

BOARD OF THE METROPOLITAN SEWERAGE DISTRICT
JUNE 14, 2017

1. Call to Order and Roll Call:

The regular monthly meeting of the Metropolitan Sewerage District Board and Public Hearing on the Budget for FY 2017-2018 was held in the Boardroom of MSD's Administration building at 2pm Wednesday, June 14, 2017. Chairman VeHaun presided with the following members present: Ashley, Bryson, Collins, Creighton, Kelly, Manheimer, Pelly, Pressley and Wisler. The following members were absent: Frost and Root.

Others present were: Thomas E. Hartye, General Manager; William Clarke, General Counsel; Forrest Westall with McGill Associates; Jon Lapsley and Dave Collins with CDM Smith; Joseph Martin with Woodfin Sanitary Water & Sewer District; Ed Bradford, Scott Powell, Jim Hemphill, Matthew Walter, Peter Weed, Julie Willingham, Mike Stamey, Angel Banks, Ken Stines, Hunter Carson, Spencer Nay and Pam Nolan.

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 May 17, 2017 Board Meeting:

Mr. Vahaun asked if there were any changes to the Minutes of the May 17, 2017 Board Meeting. Mr. Kelly moved for approval of the minutes as presented. Mr. Pelly seconded the motion. Voice vote in favor of the motion was unanimous.

4. Discussion and Adjustment of Agenda:

None

5. Informal Discussion and Public Comment:

Mr. Vahaun welcomed Mr. Lapsley, Mr. Collins and Mr. Martin. There was no public comment.

6. Report of General Manager:

Mr. Hartye reported that as part of the Bond Issue, staff met with the Ratings Agencies in an effort to maintain MSD's good credit rating. Standard & Poor's and Fitch both maintained MSD's good rating at "AA+", Moody's upgraded MSD to the highest level possible, AAA. There are only a few other utilities in North Carolina with this rating. One of the things Moodys mentioned verbally in the meeting was that MSD is the "gold standard" when it comes to asset management. This speaks well for the CIP and the organization from the Board all the way down. Mr. VeHaun offered his congratulations to all. Mr. Clarke reported that in the meeting, Moodys did say that when they were talking to other agencies, they pulled out MSD's financial dashboard, the 10-year CIP, to use as a model for other utilities and that they were very complimentary.

Mr. Hartye presented a copy of the Cane Creek resolution that was passed by the Henderson County Board of Commissioners regarding their desire to consolidate with MSD. Staff will be meeting with Henderson County and reporting back to the Board, initially to request general approval to begin this process. This is a long process that could involve putting together a report, combining maps and CIP's and meeting with EMC among other things. This has been discussed at past Board meetings and there has been quite a bit of work already done. MSD Staff has looked at Cane Creek's CIP and evaluated their system and pump stations. MSD gave them a punch list which they have been working on and pretty much brought up to standard. MSD and Henderson County GIS employees have been working together to help bring their system up to speed to combine in with our GIS. This consolidation process is outlined in the statutes and is quite detailed and cumbersome. Mr. Kelly stated that he hadn't read the bill and asked if MSD was required to accept this consolidation. Mr. Hartye stated no, it is the MSD Board's decision. The three main components to discuss and incorporate are their debt, cash and CIP. MSD policies will remain the same. Ms. Wisler asked if Cane Creek Water & Sewer provided water service. Mr. Hartye stated just sewer but that they have the ability to provide water service but do not. Mr. Kelly commented that this Board has never formally said to go forward to his knowledge. Mr. Clarke stated that was correct, the process is for Henderson County to petition for inclusion and it appears they have started that process. If the Board wants them included, then the Board would say yes. At that point other steps follow, but MSD is not required to say yes. Ms. Manheimer asked if they would have three positions on the Board. Mr. Clarke stated yes, based on House Bill 764.

Mr. Hartye reported that Bryan Thompkins of Arnold Road called to express that McKinley Hensley's crew did an outstanding job. Nancy Hyatt also called to express appreciation for McKinley Hensley. MSD once again received the Excellence in Financial Reporting Recognition from the Government Finance Officers Association (GFOA). Much thanks to Scott Powell and Teresa Gilbert

Mr. Hartye reported the next regular Board Meeting will be held July 19th at 2pm. The next Right of Way Committee meeting will be held on July 26th at 9am.

7. Report of Committees:

Right of Way Committee:

Mr. Kelly reported that the Right of Way Committee met on May 24, 2017, and the Minutes are included in this meeting package if anyone has any questions. There were none.

8. Consolidated Motion Agenda:

a. Consideration of Condemnations – Jonestown Road GSR:

Mr. Hartye reported that the Right of Way Committee met and agreed to give Staff authority to obtain appraisals and proceed with condemnations if necessary.

b. Consideration of Bids – Commerce Street GSR:

Mr. Hartye reported that this project is located in downtown Asheville within Commerce Street, near Central United Methodist Church and consists of approximately 500 feet of 8-inch DIP. It was informally advertised on January 26, 2017 and received two bids as follows: Patton Construction Group in the amount of \$321,960.00 and Terry Brothers Construction Company in the amount of \$190,657.00. The apparent low bidder is Terry Brothers Construction Company with a bid of \$190,657.00. This is a small but complicated project. Bid amounts were higher than estimates due to street closures, soil conditions and extensive utilities. Staff recommends award to Terry Brothers Construction Company in the amount of \$190,657.00, subject to review and approval by District Counsel.

c. Consideration of Sole Source Specification for Plant High Rate Primary:

Mr. Hartye reported that the Plant High Rate Primary Treatment System project is a significant mid-term recommendation of the Plant Facility Plan. Construction has just begun on the Plant Headworks project which will precede this facility. This project will add a new Chemically Enhanced Primary Treatment Facility. This type of facility is required due to the restrictive site conditions within the plant. He presented a snapshot and explained that this process uses both chemicals and a coagulant and a polymer at the beginning, and then you add sand as a ballast to pull out the solids. This pulls out the solids quicker and keeps them from continuing on to the RBC's which they do now. This also allows for the RBC's to not be inundated and be more effective in treatment. MSD and CDM Smith evaluated various treatment technologies prior to choosing this one. MSD pilot tested two different manufacturers on site, this one (Kruger ACTIFLO) and one that uses magnetite and a magnet (Evoqua CoMag). Based on better performance and long-term operational cost the Kruger ACTIFLO system was the best. The primary benefits of sole-sourcing this would be that the District would receive equipment with proven performance at lower operation cost and it will allow design of new facilities around the specific equipment instead of some unknown unit.

Staff Recommends the District include a sole-source specification for a Kruger ACTIFLO system in the competitively-bid construction contract for the Plant High Rate Primary Treatment Project based upon the fact that performance or price competition are not available among other equipment suppliers.

d. Consideration of Engineering Contract – French Broad Carrier Bridge Preliminary Engineering Report:

Mr. Hartye reported that this project is for an evaluation and development of a flow model of interceptors running along the French Broad and Swannanoa Rivers and to evaluate the Carrier Bridge Pump Station in relation to those interceptors. The pump station's performance will be evaluated under current flow conditions, dry weather, wet weather and future growth. Because these are such major facilities the District will be using a 50-year planning time horizon. In accordance with the NC General Statutes, the District advertised a Request for Qualifications. There were two engineering firms interested, Arcadis and CDM Smith. Each gave presentations. Mr. Hartye reported that after careful review and consideration of each firm's capabilities, experience and staffing, the selection committee, consisting of himself, Mr. Westall and MSD Engineering staff, chose CDM Smith as the most qualified engineering consultant to complete the project. CDM Smith has performed well in numerous studies with the District. CDM Smith prepared a Scope of Work which was included in this Board package. The fee for this project is \$519,277.00. Staff believes this is a fair fee based on the nature and scope of the project. The FY17-18 budget for this project is \$500,000.00. Sufficient funds are available in the CIP Contingency Fund for the overage. Staff recommends the District enter into an engineering and design contract for a PER with CDM Smith in the amount of \$519,277.00, subject to final review and approval by District Counsel.

e. Consideration of Equipment Sole Source – Carrier Bridge Pump Station Grinder:

Mr. Hartye reported that the Carrier Bridge Pump Station is the District's largest pump station with a capacity of 22.6 million gallons per day. The station currently has two small grinders with an overflow channel which provides space for a third larger unit. Installing a third grinder will reduce head-loss under all flow conditions, in other words there is a certain amount of back up in the line because of the reduced capacity of the two existing grinders. This will go a long way in bringing the static level in the station down, the interceptor along the French Broad River will be less prone to backwater and worker safety will be improved as the existing bar screen will not have to be continuously monitored and cleaned. Staff sought quotes from three grinder manufacturers, JWC Environmental, Vogelsang, and Franklin Miller.

Only Franklin Miller manufactures a grinder which has the required capacity and that will fit into the existing channel. Staff recommends that the District sole-source purchase a Franklin Miller Model DM-T36S Dimminutor in the amount of \$113,219.00, based upon the fact that 1) performance competition is not available; 2) the grinder with the required characteristics and performance is available from only one source; and 3) compatibility and fitment within the existing concrete channel is an overriding consideration.

f. Consideration of Developer Constructed Sewer System: Hall Avenue:

Mr. Hartye reported that the Hall Avenue project included extending 329 linear feet of 8-inch public gravity sewer and upgrading 127 linear feet of private sewer to serve the eight unit residential development.

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

g. Report on MSD Paving Agreement with City of Asheville:

Mr. Hartye reported that this agreement is for asphalt and concrete (patching) restoration of public roads and sidewalks within Asheville City Limits for small projects 300 SF or less. This annually renewing agreement was approved by the MSD Board in 2013. The District's estimated monetary contribution for FY18 is \$389,760.00 based on usage from the previous year. This is an informational item only. No action is required.

h. MSD FY18 Non-City of Asheville Road ROW Paving Restoration Contract:

Mr. Hartye reported this annual contract is for the restoration of roads, driveways and sidewalks resulting from District maintenance activities for areas outside the City of Asheville. These activities are planned and unplanned. At the June 15, 2016 Board meeting, French Broad Paving Inc. was the low bidder and was awarded this contract. This contract included a provision to renew for a period of one additional year. Based on this provision being in place, this contract will be renewed for FY18 to French Broad Paving Inc. in the amount of \$308,545.00. This item is included in the FY18 Budget and the contract renewal process has been reviewed and approved by District Counsel. This is an informational item only. No action is required.

i. Renewal of Contract FY18 - Sodium Hypochlorite:

Mr. Hartye reported that the Water Reclamation Facility is required to disinfect the effluent prior to discharge to the French Broad River. In the past gas chlorine was used but has been phased out due to its danger.

Liquid sodium hypochlorite is used for this purpose. This contract was brought before the Board at the June 15, 2016 meeting. Oltrin Solutions was the low bidder with a bid of \$0.60/gallon and was awarded the contract. This contract includes a provision to renew for one additional year and Oltrin Solutions has agreed to the renewal conditions. This contract will be renewed for FY18 at an estimated amount of \$120,000.00, which is within the level of the WRF budget. This is an informational item only. No action is required.

j. Consideration of Renewal of Contract FY18 - Calcium Nitrate Solution for Odor and Hydrogen Sulfide Control:

Mr. Hartye reported that MSD has been using a calcium nitrate based solution for the last few years to control hydrogen sulfide formation. At the June 15, 2016 Board Meeting this contract was awarded to Southern Environmental Systems for \$1.99/gallon. This contract included a provision to renew for one additional year and Southern Environmental Systems has agreed to the renewal conditions. This contract will be renewed for FY18 at an estimated amount of \$179,100.00 and is within levels budgeted by the WRF. This is an informational item only. No action is required.

k. Cash Commitment/Investment Report Month ended April, 2017:

Mr. Powell reported that Page 83 presents the makeup of the District's Investment Portfolio. The makeup of the portfolio is substantially the same as compared to last month. Page 84 is the MSD Investment Manager report as of the month of April. The weighted average maturity of the investment portfolio is 170 days. The yield to maturity is .97% and is exceeding MSD bench marks of the 6 month T-Bill and NCCMT cash portfolio. Page 85 is an analysis of the District's Cash Receipts. Monthly and YTD domestic and industrial sewer revenue are considered reasonable based on the timing of cash receipts in comparison to their respective fiscal periods, as well as getting additional flow from one of our industrial users in the current fiscal year. YTD Facility and Tap fees are above historical trends due to timing of seven (7) cash receipts from developers as well as these fees being budgeted conservatively. Page 86 is an analysis of the District's Expenditures. Monthly and YTD O&M expenditures are considered reasonable based on historical trends. Due to the nature of the variable rate bond market, Monthly and YTD expenditures can vary year to year. Based on current variable interest rates, debt service expenditures are considered reasonable. Due to the 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. Page 87 is the MSD Variable Debt Service report. The 2008A Series Refunding Bonds are performing better than budgeted expectations. As of the end of May this issue has saved the District's rate payers \$5 million dollars in debt service since April 2008.

Mr. Hartye stated that he wanted to brag on Scott Powell. One of the comments in the rate agency meetings was that it looks like the District has control over our interest rate swap. The District did not get out of it's swap and has been managing it. This was always one of those questionable things as far as the rating agencies were concerned. They saw it as variable debt with some risk and exposure. That was one of the hurdles the District had to overcome over the last several years. The District has shown the ratings agencies that we manage this swap well and attribute that to Scott Powell looking at the numbers consistently, week in and week out, deciding if we should stay in the swap or not. Mr. Hartye further stated that the Cash Commitment/Investment Report probably seems "like ground hog day" each month. This report was shared in the rate agency meetings and they were very impressed that this information is provided at the Board level. Most Boards typically don't hear this type of information and the fact that we keep it open and available to our Board was a big thing to them. Mr. Powell thanked Mr. Hartye.

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

9. Public Hearing: Consideration of Resolution Adopting the Final Budget for FY 2017-2018 and Schedule of Sewer Rates and Fees:

MINUTES OF PUBLIC HEARING

Mr. VeHaun announced the opening of the Public Hearing at 2:27 pm.

Mr. Powell reported that in accordance with the Bond Order, the District must approve the annual budget on or before June 15 of each year. There has been no change and the Preliminary Budget numbers are the same as in the Proposed Final Budget. Included is a Flow of Funds Chart which is a graphical representation of the Budget and how money is distributed and spent in the respective funds. Page 90 represents the Proposed Budget Resolution. Page 94 represents the Schedule of Rates and Fees. The proposed Final Budget Document of \$55,319,368.00 for FY 18 incorporates the following:

- 2.5% domestic rate increase.
 - .74 cent increase in the average single family monthly bill.
 - The Average Monthly bill will go from \$29.88 to \$30.62.
- Continuation of the Industrial Rate Parity Plan.
 - MSD is in year 18 of 20.
 - 4.0% average increase for the industrial section.
 - Major industrial users will only see a 1.6% increase.

- Facility and Tap fees remain at 2017 levels.
- 1.5% rate of return on investments.
- 2.81% increase in Salaries and Benefits which has an impact of \$361,000.00. Includes Personnel Committee recommendations as to a Salary Adjustments, Self-Insurance Funding and GASB 45/75 OPEB Funding as well as State required 3% increase Retirement contribution and unemployment funding.
- 1.94% increase in Materials supplies and service which has an impact of \$124,000.00.
- \$28.3 Million CIP Budget

Mr. VeHaun called for public comment on the proposed Budget, Rates and Fees for FY 2017-2018. There were none. Mr. VeHaun then closed the Public Hearing at 2:32 pm.

With no discussion, Mr. VeHaun called for a motion to approve the Resolution adopting the Final Budget for FY 2017-2018. Mr. Pelly moved. Mr. Kelly seconded the motion. Roll call vote was as follows: 10 Ayes; 0 Nays.

Mr. VeHaun then called for a motion to approve the FY 2017-2018 Schedule of Sewer Rates and Fees. Ms. Wisler moved. Mr. Pressley seconded the motion. Roll call vote was as follows: 10 Ayes; 0 Nays.

10. Old Business:

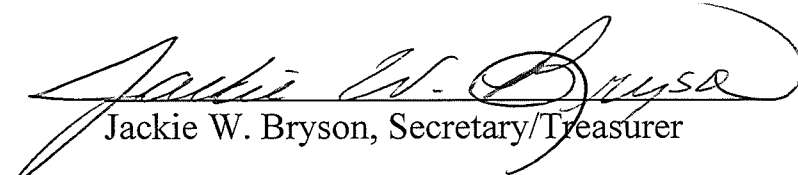
None

11. New Business:

None

12. Adjournment:

With no further business, Mr. VeHaun called for adjournment at 2:34 pm.


Jackie W. Bryson, Secretary/Treasurer

MSD

Regular Board Meeting

Metropolitan Sewerage District
of Buncombe County, NC

AGENDA FOR 6/14/17

✓	Agenda Item	Presenter	Time	
	Call to Order and Roll Call	VeHaun	2:00	
	01. Inquiry as to Conflict of Interest	VeHaun	2:05	
	02. Approval of Minutes of the May 17, 2017 Board Meeting	VeHaun	2:10	
	03. Discussion and Adjustment of Agenda.	VeHaun	2:15	
	04. Informal Discussion and Public Comment	VeHaun	2:20	
	05. Report of General Manager	Hartye	2:25	
	06. Report of Committees	VeHaun	2:35	
	a. Right of Way Committee-May 24, 2017	Kelly		
	07. Consolidated Motion Agenda	Hartye	2:40	
	a. Consideration of Condemnations - Jonestown Road GSR	Hartye		
	b. Consideration of Bids – Commerce Street GSR	Hartye		
	c. Consideration of Sole Source Specification for Plant High Rate Primary	Hartye		
	d. Consideration of Engineering Contract – French Broad Carrier Bridge PER	Hartye		
	e. Consideration of Equipment Sole Source – Carrier Bridge Pump Station Grinder	Hartye		
	f. Consideration of Developer Constructed Sewer System - Hall Avenue	Hartye		
	g. Report on MSD Paving Agreement with the City of Asheville	Hartye		
	h. Non-City of Asheville Road ROW Paving Restoration Contract	Hartye		
	i. Renewal of Contract FY18 - Sodium Hypochlorite Contract	Hartye		
	j. Consideration of Renewal – Calcium Nitrate Solution for Odor and Hydrogen Sulfide Control Contract	Hartye		
	k. Cash Commitment/Investment Report Month Ended April, 2017	Powell		
	08. Public Hearing: Consideration of Resolution Adopting the Final Budget for FY 2017-2018 and Schedule of Sewer Rates and Fees	Powell	3:00	
	09. Old Business:	VeHaun	3:15	
	10. New Business:	VeHaun	3:20	
	11. Adjournment: (Next Meeting 7/19/17)	VeHaun	3:30	
	STATUS REPORTS			

BOARD OF THE METROPOLITAN SEWERAGE DISTRICT

May 17, 2017

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 2pm Wednesday, May 17, 2017. Chairman VeHaun presided with the following members present: Bryson, Creighton, Frost, Kelly, Pelly, Root and Wisler. Mr. Ashley, Mr. Collins, Ms. Manheimer and Mr. Pressley were absent.

Others present were: Thomas E. Hartye, PE, General Manager; William Clarke, General Counsel; Joseph Martin with Woodfin Sanitary Water & Sewer District; Ed Bradford, Scott Powell, Peter Weed, Matthew Walter, Angel Banks, Ken Stines, Pam Thomas, 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 April 19, 2017 Board Meeting:

Mr. VeHaun asked if there were any changes to the Minutes of the April 19, 2017 Board Meeting. Ms. Frost moved for approval of the minutes as presented. Mr. Creighton seconded the motion. Voice vote in favor of the motion was unanimous.

4. Discussion and Adjustment of Agenda:

None

5. Informal Discussion and Public Comment:

Mr. VeHaun welcomed Mr. Martin. There was no discussion or public comment.

6. Report of General Manager:

Mr. Hartye expressed his thanks to MSD Staff who participated in the River Clean-up along the area of the French Broad River that MSD has adopted. Thirty four bags of trash were picked up. Special thanks to Sandra Moore who led the effort.

Mr. Hartye reported that Paul Williams of Fairview Road called to express his appreciation for the crew that did a "heck of a job and that you don't see folks work that hard now days". Thanks to Shawn Meadows, Shawn Buckner, Rick Bradley, Mike Appollo, Lee Plemmons and Bobby Smith.

Mr. Hartye reported that Judy Waycaster of Arthur Road called to say that she was very pleased with the work done at her mother's house and that the work was beautiful. She stated she had never seen a construction crew

that went above and beyond the work they were supposed to do. Thanks to Roy Lytle, Billy Cantrell, Jamie Foxx and Nicolas Hercules.

Mr. Hartye expressed his thanks to Lisa Tolley and Kay Farlow for heading up the public event outreach for three shows. He also thanked other staff mentioned in the attached synopsis, together with Ms. Bryson for manning a booth at one of the events.

Mr. Hartye reported that this month the Board will consider the Preliminary Budget and Rate recommendations based upon the recommendations of the Personnel, CIP and Finance Committees. The Final Budget and a Public Hearing will be held at the June 14th Board Meeting. The next Right of Way Committee meeting will be held on May 24th at 9am.

7. Report of Committees:

Personnel Committee:

Ms. Bryson reported that the Personnel Committee met on April 25, 2017 and Ms. Thomas reviewed several activities within Human Resource Department. MSD has 148 full time employees and a chart was presented to show personnel reductions from FY 2004. Mr. Hemphill presented staff recommendations of a 3.0% wage adjustment for all employees, an additional 7.5% increase in contributions from the Board for medical insurance, and a 7.5% increase in employee premiums for medical insurance. Ms. Bryson stated this has the support from the Management Team as well as the Employee Advisory and Wellness Committee. Mr. Hemphill presented medical trend information which prompted this request. The Fiscal Impact of the proposed salary and benefit adjustment costs are 3.23% (\$331,068) higher than last year's budget.

Right of Way Committee:

Mr. Kelly reported that the Right of Way Committee met on April 26, 2017, and the Minutes are included in this meeting package if anyone had any questions. There were none.

CIP Committee:

Mr. Creighton reported that the CIP Committee met on April 27, 2017 and Mr. Bradford gave a presentation that summarized the proposed CIP Budget for the coming year. He stated that Mr. Bradford gave a great and informative presentation. The sub-total of the projects was approximately \$27 million with a contingency of \$1 million and approximately \$266,000 set aside for reimbursement funding, which brought the total proposed FY17-18 CIP Budget to \$28,307,716. He reported that if you look at the aspects of prioritizing projects, SSO's and overflow history are number one. Aspect two is the number of customer service requests, followed by proximity to streams and waterways, structural condition of the pipe and

and monitoring schedule by MSD Staff. MSD rehabilitates an average of 50,000 LF a year with in-house crews rehabilitating about 20,000 LF of that amount. Since 1991, MSD has rehabilitated about 1.12 million LF of sewer which is about 20% of the current system. He reported that Mr. Bradford reviewed some of the upcoming projects for the FY17-18 budget and presented a 10 year CIP Summary and stated that there were still 129 projects for the next 10 years. The recommendation to endorse the CIP Budget of \$28,307,716 was unanimous.

Finance Committee:

Mr. Kelly reported that the Finance Committee met on May 4, 2017, to consider the Proposed FY18 Budget and Schedule of Rates and Fees. He stated that these minutes were also included in this meeting package if anyone had any questions. He also asked Mr. Powell for a brief overview. Mr. Powell stated that he would do so under Item 9, Consideration of Preliminary Budget.

8. Consolidated Motion Agenda:

a. Consideration of Condemnations-Nebraska Street Emergency Sewer Relocation:

Mr. Hartye reported that the Right of Way Committee recommendation for the Nebraska Street Emergency Sewer Relocation condemnation consideration is authority to obtain appraisals and proceed with condemnations if necessary.

b. Consideration of Condemnation-Hendersonville Road @ Rosstragon Drive Phase 2:

Mr. Hartye reported that this issue has been resolved and may be removed from the Agenda.

c. Consideration of Developer Constructed Sewer System: Biltmore Lake Block 1, Phase 2:

Mr. Hartye reported that the Biltmore Lake Block 1, Phase 2 project included extending approximately 1,519 linear feet of 8-inch public gravity sewer to serve the 26 unit residential development.

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

d. Consideration of Series Resolution 2017 Authorizing the Issuance of Revenue Bonds:

Mr. Hartye reported that the project list and Series Resolution was attached and Mr. Clarke and Mr. Powell were available to answer any questions.

e. Cash Commitment/Investment Report Month ended March, 2017:

Mr. Powell reported that Page 66 presents the makeup of the District's Investment Portfolio. There has been no change in makeup of the portfolio from the prior month. Page 67 presents the MSD investment managers report as of the month of March. The weighted average maturity of the investment portfolio is 185 days. The yield to maturity is .95% and exceeds our bench marks of 6 month T-Bill and North Carolina Capital Management Trust cash portfolio. Page 68 presents an analysis of the District's cash receipts. Monthly domestic and industrial revenue are considered reasonable based on timing of cash receipts in their respective fiscal periods. YTD Industrial sewer revenue is above historical trends due to a temporary increase in revenue from one industrial user. YTD Facility and Tap fees are above historical trends due to the timing of 7 cash receipts from developers as well as these fees being budgeted conservatively. Page 69 presents the MSD Analysis of Expenditures. The District's Monthly and YTD O&M expenditures are considered reasonable based on historical trends. Due to the nature of the variable rate bond market, monthly and YTD expenditures can vary year to year. Based on current variable interest rates, 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. Page 70 presents the MSD Variable Debt Service report. The 2008A Series refunding bonds are performing better than budgeted expectations. As of the end of April the 2008A bond series has saved the District rate payers approximately \$4.9 million in debt service since April, 2008. There were no questions pertaining to this item.

Mr. VeHaun called for a motion to approve the Consolidated Motion Agenda as presented. Ms. Frost moved. Mr. Pelly seconded the motion. Roll call vote was as follows: 8 Ayes; 0 Nays.

9. Consideration of Resolution Adopting the Preliminary Budget for FY 2017-2018 and the Schedule of Sewer Rates and Fees:

Mr. Powell reported that Page 21 of the pdf document (Page 14 of the actual document) presents the FY18 proposed budget of \$55,319,368. The budget includes a 2.5% domestic rate increase, which is an approximate .74 cent increase in the average single family monthly bill, which will go from approximately \$29.88 to \$30.62. The Industrial rate parity Plan will continue. We are in year 18 of 20 of this plan. The average increase for industrial section is approximately 4.0%, with the impact to the biggest industrial user being only 1.6%. Facility and tap fees remain at 2017 levels. The budget also includes a 1.5% rate of return on investments. Regarding

expenditures, there is a 2.81% increase in salaries and benefits which has an impact of \$361,156. This includes Personnel Committee Recommendations for salary adjustments of 3.0%, self-insurance funding of 7.5%, and GASB 45/75 OPEB Funding, State required retirement contribution which increased this year by 3.3%, and unemployment funding. Materials, supplies and service increased 1.94% and has an impact of \$123,984. The majority of that increase is due to an increase in testing at the plant for the incinerator emissions. The budget also includes \$28.3 million for the CIP plan. There is also included approximately \$1 million for capital equipment as well as \$9.8 million for bond and interest expense. There were no questions.

Mr. VeHaun called for a motion to approve the Resolution Adopting the Preliminary Budget for FY 2017-2018 and the Schedule of Sewer Rates and Fees. Ms. Frost moved. Ms. Wisler seconded the motion. Roll call vote was as follows: 8 Ayes; 0 Nays.

9. Old Business:

None

10. New Business:

None

11. Adjournment:

With no further business, Mr. VeHaun called for adjournment at 2:20 pm.

Jackie W. Bryson, Secretary/Treasurer



MEMORANDUM

TO: MSD Board
FROM: Thomas E. Hartye, P.E., General Manager
DATE: June 8, 2017
SUBJECT: Report from the General Manager

- MSD's Bond Rating

As a part of the upcoming 2017 Bond Issue staff met with the Rating Agencies in an effort to maintain our good credit rating to receive favorable pricing. While Standard & Poor's and Fitch both maintained our good rating at "AA+", Moody's upgraded MSD to the highest level possible at AAA. The only other utilities in NC rated "triple A" are Raleigh, Cary, and Charlotte. I have attached a copy of Rating Agency write-ups. These reports cite strong financial profile and management, affordable rates, comprehensive planning and CIP. This is quite an acknowledgement of the strength of our organization from the Board on down. Congratulations to all!

- Cane Creek WSD

Attached is a copy of the resolution that was passed by the Henderson County Commissioners on June 5th regarding their desire to pursue consolidation with MSD. The process for this to occur is outlined MSD's enabling legislation under GS 162A-68 which I shared with the Board in April. This does not just involve a consolidation agreement, but is quite a detailed and cumbersome process. Staff will work with Henderson County to ensure that this process is followed. Ultimately, it will be the MSD Board's decision to allow the consolidation. I will keep you apprised as things progress.

- Kudos

- Bryan Thompkins of Arnold Rd. called to express that McKinley's crew did an outstanding job installing his tap. They seeded and strawed and made it look great. Just wanted to let someone know how impressed he was with their work. Thanks to McKinley Hensley, Robert Denny, Carl Ellington, Josh Matthews, and Brandon Flynn.
- Nancy Hyatt called to express appreciation for McKinley Hensley who handled himself so well that this is what gives MSD a good name.
- MSD once again received the Excellence in Financial Reporting Recognition from the Government Finance Officers Association (GFOA) for the FY 2016 CAFR. Much thanks to Scott Powell and Teresa Gilbert.

- Board/Committee Meetings/Events

The next Regular Board Meeting will be held on July 19th at 2 pm. The next Right of Way Committee meeting will be held on July 26th at 9am.

CREDIT OPINION

7 June 2017

New Issue

Rate this Research >>

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Buncombe County Metropolitan Sewerage District, NC

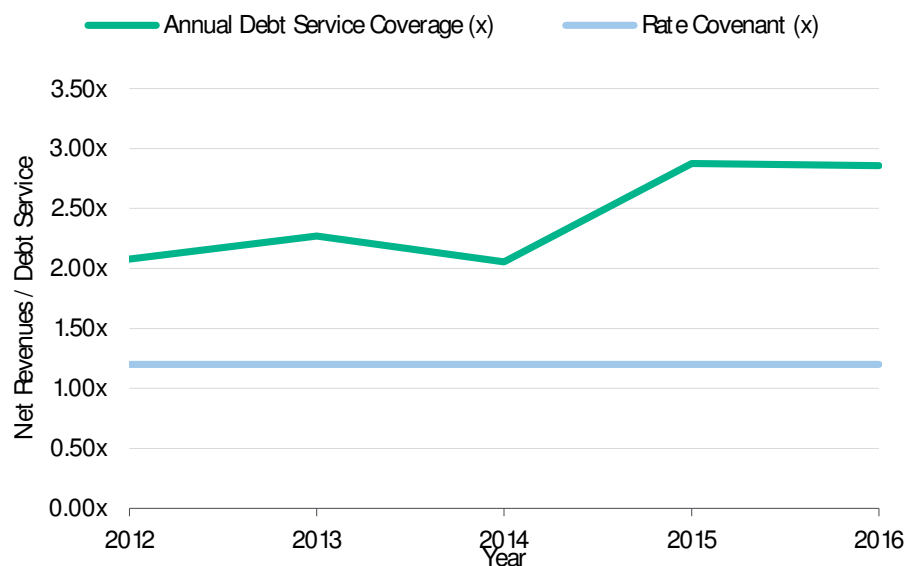
New Issue - Moody's upgrades Buncombe County MSD to Aaa; Assigns Aaa to \$36.5 M Revenue Bonds 2017; Outlook stable

Summary Rating Rationale

Moody's Investors Service has assigned a Aaa to Buncombe County Metropolitan Sewerage District's (MSD) \$36.5 million Sewerage System Revenue and Revenue Refunding Bonds, Series 2017. Concurrently, we have upgraded to Aaa from Aa1 the rating on the district's \$90 million of outstanding parity debt. The outlook is stable.

The Aaa rating reflects sound financial performance characterized by ample liquidity, healthy debt service coverage, and comprehensive fiscal planning. The rating also incorporates the MSD's regional customer base, adequate system capacity, below-average debt levels, and satisfactory legal protections for bondholders.

Exhibit 1

Solid Debt Service Coverage Expected to Continue


Source: Moody's Investors Service / Buncombe County MSD

Credit Strengths

- » Ample liquidity despite substantial paygo capital
- » Stable customer base benefitting from sound [Asheville](#) (Aa1) MSA
- » Sound management practices including multi-year forecasting

Credit Challenges

- » Exposure to swap risk, albeit limited
- » Service area demographics trail medians

Rating Outlook

The stable outlook reflects our expectation of continued sound financial operations and stability within the service area.

Factors that Could Lead to an Upgrade

- » Not applicable

Factors that Could Lead to a Downgrade

- » Debt service coverage falling below current projections
- » Declines in liquidity to levels no longer offsetting currently narrow coverage levels
- » Significant increase in debt ratio

Key Indicators

Exhibit 2

Buncombe County Metropolitan Sewer District, NC					
System Characteristics					
Asset Condition (Net Fixed Assets/ Annual Depreciation)	44 years				
System Size - O&M (in \$000s)	16,092				
Service Area Wealth: MFI % of USmedian	88.40%				
Legal Provisions					
Rate Covenant (x)	1.20x				
Debt Service Reserve Requirement	No explicit DSFF; or funded with speculative grade surety				
Financial Strength					
	2012	2013	2014	2015	2016
Operating Revenue (\$000)	28,757	28,932	31,016	33,376	34,444
System Size - O&M (in \$000s)	13,982	13,675	14,082	14,468	16,092
Net Funded Debt (\$000)	86,995	84,717	106,920	99,814	88,724
Annual Debt Service Coverage (x)	2.08x	2.27x	2.06x	2.88x	2.86x
Cash on Hand	692 days	582 days	1255 days	1154 days	968 days
Debt to Operating Revenues (x)	3.0x	2.9x	3.4x	3.0x	2.6x

Source: Moody's Investors Service / Buncombe County MSD

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Recent Developments: Courts Rule In Favor of Asheville Water; MSD Will Not Take Control of Water System

In May 2013 the North Carolina General Assembly adopted "The Water Act," an act that would have transferred the [City of Asheville's Water Enterprise](#) (Aa2) to the district including existing system debt. In July 2014 the superior court ruled the act unconstitutional and the state appealed the decision. The Court of Appeals issued a decision in October 2015 reversing the superior court's decision and found the act constitutional. The City of Asheville appealed the decision of the Court of Appeals to the North Carolina Supreme Court. In December 2016, the Supreme Court ruled in favor of the city of Asheville keeping its water enterprise.

Detailed Rating Considerations

Service Area and System Characteristics: Dynamic, Regional Service Provider. Service Area is Economic Hub for Western North Carolina

Located at the intersection of Interstates 40 and 26, [Buncombe County](#) (Aaa, stable) and the City of Asheville serve as the economic and employment center for western North Carolina (G.O. rated Aaa/stable), with a diverse economy that includes health care, tourism, manufacturing, and higher education. Moody's Economy reports that the Asheville-MSA will strengthen this year as healthcare job growth accelerates. Low business costs will encourage investment, while the low oil price environment will contribute to increased tourism.

The district is a consolidation of several municipal sewer systems and provides retail sewer service to over 54,500 residential, commercial, and industrial customers, 65% of which are located within the City of Asheville. Altogether, the district serves 80% of the countywide population, in addition to portions of a neighboring county. The district's customer base has experienced steady expansion in recent years, growing from 46,776 customers in 2007.

Current system capacity is expected to remain sufficient for the medium term. The district operates a sewer collection system and one wastewater treatment plant with total permitted capacity of 40 million gallons per day (MGD) and a firm capacity of 65 MGD. The system treated an average flow of 19.5 MGD and peak flow of 35 MGD during fiscal 2015. MSD's aggressive program of rehabilitation and replacement of existing lines include upgrades of line sizes to provide for future growth. Extensive replacement of sewer lines (25% of system lines replaced since 1990) has had a positive impact on operations, with a marked decrease in sewer overflows (52 events in fiscal 2016 as compared with 288 in 2000). Wastewater effluent is discharged to the French Broad River. The sewer system is in compliance with all state and federal regulations and is not inter-connected with stormwater collection.

Debt Service Coverage and Liquidity: Sound Financial Position Expected to Continue

The district should continue to maintain a sound financial position consistent with recent performance, supported by a sophisticated long-range forecasting model, the timely adoption of rate adjustments, and healthy senior lien debt service coverage margins. Despite annual rate increases averaging 2.5% (and projected at 2.5% annually for the next 10 years), customer billings remain low relative to the region. Senior lien debt service coverage, excluding facility and tap fees and certain portions of interest income that are not included in the district's conservative rate covenant, has grown to over 2 times in recent fiscal years. When including all revenues, coverage has averaged a stronger 2.4 times over the past 6 years. Coverage for fiscal 2017 is projected at 2.3 times excluding connection fees and 3.2 times with all revenues.

The district employs a long-term financial model to test debt affordability and the need for rate adjustments. The model is based on a 2.5% average annual rate increase and assumes separate adjustments for industrial rates. The model includes a number of assumptions that we view as conservative, including nearly flat customer and account growth assumptions of 0.75% in all years, and 3% inflation on O&M expenses. Five-year projections indicate that senior lien debt service coverage will range from 1.9 times to 2.3 times through fiscal 2027, excluding facility and impact fees, and an average of 2.3 times inclusive of these revenues.

LIQUIDITY

Recent cash balances, despite cash funded capital, are well above management's target to maintain a minimum 12 months' operating cash on hand. Flexibility is further derived from a reserve for extraordinary maintenance and repairs funded in the amount of 6% of annual budgeted expenses.

Debt and Legal Covenants: Below-Average System Leverage, Manageable Capital Plan

The district's \$226.8 million 10-year capital plan, which focuses on collection rehabilitation (76%), will be funded primarily through system cash and revenue bond issuances in fiscal 2018, 2023, 2026. Amortization of principal is slightly below average, with 45% repaid within 10 years, however debt matures within the useful life of the assets and the system has a significant commitment to pay-go capital (approximately 50% of all projects).

Legal protections for bondholders are satisfactory and our rating factors in the district's ample cash reserves as a mitigating factor given that this debt is not secured by a debt service reserve fund. The MSD has covenanted to charge and collect rates for services rendered by the sewer system in order that the sum of pledged net revenues will provide at least 1.20 times coverage of annual senior lien debt service and 1.0 times coverage of total debt service. Conservatively, facility and impact fees and certain portions of interest income are not included in revenues for the coverage calculation. The additional bonds test requires 1.2 times coverage of annual debt service on all senior lien bonds and proposed parity debt for two fiscal years following the issuance of additional debt and any period of capitalized interest, and it allows for the inclusion of adopted rate increases on a pro forma basis. Although the two-year timeframe of the ABT weakens the test, credit quality is not impacted given the district's level-to-declining debt service structure. Bondholder protection would be diminished, however, should future issuance result in a more back-loaded maturity structure.

DEBT STRUCTURE AND DEBT-RELATED DERIVATIVES

Approximately 26% of total debt is swapped to a synthetic fixed rate through a derivative agreement with [Bank of America, NA](#) (Sr. Unsec. rated A1/positive). The notional amount of the swap declines in line with bond amortization. Under the terms of the swap, the district pays fixed 3.4175% and receives 59% of one month LIBOR plus 35 basis points. As of as of May 10th, 2017 the swap had a negative fair market value of \$3.8 million. Termination payments are subordinated to revenue debt. Favorably, the district has a formal swap policy that is used to evaluate the appropriateness of entering into swaps. Officials report weekly monitoring of the swaps performance. The current rating reflects strong liquidity, which we believe is particularly important given the district's exposure to a synthetic fixed-rate swap and the absence of a debt service reserve. Moving forward, Moody's expects cash to remain strong.

PENSIONS AND OPEB

Certain employees of Buncombe County Metropolitan Sewer District participate in the North Carolina Retirement System, a multi-employer pension plan administered by the State of North Carolina.

As of June 30, 2016, the district reported a liability of \$563,911 for its proportionate share of the net pension asset. The net pension asset was measured as of June 30, 2015. MSD's pension obligations remain comparatively low.

In 2016 MSD contributed 72.3% of its \$262,700 annual OPEB cost. The district's net OPEB liability is manageable at \$1.3 million.

Management and Governance

The district's 12-member governing board has full rate setting authority and adjusts rates on an annual basis to ensure healthy debt service coverage margins that afford cash flow for operations as well as pay-as-you-go capital investment.

MSD practices comprehensive planning with a 10-year CIP and detailed 10-year financial forecasting and is entirely financially independent from the county and the city.

Legal Security

Debt service is secured by net revenues of the district.

Use of Proceeds

Proceeds from the 2017 issuance with finance various improvements to the system including: replacement and rehab of various sewer interceptors and collection lines and the replacement and installation of equipment in the treatment plant. Additionally, proceeds will partially refund the system's outstanding 2009A bonds for an expected net present value savings in excess of 11% without extending debt maturity.

Obligor Profile

Buncombe County Metropolitan Sewer District serves nearly 80% of the county-wide population with over 54,500 customers. From 2010-2035, the Office of State Budget and Management has projected the Buncombe County population to increase by 25-50% as the local and regional economy continues to grow at a moderate pace.

Methodology

The principal methodology used in this rating was US Municipal Utility Revenue Debt published in December 2014. Please see the Rating Methodologies page on www.moody's.com for a copy of this methodology.

Ratings

Exhibit 3

Buncombe County Metro. Sewer District, NC

Issue	Rating
Sewerage System Revenue and Revenue Refunding Bonds, Series 2017	Aaa
Rating Type	Underlying LT
Sale Amount	\$36,510,000
Expected Sale Date	06/21/2017
Rating Description	Revenue: Government Enterprise

Source: Moody's Investors Service

FITCH RATES METRO SEWERAGE DISTRICT OF BUNCOMBE COUNTY, NC'S SEWER REVS 'AA+'; OUTLOOK STABLE

Fitch Ratings-New York-08 June 2017: Fitch Ratings has assigned an 'AA+' rating to the Buncombe County (the county) Metropolitan Sewerage District (the district) revenue bonds:

--\$36.5 million sewer revenue refunding bonds, series 2017.

The bonds are expected to sell via negotiation the week of June 19. Proceeds will be used to pay for capital projects and the advance refunding of the series 2009A bonds that are subject to redemption prior to their maturities, and to pay issuance costs.

In addition, Fitch affirms the following:

--\$89.8 million in outstanding (pre-refunding) sewer system bonds at 'AA+'.

The Rating Outlook is Stable.

SECURITY

The bonds are payable by a pledge of net revenues of the district's sewer system.

KEY RATING DRIVERS

REGIONAL SEWER PROVIDER: The district is a regional wastewater collection and treatment provider with ample capacity. The customer base includes the city of Asheville.

SOLID FINANCIAL PROFILE: Financial performance is consistently strong with healthy cash balances and solid debt service coverage (DSC) margins. The district exhibits prudent financial policies and comprehensive long-term capital planning.

AFFORDABLE RATES: User charges reflecting actual customer consumption are low and compare favorably to other regional providers, which should provide sufficient rate flexibility. Historical rate increases have been consistent, averaging 2.5% annually over the last five years.

MODERATE DEBT BURDEN: Debt metrics are moderate and are in-line with Fitch's 'AA' rating category medians. The system's variable rate debt exposure (approximately 26% of total system debt) is synthetically fixed through interest rate swaps and mitigated by the district's strong operating margins and healthy cash position.

MANAGEABLE CAPITAL PROGRAM: Funding of renewal and replacement (R&R) projects accounts for the majority of the district's capital improvement plan (CIP), reflecting the district's strategy to replace or rehabilitate older system assets. The investment to date has begun to reduce the system age of plant and should minimize the risk of regulatory intervention.

STABLE SERVICE AREA GROWTH: Customer growth has averaged 1.2% over the past five years and reasonably expected to continue at this pace. The Buncombe County and city of Asheville economies are strong, as evidenced by low unemployment, regionally competitive wealth levels and a steadily diversifying workforce.

RATING SENSITIVITIES

LOWER DEBT AND STRONGER MARGINS: Significantly lower debt levels at the Metropolitan Sewerage District of Buncombe County, in line with Fitch's 'AAA' metrics, could result in a higher rating. However, the Stable Outlook reflects the likelihood that debt will continue to be used prudently to fund system reinvestment efforts and spread those costs over time.

CREDIT PROFILE

The district provides sewerage conveyance and treatment to over 54,500 customer accounts in the city of Asheville and surrounding communities, including certain unincorporated areas of Buncombe County. Through separate contractual arrangements, the district also serves customers in the Cane Creek Water and Sewer District in northern Henderson County and in the Avery Creek Sanitary Sewer District in the southern portion of the county.

SOLID FINANCIAL PERFORMANCE EXPECTED TO CONTINUE

The district's financial profile is characterized by solid DSC, robust cash balances, ample free cash flow and strong capital reinvestment. Coverage has exceeded 2.2x since fiscal 2012, including connection fees, and in fiscal 2016 net system revenues yielded 2.9x DSC. According to the financial forecast provided in management's 10-year business plan, DSC should continue to exceed 2.2x through fiscal 2021. The business plan appears conservative given assumptions that include modest 2.5% anticipated rate increases, 3% annual operating expense growth, 0.75% customer account growth and demand, and lower connection fee revenues than current levels.

System liquidity is excellent, not falling below 582 days cash on hand (DCOH) since at least 2012 (and well in excess of the district's minimum 365-DCOH policy). Fiscal 2016 unrestricted cash and investments of about \$43 million equated to a very strong 1,024 DCOH. Liquidity levels follow the historical trend of declining over the course of three to four years due to cash-funding capital needs until the district issues periodic long-term reimbursement bonds to replenish cash balances.

AFFORDABLE RATES, MODEST INCREASES EXPECTED

The district's rates are regionally very competitive and include a relatively high percentage of fixed base-charges, mitigating potential fluctuation in revenues based on variable weather or consumption patterns. The average customer monthly bill of approximately \$29 (for an estimated 3,750 gallons per month [gpm]) makes up an affordable 0.8% of median household income (MHI). This falls comfortably below Fitch's affordability benchmark of 1% of MHI for a single utility cost; however, when compared to the national average sewer production rate of 6,000 gpm, charges equate to roughly 1.1% of MHI. For the 77% of customers who are also served by Asheville Water, charges are collected on a combined bill by the city of Asheville.

Historical rate increases have approximated a modest 2.5% (tracking inflation); therefore the district's relative affordability lends management a moderate degree of rate-raising flexibility. Planned rate increases should continue to track inflation at the 2.5% annual rate.

MANAGEABLE DEBT BURDEN

Overall debt levels comprise a low 24% of net plant and debt per customer and per capita metrics of \$1,856 and \$388, respectively, which closely approximate Fitch's 'AA' medians. Total annual debt service carrying costs were a manageable 22% of gross revenues in fiscal 2016 ('AA' median is 20%) and according to the system's five-year annual debt service cost projections this percentage should average around 24% of gross revenues going forward. Debt amortization is above average, with more than 90% retiring in 20 years.

The district's series 2008A bonds are variable-rate demand obligations and represent about 30% of the system's total indebtedness. The district has synthetically fixed the variable rate with a swap with Bank of America Merrill Lynch ('A+'/'F1'/Stable Outlook) which can be terminated at the district's option if the counterparty's credit rating falls below 'Baa3'/'BBB-'. The swap carries a mark-to-market valuation of negative \$3.8 million as of May 10, 2017, which represents a very manageable 9% of fiscal 2016 unrestricted cash.

The series 2008A bonds will comprise 26% of the county's total indebtedness following this issuance. While Fitch considers the district's proportion of variable-rate debt to be elevated relative to similarly rated peer systems, the system's strong liquidity position and rate-raising flexibility minimize concern.

STRONG CAPITAL PROGRAM; MOSTLY REINVESTMENT

The district updates its 10-year CIP annually and projects focus primarily on R&R of sewer mains, interceptors, collection lines, and private sewers. The system's five-year, fiscal 2017-2021 CIP totals \$113.7 million and appears manageable based on prior capital spending plans.

About 23% of the current five-year CIP will be supported by the current series 2017 reimbursement bonds. An additional \$28 million is expected for issuance in fiscal 2023, depending on interim capital spending and resulting cash balances, consistent with the reimbursement bond practice. The balance of capital funding (or an estimated 63% of the 10-year CIP) will come from existing cash reserves and annual surplus revenues.

AMPLE CAPACITY

The district's only wastewater treatment plant maintains treatment capacity of 40 million gallons per day (mgd). Average daily flows of about 19.5 mgd fall comfortably below available treatment capacity, allowing substantial treatment availability for additional customer growth. A potential consolidation between the district and the city of Asheville's Water System, previously deliberated and considered credit-neutral by Fitch, is no longer under consideration.

SOUND ECONOMIC FUNDAMENTALS

Approximately 77% of the district's customers are located within the city of Asheville, which serves as the economic and employment center for western North Carolina. The local economy is steadily diversifying with the expansion of its health care, advanced manufacturing, small business, hospitality, tourism, retail, and arts and culture industries. The area's strong economic development progress in recent years has contributed to a declining unemployment trend; as of April 2017, county unemployment was down to 3.2%, comparing favorably to the state (4.3%) and national (4.1%) rates.

County and city income levels are on par with the state but continue to lag behind the nation. The latter statistic is due in part to the large volume of retirees living on fixed incomes, as well as the 19% of homeowners not included in income statistics because they live more than half the year elsewhere, and have second homes in the county.

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Summary:

Buncombe County Metropolitan Sewerage District, North Carolina; Water/Sewer

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Summary:

Buncombe County Metropolitan Sewerage District, North Carolina; Water/Sewer

Credit Profile

US\$37.385 mil sewerage sys rev and rev rfdg bnds ser 2017 due 07/01/2043

Long Term Rating AA+/Stable New

Buncombe Cnty Metro Swg Dist

Long Term Rating AA+/Stable Affirmed

Rationale

S&P Global Ratings has assigned its AA+ long-term rating to Buncombe County Metropolitan Sewerage District (MSD), N.C.'s series 2017 sewerage system revenue and refunding bonds. At the same time, we affirmed our 'AA+' underlying rating (SPUR) on MSD's outstanding sewerage revenue bonds, as well as our long-term rating component on the series 2008A bonds. The 'A-1+' short-term component of the rating on the series 2008 bonds is based on the rating on the liquidity facility provider, Wells Fargo Bank N.A. The outlook on all ratings is stable. The rating is based on in our view the district's very strong enterprise risk profile and its extremely strong financial risk profile.

The enterprise risk profile reflects our assessment of the district's:

- Rapidly growing service area economy in the Asheville metropolitan statistical area (MSA), which is characterized by average incomes and below-average unemployment;
- Very low industry risk as a monopolistic service provider of an essential public utility;
- Moderately affordable sewer rates representing 0.8% of median household effective buying income (MHHEBI); and
- "Strong" Operational Management Assessment (OMA, where we view the system as a '1' on a six point scale with '1' being the strongest and '6' the weakest), which, in our opinion, implies overall alignment among the system's operational characteristics and that its management strategies are comprehensive and well embedded.

The financial risk profile reflects our view of the following:

- Net revenues providing extremely strong all-in debt service coverage (DSC) of more than 2.16x the coverage of the past audited year and we expect coverage will be maintained at least at such extremely strong levels for the foreseeable future;
- Strong liquidity position with the board reporting \$42 million in unrestricted cash and cash equivalents at the end of fiscal 2016, providing about 1,024 days' cash on hand;
- The debt profile is moderately leveraged with a 21.7% debt-to-capitalization ratio, although expected to increase slightly with this debt issue; and
- "Strong" Financial Management Assessment (FMA), which indicates that the finance department maintains adequate policies in some, but not all, key areas. We view the system as a '1' on a six point scale with '1' being the strongest and '6' the weakest.

The MSD's net sewerage system revenues secure the bonds. We understand the 2017 bond proceeds (\$22 million) will

reimburse the district for funds it previously expended for various capital projects, including improvements to sewer interceptors, lines, and treatment plant. Another \$6 million for future capital projects and the remainder will be used to refund a portion of the series 2009A bonds.

Enterprise risk

Buncombe County, which includes Asheville, serves as the medical, retail, and distribution center for western North Carolina. Its role as an economic center affords residents with plentiful employment opportunities, translating into favorable unemployment trends as compared with the state as well as the U.S.--3.7% for 2016. Leading county employers include Mission Health System and Hospital (6,994 employees), Buncombe County Public Schools (4,000), The Biltmore Co. (1,770), Veterans Administration Medical Center at Asheville (1,593), and Buncombe County government (1,380). We consider county wealth and income levels, as represented by MHHEBI, adequate yet below average at 89% of the national levels.

The Buncombe County MSD was formed in 1962 for providing sewerage services to the city and county. In 1990, the municipalities currently comprising the district were transferred to the district to create a consolidated sewerage system. Sewerage service is provided throughout a 180-square-mile area, serving about 54,000 mostly residential accounts, and represents over 80% of the county population. District facilities includes 1,014 miles of sewer mains that convey flows for treatment to its 40-million-gallon per day (mgd) wastewater treatment plant with design capacity of 65 mgd on the French River. For 2016, the district reported average and peak daily flows of 19.5 mgd and 67.1 mgd, respectively. Management anticipates system capacity will remain sufficient over the next 20 years. In addition, the district owns a hydroelectric facility on the river that helps offsets some utility costs. It reported savings of \$521,000 in 2016. Management reports that current system facilities comply with regulatory requirements with sustained efforts to address sanitary sewerage overflows, which continue to steadily decline--from only 52 occurrences in 2016 as compared with 114 in 2003.

Consistent with our criteria, titled "Methodology: Industry Risk" (published Nov. 19, 2013, on RatingsDirect), we consider industry risk for the system very low, the most favorable assessment possible on a '1' to '6' scale, with '1' being the best.

The district maintains full rate-setting autonomy and annually reviews sewer rates each year as part of its budgeting and financial planning process. Management has demonstrated a willingness to adjust sewer rates, implementing annual rate increases of just about 3% over the last ten years. Despite regular recurring rate adjustments, current rates remain affordable given the area's income indicators with a monthly residential sewer bill of \$41.89 per 6,000 gallons of usage. Rates are an affordable 1.2% of MHHEBI based on 6,000 gallons of usage, and even more affordable as the system reported average usage of 3,750 gallons per month, which equates to 27.81 per month, or 0.8% of MHHEBI. Over the next 10 years, the district has outlined an average annual rate increase of 2.5% as part of its financial projections.

Based on our OMA, we view MSD to be a '1' on a scale of '1' to '6', with '1' being the strongest. This indicates, in our view, that operational and organizational goals are generally well aligned, even if some challenges exist. The OMA of "strong" includes the authority's well-embedded asset adequacy identification program and a comprehensive operational risk-reduction plan. It also includes sufficient wastewater treatment capacity for the foreseeable future.

Financial risk

In our opinion, the district's financial profile remains strong as evidenced by strong coverage margins and liquidity. Based on our calculations, operations yielded strong all-in coverage, in our opinion, of 2.03x, 1.88x, and 2.16x, respectively, for fiscal years 2014, 2015, and 2016. As in previous years, MSD management continues to conservatively incorporate modest 0.75% growth in residential consumption and accounts, along with reasonable rate increases of about 2.5% per year into its 10-year financial projections. In addition, the projections include anticipated additional debt issuances of \$28 million each in fiscal years 2023 and 2026, capital improvement plans (CIPs), and a 3% inflation factor for operations and maintenance. Based on management's business plan projections, coverage is estimated to range from 1.8x to 2.3x with just user fees and 2.0x to 2.6x with total revenues--levels we consider as strong.

Liquidity remains consistently strong, in our view, despite fluctuations as the district funds numerous rehab capital projects upfront from unrestricted cash and reimburses funds with bond proceeds. In the past decade, the MSD has well exceeded its internal policy of maintaining at least 365 days' cash on hand. During fiscal 2014 through 2016, unrestricted cash and investments ranged between \$42.6 million and \$48.4 million. For fiscal 2016, unrestricted cash and investments totaled \$42.6 million or about 1,024 days, a level we view as strong.

The district has formulated a comprehensive 10-year CIP (fiscal years 2018-2027), which is updated annually and currently encompasses approximately \$226.7 million in project costs, primarily focused on collection system rehabilitation. In line with historical practice and policy, the district continues to fund a significant portion of its CIP (at least 50%) with available cash from operations and reserves. Over the span of the current 10-year CIP, management intends to continue CIP funding with a similar proportion from operations, coupled with additional debt issuances: this 2017 issue, along with \$28 million in fiscal years 2023 and 2026. The district's current leverage position is low, in our opinion, as represented by a debt-to-capitalization ratio of 21.7% for 2013.

Based on our FMA, we view Buncombe County MSD to be a '1' on a scale of '1' to '6', with '1' being the strongest. We believe that the financial management practices are strong, comprehensive, and supportive of high credit quality. Revenue and expenses assumptions are reasonable, and interim financial reporting is provided to the board through quarterly budget reports. The long-term planning process is rigorous, and the ten-year CIP is updated annually and made publicly available. The reserve target is robust and articulates a rationale for maintaining a strong liquidity position. Financial planning and operational data are easily obtained, as the budget, financial statements, and projections are readily available on the board's website.

We consider bond provisions adequate. The district agrees to maintain sufficient rates to generate annual senior- and subordinate-lien DSC of at least 1.2x and 1.0x maximum annual debt service (MADS), respectively. The additional bonds test requires all net revenue, including impact fees, to cover MADS by a 1.2x minimum.

Existing swap agreement

As a means to convert variable-rate obligations to synthetically fixed-rate obligations to reduce the overall variable-rate exposure, the district entered into an interest rate swap agreement with Bank of America in 2005 in connection with its \$33.915 million series 2005 revenue refunding bonds. The MSD entered into a floating- to fixed-rate agreement that became effective January 2005 with Bank of America as the counterparty. In April 2008, it

issued \$33.65 million in series 2008A revenue refunding bonds to currently refund the series 2005 bonds. The swap now applies to the series 2008A bonds with a duration that mirrors the bonds' life and terminates July 1, 2031, and represents the district's only variable-rate debt.

We consider the contingent liability risk low for the swap given the current rating differential between the MSD's current rating and the rating triggers that would require it to post collateral or make a termination payment (below 'BBB-'). As of May 10, 2017, the mark-to-market value for the swap was at negative \$3.8 million, not in the MSD's favor. The notional amount of the swap account (\$29.8 million) will account for roughly 26% of the district's debt portfolio after the 2017 issuance. The 2008A bonds have a liquidity facility provided by Wells Fargo N.A., which extends to Feb. 28, 2021. The long-term rating component of the rating on the 2008A bonds is based on the underlying sewerage revenue bond rating on the MSD, while the short-term component is based on the rating on the liquidity facility provider, Wells Fargo Bank.

Outlook

The stable outlook reflects our expectation that the district will preserve its strong coverage and liquidity metrics as it progresses through its current CIP. Furthermore, management's demonstrated willingness to adjust rates, coupled with conservative growth projections and fiscal practices, provides additional rating stability. Based on these expectations, we do not expect a rating change over the two-year outlook period.

Upside scenario

We could raise the rating to 'AAA' if we see service area income levels continue to improve. If MHHEBI were to move closer to or beyond 100% of the national level, the economic assessment would improve, thereby indicating a stronger rating. Beyond this, the district is already operating with best practices in all key credit areas.

Downside scenario

A meaningful decline in liquidity and coverage levels, while unlikely based on the district's historic operating results, could lead to a lower rating.

Ratings Detail (As Of June 8, 2017)

Buncombe Cnty Metro Swg Dist swg sys rev rfdg 2008A		
<i>Long Term Rating</i>	AA+/A-1+/Stable	Affirmed
Buncombe Cnty Metro Swg Dist (MBIA) (National)		
<i>Unenhanced Rating</i>	AA+(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.globalcreditportal.com. All ratings affected by this rating action can be found on the S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box

REQUEST FOR BOARD ACTION

HENDERSON COUNTY

**CANE CREEK WATER AND SEWER DISTRICT
BOARD OF DIRECTORS**

MEETING DATE: June 5, 2017

SUBJECT: **Resolution to Consolidate**

PRESENTER: Marcus Jones, P. E.

ATTACHMENTS: Yes
1. Resolution

SUMMARY OF REQUEST:

In accordance with House Bill 764 as presented on April 24, 2017, the Municipal Sewage District of Buncombe County (MSD) will be able to expand its territory in a manner acceptable to Cane Creek Water and Sewer (CCWSD) District's Board of Directors. Therefore with the passing of HB764, CCWSD will initiate consolidation into MSD.

BOARD ACTION REQUESTED:

Adopt the attached Resolution to consolidate Cane Creek Water and Sewer District into Municipal Sewage District of Buncombe County in accordance with HB 764 as presented on April 24, 2017.

Suggested Motion:

I move that the Board adopt the attached Resolution to consolidate Cane Creek Water and Sewer District into Municipal Sewage District of Buncombe County in accordance with HB 764 as presented on April 24, 2017.

HENDERSON COUNTY BOARD OF COMMISSIONERS

1 Historic Courthouse Square, Suite 1
Hendersonville, North Carolina 28792
Phone: 828-697-4808 • Fax: 828-692-9855
www.hendersoncountync.org

J. MICHAEL EDNEY
Chairman
GRADY H. HAWKINS
Vice-Chairman

CHARLES D. MESSER
WILLIAM G. LAPSLEY
THOMAS H. THOMPSON

RESOLUTION TO CONSOLIDATE CANE CREEK WATER AND SEWER DISTRICT INTO MUNICIPAL SEWAGE DISTRICT OF BUNCOMBE COUNTY

BE IT RESOLVED, that we, the Cane Creek Water and Sewer District (CCWSD) Board of Directors, approve the consolidation of the District into the Municipal Sewage District of Buncombe County (MSD) in accordance with House Bill 764 as presented on April 24, 2017.

FURTHERMORE, BE IT RESOLVED, that we direct CCWSD staff to initiate the consolidation with MSD and return to the Board of Directors with a final consolidation agreement for approval immediately upon the provisions of House Bill 764 becoming law.

Adopted this the 5th day of June, 2017.

J. MICHAEL EDNEY, CHAIRMAN
BOARD OF DIRECTORS
CANE CREEK WATER AND SEWER DISTRICT

ATTEST:

TERESA L. WILSON, CLERK TO THE BOARD

**RIGHT OF WAY
COMMITTEE RECOMMENDATIONS
AND MINUTES
May 24, 2017**

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, May 24, 2017. The following Right of Way Committee members were present: Glenn Kelly, Matt Ashley Jr., Esther Manheimer & Chris Pelly.

Others present were: Jerry VeHaun, Chairman of the Board; Tom Hartye, PE, General Manager; William Clarke, MSD Counsel; Ed Bradford, Angel Banks, Wesley Banner, Spencer Nay 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 Condemnations–Jonestown Road GSR, Project No. 2014178

Property Owner: Lindsey Denman, Pin Number 9730-33-3592– Subject parcel is located on Jonestown Road in Woodfin and improved with a single family residence. The existing sewer lies within the road and will be replaced in the same trench. Only temporary construction easement area is needed along each side of the road.

The owner has an unpublished phone number and works during the day. An introduction letter, complete with all project details was left as a door hanger on February 27. Upon receipt, owner did call, leaving us a message that she would call back to schedule a meeting. She did not leave her phone number. We have left a total of four door hangers, with all project information attached, for this owner who continues to be unresponsive.

Total Contacts: 4

Property Owner: TD Bank, Pin Number 9730-24-0697- Subject parcel is located off Riverwalk Drive in Woodfin and is unimproved. The proposed sewer line is being replaced nearly parallel to the existing sewer line along the eastern portion of the property.

The introduction letter with all project information was sent to TD Bank corporate offices in Greenville, SC and they directed MSD to contact a local branch for negotiations. A second packet was provided to the College Street branch manager, who was not responsive. After several follow up calls, the local manager indicated she had forwarded the information back to the corporate office in Greenville. After again mailing out a certified letter to Greenville offices, MSD was then told to deal with the Legal Department of TD Bank located in New Jersey. MSD counsel has contacted the TD Bank Legal Department, but they have not responded to date.

Total Contacts: 8

Property Owners: Richard D. Waldrop, Pin Number 9730-33-0372- Subject parcel is located off Jonestown Road in Woodfin and is improved with two mobile homes currently used as rentals. The existing sewer line is being replaced in the same trench. The owner's main concern is loss of buildable area since the sewer bisects the property. MSD's project engineer looked into shifting the alignment to run along the front and side property lines, however this is not possible due to significant increased depth.

The standard compensation amount being offered is \$370. The property owner is not in agreement with the compensation being offered, but has not provided a counteroffer to date.

Total Contacts: 5

STAFF RECOMMENDATION: Authority to obtain appraisals and proceed with condemnations, if necessary.

Ms. Banks presented maps of the parcels and reviewed the situation with each. Regarding the first parcel, Mr. Pelly asked if we knew the owner lived there. Ms. Banks stated yes. Regarding the second parcel, Ms. Banks further noted staff had dealt with TD Bank on another project and they were very difficult to deal with. Mr. Clarke stated that he has communicated with the contact from New Jersey and she has directed him to someone in Greenville who he has spoken with. He stated that he thinks this will be resolved but recommends authority to condemn.

Regarding the third parcel, there was discussion regarding the age of the sewer line and it is estimated to be at least 40-50 years old. Mr. Ashley asked if the construction easement is what really cuts into his buildable property. Ms. Banks stated that the construction easement will cease after the project is over, it is the remaining permanent easement that is the problem. Mr. Ashley asked how wide the easement is. Ms. Banks stated it is a 20' easement, with 15' temporary on either side. Mr. Pelly asked if this was new area, Ms. Banks stated that the new line will go back in the existing trench. Mr. Ashley asked if the easement was already there. Ms. Banks stated that there is a prescriptive easement there. Mr. Pelly asked if the \$370.00 proposed for Waldrop would change. Ms. Banks stated it likely would change and that the property values were pretty low based on tax value and that an appraisal will take market value into consideration.

Mr. Ashley asked if there was any idea of how much it would cost to increase the depth and go around the property. Ms. Banks stated she would find out from the engineer. There was some discussion regarding the owner having the option to pay to have it relocated himself, if it was beneficial to him. Mr. Bradford stated the owner would still have that option after the project was over. Mr. Clarke stated that once you send the notice of condemnation, owners tend to be more responsive. Then when you file the action for condemnation and they realize their costs they get a little more realistic.

Mr. Kelly called for a motion to accept Staff's recommendation. Mr. Pelly made the motion. Mr. Ashley seconded the motion. Voice vote was unanimous.

IV. Other business:

There being no further business the meeting adjourned at 9:15 am.

Metropolitan Sewerage District of Buncombe County

Board Action Item - Right-of-Way Committee

COMMITTEE MEETING DATE: 5/24/2017

BOARD MEETING DATE: 6/14/2017

SUBMITTED BY: Tom Hartye, PE, General Manager
PREPARED BY: Angel Banks, Right of Way Manager
REVIEWED BY: Ed Bradford, PE, Director of CIP

SUBJECT: Consideration of Condemnations–Jonestown Road GSR, Project No. 2014178

Property Owner: Lindsey Denman, Pin Number 9730-33-3592– Subject parcel is located on Jonestown Road in Woodfin and improved with a single family residence. The existing sewer lies within the road and will be replaced in the same trench. Only temporary construction easement area is needed along each side of the road.

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Total Contacts: 8

Property Owners: Richard D. Waldrop, Pin Number 9730-33-0372- Subject parcel is located off Jonestown Road in Woodfin and is improved with two mobile homes currently used as rentals. The existing sewer line is being replaced in the same trench. The owner's main concern is loss of buildable area since the sewer bisects the property. MSD's project engineer looked into shifting the alignment to run along the front and side property lines, however this is not possible due to significant increased depth.

The standard compensation amount being offered is \$370. The property owner is not in agreement with the compensation being offered, but has not provided a counteroffer to date.

Total Contacts: 5

STAFF RECOMMENDATION: Authority to obtain appraisals and proceed with condemnations, if necessary.

Ms. Banks presented maps of the parcels and reviewed the situation with each. Regarding the first parcel, Mr. Pelly asked if we knew the owner lived there. Ms. Banks stated yes. Regarding the second parcel, Ms. Banks further noted staff had dealt with TD Bank on another project and they were very difficult to deal with. Mr. Clarke stated that he has communicated with the contact from New Jersey and she has directed him to someone in Greenville who he has spoken with. He stated that he thinks this will be resolved but recommends authority to condemn.

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Mr. Kelly called for a motion to accept Staff's recommendation. Mr. Pelly made the motion. Mr. Ashley 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: June 14, 2017

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

PREPARED BY: Ed Bradford, P.E. - Director of Engineering
Shaun Armistead, P.E. - Project Manager

SUBJECT: Consideration of Bids: Commerce Street Sanitary Sewer Rehabilitation Project, MSD Project No. 2012129

BACKGROUND: This project is located in downtown Asheville within Commerce Street, near Central United Methodist Church.

It consists of replacing a problematic 8-inch vitrified clay pipe in poor condition with a history of backups into businesses adjacent to the project. The new line is comprised of 527 LF of 8-inch DIP.

The contract was advertised informally, and two bids were received on January 26, 2017 in the following amounts:

<u>Contractor</u>	<u>Bid Amount</u>
1) Patton Construction Group	\$321,960.00
2) Terry Brothers Const. Co.	\$190,657.00

The apparent low bidder is Terry Brothers Construction Co. They have completed numerous MSD sewer rehabilitation projects, and their work quality continues to be excellent on work performed for the District.

Bid amounts were higher than expected due to difficult site conditions for this project. These include city street closure requirements, soil conditions (all existing soil is anticipated to be replaced with select backfill), and extensive utilities both underground and overhead.

Please refer to the attached documentation for further details.

FISCAL IMPACT: The FY17-18 Construction Budget for this project is \$167,000.00. Sufficient funds are available in the CIP Contingency Fund for the overage.

STAFF RECOMMENDATION: Staff recommends award of this contract to Terry Brothers Construction Co. in the amount of \$190,657.00, subject to review and approval by District Counsel.

METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY, NORTH CAROLINA

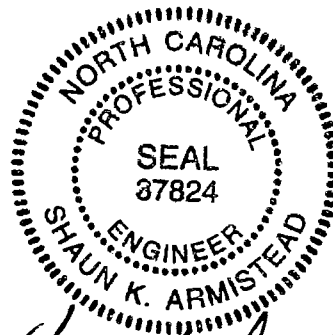
Commerce Street Sewer Rehabilitation
Project No. 2012129

BID TABULATION
June 1, 2017

BIDDER	MBE Form	Bid Forms (Proposal)	TOTAL BID AMOUNT
Patton Construction Group Arden, NC	2	Yes	\$321,960.00
Terry Brothers Constructon Company Leicester, NC	1	Yes	\$190,657.00

APPARENT LOW BIDDER

Shaun Armistead, PE
Project Engineer
Metropolitan Sewerage District of
Buncombe County, North Carolina



Shaun K. Armistead 6/5/17

This is to certify that the bids tabulated herein were publicly opened and read aloud at 2:00 p.m. on the 1st day of June, 2017, in the W.H. Mull Building at the Metropolitan Sewerage District of Buncombe County, Asheville, North Carolina. This was an informal bid and no bid bonds were required.

Interoffice Memorandum

TO: Tom Hartye, General Manager

FROM: Ed Bradford, Engineering Manager
Shaun Armistead, Project Manager

DATE: June 2, 2017

RE: Commerce Street Sewer Rehabilitation, MSD Project No. 2012129

This project is located in downtown Asheville near the intersection of Patton Ave and Coxe Ave. The project is comprised of 527 LF of 8-inch ductile iron pipe. The existing line is 8-inch vitrified clay pipe in poor condition with a history of backups into businesses adjacent to the project. Due numerous customer service requests, this project has a Pipe Rating of 47.

Two informal bids were received on Thursday, June 1, 2017, as follows:

<u>Contractor</u>	<u>Bid</u>
1) Patton Construction Group	\$321,960.00
2) Terry Brothers Construction Co.	\$190,657.00

Terry Brothers Construction Company is the apparent low bidder for this contract with a bid amount of \$190,657.00. The construction budget for this project is \$167,000.00. Bid amounts were higher than expected due to difficult site conditions for this project including street closure requirements, soil conditions (all existing soil is anticipated to be replaced with select backfill), and extensive utilities both underground and overhead.

District Staff has had extensive experience with Terry Brothers Construction, and they have proven themselves to be competent contractors on past District contracts. Staff recommends award of this contract to Terry Brothers Construction Company, contingent upon review and approval by District Counsel.

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

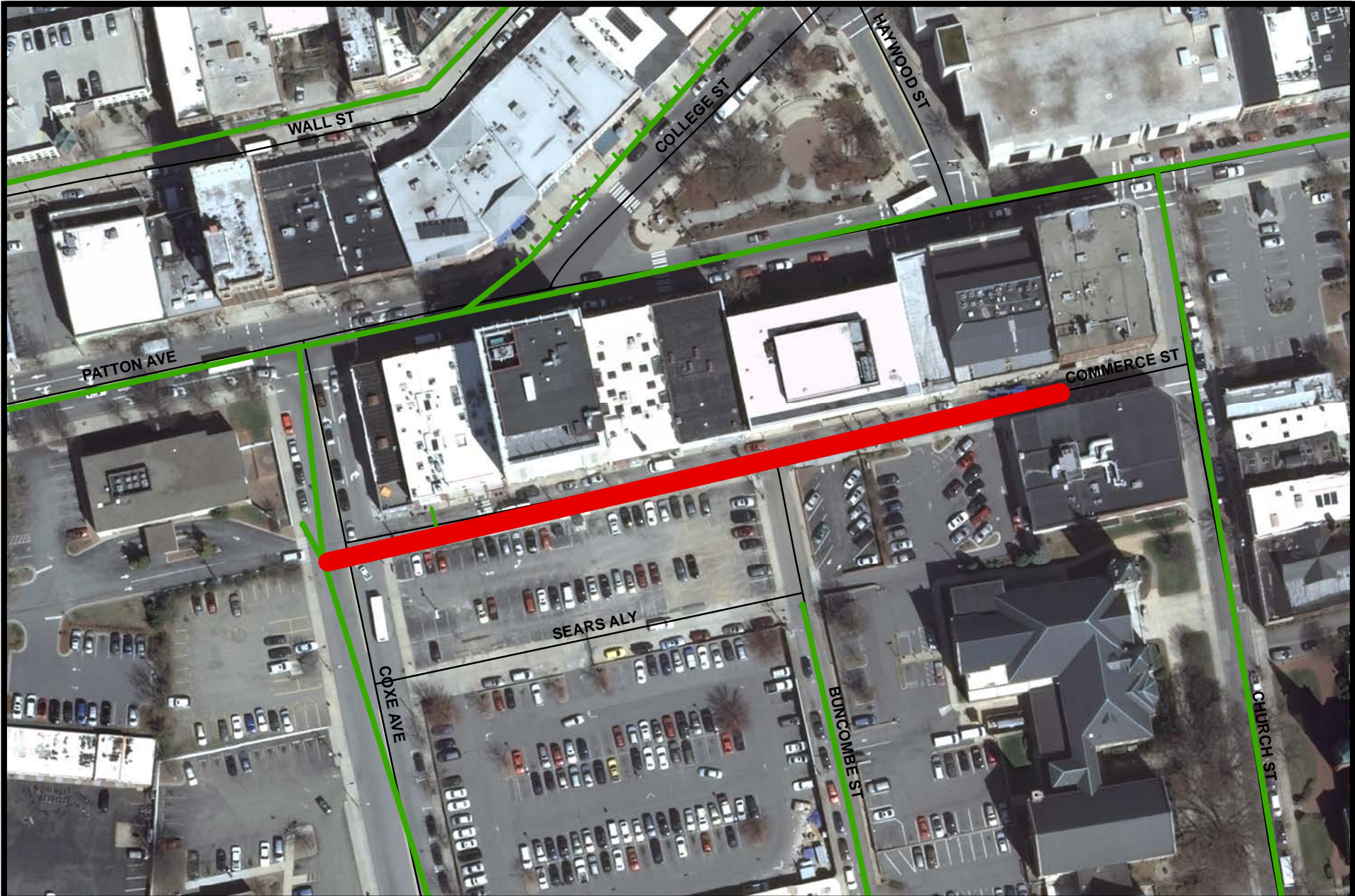
BUDGET DATA SHEET - FY 2017 - 2018

PROJECT: Commerce Street	LOCATION: Asheville
TYPE: General Sewer Rehab.	PIPE RATING: 47
PROJECT NO. 2012129	TOTAL LF: 530
PROJECT BUDGET: \$171,900.00	PROJECT ORIGIN: SSO's; Work Orders; Line Condition

DESCRIPTION	ESTIMATED PROJECT COST	TOTAL EXPENDS THRU 12/31/16	EST. COST JAN - JUNE 2017	BUDGET FY 17-18
55310 - PRELIM. ENGINEERING				
55320 - SURVEY - DESIGN	\$3,000.00	\$2,060.00	\$940.00	
55330 - DESIGN				
55340 - PERMITS	\$500.00		\$500.00	
55350 - SPECIAL STUDIES				
55360 - EASEMENT PLATS				
55370 - LEGAL FEES				
55380 - ACQUISITION SERVICES				
55390 - COMPENSATION				
55400 - APPRAISAL				
55410 - CONDEMNATION				
55420 - CONSTRUCTION	\$167,000.00			\$167,000.00
55430 - CONST. CONTRACT ADM.				
55440 - TESTING	\$1,000.00			\$1,000.00
55450 - SURVEY - ASBUILT	\$400.00			\$400.00
TOTAL AMOUNT	\$171,900.00	\$2,060.00	\$1,440.00	\$168,400.00

ENGINEER: MSD	SA	ESTIMATED BUDGETS - FY '19 -'27		
R.O.W. ACQUISITION: N/A	# PLATS: [0]	FY 18-19	\$0.00	
CONTRACTOR:		FY 19-20	\$0.00	
CONSTRUCTION ADM: MSD		FY 20-21	\$0.00	
INSPECTION: MSD		FY 21-22	\$0.00	
		FY 22-23	\$0.00	
		FY 23-24	\$0.00	
PROJECT DESCRIPTION: This project is located in downtown Asheville near Church St. and is comprised of 8-inch ductile iron pipe. The existing 6-inch line contains both vitrified clay and PVC sections, and has had excessive maintenance problems due to multiple pipe defects.		FY 24-25	\$0.00	
		FY 25-26	\$0.00	
		FY 26-27	\$0.00	

SPECIAL PROJECT NOTES:



**Commerce Street
Project No. 2012129**

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT
of
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map

Metropolitan Sewerage District of Buncombe County

BOARD ACTION ITEM

BOARD MEETING DATE: June 14, 2017

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

REVIEWED BY: Billy Clarke, Esq. - District Counsel
Forrest Westall, P.E. - Engineer of Record

PREPARED BY: Ed Bradford, P.E. - Director of Engineering
Hunter Carson, P.E. - Project Manager

SUBJECT: Consideration of Sole Source Specification for the Plant High Rate Primary Treatment Project, MSD Project No. 2015054

BACKGROUND: The Plant High Rate Primary Treatment Project is a significant mid-term recommendation of the Plant Facility Plan. The plant does not currently have a primary treatment process after the initial screening and grit removal processes.

This project will add a new Chemically Enhanced Primary Treatment facility. This type of facility is required due to the restrictive site conditions within the plant. Design is well underway, and construction is expected to begin in Fall 2018.

MSD and CDM Smith (the engineering firm for this project) evaluated various treatment technologies during the preliminary engineering phase. MSD pilot tested two different manufacturers on-site in 2015 - the Kruger ACTIFLO and Evoqua CoMag systems. Based upon better equipment performance, lower long-term operational costs, and established performance history – CDM Smith and staff recommend that the District sole-source specify the Kruger ACTIFLO system.

The high rate treatment clarification process is specialized among various manufacturers, and therefore requires a sole-source due to the unique nature of this type of equipment. The primary benefits of the recommendation to acquire this equipment will be:

- That the District will receive equipment with proven performance at lower operational costs than other competitors; and
- To allow the design of the new facilities to be customized around the specific equipment being supplied. This leads to cost savings in both engineering and construction because of the ability to focus the design effort on a single, customized layout rather than the bidding of multiple designs for different equipment; and
- To take greater advantage of the manufacturer's expertise and experience *during the design phase* to optimize the overall facility design.

All remaining portions of the project will be competitively-bid.

Please refer to the attached documentation for further details.

FISCAL IMPACT: The cost of this equipment is \$2,447,838.00, which will be included as a set bid price in the competitively-bid construction contract.

STAFF RECOMMENDATION: Staff recommends that the District include a sole-source specification for a Kruger ACTIFLO system in the competitively-bid construction contract for the Plant High Rate Primary Treatment Project based upon the fact that:

- l) Performance or price competition are not available among other equipment suppliers.



4600 Park Road, Suite 240
Charlotte, North Carolina 28209
tel: 704 342-4546

May 11, 2017

Mr. W. Hunter Carson, P.E.
Project Manager
Metropolitan Sewerage District of Buncombe County
2028 Riverside Drive
Asheville, North Carolina 28804

Subject: Metropolitan Sewerage District (MSD) of Buncombe County
High Rate Treatment Improvements Project
Veolia/Kruger Inc. ACTIFLO® System
Recommendation for Sole Source Purchase

Dear Hunter:

CDM Smith has received and reviewed competitive pricing proposals from Kruger Inc. and Evoqua Water Technologies in December 2016 for the supply of high rate primary treatment equipment for the MSD High Rate Treatment Improvements project. Evaluation of the two proposals on a capital cost, 20-year operating cost, and non-cost criteria resulted in the recommendation to MSD to select the Kruger Inc. ACTIFLO® system for the improvements at the French Broad River Water Reclamation Facility. The Kruger proposal includes the following scope of supply:

- System overview design
- Mixing equipment
- Clarifier mechanisms
- Clarifier sludge underflow pumps
- Microsand ballast delivery and recovery systems
- System control panels
- Field services and startup services for the new equipment.

The proposed cost of this scope of supply from Kruger includes \$25,000 for performance and payment bonds as well as a performance warranty bond to guarantee performance of the system to meet the needs of MSD to be evaluated at the time of system startup. The total proposed pricing from Kruger for these services is \$2,447,838.00. The actual equipment and services purchase will be by the contractor at the pre-negotiated price as stated in the proposal. The selection of Kruger



Mr. W. Hunter Carson. P.E.

May 11, 2017

Page 2

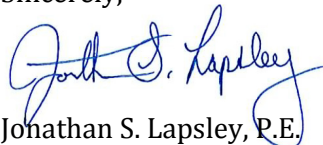
for this scope of supply was the result of an engineering evaluation of multiple alternatives and considered similar systems offered by other manufacturers. Selecting Kruger for the proposed scope of supply will provide the following benefits to MSD:

- Kruger's ACTIFLO® system has over 50 installations in the United States for municipal wastewater treatment including systems with design capacity of 250 mgd. Their experience far exceeds the competition for this type of treatment system.
- The ACTIFLO® system proposed will utilize considerably less coagulant to achieve the required performance which result in significant operational cost savings on an annual basis for MSD.
- The ACTIFLO® system will allow MSD to achieve the treatment goals established in the 2015 Facilities Plan which set the strategy for current and future treatment at the French Broad River Water Reclamation Facility.
- Selecting the ACTIFLO® system during the preliminary design phase will allow CDM Smith to coordinate the specific design details directly with Kruger which should minimize the potential for changes during construction.

Based on our review of the Kruger proposal, the distinct technical benefits of this equipment, the significant number of successfully operating installations, and the anticipated annual operating cost savings, CDM Smith recommends that MSD approve the sole source procurement of the ACTIFLO® equipment for a price of \$2,447,838.00 to be paid by the general contractor upon award.

Thank you for the opportunity to serve MSD and your customers. We look forward to working with you during the construction phase of this important project.

Sincerely,

A handwritten signature in blue ink that reads "Jonathan S. Lapsley". The signature is written in a cursive style.

Jonathan S. Lapsley, P.E.
Associate/Senior Project Manager
CDM Smith Inc.

Attachments – Kruger Project # 5700133403 Proposal dated December 5, 2016



December 5, 2016

Jonathan Lapsley
CDM Smith Inc.
4600 Park Road, Suite 204
Charlotte, North Carolina 28209

**Re: RFP – High Rate Primary Treatment Project
Buncombe County Metropolitan Sewerage District
Kruger Project #: 5700133403**

Dear Mr. Lapsley:

We appreciate the opportunity to participate in Buncombe County Metropolitan Sewerage District's High Rate Primary Project and are pleased to provide the following 2 x 42 MGD ACTIFLO System Bid Submittal which per your Request for Proposals (RFP) includes the following information: RFP Bid Forms, Scope of Supply, Drawings and Equipment Cutsheets, Electrical One Line Diagrams and P&ID, PLC Integration Information; Kruger/Veolia Financial Statement, ACTIFLO Installation Summary, Exceptions to the RFP and Proposed Performance Guarantee.

Please note the following within our ACTIFLO Submittal:

- We provided two design options: Option A offers an ACTIFLO System which can be installed inside the microscreen building and Option B offers an ACTIFLO System which will be partially installed inside the microscreen building with the coagulation tanks inside the building and the remaining process tanks outside the building. Additionally, for our Option A design, we preliminarily reviewed the site plans of the French Broad WRF and believe that influent and effluent lines to and from the ACTIFLO System can be installed within the walls of the microscreen building with the ACTIFLO System, reducing the possibility of disturbing any existing buried utility lines;
- Per Specification Section 11357, 2.03, 1 Flash Mixer, the ACTIFLO System does not require a rapid mix mechanical to be installed in the flow split vault for the included design;
- Our Terms of Sales are included as a reference, with the included ACTIFLO System Submittal being expressly conditioned on a mutually agreed contract between Buncombe County Metropolitan Sewerage District and Kruger, specifically for terms and conditions and liquidated damages. Please see Section 10 Performance Guarantee for more details on the Liquidated Damages.

Kruger is committed to providing high quality municipal water and wastewater systems to meet our customers' needs. If you have any questions, need any additional information, please contact me or our local representative Finn Nielsen with VAND Solutions (finn@vandsolutions.com or 919-534-5945).

Sincerely,

Jim Daugherty
Regional Sales Manager
Kruger / Veolia Water Technologies



ATTACHMENT B

Bid Forms

Bid Items **

This attachment includes bid item tables that ask for additional information that will be used to evaluate the proposals. The bid items are organized into one of the following four categories: Cost Items, Data Items, Operational Items, and Performance Guarantee Items.

Cost Items:

Table 1's "Cost Bid Items" are used to determine the capital cost of the High Rate Primary Treatment (HPT) system. The table will also serve as a schedule of values that will be used to determine payment associated with completed milestones. The System Supplier should review Appendix A of this package, for details on what is required for each equipment item below, and how progress will be measured and paid.

In addition to capital costs, the High Rate Primary Treatment Contractor shall input a price for the Performance Warranty bond as described in specification 01025A and 11357. This bond is separate from the typical equipment warranty outlined in the individual equipment specifications. The price of the standard equipment warranty shall be included in the cost items for the individual pieces of equipment.

Data Items:

Table 2's "Data Bid Items" are used to evaluate the HPT Contractors based on "non-cost" items. The four non-cost items that are being evaluated are:

1. Total number of municipal wastewater treatment installations of the technology in the United States being proposed for MSD.
 - a. An Installation list should be provided in Section 8 of your proposal and shall include the items identified in the transmittal letter of the RFP.
2. The largest single installation in the United States at a municipal wastewater treatment plant (combined peak rated capacity for all trains installed at one location).
3. Number of operation and maintenance support staff available, and their location.
 - a. The number of operation and maintenance staff currently available to travel to the MSD French Broad WRF to work on the system.
 - b. The city in which the home office of the support staff is located.
4. Financial Stability of the HPT Contractor.
 - a. A financial statement of the HPT Contractor should be provided in Section 7 of your proposal.
 - b. No information is required to be entered into the table below, but the information provided to satisfy Item 4.b will be taken into account during the evaluation.

Operational Items:

Table 3's "Operational Bid Items" are used to evaluate the Operational costs associated with the system offered under your proposal.

**Kruger Bid Submittal dated 12/5/2016 is expressly conditioned on the parties reaching mutually acceptable terms and conditions, including Liquidated Damages, for the contract post-award.



1. Guaranteed Power Consumption of system.
 - a. This is the total power consumption for all operating equipment in the system for the design flow rate of 40 mgd as listed in Section 11357 (i.e., not the total power consumption of all the motors, but the power consumption for all operating motors, excluding the standby equipment). This number should be supported by the information provided in Section 6 of your proposal.

2. Guaranteed Polymer Consumption
 - a. This is the design dose of the assumed dry makeup polymer required by the HPT Contractor to guarantee the specified performance of the HPT system. The HPT Contractor shall list any assumptions regarding the polymer (type, charge, etc.) in addition to the design dose/consumption for 40 mgd flow rate. The Engineer will obtain local pricing for the polymer type proposed for cost analysis purposes. The polymer make-up system and polymer feed system is outside the scope of supply of the HPT Contractor.

3. Guaranteed Coagulant Consumption
 - a. This is the design dose of the assumed Aluminum Sulfate Coagulant required by the HPT Contractor to guarantee the specified performance of the HPT system. The HPT Contractor shall list any assumptions regarding the coagulant in addition to the design dose/consumption for 40 mgd flow rate. The Engineer will obtain local pricing for the coagulant for cost analysis purposes. The coagulant storage and feed system is outside the scope of supply of the HPT Contractor.

4. Guaranteed Ballast Consumption
 - a. This is the design feed rate of the HPT Contractor's proposed ballast system (microsand, magnetite, etc.) required by the HPT Contractor to guarantee the specified performance of the HPT system. The HPT Contractor shall list any assumptions regarding the ballast in addition to the design dose/consumption for 40 mgd flow rate. The HPT Contractor shall provide a guaranteed ballast replacement price in the proposal that will be held for a minimum of 2-years from the date of the proposal submission.



ATTACHMENT B – Bid Forms

Table 1: Cost Bid Items

Bid Item #	Description	Budget Cost (US Dollars)
1	High Rate Treatment System Equipment	\$ 2,172,838
2	High Rate Treatment System Electrical, Instrumentation and Controls	\$ 250,000
3	Other Equipment, Materials and Associated Services Not Included in Bid Items 1 Through 3	\$ 0
4	Performance Warranty Bond for High Rate Treatment System	\$ 13,000
5	Performance and Payment Bonds	\$ 12,000
** , + Total Proposed Cost		\$ 2,447,838

**Kruger Bid Submittal dated 12/5/2016 is expressly conditioned on the parties reaching mutually acceptable terms and conditions, including Liquidated Damages, for the contract post-award.
+ Total Proposed Cost is the same for both design options detailed with Kruger's Bid Submittal.



Table 2: Data Bid Items

Bid Item Description		Response	
Data Item 1	Number of Municipal Wastewater Installations in the United States	45	
Data Item 2	Largest Municipal Wastewater Installation in the United States	Dual Use Primary/CSO = 60 MGD Heart of Valley, WI CSO = 110 MGD Fort Worth, TX Tertiary = 126 MGD Syracuse, NY	
Data Item 3	Number of Operation Staff/Location of Staff	110	Cary, NC

Table 3: Operational Bid Items for 40-mgd Flow Rate

Bid Item Description		Bid Amount (for TSS 150 to 249.99 mg/L)	Bid Amount (for TSS 250 to 350 mg/L)	Product Name/Specifications	Product Cost	
Item 1 – Guaranteed Power Consumption	kW	81.2	81.2	N/A	\$0.08/kW-hr	**
Item 2 – Guaranteed Polymer Consumption	lb/MG	10.43	10.43	High Molecular Weight, Anionic	To Be Obtained by Engineer for Proposed Product	**
Item 3 – Guaranteed Coagulant Consumption (Aluminum Sulfate)	lb/MG	208.64	250.36	Alum as product	To Be Obtained by Engineer for Proposed Product	**
Item 4 – Guaranteed Ballast Consumption and Cost	lb/MG	25	25	microsand	\$200 / ton	**

**Kruger Bid Submittal dated 12/5/2016 is expressly conditioned on the parties reaching mutually acceptable terms and conditions, including Liquidated Damages, for the contract post-award.

1.1 DESCRIPTION OF WORK:

I. Kruger Inc. (Kruger), an equipment supplier, proposes and agrees to furnish all labor services, materials, equipment, and all other items and facilities necessary to supply and deliver the equipment items as specified in these Proposal Documents, and conditions stated herein.

1.2 PROPOSAL PRICE:

Price includes ACTIFLO System equipment as detailed herein. The price excludes sales and/or use taxes and clarifications/exceptions stated herein. Buyer agrees to provide the necessary tax-exempt certification or Reseller documentation for sales taxes exemption within thirty (30) days after receipt of a purchase agreement executed by all parties. **Kruger Scope of Supply and price is expressly conditioned on the parties reaching mutually acceptable terms and conditions, including Liquidated Damages, for the contract post-award. Kruger's Terms of Sale are included herein for reference.**

For projects abiding by the American Iron and Steel (AIS) act, all Kruger ACTIFLO® equipment falls under "clarifier and clarifier mechanisms" per Q/A #22 US of EPA Memorandum dated March 20, 2014(<https://www.epa.gov/sites/production/files/2015-09/documents/ais-final-guidance-3-20-14.pdf>) which states the equipment is NOT required to meet AIS act. Only valves are applicable per the EPA Memorandum.

Kruger shall furnish and deliver (FOB Jobsite) ACTIFLO System Equipment, including submittals, start-up and other services, in conformance to the requirements set forth in this document for the Lump Sum price of:

Refer to Section 1: BID FORMS

The Total Proposed Cost is valid as of the Bid Submittal date. The Total Proposed Cost shall be adjusted in accordance with the percent change in the Producer Price Index (PPI) for "Private and Government Purchased Capital Equipment", not seasonally adjusted, as appears in the monthly *PPI Detailed Report* published by the Bureau of Labor Statistics (http://www.bls.gov/ppi/ppi_dr.htm) for two years from the date of this Bid Submittal. After this timeframe, the Total Proposed Cost shall be mutually agreed upon by Kruger and the Buyer.

1.3 LIQUIDATED DAMAGES:

Refer to comment above within 1.2 PROPOSAL PRICE herein.

1.4 TERMS OF PAYMENT AND CONDITION OF SALE:

The terms of payment are 10% upon receipt of a fully executed contract, 15% upon delivery of submittal of shop drawings, and 75% upon delivery of equipment to the site.

Payment shall not be contingent upon receipt of funds by the CONTRACTOR from the OWNER and there shall be no retention in payments due to Kruger. All other payment terms as defined in Kruger's Standard Terms of Sale.

All payment terms are net 30 days from date of invoice. Final payment shall not exceed 120 days from delivery of equipment.

1.5 BONDS:

Kruger's Proposal includes a Payment, Performance and Performance Warranty Bonds equal to 100% of the contract value. Kruger shall provide the Payment, Performance and Performance Warranty Bonds upon receipt of a fully executed contract and released in writing upon successful completion of the Performance Warranty period. The Performance Warranty period shall be defined within Kruger's Bid Submittal; Section 10: Process Performance. The Payment, Performance and Performance Warranty Bonds shall be outstanding for a period not to exceed 36 months. Kruger can provide a letter from our surety confirming Kruger's ability to provide such a bonds, if desired.

1.6 DELIVERY SCHEDULE:

Delivery schedule shall be per the contract documents and clarifications/exceptions stated herein.

- Shop drawings will be submitted within 6-8 weeks of receipt of an executed contract by all parties.
- All equipment will be ready for shipment within 18-20 weeks after receipt of written approval of the shop drawings.
- Installation manuals will be furnished upon delivery of equipment.
- Operation and Maintenance Manuals will be submitted within 90 days after receipt of approved shop drawings.

IF KRUGER IS ABLE TO SHIP EQUIPMENT SOONER THAN THE ABOVE SCHEDULE, CONTRACTOR SHALL ACCEPT DELIVERIES AND PROVIDE ADEQUATE STORAGE ON-SITE FOR SUCH EQUIPMENT.

1.7 THIS PROPOSAL IS RESPECTFULLY SUBMITTED BY:

Tom Perry
National Product Manager
I Kruger Inc.
4001 Weston Parkway
Cary, NC 27513
(919) 653-5084

Jim Daugherty
Regional Sales Manager
I. Kruger Inc.
4001 Weston Parkway
Cary, NC 27513
(919) 653-4570

1.8 PROPRIETARY INFORMATION

The information or data contained in this proposal is proprietary to Kruger and should not be copied, reproduced, duplicated, or disclosed to any third party, in whole or part, without the prior written consent of Kruger. This restriction will not apply to any information or data that is available to the public generally.

1. Applicable Terms. These terms govern the purchase and sale of the equipment and related services, if any (collectively, "Equipment"), referred to in Seller's purchase order, quotation, proposal or acknowledgment, as the case may be ("Seller's Documentation"). Whether these terms are included in an offer or an acceptance by Seller, such offer or acceptance is conditioned on Buyer's assent to these terms. Seller rejects all additional or different terms in any of Buyer's forms or documents.
2. Payment. Buyer shall pay Seller the full purchase price as set forth in Seller's Documentation. Unless Seller's Documentation provides otherwise, freight, storage, insurance and all taxes, duties or other governmental charges relating to the Equipment shall be paid by Buyer. If Seller is required to pay any such charges, Buyer shall immediately reimburse Seller. All payments are due within 30 days after receipt of invoice. Buyer shall be charged the lower of 1 ½% interest per month or the maximum legal rate on all amounts not received by the due date and shall pay all of Seller's reasonable costs (including attorneys' fees) of collecting amounts due but unpaid. All orders are subject to credit approval.
3. Delivery. Delivery of the Equipment shall be in material compliance with the schedule in Seller's Documentation. Unless Seller's Documentation provides otherwise, Delivery terms are F.O.B. Jobsite.
4. Ownership of Materials. All devices, designs (including drawings, plans and specifications), estimates, prices, notes, electronic data and other documents or information prepared or disclosed by Seller, and all related intellectual property rights, shall remain Seller's property. Seller grants Buyer a non-exclusive, non-transferable license to use any such material solely for Buyer's use of the Equipment. Buyer shall not disclose any such material to third parties without Seller's prior written consent.
5. Changes. Seller shall not implement any changes in the scope of work described in Seller's Documentation unless Buyer and Seller agree in writing to the details of the change and any resulting price, schedule or other contractual modifications. This includes any changes necessitated by a change in applicable law occurring after the effective date of any contract including these terms.
6. Warranty. Subject to the following sentence, Seller warrants to Buyer that the Equipment shall materially conform to the description in Seller's Documentation and shall be free from defects in material and workmanship. The foregoing warranty shall not apply to any Equipment that is specified or otherwise demanded by Buyer and is not manufactured or selected by Seller, as to which (i) Seller hereby assigns to Buyer, to the extent assignable, any warranties made to Seller and (ii) Seller shall have no other liability to Buyer under warranty, tort or any other legal theory. If Buyer gives Seller prompt written notice of breach of this warranty within 24 months from beneficial use or 30 months from equipment delivery, whichever occurs first (the "Warranty Period"), Seller shall, at its sole option and as Buyer's sole remedy, repair or replace the subject parts or refund the purchase price therefore. If Seller determines that any claimed breach is not, in fact, covered by this warranty, Buyer shall pay Seller its then customary charges for any repair or replacement made by Seller. Seller's warranty is conditioned on Buyer's (a) operating and maintaining the Equipment in accordance with Seller's instructions, (b) not making any unauthorized repairs or alterations, and (c) not being in default of any payment obligation to Seller. Seller's warranty does not cover damage caused by chemical action or abrasive material, misuse or improper installation (unless installed by Seller). THE WARRANTIES SET FORTH IN THIS SECTION ARE SELLER'S SOLE AND EXCLUSIVE WARRANTIES AND ARE SUBJECT TO SECTION 10 BELOW. SELLER MAKES NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.
7. Indemnity. Seller shall indemnify, defend and hold Buyer harmless from any claim, cause of action or liability incurred by Buyer as a result of third party claims for personal injury, death or damage to tangible property, to the extent caused by Seller's negligence. Seller shall have the sole authority to direct the defense of and settle any indemnified claim. Seller's indemnification is conditioned on Buyer (a) promptly, within the Warranty Period, notifying Seller of any claim, and (b) providing reasonable cooperation in the defense of any claim.
8. Force Majeure. Neither Seller nor Buyer shall have any liability for any breach (except for breach of payment obligations) caused by extreme weather or other act of God, strike or other labor shortage or disturbance, fire, accident, war or civil disturbance, delay of carriers, failure of normal sources of supply, act of government or any other cause beyond such party's reasonable control.
9. Cancellation. If Buyer cancels or suspends its order for any reason other than Seller's breach, Buyer shall promptly pay Seller for work performed prior to cancellation or suspension and any other direct costs incurred by Seller as a result of such cancellation or suspension.
10. LIMITATION OF LIABILITY. NOTWITHSTANDING ANYTHING ELSE TO THE CONTRARY, SELLER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE OR OTHER INDIRECT DAMAGES, AND SELLER'S TOTAL LIABILITY ARISING AT ANY TIME FROM THE SALE OR USE OF THE EQUIPMENT SHALL NOT EXCEED THE PURCHASE PRICE PAID FOR THE EQUIPMENT. THESE LIMITATIONS APPLY WHETHER THE LIABILITY IS BASED ON CONTRACT, TORT, STRICT LIABILITY OR ANY OTHER THEORY.
11. Miscellaneous. If these terms are issued in connection with a government contract, they shall be deemed to include those federal acquisition regulations that are required by law to be included. These terms, together with any quotation, purchase order or acknowledgement issued or signed by the Seller, comprise the complete and exclusive statement of the agreement between the parties (the "Agreement") and supersede any terms contained in Buyer's documents, unless separately signed by Seller. No part of the Agreement may be changed or cancelled except by a written document signed by Seller and Buyer. No course of dealing or performance, usage of trade or failure to enforce any term shall be used to modify the Agreement. If any of these terms is unenforceable, such term shall be limited only to the extent necessary to make it enforceable, and all other terms shall remain in full force and effect. Buyer may not assign or permit any other transfer of the Agreement without Seller's prior written consent. The Agreement shall be governed by the laws of the State of North Carolina without regard to its conflict of laws provisions.

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

BUDGET DATA SHEET - FY 2017 - 2018

PROJECT: Plant High Rate Primary Treatment	LOCATION: MSD-Treatment Plant
TYPE: Treatment Plant	PIPE RATING: N/A
PROJECT NO. 2015054	TOTAL LF: 0
PROJECT BUDGET: \$14,445,441.00	PROJECT ORIGIN: Facilities Plan Update - HDR

DESCRIPTION	ESTIMATED PROJECT COST	TOTAL EXPENDS THRU 12/31/16	EST. COST JAN - JUNE 2017	EST. BUDGET FY 17-18
55310 - PRELIM. ENGINEERING				
55320 - SURVEY - DESIGN	\$3,000.00	\$3,000.00		
55330 - DESIGN	\$1,172,171.00		\$818,171.00	\$354,000.00
55340 - PERMITS				
55350 - SPECIAL STUDIES				
55360 - EASEMENT PLATS				
55370 - LEGAL FEES	\$270.00	\$270.00		
55380 - ACQUISITION SERVICES				
55390 - COMPENSATION				
55400 - APPRAISAL				
55410 - CONDEMNATION				
55420 - CONSTRUCTION	\$12,740,000.00			
55430 - CONST. CONTRACT ADM.	\$510,000.00			
55440 - TESTING	\$20,000.00			
55450 - SURVEY - ASBUILT				
TOTAL AMOUNT	\$14,445,441.00	\$3,270.00	\$818,171.00	\$354,000.00

ENGINEER: CDM	HC	ESTIMATED BUDGETS - FY '19 -'27	
R.O.W. ACQUISITION: N/A	# PLATS: [0]	FY 18-19	\$7,561,000.00
CONTRACTOR:		FY 19-20	\$5,709,000.00
CONSTRUCTION ADM.: TBD		FY 20-21	\$0.00
INSPECTION: TBD		FY 21-22	\$0.00
		FY 22-23	\$0.00
		FY 23-24	\$0.00
PROJECT DESCRIPTION: This project is a recommendation from the Facilities Plan Update, a WRF master planning document completed by HDR in April 2015. High rate primary treatment will improve water quality ahead of the RBC's thereby extending their useful life and improving treatment efficiency.		FY 24-25	\$0.00
		FY 25-26	\$0.00
		FY 26-27	\$0.00

SPECIAL PROJECT NOTES:



RIVERSIDE DR



Plant High Rate Primary Treatment Project No. 2015054

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT
of
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map

Metropolitan Sewerage District of Buncombe County

BOARD ACTION ITEM

BOARD MEETING DATE: 6/14/17

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

REVIEWED BY: Forrest Westall, P.E. - Engineer of Record

PREPARED BY: Ed Bradford, P.E. - Director of Engineering
Hunter Carson, P.E. - Project Engineer

SUBJECT: Consideration of Engineering Contract - French Broad Carrier Bridge
PER, MSD Project Number 2016022

BACKGROUND: This project is for an evaluation and development of a flow model of interceptors running along the French Broad and lower Swannanoa Rivers. The Carrier Bridge Pump Station is an integral part of this system, and its continued performance under current and future conditions will also be evaluated. This includes upsizing & rehabilitation of the station, or its possible elimination with a new gravity interceptor.

The 36-inch interceptor through the Biltmore Estate (@ approximately 22,000 LF) requires additional capacity. This line was installed in the mid-1960's and has never been upsized. This project has already been placed within the District's Ten Year CIP.

This system will be evaluated under current and future flow conditions. Demands on these components of the District's collection system will require large, significant projects; therefore, a 50-year planning horizon will be utilized. The evaluation and planning recommendations will specifically consider future growth, line capacity, constructability, capital costs, and long-term O&M costs.

The final Preliminary Engineering Report (PER) will ultimately provide prioritized recommendations for significant capital projects related to these sections.

In accordance with NCGS 143-64.31 the District advertised a Request for Qualifications for the project, and received responses from Arcadis and CDM Smith. Each firm then gave a presentation reviewing their qualifications and methodology for approaching this project. Both firms possess competent staff, and gave excellent presentations.

After careful review and consideration of each firm's capabilities, experience, and staffing, the selection committee selected CDM Smith as the most qualified engineering consultant to complete the project.

CDM Smith has performed numerous similar studies for other utilities, and has also performed effectively on various projects for the District. CDM Smith completed the District's Comprehensive Master Plan in 2001, and they also have extensive knowledge of the MSD treatment facility. Staff therefore recommends that the District contract with CDM Smith for this PER.

Following the firm selection, CDM Smith prepared a Scope of Work which includes the following services:

- A comprehensive flow meter data analysis
- Development and calibration of a hydraulic model for existing and future dry and wet-weather flow scenarios
- An updated evaluation of the Carrier Bridge Pump Station, including its upsizing & rehabilitation, or elimination
- An Alternatives Analysis
- Preparation of a PER. The PER will include recommended infrastructure improvements, address constructability concerns and permitting requirements, and a schedule for implementation.

CDM Smith's fee for this project is \$519,277.00. Staff believes this is a fair fee based upon the nature and scope of the project. This is a demanding and complex engineering evaluation, and will require an extensive amount of work. It is important to note that significant capital projects will be based upon this study; therefore, a thorough study is crucial for sound planning.

Please refer to the attached documentation, including the CDM Smith Scope of Work, for further details.

FISCAL IMPACT: The FY17-18 budget for this project is \$500,000.00. Sufficient funds are available in the CIP Contingency Fund for the overage.

STAFF RECOMMENDATION: Staff recommends the District enter into an engineering contract with CDM Smith in the amount of \$519,277.00, subject to final review and approval by District Counsel.

Interoffice Memorandum

TO: Tom Hartye, General Manager

FROM: Ed Bradford, Director of Engineering
Hunter Carson, Project Manager

DATE: June 2, 2017

RE: French Broad Interceptor Carrier Bridge Preliminary Engineering Report - Engineering Services Contract, MSD Project Number 2016022

Project Background

In 2001, CDM Smith finalized the MSD *Wastewater System Master Plan*, a comprehensive study that identified system improvements necessary to handle wet-weather conditions, to improve wastewater treatment plant performance, and to prepare the system to handle future wastewater flows. Many of CDM's recommendations from this Plan have been implemented throughout the system and treatment facility over the past 16 years; however, some of the issues still exist.

The French Broad Interceptor Carrier Bridge PER will expand upon the 2001 Master Plan findings by focusing specifically on the heart of MSD's collection system, the French Broad Interceptor and Carrier Bridge Pump Station (CBPS). The French Broad Interceptor is the main sewer line that serves significant areas of eastern, western, and southern Buncombe County, as well as the Cane Creek Water and Sewer District (CCWSD) in Henderson County. Wastewater conveyed through the "South" French Broad Interceptor (which serves southern and western regions of the collection area) flows through CBPS, a 22mgd pump station constructed in 1966. The station pumps under the French Broad River via a 24-inch force main to the "North" French Broad Interceptor located on the east side of the river. There, flow from CBPS converges with flow from the Swannanoa Interceptor, which serves the entire Swannanoa Valley.

Two major hydraulic bottlenecks exist within MSD's interceptor collection system; the 36-inch and 48-inch lines through the Biltmore Estate and along Amboy Road, respectively, and a shorter section of dual 36-inch Swannanoa interceptors, just east of CBPS. Both areas will be further evaluated as part of the PER, as well as the North French Broad Interceptor which conveys sewage to the wastewater treatment plant. The primary concern for these lines, as well as Carrier Bridge Pump Station, is capacity. The French Broad Interceptor system serves a large area and this PER will provide guidance as growth continues. The PER will provide updated recommendations for interceptor lines as well as the CBPS, and prioritize those projects according to capacity needs. Recommended improvements will be appropriately sized based on a 50-year planning window and an emphasis will be placed on the use of corrosion-resistant materials.

Selection of Design Firm

Staff advertised a Request for Qualifications in March 2017 and received responses from two consulting firms – Arcadis and CDM Smith. Both firms had significant experience in wastewater collection system master planning.

The staff selection committee interviewed both firms and carefully considered the various strengths that each offered. Ultimately, CDM Smith was chosen as the most qualified firm for this project.

CDM Smith is an established and well-respected global consulting engineering firm and has successfully performed work for the District, including the 2001 Wastewater System Master Plan, Incinerator System Emissions Upgrade project, and is currently designing the Plant High Rate Primary Treatment project. CDM Smith has extensive experience completing collection system master plans and hydraulic modeling.

Following the firm selection, CDM Smith prepared a Scope of Work document (attached) which includes the following services: a comprehensive flow meter data analysis, development and calibration of a hydraulic model for existing and future dry and wet-weather flow scenarios, an updated evaluation of CBPS, alternatives analysis, and PER. The PER will include recommended infrastructure improvements, address constructability concerns and permitting requirements, and a schedule for implementation. The proposal submitted is in the amount of \$519,277.00.

The FY17-18 special studies budget for this project is \$500,000.00. Staff recommends award of the engineering services contract to CDM Smith, in the amount of \$519,277.00 subject to review and approval by District Counsel

EXHIBIT A
TO AGREEMENT BETWEEN
OWNER AND ENGINEER
SCOPE OF SERVICES

This is an exhibit attached to and made a part of the Agreement dated, _____ 2017, between MSD of Buncombe County (OWNER) and CDM Smith Inc. (ENGINEER) for professional services. ENGINEER will provide project management and preliminary design services for the **French Broad Interceptor and Carrier Bridge Preliminary Engineering Report Project**.

PROJECT DESCRIPTION AND OBJECTIVES

OWNER is a regional wastewater utility serving the greater Asheville, NC area, and serves a population of approximately 125,000 customers. The collection system is comprised of approximately 1,018 miles of pipe which convey raw wastewater to MSD's treatment plant on the French Broad River. The plant currently treats an average daily flow of 19 million gallons per day (mgd) and has a permitted maximum month capacity of 40 mgd. Peak hourly flows of 80 mgd can occur during intense rain events at the treatment plant.

The primary interceptors serving Buncombe County and conveying flow to the treatment plant are located along the French Broad River, the Swannanoa River, and Hominy Creek. The French Broad Interceptor serves significant areas of eastern, western, and southern Buncombe County, as well as the Cane Creek Water and Sewer District (CCWSD) in Northern Henderson County. Flow conveyed through this line from all southern and western areas enters Carrier Bridge, a 22mgd pump station constructed in 1966, and is pumped from the west side of the French Broad River to a discharge manhole on the east side. At the discharge manhole, flow from Carrier Bridge converges with flow from the Swannanoa Interceptor. This line runs along the Swannanoa River and serves the entire Swannanoa Valley, up to and including Ridgecrest, MSD's easternmost collection point. The combined flows from the south French Broad and Swannanoa interceptors continue in the north French Broad Interceptor to the treatment plant. These facilities are shown in **Figure 1** (in red) including major tributary areas, interceptor pipe sizes and flow direction.

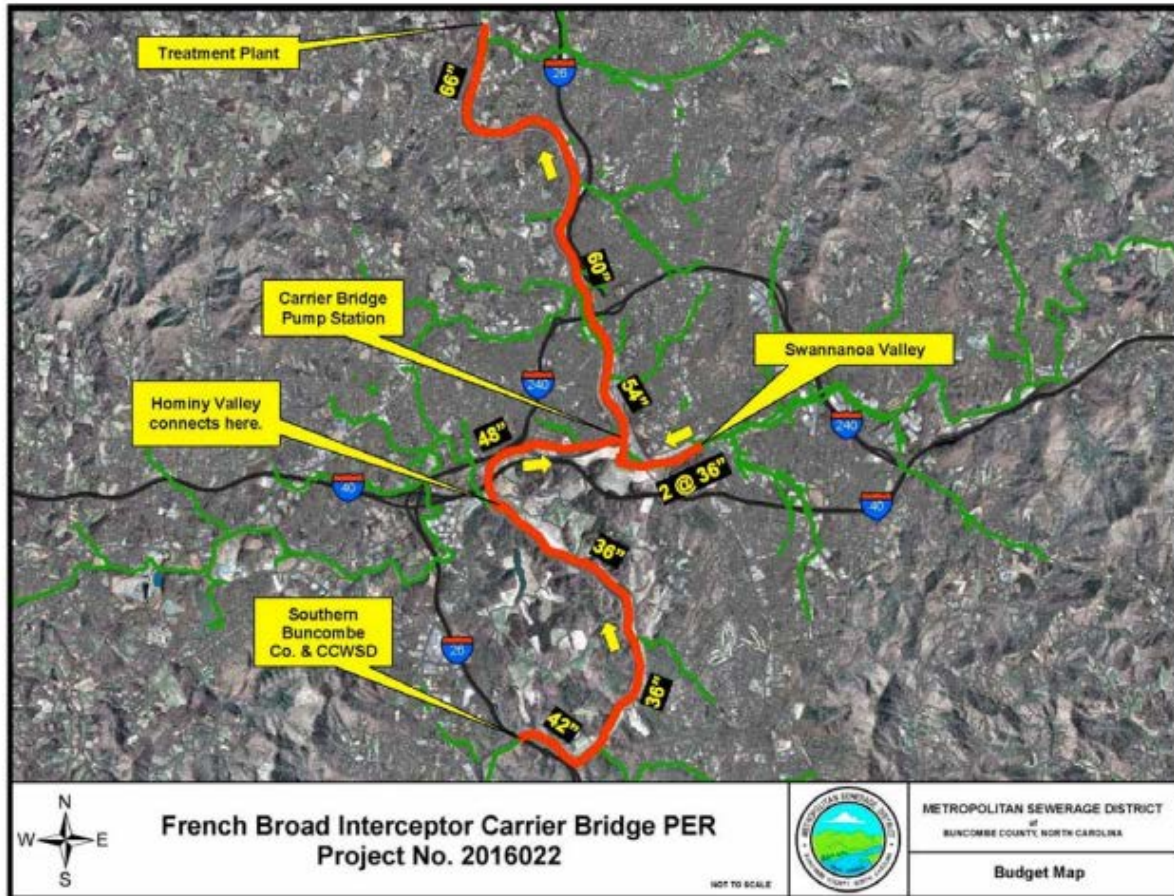


Figure 1: General Scope of Study Area

These primary interceptors and the Carrier Bridge Pump Station have been evaluated in previous reports and studies which identified capacity deficiencies and conveyance restrictions at various locations which require capital improvements to correct to improve system performance and reduce the potential for Sanitary Sewer Overflows (SSOs).

The OWNER desires to re-evaluate the current capabilities of these interceptors and the Carrier Bridge Pump Station, to identify viable alternatives to address these deficiencies and to determine recommended capital improvements to address deficiencies and improve the level of service of these facilities in the future. Basic Services to be provided by the ENGINEER under this Agreement to conduct this work shall be limited to the following:

- Task 100 – Project Management and Meetings
- Task 200 – Data Collection, Existing Flow Meter Data Analysis, and Flow Projections
- Task 300 – Hydraulic Model Development and Calibration
- Task 400 – Carrier Bridge Pump Station Evaluation
- Task 500 – Alternatives Analysis

- Task 600 – Preliminary Engineering Report

The following tasks may be required during the execution of the project depending on execution of Task 100-600 and may be necessary to complete the base scope of work.

- Task 700 – Supplemental Services

The detailed scope of services for the basic services included under this Agreement for Tasks 100 through 600 are as follows:

Task 100 Project Management and Meetings

The project management task includes those activities involved with the detailed planning and subsequent monitoring and control of the project. In addition to the ENGINEER's normal in-house staff management and job tracking procedures, the following subtasks will be considered project management services:

101 Project Kick-Off /Coordination Meeting

A project kick-off meeting will be held with the OWNER to discuss project schedule, administrative procedures, respective responsibilities, communications, OWNER contacts, OWNER expectations, progress reporting, data collection, and other project matters as appropriate. This meeting will also include a final decision on how flow projections will be determined as summarized in Task 200.

102 Deliverable Review Meetings

The ENGINEER shall meet with the OWNER at key milestones and after submittal of the major deliverables on the project as described below. The following milestone meetings are anticipated:

- Flow Meter Analysis Workshop
- Flow Projection and Model Calibration Workshop
- Capacity Analysis Results and Design Criteria Workshop
- Alternatives Analysis Screening and Review Workshop
- Draft Preliminary Engineering Report Workshop

The meetings will serve as a venue to discuss key project issues and to receive OWNER comments before proceeding to the next project milestone. The ENGINEER will issue meeting minutes after each milestone meeting.

103 Project Management

The ENGINEER shall track the overall project scope, schedule and budget during execution of the scope of work. This will include management of the design team, preparation of monthly project invoices and progress reports and coordination with the OWNER on the execution of the work over the anticipated 12-month schedule.

Task 200 Data Collection, Existing Flow Meter Data Analysis, and Flow Projections

201 Data Collection

ENGINEER will compile necessary information to support the system evaluation and preliminary engineering report including existing flow monitoring data, existing survey data, Geographic Information System (GIS) data for the OWNER collection system, existing record drawings of the collection system, land planning reports from Buncombe and Henderson County (as appropriate for the CCWSD), Transportation Analysis Zone (TAZ) data and other data as may be appropriate. It is assumed that the OWNER will provide available existing flow monitoring data in digital format, GIS data in digital format, and other data sets that may be existing and readily available. Additional data may be deemed necessary during the execution of the work as identified in Tasks 700 which is defined further below.

202 Flow Meter Data Analysis

ENGINEER will review the raw data from the OWNER's approximately eleven (11) temporary flow meter data beginning in July 2015 to the data currently available at the start of the project. Other intermittent flow meter data from the OWNER may also be utilized from temporary metering done elsewhere in the collection system if available. Supplemental temporary flow metering may also be required and is described further in Task 700.

ENGINEER will perform hydrograph decomposition to determine the rainfall dependent inflow and infiltration (RDI/I) contributions for a selected model calibration period. Flow hydrographs recorded during the calibration period will be decomposed into their wet weather and base flow components by subtracting the typical base flow hydrograph. R values (defined as the fraction of rainfall over a sewershed that enters the sanitary sewer as RDI/I), peaking factors, and RDI/I per linear foot of sewer will be evaluated. This analysis will reveal the relative RDI/I contributions of various portions of the service area. Radar rainfall data will be purchased by the ENGINEER for the selected calibration period as a means of understanding the rainfall distribution for the storm(s) during the calibration period and thus improving the model calibration.

ENGINEER will perform a correlation analysis between wastewater flows and groundwater elevation and/or river flow and elevation data for the purpose of better understanding the relative frequency of high flow events and their impact on wastewater flows in the OWNER's system. The analysis will be performed using available flow data from OWNER's permanent flow monitors in the wastewater trunk sewer system and from the wastewater treatment plant and pump stations. Available long term groundwater level and river flow and level data from USGS or other sources with long-term data available electronically will be used for the analysis. The correlation results will be used to help develop recommended design conditions to be used for performing the sewer improvements alternatives analysis and for sizing the recommended improvements. As appropriate, the results may also be used to recommend other measures or investigations into potential ways to mitigate the impacts of high river levels on wastewater flows in the OWNER's system. The ENGINEER intends to

engage a UNC-Charlotte professor to perform a mult-variate correlation analysis between flow, groundwater, river stage, and rainfall to assist in analyzing the data for trends in these variables

203 Flow Projections

ENGINEER will collect and analyze the Traffic Analysis Zone (TAZ) population and employee projection data for the service area and use this as a basis for the flow projections. ENGINEER will supplement TAZ data with Buncombe County and Henderson County land plan development data and economic development organization data. ENGINEER will utilize local knowledge and industry standards where applicable, for an initial estimate of unit flow factors (gallons per day (gpd)/acre or gpd/unit) and will check these factors using the flow monitoring data.

ENGINEER will consider development timing for 2025, 2035, and buildout scenarios (buildout will only be considered for future pipe size recommendations not for system evaluation) to provide for a 50-year planning window for the system improvements. Flow projections at these time intervals will be utilized to assist in prioritizing the necessary capital improvements to be defined in Task 600.

The ENGINEER will meet with the OWNER to review the results of the flow meter analysis and flow projection tasks to present the design flows to be utilized for subsequent task described below.

Task 300 Hydraulic Model Development, Calibration, and Capacity Analysis

301 Model Development

The ENGINEER will utilize the OWNER's GIS data to create an updated model infrastructure. It is assumed that the hydrology and subbasin definitions from the previously developed MOUSE (Model for Urban Sewers) will be utilized to the greatest extent possible with only minor adjustments required based on significant changes to the system since the model was last updated. The subbasin definition and hydrology will be combined with the GIS model infrastructure in a new MIKE URBAN model environment. It is assumed that only pipes 18" and larger from the OWNER's GIS dataset will be included in the model.

302 Model Calibration

The newly created MIKEURBAN model will be calibrated to the dry and wet weather flows captured and analyzed under Task 200. ENGINEER will perform a rainfall-frequency analysis of historical rainfall records to determine the appropriate rainfall intensity, duration, and distribution for planning conditions. The calibrated model will be used to predict flows and depths of flow in the MSD interceptor system during the mutually agreed upon design conditions (rainfall, season, and other conditions such as river flow). Future flow projections developed in Task 200 will be used and incorporated into the updated hydraulic model to determine the potential impact of growth on the sizing of recommended improvements. The final calibrated hydraulic model(s) files will be delivered to OWNER at

the completion of the work for their use and updates. Note the budget for this scope of work does not assume that the MIKEURBAN software will be delivered to OWNER.

302 Capacity Analysis

The model will be used to determine available sewer capacity and potential sewers needing additional capacity. Model scenarios will include existing and future dry weather flows in addition to the desired wet weather planning condition. The sewer capacity analysis will result in maps illustrating the percent of full pipe capacity that is used under existing and future conditions. These maps will guide development of the sewer system improvement alternatives that will be evaluated under future project tasks. Note that the focus of subsequent tasks will be the main interceptor sewers and the Carrier Bridge Pump station, conveyance deficiencies upstream of these interceptors will be identified but it is assumed that alternatives to address upstream deficiencies will not be conducted.

ENGINEER will meet with the OWNER to discuss the results of the capacity analysis including selection of design storm for planning purposes and level of service criteria (surcharging) design criteria. Initial alternatives to be evaluated will also be discussed at this meeting that will be utilized in Task 500.

Task 400 Carrier Bridge Pump Station Evaluation

401 Pump Station Evaluation

The ENGINEER will visit the existing Carrier Bridge Pump Station and review available record drawings, Operation and Maintenance Manuals, maintenance records, and the Feasibility Study to Eliminate the Carrier Bridge Pump Station (McGill Assoc. 2012) for the purposes of evaluating the condition of the existing facility. This will include:

- Review of equipment age and condition (pumps, motors, seal water system(s) grinders, valves, etc.)
- Evaluation of the existing wet well and conformance with Hydraulic Institute standards (current at the time of the inspection)
- Structural condition of the wet well and dry well
- Ventilation systems age and condition, compliance with current building code requirements, and compliance with NFPA 820 requirements
- Electrical systems age and condition and compliance with NEC requirements
- Pump Station site including accessibility and flood potential
- Forcemain condition (based on discussions with OWNER staff)

The ENGINEER will also interview OWNER operations staff responsible for the Carrier Bridge Pump Station to document ongoing operations and maintenance issues at the facility and consider these in conjunction with the site visit observations as defined above.

The ENGINEER will prepare a technical memorandum summarizing the evaluation of the existing Carrier Bridge Pump Station and capability to rehabilitate, expand or otherwise improve the facility. The findings of this memorandum will be utilized during Alternatives Analysis (Task 500) to determine the validity of potential options that would require re-use of the existing Carrier Bridge Pump Station.

Task 500 Alternatives Analysis

501 Alternatives Screening Analysis

Prior to beginning the alternatives analysis process, the ENGINEER will review the list of alternatives to be evaluated for improving the conveyance capabilities of the South French Broad Interceptor (SFBI), North French Broad Interceptor (NFBI), Swannanoa Interceptor (SI) and Carrier Bridge Pump Station (CBPS). It is assumed that all alternatives will include similar conveyance/capacity improvements for the SFBI and the SI to convey flows to the confluence of the French Broad River and Swannanoa River. Main variations of alternatives will focus on conveying flows from this confluence to the French Broad River Water Reclamation Facility (WRF). A total of eight (8) different alternatives are assumed to be evaluated for addressing the capacity and conveyance needs from the river confluence to the WRF via the model. These will include a combination of rehabilitation/increase of CBPS capacity, sewer rehabilitation, pumping directly to the WRF, new relief sewer(s) on one or both sides of the French Broad River, crossing of the French Broad River via inverted siphon to eliminate the CBPS, and flow equalization storage/pumping systems at appropriate locations. The specific improvements to each conveyance system/facility will be identified and an alternatives list developed and agreed to by the OWNER and ENGINEER before the alternatives analysis begins.

502 Equalization Basin Sizing and Location

ENGINEER will develop a NetSTORM model to assist in evaluating alternate sizing for storage and pumping facilities within the conveyance system. The NetSTORM model uses a skeletonized configuration of facilities within the conveyance system, simulates flow conditions for the entire available historical rainfall record to analyze the fill/drawdown and overflow characteristics of the proposed equalization storage tank/basin and pumping. ENGINEER will use the NetSTORM model to estimate the frequency, duration, and volume of potential wet weather diversions in and out of storage and evaluate alternatives to reduce such occurrences and related costs. The analysis will include development of wet weather flow statistics (for 2-yr, 5-yr, and 10-yr return period occurrences) and evaluation of the impacts of various basin/pumping capacities. The selected equalization basin/tank sizing will then be utilized in the evaluation of alternatives that include storage.

503 Initial Alternatives Analysis

The hydraulic model, list of identified alternatives, and NetSTORM model results will be used to evaluate planning level improvement alternatives. Up to eight improvement alternatives identified in Task 501 will be evaluated based on achieving the desired design criteria scenario via modeling and desktop analysis. Planning level conceptual cost estimates will be developed as a means of initial comparison of alternatives along with other high level decision criteria such as, public acceptance, constructability and permitability with regulatory agencies. It is anticipated that through a comparison of planning level capital costs and high level decision criteria that the alternatives can be shortlisted to two (2) preferred alternatives.

504 Refined Alternatives Analysis

The ENGINEER will further evaluate the two preferred alternatives by considering the following key elements:

- Additional model runs to refine pipeline sizing
- Pipeline routing options based on GIS maps
- Constructability (evaluated based on a field walk of each alternative with OWNER and ENGINEER staff)
- Equalization tank location considerations (if an alternative with equalization is shortlisted to this task)
- Permitability
- Operations and Maintenance
- Property Acquisition requirements and estimated costs
- Opinion of Probable Construction Cost (more detailed than planning level costs)
- 20-year Life Cycle Cost including operations and maintenance costs where appropriate
- Risk Assessment for construction methods including for crossing the French Broad River

The two shortlisted alternatives will be evaluated on the above criteria and ranked jointly by the ENGINEER and OWNER based on an agreed scoring method to select the overall preferred alternative for conveyance improvements. The ENGINEER will meet with the OWNER to review the above alternatives analysis and finalize the selection of the approved alternative to be recommended.

Task 600 Preliminary Engineering Report

601 Preliminary Engineering Report

The ENGINEER will prepare a Preliminary Engineering Report which will summarize the work conducted under Task 200-500 and will include a phased plan for capital improvements including a combination of planning level cost estimates and detailed cost estimates as appropriate for various conceptual components of the improvements. It is assumed that the main interceptor improvements will have more detail than possible upstream improvements identified via the capacity analysis. This will include the following components depending on the final selected alternative:

- GIS maps of the proposed pipeline alignment and size
- Recommendations regarding pipeline materials of construction for the improvements
- Summary of constructability issues associated with the selected alternative (roadway crossings, railroad crossings, and estimated easement acquisition requirements)
- Major structure locations and junction boxes for the interceptor improvements
- Equalization tank location/size/type (if included in recommended alternative)

- Pump Station Design criteria including – location, wet well configuration, type of pumps, number of pumps, approximate total head condition, motor horsepower and process flow diagram (if included in recommended alternative)
- Recommendation for crossing of the French Broad River (geotechnical investigations are not included in the base scope of work but may be added at a later date via amendment to further evaluate this issue)
- List of anticipated permits to execute the major capital improvements to the interceptor system
- Schedule for implementation of the phased capital improvements plan

The ENGINEER shall provide the OWNER with five hardcopies of the draft Preliminary Engineering Report and one electronic copy as a PDF. After the OWNER reviews the draft Preliminary Engineering Report, the OWNER and ENGINEER shall meet (Task 102) to make final decisions on the recommendations and content of the report. The ENGINEER will provide five hardcopies and one electronic copy as a PDF of the final Preliminary Engineering for the record.

602 Preliminary Engineering Report Technical Review

During the evaluation and recommendations process, the ENGINEER shall conduct one technical review meeting to ensure that the recommendations are technically sound and complete. This review meeting shall be attended by a Technical Review Committee (TRC) of senior engineers experienced with conveyance and collection system capacity analysis and design.

Task 700 Supplemental Services

701 Supplemental Survey

The ENGINEER will review the OWNER's GIS information as defined under Task 200 to verify that appropriate collection system information is available for all critical components such as pipe diameters, manhole rim elevation, pipe invert elevations, etc. Should information be missing that is critical to the evaluation of the system, supplemental survey information may be required. The extents and requirements for this work is undefined, the ENGINEER proposes for this work, if required, to be completed on a time and materials basis with a survey subconsultant who will collect the necessary information with survey grade GPS accuracy to include rim elevation, horizontal position (x/y/z coordinates), ground elevation, invert elevations, pipe diameter, and orientation. Delivery will be electronically in a format that can be input into GIS per OWNER requirements. ENGINEER will manage the subcontractor, check the results and input revised data in to the model.

Prior to this work being conducted a fee proposal and scope will be developed and agreed to in writing by OWNER and ENGINEER for authorization of this work.

702 Pipeline Condition Assessment

Should investigations conducted as part of Tasks 100-600 reveal that sewer rehabilitation is a viable alternative for addressing capacity issues, the ENGINEER can provide condition

assessment services. Prior to this work being conducted a fee proposal and scope will be developed and agreed to in writing by OWNER and ENGINEER for authorization of this work.

703 Supplemental Temporary Flow Monitoring

The work to be performed under Task 200 will utilize the OWNER's existing flow monitoring data. Additional flow monitoring data may be needed to develop the model or to refine the calibration of the model for final sizing of the selected alternative. Should this data be necessary the ENGINEER will identify the location(s) for the supplemental flow monitoring. The OWNER may deploy their temporary flow meters to collect the information or the ENGINEER may subcontract additional monitoring to a specialty subcontractor. If this supplemental flow monitoring is performed, additional scope authorization will be required for ENGINEER to analyze this data, purchase additional radar rainfall data, update calibration of the model (if required) and update future flow projections (if required). Prior to this work being conducted a fee proposal and scope will be developed and agreed to in writing by OWNER and ENGINEER for authorization of this work.

ASSUMPTIONS

The scope above and proposed fee for providing services is based on the following assumptions:

- Field survey of existing manholes is not included in the base scope of work.
- A maximum of 8 initial alternatives will be identified for conveyance improvements from the confluence of the French Broad River and Swannanoa interceptors.
- A maximum of 2 preferred alternatives will be carried forward for in depth analysis prior to alternative selection.
- The existing subbasin definition and hydrology within the existing MOUSE model is suitable for re-use with new model infrastructure.
- Additional temporary flow monitoring is not required for the model development and initial calibration.
- Radar rainfall is available for service area and time period of the temporary flow monitoring data provided by the OWNER.

SERVICES PROVIDED BY THE OWNER

- The OWNER will provide temporary flow data to be used for model calibration and validation in digital format for use by the ENGINEER
- The OWNER will provide access to their GIS data to be used as the basis for the model infrastructure. The ENGINEER will rely upon this data for the basis of the model.
- The OWNER will provide data related to the Carrier Bridge pumping station (available record drawings, pump and motor information, drawdown test results, study documents, etc.).
- The OWNER will provide access to facilities for execution of the work including the Carrier Bridge Pump Station.

- The OWNER will provide record drawings, operations and maintenance manuals and other available data as appropriate for execution of the work.
- The OWNER will provide timely review and input on deliverables or at appropriate milestones to facilitate completion of the work.

SCHEDULE

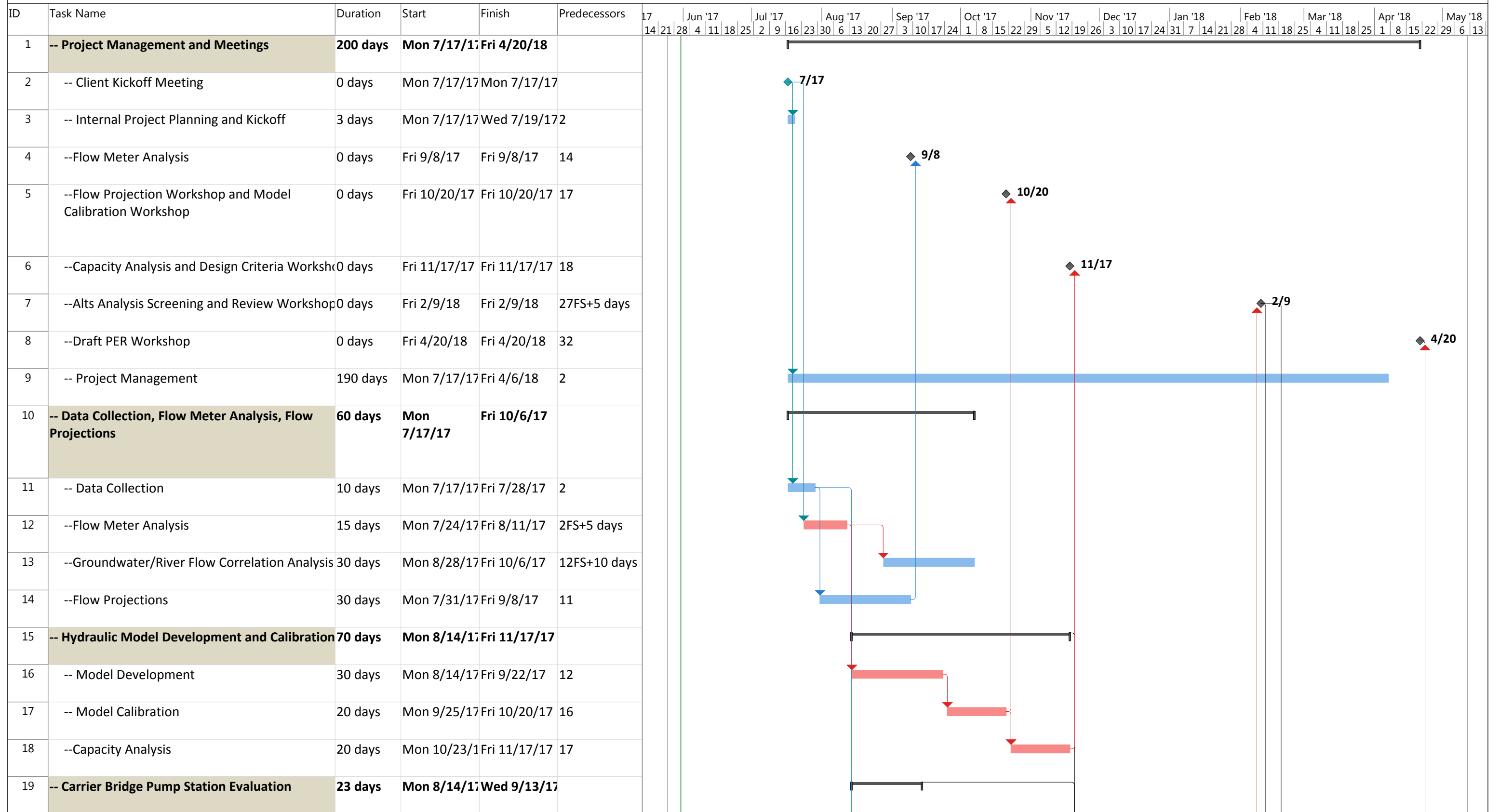
The proposed schedule for implementing this study is summarized in the attached schedule.

PAYMENT AND COMPENSATION

For the services described above, OWNER agrees to pay ENGINEER a lump sum fee of \$498,894.00_. The estimated schedule of values associated with each task is shown in Table 1 below; however, these values do not represent upper limits for each task. Partial payments are to be made monthly according to the percentage of work completed during that month with the balance due upon completion of the work. Task 700 services are not included in the base scope of fee estimate below but may be added by amendment at a later date.

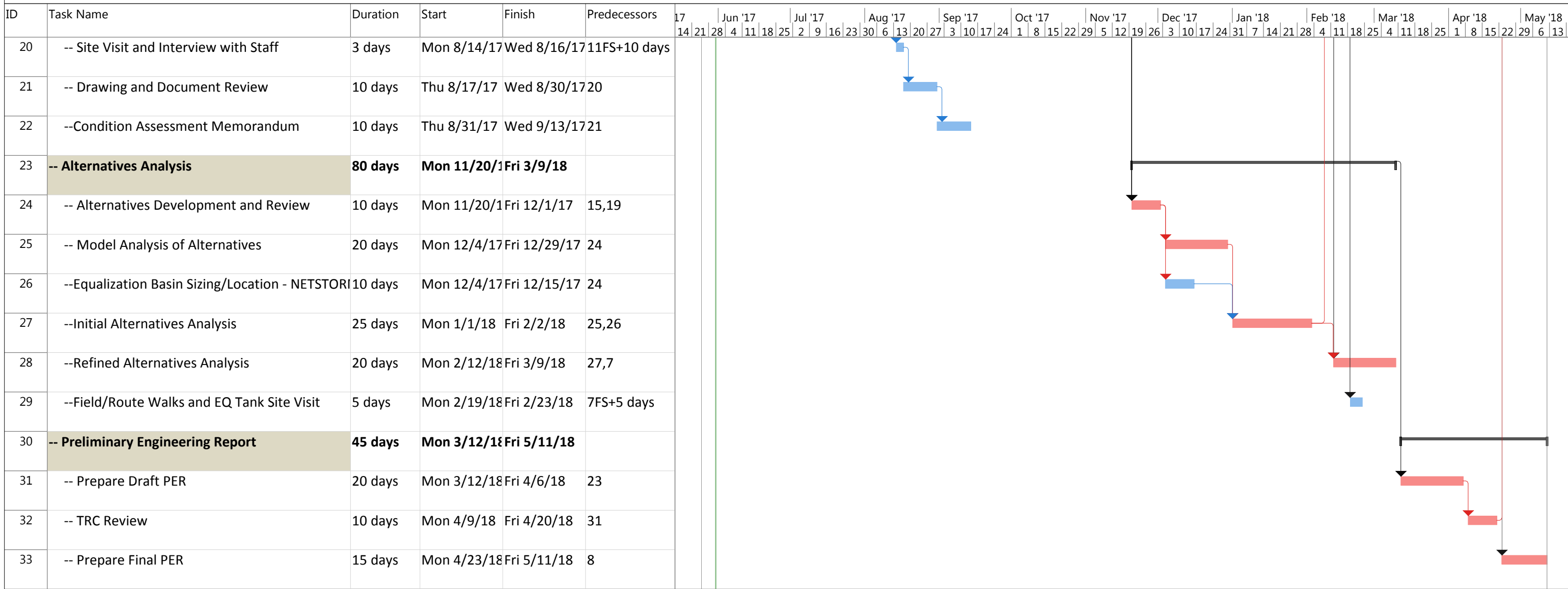
Table 1 - Proposed Services Fees	Estimated Compensation
Task 100 - Project Management and Meetings	\$63,740.00
Task 200 - Data Collection, Existing Flow Meter Analysis and Flow Projections	\$101,479.00
Task 300 - Hydraulic Model Development and Calibration	\$106,765.00
Task 400 - Carrier Bridge Pump Station Evaluation	\$20,373.00
Task 500 - Alternatives Analysis	\$135,922.00
Task 600 - Preliminary Engineering Report	\$90,998.00
Subtotal	\$519,277.00

Buncombe County MSD
 French Broad Interceptor and Carrier Bridge Pump Station
 Study and Preliminary Engineering Report
 Project Schedule



Schedule Date: Wed 5/31/17

Buncombe County MSD
 French Broad Interceptor and Carrier Bridge Pump Station
 Study and Preliminary Engineering Report
 Project Schedule



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

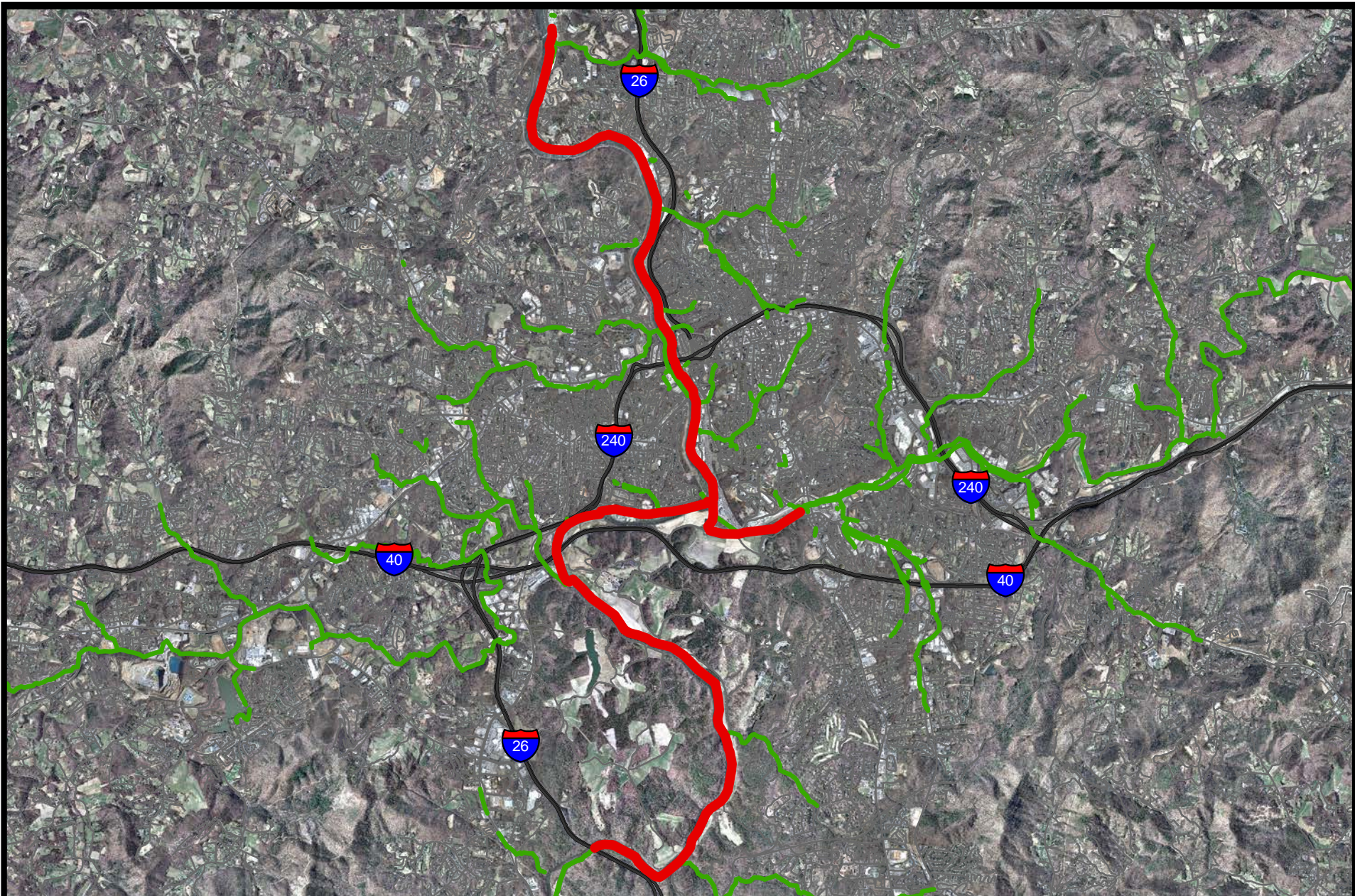
BUDGET DATA SHEET - FY 2017 - 2018

PROJECT: French Broad Carrier Bridge PER	LOCATION: Buncombe County
TYPE: Treatment Plant	PIPE RATING: N/A
PROJECT NO. 2016022	TOTAL LF: 0
PROJECT BUDGET: \$500,000.00	PROJECT ORIGIN: Future Planning

DESCRIPTION	ESTIMATED PROJECT COST	TOTAL EXPENDS THRU 12/31/16	EST. COST JAN - JUNE 2017	BUDGET FY 17-18
55310 - PRELIM. ENGINEERING				
55320 - SURVEY - DESIGN				
55330 - DESIGN				
55340 - PERMITS				
55350 - SPECIAL STUDIES	\$500,000.00			\$500,000.00
55360 - EASEMENT PLATS				
55370 - LEGAL FEES				
55380 - ACQUISITION SERVICES				
55390 - COMPENSATION				
55400 - APPRAISAL				
55410 - CONDEMNATION				
55420 - CONSTRUCTION				
55430 - CONST. CONTRACT ADM.				
55440 - TESTING				
55450 - SURVEY - ASBUILT				
TOTAL AMOUNT	\$500,000.00	\$0.00	\$0.00	\$500,000.00

ENGINEER: TBD	HC	ESTIMATED BUDGETS - FY '19 -'27	
R.O.W. ACQUISITION: N/A	# PLATS: [0]	FY 18-19	\$0.00
CONTRACTOR:		FY 19-20	\$0.00
CONSTRUCTION ADM: TBD		FY 20-21	\$0.00
INSPECTION: N/A		FY 21-22	\$0.00
		FY 22-23	\$0.00
		FY 23-24	\$0.00
PROJECT DESCRIPTION: This will be a flow modeling evaluation of several large sewer interceptors in the South French Broad, Lower Swannanoa, and Carrier Bridge areas. The study will identify undersized lines based on current and future flow, and will include phased recommendations for improvements.		FY 24-25	\$0.00
		FY 25-26	\$0.00
		FY 26-27	\$0.00

SPECIAL PROJECT NOTES:



**French Broad Interceptor Carrier Bridge PER
Project No. 2016022**

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT
of
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map

Metropolitan Sewerage District of Buncombe County

BOARD ACTION ITEM

BOARD MEETING DATE: June 14, 2017

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

REVIEWED BY: Billy Clarke, Esq. - District Counsel

PREPARED BY: Ed Bradford, P.E. - Director of Engineering
Hunter Carson, P.E. - Project Manager

SUBJECT: Consideration of Equipment Sole Source: Carrier Bridge Pump Station Grinder, MSD Project No. 2017060

BACKGROUND: The Carrier Bridge Pump Station is the largest pump station in the collection system, with a capacity of 22.6 million gallons per day (mgd). There are currently two large grinders which protect the pumps from trash and debris. These are located within two channels after the flow enters the station.

There is also a third (center) channel which does not have a grinder but rather simple “bars” to protect the pumps. During low flows the center channel is unused. During high flows, however, the center channel is used but has to be continuously monitored and manually cleaned of debris. In all flow conditions, the two existing grinders create head-loss, which causes slower flows through the station.

Installing a third grinder will provide the following benefits:

- 1) Head-loss will be reduced under all flow conditions, such that flow through the station will be improved.
- 2) The interceptor along the French Broad River which flows into the station will be less prone to “backwater” since flows can more easily pass through the station.
- 3) An improvement to worker-safety, in that the existing bar screen will not have to be continuously monitored and manually cleaned by workers during high flow events.

Staff sought quotes from three grinder manufactures (JWC Environmental, Vogelsang, and Franklin Miller). Only Franklin Miller manufactures a grinder which has the required capacity and that will fit into the existing channel. In addition, staff visited Greensboro, which has a similar grinder, to verify performance and durability, with favorable comments from Greensboro staff.

Staff therefore recommends that the District purchase a Franklin Miller Model DM-T36S Dimminutor, for \$113,219.00.

Please refer to the attached documentation for further details.

FISCAL IMPACT: The FY17-18 Construction Budget for this project is \$192,000.00, which also includes funding for replacement/repair of the existing grinder units.

STAFF RECOMMENDATION: Staff recommends that the District sole-source purchase a Franklin Miller Model DM-T36S Dimminutor, based upon the fact that:

- 1) Performance competition is not available; and
- 2) The grinder with the required characteristics and performance is available from only one source of supply; and
- 3) Compatibility and fitment within the existing concrete channel is an overriding consideration.

Interoffice Memorandum

TO: Tom Hartye, General Manager

FROM: Ed Bradford, CIP Manager
Hunter Carson, Project Manager

DATE: May 26, 2017

RE: Carrier Bridge Pump Station Grinder Replacement, MSD Project No. 2017060

The Carrier Bridge Pump Station is MSD's largest sewer pump station with a rated capacity of 22.6mgd. This station accepts flow from MSD's southern and western collection areas and pumps it under the French Broad River to a gravity interceptor on the east side of the river. Average daily peak flow through the station is approximately 7mgd.

Carrier Bridge has two existing channel grinder units upstream of the pumps which reduce the size of solids entering the station. During heavy rain events (approximately 13mgd and above), these grinders become inundated with flow and are unable to effectively pass the incoming raw sewage. As a result, the units become blinded causing water levels in the influent channel to rise and overflow into a coarse-screened center (bypass) channel. The screened channel (which has a bar screen with 2-inch spacing) does provide some level of protection to the downstream pumps; however, large solids and rags still pass through the screens, endangering the pumps. During high flow events when the bar screen is being utilized, MSD staff must frequent the site to manually remove accumulated debris in order to avoid backups and SSOs upstream.

To alleviate these concerns and potential damage to the pumps, a third grinder unit will be installed in the center channel to increase overall grinder capacity to a level that more closely matches pump capacity. The installation of a third grinder (which is expected to pass approximately 12mgd) will lower water levels in the station's inlet channel and upstream interceptor(s), reducing the possibility of manhole surcharging and overflows. The grinder will also produce a more suitable product for the downstream pumps.

Three sewage grinder manufacturers were solicited for proposals (JWC Environmental, Vogelsang, and Franklin Miller) for the center channel unit; however, JWC Environmental and Vogelsang declined stating that they do not manufacturer units within the desired flow range and channel dimensions. Therefore, the Franklin Miller Model DM-T36S Dimminutor was selected. A proposal was received from Combs Associates Inc. (Franklin Miller sales representative) for one (1) grinder on May 16, 2017 in the amount of **\$113,219.00**. This proposal includes the grinder and all appurtenances, as well as startup services. Having no previous installations in MSD's collection system, MSD Staff visited Greensboro, NC to witness a similarly sized unit in service and to discuss O&M with staff. Positive feedback was received.

In addition to the Franklin Miller unit, the Carrier Bridge P.S. Grinder Replacement project also includes replacement of the two existing "side channel" grinders with identical units. The FY 17/18 budget amount for this project, including installation is \$192,000.00.

Staff recommends that the District move forward with procurement of one Franklin Miller Model DM-T36S Dimminutor contingent upon review and approval by District Counsel.

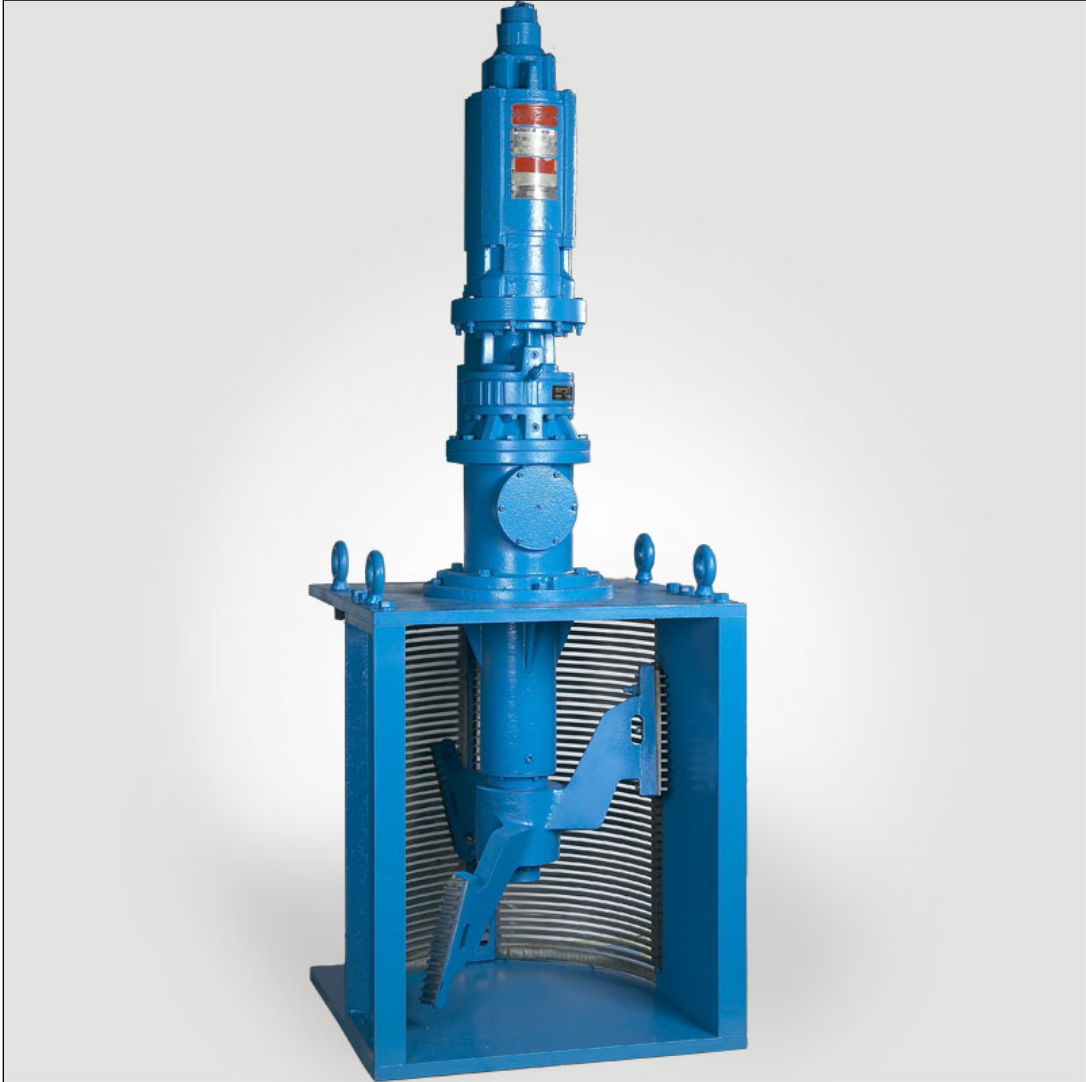


Image: Franklin Miller

The above image shows a Franklin Miller Dimminutor.



Franklin Miller Inc.
 60 Okner Parkway
 Livingston, NJ 07039 USA
 Tel 973-535-9200
 Fax 973-535-6269
 info@franklinmiller.com

Quote No: 36576B

May 16, 2017

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 ZZ213018

Metropolitan Sewer District

2028 Riverside Dr.
 Asheville, NC 28804 USA

Your Local Representative:

Combs Associates Inc.
 Attn: Greg Everhart
 Tel: 804-559-4259
 email: gweverhart@comcast.net

Salesperson:

Thomas Zangoglia, Salesman
 tomz@franklinmiller.com

We are pleased to quote on the following model DM36:

Quantity	Description	Price	Totals
<i>Ref: Matl: WASTEWATER Max: 17.2 MGD</i>			
1	EA Model DM-T36S Dimminutor® Open Channel Comminutor including: - Heavy-Duty Body Housing - Ductile Iron - Cantilevered Drive design - Mechanical seal -located above cutters - Stationary And Rotary Cutters - Hardened SS - Sizing Screens - Heavy-Duty Stainless Steel Construction - Painted 2 Coats Heavy Epoxy Coating - Osha Blue - Modified design to narrow machine width (43.5")		
1	EA Drive and Motor Including: - Cycloidal Gear Reducer - Grease Lubricated - Motor: 3HP Subm Expl. Proof (IP68) 3 ph, 60 hz. 230/460v. - 60 Ft. Cable - Flexible Coupling		
1	EA Automatic Reversing Controller, Model S25060 - Nema 4X FRP Enclosure - PLC logic control, IEC starters - LED Indicators - for long life - Current Sensing Auto-Reversing Program		
1	EA CF1000S Internal Channel Frame For DM36-304SS		
1	DY Startup Services If more than one day, Days are Consecutive. Normal Day Rate includes up to 8 hours,		
			Total Lump Sum: \$113,219.00

Prices are Valid Until Monday, July 31, 2017
 Terms: Net 30 days from shipment (subject of approval by Franklin Miller, Inc. Accounting Dept.).
 Freight Allowed to Jobsite.



Franklin Miller Inc.
60 Okner Parkway
Livingston, NJ 07039 USA

Tel 973-535-9200
Fax 973-535-6269
info@franklinmiller.com

Quote No: 36576B

May 16, 2017

Page 2 of 4

ZZ213018

Freight & Sales Tax (CA, NY, NJ) if applicable, will be added to Invoice.

Shipment 12 weeks after receipt of final submittals.

Thank you for this opportunity to be of service.

This quote is subject to Franklin Miller Standard Warranty, Terms and Conditions attached. Prices do not include applicable taxes.

FRANKLIN MILLER INC.

TERMS AND CONDITIONS DATED 7/31/08

1. **ENTIRE AGREEMENT** Any order resulting from a Franklin Miller (SELLER) proposal shall be bound by the following Terms and Conditions. Any exception to these Terms and Conditions by the BUYER shall not be binding on Franklin Miller unless agreed to in writing upon the parties hereto, their successors and assigned.

2. **LIMITED WARRANTY** SELLER warrants the goods sold hereunder to be free from defects in material and workmanship under normal use and service not arising from misuse, negligence or accident, or unauthorized modification of the equipment, in connection with the use, installation, and transportation of the goods by BUYER, its agents, servants, employees or by carriers. SELLER's obligations under this warranty are limited to remedying any deficiencies in the goods at such place or places in the United States of America as may be designated by SELLER. This warranty shall pertain to any part or parts of any goods to which BUYER has, within (12) months after date of shipment given written notice of a claimed defect to the SELLER. The BUYER shall be required to furnish SELLER with details of such defects and this warranty shall be effective as to such goods which upon SELLER's examination shall disclose to its satisfaction to have been defective and which at SELLER's option shall be repaired in place if required for a warranty repair. The BUYER at his expense shall make available in a suitable location for repair by SELLER or promptly thereafter be returned to SELLER, at BUYER's, or its nominees expense. If upon examination it is determined by the SELLER that the repair or replacement does not fall within the Warranty as set forth in this clause, an estimate for cost of repair will be provided to the BUYER. This warranty is expressly in lieu of all other warranties expressed or implied. In no event shall the SELLER be liable to the BUYER or to any other person for any loss or damage, direct or indirect, arising out of or caused by the use or operation of the goods, or for the loss of profits, business, or good will. Under no circumstance will SELLER be liable for any of the following: (1) third party claims against BUYER for losses or damages including liquidated damages; (2) loss of or damage to BUYER's records or data; or (3) economic consequential damages (including loss of profits or savings) or incidental damages even if SELLER is informed of their possibility. Excluded from the warranty herein are (a) defects in parts or components not manufactured directly by SELLER; Franklin Miller will, however, pass on the remaining balance of the purchased equipment manufacturer's warranty; (b) or not part of SELLER's standard design or are supplied pursuant to special BUYER's requirements; © certain parts which are subject to wear and tear from abrasive action or use thereof; and (d) any part that has been subjected to misuse. SELLER's liability is limited to furnishing or repairing at SELLER's option parts determined by SELLER to be defective. No express warranties and no implied warranties, whether of merchantability or fitness for any particular use, or otherwise (except as to title), other than those expressly set forth above which are made expressly in lieu of all other warranties, shall apply to products sold by us, and no waiver, alteration, or modification of the foregoing conditions shall be valid unless made in writing and signed by an executive officer of our corporation. If the buyer is in default of Clause 6 (Payment of Purchase Price) this warranty is null and void unless reinstated by SELLER.

3. **FORCE MAJEURE** The obligation of SELLER hereunder shall be modified or excused as the case may be, for reasons of Act of God, War, Governmental law or regulations, strikes or lock-outs, fire, breakdown of machinery, whether in its own business enterprise, or if for any other cause beyond SELLER's control, the goods cannot be delivered or their delivery becomes delayed in whole or in part. In the above instances, time for delivery shall be extended for the period of the delay caused, with the proviso, however, that either party may cancel in writing the undelivered portion of the order or contract if the delay exceeds six (6) months from the delivery date originally confirmed by SELLER. In no event shall SELLER become liable in the aforesaid instances to BUYER or any third party for consequential damages, liquidated damages, particularly described in ARTICLE 2 herein.

4. **DELIVERY** (a) All quoted delivery dates and/or periods are approximate. Unless otherwise agreed, delivery of the goods is F.O.B. Factory or (EX WORKS - INCOTERMS 2000) to any common carrier shall constitute delivery to BUYER, and thereafter the risk of loss or damage to the goods shall be upon BUYER.

5. SHORTAGE OR DAMAGE OF DESTINATION SHIPMENTS

(a) Any claims of shortage or damage on destination shipments must be made in writing within ten (10) days after delivery of the goods (as to which such claim is made) to SELLER or its nominees, but in no event shall the claim be later than within the time limit provided by the carrier or insurance company, otherwise such claim shall be deemed waived.

6. PAYMENT OF PURCHASE PRICE

(a) Time of payment is of the essence under this contract. Unless stated elsewhere, the terms are Net 30. Upon default by BUYER in any of the terms of this contract, or failure to comply with any of the conditions hereof, or upon seizure of the property under execution or other legal process, or if BUYER becomes bankrupt or insolvent, or any petition for reorganization or for a state court receivership is filed against BUYER, or if the BUYER makes any assignment for the benefit of his creditors or otherwise sells, encumbers or disposes of the merchandise, or if for any other reason the SELLER should deem itself insecure, the full amount of the purchase price then remaining unpaid shall at once become due and payable at the option of the SELLER. Then, at its option, SELLER may take possession of any goods theretofore sold to BUYER, in connection with which the full purchase price has not been paid, analogous to the terms and provisions set forth herein.

(b) **TERMS OF PAYMENT** - All orders are subject to credit approval by the SELLER. If approved for full open account, terms are strictly unless stated elsewhere and Net thirty (30) days from date of shipment. Retainage if required by OWNER shall be no more than 5% of the purchase price. Retainage shall be released and paid in full no later than 120 days after satisfactory start up of the SELLER's equipment. All shipments, including partial shipments, will be billed a pro rate amount as of date shipped. If the account remains unpaid after sixty (60) days, interest at the rate of 1-1/2% per month (18% per annum) will be added to the outstanding balance computed from date of shipment. All costs of collection will be added to the outstanding balance including legal fees, court costs and such other costs as may be required to effect collection. Acceptance of partial payments on account does not constitute any change in the payment terms and conditions herein and is not to be considered to extend the due date for payment.

7. SECURITY INTEREST AND TITLE

In states and localities which are governed by the Uniform Commercial Code, this contract shall serve as the security agreement, reserving in SELLER a security interest until full payment of purchase price. The provisions of the Uniform Commercial Code regarding security interest shall have preference and apply if inconsistent with other terms of the conditions of sale herein. In states and localities where the Uniform Commercial Code does not apply, title to the merchandise shall remain in the SELLER or its assigns until full payment of the purchase price. BUYER agrees to execute forthwith any and all documents in such form as SELLER may require for filing or recording the security interest under the Uniform Commercial Code with the proper registers or offices, or for filing or recording the conditional sales contract.

8. VARIATIONS IN DUTIES AND TAXES & RATE OF EXCHANGE

The prices on the products specified are exclusive of all city, state or federal taxes. BUYER shall bear any increases, after the date of this contract, in or any new imposition of duties, levies or taxes relating to the product sold hereunder. Unless a Sales Tax Exemption Certificate is provided, Franklin Miller, Inc. will invoice for the New Jersey Sales Tax on all items sold in New Jersey. Franklin Miller, Inc. is not authorized to collect sales tax for any other jurisdiction.

9. CANCELLATION

An order once placed with and accepted by SELLER can be cancelled only with our consent and upon terms that will indemnify SELLER against loss.

10. STOP WORK ORDER OR DELAY:

If an engineering approval, release to manufacturer, shipment or work on any part of this contract is held or delayed by buyer for greater than 120 days from the date of contract, SELLER is entitled to an increase in contract price to cover cost escalations caused by such delay.

FRANKLIN MILLER INC.

TERMS AND CONDITIONS DATED 7/31/08

11. MISCELLANEOUS PROVISIONS

- (a) If for any reason a provision of the contract is legally invalid, then in such event the rest of the contract shall remain in full force and effect.
- (b) Any amendment to any contract or contracts shall require the consent in writing of both parties.
- (c) The within terms shall govern in any instance where they conflict with the provisions of any forms used by BUYER.

12. BUYER'S RESPONSIBILITY AS TO MAINTENANCE

BUYER shall use and shall require its employees and agents to use all safety devices and guard safe operating procedures and shall maintain the same in proper working order BUYER shall further obey and have its employees and agents obey safety instructions given by SELLER. BUYER agrees to indemnify and save SELLER harmless from any liability or obligation with regard to any personal injuries or property damages directly or indirectly connected with the operation of the equipment. BUYER further agrees to notify SELLER promptly and in any event not later than ten (10) days after notice or knowledge of any accident or malfunction involving SELLER's equipment which has caused personal injury or property damages and to cooperate fully with SELLER in investigating and determining the causes of such accident and malfunction.

13. REPAIR OBLIGATION FOR CONTAMINATED EQUIPMENT

Nothing herein shall be deemed to require SELLER to accept for repair, modification or alteration, if, in fact, such repair, modification or alteration is required of SELLER pursuant to the terms of this agreement or otherwise and, if, in fact, SELLER unless the units shall first have been decontaminated and free from any contamination whatsoever.

14. NOISE LEVEL REQUIREMENTS

Although SELLER's machines have been designed to satisfy the general requirements of BUYER's specifications, SELLER cannot represent or certify that they satisfy the noise level requirements for a specific application, location or operation since these circumstances are unknown to SELLER and are beyond SELLER's control and because of the general nature of size reduction equipment. If required to test for this noise level requirement, testing will be with no product fed to the machine and FMI will provide a quote for each test to be performed. If corrections are required after completion of the tests, the costs for these modifications will be negotiated.

15. OSHA CONDITIONS

Although SELLER's machines and guards have been designed to satisfy the general intentions of OSHA requirements, SELLER cannot present or certify that they satisfy the requirements of OSHA for a specific application, location, or operation since these circumstances are unknown to SELLER and are beyond SELLER's control. The SELLER shall not be liable for any costs of compliance or other costs or fines resulting from non-compliance with any OSHA requirement.

16. DOCUMENTS REQUIRED

Prices quoted include the required number copies required by the specifications. If not stated, Franklin Miller, Inc. shall provide our standard Operations and Maintenance Manuals. Any additional manuals are not included in the quoted price and shall be charged to BUYER.

17. PATENT AND LICENSE & LIABILITY INDEMNIFICATION

BUYER agrees to indemnify SELLER, its agents, successors and assigns against any loss, damage and liability, including costs and expenses arising out of any claim against SELLER for actual or alleged infringement on any patent, copyright or trademark arising out of the use or sale by BUYER, its agents, servants, employees or customers of the product provided by SELLER, as used by BUYER, in conjunction with any other equipment, product or system. BUYER agrees to indemnify SELLER, its agents, successors and assigns against any loss, damage and liability, including costs and expenses arising out of any claim against SELLER for actual or "Bodily injury" or "property damage" arising from the actual, alleged or threatened discharge, dispersal, release or escape of pollutants from any source whatsoever. "Pollutants" means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed. vapor, soot, fumes,

18. TRADEMARKS AND COPYRIGHTS

BUYER acknowledges that it has no right, title or interest in the trademarks or copyrights in the products, and BUYER covenants that it will take no action to register or otherwise interfere with such rights.

19. INDEPENDENT CONTRACTORS

SELLER and BUYER are independent contractors. BUYER is not authorized to and shall not make any representations on behalf of which are binding upon SELLER.

20. NON-ASSIGNMENT BY BUYER

Contract or contracts may not be assigned by the BUYER without prior written consent of the SELLER.

21. APPLICABLE LAW

Any contracts herein are governed by the applicable laws of the State of New Jersey.

22. BUYER APPROVALS

If BUYER approval is required of the Franklin Miller submittals, specifications and/or operating instructions submissions, upon receipt of such approval, the approved documents shall supersede the BUYER's description of requirements on this purchase order and the description on the original Franklin Miller proposal. Franklin Miller will provide equipment, spares and data in accordance with the approved submittals.

23. STANDARD PRODUCTS

All of Franklin Miller machines are built to best commercial practices and as part of our standard product line, which may be modified to meet BUYER's Specifications. However, no manufacturing drawings or procedure, formal inspection plans, welding procedures, quality control plans, sub-supplier information, etc. will be supplied. No formal schedule, progress reports, copies of sub-supplier orders, etc. will be supplied. Erection, safety, operation and maintenance instructions are contained in our manual to be supplied with the machines.

24. SIZES AND DIMENSIONS

The samples, measurements, dimensions and weights contained in the SELLER's catalogs, sales manuals, photographs and drawings constitute only an approximate guide. The SELLER reserves the right to make any changes which the SELLER, in its absolute discretion, considers necessary.

25. ARBITRATION

Actions by the SELLER for nonpayment by the BUYER of the undisputed purchase price of goods sold by the SELLER, or for redress for other undisputed breaches by the purchaser of the contract of sale, may be brought by the Seller before any judicial court of competent jurisdiction without need for prior arbitration. All other disputes, controversies, or claims arising out of or relating to this agreement or the performance or breach thereof shall be settled by arbitration by an arbitrator mutually agreeable to be held in the County of Essex, State of New Jersey in accordance with the rules and procedure then obtaining of the American Arbitration Association.

26. FORUM.

ALL JUDICIAL PROCEEDING AND/OR ARBITRATION BROUGHT AGAINST BORROWER ARISING OUT OF OR RELATING TO THIS NOTE MAY BE BROUGHT IN ANY STATE OR FEDERAL COURT OF COMPETENT JURISDICTION IN THE STATE OF NEW JERSEY, AND BY EXECUTION AND DELIVERY OF THIS AGREEMENT BUYER ACCEPTS FOR ITSELF AND IN CONNECTION WITH ITS PROPERTIES, GENERALLY AND UNCONDITIONALLY, THE JURISDICTION OF THE AFORESAID COURTS AND FORUM FOR ARBITRATION AND WAIVES ANY DEFENSE OF FORUM NON CONVENIENS AND IRREVOCABLY AGREES TO BE BOUND BY ANY JUDGMENT RENDERED THEREBY IN CONNECTION WITH THIS AGREEMENT. Buyer hereby agrees that service of process sufficient for personal jurisdiction in any action against Buyer in the State of New Jersey may be made by registered or certified mail, return receipt requested, to Buyer at its address as provided by Buyer. Buyer hereby acknowledges that such service shall be effective and binding in every respect.

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

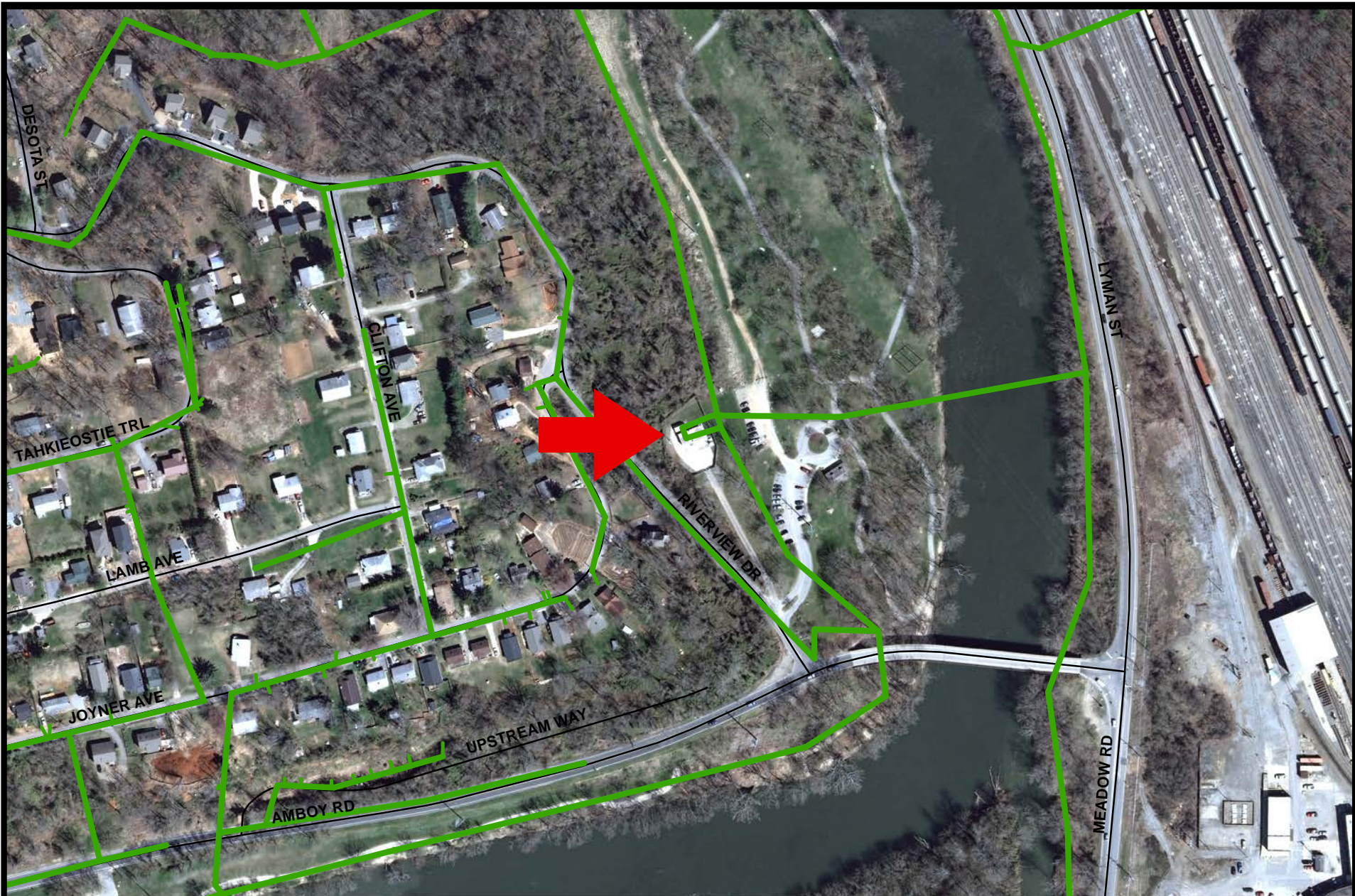
BUDGET DATA SHEET - FY 2017 - 2018

PROJECT:	Carrier Bridge P.S. Grinder Replacement	LOCATION:	MSD-Treatment Plant
TYPE:	Treatment Plant	PIPE RATING:	N/A
PROJECT NO.	2017060	TOTAL LF:	0
PROJECT BUDGET:	\$192,000.00	PROJECT ORIGIN:	Failing Equipment

DESCRIPTION	ESTIMATED PROJECT COST	TOTAL EXPENDS THRU 12/31/16	EST. COST JAN - JUNE 2017	EST. BUDGET FY 17-18
55310 - PRELIM. ENGINEERING				
55320 - SURVEY - DESIGN				
55330 - DESIGN				
55340 - PERMITS				
55350 - SPECIAL STUDIES				
55360 - EASEMENT PLATS				
55370 - LEGAL FEES				
55380 - ACQUISITION SERVICES				
55390 - COMPENSATION				
55400 - APPRAISAL				
55410 - CONDEMNATION				
55420 - CONSTRUCTION	\$192,000.00			\$192,000.00
55430 - CONST. CONTRACT ADM.				
55440 - TESTING				
55450 - SURVEY - ASBUILT				
TOTAL AMOUNT	\$192,000.00	\$0.00	\$0.00	\$192,000.00

ENGINEER:	MSD	HC	ESTIMATED BUDGETS - FY '19 -'27	
R.O.W. ACQUISITION:		# PLATS: [0]	FY 18-19	\$0.00
CONTRACTOR:			FY 19-20	\$0.00
CONSTRUCTION ADM.:	MSD		FY 20-21	\$0.00
INSPECTION:	MSD		FY 21-22	\$0.00
			FY 22-23	\$0.00
PROJECT DESCRIPTION: Carrier Bridge Pump Station has two existing channel grinder units upstream of the pumps which reduce the size of solids entering the station. The existing units have a tendency to blind and create surcharged conditions in the upstream interceptor. The units will be replaced with low headloss units and a third unit will be installed to convey additional flow into the pump station wetwell.			FY 23-24	\$0.00
			FY 24-25	\$0.00
			FY 25-26	\$0.00
			FY 26-27	\$0.00

SPECIAL PROJECT NOTES:



Carrier Bridge PS Grinder Replacement Project No. 2017060

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT
of
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map

Metropolitan Sewerage District of Buncombe County

Board Action Item

BOARD MEETING DATE: June 14, 2017

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

REVIEWED BY: Ed Bradford, P.E. - Engineering Director

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

SUBJECT: Acceptance of Developer Constructed Sewer System for Hall Avenue (aka Emmett Lane), MSD Project No. 2015035

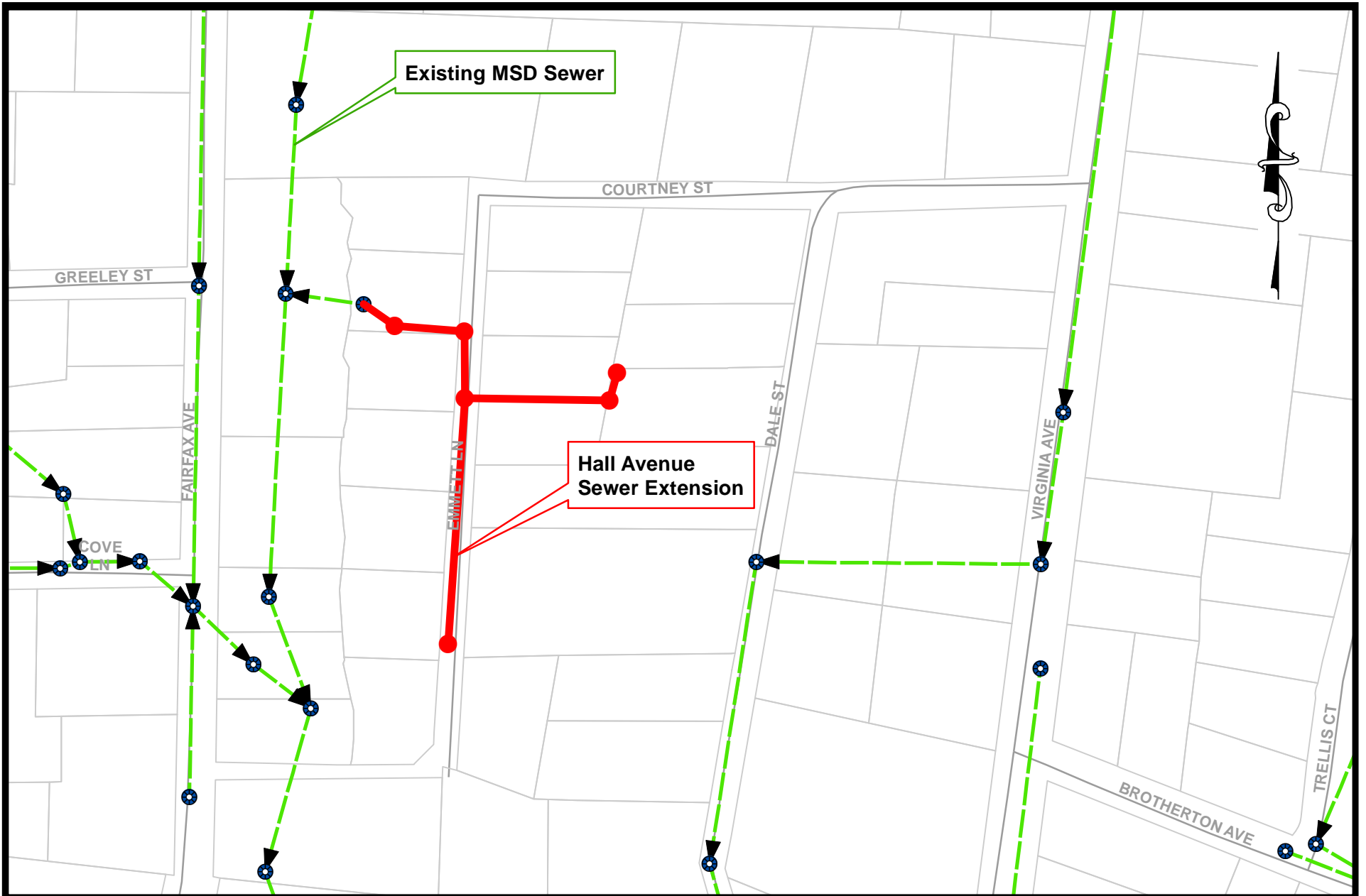
BACKGROUND: This project is located inside the District boundary along Emmett Lane in the City of Asheville. The developer for this project is Karen Gleason of KGTM Holdings, LLC.

The project included extending approximately 329 linear feet of 8-inch public gravity sewer and upgrading approximately 127 linear feet of private sewer to serve the development.

A wastewater allocation was issued in the amount of 2,400 GPD for the eight (8) unit residential development. The estimated cost of the sewer construction is \$52,950.00.

All MSD requirements have been met.

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



MSD
Engineering Division

**Hall Avenue Sewer Extension
MSD Project # 2015035**

Metropolitan Sewerage District of Buncombe County

06/01/2017

Metropolitan Sewerage District of Buncombe County

BOARD INFORMATION ITEM

BOARD MEETING DATE: 6/14/17

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

PREPARED BY: Mike Stamey, P.E. - Director of System Services Construction
Scott Powell, CLGFO – Director of Finance

SUBJECT: Report on MSD Paving Agreement with City of Asheville
Project Number 2002101

BACKGROUND: This agreement is for asphalt and concrete (patching) restoration of *public roads and sidewalks* within the Asheville City Limits which have a size of approximately 300 SF or less. This restoration work is the result of District in-house maintenance and rehabilitation activities on the sewer system.

Prior to FY 12, all pavement and sidewalk restoration after MSD work was performed by contractors. This process worked well, with the exception of administrative & permitting issues concerning City of Asheville streets. With these concerns in mind, the City and the District entered an agreement on July 1, 2011 wherein the District would pay the City an annual contribution to a Paving Enterprise Fund and all pavement restoration would be performed by the City's in-house paving crews. This agreement was executed between MSD and the City for both the FY 12 and FY 13 years.

During these two contract years, the City crews provided excellent service relating to asphalt and concrete patching for the subject roadways, especially for the cuts of approximately 300 SF or less. Asphalt restoration for projects larger than 300 SF however was found to be very costly and difficult to complete by City crews in a timely manner due to workload.

As such, MSD and the City worked together in the spring of 2013 to facilitate an annually renewing agreement which provided greater efficiency and economic feasibility for both sides. The details of the agreement include City crews performing asphalt and concrete patching restoration work for MSD within City Right of Ways for areas of approximately 300 SF or less. In areas greater than 300 SF and for asphalt overlays, MSD contracts out the pavement restoration. For this agreement the City provides monthly reports to MSD and MSD makes monthly payments for completed restoration work. Additionally, MSD is not required to pay permit fees.

This annually renewing agreement was approved by the MSD Board at the June 12, 2013 meeting. For FY 18, the District's monetary contribution for this agreement is \$389,760.00. This amount is based upon usage for the complete FY 16 year with a total patching area of 20,000 SF.

The District must still contract out for paving overlays and patches in the City which exceed approximately 300 SF and for all paving work for the remaining areas outside the Asheville City Limits / Right of Ways.

FISCAL IMPACT: The FY 18 budget estimate for this item was \$389,760.00.

STAFF RECOMMENDATION: None. Information Only

Metropolitan Sewerage District of Buncombe County

BOARD ACTION ITEM

BOARD MEETING DATE: 6/14/2017

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

PREPARED BY: Mike Stamey, PE – Director of System Services Construction

SUBJECT: MSD FY18 Non City of Asheville Road ROW Paving Restoration Contract Project No. 2002101

BACKGROUND: This contract is for the restoration of roads, driveways, and sidewalks resulting from District maintenance activities for areas outside of the City of Asheville Road Right of Ways. These activities are both planned (i.e. taps for new connections or small repairs), and unplanned (i.e. emergency repairs to the system).

The contractor is required to handle all aspects of each repair - which include mobilization to each site within 24 hours; that the repair quality is made to public standards; and that a two-year warranty is provided on all work.

District staff performs limited repairs of this type as time and resources allow. In addition, for larger in-house rehabilitation projects, the paving work is competitively bid on a per-project basis.

At the June 15, 2016 MSD Board meeting the subject Non-City contract for FY17 was presented to the MSD Board. French Broad Paving, Inc. was the low bidder with a bid of \$217,075.00. Their bid was approved on that date. The contract, as presented to the Board, included a provision to renew for a period of one additional year if in MSD's best interest. This renewal clause was contingent upon terms and conditions, including unit costs, being the same.

Based on the above provisions being in place, this contract will be renewed for FY 18 with French Broad Paving, Inc in the amount of \$308,545.00. This amount is based on unit pricing being the same as the FY17 contract, but does include an asphalt quantity increase. This is due to an increased workload experienced in FY 17.

French Broad Paving, Inc. has agreed to the renewal conditions. This contract renewal process has also been reviewed and approved by District Counsel.

FISCAL IMPACT: The FY18 System Services CIP Construction budget includes appropriate funding for this item.

STAFF RECOMMENDATION: None. Information only

Metropolitan Sewerage District of Buncombe County Board Action Item

Meeting Date: June 14, 2017

Subject: Renewal of Contract FY18 - Sodium Hypochlorite Contract

Prepared by: Peter Weed; Director – WRF Treatment and Maintenance
Roger Edwards; Operations Manager – WRF
Julie Willingham, CLGPO; Purchasing Supervisor

Reviewed by: Tom Hartye, PE; General Manager
W. Scott Powell, CLGFO; Finance Director
Billy Clarke; District Counsel

Background: The Water Reclamation Facility is required to disinfect the effluent prior to discharge to the French Broad River. Liquid sodium hypochlorite is used for this purpose. Current contracted cost for sodium hypochlorite is \$0.60/gallon, with an estimated expenditure for FY17 - based on 200,000 gallons usage - of \$120,000.00.

At the June 15, 2016, MSD Board Meeting, bids for the Sodium Hypochlorite Contract for FY17 was presented to the Board. Oltrin Solutions was the lowest bidder at \$0.60/gallon. The contract, as presented to the Board, included a provision to renew it for one additional year if in the best interest of MSD. This renewal clause was contingent upon all terms and conditions, including price, being the same.

Oltrin Solutions has agreed to the renewal conditions; therefore, this contract will be renewed for FY18 at an estimated amount of \$120,000.00 – within the levels budgeted by the WRF.

Oltrin Solutions has been a supplier of sodium hypochlorite to MSD in past years. MSD staff is comfortable with the quality of the chemicals, and the customer service supplied by Oltrin Solutions.

Fiscal Impact: This is a Unit Price Contract, without minimum or maximum quantities. Based on an estimated use of 200,000 gallons at \$0.60/gallon, FY18 expenditures for Sodium Hypochlorite is anticipated to be \$120,000.00, within the levels budgeted by the WRF.

Staff Recommendation: None. For Information Only.

Metropolitan Sewerage District of Buncombe County Board Action Item

Meeting Date: June 14, 2017

Subject: Renewal of Contract FY18 – Calcium Nitrate Solution for Odor and Hydrogen Sulfide Control Contract

Prepared by: Peter Weed; Director – WRF Treatment and Maintenance
Monty Payne; Field Operations Manager
Julie Willingham, CLGPO; Purchasing Supervisor

Reviewed by: Tom Hartye, PE; General Manager
W. Scott Powell, CLGFO; Finance Director
Billy Clarke; District Counsel

Background: MSD has been using a calcium nitrate based solution for the last few years to control hydrogen sulfide formation in the South French Broad Interceptor. Hydrogen sulfide is formed in wastewater after bacteria has used most of the available oxygen. It has a predominate rotten egg odor and is easily broken out of the wastewater. When in the air space in a sewer line, it also converts to sulfuric acid which erodes the inside of sewer pipes. Calcium nitrate has proven to be effective in combating the formation of hydrogen sulfide and preventing the degradation of the collection system.

At the June 15, 2016, MSD Board Meeting, bids for the Calcium Nitrate Solution Contract for FY17 was presented to the Board. Southern Environmental Systems was the lowest bidder at \$1.99/gallon. The contract, as presented to the Board, included a provision to renew it for one additional year if in the best interest of MSD. This renewal clause was contingent upon all terms and conditions, including price, being the same.

Southern Environmental Systems has agreed to the renewal conditions; therefore, this contract will be renewed for FY18 at an estimated amount of \$179,100.00 – within the levels budgeted by the WRF.

Southern Environmental Systems has been a supplier of calcium nitrate solution to MSD for a number of years. MSD staff is comfortable with the quality of the chemicals, and the customer service supplied by Southern Environmental Systems.

Fiscal Impact: This is a Unit Price Contract, without minimum or maximum quantities. Based on an estimated use of 90,000 gallons at \$1.99/gallon, the FY18 for calcium nitrate solution is anticipated to be \$179,100.00 and is within levels budgeted by the WRF.

Staff Recommendation: None. For Information Only.

Metropolitan Sewerage District of Buncombe County

BOARD INFORMATIONAL ITEM

Meeting Date: June 14, 2017

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 April 30, 2017

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 April 30, 2017 were \$53,139,031. The detailed listing of accounts is available upon request. The average rate of return for all investments is 0.617%. 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 April 30, 2017 do not reflect contractual commitments or encumbrances against said funds. Shown below are the total investments as of April 30, 2017 reduced by contractual commitments, bond funds, and District reserve funds. The balance available for future capital outlay is \$26,649,175.

Total Cash & Investments as of 04/30/2017		53,139,031
Less:		
Budgeted Commitments (Required to pay remaining FY17 budgeted expenditures from unrestricted cash)		
Construction Funds	(11,667,527)	
Operations & Maintenance Fund	<u>(3,425,377)</u>	
		(15,092,904)
Bond Restricted Funds		
Bond Service (Funds held by trustee):		
Funds in Principal & Interest Accounts	(35,834)	
FY17 Principal & Interest Due	<u>(5,760,964)</u>	
		(5,796,798)
District Reserve Funds		
Fleet Replacement	(523,490)	
Pump Replacement	(62,296)	
WWTP Replacement	(485,382)	
Maintenance Reserve	<u>(962,083)</u>	
		(2,033,251)
District Insurance Funds		
General Liability	(533,606)	
Worker's Compensation	(257,806)	
Post-Retirement Benefit	(1,497,133)	
Self-Funded Employee Medical	<u>(1,278,358)</u>	
		(3,566,903)
Designated for Capital Outlay		<u><u>26,649,175</u></u>

Staff Recommendation

None. Information Only.

Action Taken

Motion by:

Second by:

Other:

Follow-up Required:

to

Approve
Table

Person Required:

Disapprove

Send to Committee

Deadline:

Metropolitan Sewerage District of Buncombe County Investment Portfolio

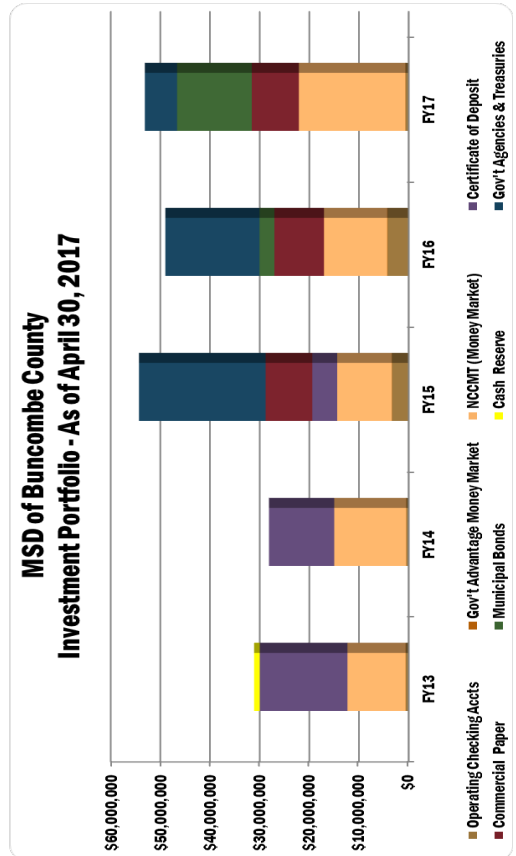
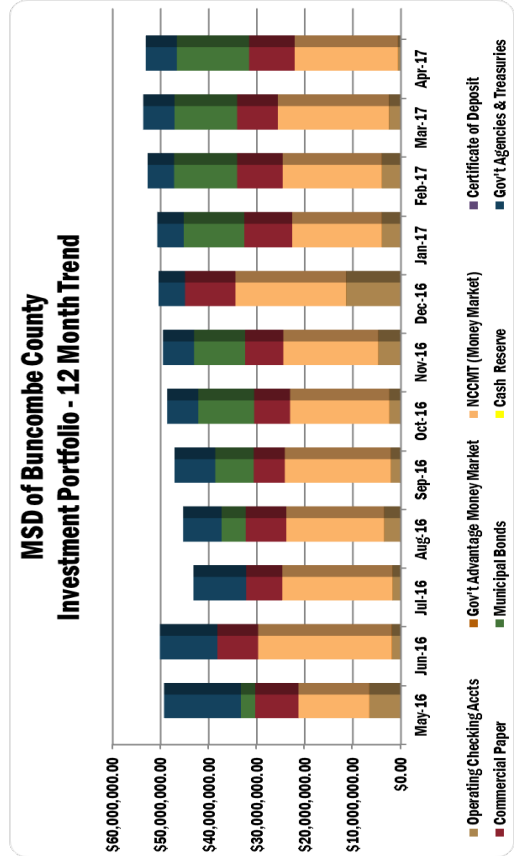
Operating Checking Accounts	Gov't Advantage Money Market	NCCMT (Money Market)	Certificate of Deposit	Commercial Paper	Municipal Bonds	Cash Reserve	Gov't Agencies & Treasuries	Total
\$ 608,463	\$ 46,672	\$ 21,404,614	\$ 35,834	\$ 9,489,198	\$ 15,055,000	\$ -	\$ 6,499,250	\$ 53,103,197
\$ 608,463	\$ 46,672	\$ 21,440,448	\$ -	\$ 9,489,198	\$ 15,055,000	\$ -	\$ 6,499,250	\$ 53,139,031

Investment Policy Asset Allocation	Maximum Percent	Actual Percent
U.S. Government Treasuries, Agencies and Instrumentalities	100%	12.23%
Bankers' Acceptances	20%	0.00%
Certificates of Deposit	100%	0.00%
Commercial Paper	20%	17.86%
Municipal Bonds	100%	28.33%
North Carolina Capital Management Trust	100%	40.34%
Checking Accounts:		
Operating Checking Accounts	1.15%	
Gov't Advantage Money Market	0.09%	

No significant changes in the investment portfolio as to makeup or total amount.

The District's YTM of .97% is exceeding the YTM benchmarks of the 6 month T-Bill and NCCMT Cash Portfolio.

All funds invested in CD's, operating checking accounts, Gov't Advantage money market are fully collateralized with the State Treasurer.

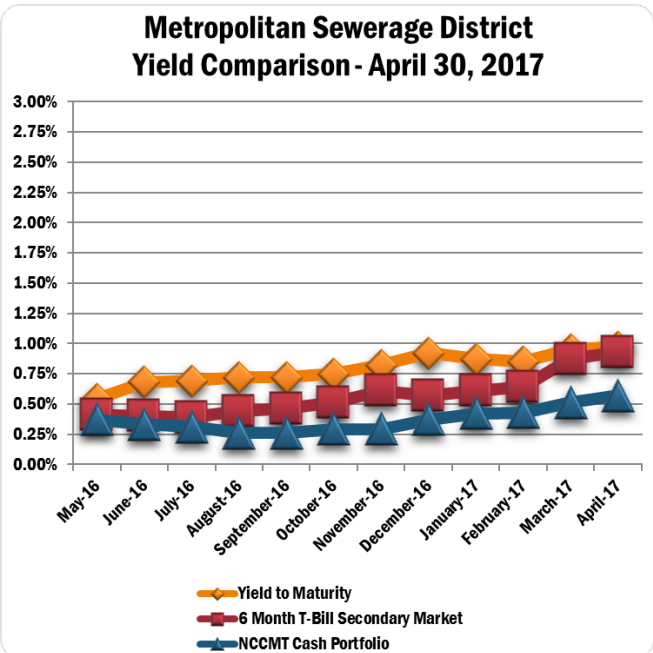
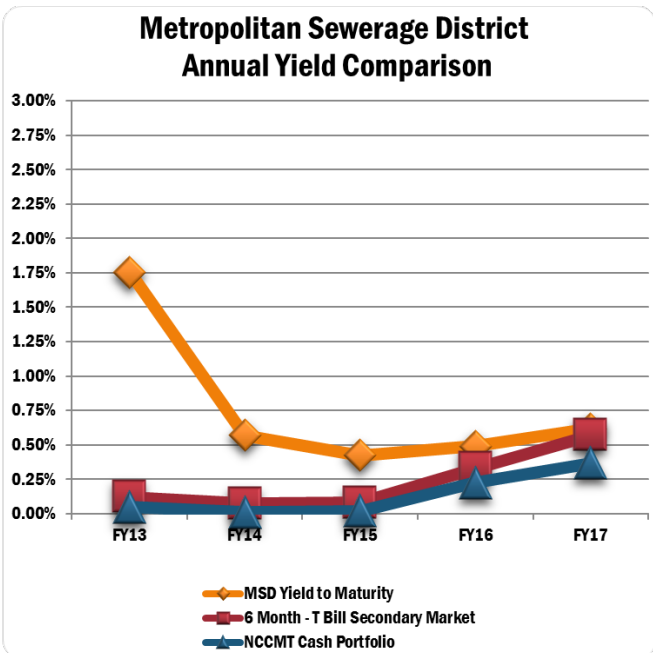


**METROPOLITAN SEWERAGE DISTRICT
 INVESTMENT MANAGERS' REPORT
 At April 30, 2017**

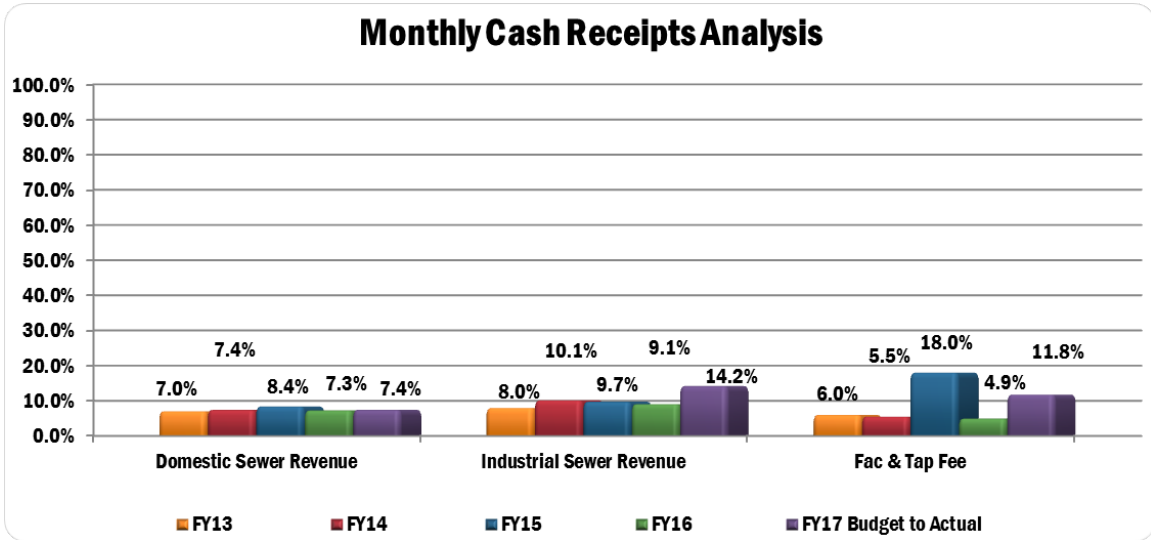
Summary of Asset Transactions			
	Original Cost	Market	Interest Receivable
Beginning Balance	\$ 49,362,502	\$ 49,376,305	\$ 16,023
Capital Contributed (Withdrawn)	854,830	854,830	
Realized Income	19,639	19,639	(5,813)
Unrealized/Accrued Income		15,448	19,042
Ending Balance	\$ 50,236,971	\$ 50,266,223	\$ 29,252

Value and Income by Maturity			
	Original Cost	Income	
Cash Equivalents <91 Days	\$ 43,737,721	\$ 42,066	
Securities/CD's 91 to 365 Days	1,000,000	962	
Securities/CD's > 1 Year	5,499,250	5,289	
	\$ 50,236,971	\$ 48,316	

Month End Portfolio Information	
Weighted Average Maturity	170
Yield to Maturity	0.97%
6 Month T-Bill Secondary Market	0.93%
NCCMT Cash Portfolio	0.57%

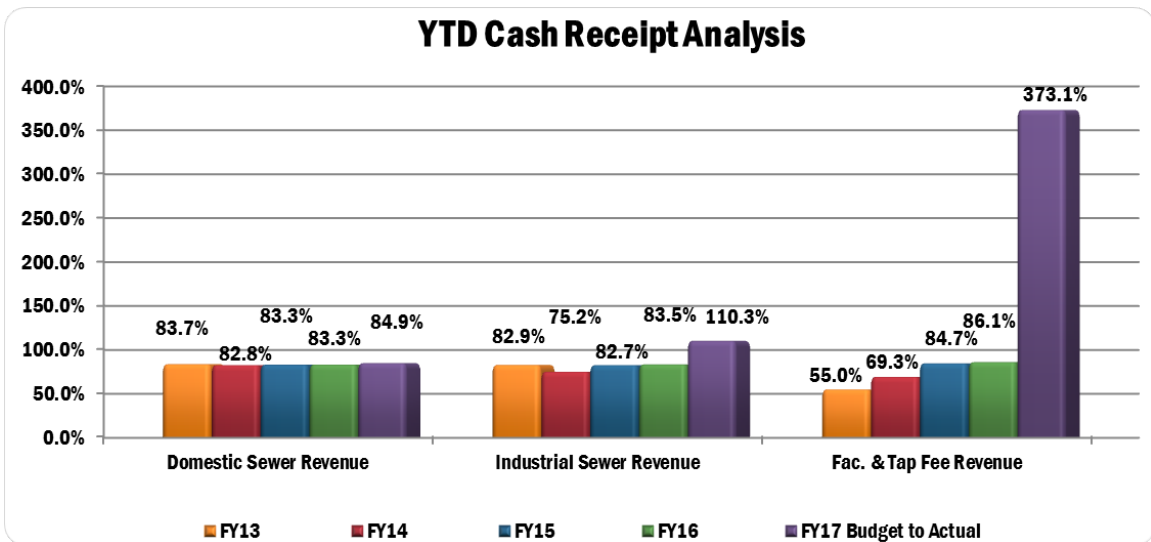


METROPOLITAN SEWERAGE DISTRICT
 ANALYSIS OF CASH RECEIPTS
 As of April 30, 2017



Monthly Cash Receipts Analysis:

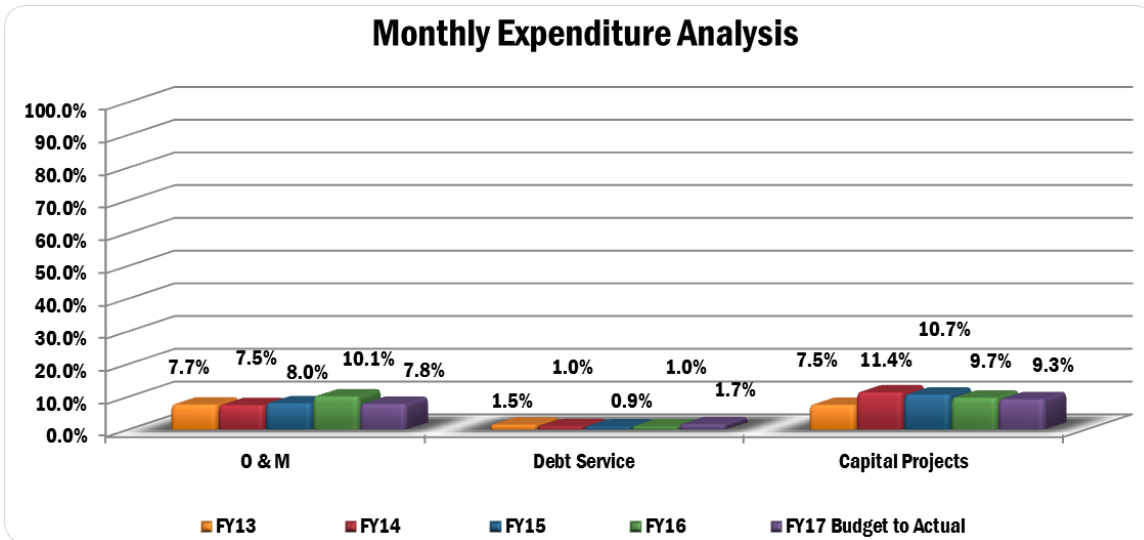
- ▲ Monthly domestic sewer revenue is considered reasonable based on timing of cash receipts in their respective fiscal periods.
- ▲ Monthly industrial sewer revenue is reasonable based on historical trends.
- ▲ Due to the unpredictable nature of facility and tap fee revenue, staff considers facility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



YTD Actual Revenue Analysis:

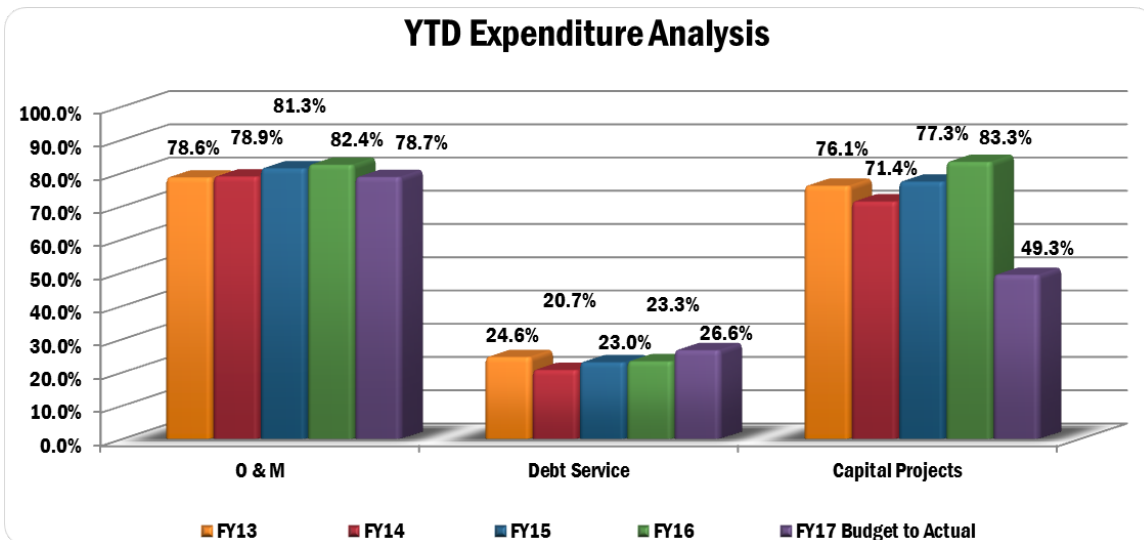
- ▲ YTD domestic sewer revenue is considered reasonable based on historical trends.
- ▲ YTD industrial sewer revenue is reasonable based on historical trends.
- ▲ Due to the unpredictable nature of facility and tap fee revenue, staff considers facility and tap fee revenue reasonable.

METROPOLITAN SEWERAGE DISTRICT
 ANALYSIS OF EXPENDITURES
 As of April 30, 2017



Monthly Expenditure Analysis:

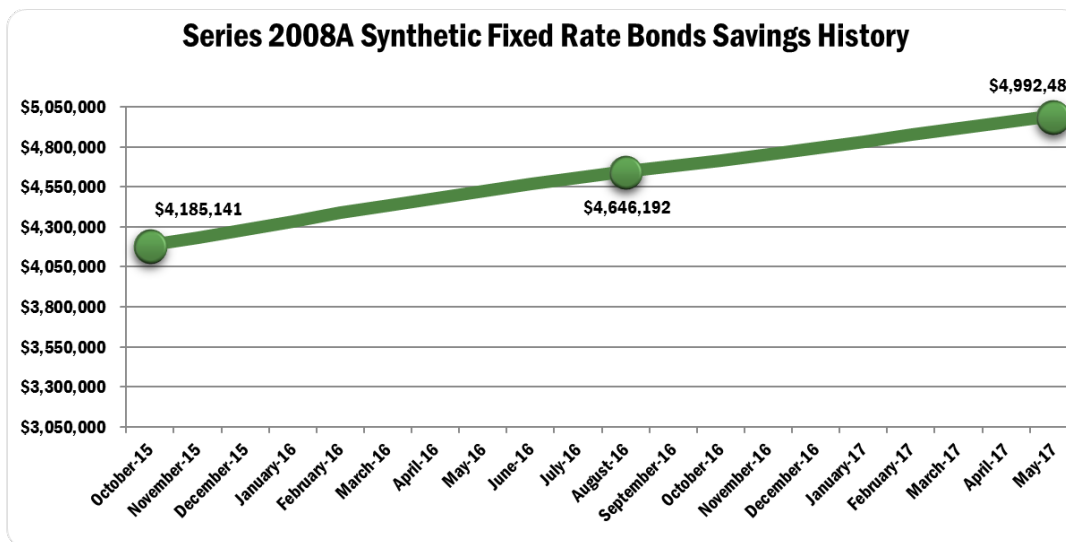
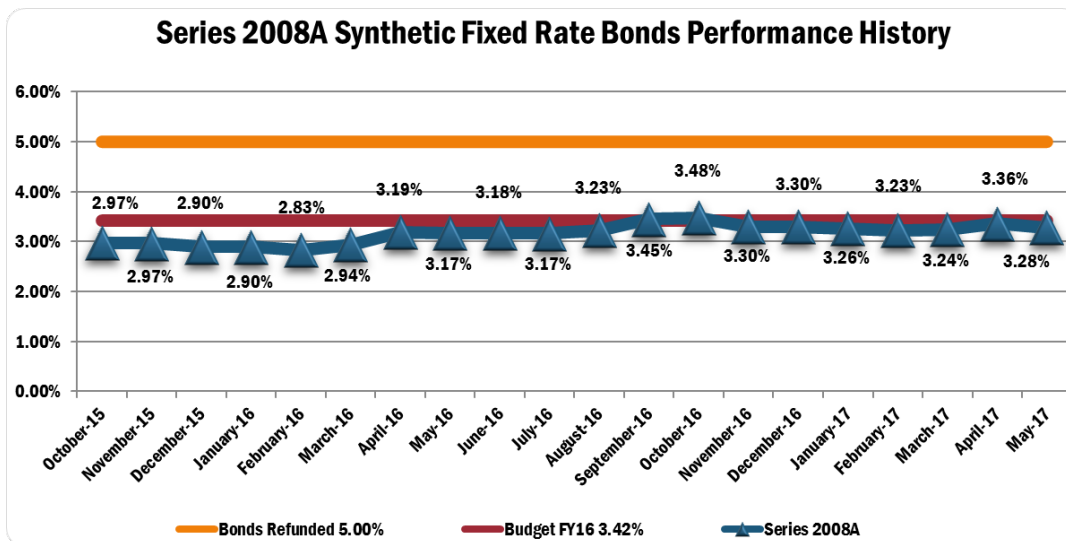
- Monthly O&M expenditures are considered reasonable based on historical trends and timing of expenditures in the current year.
- Due to the nature of the variable rate bond market, monthly expenditures can vary year to year. Based on current variable interest rates, monthly debt service expenditures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

METROPOLITAN SEWERAGE DISTRICT
 VARIABLE DEBT SERVICE REPORT
 As of May 31, 2017



Series 2008A:

- ◆ Savings to date on the Series 2008A Synthetic Fixed Rate Bonds is \$4,992,486 as compared to 4/1/2008 fixed rate of 4.85%.
- ◆ Assuming that the rate on the Series 2008A Bonds continues at the current all-in rate of 3.9475%, MSD will achieve cash savings of \$4,670,000 over the life of the bonds.
- ◆ MSD would pay \$4,065,706 to terminate the existing Bank of America Swap Agreement.

Metropolitan Sewerage District of Buncombe County

BOARD ACTION ITEM

Meeting Date: June 14, 2017

Submitted By: Thomas E. Hartye, PE., General Manager

Prepared By: W. Scott Powell, CLGFO, Director of Finance

Reviewed By: Billy Clarke, Legal Counsel

Subject: Consideration of the Resolution Adopting the Final Budget for FY 2017-2018 and the Schedule of Rates, Fees, & Charges-FY 2018

Background

The District Budget process must comply with North Carolina General Statutes and the MSD Revenue Bond Order. The Bond order requires that the District adopt its final budget on or before June 15 of each year. The North Carolina General Statutes require an annual balanced budget ordinance, based upon expected revenues, along with a budget message, to be presented to the governing board no later than June 1 of each year.

The Finance Committee met in May and unanimously approved staff's recommendation to forward to the Board for approval the FY2017-2018 Preliminary Budget Document, proposed Budget Resolution, and Schedule of Rates, Fees, and Charges. On May 17th, the Board approved staff's recommendations.

Recommendations

There have been no changes to the proposed Preliminary Budget, Budget Resolution, and Schedule of Rates, Fees, and Charges. Staff recommends approval of the **FY2017-2018 Budget Document** along with the attached Budget Resolution, and Schedule of Rates, Fees, and Charges.

Action Taken

Motion by:

to

Approve
Table

Disapprove

Send to Committee

Second by:

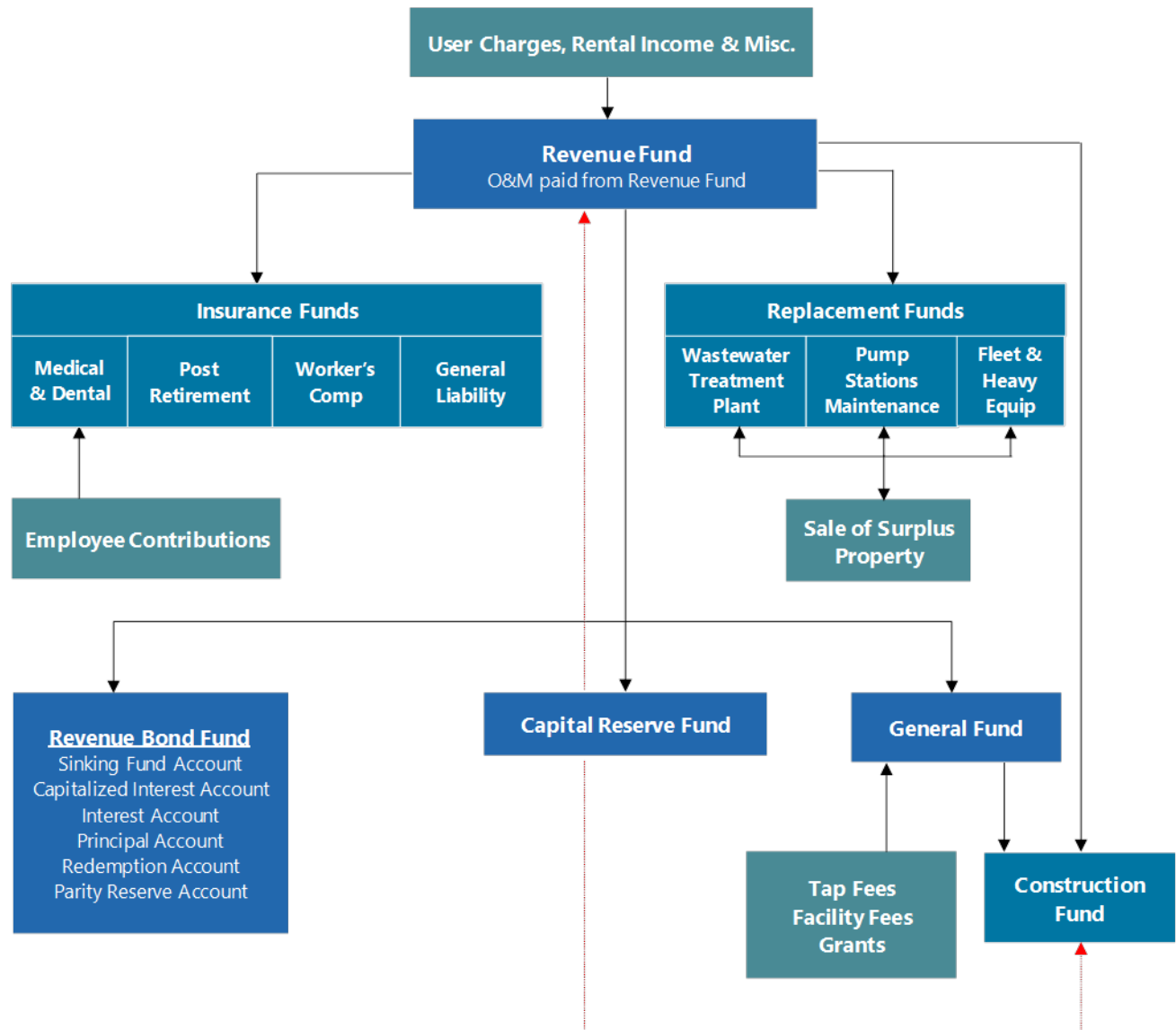
Other:

Follow-up Required:

Person Required:

Deadline:

Flow of Funds Chart



Priority of expenditures per Bond Order

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

- Income Sources
- Trustee Funds
- Expenditures

————— Flow of Funding

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

**RESOLUTION ADOPTING FINAL BUDGET AND SEWER USE CHARGES
FOR THE
METROPOLITAN SEWERAGE DISTRICT
OF BUNCOMBE COUNTY, NORTH CAROLINA
FOR THE FISCAL YEAR July 1, 2017 THRU June 30, 2018**

WHEREAS, the Board of Directors has reviewed the Operations and Maintenance, Bond, Reserves, Construction Expenditures of the District, and the sources of revenue and allocations (uses) of expenditures for the 2017-2018 fiscal year; and

NOW, THEREFORE, BE IT RESOLVED:

1. The following amounts are hereby appropriated in the Revenue Fund for the Operations and Maintenance of the District and for transfers to the Debt Service, General Fund, and Insurance Funds for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Operating and Maintenance Expenses	\$ 12,782,797
Transfer to Insurance Accounts	\$ 3,122,021
Transfer to Fleet & Heavy Equipment Fund	\$ 460,000
Transfer to Wastewater Treatment Plant Fund	<u>\$ 200,000</u>
Subtotal O&M	\$ 16,564,818
Transfer to Debt Service Fund	<u>\$ 9,790,466</u>
	<u>\$ 26,355,284</u>

It is estimated that the following revenues will be available in the Revenue Fund for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Domestic User Fees	\$ 31,169,273
Industrial User Fees	\$ 3,347,294
Billing and Collection Fees	\$ 800,255
Investment Interest	\$ 428,670
Reimbursement for Debt Service from COA	\$ 37,000
Rental Income	\$ 71,641
Contributions to Net Position	<u>\$ (9,498,849)</u>
	<u>\$ 26,355,284</u>

2. The following amounts are hereby appropriated in the General Fund for the transfers to the Construction Fund for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Transfer into Construction	<u>\$ (2,000,000)</u>
----------------------------	-----------------------

It is estimated that the following revenues will be available in the General Fund for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Facility and Tap Fees	\$ 2,175,000
Investment Income	\$ 11,000
Contributions to Net Position	<u>\$ (186,000)</u>
	<u>\$ (2,000,000)</u>

3. The following amounts are hereby appropriated in the Construction Fund for Capital Improvement Plan expenditures for the fiscal year beginning July 1, 2017 and ending June 30, 2018.

Capital Improvements Projects	<u>\$ 28,307,716</u>
-------------------------------	----------------------

It is estimated that the following revenues will be available to the Construction Fund for the fiscal year beginning July 1, 2017 and ending June 30, 2018.

Proceeds from Revenue Bonds	\$ 28,000,000
Investment Income	\$ 290,527
Transfer from General Fund	\$ 2,000,000
Contributions to Net Position	<u>\$ (1,982,811)</u>
	<u>\$ 28,307,716</u>

4. The following amounts are presented as the financial plan of the Insurance Funds that are used to provide insurance services. Estimated operating expenditures for the fiscal year beginning July 1, 2017 and ending June 30, 2018 are:

Operating Expenditures	<u>\$ 3,554,339</u>
------------------------	---------------------

It is estimated that the following revenues will be available in the Insurance Funds for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Transfer In from the Revenue Fund	\$ 3,122,021
Investment Income	\$ 14,800
Employee/Retirees Medical Contributions	\$ 402,700
Appropriated Net Position	<u>\$ 14,818</u>
	<u>\$ 3,554,339</u>

5. The following amounts are presented as the financial plan of the Fleet & Heavy Equipment Fund designated for capital equipment expenditures for the fiscal year beginning July 1, 2017 and ending June 30, 2018 estimated as follows:

Capital Equipment	<u>\$ 634,000</u>
-------------------	-------------------

It is estimated that the following revenues will be available in the Fleet & Heavy Equipment Fund for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Transfer in from the Revenue Fund	\$ 460,000
Sale of Surplus Property	\$ 76,080
Investment Income	\$ 4,542
Appropriated Net Position	<u>\$ 93,378</u>
	<u>\$ 634,000</u>

6. The following amounts are presented as the financial plan of the Wastewater Treatment Plant Replacement Fund designated for wastewater treatment plant capital expenditures for the fiscal year beginning July 1, 2017 and ending June 30, 2018 estimated as follows:

Capital Equipment	<u>\$ 180,000</u>
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It is estimated that the following revenues will be available in the Wastewater Treatment Plant Replacement Fund for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Transfer In from the Revenue Fund	\$ 200,000
Investment Income	\$ 4,030
Transfer Out to Pump Station Replacement Fund	\$ (150,000)
Appropriated Net Position	<u>\$ 125,970</u>
	<u>\$ 180,000</u>

7. The following amounts are presented as the financial plan in the Pump Station Replacement Fund designated for pump capital expenditures for the fiscal year beginning July 1, 2017 and ending June 30, 2018 estimated as follows:

Capital Equipment	<u>\$ 70,050</u>
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It is estimated that the following revenues will be available in the Pump Station Replacement Fund for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Transfer In from the Wastewater Replacement Fund	\$ 150,000
Investment Income	\$ 453
Contributions to Net Position	<u>\$ (80,403)</u>
	<u>\$ 70,050</u>

8. The following amounts are hereby appropriated in the Debt Service Fund for principal and interest payments for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Debt Service	<u>\$ 9,790,466</u>
--------------	---------------------

It is estimated that the following revenues will be available in the Debt Service Fund for the fiscal year beginning July 1, 2017 and ending June 30, 2018:

Transfer In from the Revenue Fund	\$ 9,790,466
Investment Income	\$ 50
Contributions to Net Position	<u>\$ (50)</u>
	<u>\$ 9,790,466</u>

9. That the Board of the Metropolitan Sewerage District does hereby approve an increase in the Budgets to the amount necessary to reflect any contributions to the Debt Service Reserve Fund or Capital Reserve Fund as determined by the Bond Trustee to be necessary to comply with covenants in the Bond Order.

- 10.** The General Manager is hereby authorized to transfer appropriations as contained herein under the following conditions:
- a.** He may transfer amounts without limitation between departments in a fund.
 - b.** He may transfer any amounts within Debt Service and Reserve Funds designated as excess by the Trustee into another fund.
 - c.** He may transfer up to 10% of Insurance Fund reserves to meet current year expenditures in excess of budget.
- 11.** That the attached Schedule of Fees and Charges be adopted as effective July 1, 2017.
- 12.** That this resolution shall be entered in the minutes of the District and within five (5) days after its adoption, copies thereof are ordered to be filed with the Finance and Budget Officer and Secretary of the Board as required by G.S. 159-13 (d).

Adopted this 14th day of June 2017

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

Attest:

Jackie Bryson
Secretary/Treasurer

Metropolitan Sewerage District of Buncombe County, North Carolina
Schedule of Rates, Fees, and Charges - FY2018
Effective July 1, 2017

Page 1

	CURRENT FY17 RATE	PROPOSED FY18 RATE
Rate increase		2.50%
Collection Treatment Charge		
Residential & Commercial Volume Charges (per CCF) Inside	\$ 4.39	\$ 4.50
Industrial Volume Charges (per CCF) Inside	\$ 3.95	\$ 4.21
Industrial Surcharge for BOD (per lb., BOD >250 mg/l) Inside	\$ 0.320	\$ 0.314
Industrial Surcharge for TSS (per lb., TSS >250 mg/l) Inside	\$ 0.259	\$ 0.256
Residential & Commercial Volume Charges (per CCF) Outside	\$ 4.40	\$ 4.51
Industrial Volume Charges (per CCF) Outside	\$ 3.96	\$ 4.22
Industrial Surcharge for BOD (per lb., BOD >250 mg/l) Outside	\$ 0.320	\$ 0.314
Industrial Surcharge for TSS (per lb., TSS >250 mg/l) Outside	\$ 0.259	\$ 0.256
Base Meter/Maintenance Charge & Billing Fee		
5/8"	\$ 6.77	\$ 6.94
3/4"	\$ 9.85	\$ 10.10
1"	\$ 17.48	\$ 17.92
1 1/2"	\$ 40.01	\$ 41.01
2"	\$ 70.76	\$ 72.53
3"	\$ 156.93	\$ 160.85
4"	\$ 280.03	\$ 287.03
6"	\$ 630.83	\$ 646.60
8"	\$ 1,120.12	\$ 1,148.12
10"	\$ 1,754.04	\$ 1,797.89
Billing Fee (per bill)	\$ 2.31	\$ 2.36
Sewer Facility Fees		
<i>This impact fee is for allotted capacity in the treatment and transmission system. A differential fee will be charged for increases to an existing meter size.</i>		
Residential		
Per Unit (non-mobile home)	\$ 2,500.00	\$ 2,500.00
Mobile Home	\$ 1,740.00	\$ 1,740.00
Affordable Housing	\$ 670.00	\$ 670.00
Nonresidential (modifiable per economic development waiver)		
5/8"	\$ 2,500.00	\$ 2,500.00
3/4"	\$ 2,830.00	\$ 2,830.00

Metropolitan Sewerage District of Buncombe County, North Carolina
Schedule of Rates, Fees, and Charges - FY2018
Effective July 1, 2017

Page 2

	CURRENT FY17 RATE	PROPOSED FY18 RATE
Sewer Facility Fees (continued)		
Nonresidential (modifiable per economic development waiver) (continued)		
1"	\$ 5,560.00	\$ 5,560.00
1 1/2"	\$ 11,350.00	\$ 11,350.00
2"	\$ 20,000.00	\$ 20,000.00
3"	\$ 45,000.00	\$ 45,000.00
4"	\$ 87,500.00	\$ 87,500.00
6"	\$ 225,400.00	\$ 225,400.00
8"	\$ 237,500.00	\$ 237,500.00
Additions < 1,400 GPD	\$ 870.00	\$ 870.00
Additions over 1,400 GPD	Based on flow rate & meter size	Based on flow rate & meter size
Sewer Connection Fees * *		
<i>This fee is to provide new or re-establish existing service connections to the MSD system.</i>		
Sewer Connection by MSD	\$ 650.00	\$ 650.00
Pavement Disturbance Fee	\$ 2,200.00	\$ 2,200.00
Additional Charge for Boring	N/A	N/A
Refund if Boring avoids pavement disturbance	\$ (1,300.00)	\$ (1,300.00)
Inspection Fee for Developer (or Utility Contractor) Installed Sewer Connection	\$ 140.00	\$ 140.00
<i>***The Sewer Connection Fee will apply to all new construction, as well as existing structures which have been demolished/rebuilt and sewer service is reinstated under new property ownership. MSD reserves the right to require that a licensed utility contractor install any sewer connection/service line. Sewer service lines within public rights-of-way between 75 and 300 feet shall be constructed by a licensed utility contractor to MSD Standards. All work will be subject to MSD inspection.</i>		
Manhole Installation/Replacement		
Cost per foot	\$ 250.00	\$ 250.00
Pavement replacement (if required)	\$ 1,800.00	\$ 1,800.00

Metropolitan Sewerage District of Buncombe County, North Carolina
Schedule of Rates, Fees, and Charges - FY2018
Effective July 1, 2017

Page 3

	CURRENT FY17 RATE	PROPOSED FY18 RATE
Other Fees		
Allocation Fee	\$ 170.00	\$ 170.00
Non-Discharge Permit	\$ 200.00	\$ 200.00
Plan Review Fee	\$ 450.00	\$ 450.00
Plan re-review Fee	\$ 350.00	\$ 350.00
Final Inspection	\$ 350.00	\$ 350.00
Pump Station Acceptance Fee	Note 1	Note 1
<i>Note 1 --See policy for details of computation of O&M and equipment replacement costs for upcoming 20 years; 50% discount for affordable housing</i>		
Bulk Charges		
Volume Charge for Septic Haulers (per 1,000 Gal.)	\$ 45.00	\$ 45.00
Biochemical Oxygen Demand >250 mg/l (per lb.)	\$ 0.320	\$ 0.314
Total Suspended Solids >250 mg/l (per lb.)	\$ 0.259	\$ 0.256
Returned Check Charge		
Returned Check (per event)	\$ 25.00	\$ 25.00
Dishonored Draft (per event)	\$ 25.00	\$ 25.00
Copy/Printing Fees/Miscellaneous (each)		
8x11 first print of standard GIS inquiry	\$ 1.00	\$ 1.00
8x14 first print of standard GIS inquiry	\$ 1.00	\$ 1.00
11x17 first print of standard GIS inquiry	\$ 2.00	\$ 2.00
24x36 first print of standard GIS inquiry	\$ 7.00	\$ 7.00
34x44 first print of standard GIS inquiry	\$ 12.00	\$ 12.00
36x48 first print of standard GIS inquiry	\$ 14.00	\$ 14.00
8x11 or 8x14 copies after first print	\$ 0.11	\$ 0.11
11x17 copies after first print	\$ 0.20	\$ 0.20
24x36 copies after first print	\$ 0.94	\$ 0.94
34x44 copies after first print	\$ 1.76	\$ 1.76
36x48 copies after first print	\$ 2.03	\$ 2.03
Foam Core mounting per sq. foot	\$ 3.00	\$ 3.00
Data CD	\$ 30.00	\$ 30.00
Shipping for CD	\$ 5.00	\$ 5.00
Permit Decals for Septic Haulers	\$ 50.00	\$ 50.00

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STATUS REPORTS

MSD System Services In-House Construction

FY 16-17 PROJECTS

PROJECT NAME	LOCATION	ZIP CODE	ESTIMATED FOOTAGE	ESTIMATED PROJECT DATES	WO#	CREW	COMPLETION DATE	ACTUAL FOOTAGE	NOTES
Asheville Country Club Phase 1 B	N. Asheville	28804	1739	6/29/16 - 7/21/16	234696	631	7/21/2016	1739	complete
Asheville Country Club 6" Replacement	N. Asheville	28804	325	7/25/16 - 7/27/16	235071	631	7/27/2016	325	complete
Tanglewood Drive at Craggy Ave	W. Asheville	28803	141	7/18/16 - 7/28/16	233397	632	7/28/2016	101	complete
Graceland Place Rehabilitation	Arden	28704	120	6/27/16 - 8/2/126	234656	632	8/2/2016	120	complete
Dejeuil Drive Sewer Rehabilitation	W. Asheville (Starnes Cove)	28806	300	8/8/16 - 9/1/16	219451	632	8/15/2016	300	complete
Asheville Country Club Phase 2	N. Asheville	28804	3,900	7/28-16 - 9/28/16	225192	631	9/30/2016	3,923	complete
Lakeshore Drive	N. Asheville	28804	500	9/2/16 - 10-1/16	235169	632	10/5/2016	597	complete
Asheville Country Club Phase 1C	N. Asheville	28804	230	10/3/2016 -10/7/16	236906	631	10/6/2016	235	complete
166 S. French Broad Ave	Asheville	28803	280	10/4/16 - 10/7/16	236410	632	10/12/2016	317	complete
643 Haywood Road Emergency Sewer Rehabilitation	W. Asheville	28806	336	10/10/16 - 10/14/16	237069	632	10/20/2016	365	complete
Asheville Country Club Phase 3 (Robinhood Rd)	N. Asheville	28804	600	10/10/19 - 10/31/16	236602	631	11/16/2016	759	complete
Upper Chestnut @ Lookout Road (Ph. 1)	Woodfin	28804	800	11/07/16 - 12/30/16	210370	632	12/30/2016	787	complete
Meadowbrook Rd Rehabilitation	Black Mountain	28711	1327	11/17/16 - 1/31/17	236632	631	1/13/2017	1391	complete
Chestnut @ Lookout Road Phase 2	Woodfin	28804	479	1/3/17 - 1/13/17	239165	632	1/23/2017	496	complete
Buck Shoals Road	Arden	28704	350	1/13/17 - 1/31/17	239381	631	1/31/2017	356	complete
5 Spring Cove Terr	Beaverdam	28804	375	1/13/17 - 2/3/17	233212	632	2/7/2017	355	complete
Spears Avenue Rehabilitation	Asheville	28801	300	2/1/17 - 2/28/17	225197	631	2/17/2017	408	complete
Belmont Road	W. Asheville	28806	170	FY 16-17	233437	632	2/28/2017	185	complete
69 Providence Road	West Asheville	28806	500	2/6/16 - 3/10/17	231127	632	3/1/2017	571	complete
722 Center St	Asheville	28803	250	3/2/17 - 4/2/17	229911	632	3/17/2016	257	complete
Nebraska Street Emergency Rehabilitation (Ph. 2)	W. Asheville	28806	301	3/20/17 - 3/31/17	241251	631	3/31/2017	301	complete
304 9th Street	Black Mountan	28711	815	4/3/17 - 5/3/17	236507	632	4/28/2017	816	complete
24 Ivey Street	W Asheville	28806	850	4/13/17 - 5/30/17	236509	631	5/23/2017	759	complete
Celia Place at Bond Street	N. Asheville	28801	526	5/4/17 - 6/4/17	227752	632	5/26/2017	527	complete
18 Crestland Road	Asheville	28803	270	6/1/17-6/6/17	46826	631			Construction 50% complete
Varden Place	Swannanoa	28778	1200	6/1/17 - 7/7/17	209952	632			Construction has begun
Sycamore Drive @ Walnut Street	Arden	28704	2015	6/7/17-7/7/17	237385	631			ready for constructuion



CONSTRUCTION TOTALS BY DATE COMPLETED - Monthly

From 7/1/2016 to 4/30/2017

	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 2016	24	9	114	706	35	27	1,620	0	16	377	11	1,788	2181
August 2016	40	11	149	1,050	36	40	1,586	0	264	300	6	120	684
September 2016	32	9	219	471	23	20	1,833	0	0	3923	23	0	3923
October 2016	44	5	478	917	36	31	9,920	0	0	1173	14	403	1576
November 2016	35	11	123	703	33	20	1,175	0	8	447	7	312	767
December 2016	31	7	178	794	21	26	0	0	0	582	7	205	787
January 2017	40	9	183	692	25	17	710	0	8	1161	13	1,082	2251
February 2017	26	19	266	1,386	28	35	965	0	48	373	8	575	996
March 2017	42	17	343	1,556	27	33	100	0	8	841	11	288	1137
April 2017	31	11	218	954	20	41	200	0	377	425	9	391	1193
Grand Totals	345	108	2,270	9,229	284	290	18,109	0	729	9602	109	5,164	15495

* Used to calculate Total Rehab Footage



PIPELINE MAINTENANCE TOTALS BY DATE COMPLETED - Monthly

July 01, 2016 to April 30, 2017

	Main Line Wash Footage	Service Line Wash Footage	Rod Line Footage	Cleaned Footage	CCTV Footage	Smoke Footage	SL-RAT Footage
2016							
July	45,193	2,360	6,542	51,735	20,983	32,171	20,618
August	75,579	1,531	12,085	87,664	26,074	42,442	17,103
September	105,529	1,471	11,406	116,935	12,671	26,129	16,406
October	66,420	2,175	10,127	76,547	17,277	46,276	21,969
November	35,682	3,046	12,831	48,513	21,342	13,076	9,061
December	39,977	2,212	7,424	47,401	17,146	5,282	28,363
2017							
January	39,078	2,846	9,508	48,586	13,472	8,344	27,431
February	112,190	2,093	11,803	123,993	20,768	9,177	1,800
March	80,434	2,361	5,808	86,242	18,973	8,472	3,136
April	76,346	1,601	5,958	82,304	20,019	3,500	3,000
Grand Total:	676,428	21,696	93,492	769,920	188,724	194,870	148,887
Avg Per Month:	67,643	2,170	9,349	76,992	18,872	19,487	14,889



CUSTOMER SERVICE REQUESTS

Monthly - All Crews

CREW	MONTH	JOBS	AVERAGE RESPONSE TIME	AVERAGE TIME SPENT
DAY 1ST RESPONDER				
	July, 2016	106	26	41
	August, 2016	127	27	37
	September, 2016	92	28	43
	October, 2016	111	34	39
	November, 2016	119	34	39
	December, 2016	98	33	42
	January, 2017	121	31	41
	February, 2017	109	25	30
	March, 2017	124	24	40
	April, 2017	103	24	37
		1,110	29	39
NIGHT 1ST RESPONDER				
	July, 2016	14	21	49
	August, 2016	32	25	28
	September, 2016	10	25	16
	October, 2016	22	30	32
	November, 2016	13	30	29
	December, 2016	11	17	16
	January, 2017	26	18	18
	February, 2017	24	26	36
	March, 2017	22	24	21
	April, 2017	29	27	30
		203	25	28
ON-CALL CREW *				
	July, 2016	35	48	37
	August, 2016	34	43	33
	September, 2016	22	48	54
	October, 2016	43	41	34
	November, 2016	49	51	40
	December, 2016	60	50	33

* On-Call Crew Hours: 8:00pm-7:30am Monday-Friday, Weekends, and Holidays



CUSTOMER SERVICE REQUESTS Monthly - All Crews

CREW	MONTH	JOBS	AVERAGE REPSONSE TIME	AVERAGE TIME SPENT
ON-CALL CREW *				
	January, 2017	44	61	70
	February, 2017	43	43	40
	March, 2017	45	50	40
	April, 2017	48	44	49
		423	48	42
Grand Totals:		1,736	33	38

* On-Call Crew Hours: 8:00pm-7:30am Monday-Friday, Weekends, and Holidays

CAPITAL IMPROVEMENT PROGRAM

STATUS REPORT SUMMARY

June 7, 2017

PROJECT	LOCATION OF PROJECT	CONTRACTOR	AWARD DATE	NOTICE TO PROCEED	ESTIMATED COMPLETION DATE	*CONTRACT AMOUNT	*COMPLETION STATUS (WORK)	COMMENTS
COMMERCE STREET	Downtown Asheville 28801	TBD	TBD	TBD	TBD	TBD	0%	Bids were opened on June 1st. Terry Brothers Construction Company is the apparent low. Project will be presented at the June Board meeting.
FRENO DRIVE PSR	Asheville 28803	Terry Brothers Construction Company	2/15/2017	5/1/2017	9/28/2017	\$511,623.00	5%	Contractor is on-site and work has begun.
LINING CONTRACT NO. 8	Various	IPR Southeast, LLC	1/18/2017	2/20/2017	7/20/2017	\$777,622.50	80%	Lining is in progress.
NARBETH ROAD	Asheville 28806	Terry Brothers Construction Company	3/8/2017	3/22/2017	6/15/2017	\$106,235.20	99%	Contractor is working on punch list items.
POINT REPAIR CONTRACT NO. 1	Various	Patton Construction Group	8/17/2016	9/12/2016	6/30/2017	\$169,720.00	90%	Project is progressing well.
PLANT HEADWORKS IMPROVEMENTS	Woodfin 28804	Judy Construction Company	1/18/2017	4/3/2017	10/25/2018	\$8,377,000.10	3%	Project is moving forward. Submittals are being reviewed.
SAND HILL ROAD @ RUSSELL / DAVENPORT	West Asheville 28806	Terry Brothers Construction Company	12/21/2016	12/29/2016	6/15/2017	\$455,954.00	99%	Contractor is working on punch list items.
STRATFORD ROAD @ OXFORD COURT	Asheville 28804	Patton Construction Group	11/16/2016	1/3/2017	6/15/2017	\$216,700.00	99%	Contractor is working on punch list items.
SWEETEN CREEK ROAD @ BUSBEE VIEW	Asheville 28803	Terry Brothers Construction Company	2/15/2017	4/10/2017	7/9/2017	\$192,315.00	95%	Mainline construction is complete and restoration in progress. Waiting on paving.

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

Planning & Development Project Status Report

Active Construction Projects Sorted by Work Location and Project Number

May 31, 2017

#	Project Name	Project Number	Work Location	Zip Code	Units	LF	Pre-Construction Conference Date	Comments
1	Isaac Dickson School Relocation	2013033	Asheville	28801	School	504	1/13/2014	Final Inspection complete, awaiting close-out docs
2	Hunt Hill Apartments	2013111	Asheville	28801	180	1,729	3/5/2014	Final Inspection complete, awaiting close-out docs
3	Dillingham Woods	2014048	Asheville	28805	27	375	3/4/2015	Waiting on final inspection - Project delayed
4	Franklin School of Innovation	2014096	Asheville	28806	School	359	11/4/2016	Final Inspection complete, awaiting close-out docs
5	Rivermill Lofts Relocation	2014125	Asheville	28803	254	314	8/21/2015	Waiting on final inspection
6	Shelburne Road	2014126	Asheville	28806	9	418	4/5/2016	Final Inspection complete, awaiting close-out docs
7	Gibson Road (aka Four Seasons)	2014138	Asheville	28804	3	137	9/11/2015	Awaiting Conveyance of Sewer System
8	Conestee	2014149	Asheville	28801	7	113	8/7/2015	Final Inspection complete, awaiting close-out docs
9	Craggy Park Ph. 1	2014164	Asheville	28806	45	1,935	10/23/2015	Final Inspection complete, awaiting close-out docs
10	First Baptist Relocation	2015032	Asheville	28801	Comm.	333	7/21/2015	Final Inspection complete, awaiting close-out docs
11	Ascot Point Apartments Phase 3	2015114	Asheville	28803	104	213	9/9/2016	Testing
12	8 Sulphur Springs Road	2015116	Asheville	28806	6	80	11/22/2016	Waiting on final inspection
13	The District	2015133	Asheville	28803	309	912	2/26/2016	Waiting on final inspection
14	Hampton Inn & Suites	2015144	Asheville	28806	Comm.	286	11/8/2016	Waiting on final inspection
15	Beale Road Subdivision (Habitat)	2015200	Asheville	28704	21	730	4/5/2016	Final Inspection complete, awaiting close-out docs
16	Fairfield Inn & Suites - Tunnel Road	2015203	Asheville	28805	Comm.	350	4/29/2016	Waiting on final inspection
17	Atkins Street	2016009	Asheville	28803	45	903	1/20/2017	Testing
18	88 Southside Avenue	2016015	Asheville	28801	18	400	2/21/2017	Waiting on final inspection
19	Woodbridge Park	2016082	Asheville	28803	20	615	2/17/2017	Waiting on final inspection
20	Richland Street	2016141	Asheville	28801	5	540	1/13/2017	Final Inspection complete, awaiting close-out docs
21	Lausch Subdivision	2016153	Asheville	28805	4	248	5/16/2017	Pre-con held, construction not yet started
22	880-888 Patton Avenue	2016182	Asheville	28806	4	85	1/31/2017	Final Inspection complete, awaiting close-out docs
23	Bear Creek Homes	2016220	Asheville	28806	30	1,400	3/28/2017	Installing
24	Shiloh Cottages	2016252	Asheville	28803	7	180	3/3/2017	Pre-con held, construction not yet started
25	Upstream Way (aka Amboy) Ph. 2	2016254	Asheville	28806	11	402	10/20/2015	Waiting on final inspection
26	West Keesler Avenue	2007176	Black Mountain	28711	6	410	11/15/2016	Testing
27	Settings at Black Mountain	2008016	Black Mountain	28711	30	907	11/13/2015	Final Inspection complete, awaiting close-out docs
28	808 Montreat Road	2015126	Black Mountain	28711	4	371	4/18/2017	Pre-con held, construction not yet started
29	Tudor Croft (aka Roberts Farm) Ph.2	2016170	Black Mountain	28711	46	1,320	1/3/2017	Installing
30	Peregrine's Ridge	2006160	Buncombe Co.	28730	14	635	11/8/2016	Waiting on final inspection
31	Pinnacle at Arabella Heights	2006277	Buncombe Co.	28704	28	482	11/10/2015	Final Inspection complete, awaiting close-out docs
32	Hyde Park Phase 2	2013058	Buncombe Co.	28704	14	500	12/3/2013	Waiting on final inspection
33	Creekside Cottages	2014095	Buncombe Co.	28704	7	504	3/12/2015	Final Inspection complete, awaiting close-out docs
34	Governor's Western Residence	2014100	Buncombe Co.	28804	Comm.	636	7/22/2015	Awaiting Easement Plat/Conveyance of Sewer System
35	Glenn Bridge Road	2014157	Buncombe Co.	28704	30	1,400	1/20/2017	Waiting on final inspection
36	Avondale Subdivision	2015052	Buncombe Co.	28803	4	215	4/7/2017	Pre-con held, construction not yet started
37	Somerset at Walnut Cove	2015079	Buncombe Co.	28704	12	473	8/19/2016	Final Inspection complete, awaiting close-out docs
38	Greymont Apartments	2015108	Buncombe Co.	28806	312	3,193	5/17/2016	Testing
39	Liberty Oaks Ph. 1A	2015157	Buncombe Co.	28715	125	705	1/17/2017	Installing
40	Bee Tree Village	2015158	Buncombe Co.	28778	26	1,118	3/17/2017	Pre-con held, construction not yet started
41	Williams-Baldwin Teacher Campus	2015166	Buncombe Co.	28806	24	313	9/16/2016	Final Inspection complete, awaiting close-out docs
42	Ball Gap Road	2015186	Buncombe Co.	28704	14	947	5/31/2016	Final Inspection complete, awaiting close-out docs
43	The Haven at Enka Lake	2015191	Buncombe Co.	28715	259	1,595	9/27/2016	Waiting on testing
44	Greenwood Fields Phase 1	2015204	Buncombe Co.	28804	158	2,830	6/16/2016	Testing
45	Skyland Exchange	2015217	Buncombe Co.	28704	292	1,090	2/7/2017	Installing
46	Newbridge Parkway Apartments	2016013	Buncombe Co.	28804	308	1,575	9/2/2016	Waiting on final inspection
47	Biltmore Lake Block I, Phase 2	2016042	Buncombe Co.	28803	26	1,297	8/5/2016	Final Inspection complete, awaiting close-out docs
48	Long Shoals Village Phase 2	2016109	Buncombe Co.	28704	Comm.	330	8/16/2016	Waiting on testing
49	Biltmore Lake Block I, Phase 3	2016234	Buncombe Co.	28803	23	1,887	5/23/2017	Pre-con held, construction not yet started
50	Biltmore Lake Bock D2-E	2016243	Buncombe Co.	28803	19	3,265	5/23/2017	Pre-con held, construction not yet started
51	The Ramble Block H, Phase 1	2017039	Buncombe Co.	28803	4	1,440	5/23/2017	Pre-con held, construction not yet started
52	Greenwood Park Phase 1	2014067	Weaverville	28787	7	283	9/1/2015	Final Inspection complete, awaiting close-out docs
53	Monticello Apartments	2015124	Weaverville	28787	168	1,484	6/14/2016	Final Inspection complete, awaiting close-out docs
54	Creekside Village Phases III, IV, & V	2015167	Weaverville	28787	45	1,835	1/17/2017	Installing
55	New Homes at North Main (Crittter)	2016052	Weaverville	28787	54	1,808	2/10/2017	Waiting on Final
56	Maple Trace Phase 3	2016245	Weaverville	28787	24	1,260	5/2/2017	Pre-con held, construction not yet started
57	Crest Mountain Phase 3B	2013041	Woodfin	28806	69	1,329	10/15/2013	Punchlist pending, awaiting closeout documents
58	Reese & Jan Lasher (High Hopes)	2015152	Woodfin	28806	14	320	4/26/2016	Punchlist pending, awaiting closeout documents
59	Ventana Phase 2A	2016059	Woodfin	28806	8	900	2/17/2017	Testing
TOTAL					3,283	52,218		