

**BOARD OF THE METROPOLITAN SEWERAGE DISTRICT**  
**March 15, 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, March 15, 2017. Chairman VeHaun presided with the following members present: Ashley, Bryson, Collins, Creighton, Frost, Kelly, Manheimer, Pelly, Pressley and Wisler. Mr. Root was 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, Mike Stamey, Jim Hemphill, Peter Weed, Ken Stines, 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 February 15, 2017 Board Meeting:**

Mr. VeHaun asked if there were any changes to the Minutes of the February 15, 2017 Board Meeting. Ms. Frost 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. VeHaun welcomed Mr. Martin. There was no discussion or public comment.

**6. Report of General Manager:**

Mr. Hartye reported that MSD has once again received the Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA). Many thanks to the great effort put forth by Teresa Gilbert and Scott Powell. MSD also received the National Recognition Award from the American Council of Engineering for the air emissions upgrade project that was recognized last month. Mr. Hartye reported that MSD received a call from Carolyn Jackson of Providence Road and an e-mail from Bill Hart at the North Fork Water Treatment Plant regarding our field crews. Mr. Hartye reported that Ed Bradford and Mike Stamey will give a brief update of the Capital Improvement/Construction Projects that are ongoing throughout the District. He stated that this year the CIP Budget is about \$22 million out of a total budget of about \$47 million. Mr. Hartye reported that about 64% of the money spent each year is construction related. He further reported that at this year's Utility

Management Conference, where most utilities were closer to 50% capital reinvestment in the good years, now they are about 1/3 or less, and that gives you an idea of what the District has been able to maintain as far as keeping capital spending up, which in turn keeps operation costs down.

Mr. Bradford reported on the Capital Improvement Program beginning with the Influent Pump Station Project. He presented an image of the project and stated that Staff is in a planned replacement for the three influent pumps which has been taking place over the last three years. The third one will take place in June of this year and is being manufactured now. Each of these can pump 35 million gallons every day which is 24,300 gallons every minute. If you were to fill a milk jug you would have to do that 405 times every second. Typically only one is run at a time on a normal day. What does 35 million gallons look like? It is enough to fill up an entire football field, including end zones, 81' tall. These older pumps have been in use since the mid 1980's and have been rebuilt several times but have reached the end of their functional life. He presented an image of the motors that power the pumps. These are 400 horsepower motors, are in very good operating condition and do not need replacing. What did need replacing were the adjustable frequency drives (AFD's) that power these pumps. They allow staff to ramp the pumps up and down as the flow goes up and down at the plant. That is how you run the big pump stations. It is much more energy efficient than having something that is full on or full off. The new AFD's are located outside of the pump station building. The old ones were located inside and due to the environment, had degraded to a point that had affected the components. This was completed last spring. The next project is the Bypass Pump Staging Areas. Mr. Bradford stated that this is another smaller project and he presented an image of the new Carrier Bridge location, which is so that Carrier Bridge can be by-passed if necessary. Most of the components are hidden due to the fact that this is at the park and there are a lot of kids and public going through here. It is buried 6" below the ground, covered, protected and located with GIS so that if we do have to by-pass it can be easily exposed. Mr. Hartye pointed out that the Carrier Bridge Pump Station is the District's largest pump station and on an average day it pumps about 8 million gallons and on a rainy day it pumps close to 17-20 million gallons. This station sits right in the middle of Carrier Bridge Park. The main reason this is being done is because, if you go over the bridge you can see the force main sticking out in the water. If anything should ever happen to that force main, there will be some type of emergency by-pass in place. Mr. Bradford then presented images of the by-pass pump at the treatment plant. He stated that the contractor did an excellent job and that there were a lot of constraints on the site. He also pointed out the purple martin houses and gave a little information on these birds. He presented images of the new south plant entrance which is also secured. This entrance allows system services and construction folks to go around the plant instead of through it.

Mr. Bradford then reported on the Incinerator Emissions Upgrades project. The EPA imposed an aggressive schedule upon the District to complete this project. The construction contract was awarded in February,

2015, and the total construction cost was \$5.8 million, which was reduced by approximately \$5 million by utilizing new technology. The project was operational ahead of schedule in December, 2015. The District was awarded a NACWA Environmental Achievement Award and a National Recognition Award from the American Council of Engineering in 2017 for this project as mentioned in Mr. Hartye's Report. Mr. Bradford presented images for this project, one of which was taken from three stories up in top of the incinerator, showing the sorbent panel layers. The close up image shows that the exhaust flows up through the baffles. They are impregnated with activated carbon and remove mercury. These are manufactured by Gore Industries (aka Gore-Tex).

Mr. Bradford then reported on the Plant Headworks Improvements Project which is coming up at the plant. This was the first project recommended by the Facilities Plan with replacement of the existing bar screens at the head of the plant; adding new fine screens with grit removal that works; and adding a surge system for peak flow conditions, utilizing the old abandoned tanks at 2.1 MG each. The Board awarded this project at the January, 2017 Board Meeting with a construction cost of \$8.4 million. Work is scheduled to begin the first week in April. He presented images showing the affected area with new bar screens, fine screens with grit removal and storage area, and the area where the building was demolished, which was done in order for the contractors not to have to bid the demolition work.

Mr. Bradford then reported on the High Rate Primary Treatment which was the mid-term project and the second one recommended by the Facilities Plan. He presented an image of the primary microscreens and stated that they do not work and never worked very well. This will add significant improvement to the plant internal process. There is not primary treatment after screening and grit removal at this time. This was a very tight fit due to site conditions with the mountain behind and the rest of the surrounding plant works. This will help the RBC's perform better and will also help the plant better treat peak flows because the treatment can be ramped up and down as necessary. The design process is underway with CDM with construction scheduled to begin in late Fall of 2018. The construction cost is currently estimated at \$12.5 million. Mr. Bradford presented the CIP Status Report, stating this report is posted on line and mirrors the current Capital Improvement Program with the status of each project included. This report is updated quarterly. With no questions, he turned the presentation over to Mike Stamey for a report on the Collection System.

Mr. Stamey highlighted the Construction Inspections Group who perform inspections for projects done by outside contractors constructing MSD projects. The first project was the Venable Pump Station Elimination Project which was completed in late 2016. This project is located on Brevard Road between Ingles Supermarket and Asheville Outlets. It included elimination of the Venable Pump Station, which used to pump wastewater in

a southerly direction along Brevard Road. This pump station was mechanical and there were a lot of issues with operation. It took a lot of money, resources and time to maintain. A new gravity sewer line consisting of 671 linear feet of 8" pipe was installed across Brevard Road and into the parking lot of the Asheville Outlets, where it tied into an existing sewer. Mr. Stamey presented various images showing the project area and some of the construction work. He pointed out a large 24" steel pipe in one of the images and stated that the District did not want to dig across Brevard Road so instead chose to utilize a trenchless technology method called "Bore and Jack". The large diameter pipe is jacked into place under the road and the smaller 8" dip sewer line is then inserted through the larger pipe under the road. The hole ends up being approximately 25' deep. He pointed out the 8" DIP with "spiders" which are commonly used to help position the sewer line inside the host pipe. One of the bigger issues on this project was traffic flow and traffic control in the Asheville Outlets parking lot. This was a huge issue for the mall management and MSD Staff worked very close with them throughout the project to address their needs, especially over big shopping week-ends such as holiday week-ends. After one such week-end, Staff received a thank you note from the Asheville Outlets Management, indicating there were approximately 42,000 vehicles in the center over the week-end and traffic flowed smoothly around the work site.

Mr. Stamey then reported on the South French Broad Interceptor Lining Project. The project was completed this week and consisted of lining approximately 6,195 lf of 36" concrete sewer interceptor line along the French Broad River and near the Biltmore Estate. He presented various images of the location, work performed, and of the pipe before and after lining.

Mr. Stamey then reported that there are six other CIP Projects on the radar for the inspections group. The two most active are Sand Hill Road @ Russell/Davenport and Stratford Road @ Oxford Court, both of which are near completion.

Mr. Stamey then highlighted some recent activities for the In-House Construction Crews. There are five crews within this group, three focus primarily on dig up point repairs, repairing manholes and installing taps for new homes or buildings within the City and County. Just within this year they have done 306 dig up point repairs, 208 manhole repairs and installed 181 taps. The other two crews perform the larger CIP rehabilitation projects, replacing sewer lines down an entire street or neighborhood. One such project that was just completed is Chestnut Ridge @ Lookout Road Sewer Rehabilitation in Woodfin, which included replacing approximately 1,280 LF of existing 4" and 6" sewer with new 8" DIP. He presented various images of the project and explained them. The big issue with this project was when the crews began excavating the trench in the road they ran into solid rock which could not be dug up with a track hoe bucket so they ended up using a rock hammer on a track hoe bucket to attempt to loosen some of the rock. He stated that the bigger success was found with a product called

Expando-mite. This is a chemical mixture of mortar mixed in the bucket. Holes are then drilled in the rock. This mixture is poured into the holes and sits for 24 hours. During this time it cures, expands and fractures the rock around it. You can then come back the next day and dig it up. He then presented images after construction and stated Staff was very happy with the outcome. He stated that the next project just completed was the Meadow Brook Drive Sewer Rehabilitation Project in Black Mountain. This project included replacing 1,391 LF of sewer with 8" DIP. He presented images of the project and explained that the big issue on this project is that most of the construction was through back yards which had trees grown over the existing sewer line. There were a lot of obstacles such as fences, playgrounds, gazebos and decks. Staff had to work very closely with the property owners. One such example was a house that had a sewer service to reconnect and the service was beneath the back deck. Crews had to disassemble part of deck, connect the service and re-assemble the deck. He presented an image showing final restoration in the back yards after work was complete and stated that to his knowledge all property owners were very happy with the outcome.

Mr. Stamey reported that two projects coming up are an Emergency Sewer Rehabilitation and Relocation project consisting of 760 LF on Nebraska and State Streets and replacement of 526 LF on Celia Place in North Asheville. There were no questions.

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

**7. Consolidated Motion Agenda:**

**a. Consideration of Developer Constructed Sewer Systems: Cottages at Kenilworth; Givens Gerber Park Phase 1; Maple Trace Phase 1; Ramble at Parkway; Robinhood Sewer Relocation; Village @ Bradley Branch Phase 3:**

Mr. Hartye reported that the Cottages at Kenilworth project is located off Caledonia Road in the City of Asheville and included extending approximately 450 linear feet of 8-inch public gravity sewer to serve the 12 unit residential development.

Mr. Hartye reported that the Givens Gerber Park Phase 1 project is located off Gerber Road in the City of Asheville and included extending approximately 360 linear feet of 8-inch public gravity sewer to serve the 120 unit affordable housing complex.

Mr. Hartye reported that the Maple Trace Phase 1 project is located off Reems Creek Road in Buncombe County and included extending approximately 2,140 linear feet of 8-inch public gravity sewer to serve

the 331 single family homes for this phase of the residential development. This new system connects to the Reems Creek Master Plan Interceptor Phase II, which was accepted by the Board in August 2016.

Mr. Hartye reported that the Ramble @ Parkway project is located off the Blue Ridge Parkway at Dingle Creek in Buncombe County and included extending approximately 320 linear feet of 8-inch public gravity sewer to serve future phases of the Ramble Residential Development.

Mr. Hartye reported that the Robinhood Sewer Relocation project included relocating approximately 230 linear feet of 8-inch public gravity sewer and abandoning approximately 480 linear feet of 8-inch sewer to accommodate one of the houses in the 5 unit residential development.

Mr. Hartye reported that the Village @ Bradley Branch Phase 3 project included extending approximately 740 linear feet of 8-inch public gravity sewer to serve 34 townhomes for this phase of the residential development.

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

**b. Cash Commitment/Investment Report Month ended January, 2017:**

Mr. Powell reported that Page 25 presents the makeup of the District's Investment Portfolio. The only change in the District's portfolio was the purchase of NC VRDN for diversification purposes. Additionally, the makeup of the Districts Investment Portfolio is in accordance to the Districts investment policy. Page 26 presents the MSD investment managers report for the month of January. The weighted average maturity of the investment portfolio is 170 days. The yield to maturity is .87% and exceeds our bench mark of 6 month T-Bill and North Carolina Capital Management Trust cash portfolio. Page 27 presents an analysis of the District's cash receipts. Monthly and YTD domestic and industrial revenue is considered reasonable based on timing of cash receipts in their respective fiscal periods. YTD Facility and Tap fees are considered reasonable based on timing of 5 development contributions in the current year in addition to the conservative budgeting approach of these fees. Page 28 presents the MSD Analysis of Expenditures. The District's O&M expenditures are considered reasonable based on historical trends and current year budgeted needs. 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 29 presents the MSD Variable Debt Service report. The 2008A Series bonds are performing at budgeted expectations. As of the end of February 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.

With no further discussion, Mr. VeHaun called for a motion to approve the Consolidated Motion Agenda. Ms. Frost moved. Ms. Bryson seconded the motion. Roll call vote was as follows: 11 Ayes; 0 Nays.

**8. Old Business:**

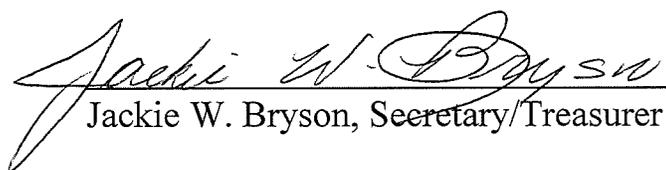
Mr. Kelly asked Mr. Powell to give the Board a brief update from today's Finance Committee Meeting. Mr. Powell stated that the District had an opportunity to refund the 2008 bonds to amount to an expected savings of approximately .875% or about \$1.1 million. That equates to about \$82,000.00 of annual savings over the remaining life of that particular bond issue. Due to the nature of us doing this, Staff and Consultants looked to see if we could move our new money issue up and take advantage of reducing our cost pertaining to debt issues. In evaluating that, it was determined that it could be done. The all in interest rate cost as of Friday, March 10, 2017 was 3.74% which is better than what we have in our business model. This does not have an impact on projected rate increases and is in accordance with our debt service policy and will maintain our debt coverage rate of 1.5% over the life of the debt issuance. Minutes of this meeting together with the PowerPoint presentation will be sent out to all Board Members before the next Board Meeting and this item will be coming to the Board in April as well as in May with preliminary series resolutions pertaining to the new debt as endorsed by the Finance Committee.

**9. New Business:**

None

**10. Adjournment:**

With no further business, Mr. VeHaun called for adjournment at 2:33 pm.

  
Jackie W. Bryson, Secretary/Treasurer

# MSD

## Regular Board Meeting

Metropolitan Sewerage District  
of Buncombe County, NC

### AGENDA FOR 3/15/17

✓	Agenda Item	Presenter	Time	
	Call to Order and Roll Call	VeHaun	2:00	
	01. Inquiry as to Conflict of Interest	VeHaun	2:05	
	02. <a href="#">Approval of Minutes of the February 15, 2017 Board Meeting</a>	VeHaun	2:10	
	03. Discussion and Adjustment of Agenda.	VeHaun	2:15	
	04. Informal Discussion and Public Comment	VeHaun	2:20	
	05. <a href="#">Report of General Manager</a>	Hartye	2:25	
	07. Consolidated Motion Agenda		2:35	
	a. Consideration of Developer Constructed Sewer Systems: <a href="#">Cottages at Kenilworth; Givens Gerber Park Phase 1; Maple Trace Phase 1; Ramble at Parkway; Robinhood Sewer Relocation; Village at Bradley Branch Ph. 3</a>	Hartye		
	b. <a href="#">Cash Commitment/Investment Report-Month Ended January, 2017</a>	Powell		
	08. Old Business:	VeHaun	3:00	
	09. New Business:	VeHaun	3:15	
	10. Adjournment: (Next Meeting 4/19/17)	VeHaun	3:25	
	<a href="#">STATUS REPORTS</a>			

## **BOARD OF THE METROPOLITAN SEWERAGE DISTRICT**

**February 15, 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, February 15, 2017. Chairman VeHaun presided with the following members present: Ashley, Bryson, Creighton, Frost, Kelly, Manheimer, Pelly, Pressley, Root and Wisler. Mr. Collins was absent.

Others present were: Thomas E. Hartye, PE, General Manager; William Clarke, General Counsel; Forrest Westall with McGill Associates; Erica Anderson with Land of Sky; Joe Belcher with Buncombe County; Joseph Martin with Woodfin Sanitary Water & Sewer District; Ed Bradford, Scott Powell, Hunter Carson, Matthew Walter, Jim Hemphill, Peter Weed, Ken Stines, Angel Banks, Mike Stamey, Mike Schraven, 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 January 18, 2017 Board Meeting:**

Mr. VeHaun asked if there were any changes to the Minutes of the January 18, 2017 Board Meeting. Ms. Frost moved for approval of the minutes as presented. Ms. Bryson seconded the motion. Voice vote in favor of the motion was unanimous.

### **4. Discussion and Adjustment of Agenda:**

Mr. VeHaun announced that there will be a closed session at the end of this meeting to discuss a condemnation settlement. Ms. Manheimer will be excused from this closed session as her law partner represents the landowners.

### **5. Informal Discussion and Public Comment:**

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

### **6. Report of General Manager:**

Mr. Hartye reported that MSD received the 2017 National Environmental Achievement Award from the National Association of Clean Water Agencies (NACWA) on February 6<sup>th</sup> at the annual conference. They recognized MSD's Emissions Upgrade Project at the Treatment Plant as being exemplary of using innovation to affordably meet new compliance requirements. Mr. Hartye stated there is an exhibit in the Boardroom. In mid-2013, MSD learned that the EPA would mandate that Sewer Sludge Incinerators (SSI's) be required to operate under the Maximum Available

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Control Technology (MACT) provisions of the Clean Air Act. This triggered a different set of regulations than was previously applied by the EPA, and would have a significant effect on the incinerator system emission limits - particularly with regard to mercury limits. EPA mandated compliance by March 21, 2016, with no federal funding or assistance made available. This was a short time frame for a project of this magnitude, which required preliminary engineering/investigation of various options, full design & permitting, and construction of significant modifications to MSD's current incinerator system. To reduce mercury levels to within the new limits, traditional technology typically utilizes sulfur-impregnated activated carbon, which is the only MACT-identified & approved technology for removing mercury. Activated carbon systems require that the high-volume airstream passing through them be thoroughly dried by re-heating. In addition, a caustic system must be added to counteract sulfur dioxide, which the carbon system does not remove. Caustic is a highly reactive chemical, and the use of it requires specific measures to protect worker health and safety. Early in the investigation process, MSD was made aware of an emerging technology from EnviroCare International which utilizes a sorbent polymer composite (SPC) material within removable modules, manufactured by W.L. Gore & Associates (as in the well-known Gore-Tex). This type of system had been utilized in power plants to clean their emissions, but had not been previously utilized in this type of application for SSI's. Potentially, the cost of implementing this newer technology was far less than traditional activated carbon - approximately \$4.8 million less. It would also be cleaner, safer, and far easier to operate/maintain over time. Due to these significant benefits, MSD staff chose to pursue this option and immediately began the process to pilot test this technology at our plant during July 2014. Even though this technology was new and had no previous installations in SSI's, the benefits in terms of cost, performance, and long-term maintenance were simply too great for MSD staff to ignore - even considering the looming EPA deadline of March 2016. The results of the pilot testing were highly favorable, with mercury removal rates averaging 89%, using five layers of SPC panels. Based upon the pilot, MSD decided to implement this new technology and move forward with full scale design and construction of the new system. Construction of the system began in July 2015 and continued through November 2015. During this time, the incinerator had to be completely shut down for a period of 40 days. The new system began on December 1, 2015, nearly one month ahead of schedule. Testing was completed in February 2016 in order to obtain results prior to the EPA deadline. Mr. Hartye stated that he also wanted to give "the rest of the story". He stated that first off, our consultant (and their expert incinerator person) originally recommended against attempting this and that we go the traditional and expensive route. Being familiar with the numbers and the consultant's inclination to be conservative in regulatory matters, regardless of the savings at stake for MSD, we decided to risk spending a little over \$50,000 just to pilot test it because 1) The up side was too good, saving our rate payers approximately \$5 million. 2) because of the excellence and competence of the MSD Staff. There was a big downside as well, this had never been done before and there

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was no assurance it would be even permitted, much less completed, by the deadline. Failure would mean an EPA action of some sort as well as bad press and a big black eye. Unfortunately, some of our sister agencies here in North Carolina met with that fate and worse. The primary reason MSD was successful is because of this team you see in front of you. There are a lot of unknowns and hidden risks in a complex project like this. Straight out of the gate we hit road blocks that would have turned other agencies back. EnviroCare International, which is the equipment manufacturer, sent the pilot equipment in a “mell of a hess” for Peter Weed and Mike Ball to piece together. At first the pilot system (not a pilot unit) consisted of a bunch of disparate pieces of equipment connected by some industrial duty dryer hoses flailing about like the arms on the robot from “Lost in Space”. The main blower unit motor burnt out twice due to bearing and seal failures from the acidic and corrosive air passing through the blower. We also had to have the impeller re-balanced twice and then replaced altogether. EnviroCare support was mostly at a distance – so Peter and Mike Ball spent many an hour and week-end hours supporting, fixing, and reworking the equipment so that we could ascertain some viable data. All in all it was a painful, frustrating period fraught with a lot of mini failures. As a result of the precarious nature of the pilot, Roger Edwards had his operators baby sit this pilot all the while. The test results came back and showed great promise, so we felt the data supported the risk of taking the plunge, but now we faced the time risk of building and permitting something entirely new along with replacing the majority of the incineration system before the deadline of March, 2016. That’s where Hunter Carson, the Project Manager; Ed Bradford, Engineering Director; and CDM-Smith came in, basically picking apart all the elements of a major incinerator system overhaul and running them in parallel as much as possible to shorten all the critical path timelines. This, we hoped, would give us the best chance for success in meeting the deadline. They both kept the consultant and supplier on task to maintain the aggressive timeline. Hunter working with CDM making sure the train would run and Ed focusing on it arriving on time. Meanwhile, everyone was working on the arduous task of trying to get this technology permitted. Roger led that effort due to his long history as a regulator. A bit of a pleasant surprise was the understanding and flexibility of the State Air Pollution Control folks (Ashley Featherstone) in helping us navigate both the new technology and also our major upgrade to a new Title 5 Permit. The complete project involved much more than the new technology. The heat exchanger and the Venturi Scrubber were completely replaced and much work was done to the incinerator itself. It all, however, was subject to the time constraints of the new regulations because it had to be done together. MSD received competitive pricing on the equipment and construction and had the benefit of a good contractor and an outstanding construction inspector in Mike Schraven, who resolved many, many problems but kept the contractor moving and on or slightly ahead of schedule so that at the end we had the luxury of timing our startup around the holidays. After completion and successful testing, Roger Edwards showed great leadership in developing a training effort that included MSD operators, consultants, regulators, and other agencies. There were many peaks and

valleys but I know it was a rewarding challenge for everyone involved. I am honored to serve alongside such a competent, talented group, and would like to give them a hand.

Mr. Hartye reported that there is an attached summary of a call of appreciation from Abby Griffith of Weaverville. Thanks to Cecelia Cardascio, Myrt Hunter and Gilbert Karn.

Mr. Hartye reported that MSD received a card in the mail today which took Staff aback. Unfortunately we lost one of MSD's own, James Beaver, a couple of weeks ago right after his shift. Mr. Beaver was a good man who had worked here for several years. His position was a first responder who, when someone calls in with a problem, is the first to go out and figure out if a crew needs to be there or attend to whatever the situation entails. MSD happened to get a card today in care of MSD to the family of James Beaver, from a lady who he had been out to meet. The inside read: "My condolences to you. Mr. Beaver was a good man who helped me with my sewer problem, was very kind hearted and I am very sorry for your loss." Mr. Hartye further stated that inside the card was a \$20.00 check for Mr. Beaver's family and asked for everyone to keep them in your thoughts.

Mr. Hartye reported that several months ago, Staff reported on the Avadim Technologies project in Black Mountain which is expected to create about 550 new jobs and over \$25 million in capital funds. The Town of Black Mountain is the lead agency for the Economic Development Administration (EDA) grant funding of the water and sewer infrastructure to serve the area and MSD is the co-applicant. The Board is being asked to consider and approve the attached resolution required by the EDA to complete the process. Erica Anderson from Land of Sky is present to answer any questions you may have. Mr. Clarke crafted a few changes to the resolution and can also answer any questions. There was no discussion. Mr. VeHaun called for a motion to adopt the Resolution. Mr. Kelly moved. Mr. Root seconded the motion. Roll call vote was as follows: 11 Ayes; 0 Nays.

Mr. Hartye reported the next regular Board Meeting will be held on March 15<sup>th</sup> at 2pm. The next Right of Way Committee meeting will be held on March 22, 2017 at 9am. He further reported a correction to the Regular Meetings list, the 2017 June Board Meeting is on June 14<sup>th</sup>, which is a week early due to budget.

## **7. Report of Committees:**

### **Right of Way Committee:**

Chairman Kelly reported the Right of Way Committee met on January 25, 2017, to consider Compensation Budgets for Jonestown Road and 166 South French Broad Avenue Emergency Sewer Rehabilitation and to consider a Condemnation for Lakeshore Drive @ Merrimon Avenue GSR

and a Condemnation for Hendersonville Road @ Rosscraggon Drive Phase 2. Committee voted unanimously in favor of Staff's recommendations. Mr. Clarke reported that the easement from Salabert on Lakeshore Drive @ Merrimon Avenue (Item 07.b. on the Board Agenda) has been signed and it will not be necessary to proceed with Condemnation. That item can be removed from the Consolidated Motion Agenda.

**8. Consolidated Motion Agenda:**

**a. Consideration of Compensation Budgets: Jonestown Road GSR and 166 South French Broad Avenue Emergency Rehabilitation:**

Mr. Hartye reported that the Right of Way Committee recommends approval of the Compensation Budgets.

**b. Consideration of Condemnation: Hendersonville Road @ Rosscraggon Drive Phase 2:**

Mr. Hartye reported that the Right of Way Committee recommends authority to obtain appraisal and proceed with condemnation, if necessary.

**c. Consideration of Bids: Sweeten Creek @ Busbee View Sanitary Sewer Rehabilitation Project:**

Mr. Hartye reported that this new line is comprised of 960 LF of 8-inch DIP to be installed by dig & replace and 90 LF of 8-inch HDPE to be installed by pipe-bursting, for a total project length of 1,050 LF. The contract was advertised and six bids were received on January 26, 2017 in the following amounts: Thomas Construction Company in the amount of \$339,180.00; North American Pipeline Management in the amount of \$300,221.00; Buckeye Bridge, LLC in the amount of \$297,047.70; Thunder Contracting Inc. in the amount of \$257,477.85; Wagner Company, LLC in the amount of \$214,128.10 and Terry Brothers Construction Company in the amount of \$192,315.00. Terry Brothers Construction Company is the apparent low bidder. They have completed numerous projects for MSD, and their work quality continues to be excellent. The FY 16-17 Construction Budget for this project is \$250,000.00. Staff recommends award of this contract to Terry Brothers Construction Company in the amount of \$192,315.00, subject to review and approval by District Counsel.

**d. Consideration of Bids: Freno Drive Sewer Rehabilitation Project:**

Mr. Hartye reported that this project is located in the Oakley area of Asheville and consists of replacing problematic 4-inch PVC private sewer lines which are difficult to maintain due to buried bends in the lines and only one manhole. This system has been maintained by the District since 2008. Due to numerous problems and customer service

requests the line is being rehabilitated. The new line consists of 2,594 LF of 8-inch DIP. The contract was advertised and five bids were received on January 26, 2017 in the following amounts: Buckeye Bridge, LLC in the amount of \$656,352.00; North American Pipeline Management in the amount of \$624,803.00; Wagner ES Company, LLC in the amount of \$596,362.50; Thunder Contracting Inc. in the amount of \$560,717.00; and Terry Brothers Construction Company in the amount of \$511,623.00. Terry Brothers Construction Company is the apparent low bidder. They have completed numerous MSD projects and their work quality continues to be excellent on work performed for the District. The FY 6-17 Construction Budget for this project is \$630,000.00. Staff recommends award of this contract to Terry Brothers Construction Company in the amount of \$511,623.00, subject to review and approval by District Counsel.

**e. Consideration of Developer Constructed Sewer Systems: The Asheville Exchange; Springside Road Townhomes:**

Mr. Hartye reported that the Asheville Exchange project included extending approximately 575 linear feet of 8-inch public gravity sewer to serve the 312 unit apartment complex.

Mr. Hartye reported that the Springside Road Townhomes project included extending approximately 117 linear feet of 8-inch public gravity sewer to serve the 3 unit residential development.

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

**f. Consideration of Audit Contract for FY17:**

Mr. Powell reported that Cherry Bekaert continues to provide excellent service and commits to work hard to control expenses and pass on any additional savings to the District. For FY17, Cherry Bekaert is proposing a fee of \$45,000.00. This amount will be included in the FY18 fiscal budget. Staff recommends approval of the FY17 audit contract with Cherry Bekaert, LLP, subject to review and approval by District Counsel. Mr. Kelly asked how this bid compares with the current contract with Cherry Bekaert. Mr. Powell stated this is the same amount as last year. In December, the actual contract came in \$2,500.00 less than budgeted. They still propose this amount. Staff works tirelessly to do a paperless audit which limits the time they are in the field. They typically spend about 4 days in the field and this year the spent about 2 days which reduces travel and lodging expenses and they pass those savings on to the District. There were no further questions regarding this matter.

**g. Second Quarter Budget to Actual FY17:**

Mr. Powell reported that Page 28 presents the District's first quarter Budget to Actual Revenue and Expenditure Report. Domestic Revenue is at budget expectations. Industrial Revenue is trending better than budgeted expectations due to a temporary increase in revenue from one industrial user. Staff monitors consumption trends as they have a direct effect on the District's current and future revenue projections. Facility and Tap Fees are above budgeted expectations due to receiving approximately \$2.6 million from five developers. Interest and miscellaneous income are slightly below budgeted expectations. Fixed income investment yields are lower than expected. O&M expenditures are at 51.7% of budget. They include encumbered amounts of approximately \$744,000.00 which will be expended throughout the remainder of the fiscal period. Bond principal and interest expenditures are reflected at 50%. This will aid the user of the budget to actual document to properly assess debt service commitments on a budgetary perspective. Actual amount spent as the end of the second quarter is 21.62%. This is due to the timing of the District's debt service payment. Amounts budgeted for capital equipment and capital projects are rarely expended proportionately throughout the year. Due to the timing of capital projects, this amount is considered reasonable.

**h. Cash Commitment/Investment Report Month ended November, 2016:**

Mr. Powell reported that Page 57 presents the makeup of the District's Investment Portfolio. There has been no change in the makeup of the portfolio from the prior month. Page 58 presents the MSD investment managers report for the month of December. The weighted average maturity of the investment portfolio is 162 days. The yield to maturity is .92% and exceeds our bench mark of 6 month T-Bill and North Carolina Capital Management Trust cash portfolio. Page 59 and 60 present an analysis of the District's cash receipts, which was previously reviewed. Page 62 presents the MSD Variable Debt Service report. The 2008A Series bonds are performing at budgeted expectations. As of the end of January this issue has saved the District rate payers approximately \$4.8 million in debt service since April, 2008. There were no questions pertaining to this item.

With no further discussion, Mr. VeHaun called for a motion to approve the Consolidated Motion Agenda. Ms. Frost moved. Mr. Creighton seconded the motion. Roll call vote was as follows: 11 Ayes; 0 Nays.

**9. Old Business:** None

**10. New Business:**

At 2:32 pm, Mr. Kelly moved the Board go into closed session to discuss resolution of a pending condemnation settlement against the Asheville Firefighter's Association. Ms. Wisler seconded the motion. Voice vote in favor of the motion was unanimous. Mr. Clarke asked Ed Bradford and Angel Banks to stay. Ms. Manheimer excused herself from the closed session due to a conflict of interest.

At approximately 2:43 pm, the Board went back into open session.

Mr. Pelly made the motion to settle the pending condemnation settlement against the Asheville Firefighter's Association in the amount of \$295,000.00. Ms. Wisler seconded the motion. Ms. Manheimer was not present for the vote due to a conflict of interest. Roll call vote was as follows: 10 Ayes; 0 Nays.

Mr. VeHaun stated that he would like for everyone to take a minute to look at the 2017 National Environmental Achievement Award from NACWA to the District that was reported on earlier from Mr. Hartye.

**11. Adjournment:**

With no further business, Mr. VeHaun called for adjournment at 2:48 pm.

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Jackie W. Bryson, Secretary/Treasurer



# MEMORANDUM

TO: MSD Board  
FROM: Thomas E. Hartye, P.E., General Manager  
DATE: March 9, 2017  
SUBJECT: Report from the General Manager

- Kudos

- MSD has once again received the Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA). Many thanks to the great effort put forth by Teresa Gilbert and Scott Powell.
- MSD has also received National Recognition Award from the American Council of Engineering for the air emissions upgrade project that was recognized last month.
- Received a call from Carolyn Jackson of Providence Rd. in Asheville stating “MSD guys are always doing what they were told to do. Perform like an orchestra, coordinated and smooth running. She has never seen this type of work/attitude by other construction crews who have performed work on her street before. She also indicated that they cleaned up the work areas very well and the crew even helped one of her neighbors (with medical issues) carry groceries into their house.” Thanks to Shane Meadows, Boyce Lunsford, Doug Dockery, Grayson Hensley, David Simmons, Lloyd Anders, and Grey Clough.
- See attached email from Bill Hart at the North Fork Water Treatment Plant.

- MSD Capital Improvements Update

Ed Bradford and Mike Stamey will give a brief update of the Capital Improvements/Construction that is ongoing throughout the district. This years CIP is \$22 million. Below is MSD’s current FY17 Budget:

➤ Total Budget \$47,009,663

1. CIP (Rehab Construction)	\$22,042,087	} 64% Construction related
2. Debt Service	\$ 7,956,840	
3. O&M	\$16,038,288	
4. Capital Equipment	\$ 972,488	

- Board/Committee Meetings/Events

The next Regular Board Meeting will be held on April 19<sup>th</sup> at 2 pm. The Finance Committee will meet at 1:00 pm on March 15<sup>th</sup>. The next Right of Way Committee meeting will be held on April 26<sup>th</sup> at 9am.

**From:** Bill Hart [mailto:BHart@ashevillenc.gov]

**Sent:** Friday, February 10, 2017 1:54 PM

**To:** Stines, Ken

**Cc:** Lee Hensley

**Subject:** Work at North Fork

Ken,

I wanted to take a moment to thank you and MSD for the help that you provided us at the North Fork WTP. We were very impressed with both of your crews. They functioned very professionally and efficiently and it was obvious that they knew what to do. Your crews found our problem and saved us a great deal of time, effort, and money. It also turns out that Mitch Hawes was one of my mother's students when he was in third grade. It's a small world. Please extend our thanks and appreciation to those folks. If there is ever anything that we can do for you please do not hesitate to ask.

Thank you,

Bill

Bill Hart

North Fork WTP Supervisor

City of Asheville

Office # 828-271-6103

Cell # 828-777-1948

*Thanks to:*

*Mitch Hawes*

*Furman Dean*

*Ray Lunsford*

*Scott Graham*

# Metropolitan Sewerage District of Buncombe County

## Board Action Item

**BOARD MEETING DATE:** March 15, 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 the Cottages at Kenilworth, MSD Project No. 2015107

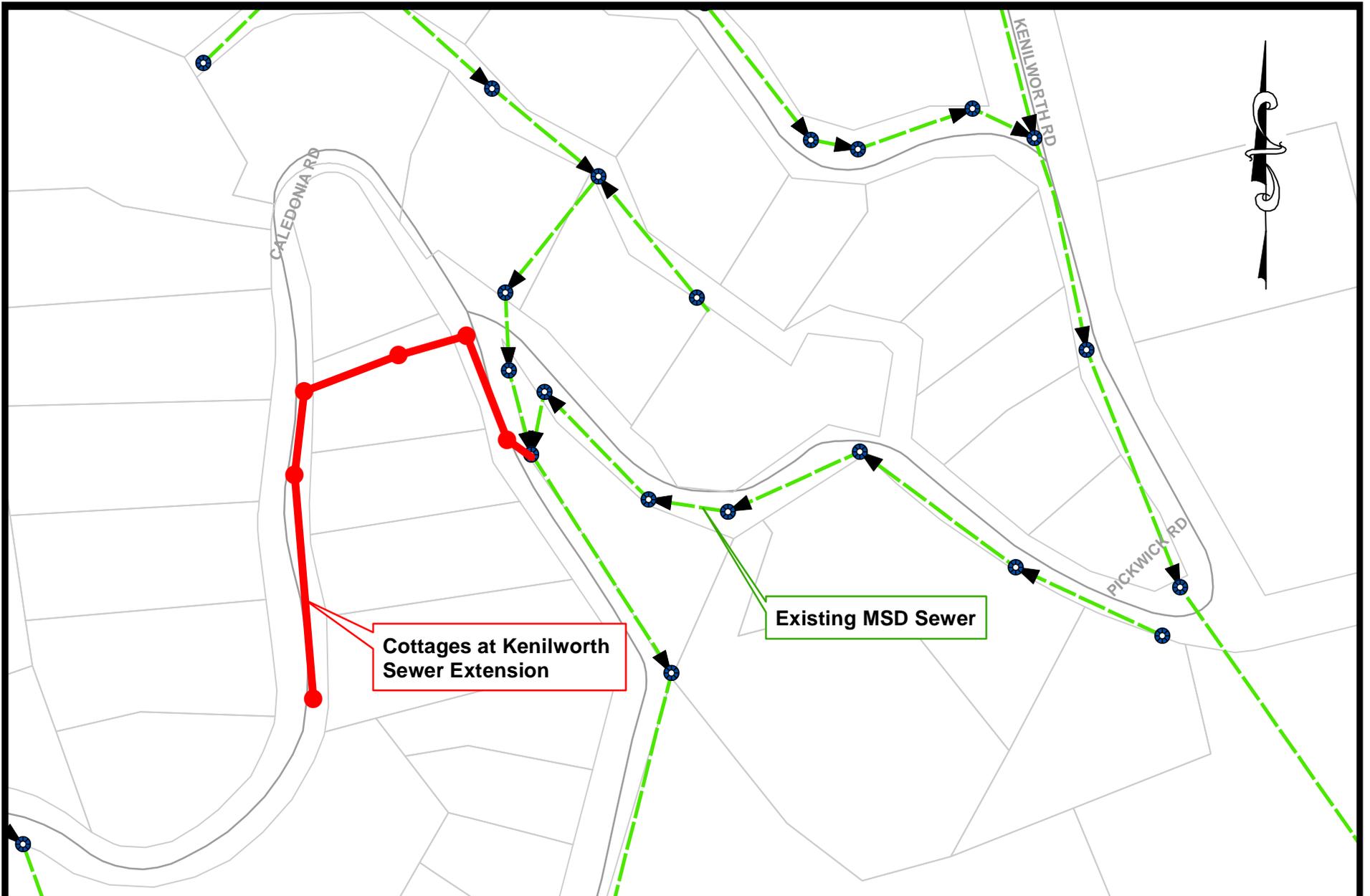
**BACKGROUND:** This project is located inside the District boundary off Caledonia Road in the City of Asheville. The developers for this project are Kevin Kerr of Kenilworth Caledonia, LLC and Kevin Scarmack of BeaFrank, LLC.

The project included extending approximately 450 linear feet of 8-inch public gravity sewer to serve the new development.

A wastewater allocation was issued in the amount of 3,600 GPD for the twelve (12) unit residential development. The estimated cost of the sewer construction is \$100,000.00.

All MSD requirements have been met.

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



**MSD**  
Engineering Division

**Cottages at Kenilworth Sewer Extension**  
**MSD Project # 2015107**  
Metropolitan Sewerage District of Buncombe County

03/02/2017

# Metropolitan Sewerage District of Buncombe County

## Board Action Item

**BOARD MEETING DATE:** March 15, 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 the Givens Gerber Park Phase 1, MSD Project No. 2014065

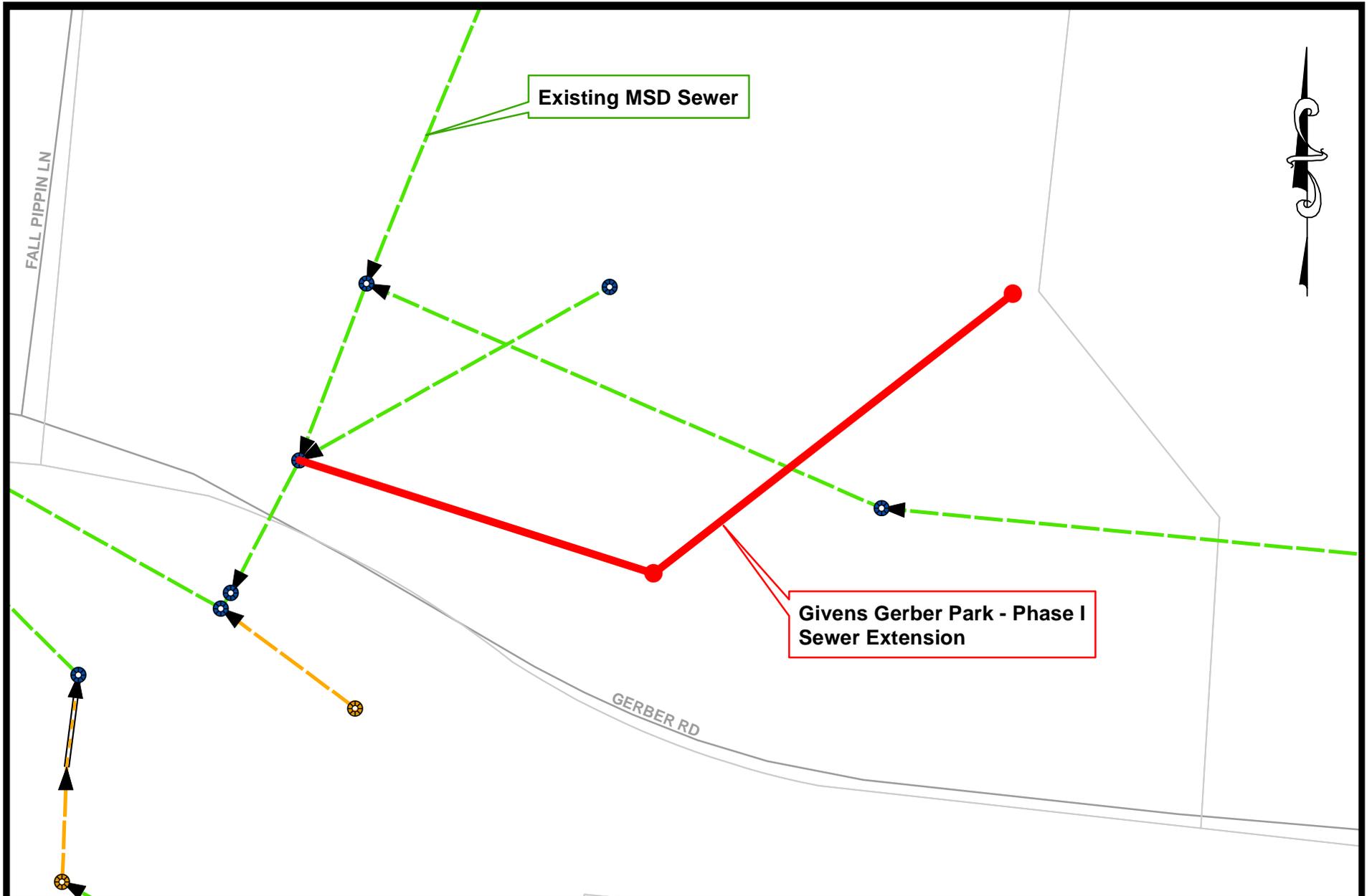
**BACKGROUND:** This project is located inside the District boundary off Gerber Road in the City of Asheville. The developers for this project are Kevin Kerr of Kenilworth Caledonia, LLC and Kevin Scarmack of BeaFrank, LLC.

The project included extending approximately 360 linear feet of 8-inch public gravity sewer to serve the new development.

A wastewater allocation was issued in the amount of 14,600 GPD for the 120 affordable unit Apartment Complex. The estimated cost of the sewer construction is \$39,000.00.

All MSD requirements have been met.

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



**MSD**  
Engineering Division

**Givens Gerber Park - Phase I Sewer Extension  
MSD Project # 2014065**

Metropolitan Sewerage District of Buncombe County

03/02/2017

# Metropolitan Sewerage District of Buncombe County

## Board Action Item

**BOARD MEETING DATE:** March 15, 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 Maple Trace Phase 1, MSD Project No. 2014121

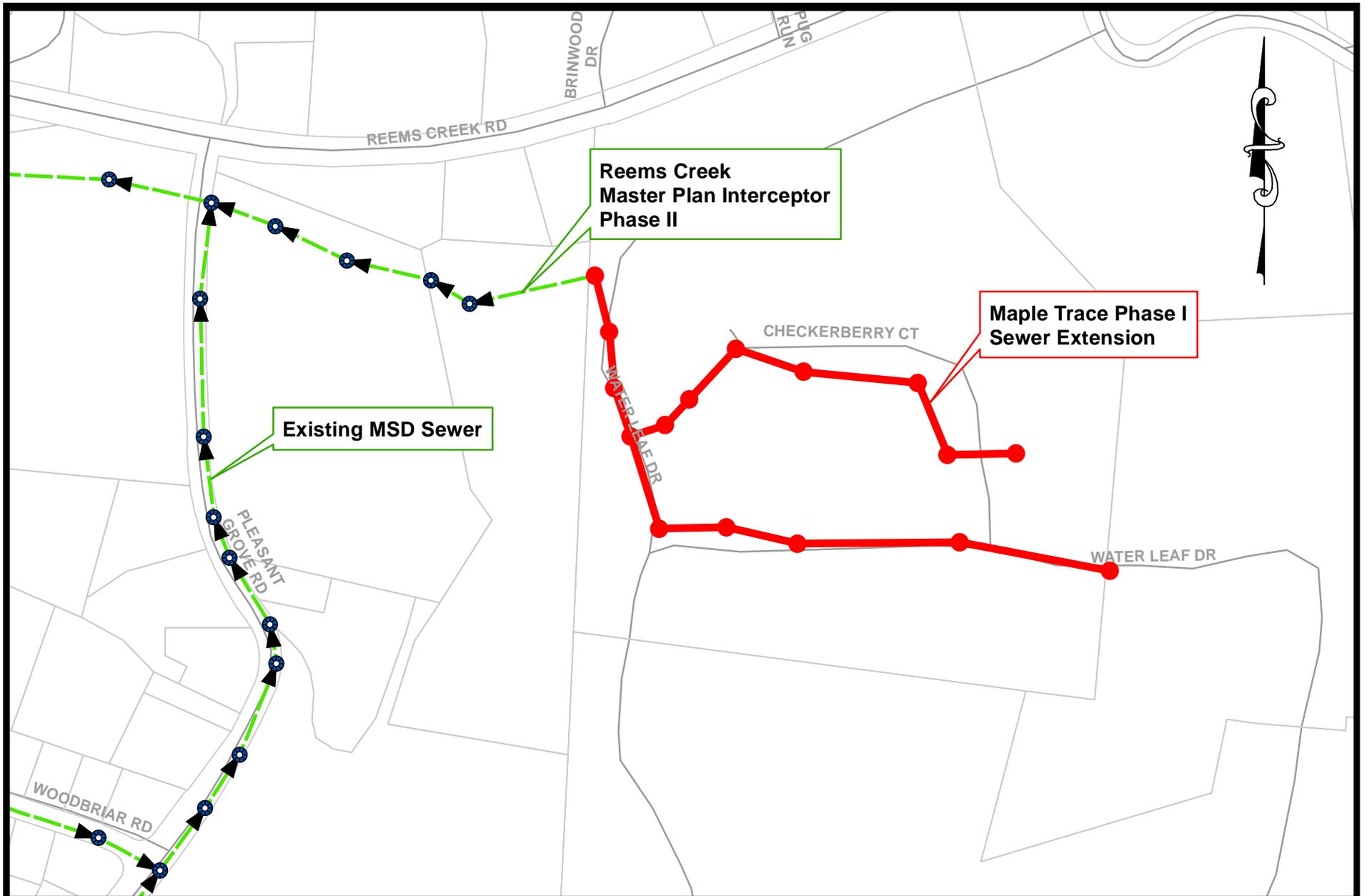
**BACKGROUND:** This project is located outside the District boundary off Reems Creek Road in Buncombe County. The developer for this project is Drew Norwood of Windsor Built Homes, Inc.

The project included extending approximately 2,140 linear feet of 8-inch public gravity sewer to serve the new development. This new system connects to the Reems Creek Master Plan Interceptor Phase II, accepted by the Board in August 2016.

A wastewater allocation was issued in the amount of 9,300 GPD for the thirty-one (31) single family homes for this phase of the residential development. The estimated cost of the sewer construction is \$135,000.00.

All MSD requirements have been met.

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



**MSD**  
Engineering Division

**Maple Trace Phase I Sewer Extension**  
**MSD Project # 2014121**  
Metropolitan Sewerage District of Buncombe County

03/02/2017

# Metropolitan Sewerage District of Buncombe County

## Board Action Item

**BOARD MEETING DATE:** March 15, 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 the Ramble at Parkway, MSD Project No. 2013100

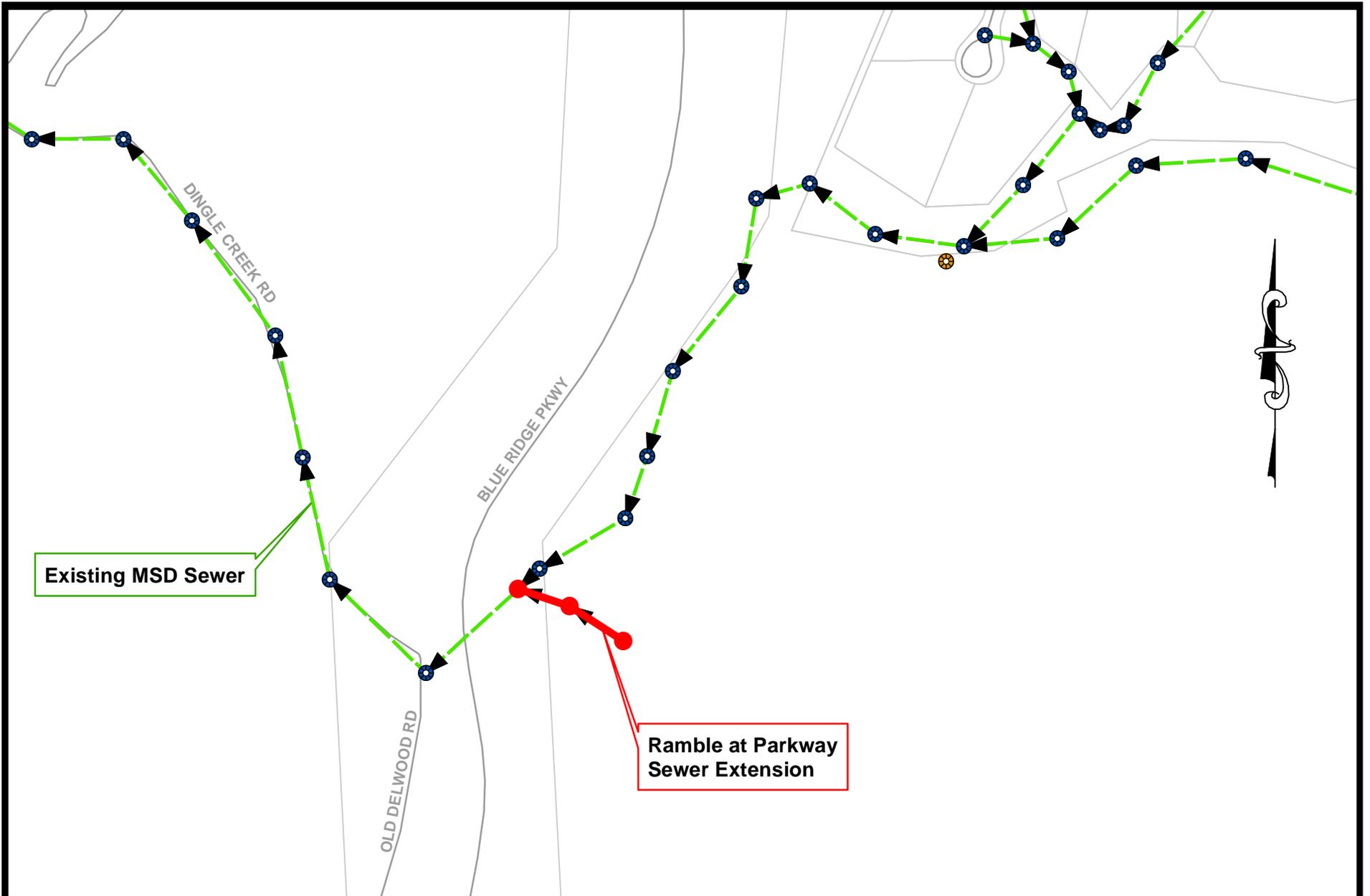
**BACKGROUND:** This project is located outside the District boundary off the Blue Ridge Parkway at Dingle Creek in Buncombe County. The developer for this project is Lee Thomason of Ramble Biltmore Forest, LLC.

The project included extending approximately 320 linear feet of 8-inch public gravity sewer to serve future phases of the Ramble Residential Development.

There was no new wastewater allocation associated with this project, as this extension is to serve future phases. The estimated cost of the sewer construction is \$41,000.00.

All MSD requirements have been met.

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



**MSD**  
Engineering Division

**Ramble at Parkway Sewer Extension**  
**MSD Project # 2013100**  
Metropolitan Sewerage District of Buncombe County

03/02/2017

# Metropolitan Sewerage District of Buncombe County

## Board Action Item

**BOARD MEETING DATE:** March 15, 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 the Robinhood Sewer Relocation, MSD Project No. 2013107

**BACKGROUND:** This project is located inside the District boundary off Robinhood Road in the City of Asheville. The developer for this project is Dan Arrowood.

The project included relocating approximately 230 linear feet of 8-inch public gravity sewer and abandoning approximately 480 linear feet of 8-inch sewer to accommodate one of the houses in the residential development.

A wastewater allocation was issued in the amount of 2,000 GPD for the five (5) unit residential development. The estimated cost of the sewer construction is \$20,000.00.

All MSD requirements have been met.

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



Existing MSD Sewer

Abandon MSD Sewer

Robinhood Sewer Relocation

ROBINHOOD RD



**MSD**  
Engineering Division

## Robinhood Sewer Relocation MSD Project # 2013107

Metropolitan Sewerage District of Buncombe County

03/02/2017

# Metropolitan Sewerage District of Buncombe County

## Board Action Item

**BOARD MEETING DATE:** March 15, 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 Village at Bradley Branch Phase 3, MSD Project No. 2008076

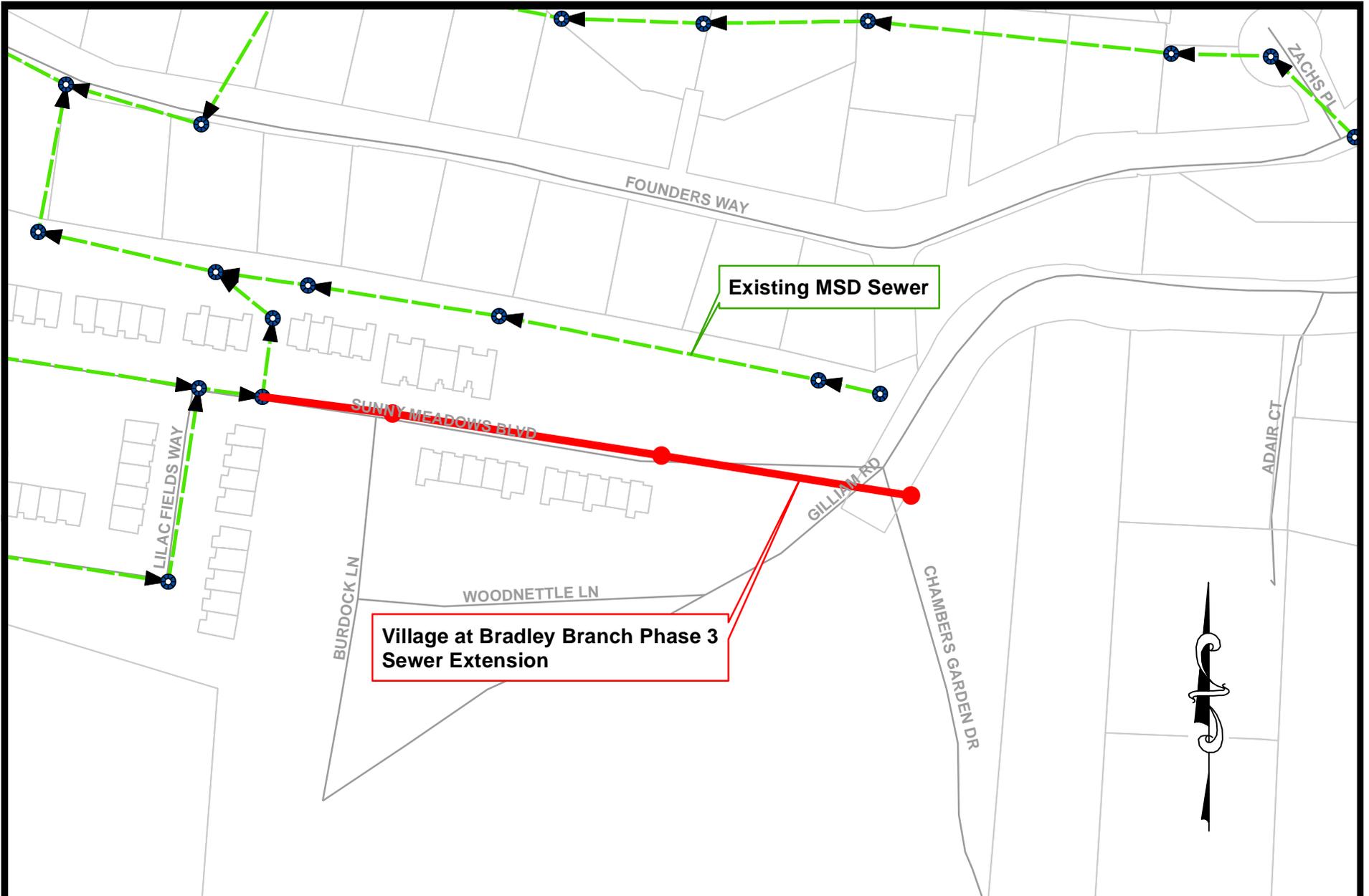
**BACKGROUND:** This project is located outside the District boundary off Bradley Branch Road in Buncombe County. The developer for this project is Bruce Alexander of Bradley Branch Investments, LLC.

The project included extending approximately 740 linear feet of 8-inch public gravity sewer to serve this phase of the residential development.

A wastewater allocation was issued in the amount of 10,200 GPD for the thirty-four (34) townhomes for this phase of the residential development. The estimated cost of the sewer construction is \$74,952.77.

All MSD requirements have been met.

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



**MSD**  
Engineering Division

**Village at Bradley Branch Phase 3 Sewer Extension  
MSD Project # 2008076**

Metropolitan Sewerage District of Buncombe County

03/02/2017

# Metropolitan Sewerage District of Buncombe County

## BOARD INFORMATIONAL ITEM

**Meeting Date:** March 15, 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 January 31, 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 January 31, 2017 were \$50,721,401. The detailed listing of accounts is available upon request. The average rate of return for all investments is 0.544%. 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 January 31, 2017 do not reflect contractual commitments or encumbrances against said funds. Shown below are the total investments as of January 31, 2017 reduced by contractual commitments, bond funds, and District reserve funds. The balance available for future capital outlay is \$14,687,370.

<b>Total Cash &amp; Investments as of 01/31/2017</b>	50,721,401
<b>Less:</b>	
Budgeted Commitments (Required to pay remaining FY17 budgeted expenditures from unrestricted cash)	
Construction Funds	(15,787,266)
Operations & Maintenance Fund	(7,578,873)
	(23,366,139)
Bond Restricted Funds	
Bond Service (Funds held by trustee):	
Funds in Principal & Interest Accounts	(21,163)
FY17 Principal & Interest Due	(7,321,490)
	(7,342,653)
District Reserve Funds	
Fleet Replacement	(857,470)
Pump Replacement	(71,045)
WWTP Replacement	(437,632)
Maintenance Reserve	(958,629)
	(2,324,776)
District Insurance Funds	
General Liability	(427,468)
Worker's Compensation	(185,127)
Post-Retirement Benefit	(1,623,454)
Self-Funded Employee Medical	(764,414)
	(3,000,463)
<b>Designated for Capital Outlay</b>	<b>14,687,370</b>

**Staff Recommendation**

None. Information Only.

**Action Taken**

Motion by:

Second by:

Other:

Follow-up Required:

to

Approve  
Table

Person Required:

Disapprove

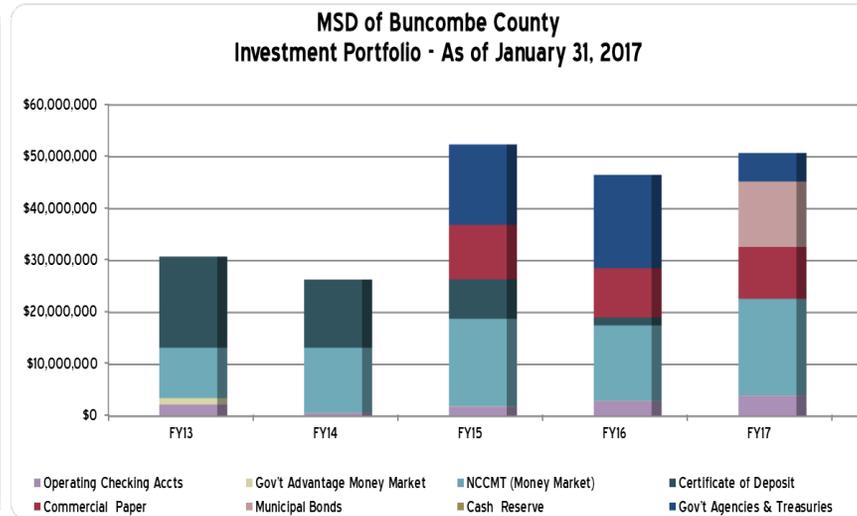
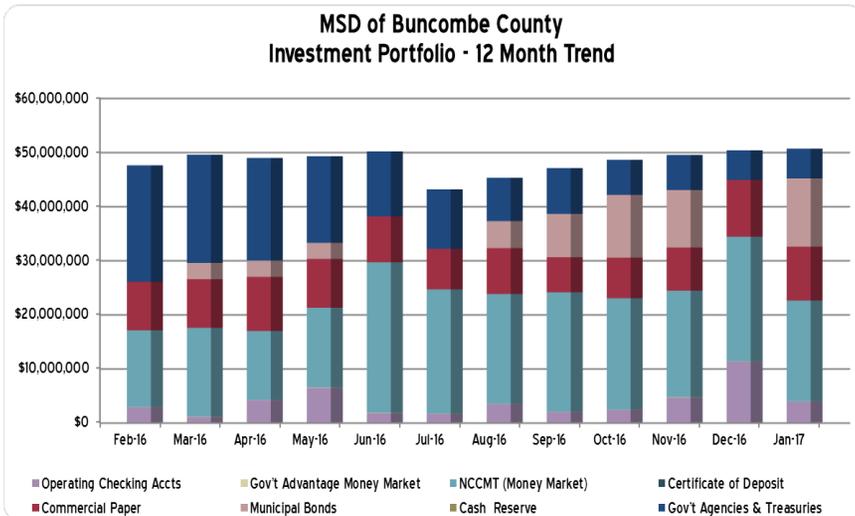
Send to Committee

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
Held with Bond Trustee	\$ -	\$ -	\$ 21,163	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,163
Held by MSD	3,974,716	46,671	18,587,414	-	9,986,437	12,605,000	-	5,500,000	50,700,238
	<b>\$ 3,974,716</b>	<b>\$ 46,671</b>	<b>\$ 18,608,577</b>	<b>\$ -</b>	<b>\$ 9,986,437</b>	<b>\$ 12,605,000</b>	<b>\$ -</b>	<b>\$ 5,500,000</b>	<b>\$ 50,721,401</b>

Investment Policy Asset Allocation	Maximum Percent	Actual Percent	
U.S. Government Treasuries.			
Agencies and Instrumentalities	100%	10.84%	No significant changes in the investment portfolio as to makeup or total amount.
Bankers' Acceptances	20%	0.00%	
Certificates of Deposit	100%	0.00%	The District's YTM of .87% is exceeding the YTM benchmarks of the 6 month T-Bill and NCCMT Cash Portfolio.
Commercial Paper	20%	19.69%	
Municipal Bonds	100%	24.85%	
North Carolina Capital Management Trust	100%	36.69%	
Checking Accounts:			
Operating Checking Accounts	100%	7.84%	All funds invested in CD's, operating checking accounts, Gov't Advantage money market are fully collateralized with the State Treasurer.
Gov't Advantage Money Market		0.09%	



**Board Meeting:** March 15, 2017

**Subject:** Cash Commitment/Investment Report-Month Ended January 31, 2017

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**METROPOLITAN SEWERAGE DISTRICT  
INVESTMENT MANAGERS' REPORT  
At January 31, 2017**

**Summary of Asset Transactions**

	Original Cost	Market	Interest Receivable
Beginning Balance	\$ 35,895,673	\$ 35,978,541	\$ 15,111
Capital Contributed (Withdrawn)	8,953,539	8,953,539	
Realized Income	11,533	11,533	254
Unrealized/Accrued Income		18,281	10,384
Ending Balance	\$ 44,860,745	\$ 44,961,894	\$ 25,749

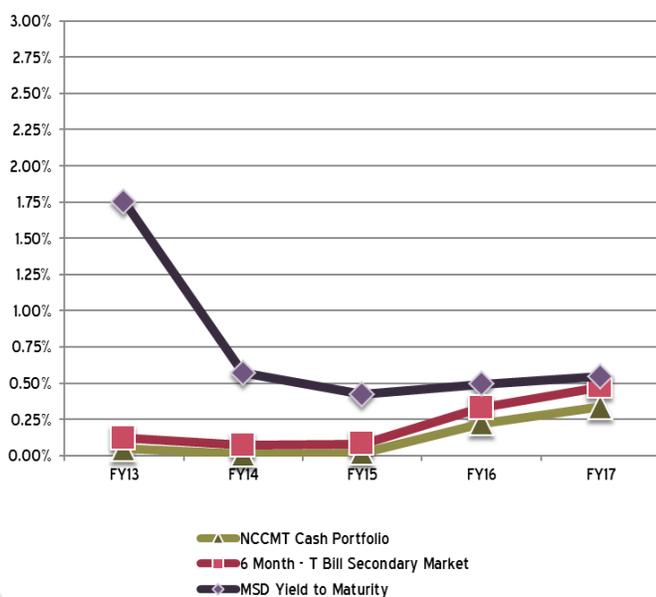
**Value and Income by Maturity**

	Original Cost	Income
Cash Equivalents <91 Days	\$ 39,360,745	\$ 35,493
Securities/CD's 91 to 365 Days	1,000,000	\$ 902
Securities/CD's > 1 Year	4,500,000	\$ 4,058
	\$ 44,860,745	\$ 40,452

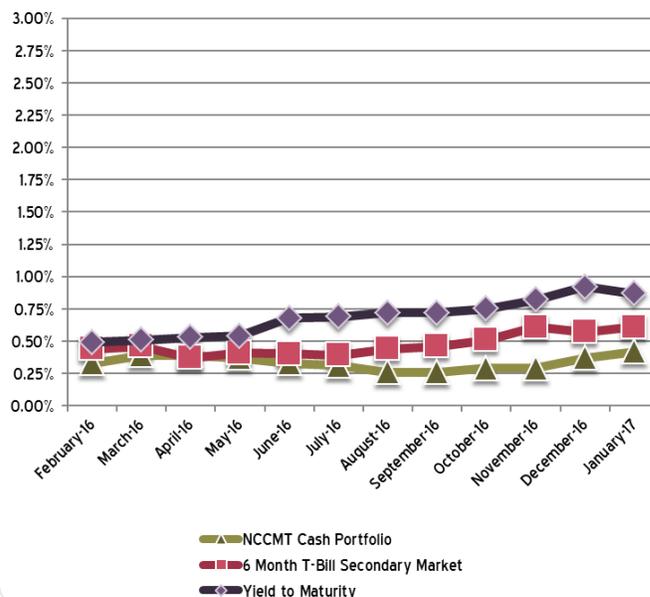
**Month End Portfolio Information**

Weighted Average Maturity	170
Yield to Maturity	0.87%
6 Month T-Bill Secondary Market	0.61%
NCCMT Cash Portfolio	0.42%

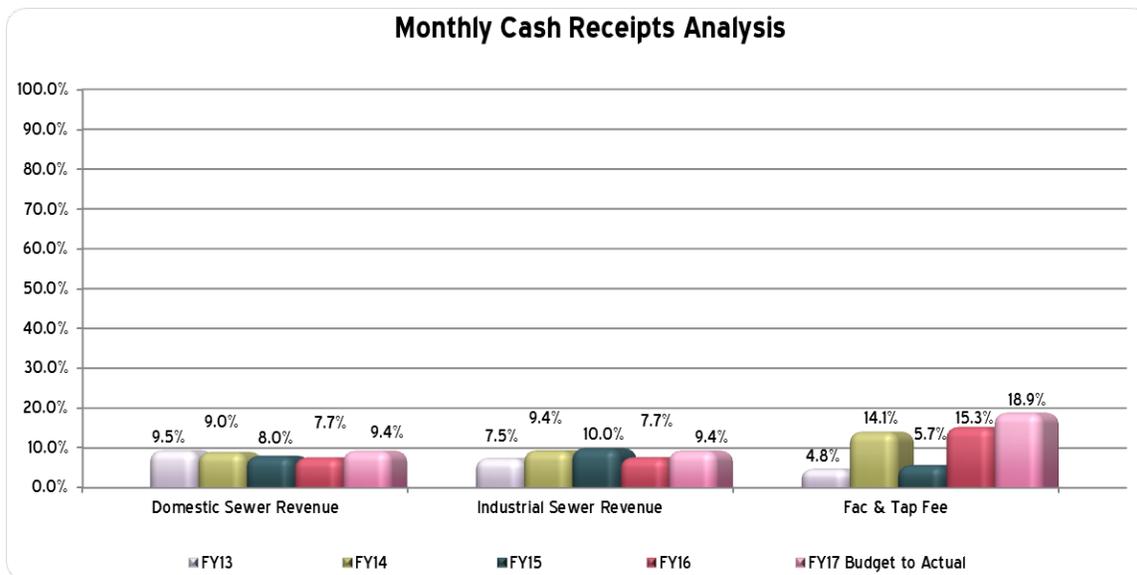
**Metropolitan Sewerage District  
Annual Yield Comparison**



**Metropolitan Sewerage District  
Yield Comparison - January 31, 2017**

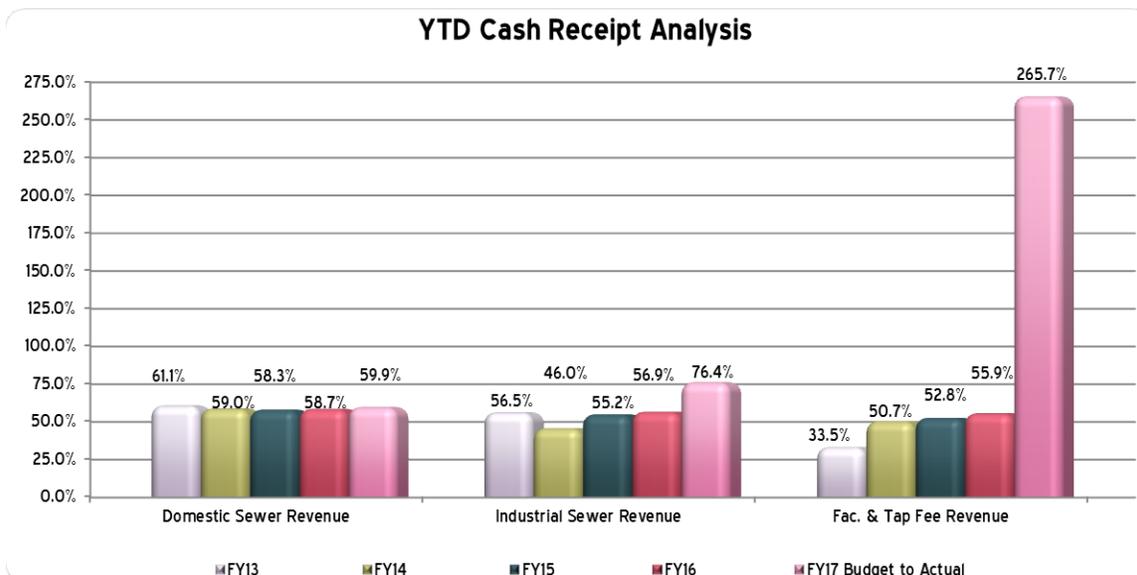


**METROPOLITAN SEWERAGE DISTRICT  
ANALYSIS OF CASH RECEIPTS  
As of January 31, 2017**



**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:**

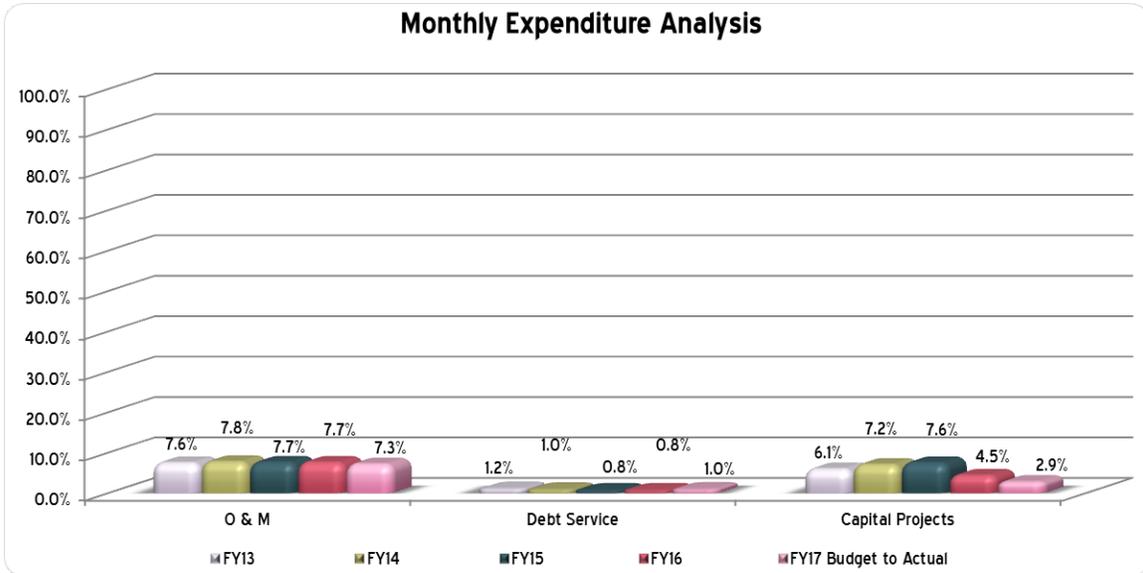
- YTD domestic sewer revenue is considered reasonable based on historical trends.
- YTD industrial sewer revenue is reasonable based on historical trends.
- Due to the unpredictable nature of facility and tap fee revenue, staff considers facility and tap fee revenue reasonable.

**Board Meeting:** March 15, 2017

**Subject:** Cash Commitment/Investment Report-Month Ended January 31, 2017

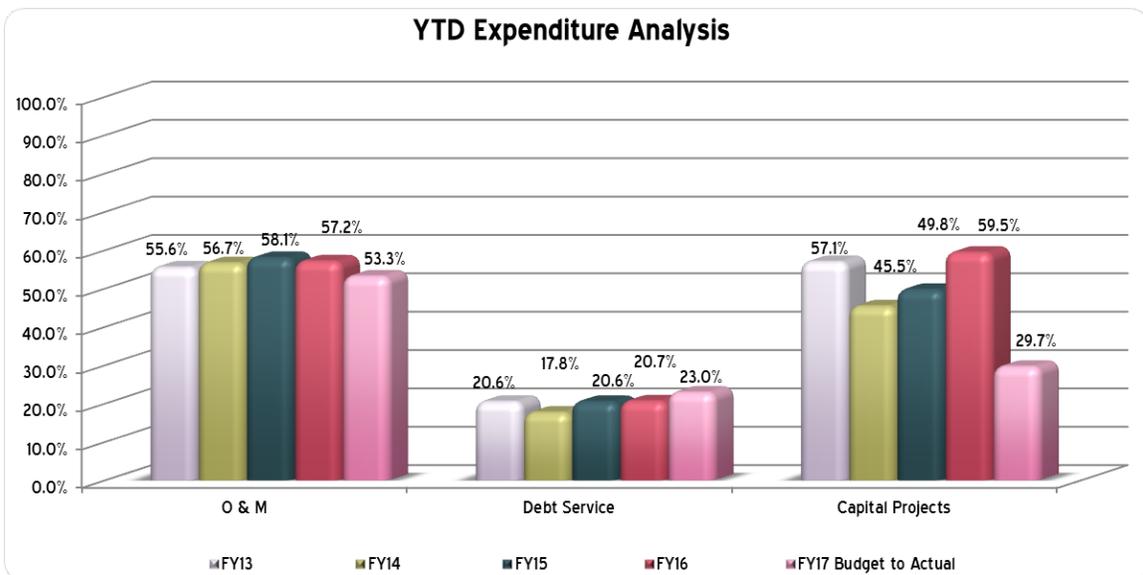
Page -5-

**METROPOLITAN SEWERAGE DISTRICT  
ANALYSIS OF EXPENDITURES  
As of January 31, 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:**

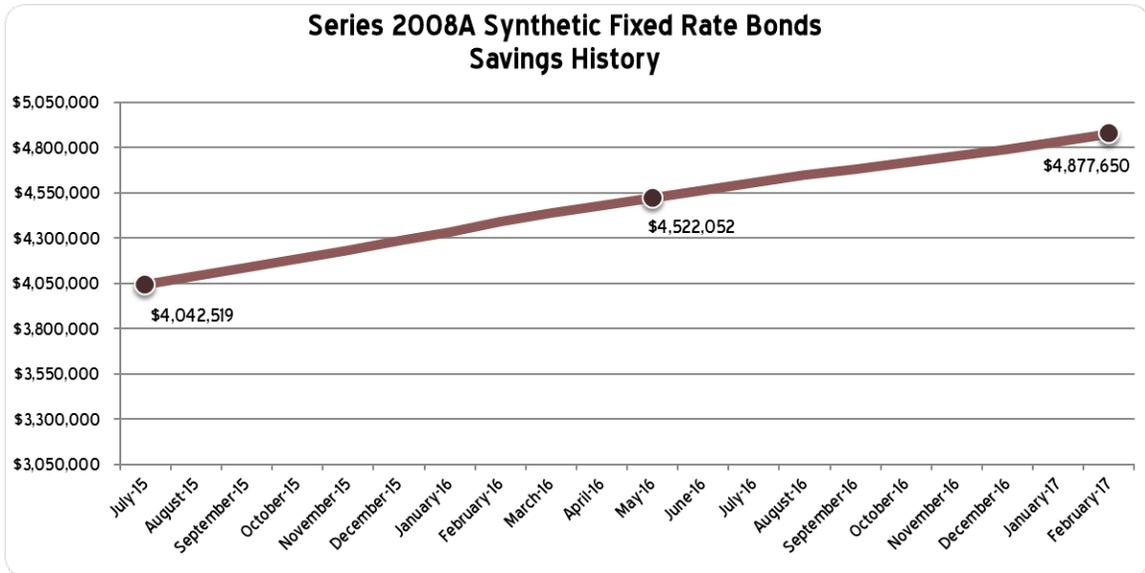
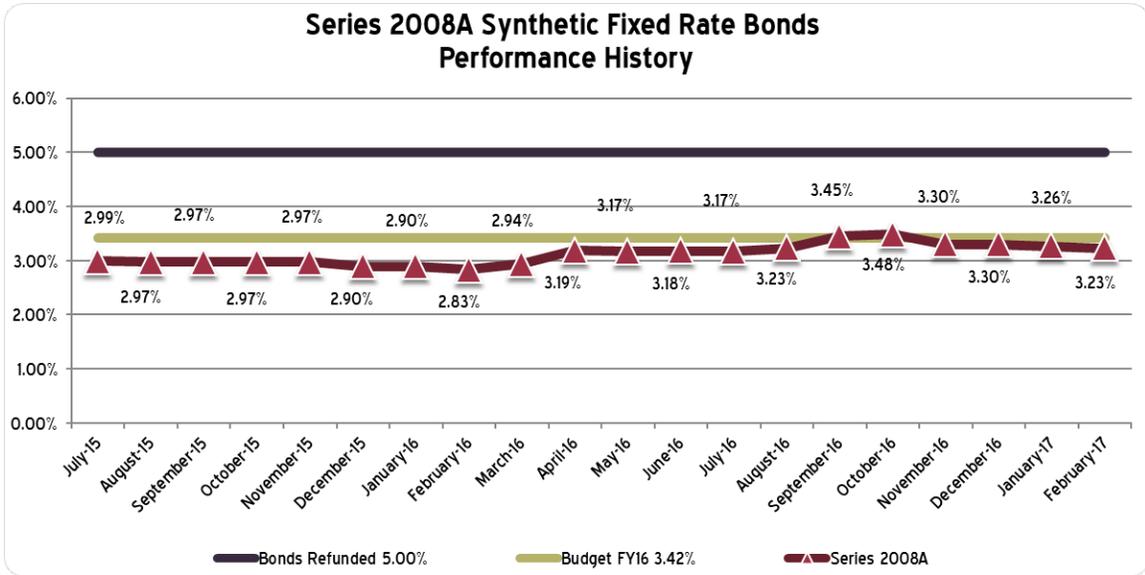
- YTD O&M expenditures are considered reasonable based on historical trends.
- Due to the nature of the variable rate bond market, YTD expenditures can vary year to year. Based on current variable interest rates, YTD debt service expenditures are considered reasonable.
- Due to nature and timing of capital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

**Board Meeting:** March 15, 2017

**Subject:** Cash Commitment/Investment Report-Month Ended January 31, 2017

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**METROPOLITAN SEWERAGE DISTRICT  
VARIABLE DEBT SERVICE REPORT  
As of February 28, 2017**



**Series 2008A:**

- ▮ Savings to date on the Series 2008A Synthetic Fixed Rate Bonds is \$4,877,650 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 \$3,991,340 to terminate the existing Bank of America Swap Agreement.

# **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 - 8/2/16	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	10/10/16 - 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			In Construction
Nebraska Street Emergency Rehabilitation	W. Asheville	28806	415	3/6/17 - 4/6/17	240563	631			ready for construction - ROW Pending
304 9th Street	Black Mountan	28711	815	4/3/17 - 5/3/17	236507	632			ready for construction
Celia Place at Bond Street	N. Asheville	28801	526	4/7/17 - 5/7/17	227752	631			ready for construction
Starnes Avenue at Broadway Street	Asheville	28801	400	FY 16-17	208325	TBA			ready for construction
350 Old Haw Creek Road	Asheville	28805	1333	FY 16-17	47802	TBA			ready for construction
905 Patton Avenue	Asheville	28806	187	FY 16-17	220384	TBA			ready for construction
149 Weston Rd	Arden	28704	210	FY 16-17	225004	TBA			ready for construction
110 Beaver Drive	Woodfin	28804	425	FY 16-17	210211	TBA			ready for construction
18 Crestland Road	Asheville	28803	270	FY 16-17	46826	TBA			ready for construction
24 Ivey Street	W Asheville	28806	850	FY 16-17	236509	TBA			In ROW
Biltmore Avenue at Bryson Street	Asheville	28801	200	FY 16-17	225195	TBA			In ROW
317 Barnard Road	Asheville	28804	299	FY 16-17	236089	TBA			In Design
School Road at Woodland	W. Asheville	28806	350	FY 16-17	224993	TBA			In Design
179 Old Haw Creek Rd	Asheville	28805	760	FY 16-17	220080	TBA			In Design
15 New Jersey	Asheville	28806	250	FY 16-17	238782	TBA			In Design



## CONSTRUCTION TOTALS BY DATE COMPLETED - Monthly

From 7/1/2016 to 1/31/2017

	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	6	78	794	21	26	0	0	0	582	7	205	787
January 2017	44	5	183	692	25	17	710	0	8	1161	13	1,082	2251
<b>Grand Totals</b>	<b>250</b>	<b>56</b>	<b>1,343</b>	<b>5,333</b>	<b>209</b>	<b>181</b>	<b>16,844</b>	<b>0</b>	<b>296</b>	<b>7963</b>	<b>81</b>	<b>3,910</b>	<b>12169</b>

\* Used to calculate Total Rehab Footage



## PIPELINE MAINTENANCE TOTALS BY DATE COMPLETED - Monthly

July 01, 2016 to January 31, 2017

	Main Line Wash Footage	Service Line Wash Footage	Rod Line Footage	Cleaned Footage	CCTV Footage	Smoke Footage	SL-RAT Footage
<b>2016</b>							
<b>July</b>	45,193	2,360	6,542	51,735	20,983	32,171	20,618
<b>August</b>	75,579	1,531	12,085	87,664	26,074	42,442	17,103
<b>September</b>	105,529	1,471	11,406	116,935	12,671	26,129	16,406
<b>October</b>	66,420	2,175	10,127	76,547	17,277	46,276	21,969
<b>November</b>	35,682	3,046	12,831	48,513	21,342	13,076	9,061
<b>December</b>	39,977	2,212	7,424	47,401	17,146	5,282	28,363
<b>2017</b>							
<b>January</b>	39,078	2,846	9,508	48,586	13,472	8,344	27,431
<b>Grand Total:</b>	<b>407,458</b>	<b>15,641</b>	<b>69,923</b>	<b>477,381</b>	<b>128,964</b>	<b>173,721</b>	<b>140,951</b>
<b>Avg Per Month:</b>	<b>58,208</b>	<b>2,234</b>	<b>9,989</b>	<b>68,197</b>	<b>18,423</b>	<b>24,817</b>	<b>20,136</b>



## CUSTOMER SERVICE REQUESTS

### Monthly - All Crews

CREW	MONTH	JOBS	AVERAGE RESPONSE TIME	AVERAGE TIME SPENT
<b>DAY 1ST RESPONDER</b>				
	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
		<b>774</b>	<b>31</b>	<b>40</b>
<b>NIGHT 1ST RESPONDER</b>				
	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
		<b>128</b>	<b>24</b>	<b>27</b>
<b>ON-CALL CREW *</b>				
	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
	January, 2017	44	61	70
		<b>287</b>	<b>49</b>	<b>42</b>
<b>Grand Totals:</b>		<b>1,189</b>	<b>34</b>	<b>39</b>

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

**CAPITAL IMPROVEMENT PROGRAM**

**STATUS REPORT SUMMARY**

**March 8, 2017**

PROJECT	LOCATION OF PROJECT	CONTRACTOR	AWARD DATE	NOTICE TO PROCEED	ESTIMATED COMPLETION DATE	*CONTRACT AMOUNT	*COMPLETION STATUS (WORK)	COMMENTS
BYPASS PUMP STAGING AREAS	Woodfin 28804	NHM Constructors, LLC	3/16/2016	4/11/2016	2/22/2017	\$307,455.72	100%	Project complete and in close out.
FRENO DRIVE PSR	Asheville 28803	Terry Brothers Construction Company	2/15/2017	TBD	TBD	\$511,623.00	0%	A preconstruction meeting is being scheduled.
LINING CONTRACT NO. 8	Various	IPR Southeast, LLC	1/18/2017	2/20/2017	7/20/2017	\$777,622.50	15%	Subcontractor is replacing manholes and doing point repairs prior to lining.
NARBETH ROAD	Asheville 28806	Terry Brothers Construction Company	3/8/2017	TBD	TBD	\$106,235.20	0%	Contracts are being prepared.
POINT REPAIR CONTRACT NO. 1	Various	Patton Construction Group	8/17/2016	9/12/2016	6/30/2017	\$169,720.00	50%	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	0%	Preconstruction meeting was held on March 2nd. Work expected to begin on April 3rd.
SAND HILL ROAD @ RUSSELL / DAVENPORT	West Asheville 28806	Terry Brothers Construction Company	12/21/2016	12/29/2016	4/28/2017	\$425,089.00	75%	Project is progressing well.
SOUTH FRENCH BROAD INTERCEPTOR - LINING	Biltmore Estate 28803	SAK Construction, LLC	11/16/2016	1/3/2017	4/3/2017	\$585,177.70	75%	Project is progressing well.
SOUTH FRENCH BROAD INTERCEPTOR - LINING PHASE II	Biltmore Estate 28803	SAK Construction, LLC	1/10/2017	1/23/2017	4/1/2017	\$494,152.50	75%	Project is progressing well.
STRATFORD ROAD @ OXFORD COURT	Asheville 28804	Patton Construction Group	11/16/2016	1/3/2017	4/3/2017	\$216,700.00	80%	Project is progressing well.
SWEETEN CREEK ROAD @ BUSBEE VIEW	Asheville 28803	Terry Brothers Construction Company	2/15/2017	TBD	TBD	\$192,315.00	0%	A preconstruction meeting is being scheduled.

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

## Planning & Development Project Status Report

Active Construction Projects Sorted by Work Location and Project Number

March 2, 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
3	Hunt Hill Apartments	2013111	Asheville	28801	180	1,729	3/5/2014	Final Inspection complete, awaiting close-out docs
4	Dillingham Woods	2014048	Asheville	28805	27	375	3/4/2015	Waiting on final inspection - Project delayed
5	A.B. Tech Fernhurst Relocation	2014061	Asheville	28801	Comm.	697	4/8/2014	Awaiting Conveyance of Sewer System
6	Franklin School of Innovation	2014096	Asheville	28806	School	359	11/4/2016	Final Inspection complete, awaiting close-out docs
7	Rivermill Lofts Relocation	2014125	Asheville	28803	254	314	8/21/2015	Waiting on final inspection
8	Shelburne Road	2014126	Asheville	28806	9	418	4/5/2016	Final Inspection complete, awaiting close-out docs
9	Gibson Road (aka Four Seasons)	2014138	Asheville	28804	3	137	9/11/2015	Awaiting Conveyance of Sewer System
10	Conestee	2014149	Asheville	28801	7	113	8/7/2015	Waiting on final inspection
11	Craggy Park Ph. 1	2014164	Asheville	28806	45	1,935	10/23/2015	Final Inspection complete, awaiting close-out docs
12	First Baptist Relocation	2015032	Asheville	28801	Comm.	333	7/21/2015	Final Inspection complete, awaiting close-out docs
13	Hall Avenue	2015035	Asheville	28806	8	329	3/4/2016	Waiting on final inspection
15	Ascot Point Apartments Phase 3	2015114	Asheville	28803	104	213	9/9/2016	Testing
16	8 Sulphur Springs Road	2015116	Asheville	28806	6	80	11/22/2016	Waiting on final inspection
17	The District	2015133	Asheville	28803	309	912	2/26/2016	Testing
18	Hampton Inn & Suites	2015144	Asheville	28806	Comm.	286	11/8/2016	Waiting on final inspection
19	Beale Road Subdivision (Habitat)	2015200	Asheville	28704	21	730	4/5/2016	Waiting on final inspection
20	Fairfield Inn & Suites - Tunnel Road	2015203	Asheville	28805	Comm.	350	4/29/2016	Waiting on final inspection
21	Atkins Street	2016009	Asheville	28803	45	903	1/20/2017	Pre-con held, construction not yet started
22	88 Southside Avenue	2016015	Asheville	28801	18	400	2/21/2017	Pre-con held, construction not yet started
23	Woodbridge Park	2016082	Asheville	28803	20	615	2/17/2017	Pre-con held, construction not yet started
24	Richland Street	2016141	Asheville	28801	5	540	1/13/2017	Waiting on final inspection
25	880-888 Patton Avenue	2016182	Asheville	28806	4	85	1/31/2017	Pre-con held, construction not yet started
26	Upstream Way (aka Amboy) Ph. 2	2016254	Asheville	28806	11	402	10/20/2015	Installing
27	Rosebriar	2007005	Black Mountain	28711	12	309	8/28/2014	Final Inspection complete, awaiting close-out docs
28	West Keesler Avenue	2007176	Black Mountain	28711	6	410	11/15/2016	Testing
29	Settings at Black Mountain	2008016	Black Mountain	28711	30	907	11/13/2015	Final Inspection complete, awaiting close-out docs
30	Cheshire Pocket Village	2015129	Black Mountain	28711	15	370	2/26/2016	Final Inspection complete, awaiting close-out docs
31	Tudor Croft (aka Roberts Farm) Ph.2	2016170	Black Mountain	28711	46	1,320	1/3/2017	Installing
32	Peregrine's Ridge	2006160	Buncombe Co.	28730	14	635	11/8/2016	Waiting on Deflection Test
33	Pinnacle at Arabella Heights	2006277	Buncombe Co.	28704	28	482	11/10/2015	Testing
34	Hyde Park Phase 2	2013058	Buncombe Co.	28704	14	500	12/3/2013	Waiting on final inspection
35	Creekside Cottages	2014095	Buncombe Co.	28704	7	504	3/12/2015	Final Inspection complete, awaiting close-out docs
36	Governor's Western Residence	2014100	Buncombe Co.	28804	Comm.	636	7/22/2015	Awaiting Easement Plat/Conveyance of Sewer System
37	Glenn Bridge Road	2014157	Buncombe Co.	28704	30	1,400	1/20/2017	Installing
38	Somerset at Walnut Cove	2015079	Buncombe Co.	28704	12	473	8/19/2016	Waiting on final inspection
39	Greymont Apartments	2015108	Buncombe Co.	28806	312	3,193	5/17/2016	Testing
40	Liberty Oaks Ph. 1A	2015157	Buncombe Co.	28715	125	705	1/17/2017	Installing
41	Williams-Baldwin Teacher Campus	2015166	Buncombe Co.	28806	24	313	9/16/2016	Waiting on final inspection
42	Ball Gap Road	2015186	Buncombe Co.	28704	14	947	5/31/2016	Waiting on final inspection
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	Pre-con held, construction not yet started
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	Greenwood Park Phase 1	2014067	Weaverville	28787	7	283	9/1/2015	Final Inspection complete, awaiting close-out docs
50	Monticello Apartments	2015124	Weaverville	28787	168	1,484	6/14/2016	Testing
51	Creekside Village Phases III, IV, & V	2015167	Weaverville	28787	45	1,835	1/17/2017	Installing
52	New Homes at North Main (Crittter)	2016052	Weaverville	28787	54	1,808	2/10/2017	Installing
53	Crest Mountain Phase 3B	2013041	Woodfin	28806	69	1,329	10/15/2013	Punchlist pending, awaiting closeout documents
54	Serenity Falls Subdivision	2015055	Woodfin	28806	45	2,583	9/18/2015	Waiting on final inspection
55	Reese & Jan Lasher (High Hopes)	2015152	Woodfin	28806	14	320	4/26/2016	Punchlist pending, awaiting closeout documents
56	Ventana Phase 2A	2016059	Woodfin	28806	8	900	2/17/2017	Pre-con held, construction not yet started
			<b>TOTAL</b>			3,218	45,122	