewed the above information and presented a map showing the location. There were no questions. Mr. Kelly made the motion to accept Staff's recommendation. Mr. Whitesides seconded the motion. Voice vote was unanimous.

**COMMITTEE RECOMMENDATION: Authority to obtain appraisal and proceed with condemnation, if necessary.**

**V. Consideration of Condemnation – Weaverville Pump Station Rehabilitation – Sabrina McAlister, Parcel Number 9722-80-7885:**

Subject parcel is a flag lot located off of Wiley Drive and improved with a single-family home. An existing 12-inch force main will be upsized to 24 inches, providing for the increased growth in the Weaverville area. This existing force main and easement is located within the 60-foot road right of way of Wiley Drive. To accommodate both the larger pipe and a divergence in location, additional easement width is needed. All the additional width is located within the 60-foot road right of way. Neither the existing easement, nor the additional easement areas are in buildable areas of the property. This can be seen on the attached color map.

We began working with the owner in December 2023. At our initial meeting, the owner was agreeable to the project and the standard compensation offered of \$1,188. Since then, she has become evasive with limited return of our multiple contacts. In May, she did counter with \$7,300. However, she continues to be non-committal to grant the additional easement area needed, despite 18 contacts thus far. Construction is anticipated to start in October and we need to move forward.

Contacts: 19

**STAFF RECOMMENDATION: Authority to obtain appraisal and proceed with condemnation, if necessary.**

Mr. Banner stated that this owner signed the Easement Agreement so this item may be removed.

## **VI. Other Business:**

Mr. Banner stated that Angel Banks requested that he inform this Committee that this is her last week at MSD as she is retiring. A memo from Ms. Banks to this Committee was read by Mr. Banner as follows:

“Most of you know I will be retiring soon. August 30<sup>th</sup> will be my last official day. Thirty-three years ago, just after consolidation, MSD hired me to develop an easement acquisition program. We modeled after the City of Charlotte’s program, and with Billy Clarke and Sheryl Williams’ help, created legal documents and condemnation procedures to fit our specific needs. This career path has been wonderful. It has been a privilege to work with everyone at MSD and build a program that works for our system. I wanted to take a moment and thank you for the trust and support you’ve provided, not only to us in ROW, but to all of the MSD staff. This has been a fantastic place to work, and I am grateful to each of you for the role you’ve played in making it so!”

Mr. Banner stated that Ms. Banks will be having a retirement party here at MSD on September 24<sup>th</sup> between 10-11 am. There will be an invite sent out by e-mail soon. Mr. Carson added that Ms. Banks father is in hospice care so that is why she wasn’t able to make it this morning.

Mr. Clarke stated that Ms. Banks has done an incredible job and it’s hard to believe that it has been thirty-three years. She has saved the rate payers and MSD a lot of money. Mr. Clarke stated that she is also a very tough negotiator. He relayed a story from a meeting years ago with another attorney. He said when she left the room the attorney wanted to know “who the heck named her Angel”! He further stated that she really is a great person to work with.

Mr. Hartye stated that Ms. Banks has been a major contributor to our rehabilitation program. When we inherited these systems in the 1990’s a lot of them didn’t have easements so she developed the right of way function in-house from scratch. She joined the IRWA (International Right of Way Association), met a lot of their other members in various locations and put together what they had into a program here which has been highly successful.

There being no further business, the meeting adjourned at 9:07 am.



## MEMORANDUM

TO: MSD Board  
FROM: Thomas E. Hartye, P.E., General Manager  
DATE: September 12, 2024  
SUBJECT: Report from the General Manager

- Kudos
  - Attached is an email from Jesse Gram and Julie Harrison of Lawrence Place in Asheville expressing their appreciation of Mitch Metcalf, James Norton and Jimmy Brooks.

- System Performance Annual Report (SPAR)

The following is a link to MSD's Annual performance report. Thanks to Bart Farmer and Angel Reece for putting it together.

<http://www.msdbc.org/documents/spars/SPAR2024.pdf>

- Board/Committee Meetings/Events

The next Right of Way Committee meeting will be held on September 25<sup>th</sup> at 9am.  
The next Regular Board Meeting will be held on October 16<sup>th</sup> at 2 pm.



Subject: FW: Gratitude for great work!

Date: Tuesday, September 3, 2024 at 11:58:01 AM Eastern Daylight Time

From: Tolley, Lisa <lisat@msdbc.org>

To: Hartye, Tom <THartye@msdbc.org>

CC: Thomas, Pam <PThomas@msdbc.org>, Troughton, Meredith <MTroughton@msdbc.org>, Capizzi, Jason <jasonc@msdbc.org>, Metcalf, Mitchell <MMetcalf@msdbc.org>

W:306477

Mitchell Metcalf

James Norton

Jimmy Brooks

## Thanks,

## Lisa

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**From:** Jesse Gram <jgramlyricopera@gmail.com>

**Sent:** Sunday, September 1, 2024 2:37 PM

**To:** Ward, Shannon <SWard@msdbc.org>; Stines, Ken <kens@msdbc.org>; Tolley, Lisa <lisat@msdbc.org>

**Subject:** Gratitude for great work!

**Caution:** This email originated from outside of MSD. Do not click on links or open attachments unless you know the sender AND you are expecting the email. Forward to [HelpDesk@msdbc.org](mailto:HelpDesk@msdbc.org) if you are unsure.

Hello ---

I just wanted to express my appreciation for the crew that got the sewer on our block cleared up and made the arrangements for the cleanup of my basement. Mitchell and the two techs who showed up to address the issues at my home were fantastic --- great guys who clearly know their trade in and out and who were patient with all my questions. As I'm sure you know well, having sewage back up in your basement is a really lousy situation, and your folks were kind and got everything resolved quickly. Plus it's great to know who to call in the future and that it's going to be taken care of so competently and efficiently.

Thanks!!!!

Jesse Gram and Julie Harrison

37 Lawrence Pl

Asheville, 28801

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"Live as if you were to die tomorrow; learn as if you were to live forever."

"Every moment is a once-in-a-lifetime experience."

# Metropolitan Sewerage District of Buncombe County

## INFORMATION ONLY ITEM

**BOARD MEETING DATE:** SEPTEMBER 18, 2024

**SUBMITTED BY:** Tom Hartye, P.E. - General Manager

**PREPARED BY:** Hunter Carson, P.E. - Director of Engineering

**SUBJECT:** Consideration of Pilot Testing Services Contract  
Biological Treatment, MSD Project No. 2016063

**BACKGROUND:** In 1988, MSD's biological treatment process was converted to Rotating Biological Contactors (RBCs) which allowed the Water Reclamation Facility (WRF) to expand from 25mgd to 40mgd. The RBCs have performed well over the past 36 years, however, due to their age, condition, and obsolescence, as well as future regulatory requirements, the biological treatment process will be replaced with new technology capable of meeting ammonia-nitrogen limits and other anticipated nutrient limits.

Following Board approval in May 2023, MSD embarked on a multi-year engineering study with Hazen & Sawyer to evaluate alternative biological treatment technologies to replace the RBCs. The study is ongoing and is slated for completion at the end of FY25. Three (3) technologies were "short-listed" for further consideration; Aerobic Granular Sludge (AGS), Densified Activated Sludge, and Membrane Bioreactor. AGS appears to be the most viable solution due to process footprint, constructability and phasing options, and solids generation.

AGS has become a proven technology with over 100 installations globally; however, it is critical that process performance be confirmed at MSD's WRF prior to construction of this ~\$300M project. This will be accomplished with a small-scale "pilot" test which will prove effluent quality and help guide design conditions for full-scale implementation.

Several manufacturers now offer AGS systems; however, Aqua-Aerobic Systems, Inc. (AASI) is the predominant supplier and has the most installations and experience in the industry. MSD and Hazen & Sawyer requested a pilot test proposal from AASI for an initial 6-month piloting period, extendable to 12-months. AASI's cost is \$200,280.00 and is considered reasonable when compared to similar piloting efforts.

Due to current availability of AASI's pilot unit, pilot testing will commence approximately 1.5 years earlier than anticipated.

**FISCAL IMPACT:** No funds were budgeted in FY24-25 for pilot testing. However, sufficient funds are available in the CIP contingency.

**STAFF RECOMMENDATION:**

Staff recommends award of this contract to Aqua Aerobic Systems, Inc. in the amount of \$200,280.00 subject to review and approval by District Counsel.



**AQUA-AEROBIC SYSTEMS, INC.**  
A Metawater Company

## Proposal No. 108108D R1

**To:** MSD  
Asheville, NC

**Project:** Asheville MSD – French Broad River WRF  
**Date:** 9/9/2024

**Attn:** Darin Prosser, PE  
Project Engineer  
Metropolitan Sewerage District of Buncombe County, NC  
(*herein after the “Piloting Party”*)

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Aqua-Aerobic Systems, Inc. (Aqua-Aerobic) is pleased to quote to the Piloting Party, for acceptance within thirty (30) business days of this date; prices, terms and conditions for the equipment and services relating to the proposed pilot testing are listed below. Arrival of the unit requires a minimum of thirty (30) days from receipt of the proposal acceptance, subject to availability.

The proposed pilot testing will be conducted at the **French Broad River WRF in Asheville, NC** commencing **on or about November 11, 2024** for a minimum period of twenty-four (24) consecutive weeks of operation, plus two (2) additional weeks for commissioning and decommissioning, for a total of twenty-six (26) weeks on site.

### Items provided by Aqua-Aerobic:

- ❖ One (1) AquaNereda® Aerobic Granular Sludge Technology Pilot Unit including:
  - Pilot Height: 23'
  - Pilot Footprint
    - Unit AGS-3: 20'x17' (One Reactor) 1" Feed / 2" Effluent / 2" Drain
    - Power requirements are 480 volts, 3Ø, 60 Hz, 60 amps (100' cable supplied)
  - Reactor Setup:
    - Reactor Dimensions: 24" diameter x 21' height
    - Process Volume: 450 gal
    - Instrumentation (including SCADA system)
      - Reactor DO Probe
      - Reactor pH Probe
      - Reactor ORP Probe

- Reactor NH4-N Probe
- Reactor Nitrate Probe
- Reactor PO4-P Analyzer
- Effluent Turbidity

NOTE: UNIT SELECTION MAY VARY DEPENDING ON AVAILABILITY AND START DATE. ADDITIONAL EQUIPMENT MAY VARY BY PILOT UNIT.

- ❖ An Aqua-Aerobic Field Technician will assist in start-up and optimization of the Pilot Unit. A minimum of eight (8) trips to the jobsite shall be provided as follows:
  - Trip 1: Two (2) Aqua-Aerobic Technicians will make an initial trip to the jobsite upon arrival of the Pilot Unit at the jobsite. The initial trip shall be for setup of the pilot including pilot placement, reactor and railing assembly, connection of pipping and electrical to the unit, seeding of reactor and initial startup.
  - Trip 2: An Aqua-Aerobic Process Engineer will arrive the week after setup for assessment of the reactor biomass and equipment performance. General training for the plant staff will also be provided on pilot operation, maintenance and process specific sampling and testing requirements.
  - Trips 3-6: An Aqua-Aerobic Technician or Process Engineer will visit monthly to inspect the pilot operation and optimize performance.
  - Trip7: An Aqua-Aerobic Process Engineer shall make a trip to the jobsite during the final week of operation to gather additional operational data and inspect equipment conditions. Preliminary pilot results can be discussed to determine if the duration of the pilot is to be extended. Aqua-Aerobic Technician will modify operations as needed for the additional term.
  - Trip 8: Two (2) Aqua-Aerobic Technicians will decommission the pilot and pack the equipment for shipment.
- ❖ Required safety equipment for Aqua-Aerobic field technicians and engineers, if necessary.
- ❖ A pilot testing summary report including the following will be provided no later than 5 weeks *after final data is received*.
  - Flow rates, batch volumes, and cycle times of each test phase.
  - Summary of influent and effluent parameters of interest based on laboratory results from samples per testing protocol.
  - Graphs of influent and effluent parameters of interest.

**Items provided by the Piloting Party:**

- ❖ A complete ship to address, contact name with phone number for carrier advance delivery notification, and days and times deliveries can be accepted.
- ❖ Pilot site location with:
  - Feed water, electrical power connection, chemicals, and blocking materials to level the Pilot Unit.
  - Stable surface such as a concrete slab is required.

- ❖ Safety training as required for the plant facility, if necessary.
- ❖ List of required safety equipment for Aqua-Aerobic Technician, if necessary.
- ❖ Off-loading and placement of pilot equipment.
- ❖ Crane for installing and uninstalling top of reactor column.
- ❖ Personnel to assist in installation of all piping connections, electrical power connection, and the disconnection/cleaning of the Pilot Unit upon conclusion of the field testing.
- ❖ Freeze protection of the Pilot Unit, if necessary.
- ❖ Additional hose, tote (or day tank), and pump to simulate any operational conditions that may not be achieved through standard influent operation while the Pilot Unit is onsite.
- ❖ Personnel for day-to-day operation of the AquaNereda Pilot Unit. Those Individuals that are trained and have access to the pilot shall:
  - Perform the necessary maintenance tasks.
  - Sample per the agreed-upon testing protocol.
  - Record daily pilot related data and operational activities.
  - Perform the necessary laboratory tests and record the related test results on AASI provided data sheets.
  - Delivery of samples, if required, to an outside certified lab.
- ❖ Copies of all on-site test results and operational data collected during the pilot study to Aqua-Aerobic.
- ❖ The Piloting Party shall:
  - Not take any pictures during of the Pilot Unit internals unless Aqua-Aerobic has expressly given such consent.
  - Treat as confidential, hold in confidence and not copy, duplicate, sell, lease or otherwise use, disclose or reproduce Confidential Information given verbally by Aqua-Aerobic personnel
    - Definition of "Confidential Information:" any and all information and data related to the Nereda® Technology, transferred orally, whether of a technical, operational, intellectual or any other nature, including, but not limited to designs, operations, technical data, calculations, computer programs, computer program data, and any other intellectual rights or properties of Royal HaskoningDHV, its holding company, subsidiaries or affiliates, which information and data are at the moment of supply not in the public domain or otherwise freely accessible and/or available.
  - Limit access to the Pilot Unit to only those identified to Aqua-Aerobic as necessary to the operation, maintenance, or having direct involvement in the design and/or selection of the AquaNereda technology.
  - Use the provided locks to secure the Pilot Unit when not supervised
  - Piloting Party shall not use the resulting pilot data for any purposes other than regulatory, technology selection, or freedom of information requests unless Aqua-Aerobic has expressly given such consent.
- ❖ Access rights for Aqua-Aerobic personnel to monitor and operate the pilot equipment, to provide inspections as necessary, and to take photographs/video tape of the Aqua-Aerobic equipment

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during installation or any time during the piloting period.

It should be noted that the pilot reactor is a full-depth reactor. It does not, however, accurately mimic the surface area of a full-scale reactor. Because of the smaller scale of the pilot unit reactor and some of the equipment, some conditions cannot be exactly replicated to simulate full-scale treatment expectations.

- ❖ The exaggerated reactor depth to surface area ratio results in higher effluent TSS than a full-scale system due to wall effects and concentrated surface area in which solids may accumulate and breakoff into the effluent. Therefore, the anticipated effluent TSS from the pilot reactor may not match the high quality performance that is routinely expected and demonstrated by full-scale systems.
- ❖ The pilot unit operates on a fixed cycle time and HRT whereas full-scale systems have the capability to automatically respond to changes in flows and loads. As such, the pilot unit can receive higher influent mass loading during low flow periods.
- ❖ There is a single feed point in the pilot reactor compared to a distribution grid that provides full-floor coverage in a full-scale system. The distribution grid creates perfect vertical plug-flow conditions and discharge velocities which cannot be duplicated in the pilot unit.
- ❖ There is a single waste point in a pilot reactor compared to a manifold in a full-scale system. This results in less efficient removal of solids causing higher waste rates.
- ❖ Sludge buffers are not included on pilot units, only sludge holding tanks.
- ❖ The quality, performance, and reliability of small-scale equipment (e.g. compressors, pumps, valves) do not equate to production-quality components provided with full-scale systems.

**Pilot Test Fees:**

| <u>Item</u>                                   |                          | <u>Total (USD)</u>   |
|---|--------------------------|----------------------|
| <u>Commissioning &amp; Decommissioning</u>    |                          | \$ 7,500.00          |
| <u>Equipment Rental:</u>                      |                          |                      |
|   | <b>\$3,750</b> / week    |                      |
| Duration (weeks)                              | <b>24</b>                | \$ 90,000.00**       |
| <u>Services:</u>                              |                          |                      |
| <i>3 days onsite + 2 travel days per trip</i> |                          |                      |
| <b>8</b> trips                                | <b>\$1,750</b> / day     | \$ 70,000.00         |
| <u>Freight Charges</u>                        |                          |                      |
| Equipment                                     | <b>1,490</b> miles (R/T) | \$ 28,310.00         |
| Granule                                       | <b>745</b> miles (O/W)   | \$ 4,470.00          |
| <u>Taxes:</u> <i>Exempt assumed</i>           |                          | \$ -                 |
| <b>Total Fee (excluding tax)</b>              |                          | <b>\$ 200,280.00</b> |

\*\* Above fees for equipment rental to be credited in the event that the Owner purchases a full-scale AquaNereda system. For audit purposes, the full-scale PO shall clearly indicate a line item of "less Credit for piloting" in the amount of \$90,000 USD. Service, taxes or freight are not creditable. Such credit shall not be construed as a refund.

- ❖ **TAXES:** State and/or local taxes are not included in the fees but, if applicable, will be added to the invoice(s) unless a valid resale/exemption certificate is provided with the executed Agreement.
- ❖ Shipping shall be arranged by Aqua-Aerobic Systems. Unloading and equipment set-up is Owner's responsibility with assistance from Aqua-Aerobic service technicians.
- ❖ **The pilot rental period may be extended for a maximum of an additional 24 weeks at a rate of \$3,750 per week.** With an extension we would require one (1) trip to the site by an Aqua-Aerobic Process Engineer per additional month of operation. This would be charged at the same rate of \$1,750 per day.
  - A notice to extend must be received by Aqua-Aerobic no later than 45 days prior to the end of the initially agreed-upon testing period.
  - Prior to submitting a change order for the extension of the pilot study, it is recommended that Aqua-Aerobic and the piloting party discuss the specific goals of continued testing and complete and review an updated protocol that reflect this.



**The Following Notes apply to the Aqua-Aerobic Proposal:**

- ❖ The Piloting Party shall pay Net 30 days from the date of shipment of the pilot testing equipment. The initial payment shall include fees for commissioning and freight charges. Subsequent payments for fees owed, including equipment rental, service trips, and eventual decommissioning will be invoiced on a monthly basis and will be due Net 30 days.
- ❖ Any additional assistance and trips shall be billed at One Thousand Four Hundred and Fifty Dollars (\$1,750.00) per day including travel days to and from Loves Park, Illinois plus air fare and expenses billed at actual cost.
- ❖ The Piloting Party agrees that the Pilot Unit shall not be operated with waste containing hazardous wastewater or material, as defined by the United States Environmental Protection Agency (USEPA).
- ❖ The Pilot Unit shall at all times remain the property of Aqua-Aerobic, and the Piloting Party shall have no right, title, or interest therein.
- ❖ Aqua-Aerobic shall supply at its expense all replacement parts that may be required due to the normal wear and tear of everyday operation.
- ❖ Piloting Party shall bear all risk of loss and damage to the Pilot Unit from any cause other than equipment defects and normal operational wear and tear. Any charges for repairs that result from damages will be billed to the Piloting Party at cost and are subject to payment by the Piloting Party within ten days from the date of invoice from Aqua-Aerobic.
- ❖ Piloting Party shall indemnify and hold harmless Aqua-Aerobic from all claims, actions, costs, expenses, damages and liabilities including attorneys' fees arising out of, or in connection with, the use, possession, or maintenance of the Pilot Unit by the Piloting Party.
- ❖ Except as required under Local, State, and Federal laws, the Piloting Party shall not release the Testing Protocol, operational parameters or performance data without written permission from Aqua-Aerobic. The Piloting Party will, using reasonable diligence, safeguard the confidentiality of the information required for and generated by this pilot study and not disclose any part of it to any person or entity other than to those employees, officers, elected and appointed officials, and consultants of its respective companies and/or other related associates who might require access to the information for the purposes set forth in this Agreement unless agreed to by Aqua-Aerobic, which will not be unreasonably withheld.
- ❖ Upon acceptance, this proposal shall constitute the Agreement and will embody all of the understandings of the parties and will supersede any prior and contemporaneous agreements, commitments, or understandings or writings of the parties. This Agreement shall be governed by and construed under the laws of the State of Illinois, without regard to conflicts of laws principles, and venue for legal action to enforce the rights of any party under this Agreement may be asserted in Winnebago County, Illinois.
- ❖ The declared value of the Pilot Unit is US \$800,000.
- ❖ INCOTERMS®: Price(s) are Incoterms® 2020 “Delivered Duty Paid (**DDP French Broad River WRF, Asheville NC**), Incoterms® 2020.
- ❖ All prices are in U.S. Dollar currency.

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**Proposal Date: 9/9/2024**

**Proposal No. 108108D R1**



**AQUA-AEROBIC  
SYSTEMS, INC.**  
A Metawater Company

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**Proposal and Offer Respectfully Submitted,**

**By: AQUA-AEROBIC SYSTEMS, INC. (Aqua-Aerobic):**

**Printed Name:** Joe Tardio

**Title:** Product Manager – AquaNereda®

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**This Proposal and Offer is hereby accepted by the Piloting Party:**

**By:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



**Please provide the following information:**

BILL TO ADDRESS (if different from proposal address):

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\_\_\_\_\_ Zip \_\_\_\_\_

SHIP TO ADDRESS:

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\_\_\_\_\_ Zip \_\_\_\_\_

Shipping Contact Name: \_\_\_\_\_ Phone #: \_\_\_\_

Deliveries are accepted on which days of the week? (circle all that apply)

Monday   Tuesday   Wednesday   Thursday   Friday   Saturday   Sunday

Acceptable Hours of Delivery: \_\_\_\_:\_\_\_\_ AM to \_\_\_\_:\_\_\_\_ PM

**Operation Duration: 24 weeks**

**Number of Reactors: 1**

**Preliminary 26 Week Protocol:**

|                | <u>Option 1</u>         |
|----------------|-------------------------|
| <b>Week 1</b>  | <b>Commission</b>       |
| <b>Week 2</b>  | <b>Acclimation</b>      |
| <b>Week 3</b>  |                         |
| <b>Week 4</b>  |                         |
| <b>Week 5</b>  |                         |
| <b>Week 6</b>  | <b>Annual Average</b>   |
| <b>Week 7</b>  |                         |
| <b>Week 8</b>  |                         |
| <b>Week 9</b>  |                         |
| <b>Week 10</b> | <b>Max Month</b>        |
| <b>Week 11</b> |                         |
| <b>Week 12</b> |                         |
| <b>Week 13</b> |                         |
| <b>Week 14</b> | <b>Test Condition 1</b> |
| <b>Week 15</b> |                         |
| <b>Week 16</b> |                         |
| <b>Week 17</b> |                         |
| <b>Week 18</b> | <b>Test Condition 2</b> |
| <b>Week 19</b> |                         |
| <b>Week 20</b> |                         |
| <b>Week 21</b> |                         |
| <b>Week 22</b> | <b>Test Condition 3</b> |
| <b>Week 23</b> |                         |
| <b>Week 24</b> |                         |
| <b>Week 25</b> |                         |
| <b>Week 26</b> | <b>Decommission</b>     |

**Pilot Objectives:**

- Validate design criteria and ability to achieve effluent objectives



Please describe any desired deviation from the standard protocol below:

**Recommended Sampling and Analyses Plan:**

| Parameter                  | 24-hour Composite |          | Grab Sample |                |               | Responsible Party         |
|----------------------------|-------------------|----------|-------------|----------------|---------------|---------------------------|
|                            | Influent          | Effluent | Reactor Top | Reactor Bottom | Reactor Waste |                           |
| COD                        | 3 / week          | 3 / week | --          | --             | --            | Piloting Party (End User) |
| Soluble COD                | 3 / week          | 3 / week | --          | --             | --            | Piloting Party (End User) |
| cBOD <sub>5</sub>          | 3 / week          | 3 / week | --          | --             | --            | Piloting Party (End User) |
| Total Nitrogen             | --                | 3 / week | --          | --             | --            | Piloting Party (End User) |
| TKN                        | 3 / week          | 3 / week | --          | --             | --            | Piloting Party (End User) |
| Ammonia (NH <sub>4</sub> ) | 3 / week          | 3 / week | --          | --             | --            | Piloting Party (End User) |
| Nitrite (NO <sub>2</sub> ) | --                | 3 / week | --          | --             | --            | Piloting Party (End User) |
| Nitrate (NO <sub>3</sub> ) | --                | 3 / week | --          | --             | --            | Piloting Party (End User) |
| Total Phosphorus           | 3 / week          | 3 / week | --          | --             | --            | Piloting Party (End User) |
| Soluble Phosphorus         | 1 / week          | 1 / week | --          | --             | --            | Piloting Party (End User) |
| Soluble Ortho-Phosphate    | 3 / week          | 3 / week | --          | --             | --            | Piloting Party (End User) |
| Alkalinity                 | 1 / week          | 1 / week | --          | --             | --            | Piloting Party (End User) |
| TSS                        | 3 / week          | 3 / week | --          | --             | --            | Piloting Party (End User) |
| VSS                        | 1 / week          | 1 / week | --          | --             | --            | Piloting Party (End User) |
| FOG                        | 1 / month         | --       | --          | --             | --            | Piloting Party (End User) |
| MLSS                       | --                | --       | 2 / week    | 2 / week       | 1 / week      | Piloting Party (End User) |
| Sieve Test                 | --                | --       | --          | 1 / week       | --            | Piloting Party (End User) |
| Settleability & SVI        | --                | --       | 2 / week    | 2 / week       | 1 / week      | Piloting Party (End User) |
| Visual Check               | --                | --       | --          | --             | 1-2 / week    | Piloting Party (End User) |
| OUR (Optional)             | --                | --       | --          | 1 / week       | --            | Piloting Party (End User) |

\*Sampling frequencies may be reduced based on test protocol specifics including study duration, number of test phases, study objectives, influent characteristics, and other considerations.

**Metropolitan Sewerage District of Buncombe County, North Carolina  
CAPITAL IMPROVEMENT PROGRAM**

**BUDGET DATA SHEET - FY 2024 - 2025**

|   |   |
|---|---|
| <b>PROJECT:</b> Biological Treatment    | <b>LOCATION:</b> MSD-Treatment Plant                  |
| <b>TYPE:</b> Treatment Plant            | <b>PIPE RATING:</b> N/A                               |
| <b>PROJECT NO.:</b> 2016063             | <b>TOTAL LF:</b> 0                                    |
| <b>PROJECT BUDGET:</b> \$229,560,225.00 | <b>PROJECT ORIGIN:</b> Future Regulatory Requirements |

| DESCRIPTION                  | ESTIMATED PROJECT COST  | TOTAL EXPENDS THRU 12/31/23 | EST. COST JAN - JUNE 2024 | BUDGET FY 24-25     |
|------------------------------|-------------------------|-----------------------------|---------------------------|---------------------|
| 55310 - PRELIM. ENGINEERING  | \$650,000.00            | \$118,620.00                | \$151,380.00              | \$325,000.00        |
| 55320 - SURVEY - DESIGN      | \$50,000.00             |                             |                           |                     |
| 55330 - DESIGN               | \$20,000,000.00         |                             |                           |                     |
| 55340 - PERMITS              | \$308,500.00            |                             |                           |                     |
| 55350 - SPECIAL STUDIES      | \$350,000.00            |                             |                           |                     |
| 55360 - EASEMENT PLATS       |                         |                             |                           |                     |
| 55370 - LEGAL FEES           | \$1,725.00              | \$225.00                    |                           | \$3,500.00          |
| 55380 - ACQUISITION SERVICES |                         |                             |                           |                     |
| 55390 - COMPENSATION         |                         |                             |                           |                     |
| 55400 - APPRAISAL            |                         |                             |                           |                     |
| 55410 - CONDEMNATION         |                         |                             |                           |                     |
| 55420 - CONSTRUCTION         | \$200,000,000.00        |                             |                           |                     |
| 55430 - CONST. CONTRACT ADM. | \$8,000,000.00          |                             |                           |                     |
| 55440 - TESTING              | \$200,000.00            |                             |                           |                     |
| 55450 - SURVEY - ASBUILT     |                         |                             |                           |                     |
| <b>TOTAL AMOUNT</b>          | <b>\$229,560,225.00</b> | <b>\$118,845.00</b>         | <b>\$151,380.00</b>       | <b>\$328,500.00</b> |

|   |                  |                                       |                  |
|---|------------------|---------------------------------------|------------------|
| <b>ENGINEER:</b> Consultant   | TBD              | <b>ESTIMATED BUDGETS - FY 26 - 34</b> |                  |
| <b>R.O.W. ACQUISITION:</b>  | # PLATS: [ 0 ]   | <b>FY 25-26</b>                       | \$80,500.00      |
| <b>CONTRACTOR:</b>  | TBD              | <b>FY 26-27</b>                       | \$4,375,500.00   |
| <b>CONSTRUCTION ADM.:</b>   | TBD              | <b>FY 27-28</b>                       | \$6,000,000.00   |
| <b>INSPECTION:</b>  | MSD & Consultant | <b>FY 28-29</b>                       | \$6,000,000.00   |
|   |                  | <b>FY 29-30</b>                       | \$4,309,000.00   |
|   |                  | <b>FY 30-31</b>                       | \$11,025,000.00  |
| <b>PROJECT DESCRIPTION:</b> 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. |                  | <b>FY 31-32</b>                       | \$31,025,000.00  |
|   |                  | <b>FY 32-33</b>                       | \$31,025,000.00  |
|   |                  | <b>FY 33-34</b>                       | \$31,025,000.00  |
|   |                  | <b>Beyond FY 33-34</b>                | \$104,100,000.00 |
|   |                  |                                       |                  |

**SPECIAL PROJECT NOTES:** Hazen & Sawyer currently working on Biological Treatment Alternatives Evaluation PER (funded via Line 55310).  
This document will identify the replacement biological treatment technology.



# Biological Treatment Project No. 2016063

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT  
of  
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map



# Metropolitan Sewerage District of Buncombe County

## Board Action Item - Right-of-Way Committee

COMMITTEE MEETING DATE: 8/28//2024

BOARD MEETING DATE: 9/18/2024

SUBMITTED BY: Tom Hartye, PE, General Manager  
PREPARED BY: Angel Banks, Right of Way Manager  
Wesley Banner, Right of Way Agent

REVIEWED BY: Hunter Carson, PE, Director of CIP

**SUBJECT: Consideration of Condemnation-  
Sand Hill Road @ Baker Place Sewer Replacement  
MSD Project No. 2015223**

**Owner Name: George A. & Joan S. Radford**  
**Parcel Number: 9628-81-2788**

The subject parcel is located along Sand Hill Road in West Asheville and is improved with a single-family residence, currently a rental. The proposed sewer is in the same alignment as the existing except for a small portion within the driveway. The standard compensation offer for the easement areas on this parcel is \$8,299. A site meeting was held with the owner in May and his concerns were addressed in a Special Provisions Detail Sheet. The owner no longer desires the alignment in his driveway. MSD agreed to increase the compensation offer to \$8,599 in good faith negotiations and the owner rejected.

The MSD Project Engineer revised the alignment to parallel the driveway. The alternate alignment was rejected, and the owner stated he does not desire to grant any permanent easement area to MSD on his property. We have reached an impasse with the property owner, and we must move forward.

Contacts: 9

**STAFF RECOMMENDATION: Authority to obtain appraisal and proceed with condemnation, if necessary.**

Mr. Banner reviewed the above information and presented a map showing the location. There were no questions. Mr. Kelly made the motion to accept Staff's recommendation. Mr. Whitesides seconded the motion. Voice vote was unanimous.

**COMMITTEE RECOMMENDATION: Authority to obtain appraisal and proceed with condemnation, if necessary.**

# Metropolitan Sewerage District of Buncombe County

## Board Action Item

**BOARD MEETING DATE:** September 18, 2024

**SUBMITTED BY:** Tom Hartye, P.E. - General Manager

**REVIEWED BY:** Hunter Carson, P.E. - Engineering Director

**PREPARED BY:** Kevin Johnson, P.E. - Planning and Development Manager

**SUBJECT:** Acceptance of Developer Constructed Sewer System for the Henderson County EMS Sewer Extension, MSD Project No. 2023083

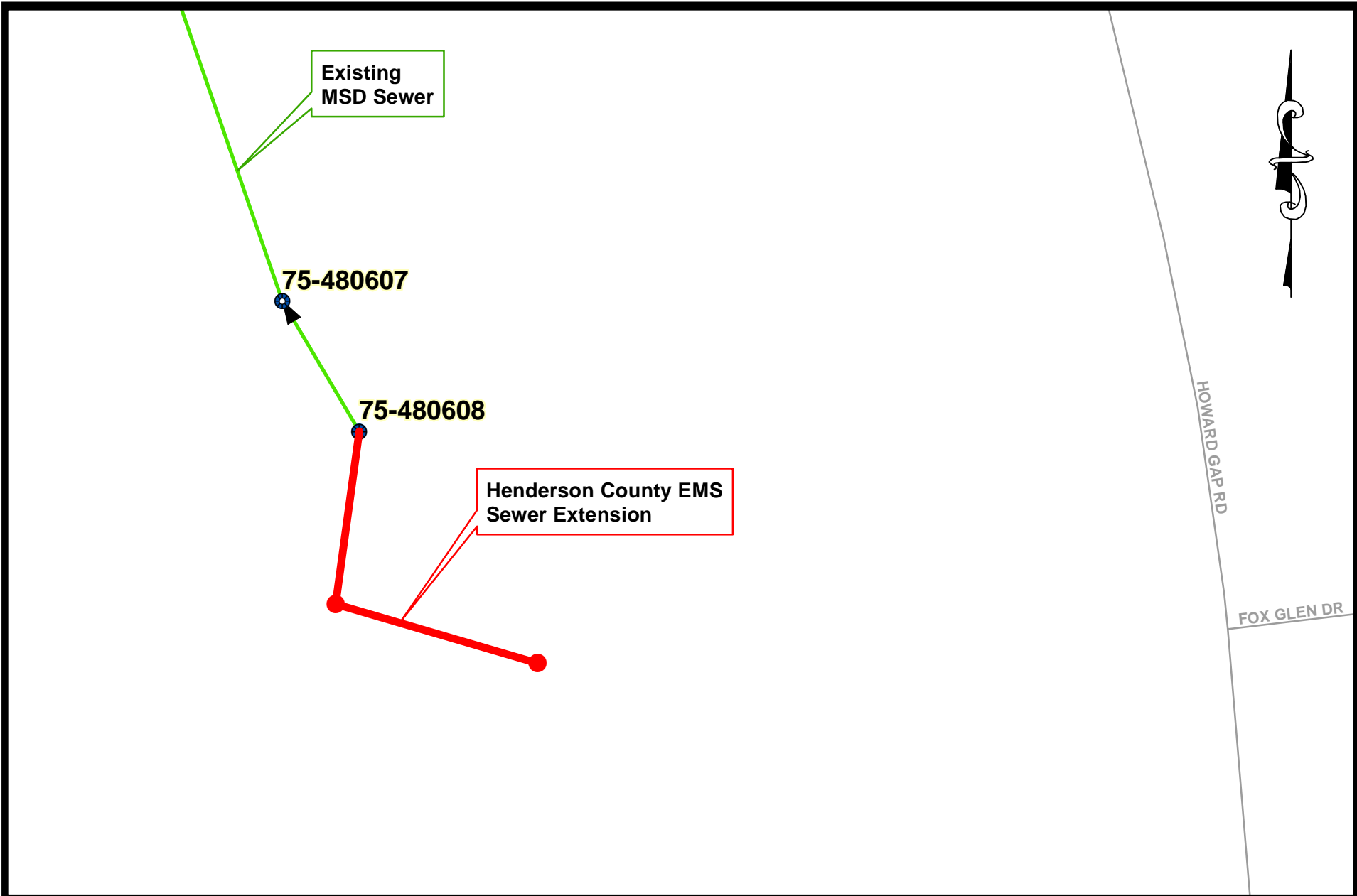
**BACKGROUND:** This project is located inside the District boundary along Howard Gap Road in Henderson County. The developer of the project is Henderson County.

The project included extending approximately 132 linear feet of 8-inch public gravity sewer to serve the new Emergency Medical Services Facility in Fletcher.

A wastewater allocation was issued in the amount of 735 GPD. The estimated cost of the sewer construction is \$84,400.00.

All MSD requirements have been met.

**STAFF RECOMMENDATION:** Staff recommends acceptance of this developer constructed sewer system.



**MSD**  
Engineering Division

**Henderson County EMS Sewer Extension  
MSD Project # 2023083**

Metropolitan Sewerage District of Buncombe County

9/4/2024

# Metropolitan Sewerage District of Buncombe County

## Board Action Item

**BOARD MEETING DATE:** September 18, 2024

**SUBMITTED BY:** Tom Hartye, P.E. - General Manager

**REVIEWED BY:** Hunter Carson, P.E. - Engineering Director

**PREPARED BY:** Kevin Johnson, P.E. - Planning and Development Manager

**SUBJECT:** Acceptance of Developer Constructed Sewer System for the Rydele Heights Phase 2 Sewer Extension, MSD Project No. 2023160

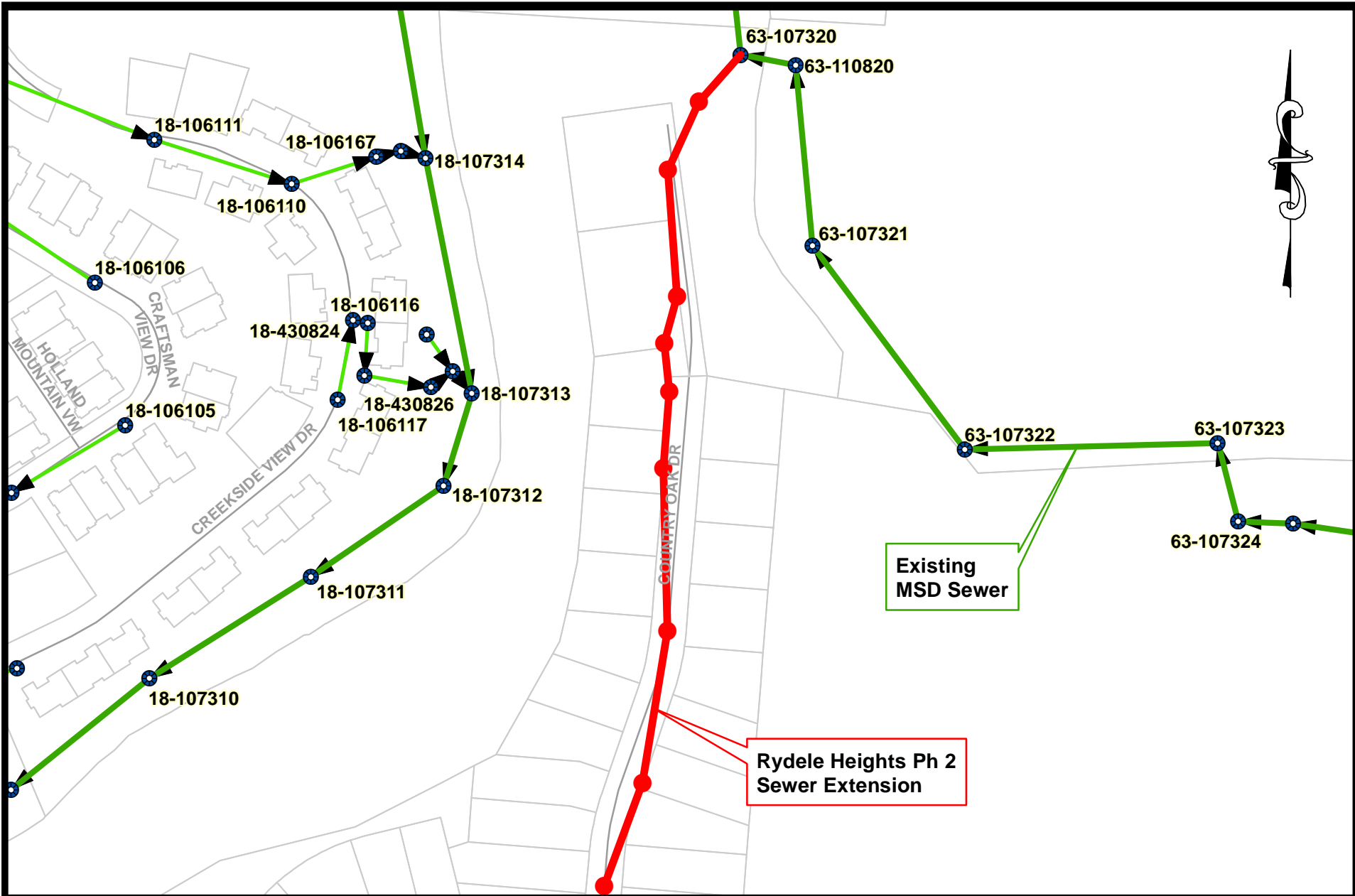
**BACKGROUND:** This project is located inside the District boundary along Country Oak Drive in Buncombe County. The developer of the project is Chris Eller of Civil Developments, LLC.

The project included extending approximately 1,105 linear feet of 8-inch public gravity sewer to serve the Single-Family Residential Development.

The wastewater allocation is 6,600 GPD for the twenty-two (22) residential units in this phase of the development. The estimated cost of the sewer construction is \$53,187.50.

All MSD requirements have been met.

**STAFF RECOMMENDATION:** Staff recommends acceptance of this developer constructed sewer system.



**MSD**  
Engineering Division

**Rydele Heights Ph 2 Sewer Extension  
MSD Project # 2023160**

Metropolitan Sewerage District of Buncombe County

9/4/2024

## **Metropolitan Sewerage District of Buncombe County Board Action Item**

**Meeting Date:** September 18, 2024

**Subject:** Procurement of New 2024 Mainline Inspection Truck with Camera Equipment - Fleet Replacement

**Submitted by:** Tom Hartye, General Manager

**Reviewed by:** Scott Powell, CLGFO; Finance Director  
Billy Clarke, District Counsel

**Prepared by:** Heather Young; Purchasing Supervisor  
David Witt; Fleet Manager  
Jason Capizzi, Maintenance Coordinator

**Background:** The District's policy is to annually evaluate the condition of fleet vehicles and purchase replacements when the estimated cost of repair and maintenance will exceed the cost of a new vehicle. At the March 14, 2024, Equipment Replacement Committee meeting, the members recommended the purchase of one (1) New Mainline Inspection Truck Replacement, as presented to this Board for approval. Funds for this purchase were included in the 2024-2025 Budget.

**Discussion:** Pursuant to North Carolina Purchasing Statute G.S. 143-129(e)(3) and MSD Purchasing Procedures, MSD, as a local government, is authorized to purchase from suppliers who are selected through a group purchasing program that is a "formally organized program that offers competitively obtained purchasing [products or] services at discounted prices to two or more public agencies." The North Carolina Sheriffs' Association Heavy Equipment Procurement Program – is one such group purchasing program. Cues Incorporated was awarded a contract under the NC Sheriffs' cooperative. The cost, per the contract, for the Mainline Inspection Truck is \$317,215.00. This reflects a 6% Sheriffs' Association discount of \$8,045.70 and a 16.8% Cues loyalty discount of \$35,522 off MSRP. Because this truck exceeds \$90,000.00, the procurement requires Board Approval.

**Fiscal Impact:** The total cost of this contract will be \$317,215.00, The amount budgeted for this item in the 2024-2025 Fleet Replacement Fund was \$352,023.00.

**Staff Recommendation:** Staff recommends that the bid from Cues Incorporated thru the NC Sheriffs' Association Heavy Equipment Procurement Program be awarded.

**ROBERTS  
& STEVENS**  
ATTORNEYS AT LAW

WILLIAM CLARKE  
VINCENT D. CHILDRESS, JR.  
DAVID L. ENGLISH  
KENNETH R. HUNT  
DENNIS L. MARTIN, JR.  
ANN-PATTON HORNTAL  
PHILLIP T. JACKSON  
JAMES W. K. WILDE  
MARY ROBINSON HERVIG  
JOHN D. NOOR  
KATHRYN MAULTSBY MADISON  
L. ASHLEY SAVILLE-AMTOWER  
SUSAN RUSSO KLEIN  
STEVEN W. SIZEMORE  
CHARLES E. MCGEE

CITY CENTRE BUILDING  
301 COLLEGE STREET, SUITE 400 (28801)  
POST OFFICE BOX 7647  
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TELEPHONE (828) 252-6600  
FACSIMILE (828) 258-6955  
[www.roberts-stevens.com](http://www.roberts-stevens.com)

GRACIE K. PAULSON  
CINDY M. RICE  
L. KATHLEEN POTTER HARGROVE  
DAVID C. HAWISHER  
ABBIE N. HORNBERGER  
JORDAN P. BARNETTE  
CARLY K. GILLINGHAM  
BRYANT G. CROSS  
BENJAMIN H. VAN STEINBURGH  
DENISE A. LOCKETT

LANDON ROBERTS, FOUNDER (1921-2007)  
JOHN S. STEVENS, FOUNDER (1933-2019)  
WYATT S. STEVENS (1969-2024)

*Writer's Direct No.: 828/258-6919*  
*Writer's E-mail: [bclarke@roberts-stevens.com](mailto:bclarke@roberts-stevens.com)*

September 3, 2024

Ms. Heather Young  
MSD Purchasing Supervisor  
2028 Riverside Drive  
Asheville, NC 28804

*Via E-mail: [hyoung@msdbc.org](mailto:hyoung@msdbc.org)*

*Re: 2024 Mainline Inspection Truck – Fleet Replacement*

Dear Ms. Young:

We have reviewed the information you sent us regarding the proposed purchase of a 2024 Mainline Inspection Truck from Cues Incorporated. We have also reviewed the Agreement between Cues Incorporated and the North Carolina Sheriff's Association for the purchase of heavy equipment. We understand that Cues Incorporated is willing to allow MSD, as a public agency, to purchase this truck on the same terms and conditions as members of the NC Sheriffs Association.

A purchase of this nature is authorized under North Carolina General Statutes §143-129(e)(9). MSD may award the contract for the 2024 Mainline Inspection Truck to Cues Incorporated.

Sincerely,

ROBERTS & STEVENS, P.A.



William Clarke

BC/sh

# CUES Equipment Quote



Quotation #: QWD06032024  
Quotation Date: August 23<sup>rd</sup>, 2024  
Quotation Amount: **\$317,215.00**  
Remit to: Tucker McClanahan  
CUES Regional Territory Manager –  
NC&SC  
p: 407.849.0190 / c: 984.270.6537  
[mmcclanahan@cuesinc.com](mailto:mmcclanahan@cuesinc.com)

Client: Jason Capizzi  
Buncombe County MSD  
[JasonC@msdbc.org](mailto:JasonC@msdbc.org)

Jason,

In pursuance to your request, CUES is pleased to provide pricing on a mainline inspection truck per the attached component list.

The unit includes the same 1-year full system warranty CUES offers on all of our equipment as well as full access to extensive loaner-equipment inventory.

## CUES is offering MSDBC the following discounted pricing:

### CUES Mainline Truck(G F550 4x4 with 12' box):

- Price \*Taxes not included\*
  - New F-550: \$317,215.00
    - **Optional:** Power boom crane in lieu of manual boom crane:\$2,421.00
    - **Optional:** Diesel 4x4 F550 with 16' box in lieu of gas 4x4 F550 12' box: \$10,736.00
- FOB: Destination
- Terms: This Quote and the goods and services quoted thereunder are subject to Cues, Inc. Standard Terms and Conditions of Sale found at: <https://cuesinc.com/pages/cues-terms-and-conditions-of-sale>. By accepting this Quote, Buyer agrees to be bound by these terms.
- Delivery: 12' box 120-150 days ARC (after receipt of chassis); 16' box 90-120 days ARC

We thank you for your interest in CUES products.

If you have any questions, please do not hesitate to contact me at 407.849.0190, ext. #433.

**Pricing is valid for 45 days.**  
**Changes made to unit once in production**  
**potentially incur additional cost.**

|                              |                     |
|------------------------------|---------------------|
| Sub Total:                   | \$317,215.00        |
| Software Maintenance:        | \$0.00              |
| Training (On-site):          | \$0.00              |
| Sub Total:                   | \$317,215.00        |
| 25% Deposit <sup>(2)</sup> : | \$0.00              |
| <b>TOTAL<sup>(3)</sup>:</b>  | <b>\$317,215.00</b> |





Cues Sewer Inspection System  
Sales Proposal for:  
NCSA Pricing Effective May 18 2023  
Bid # 24-08-0421

6/3/2024

**CUSTOMER INFORMATION**

Company Name: Buncombe County MSD, NC  
Contact Name:  
Street Address:  
City, State & Zip: Buncombe, TN 37066  
Phone:  
Fax:  
E-mail:  
  
Height Requirement:  
Length Requirement:  
Color Requirement:  
Days Valid For:  
Proposal No.:

**Base System**

Contract Pricing

|      |           |   |              |
|------|-----------|---|--------------|
| CUES | E-450-DRW | <p><b>Ford E-450 DRW Cutaway Mounted Mainline TV Inspection Summit System for the Inspection of 6" and larger Sanitary Sewers and Storm Drains</b><br/> <b>FORD E-450 GAS CUT-A-WAY 176" WB 2X4 CHASSIS</b><br/> 7.3L Gas Engine<br/> 6-Speed Automatic Transmission with OD<br/> 14,500 lb. GVWR<br/> 176" Wheel Base<br/> Cab Air Conditioner<br/> AM / FM Radio<br/> <b>16' CARGO BOX WITH WALKTHRU</b><br/> Aero Cap with Walk Thru<br/> 2" X 6" Dense Pine Flooring<br/> LED Light Package Includes Body Clearance and Stop / Tail / Turn<br/> Full Width Barn Doors with CAM (Pipe) Locks on Each Door<br/> 2 Laminated Steel Lock<br/> Kermlite Covering on Inside Rear Doors<br/> Back up Alarm<br/> <b>BACK-UP COLOR CAMERA SYSTEM (CHASSIS)</b></p> <p><b>SAFE ENTRY/EXIT BUMPER</b><br/> Three (3) Steps Evenly Spaced<br/> Bottom Step Folds Up for Ground Clearance<br/> Safety Grab Handle</p> <p><b>KICKPLATE TRANSPORTER STORAGE</b><br/> Lockable Storage Compartment for Camera and Transporter<br/> Sliding Drawer<br/> Notch in rear door threshold of body for TV cable to pass through to transporter storage drawer</p> <p><b>KICKPLATE 2 DRAWER STACK ALUMINUM STORAGE</b></p> <p><b>BULKHEAD WALL BETWEEN CAB AND CONTROL ROOM</b><br/> Door</p> <p><b>TV HIGH CUBE VAN EXTERIOR LIGHTING &amp; CONTROL ROOM EVOLUTION 3.0 TO INCLUDE:</b><br/> 2 Amber Electronic Strobe Warning Beacons<br/> 2 Adjustable Floodlights Rear of Vehicle Area Illumination<br/> Control Room Interior:<br/> Lonseal Lonplate Flooring<br/> Kermlite covered walls and weather resistant/smooth finished ceiling<br/> Bulkhead Wall with Passage Door from Control Room to Equipment Room<br/> Tinted Viewing Window in Bulkhead Wall<br/> Tinted Viewing Window in Bulkhead Door<br/> Above Desk Control Console with Rack Mount for Electronic Equipment<br/> Desktop / Work Area<br/> 12V High Intensity LED Light Fixture<br/> Multi-Outlet Power Strip with USB Ports<br/> Fire Extinguisher with Bracket, 10BC Rating<br/> Operators Chair, Swivel with Casters<br/> Breaker Box Storage Area with Locking Positive Latch<br/> Battery Powered Carbon Monoxide Alarm</p> <p><b>LOW PROFILE, ROOF MOUNTED AIR CONDITIONER WITH HEAT STRIP</b></p> <p><b>TV HI-CUBE VAN EQUIPMENT ROOM INTERIOR EVOLUTION 3.0 TO INCLUDE:</b><br/> Lonseal Lonplate Flooring</p> | \$234,734.00 |
|------|-----------|---|--------------|

Kemlite covered walls and weather resistant/smooth finished ceiling  
Electrical Outlet with Dual Receptacles  
12V High Intensity LED Light Fixture  
12-Volt Courtesy Light with 15 Minute Timer Located at Rear Door Area

**MULTI-OUTLET WORKSTATION WITH LIGHTS AND USB PORTS**

**32" REAR FLAT SCREEN MONITOR MOUNTED IN BULKHEAD WALL**

Flat Screen Monitor  
Cable Assembly - video Monitor to Monitor in Control Room  
Electrical Outlet

**7000 WATT GAS ONAN GENERATOR**

120 Volt 60 HZ 7000 Watt (Minimum) Commercial Grade Generator  
Gasoline Powered  
Electric Start  
Air Cooled  
Generator Remote Start/Stop Cable assembly

**GENERATOR COMPARTMENT [UNDER CHASSIS MOUNT]**

Generator Storage Compartment with Lockable External Access Door  
Commercial Power Supply Receptacle, 25' Cord, and Plug  
Electrical Supply Center with Circuit Breaker Box  
Commercial power and Generator Power Connectors  
Automatic Power Transfer Switch

**SYSTEM ENGINEERING PANEL, FOR POWER INFORMATION AND GENERATOR FUNCTIONS, RACK MOUNTED, TO INCLUDE:**

Four Function AC Power Meter displaying Critical Power Information including  
Voltage  
Hertz  
Amperage  
Active Power (Watts)  
Front panel Selector Switch for two modes of operation  
Fixed reading  
Continuous Auto-cycling  
Generator Battery Meter to Display Starting and Charging Voltage  
Generator Hour Meter  
Generator Remote Start/Stop Control Switch  
On/Off Switch for Emergency Warning beacons (Switch to illuminate When On)

**25' 110V SHORE POWER CABLE**

**P&T ZOOM M/C CAMERA LED**

Solid State Color Sewer TV Camera  
Pan & Rotate Camera Head, 40:1 Zoom Ratio, 10x Optical Zoom, 4x Digital Zoom  
NTSC Color Standard with 4x Light Integration  
4 X 5W Clusters LED for 6" through 72" lines  
Camera Transportation and Storage Case

**21" TRAC TRANSPORTER M/C TO INCLUDE:**

6" Track Transporter with Freewheel and Powered Reverse  
Y Eliminator

**8"-15" EXTENDERS FOR 21" TRAC TRANSPORTER**

**SPARE PARTS KIT FOR TRAC TRANSPORTER TO INCLUDE:**

Additional Chain Links and Rubber Cleats

**12/5/4 ADAPTER CABLE**

**1000' CABLE ASSEMBLY, M/C 12PIN METAL**

1000' Gold Multi Conductor Kevlar Fiber Armored Combination TV Transmission / Tow Cable  
.450 Diameter  
Metal Splice Chamber with Pigtail  
Cable Strain Relief

**TV REEL ASSEMBLY, MECHANICAL FOOTAGE FOR SUMMIT .450 CABLE**

Black Thermoplastic Powder Coated Frame  
Power Level wind & Multi Ratio Manual Transmission  
Footage Meter with Local Counter and Remote Electronic Counter  
Transmission Control at Viewing Station  
Local Reel Mount Electrical and Mechanical Control  
Sealed Continuous Contact Collector Assembly  
Removable Drip Pan for Cleaning

**AUTOMATIC PAYOUT SYSEMD FOR REEL - INSTALLED**

**DVR/USB ASSEMBLY KIT WITH MICROPHONE F/TRUCK**

**19" (MINIMUM) FLATSCREEN COLOR INDUSTRIAL TV MONITOR NTSC / PAL COLOR STANDARDS**

**MOUNTING HARDWARE FOR MONITOR to include Bracket(s), and / or Mount(s), and Miscellaneous hardware required to secure monitor for optimal safety and viewing.**

**PCU ASSEMBLY [RACK MOUNT]**

**CCU ASSEMBLY [RACK MOUNT]**

Alpha Numeric Information Display, with Multi Paging and Defect Coding  
Remote "QWERTY" Keyboard for Data Entry  
On Screen Footage Display

**WIRED & WIRELESS USB CONTROLLER**

Joystick Control for Pan and Tilt Zoom Camera to Include:  
360 Degree Rotate  
330 Degree Optical Pan  
Joystick Control for All Steering Functions & Forward / Reverse Directions for Transporter  
  
Camera Lift Control for Optional Electronic Camera Lift  
All Other Controls for Camera to Include:  
Camera Iris and Focus Override & Zoom  
Camera Lights & Shutter Control for Light Enhancement  
Camera Diagnostics & Auto Home  
Cruise Control to Set Speed of the Transporter for Hands off Operation  
All Reel Controls to Include: Retrieve, Release, and Variable Speed

**8.7" MINI KEYBOARD**

**KIT, DOWNHOLE, STD**

Top roller Assembly, Manhole, TV Only, AI  
Claw Hook, Manhole Adapter, f/WT319  
Hook Assembly, Retrieval (SINGL, SHTY/LMP/PR)  
6 Poles, Assembly, Retrieval / Downhole II, 58"  
Pole Assembly, Retrieval / Downhole II, 58"

**MULTI CONDUCTOR TV ONLY TOOL KIT**

Milliamp meter Tool  
Electrical Tape  
Needle Nose Pliers  
Six-In-One Screwdriver  
6" Adjustable Wrench  
Anti Seize Grease  
9-Piece Allen Wrench kit  
Solder Iron Kit  
Industrial Pliers  
5/32 T-Handle Hex Wrench

**REDI EVALUATION KIT TO INCLUDE**

Rugged Weather Proof Storage Case  
Digital Hi-Resolution Wide Angle Web Camera  
Diagnostic Test Box To Include  
Voltage Test Points  
Built-In Mini Camera  
Footage Test Box  
Digital Multi-Meter  
USB Diagnostic Tool  
Video Cables and Adaptors

**NO TRAINING REQUIRED BY CUSTOMER**

**TRUCK DELIVERY-NORTH CAROLINA**

## Add-On to Base System

| Manufacturer | Model     | Description  | Price       |
|--------------|-----------|--|-------------|
| CUES         | F-550-DRW | Ford F-550 DRW Diesel Cab Chassis in lieu of E 450 G in base   | \$26,104.00 |
| CUES         | 500200A   | Wall Heater  | \$692.91    |
| CUES         | TR1938-2  | KIT,DOOR,F/HIGH-CUBE,EVO 3   | \$1,617.00  |
| CUES         | WC440     | Bench Seat   | \$555.26    |
| CUES         | WC420     | Closet in Control Room or Equipment Room   | \$976.47    |
| CUES         | MEPS      | On Board AC Power System Dynamic Inverter 6.3 KW   | \$18,707.00 |
| CUES         | TR1933-1  | 20 Gallon Wash down  | \$4,836.00  |
| CUES         | WCS05     | Wall Cabinet   | \$2,174.41  |
| CUES         | WC468     | Sink and Faucet for base cabinet ER  | \$1,234.21  |
| CUES         | TR2985    | Moduline 5 Drawer tool Box   | \$2,563.99  |
| CUES         | WM350     | Compact Steerable Pipe Ranger Wheeled Transporter for 6" to 30" Mainline Inspection (IN LIEU OF US21 Ultra Shorty Trac Transporter in Base Unit) | \$19,793.68 |
| CUES         | MZ904-16  | Built in Sonde S12M2 Transmitter   | \$3,270.53  |
| CUES         | WM330     | Electric Lift for use with Compact Pipe Ranger   | \$8,153.94  |

|      |         |   |            |
|------|---------|---|------------|
| CUES | WM312   | Pneumatic Rubber Tires to inspect 12"+ Pipe for CPR & WTR Wheeled Transporter | \$1,762.04 |
| CUES | WM096   | Spiked Steel Wheels to inspect 6" Pipe for Wheeled Transporter                | \$2,851.92 |
| CUES | WS112   | Spiked Steel Wheels to inspect 8" Pipe for Wheeled Transporter                | \$3,025.02 |
| CUES | WM108   | Spiked Steel Wheels to inspect 10" to 15" Pipe for Wheeled Transporter        | \$3,335.34 |
| CUES | WM375   | Rear Viewing Camera for Transporter - SPR / CPR                               | \$4,075.00 |
| CUES | WM952   | KIT,12PIN/COUPLR,QUICK CABLE LOCK   | \$351.17   |
| CUES | EL115-H | Add Additional Video Cable to Dolly Up to 1,000' (100' Increments)            | \$5,144.00 |
| CUES | TR3740  | Monitor 22" (Minimum) and Mount   | \$1,221.22 |
| CUES | GN-03R  | Rack Mount Computer, Monitor, Printer Keyboard and Mouse for Granite XP       | \$6,042.00 |
| CUES | GX188   | Keyboard and Mouse Combo, Wired   | \$69.21    |
| CUES | GN610   | Printer, Color  | \$275.90   |

Add-on's to Base System \$118,832.21 6% -\$7,129.93 \$111,702.27

### Non-Published Add-On to Base System

| Manufacturer | Model         | Description                                  | Price       |
|--------------|---------------|--|-------------|
| CUES         | CARGOBOX      | 12' CARGO BOX IN LIEU OF 16' CARGO BOX       | -\$842.11   |
| CUES         | TR3100        | MANUAL BOOM CRANE, FLOOR MOUNT               | \$7,622.42  |
| CUES         | 2K REEL UPFIT | UPFIT REEL FOR 1501 TO 2K FEET OF CABLE      | \$4,894.87  |
| ASPECIAL     | MEPS          | MEPS INVERTER IN LIEU OF GAS GENERATOR       | -\$4,544.03 |
| CUES         | TR3339-1      | STORAGE DRAWER UNIT FOR EQUIPMENT ROOM LOWER | \$3,557.95  |
| CUES         | 300654        | TIGER TAIL                                   | \$123.75    |
| CUES         | 660004        | FIELD TRAINING FOR ID SYSTEM, 4 DAYS         | \$4,450.00  |

Add-on's to Base System \$15,262.85 6% -\$915.77 \$14,347.08

### Totals

|                           |  |  |  |                                |
|---------------------------|--|--|--|--------------------------------|
|                           |  |  |  | <b>Contract Price</b>          |
|                           | Net Price                                |  |  | <b>\$360,783.35</b>            |
|                           | <b>Additional CUES Loyalty Discount:</b> |  |  | <b><del>-\$43,568.35</del></b> |
| <b>Total Sales Price:</b> |  |  |  | <b>\$317,215.00</b>            |

### Options (Not included in above pricing)

| Manufacturer | Model       | Description   | Price       |
|--------------|-------------|---|-------------|
| CUES         | CRANES      | POWER BOOM FLOOR MOUNT CRANE IN LIEU OF MANUAL FLOOR MOUNT CRANE              | \$2,421.00  |
| CUES         | CHASSISLINE | F550 4X4 DIESEL WITH 16' CARGO BOX IN LIEU OF F550 4X4 GAS WITH 12' CARGO BOX | \$10,736.84 |

Add-on's to Base System \$13,157.84 6% -\$789.47 \$12,368.37

**Specifications For: Buncombe county MSD, NC**

- 1 FORD F-550 GAS CAB CHASSIS 189" WB 4X4 CHASSIS**
  
- 1 12' CARGO BOX FOR CAB/CHASSIS**
  - 1 LED Light Package Includes Body Clearance and Stop / Tail / Turn
  - 1 Full Width Barn Doors with CAM (Pipe) Locks on Each Door
  - 2 Laminated Steel Lock
  - 1 Kemlite Covering on Inside Rear Doors
  - 1 Back Up Alarm
  
- 1 MANUAL BOOM CRANE, FLOOR MOUNT**
  
- 1 SAFE ENTRY/EXIT BUMPER INSTALLED**
  - 1 Three (3) Steps Evenly Spaced
  - 1 Bottom Step Folds Up for Ground Clearance
  - 1 Safety Grab Handle
  
- 1 KICKPLATE TRANSPORTER STORAGE**
  - 1 Lockable Storage Compartment for Camera and Transporter
  - 1 Sliding Drawer
  - 1 Notch in rear door threshold of body for TV cable to pass through to transporter storage drawer
  
- 1 KICKPLATE 2 DRAWER ALUMINUM STORAGE**
  
- 1 BACK-UP COLOR CAMERA SYSTEM [CHASSIS]**
  
- 1 LED TRAFFIC ADVISOR,WHELEN - REAR MOUNTED**
  
- 2 HIGH INTENSITY LED STROBE SYSTEM - AMBER (FRONT OF VEHICLE / GRILL AREA)**
  
- 1 TV HIGH CUBE VAN EXTERIOR LIGHTING & CONTROL ROOM - EVOLUTION 3.0 TO INCLUDE:**
  - 4 High Intensity LED Strobe System - Amber (Mounted High and Towards Front and Rear on Left and Right Sides of Vehicle (2 each side))
  - 2 High Intensity LED Strobe System - Amber (Mounted High on Front Face)
  - 2 High Intensity LED Strobe System - Amber (Mounted High on Rear Corner Posts)
  - 2 Adjustable LED Floodlights Rear of Vehicle Area IlluminationControl Room Interior:
  - 1 Lonseal Lonplate Flooring
  - 1 Kemlite covered walls and weather resistant/smooth finished ceiling
  - 1 Bulkhead Wall With Passage Door From Control Room to Equipment Room
  - 1 Tinted Viewing Window in Bulkhead Wall
  - 1 Tinted Viewing Window in Bulkhead Door
  - 1 Above Desk Control Console with Rack Mount for Electronic Equipment
  - 1 Desktop / Work Area
  - 1 12V High Intensity LED Light Fixture
  - 1 Multi-Outlet Power Strip With USB Ports
  - 1 Fire Extinguisher with Bracket, 10BC Rating
  - 1 Operators Chair, Swivel With Casters
  - 1 Breaker Box Storage Area with Locking Positive Latch
  - 1 Battery Powered Carbon Monoxide Alarm

- 1 LOW PROFILE, ROOF MOUNTED AIR CONDITIONER
- 1 WALL MOUNTED ELECTRIC HEATER
- 1 WALL MOUNTED ELECTRIC HEATER HOUSING
- 1 CURBSIDE DOOR FOR EVO 3.0
- 1 2 STEP, SLIDE AWAY, BLACK, BUSTIN
- 1 BENCH SEAT IN VIEWING ROOM
- 1 CUSHION FOR BENCH SEAT
- 1 CLOSET IN VIEWING ROOM
- 1 TV HI-CUBE VAN EQUIPMENT ROOM INTERIOR - EVOLUTION 3.0 TO INCLUDE:
  - 1 Lonseal Lonplate Flooring
  - 1 Kemlite covered walls and weather resistant/smooth finished ceiling
  - 1 Electrical Outlet with Dual Receptacles
  - 1 12V High Intensity LED Light Fixture
  - 1 15 Minute Courtesy Timer Located at Rear Door Area for 12V LED Interior Lights
- 1 MULTI-OUTLET WORKSTATION WITH LIGHTS AND USB PORTS
- 1 20-GALLON WASHDOWN SYSTEM TO INCLUDE:
  - 1 20-Gallon Fresh Water Tank
  - 1 Electric Water Pump
  - 1 Retractable Hose Reel with 25' Water Hose and Nozzle
- 1 UPPER STORAGE CABINET IN EQUIPMENT ROOM
- 1 STORAGE DRAWER READY LOWER CABINET IN EQUIPMENT ROOM
  - 1 Lower Storage Cabinet / Work Top with Sink and Faucet
  - 1 Storage Drawer Ready
- 1 STORAGE DRAWER UNIT FOR EQUIPMENT ROOM LOWER CABINET
- 1 5-DRAWER TOOL CHEST, MODULINE
- 1 32" REAR FLAT SCREEN MONITOR MOUNTED IN BULKHEAD WALL
  - 1 Flat Screen Monitor
  - 1 Cable Assembly - Video Monitor to Monitor in Control Room
  - 1 Electrical Outlet

- 1 UNDER HOOD GENERATOR AC POWER SYSTEM, 6.3KW**
- 1 25' 110V SHORE POWER CABLE**
- 1 DIGITAL ENGINEERING PANEL FOR INVERTER SYSTEM, BLACK**
- 1 OZ3s P&T ZOOM M/C LED CAMERA WITH BUILT-IN SONDE**
  - 1 Solid State Color Sewer TV Camera
  - 1 Pan & Rotate Camera Head, 120:1 Optical/Digital Zoom
  - 1 NTSC/PAL Color Standard with 4x Light Integration
  - 1 4 X 5W Cluster LED's for 6" through 72" lines
  - 1 Camera Transportation and Storage Case
  - 1 Built In Transmitter, 512 Hz
- 1 PREWIRE FOR DIGITAL/OZ4 CAMERA UPON RELEASE OF OZ4**
- 1 BRASS COMP STEERABLE CAM TRANS, WHEELED -60V**
  - 1 Steerable Unit Designed to Turn 360 Degrees Within Its Own Radius
  - 1 Set of Driven Rubber Wheels to Inspect 6" Pipe
  - 1 Two (2) Speed Transmission to Maximize Torque in Large Diameter Pipe with:
    - 1 Manual Shifter on Camera Carrier
  - 1 Unit Shall Have Forward, Free Wheel, and Power Reverse Capabilities
  - 1 All Six (6) Wheel Drive Transporter Assembly to Include:
    - 1 Motor & Enclosed Drive Train
  - 1 Tip Up Rear Connector
- 1 8" RUBBER WHEEL KIT FOR COMPACT TRANSPORTER**
- 1 10-15" RUBBER WHEEL KIT FOR COMPACT TRANSPORTER**
- 1 6"-15"PIPE SPACER KIT**
- 1 ELECTRIC CAMERA LIFT FOR COMPACT TRANSPORTER**
- 1 12"-15" PNEUMATIC TIRE KIT FOR COMPACT TRANSPORTER**
- 6 WHEEL,STL,6"PVC PIPE,QCKCHG,SPIKE**
- 6 WHEEL, STEEL, 8", SINGLE PT, SPIKE**
- 6 WHEEL,STL,10-15"PIPE,QCK CHG,SPIKE**
- 1 REAR VIEW CAMERA**
  - 1 Color NTSC Camera
  - 1 Lightring with (12) Solid State White LEDs

- 1 **QUICK CABLE LOCK PIGTAIL COUPLER KIT**
  
- 1 **CABLE ASSY,M/C,12P,1800',SMM,MTL,HY**
  
- 1 **TV REEL ASSEMBLY, MECHANICAL FOOTAGE FOR SUMMIT .450 CABLE**
  - 1 Black Thermoplastic Powder Coated Frame (not available with BRAKE option)
  - 1 Power Levelwind & Multi Ratio Manual Transmission
  - 1 Footage Meter with Local Counter and Remote Electronic Counter
  - 1 Transmission Control at Viewing Station
  - 1 Local Reel Mount Electrical and Mechanical Control
  - 1 Sealed Continuous Contact Collector Assembly
  - 1 Removable Drip Pan for Cleaning (not available with BRAKE option)
  
- 1 **UPFIT REEL FOR 1501 TO 2K FEET OF CABLE**
  
- 1 **AUTOMATIC PAYOUT SYSTEM FOR REEL - INSTALLED**
  
- 1 **PCU ASSEMBLY [RACK MOUNT]**
  
- 1 **CCU ASSEMBLY [RACK MOUNT]**
  - 1 Alpha Numeric Information Display, with Multi Paging and Defect Coding
  - 1 Remote "QWERTY" Keyboard
  - 1 On Screen Footage Display
  
- 1 **WIRELESS CONTROLLER**
  - 1 Joystick Control for Pan and Tilt Zoom Camera to Include:
    - 1 360 Degree Rotate
    - 1 330 Degree Optical Pan
  - 1 Joystick Control for All Steering Functions & Forward / Reverse Directions for Transporter
  - 1 Camera Lift Control for Optional Electronic Camera Lift
  - 1 All Other Controls for Camera to Include:
    - 1 Camera Iris and Focus Override & Zoom
    - 1 Camera Lights & Shutter Control for Light Enhancement
    - 1 Camera Diagnostics & Auto Home
  - 1 Cruise Control to Set Speed of the Transporter for Hands Off Operation
  - 1 All Reel Controls to Include: Retrieve, Release, and Variable Speed [Excluding Dolly Systems]
  
- 1 **WIRED USB CONTROLLER**
  - 1 Joystick Control for Pan and Tilt Zoom Camera to Include:
    - 1 360 Degree Rotate
    - 1 330 Degree Optical Pan
  - 1 Joystick Control for All Steering Functions & Forward / Reverse Directions for Transporter
  - 1 Camera Lift Control for Optional Electronic Camera Lift
  - 1 All Other Controls for Camera to Include:
    - 1 Camera Iris and Focus Override & Zoom
    - 1 Camera Lights & Shutter Control for Light Enhancement
    - 1 Camera Diagnostics & Auto Home



- 1 Cruise Control to Set Speed of the Transporter for Hands Off Operation
- 1 All Reel Controls to Include: Retrieve, Release, and Variable Speed [Excluding Dolly Systems]

**1 8.7" MINI KEYBOARD**

**1 SHORTING PLUG**

**1 TV EQUIPMENT TEST CABLE**

**2 22" (MINIMUM) FLATSCREEN COLOR INDUSTRIAL TV MONITOR NTSC / PAL COLOR STANDARDS**

**2 MOUNTING HARDWARE FOR MONITOR to include Bracket(s), and / or Mount(s), and Miscellaneous hardware required to secure monitor for optimal safety and viewing.**

**1 COMPUTER ONLY [NO Granite SOFTWARE] TO INCLUDE (MINIMUM):\* \*\***

- OS Windows 11 Pro 64
- Motherboard Gigabyte Z790 Aorus Elite AX
- Processor Intel I7-13700
- RAM 16GB DDR5 4800
- Primary HD 1TB SSD M.2
- Secondary HD 2TB SSD M.2
- Monitor support 1 HDMI, 1 Display Port
- USB ports Back- USB-C 20GB, 4 USB 2.0, 5 USB 3.2. Front 2 USB 3.0
- Ethernet Port 2.5 GB
- Wifi Wifi 802.11ax Wi-Fi 6E

\*Spec for computers can change without notice

\*\*International Configuration may vary to comply with the U.S. Department of Commerce, Bureau of Industry & Security regulations on export of technology

**1 TRANSFER LICENSE WS 505747 TO NEW COMPUTER**

**1 KEYBOARD AND MOUSE COMBO,WIRED**

**1 COLOR PRINTER**

**1 ALL NECESSARY CABLING AND COMPONENTS TO COMPLETE THE INTERFACE BETWEEN THE DATA ACQUISITION SYSTEM, PERIPHERALS, AND THE VIDEO INSPECTION EQUIPMENT**

**1 KIT,UPS, W/MOUNT TO INCLUDE THE FOLLOWING:**

- 1 Input 120-Volt / Output 120-Volt
- 1 Cord Management Straps

**1 KIT,DOWNHOLE,STD**

- 1 Toproller Assembly, Manhole, TV Only, AI
- 1 Claw Hook, Manhole Adapter, f/WT319
- 1 Hook Assembly, Retrieval (SNGL,SHTY/LMP/PR)
- 6 Pole Assembly, Retrieval / Downhole tl,58"
- 1 Roller Assembly, Invert f/ WT319

**1 TIGER TAIL**

**1 MULTI CONDUCTOR TV ONLY TOOL KIT**

- 1 Milliampmeter Tool
- 1 Electrical Tape
- 1 Needle Nose Pliers
- 1 Six-In-One Screwdriver
- 1 6" Adjustable Wrench
- 1 Anti Seize Grease
- 1 9-Piece Allen Wrench kit
- 1 Solder Iron Kit
- 1 Pliers
- 1 5/32 T-Handle Hex Wrench

**1 REDI EVALUATION KIT TO INCLUDE:**

- 1 Rugged Weather Proof Storage Case
- 1 Digital Hi-Resolution Wide Angle Web Camera
- 1 Diagnostic Test Box To Include:
  - 1 Voltage Test Points
  - 1 Built-In Mini Camera
- 1 Footage Test Box
- 1 Digital Multi-Meter
- 1 USB Diagnostic Tool
- 1 Video Cables And Adaptors

**1 FIELD TRAINING FOR ID SYSTEM, 4 DAYS**

**1 TRUCK DELIVERY-NORTH CAROLINA0**

**OPTIONAL ITEMS  
[NOT INCLUDED IN BASE QUOTE]**

**1 POWER BOOM FLOOR MOUNT CRANE IN LIEU OF MANUAL FLOOR MOUNT CRANE  
(Optional)**

**1 F550 4X4 DIESEL WITH 16' CARGO BOX IN LIEU OF F550 4X4 GAS WITH 12' CARGO BOX  
(Optional)**

# Metropolitan Sewerage District of Buncombe County

## BOARD INFORMATIONAL ITEM

Meeting Date: September 18, 2024  
 Submitted By: Thomas E. Hartye, PE., General Manager  
 Prepared By: W. Scott Powell, CLGFO, Director of Finance  
 Cheryl Rice, Accounting Manager  
 Subject: Cash Commitment/Investment Report-Month Ended July 31, 2024

### Background

Each month, staff presents to the Board an investment report for all monies in bank accounts and specific investment instruments. The total investments as of July 31, 2024 were \$93,834,513. The detailed listing of accounts is available upon request. The average rate of return for all investments is 5.090%. These investments comply with North Carolina General Statutes, Board written investment policies, and the District's Bond Order.

The attached investment report represents cash and cash equivalents as of July 31, 2024 do not reflect contractual commitments or encumbrances against said funds. Shown below are the total investments as of July 31, 2024 reduced by contractual commitments, bond funds, and District reserve funds. The balance available for future capital outlay is \$24,087,408.

|  |                     |                          |
|--|---------------------|--------------------------|
| Total Cash & Investments as of 07/31/2024  |                     | 93,834,513               |
| Less:  |                     |                          |
| Budgeted Commitments (Required to pay remaining FY25 budgeted expenditures from unrestricted cash) |                     |                          |
| Construction Funds   | (35,906,325)        |                          |
| Operations & Maintenance Fund  | <u>(21,294,787)</u> |                          |
|  |                     | (57,201,112)             |
| Bond Restricted Funds  |                     |                          |
| Bond Service (Funds held by trustee):  |                     |                          |
| Funds in Principal & Interest Accounts   | (105,913)           |                          |
| FY24 Principal & Interest Due  | <u>(1,674,443)</u>  |                          |
|  |                     | (1,780,356)              |
| District Reserve Funds   |                     |                          |
| Fleet Replacement  | (1,657,351)         |                          |
| Pump Replacement   | (212,736)           |                          |
| WWTP Replacement   | (381,188)           |                          |
| Maintenance Reserve  | <u>(1,310,363)</u>  |                          |
|  |                     | (3,561,638)              |
| District Insurance Funds   |                     |                          |
| General Liability  | (229,360)           |                          |
| Worker's Compensation  | (256,301)           |                          |
| Post-Retirement Benefit  | (2,969,827)         |                          |
| Self-Funded Employee Medical   | <u>(3,748,511)</u>  |                          |
|  |                     | <u>(7,203,999)</u>       |
| Designated for Capital Outlay  |                     | <u><u>24,087,408</u></u> |

Meeting Date: September 18, 2024

Subject: Cash Commitment/Investment Report-Month Ended July 31, 2024

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Staff Recommendation  
None - Information Only.

Action Taken

Motion by:

to

Approve

Disapprove

Second by:

Table

Send to Committee

Other:

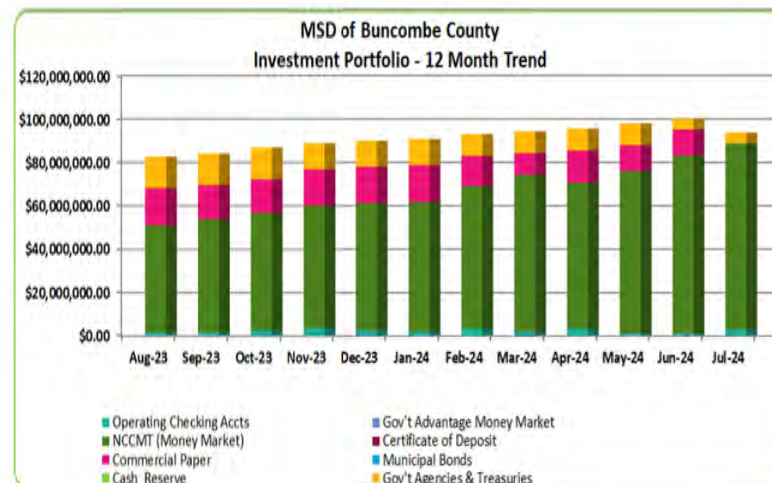
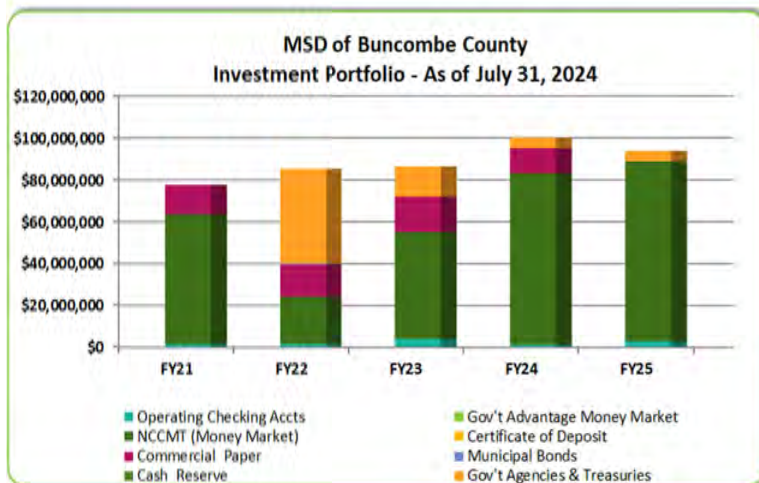
Follow-up required:

Person responsible:

Deadline:

|                        | Operating<br>Checking Accounts | Gov't Advantage<br>Money Market | NCCMT<br>(Money Market) | Certificate of<br>Deposit | Commercial<br>Paper | Municipal<br>Bonds | Cash<br>Reserve | Gov't Agencies<br>& Treasuries | Total         |
|------------------------|--------------------------------|---------------------------------|-------------------------|---------------------------|---------------------|--------------------|-----------------|--------------------------------|---------------|
| Held with Bond Trustee | \$ -                           |                                 | \$ 105,913              |                           |                     | \$ -               | \$ -            |                                | \$ 105,913    |
| Held by MSD            | 2,881,557                      | 46,706                          | 85,759,101              | -                         | -                   | -                  |                 | 5,041,236                      | 93,728,600    |
|                        | \$ 2,881,557                   | \$ 46,706                       | \$ 85,865,014           | \$ -                      | \$ -                | \$ -               | \$ -            | \$ 5,041,236                   | \$ 93,834,513 |

| Investment Policy Asset Allocation      | Maximum Percent | Actual Percent |  |
|---|-----------------|----------------|--|
| U.S. Government Treasuries,             |                 |                |  |
| Agencies and Instrumentalities          | 100%            | 5.37%          | No significant changes in the investment portfolio as to makeup or total amount.   |
| Bankers' Acceptances                    | 20%             | 0.00%          |  |
| Certificates of Deposit                 | 100%            | 0.00%          |  |
| Commercial Paper                        | 20%             | 0.00%          |  |
| Municipal Bonds                         | 100%            | 0.00%          |  |
| North Carolina Capital Management Trust | 100%            | 91.51%         | All funds invested in CD's, operating checking accounts, Gov't Advantage money market are fully collateralized with the State Treasurer. |
| Checking Accounts:                      | 100%            |                |  |
| Operating Checking Accounts             |                 | 3.07%          |  |
| Gov't Advantage Money Market            |                 | 0.05%          |  |



Meeting Date: September 18, 2024

Subject: Cash Commitment/Investment Report-Month Ended July 31, 2024

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## Metropolitan Sewerage District Investment Managers' Report On July 31, 2024

### Summary of Asset Transactions

|                                 | Original<br>Cost     | Market               | Interest<br>Receivable |
|---------------------------------|----------------------|----------------------|------------------------|
| Beginning Balance               | \$ 83,721,284        | \$ 83,721,284        | \$ 106,738             |
| Capital Contributed (Withdrawn) | (1,302,500)          | (1,302,500)          |                        |
| Realized Income                 | 399,558              | 399,558              | (92,415)               |
| Unrealized/Accrued Income       |                      | 19,756               | 19,756                 |
| Ending Balance                  | <u>\$ 82,818,342</u> | <u>\$ 82,838,098</u> | <u>\$ 34,079</u>       |

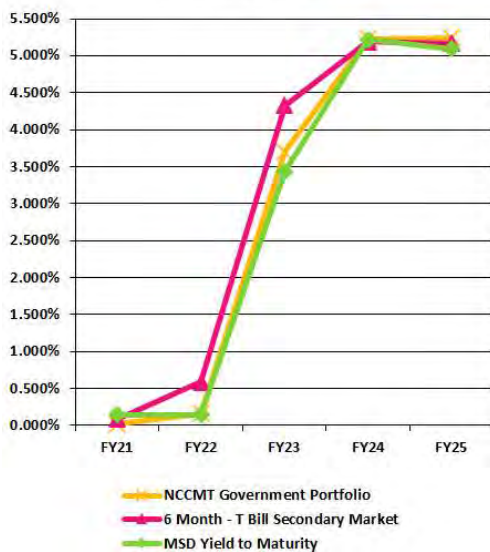
### Value and Income by Maturity

|                                | Original Cost        | Income            |
|--------------------------------|----------------------|-------------------|
| Cash Equivalents <91 Days      | \$ 81,434,726        | \$ 340,863        |
| Securities/CD's 91 to 365 Days | 1,383,615            | \$ 5,791          |
| Securities/CD's > 1 Year       | -                    | -                 |
|                                | <u>\$ 82,818,342</u> | <u>\$ 346,654</u> |

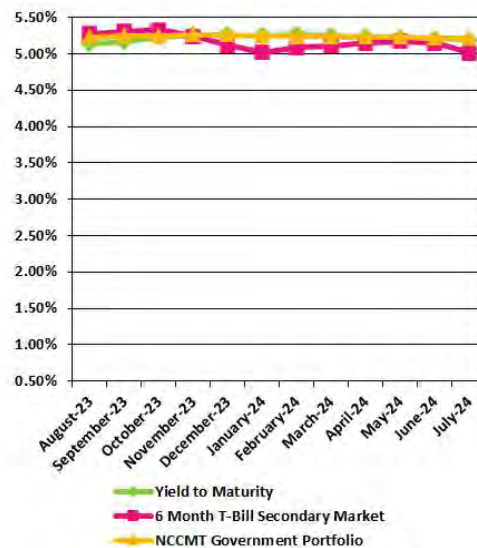
### Month End Portfolio Information

|                                 |       |
|---------------------------------|-------|
| Weighted Average Maturity       | 34    |
| Yield to Maturity               | 5.19% |
| 6 Month T-Bill Secondary Market | 5.01% |
| NCCMT Government Portfolio      | 5.22% |

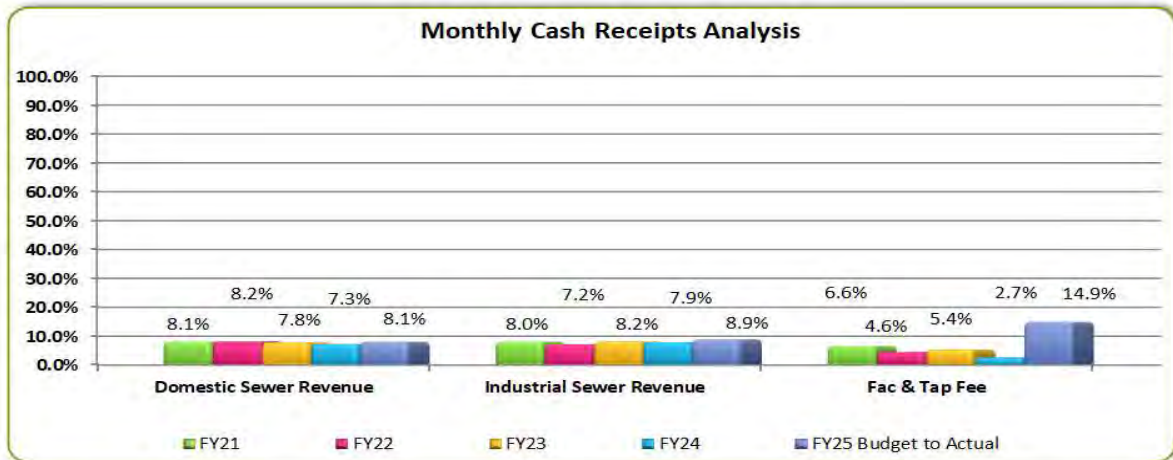
Metropolitan Sewerage District  
Annual Yield Comparison



Metropolitan Sewerage District  
Yield Comparison - July 31, 2024

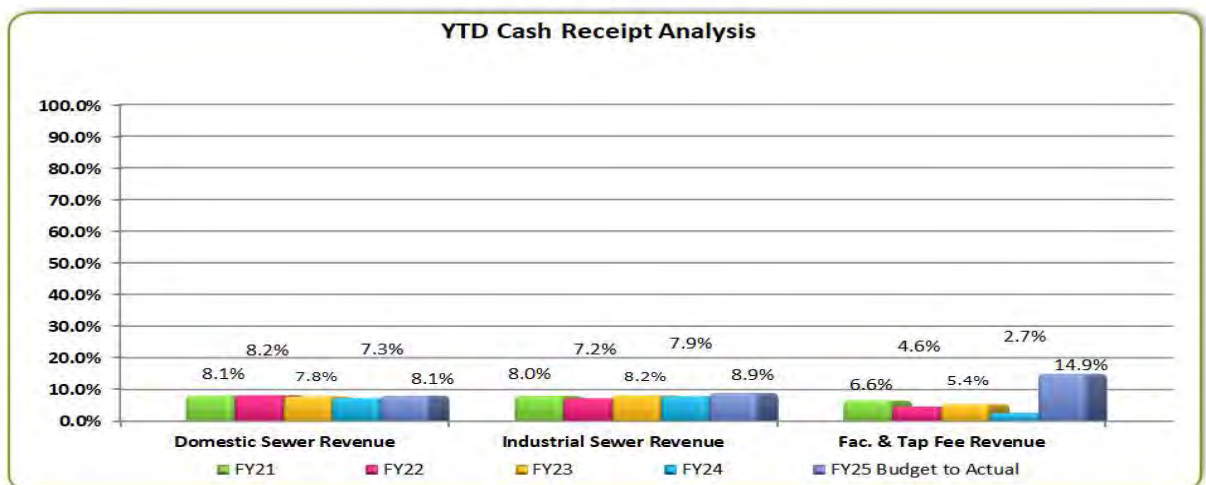


### Metropolitan Sewerage District Analysis of Cash Receipts As of July 31, 2024



#### Monthly Cash Receipts Analysis:

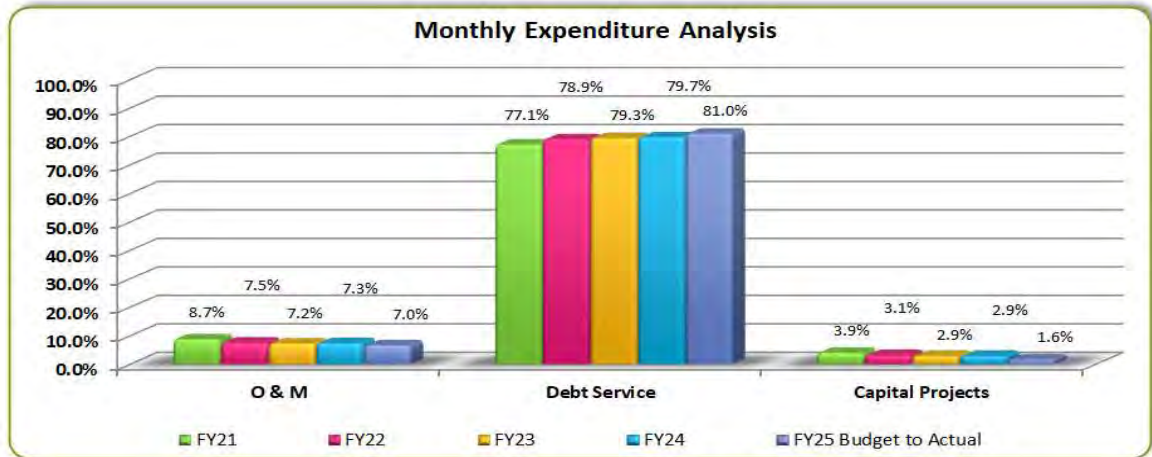
- \* Monthly domestic sewer revenue is considered reasonable based on timing of cash receipts in their respective fiscal periods.
- \* Monthly industrial sewer revenue is reasonable based on historical trends.
- \* Due to the unpredictable nature of facility and tap fee revenue, staff considers facility and tap fee revenue reasonable.



#### YTD Actual Revenue Analysis:

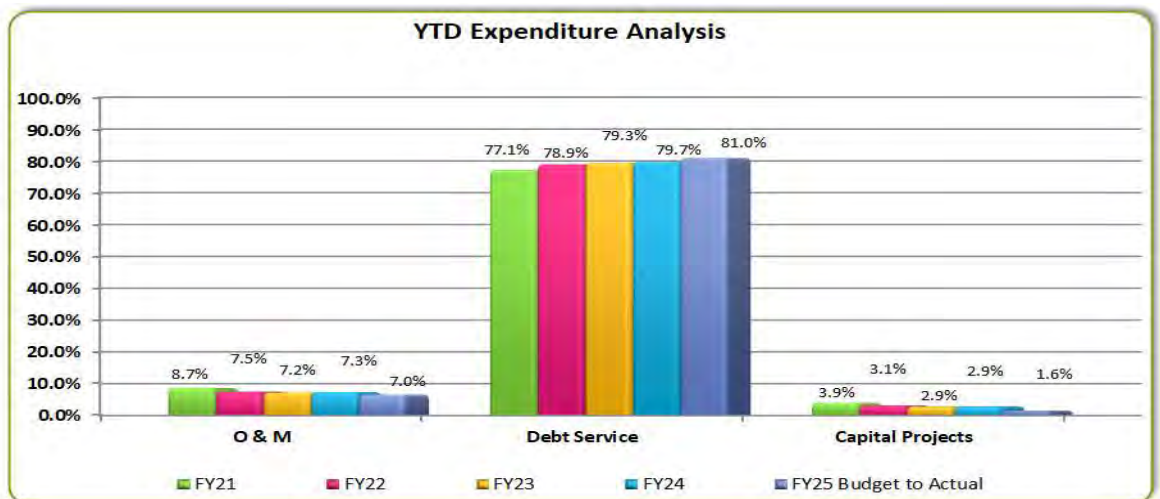
- \* YTD domestic sewer revenue is considered reasonable based on historical trends.
- \* YTD industrial sewer revenue is reasonable based on historical trends.
- \* Due to the unpredictable nature of facility and tap fee revenue, staff considers facility and tap fee revenue reasonable.

### Metropolitan Sewerage District Analysis of Expenditures As of July 31, 2024



**Monthly Expenditure Analysis:**

- \* Monthly O&M expenditures are considered reasonable based on historical trends and timing of expenditures in the current year.
- \* Due to the nature of the variable rate bond market, monthly expenditures can vary year to year. Based on current variable interest rates, monthly debt service expenditures are considered reasonable.
- \* Due to the nature and timing of capital projects, monthly expenditures can vary from year to year. Based on the current outstanding capital projects, monthly capital project expenditures are considered reasonable.



**YTD Expenditure Analysis:**

- \* YTD O&M expenditures are considered reasonable based on historical trends.
- \* Due to the nature of the variable rate bond market, YTD expenditures can vary year to year. Based on current variable interest rates, YTD debt service expenditures are considered reasonable.
- \* Due to nature and timing of capital projects, YTD expenditures can vary from year to year. Based on the current outstanding capital projects, YTD capital project expenditures are considered reasonable.

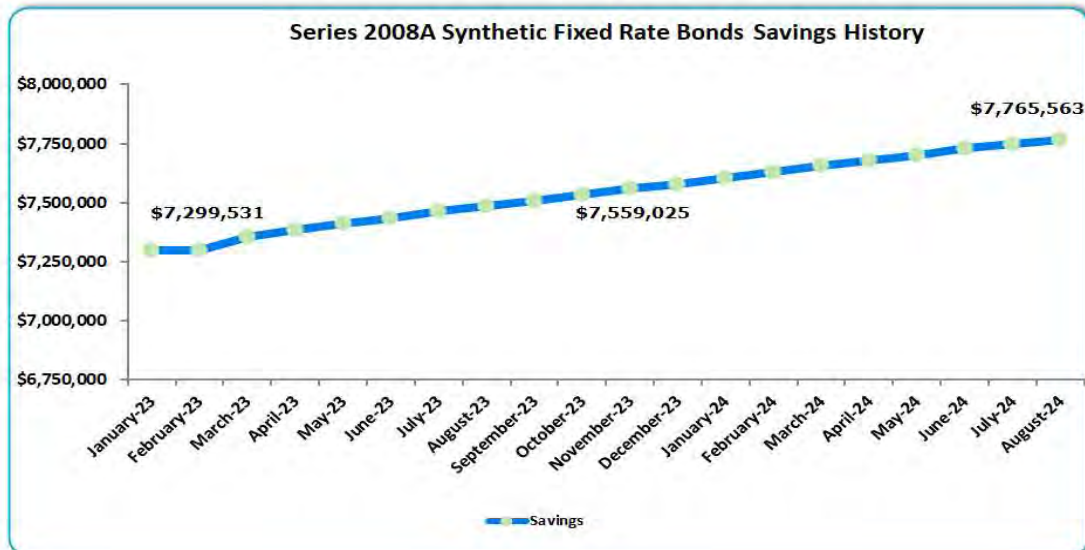
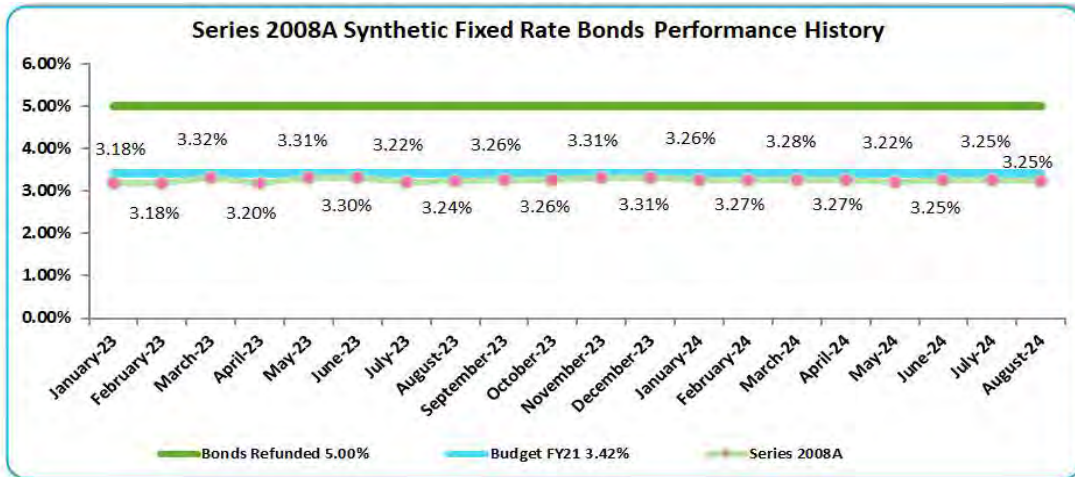


Meeting Date: September 18, 2024

Subject: Cash Commitment/Investment Report-Month Ended July 31, 2024

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### Metropolitan Sewerage District Variable Debt Service Report As of August 31, 2024



**Series 2008A:**

- \* Savings to date on the Series 2008A Synthetic Fixed Rate Bonds is \$7,765,563 as compared to 4/1 fixed rate of 4.85%.
- \* Assuming the rate on the Series 2008A Bonds continues at the current all-in rate of 3.7210%, MSD will achieve cash savings of \$4,670,000 over the life of the bonds.
- \* MSD would pay \$325,883 to terminate the existing Bank of America Swap Agreement.

# **STATUS REPORTS**

**MSD System Services In-House Construction  
FY 2024-2025**

| PROJECT NAME   | LOCATION       | ZIP CODE | ESTIMATED FOOTAGE | ESTIMATED PROJECT DATES | WO#    | CREW       | COMPLETION DATE | ACTUAL FOOTAGE | NOTES                     |
|--|----------------|----------|-------------------|-------------------------|--------|------------|-----------------|----------------|---------------------------|
| 189 Kimberly Ave Construction Rehabilitation           | Asheville      | 28804    | 113               | 7/9/2024                | 305014 | G. Hensley | 7/9/2024        | 113            | Complete                  |
| 45 Lawterdale Construction Rehabilitation              | Asheville      | 28804    | 138               | 7/17/24 - 7/19/24       | 305359 | G. Hensley | 7/19/2024       | 138            | Complete                  |
| Norwood Ave Sewer Rehabilitation Ph. 2                 | Asheville      | 28804    | 509               | 6/22/24 - 7/31/24       | 275810 | Matthews   | 7/24/2023       | 505            | Complete                  |
| Old Fairview Rd @ Willington Road Ph. 2                | Asheville      | 28803    | 330               | 7/1/24 - 7/26/24        | 305049 | McDevitt   | 7/25/2024       | 345            | Complete                  |
| Old Fairview Rd @ Willington Road Ph. 3                | Asheville      | 28803    | 30                | 7/26/24 - 8/23/24       | 305589 | McDevitt   | 8/23/2024       | 36             | Complete                  |
| 526 Depot Street at Livingston Street Rehab Ph. 1      | Asheville      | 28801    | 725               | 7/26/24 - 8/30/24       | 280038 | Matthews   | 8/29/2024       | 729            | Complete                  |
| 179 Old Haw Creek Rd (Mayfair Glen Project)            | Asheville      | 28805    | 317               | 8/19/24 - 9/20/24       | 300962 | McDevitt   |                 |                | Construction 15% complete |
| Kimberely Avenue @ Sedley Ave (Step Portion)           | Asheville      | 28804    | 224               | 9/16/24 - 10/16/24      | 301859 | Matthews   |                 |                | Construction starting     |
| 41 Robinhood Road                                      | Asheville      | 28804    | 145               | FY 24/25                | 262264 | Matthews   |                 |                | Ready for construction    |
| 350 Old Haw Creek Road Sewer Rehabilitation            | Asheville      | 28805    | 1300              | FY 24/25                | 47802  | McDevitt   |                 |                | Ready for construction    |
| 10 Balsam Rd Sewer Rehabilitation                      | Ridgecrest     | 28770    | 410               | FY 24/25                | 275803 | Matthews   |                 |                | Ready for construction    |
| Vandalia Ave Sewer Rehabilitation                      | Asheville      | 28806    | 1325              | FY 24/25                | 248041 | TBA        |                 |                | Ready for construction    |
| Baker Place @ Carrier Street Sewer Rehabilitation      | Asheville      | 28806    | 1300              | FY 24/25                | 284574 | TBA        |                 |                | Ready for construction    |
| Virginia Ave @ Lufty Ave                               | Asheville      | 28806    | 1400              | FY 24/25                | 441499 | TBA        |                 |                | Ready for construction    |
| Old Asheland Ave to Phifer Street Sewer Rehabilitation | Asheville      | 28801    | 462               | FY 24/25                | 258560 | TBA        |                 |                | Ready for construction    |
| 500 Laurel Avenue Sewer Rehabilitation                 | Black Mountain | 28711    | 230               | FY 24/25                | 247281 | TBA        |                 |                | Ready for construction    |
| Bent Tree 4-inch Rehabilitation                        | Asheville      | 28804    | 245               | FY 24/25                | 301679 | TBA        |                 |                | Ready for construction    |
| Carver Avenue @ Owenby Lane                            | Black Mountain | 28711    | 785               | FY 24/25                | 292540 | TBA        |                 |                | In ROW                    |
| 128 Johnston Blvd                                      | Asheville      | 28806    | 219               | FY 24/25                | 242866 | TBA        |                 |                | In ROW                    |
| 15 Haith Drive   | Asheville      | 28801    | 204               | FY 24/25                | 285381 | TBA        |                 |                | In Design                 |
| Lorraine Avenue  | Asheville      | 28804    | 378               | FY 24/25                | 300998 | TBA        |                 |                | In Design                 |
| Rhodes Street at Union Street                          | Woodfin        | 28804    | 230               | FY 24/25                | 284578 | TBA        |                 |                | In Design                 |
| Wellington Street Phase I                              | Asheville      | 28806    | 459               | FY 24/25                | 280245 | TBA        |                 |                | In Design                 |
| 286 Old Haw Creek Rd Sewer Rehabilitation              | Asheville      | 28805    | 100               | FY 24/25                | 275815 | TBA        |                 |                | In Design                 |
| Applewood Drive @ New Haw Creek Road Sewer Rehab       | Asheville      | 28805    | 360               | FY 24/25                | 291537 | TBA        |                 |                | Preliminary Engineering   |
| 73 Argyle Lane   | Asheville      | 28806    | 755               | FY 24/25                | 219342 | TBA        |                 |                | Preliminary Engineering   |
| 48 Clarendon Road Sewer Rehabilitation                 | Asheville      | 28806    | 500               | FY 23/24                | 258562 | TBA        |                 |                | Preliminary Engineering   |
| 55 Congress Street Sewer Rehabilitation                | Asheville      | 28801    | 823               | FY 24/25                | 247631 | TBA        |                 |                | Preliminary Engineering   |



## CONSTRUCTION TOTALS BY DATE COMPLETED - Monthly

From 7/1/2024 to 7/31/2024

|                     | Dig Ups   | Emergency Dig Ups | Dig Up ML Ftg | Dig Up SL Ftg | Manhole Repairs | Taps Installed | ROW Ftg      | IRS Rehab Ftg * | Const Rehab Ftg * | D-R Rehab Ftg * | Manhole Installs | Bursting Rehab Ftg * | Total Rehab Ftg * |
|---------------------|-----------|-------------------|---------------|---------------|-----------------|----------------|--------------|-----------------|-------------------|-----------------|------------------|----------------------|-------------------|
| July 2024           | 15        | 9                 | 49            | 484           | 19              | 19             | 1,000        | 0               | 251               | 850             | 4                | 0                    | 1101              |
| <b>Grand Totals</b> | <b>15</b> | <b>9</b>          | <b>49</b>     | <b>484</b>    | <b>19</b>       | <b>19</b>      | <b>1,000</b> | <b>0</b>        | <b>251</b>        | <b>850</b>      | <b>4</b>         | <b>0</b>             | <b>1101</b>       |

\* Used to calculate Total Rehab Footage



## CUSTOMER SERVICE REQUESTS

### Monthly - All Crews

| CREW                       | MONTH      | JOBS       | AVERAGE RESPONSE TIME | AVERAGE TIME SPENT |
|----------------------------|------------|------------|-----------------------|--------------------|
| <b>DAY 1ST RESPONDER</b>   |            |            |                       |                    |
|                            | July, 2024 | 95         | 28                    | 36                 |
|                            |            | 95         | 28                    | 36                 |
| <b>NIGHT 1ST RESPONDER</b> |            |            |                       |                    |
|                            | July, 2024 | 35         | 28                    | 21                 |
|                            |            | 35         | 28                    | 21                 |
| <b>ON-CALL CREW *</b>      |            |            |                       |                    |
|                            | July, 2024 | 28         | 37                    | 36                 |
|                            |            | 28         | 37                    | 36                 |
| <b>Grand Totals:</b>       |            | <b>158</b> | <b>30</b>             | <b>33</b>          |

\* On-Call Crew Hours: 8:00pm-7:30am (Jul. - Oct.) 11:30pm-7:30am (from Nov. onward) Monday-Friday, Weekends, and Holidays



## PIPELINE MAINTENANCE TOTALS BY DATE COMPLETED - Monthly

July 01, 2024 to July 31, 2024

|                       | Main Line Wash<br>Footage | Service Line Wash<br>Footage | Rod Line<br>Footage | Cleaned<br>Footage | CCTV<br>Footage | Smoke<br>Footage | SL-RAT<br>Footage |
|-----------------------|---------------------------|------------------------------|---------------------|--------------------|-----------------|------------------|-------------------|
| <b>2024</b>           |                           |                              |                     |                    |                 |                  |                   |
| <b>July</b>           | 116,297                   | 2,129                        | 1,130               | 117,427            | 27,191          | 100              | 16,384            |
| <b>Grand Total:</b>   | <b>116,297</b>            | <b>2,129</b>                 | <b>1,130</b>        | <b>117,427</b>     | <b>27,191</b>   | <b>100</b>       | <b>16,384</b>     |
| <b>Avg Per Month:</b> | <b>116,297</b>            | <b>2,129</b>                 | <b>1,130</b>        | <b>117,427</b>     | <b>27,191</b>   | <b>100</b>       | <b>16,384</b>     |

## Planning & Development Project Status Report

Active Construction Projects Sorted by Work Location and Project Number

September 5, 2024

| No. | Project Name                                    | Project Number | Work Location  | Zip Code | Units | LF     | Pre-Construction Conference Date | Comments   |
|-----|---|----------------|----------------|----------|-------|--------|----------------------------------|--|
| 1   | First Baptist Relocation                        | 2015032        | Asheville      | 28801    | Comm. | 333    | 7/21/2015                        | Final Inspection complete, awaiting close-out docs |
| 2   | Hounds Ear (Mears Ave Cottages)                 | 2016123        | Asheville      | 28806    | 18    | 402    | 8/18/2017                        | Pre-con held, construction not yet started         |
| 3   | Ashecroft Ph. 2                                 | 2016229        | Asheville      | 28806    | 40    | 2,450  | 2/20/2018                        | On hold  |
| 4   | RADTIP  | 2017052        | Asheville      | 28801    | 0     | 919    | 2/13/2018                        | Final Inspection complete, awaiting close-out docs |
| 5   | North Bear Creek Subdivision Ph. I              | 2018117        | Asheville      | 28806    | 5     | 105    | 9/6/2023                         | Waiting on Final Inspection                        |
| 6   | Timber Hollow Subdivision                       | 2019049        | Asheville      | 28805    | 18    | 525    | 7/28/2020                        | On hold  |
| 7   | Millbrook Cottages                              | 2019066        | Asheville      | 28806    | 7     | 322    | 2/15/2022                        | New contractor, project on hold                    |
| 8   | 3927 Sweeten Creek Rd (Rumi Way)                | 2019076        | Asheville      | 28704    | 16    | 590    | 2/1/2023                         | Waiting on Testing                                 |
| 9   | UNC-A Edgewood Road Parking Lot                 | 2019078        | Asheville      | 28801    | Comm. | 373    | 7/19/2019                        | Final Inspection complete, awaiting close-out docs |
| 10  | Onteora Blvd and May Street Relocate            | 2019207        | Asheville      | 28803    | 0     | 16     | 1/17/2023                        | Pre-con held, construction not yet started         |
| 11  | Villas at Pincroft (Amarx Beaverdam)            | 2020228        | Asheville      | 28804    | 72    | 796    | 1/18/2024                        | Final Inspection complete, awaiting close-out docs |
| 12  | Burton Street                                   | 2021048        | Asheville      | 28806    | 4     | 64     | 7/24/2024                        | Pre-con held, construction not yet started         |
| 13  | Beloved Asheville                               | 2021070        | Asheville      | 28805    | 12    | 272    | 4/29/2022                        | Final Inspection complete, awaiting close-out docs |
| 14  | Reserve at McIntosh                             | 2021207        | Asheville      | 28806    | 228   | 2,475  | 12/14/2023                       | Waiting on Testing                                 |
| 15  | Woodfield (RAD Lofts)                           | 2021063        | Asheville      | 28801    | 235   | 403    | 6/8/2022                         | Waiting on Final Inspection                        |
| 16  | Fairfax and Maple                               | 2021154        | Asheville      | 28806    | 8     | 250    | 1/8/2024                         | Final Inspection complete, awaiting close-out docs |
| 17  | Reed Creek Mixed Use                            | 2022008        | Asheville      | 28801    | 49    | 295    | 2/23/2023                        | Final Inspection complete, awaiting close-out docs |
| 18  | Oak Hill Development                            | 2022065        | Asheville      | 28806    | 10    | 313    | 3/23/2023                        | Final Inspection complete, awaiting close-out docs |
| 19  | Randolph Avenue Commercial                      | 2021149        | Asheville      | 28806    | Comm. | 650    | 6/30/2022                        | Final Inspection complete, awaiting close-out docs |
| 20  | The Avery                                       | 2021206        | Asheville      | 28801    | 200   | 161    | 11/8/2023                        | Waiting on Final Inspection                        |
| 21  | Long Shoals Apartments (The Meridian)           | 2022039        | Asheville      | 28704    | 201   | 400    | 6/14/2023                        | Waiting on Final Inspection                        |
| 22  | Habitat New Heights Phase 2                     | 2022042        | Asheville      | 28806    | 60    | 1,810  | 6/9/2023                         | Waiting on Final Inspection                        |
| 23  | Busbee Phase 1A                                 | 2022102        | Asheville      | 28803    | 179   | 1,325  | 1/24/2024                        | Waiting on Final Inspection                        |
| 24  | 16/18 Spring Drive                              | 2022125        | Asheville      | 28806    | 2     | 70     | 4/18/2023                        | Final Inspection complete, awaiting close-out docs |
| 25  | Holiday Villa                                   | 2022172        | Asheville      | 28704    | 7     | 355    | 2/15/2023                        | Final Inspection complete, awaiting close-out docs |
| 26  | Pennsylvania Avenue (Asheville Wesleyan)        | 2022260        | Asheville      | 28806    | 7     | 113    | 1/11/2024                        | Final Inspection complete, awaiting close-out docs |
| 27  | Helpmate, Inc.                                  | 2023041        | Asheville      | 28801    | 26    | 484    | 8/27/2024                        | Pre-con held, construction not yet started         |
| 28  | 1191 Bleachery Blvd                             | 2023056        | Asheville      | 28803    | 7     | 400    | 3/26/2024                        | Pre-con held, construction not yet started         |
| 29  | Fairhaven Summit Apartments                     | 2023061        | Asheville      | 28803    | 77    | 530    | 8/27/2024                        | Pre-con held, construction not yet started         |
| 30  | Unadilla  | 2023106        | Asheville      | 28803    | 3     | 105    | 6/25/2024                        | Final Inspection complete, awaiting close-out docs |
| 31  | West Haywood Street Apartments                  | 2023117        | Asheville      | 28801    | 46    | 215    | 7/16/2024                        | Pre-con held, construction not yet started         |
| 32  | Enka Commerce Park                              | 2023125        | Asheville      | 28806    | Comm. | 1,525  | 7/9/2024                         | Pre-con held, construction not yet started         |
| 33  | Crestview Extension                             | 2023176        | Asheville      | 28803    | 5     | 204    | 4/10/2024                        | Final Inspection complete, awaiting close-out docs |
| 34  | Westview Village                                | 2023183        | Asheville      | 28806    | 26    | 824    | 8/14/2024                        | Pre-con held, construction not yet started         |
| 35  | 157 New Leicester Apartments                    | 2023197        | Asheville      | 28806    | 141   | 529    | 7/2/2024                         | Pre-con held, construction not yet started         |
| 36  | The Shoppes at Winston's Corner                 | 2024092        | Asheville      | 28806    | Comm. | 777    | 8/7/2024                         | Pre-con held, construction not yet started         |
| 37  | Givens Highland Farms-Cottage Development       | 2018272        | Black Mountain | 28711    | 16    | 1,355  | 9/13/2019                        | Final Inspection complete, awaiting close-out docs |
| 38  | Sweet Birch Lane Phase 3                        | 2020151        | Black Mountain | 28711    | 20    | 800    | 6/30/2021                        | Waiting on Final Inspection                        |
| 39  | Old Toll Road Subdivision                       | 2020182        | Black Mountain | 28711    | 14    | 637    | 8/17/2021                        | Waiting on Final Inspection                        |
| 40  | Tudor Croft - Phase 2D                          | 2018004        | Black Mountain | 28711    | 5     | 224    | 6/8/2022                         | Waiting on Final Inspection                        |
| 41  | NCDOT I-5504 NC 191/I-26 Interchange            | 2016132        | Buncombe Co.   | 28806    | 0     | 355    | 10/23/2017                       | Installing   |
| 42  | Rockdale Subdivision                            | 2018145        | Buncombe Co.   | 28778    | 9     | 630    | 3/17/2020                        | Final Inspection complete, awaiting close-out docs |
| 43  | 841 Charlotte Hwy                               | 2019222        | Buncombe Co.   | 28730    | Comm. | 110    | 4/20/2021                        | Waiting on Testing                                 |
| 44  | Town Mountain Preserve Ph. 2                    | 2020197        | Buncombe Co.   | 28804    | 6     | 1,210  | 5/28/2021                        | Final Inspection complete, awaiting close-out docs |
| 45  | Rockberry Apartments                            | 2021116        | Buncombe Co.   | 28704    | 420   | 2,420  | 6/13/2023                        | Waiting on final inspection                        |
| 46  | Village at Bradley Branch Ph. 4B                | 2021120        | Buncombe Co.   | 28704    | 16    | 393    | 11/2/2021                        | Final Inspection complete, awaiting close-out docs |
| 47  | Hominy Creek Multi-Family                       | 2021195        | Buncombe Co.   | 28715    | 216   | 1,310  | 9/7/2023                         | Waiting on Final Inspection                        |
| 48  | Biltmore Terrace Development Phase 4            | 2021208        | Buncombe Co.   | 28803    | 31    | 400    | 6/14/2023                        | Waiting on Paving                                  |
| 49  | Hawthorne at Holbrook                           | 2021229        | Buncombe Co.   | 28806    | 350   | 1,876  | 6/20/2023                        | Waiting on Final Inspection                        |
| 50  | Belle Meadow                                    | 2021235        | Buncombe Co.   | 28806    | 74    | 1,730  | 6/9/2023                         | Punchlist Items Pending                            |
| 51  | Asheville West Subdivision Ph. 2                | 2022032        | Buncombe Co.   | 28806    | 50    | 1,570  | 7/26/2023                        | Final Inspection complete, awaiting close-out docs |
| 52  | Brooks Cove Road                                | 2022045        | Buncombe Co.   | 28715    | 141   | 2,357  | 5/3/2023                         | Final Inspection complete, awaiting close-out docs |
| 53  | Creekside Community (2177 Brevard Rd)           | 2022046        | Buncombe Co.   | 28704    | 0     | 3,267  | 7/18/2023                        | Installing   |
| 54  | Arden Pines                                     | 2022069        | Buncombe Co.   | 28704    | 244   | 2,020  | 8/14/2024                        | Pre-con held, construction not yet started         |
| 55  | Argento on Broad                                | 2022174        | Buncombe Co.   | 28704    | 216   | 484    | 8/14/2024                        | Pre-con held, construction not yet started         |
| 56  | Edgewood Road S - Offsite Extension             | 2022262        | Buncombe Co.   | 28803    | 0     | 165    | 10/25/2023                       | Final Inspection complete, awaiting close-out docs |
| 57  | Prestige Subaru Extension                       | 2022134        | Buncombe Co.   | 28806    | Comm. | 635    | 6/4/2024                         | Waiting on Final Inspection                        |
| 58  | Creekside - Onsite                              | 2023012        | Buncombe Co.   | 28704    | 502   | 1,885  | 9/26/2023                        | Waiting on Final Inspection                        |
| 59  | Montinail Land Co. Off-Site Extension           | 2023017        | Buncombe Co.   | 28778    | 17    | 440    | 1/5/2024                         | Final Inspection complete, awaiting close-out docs |
| 60  | The Ramble Block H, Phase 2                     | 2023043        | Buncombe Co.   | 28803    | 6     | 1,389  | 8/27/2024                        | Pre-con held, construction not yet started         |
| 61  | Lakeshore Villas                                | 2023112        | Buncombe Co.   | 28803    | 120   | 936    | 5/10/2024                        | Pre-con held, construction not yet started         |
| 62  | Cottages at Weston Road                         | 2023138        | Buncombe Co.   | 28803    | 8     | 280    | 5/7/2024                         | Final Inspection complete, awaiting close-out docs |
| 63  | Edgewood Road S Subdivision Ph. 2               | 2023143        | Buncombe Co.   | 28803    | 7     | 285    | 10/25/2023                       | Final Inspection complete, awaiting close-out docs |
| 64  | Collett Industrial (Banner Farm)                | 2020108        | Cane Creek     | 28759    | Comm. | 255    | 11/20/2020                       | Final Inspection complete, awaiting close-out docs |
| 65  | Seasons at Cane Creek Phase 2                   | 2022170        | Cane Creek     | 28732    | 84    | 566    | 5/1/2024                         | Pre-con held, construction not yet started         |
| 66  | Taproot Phase 2A                                | 2021161        | Fletcher       | 28732    | 151   | 2,462  | 6/6/2023                         | Final Inspection complete, awaiting close-out docs |
| 67  | Asheville Regional Airport                      | 2022191        | Fletcher       | 28732    | Comm. | 1,205  | 2/13/2024                        | Waiting on Final Inspection                        |
| 68  | Rutledge Road Subdivision Phase 2 (The Authors) | 2023073        | Fletcher       | 28732    | 36    | 1,285  | 1/17/2024                        | Final Inspection complete, awaiting close-out docs |
| 69  | Taproot Phase 3                                 | 2023114        | Fletcher       | 28732    | 128   | 4,130  | 2/7/2024                         | Installing   |
| 70  | Ingles #140 Fletcher                            | 2023139        | Fletcher       | 28732    | Comm. | 715    | 11/30/2023                       | Waiting on Final Inspection                        |
| 71  | Brickton Road Relocation                        | 2023195        | Fletcher       | 28732    | Comm. | 275    | 4/30/2024                        | Final Inspection complete, awaiting close-out docs |
| 72  | Taproot Phase 4                                 | 2023237        | Fletcher       | 28732    | 113   | 5,757  | 2/7/2024                         | Pre-con held, construction not yet started         |
| 73  | Taproot Phase 5                                 | 2023238        | Fletcher       | 28732    | 111   | 3,648  | 2/7/2024                         | Pre-con held, construction not yet started         |
| 74  | Advent Health Hendersonville MOB                | 2023069        | Hendersonville | 28792    | Comm. | 356    | 3/26/2024                        | Waiting on Final Inspection                        |
| 75  | Mills River Townhomes (Jeffress Road)           | 2021253        | Mills River    | 28759    | 150   | 3,267  | 6/6/2023                         | Punchlist items pending                            |
| 76  | Haywood Park Subdivision                        | 2022165        | Mills River    | 28791    | 20    | 2,300  | 11/22/2023                       | Final Inspection complete, awaiting close-out docs |
| 77  | James River - Mills River Site                  | 2022222        | Mills River    | 28759    | 2     | 460    | 1/17/2024                        | Waiting on Final Inspection                        |
| 78  | 18 Wildwood Park Sewer Relocation               | 2021129        | Weaverville    | 28787    | 1     | 147    | 2/22/2022                        | Final Inspection complete, awaiting close-out docs |
| 79  | 9 Pleasant Grove Extension                      | 2023098        | Weaverville    | 28787    | 40    | 780    | 10/26/2023                       | Waiting on Final Inspection                        |
| 80  | Crest Mountain Phase 3B                         | 2013041        | Woodfin        | 28806    | 69    | 1,329  | 10/15/2013                       | Final Inspection complete, awaiting close-out docs |
| 81  | Serenity Townhomes                              | 2020037        | Woodfin        | 28804    | 8     | 480    | 7/14/2020                        | Final Inspection complete, awaiting close-out docs |
| 82  | Weaverville Road Subdivision                    | 2020123        | Woodfin        | 28804    | 4     | 600    | 4/6/2021                         | On hold  |
| 83  | Old Home Road Subdivision                       | 2021094        | Asheville      | 28804    | 21    | 1,790  | 5/4/2022                         | Waiting on Final Inspection                        |
| 84  | Terraces at Reynolds Mountain West Ph I & II    | 2021164        | Woodfin        | 28804    | 42    | 1,990  | 6/26/2024                        | Installing   |
| 85  | Farmstead at Olivette                           | 2021247        | Woodfin        | 28804    | 33    | 1,280  | 2/7/2024                         | Installing   |
| 86  | Mulberry Street                                 | 2023128        | Buncombe Co.   | 28804    | 5     | 426    | 3/13/2024                        | Final Inspection complete, awaiting close-out docs |
|     |   |                | <b>TOTAL</b>   |          | 5,215 | 86,046 |                                  |  |

**CAPITAL IMPROVEMENT PROGRAM**

**STATUS REPORT SUMMARY**

**September 11, 2024**

| PROJECT   | LOCATION OF PROJECT | CONTRACTOR                      | AWARD DATE | NOTICE TO PROCEED | ESTIMATED COMPLETION DATE | *CONTRACT AMOUNT | *COMPLETION STATUS (WORK) | COMMENTS   |
|---|---------------------|---------------------------------|------------|-------------------|---------------------------|------------------|---------------------------|--|
| BUCHANAN AVENUE                                       | Asheville 28801     | Terry Brothers Construction Co. | 11/15/2023 | 2/12/2024         | 9/30/2024                 | \$899,369.40     | 99%                       | Project complete and in close out.   |
| CHRISTIAN CREEK INTERCEPTOR                           | Buncombe County     | Buckeye Bridge LLC              | 12/15/2021 | 3/14/2022         | 9/30/2024                 | \$7,456,109.70   | 99%                       | Final walkthrough complete. Re-striping of roadway complete, working on NCDOT signal loop repair.  |
| ELK MOUNTAIN PLACE                                    | Woodfin             | Terry Brothers Construction Co. | 8/21/2024  | 9/9/2024          | 6/6/2025                  | \$1,252,278.00   | 5%                        | Golf Street portion of work underway. Elk Mountain Place portion scheduled mid-October due to permit requirements related to a bat moratorium. |
| INTERMEDIATE CLARIFIER EFFLUENT TROUGH REHAB, PHASE 1 | WRF                 | Cove Utility, LLC               | 10/18/2023 | 6/20/2024         | 12/1/2024                 | \$558,620.70     | 10%                       | Submittals complete. Fabrication of parts underway.  |
| JOYNER AVENUE @ AMBOY ROAD                            | Asheville 28806     | Terry Brothers Construction Co. | 4/18/2024  | 7/8/2024          | 9/30/2024                 | \$420,388.00     | 90%                       | Pipe installation complete. Final inspection being scheduled.  |
| LINING CONTRACT NO. 9                                 | Buncombe County     | Terry Brothers Construction Co. | 11/18/2023 | 3/20/2023         | 9/1/2024                  | \$2,647,604.31   | 100%                      | Project is complete.   |
| MSD MULL BUILDING HVAC RENOVATIONS PHASE 3            | Woodfin             | Bolton Construction             | 11/16/2023 | 4/22/2024         | 9/1/2024                  | \$193,286.00     | 100%                      | Project complete and in close out.   |
| SAND HILL ROAD ODOR CONTROL STATION                   | Asheville 28806     | Keys Construction               | 11/16/2023 | 1/4/2024          | 9/1/2024                  | \$87,100.00      | 95%                       | Power pole being set and account for power being transferred to MSD.   |
| WEAVERVILLE PUMP STATION AND FORCEMAIN IMPROVEMENTS   | Woodfin             | Haren Construction Co.          | 1/17/2024  | 4/15/2024         | 7/4/2026                  | \$20,986,375.00  | 10%                       | Vertical construction at Weaverville pump station underway.  |

**\*Updated to reflect approved Change Orders and Time Extensions**