



WET WEATHER
STAKEHOLDER TEAM

Wet Weather Team
Stakeholder Group Agenda
April 18, 2017
5:30 p.m. – 8:00 p.m.

- 5:15 Dinner served
- 5:30 – 5:45 Welcome & Intro
Clay Kelly, Strand Associates
- 5:45 – 6:00 MSD Update
Tony Parrott, MSD Executive Director
- 6:00 – 6:15 IOAP Update
John Loechle, MSD Engineering Director
- 6:15 – 6:40 Critical Repair & Reinvestment Plan (aka Facility Plan) – “Community Conversation” Progress Report
Stephanie Laughlin, MSD Infrastructure Planning Program Manager
- 6:40 – 7:00 MSD 5-Year Capital Improvements Plan Alternative Scenarios
Angela Akridge, MSD Chief Engineer
- 7:00 – 7:30 Responding to the Message - Feedback & Discussion
Gary Swanson, CH2M
- 7:30 – 7:40 Observer Comments, Wrap-up and Adjourn
Clay Kelly

Meeting Summary

Meeting Summary
Wet Weather Team Stakeholder Group Meeting
April 18, 2017
MSD Main Office, Louisville

The Wet Weather Team (WWT) Stakeholders, chartered by the Louisville and Jefferson County Metropolitan Sewer District (MSD), met on April 18, 2017, at MSD's main office. The objectives of the meeting were to:

- Provide a Consent Decree Integrated Overflow Abatement Plan (IOAP) update.
- Review the Critical Repair and Reinvestment Plan (MSD's 20-year Comprehensive Facility Plan) public outreach efforts and community conversation results.

Welcome

Clay Kelly of Strand Associates opened the meeting by welcoming the members and reviewing the meeting objectives, agenda, and basic ground rules.

MSD Update

Tony Parrott, MSD Executive Director, shared that the Ohio River Tunnel Project was moving forward. This will be MSD's first deep tunnel project and it replaces three CSO basins.

Tony reminded everyone that the Logan Street Basin was originally designed to be covered by an aboveground structure and was changed to be fully below grade facility based on community feedback. The underground construction on the basin is now complete and is in the final stages of being buried.

Tony thanked Marty Storch from Metro Parks for his kind assistance on the Southwest Parkway Basin (located in Shawnee Park). Work there is underway.

The future of how MSD handles biosolids is being evaluated currently. MSD has solicited for statements of interest for proposals on what could replace the Louisville Green program (or how it could continue). Also at Morris Forman, new backup generators and high-yard electrical grid improvements are in place. This represents a big step in the recovery from the 2015 lightning strike.

Tony provided an update on the OneWater initiative with Louisville Water Company. As of the first quarter of 2017, a new process that allows work orders to be shared across both organizations has been initiated. Currently, the system is focused on information technology, but is intend to grow. Additionally, both utilities are looking for opportunities to grow in the region in cooperation with neighboring utilities.

IOAP Update

John Loechle, MSD Engineering Director, gave a brief update on the IOAP implementation progress. Project specific updates include:

- No projects are behind schedule and most are on track to finish comfortably ahead of their Consent Decree required completion dates.
- The Camp Taylor projects involved a substantial amount of work on private property with people's homes. The area has very shallow, very hard rock that requires heavier construction equipment and techniques than would normally be expected. Fortunately, the residents have been understanding and great to work with. MSD has learned from prior experience that the clean-up and restoration phase of the project is critical as residents are more likely to be happy if MSD leaves behind an improved neighborhood.
- Excavation at Southwestern Parkway Basin has begun. A live webcam has been set-up and anyone can view real-time video by going to <http://shawneeparkbasinproject.org/>.

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A Stakeholder asked whether there was danger of the Ohio River Tunnel polluting the river when it was storing excess combined sewer flows. John responded that MSD's tunnel project is 200 feet belowground in hard, solid rock that does not leak. In comparison, the Water Company's tunnel is shallower, in sand, and is designed to collect river water to supply the city's drinking water. The design team is taking the concern of potential infiltration seriously and is optimistic about the results from the geotechnical testing so far.

Another Stakeholder inquired how often the CSO basins need to be cleaned. John shared that the flows into these basins are very diluted by stormwater and are designed to function so that they rarely have to be cleaned. They have automated flushing mechanisms that are activated after every storm event, so heavy cleaning with people and equipment in the basin is almost never needed. MSD has toured numerous facilities like these across the nation and they all report zero to near-zero need for cleaning. This automated flushing design also makes odors very unlikely and, as a result, MSD is not including odor control equipment in the construction contracts. In the unlikely event that a basin does have odor issues and/or requires more frequent cleaning, they have been designed so that equipment can be easily added on.

Critical Repair and Reinvestment Plan - Community Conversation Progress Report

Stephanie Laughlin, MSD Infrastructure Planning Program Manager, gave a presentation summarizing MSD's Community Conversation outreach for the Critical Repair and Reinvestment Plan and the results from its efforts. Key points from the presentation were:

- The Community Conversation was initiated in response to feedback from Metro Council on MSD's proposed rate increase in 2016. Council members understood the issues but were concerned that the general public did not. The Council encouraged MSD to take its message to the public and then propose a rate increase based on feedback from the community.
- MSD developed an extensive outreach program that was designed to reach a broad cross section of the community, promote two-way communication, and provide quantifiable feedback.
- The outreach started with MSD staff, enabling them to be advocates within their personal and professional networks. MSD's core strategy team present consistent messaging at council district and community organization meetings for professional societies, advocacy groups, neighborhood groups, and faith-based organizations. It is noteworthy that the majority of meetings were not organized or sponsored by MSD. MSD was invited to other organizations' meetings, which resulted in much better attendance than MSD usually sees in meetings they organize themselves.
- To document the results of this effort, MSD used social media analytics, paper and online Community Input Forms results, documented questions from all sources, and categorized comments.
- In the six months since it began, the Community Conversations have reached nearly 600 MSD employees, over 1,500 people through 30 meetings with 60 different groups, made over 180,000 social media impressions, generated nearly 5,600 web page views, and distributed almost 123,000 bill inserts.
- Feedback from respondents shows a high understanding of the risks associated with deferring investment in the community's infrastructure with 92 percent reporting that they understand and agree there is a need to do so.
- Ninety percent of respondents believe that it is important to begin reinvesting in infrastructure as soon as possible.
- When asked about the level of funding they would support for infrastructure investment, 76 percent of respondents supported a \$10 per month average increase in bills, 17 percent preferred an increase of not more than \$4 per month, and 7 percent did not enter an answer.
- Seventy-eight percent of respondents said they supported the expansion of MSD's low-income rate relief program, 12 percent did not, and 10 percent did not provide a response.

Several stakeholders commended MSD for their efforts and noted how successful it has been.

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One stakeholder asked how many surveys were completed that the metrics were based on. Angela Akridge, MSD Chief Engineer, responded that it received about 350 completed surveys to date. She noted that not all meeting attendees or website visitors completed surveys.

Another stakeholder asked what the media budget was for the effort. Angela said it was mostly done in-house with the help of two outside consultants. She estimated that MSD spent \$350,000 to \$400,000 outside of staff resources.

In response to a question about what percentage a \$10/month and \$4/month rate increase translated to, Tony said 20 percent and 6.9 percent, respectively.

A stakeholder inquired whether MSD has the Mayor's support for a \$10/month rate increase, to which Tony said that he would be meeting with the Mayor in the next week.

Stephanie closed the topic by sharing that it was not too late for MSD to speak to a group that stakeholders belonged to or thought would be interested.

MSD 5-Year Capital Improvements Plan Alternative Scenarios

Angela presented a summary of MSD's recommended Capital Improvement Plan (CIP), which is based on the anticipation of a \$10/month average bill increase. She noted that many of MSD's costs are "fixed" by existing contracts and regulatory requirements. She showed that there has been a \$100 million increase in the 5-year CIP from the Facility Plan's recommendation from last year. This increase is due to the ripple effect of pushing projects back that were originally scheduled in FY 16 and FY 17, cost inflation increasing project costs, the potential for worsening bid conditions, accelerations costs for IOAP projects due to tighter schedules, and new items that have been added (and might have been pro-actively addressed last year if funding was in place).

Angela explained that if MSD is only able to implement the maximum rate increase it can without Council approval (which translates to about \$4/month for the average customer), approximately \$400 million in projects will need to be deferred from the next 5 years to nearly 10 years from now. Essentially, MSD will only be able to complete its Consent Decree commitments.

Examples of some of the projects that would be cut from the first 5-year CIP budget without a \$10/month rate increase were shared and include:

1. Flood response and property buyouts—MSD may have to turn down available federal grant dollars because it will no longer be able to provide the interim financing while waiting for federal reimbursement.
2. Flood pumping stations—Projects will be scaled back to essentially nothing with only the most dire and critical equipment replacements completed. No stations will be expanded to account for changes in the community or the increased frequency of extreme storms.
3. Sewer expansion—Plans to expand sewers to the Floyds Fork area to provide responsible growth in the area will be halted. Residents in these areas will have to rely on septic systems and/or less efficient package plants.
4. Drainage improvements—No projects to implement holistic solutions to problematic drainage areas will be done.
5. Viaducts—Projects to improve safety and access through viaducts will be deferred until after the Consent Decree is completed.

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This presentation generated a significant amount of discussion and questions from the stakeholders.

One stakeholder requested clarification on whether the \$10/month increase was a one-time only increase or multiple year increase of \$10/month. Angela explained that it would be a one-time increase of \$10/month then followed by \$4/month increases in years thereafter.

A stakeholder asked if bonds were involved in the financial plan. Tony said that the rate increase would go to fund bonds. MSD issues bonds every year and also looks for opportunities to refinance existing bonds to save money.

Another stakeholder suggested highlighting the cost of not doing a project to help win public and political support. Tony and Gary said that it is difficult to quantify this, but they can look at insurance claims history, potential for flood damage, and other surrogates to approximate those costs. It is easier to document the economic growth that comes from infrastructure investment through new and sustained jobs, local labor requirement, and supplier diversity initiatives.

A stakeholder asked whether there was ever an “end-point” where the need for additional investment and rate increases would stop, or whether rate increases should be expected to increase forever. Gary said that we can get to a point where rate increases level out to a cost of living level. This could occur at the end of the program.

A stakeholder reminded MSD that Louisville Metro has appointed Eric Friedlander as the Chief Resilience Officer and coordination on resiliency is important. Gary shared that MSD has been talking with this person for almost a year as part of the low-income rate relief program and look forward to working with him on the resiliency issues that the Facility Plan directly addresses.

One stakeholder requested more detail to better understand how the total amount planned to be spent each year is projected to go up and down, even though the revenue being added was consistent. Gary and Angela explained that a combination of factors were involved, including changing bonding levels, paying cash for some projects, increases to operational and maintenance costs, and project spending curves (i.e., the relatively low cost for design versus the cost of construction).

Gary confirmed to a stakeholder that future rate increases are additive, meaning that subsequent rate increase percentages will apply to the previously raised rates.

A stakeholder noted that as science improves, more and more items are identified as potentially harmful for public health and asked if the Facility Plan considered this. Gary responded by saying that the Plan does indeed account for future contaminants and related issues and have prepared preliminary plans and costs to address them. However, these costs are expected to occur outside of the 20-year planning window.

A stakeholder encouraged MSD to stay positive in its message to the public.

Responding to the Message - Feedback and Discussion

Based on the conversation that had occurred in the meeting, it was decided to combine this agenda item with the Observer Comments, Wrap-up, and Adjourn.

Observer Comments, Wrap-Up, and Adjourn

Clay went around the room requesting feedback, observations, and comments from the stakeholders. Numerous stakeholders expressed how impressed they were with MSD’s outreach efforts and commended them for taking

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such a comprehensive approach. Several stated that accountability and transparency must be a central component of implementing the Facility Plan and encouraged MSD to be proactive in this regard.

One stakeholder asked about the geographic distribution of meetings. Tony shared that meetings had been held in almost every council district and across the county. Meetings in the remaining council districts are planned, subject to the concurrence and cooperation of the respective council member.

A stakeholder observed that the outreach effort combined with a successful implementation of the Facility Plan will go a long way to change any negative opinions residents may have. Angela agreed with this statement and added that MSD needed to change how it does things and it must start with the employees, especially those in the field who the public sees and interacts with the most.

A stakeholder requested clarification on how MSD determined what defined local labor. Tony said that the determination is made by evaluating the labor crafts and hours for specific projects with local unions to determine a reasonable goal. This evaluation includes the Louisville/Jefferson County metropolitan area.

There were no comments from the observers.

Meeting Materials

- Agenda for the April 18, 2017 WWT Stakeholder Group Meeting
- Copy of the presentation slides–IOAP Update; Critical Repair and Reinvestment Plan - Community Conversation Progress Report; 5-Year Capital Improvements Plan Alternative Scenarios

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Meeting Participants

Wet Weather Team Stakeholders (Present)

Steve Barger, Labor (retired)
Susan Barto, Mayor of Lyndon
Stuart Benson, Louisville Metro Council, District 20
Deborah Bilitski, Louisville Metro Government, Director of Develop Louisville
Allan Dittmer, University of Louisville Provost Office
Billy Doelker, Key Homes
Mark French, University of Louisville Speed School of Engineering
Tom Herman, retired from Zeon Chemicals
Maria Koetter, Louisville Metro Government, Director of Sustainability
Rocky Pusateri, Elite Built Homes
Bruce Scott, Kentucky Waterways Alliance (retired)
Marty Storch, Louisville Metro Parks

Wet Weather Team Stakeholders (Not Present)

Arnita Gadson, retired Executive Director, Kentucky Environmental Quality Commission
David James, Louisville Metro Council, District 6
Rick Johnstone, Deputy Mayor, Louisville Metro Mayor's Office (retired)
Kurt Mason, USDA Natural Resources Conservation Service
Gina O'Brien, Brightside Executive Director
Lisa Santos, Irish Hill Neighborhood Association
David Tollerud, University of Louisville, School of Public Health and Information Sciences (retired)
Tina Ward-Pugh, citizen representative, former Metro Council member
David Wicks, Get Outdoors KY; Jefferson County Public Schools (retired)

Wet Weather Team MSD Personnel (Present)

Tony Parrott, MSD Executive Director
Angela Akridge, MSD Chief Engineer
Brian Bingham, MSD Chief of Operations
John Loechle, MSD Engineering Director

Technical Support

Gary Swanson, CH2M-Hill
Clay Kelly, Strand Associates
Paul Maron, Strand Associates

Meeting Observers

Chuck Anderson, Strand Associates
Stephanie Laughlin, MSD
Mark Sneve, Strand Associates

No Meeting Handouts

Wet Weather Team Meeting

April 18, 2017



Agenda

- Logan CSO Basin
- Camp Taylor SSR – Area 1A, Area 2A, Area 2B & 4
- Clifton Heights CSO Basin
- Clifton Heights Force Main Extension
- Nightingale Pump Station & CSO Storage Basin
- Bells Lane
- Ohio River Tunnel
- Southwestern Parkway CSO Basin
- I-64 & Grinstead CSO Basin
- Portland CSO Basin



Logan CSO Basin



Logan CSO Basin - Schedule

- Contract Amount: \$49,538,628.40
 - Walsh Construction
- Consent Decree Deadline: December 31, 2017
- Contract Substantial Completion: October 18, 2017
- Percent Complete (by Time): 85%
- Percent Complete (by Budget): 85%
 - Backfilling of basin structure
 - Forming walls for the Flushing Gate Control Building
 - Installing Control Building masonry walls



Logan CSO Basin



Logan CSO Basin



Logan CSO Basin

Site Design Community Engagement

- LMHA has conducted two public meetings
- MSD will transfer the site to Louisville Metro Housing Authority (LMHA) and retain an easement for MSD facilities and access.
 - Draft Letter of Intent between MSD and LMHA has been prepared
 - A site appraisal is underway and will be completed by April 24
- Site improvement costs:
 - Contaminated soil remediation: \$530K
 - Wall and fence revisions: Approximately \$125K



Camp Taylor



Camp Taylor SSR Area 1A

- Contract Amount: \$7,753,751.27
 - TSI Construction
- Consent Decree deadline: December 31, 2017
- Contract Substantial Completion: July 4, 2017
- Percent Complete (by time): 85%
- Percent Complete (by Budget): 84%
 - Public mainline: 99% complete
 - Private Property/ Houses: 75% complete
- Springdale Drive Sewer Replacement will be added as a change order



Camp Taylor SSR Area 2A

- Bid Award Amount: \$7,791,000.00
 - MAC Construction & Excavating, Inc.
- Consent Decree deadline: December 31, 2017
- Contract Substantial Completion: August 28, 2017
- Estimated Substantial Completion: December 2017
- Percent Complete (by time): 70%
- Percent Complete (by Budget): 40%
 - Public mainline: 40% complete
 - Private Property/ Houses: 28% complete



Camp Taylor SSR Area 2B & 4

- Bid Award Amount: \$7,470,000.00
 - Basham Construction & Rental Co., Inc.
- Consent Decree deadline: December 31, 2017
- Contract Substantial Completion: August 28, 2017
- Estimated Substantial Completion: December 15, 2017
- Percent Complete (by time): 70%
- Percent Complete (by Budget): 38%
 - Public mainline: 41% complete
 - Private Property/ Houses completed: 30% complete



Camp Taylor SSR



Camp Taylor -- After the project...



Clifton Heights CSO Basin



Clifton Heights CSO Basin - Schedule

- Contract Amount: \$23,580,000
 - Change Order No. 1, 2 & 3: \$31,538
- Consent Decree Deadline: December 31, 2018
- Contract Substantial Completion: June 1, 2018
- Percent Complete (by Time): 37%
- Percent Complete (by Budget): 22%
- Construction tasks
 - Basin & Wet well Excavation: 95%
 - Blasting was complete end of last month
 - Mud mat and Foundation anchors: 65% complete



Clifton Heights CSO Basin



Nightingale Pump Station & CSO Storage Basin



Nightingale Pump Station - Schedule

- Contract Amount : \$33,688,748.00
 - Judy Construction Company
- Revised Consent Decree Deadline: June 30, 2017
- Contract Substantial Completion: April 28, 2017
- Contractors Estimated Substantial Completion: July 25, 2017
- Percent Complete (by Time): 89%
- Percent Complete (by Budget): 86%
- Construction Schedule
 - Pumps to be operational by 5/26/17



Nightingale Pump Station



Bells Lane WWTF



Bells Lane WWTF Project Budget and Schedule

- Contract Amount : \$41,984,419.86
- Hall Contracting of Kentucky
- Percent Complete (by Time): 93%
- Percent Complete (by Budget): 89%
- Substantial Completion by Contract: July 24, 2017
- Estimated Substantial Completion: September 1, 2017
- Phase II of project started March 22, 2017



Bells Lane WWTF



Ohio River Tunnel: An Innovative Alternative to 3 CSO Basins



Project Background

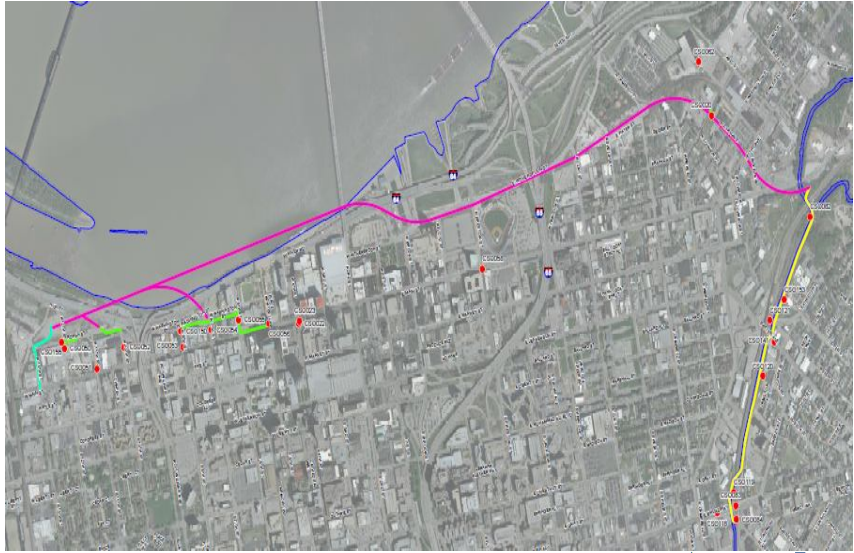
- Project to combine the volume of three (3) basins
 - Rowan CSO Basin
 - Story & Main CSO Basin
 - Lexington & Payne CSO Basin
- Divided into four (4) separate projects
 - Ohio River Tunnel
 - Rowan Pump Station
 - Lexington & Payne CSO Interceptor
 - Downtown CSO Interceptor
- **The Consent Decree Deadline of December 31, 2020 remains unchanged**



Ohio River Tunnel



Ohio River Tunnel – Project Alignment



Ohio River Tunnel: Design Criteria

- Parameters
 - 13,400 linear feet in length (main tunnel)
 - 1,200 linear feet in length (bifurcation)
 - 200 feet below ground to invert
 - 20 feet minimum internal diameter
- Volume
 - Required - 33.7 million gallons
 - Provided - 37.0 million gallons

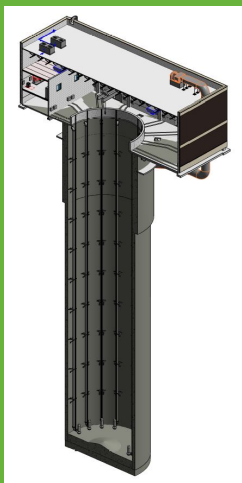


Ohio River Tunnel – Meetings

- Louisville Downtown Partnership
 - February 10, 2017
 - March 1, 2017
 - AJ Schneider
 - Heaven Hill
 - Frazier Museum
 - Kentucky Center
 - Slugger Museum
 - Falls City
 - Old502
- Informational Session
 - Thursday April 27, 2017
 - Central Maintenance Facility
 - 9:00 to 12:00
- Kentucky Center & Ali Center
 - April 24th or 27th



Rowan Pump Station



Rowan Pump Station: Design Criteria

- Submersible Wet Well
 - 5 MGD minimum capacity at high wetwell
 - 50 MGD maximum capacity at low wetwell
 - 50-foot diameter
 - 200-foot depth
 - 10 submersible pumps (3,500 gpm each)
 - 2 grit pumps (1,000 gpm each)
 - 12-inch pump discharge pipes to collection trough
 - 60 inch gravity sewer to ORI

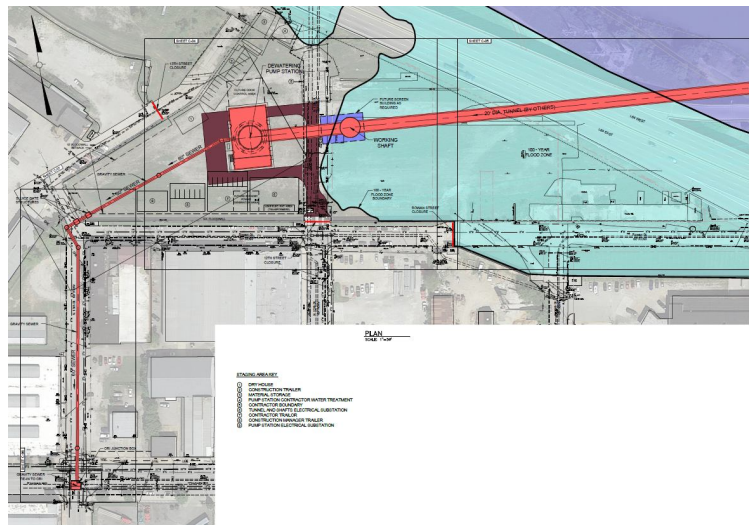


Rowan Pump Station: Design Decisions

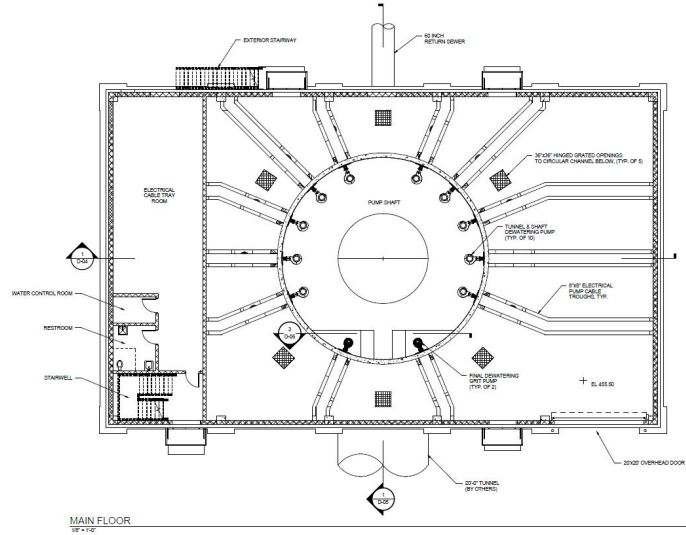
- Pump Station Building/Structure
 - 120 foot x 72 foot – total required footprint
- Pump Station Shaft
 - Loading/Maintenance Area
 - Bridge crane with trolley/hoist for pump removal
 - Classified space if enclosed (ventilation to be provided)
 - Heating not required
 - Permanent deep man-lift preferred
 - Roof over Loading/Maintenance Area required
 - “Open” concept being explored



Rowan Pump Station – Overall Site Plan



Rowan Pump Station – Building Layout



Rowan Pump Station – Site Visits

- Columbus, Ohio – Wetwell Type
– January 9, 2017



Rowan Pump Station – Renderings/Concepts

Concept 1 – Semi-Enclosed Building Structure



Rowan Pump Station – Renderings/Concepts

Concept 3 – Enclosed Building Structure with Translucent Panels



Lexington & Payne CSO Interceptor



Lexington and Payne CSO Interceptor – Project Alignment



Lexington and Payne CSO Interceptor: Project Facts

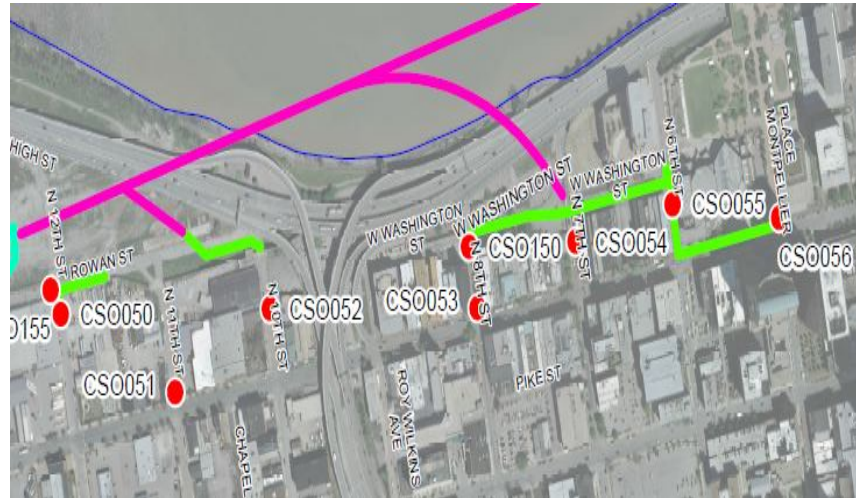
- Sewer line to capture overflows from nine (9) existing CSOs and convey that flow to the tunnel
- Interceptor will be below the concrete channel of South Fork Beargrass Creek
- Approximately 5,000 linear feet in length
 - From E Broadway to E Main Street
 - Pipe size ranging from 36-inch to 102-inch



Downtown CSO Interceptor



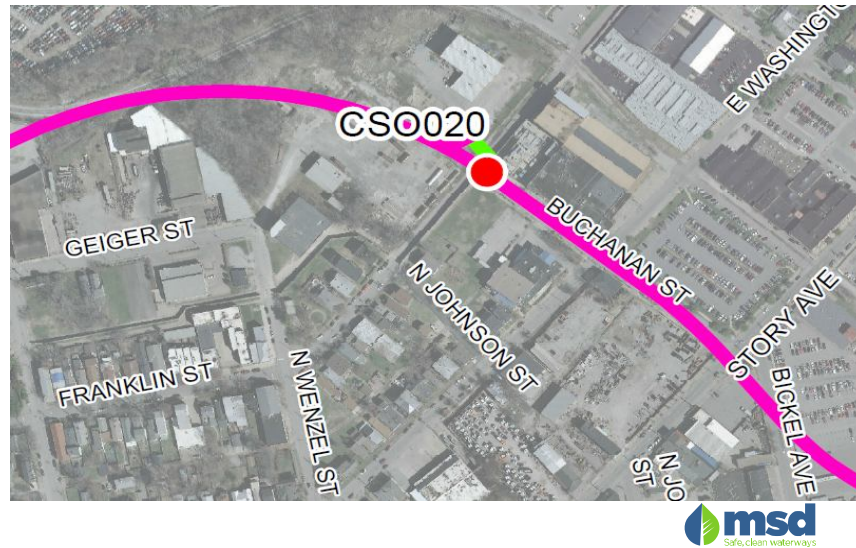
Downtown CSO Interceptor – Project Alignment



Downtown CSO Interceptor: Project Facts

- Sewer line to capture overflows from twelve (12) existing CSOs and convey that flow to the tunnel
- Approximately 2,000 linear feet in length
- Pipe size ranging from 12-inch to 60-inch
- Street Impacts
 - Rowan Street between 10th & 13th Streets
 - Washington Street between 6th & 8th Streets
 - 6th Street between Main & Washington Streets
 - Main Street between 5th & 6th Streets

Story and Main Connector – Project Alignment



Story and Main Connector: Project Facts

- Sewer line to capture overflows from two (2) existing CSOs and convey that flow to the tunnel
- Approximately 200 linear feet in length
 - Near the intersection of Franklin Street and Buchanan Street
 - Pipe size: 48-inch

Ohio River Tunnel – Construction Schedule

Milestone	Ohio River Tunnel	Rowan Pump Station	Lexington & Payne CSO Interceptor	Downtown CSO Interceptor
Advertisement	May 25, 2017	Nov. 6, 2017	May 1, 2017	Aug. 1, 2017
MSD Board Award	Aug. 28, 2017	Jan. 22, 2018	July 24, 2017	Oct. 23, 2017
Construction Start	Sept. 13, 2017	Feb. 6, 2018	Aug. 8, 2017	Nov. 6, 2017
Substantial Completion	May 20, 2020	Aug. 14, 2020	May 28, 2019	Oct. 31, 2019
Consent Decree Deadline	Dec. 31, 2020	Dec. 31, 2020	Dec. 31, 2020	Dec. 31, 2020



I-64 & Grinstead CSO Basin



Project Summary

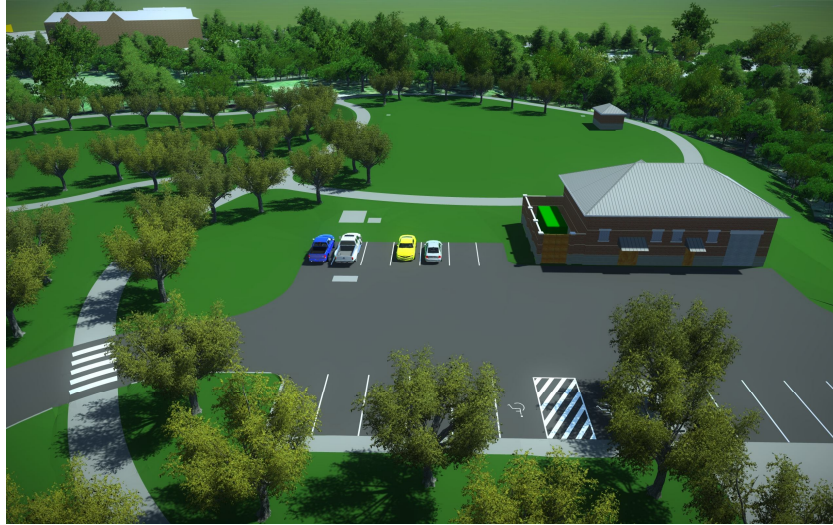
- Basin storage volume is 8.5 Million Gallons
- Basin will be underground and covered
- Addresses three (3) CSO locations: 125, 127 and 166
- Level of Control (per Typical Year) is zero
- Consent Decree Deadline: December 31, 2020



Site Plan



Site Plan



Project Budget and Schedule

- Basin Design Contract Amount: \$1,194,798.51
 - Qk4
- 100% Engineer's Estimate: \$31,169,968.00
- Bid Schedule:
 - Advertised on March 17, 2017
 - Pre-bid Meeting on April 11, 2017
 - Bid Opening on May 16, 2017
- Projected Start of Construction August 1, 2017
- Projected Substantially Operational September 2019
- Consent Decree Deadline December 31, 2020



Portland CSO Basin



Portland CSO Basin - Schedule

- Advertisement January 31, 2017
- Bid Opening March 2, 2017
- MSD Board Award March 27, 2017
- Projected Notice to Proceed May 1, 2017
- Projected Substantially Operational March 22, 2019
- Projected Substantial Completion May 21, 2019
- Projected Final Completion July 30, 2019
- Consent Decree Deadline December 31, 2019



Southwestern Parkway CSO Basin



Project Summary

- Basin storage volume is 20 Million Gallons
- Basin will be underground and covered
 - Within the Great Lawn of Shawnee Park
- Addresses three (3) CSO locations: 104, 105 and 189
- Level of Control (per Typical Year) is eight
- Consent Decree Deadline: December 31, 2018

www.shawneeparkbasinproject.org



Area for Construction Activity



AREA FOR CONSTRUCTION ACTIVITY



Renderings



Renderings





**Community
Conversation Progress
Report**

April 18, 2018

**Wet Weather
Team
Stakeholder
Group**



msd
Safe, clean waterways

Discussion Topics

- Why was a Community Conversation necessary?
- How did we conduct the Community Conversation?
 - Communication pathways
 - Communication tools
- What were our results?
 - Contacts
 - Survey responses
 - Written comments
 - Overall conclusions
- What is the path forward?



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Safe, clean waterways

Why Was a Community Conversation Necessary? Unprecedented Infrastructure Investment

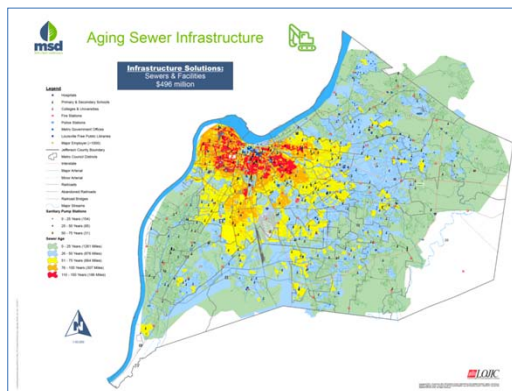
Facility Plan Rec.	FY18	FY19	FY20	FY21	FY22	FY18-FY22
Wastewater	\$177.2-M	\$188.5-M	\$139.8-M	\$117.6-M	\$70.7-M	\$693.8-M
CMOM	\$22.5-M	\$17.6-M	\$27.1-M	\$30.6-M	\$48.1-M	\$145.9-M
Consent Decree (IOAP)	\$127.9-M	\$142.4-M	\$80.1-M	\$64.4-M	\$7.7-M	\$422.5-M
Development	\$2.1-M	\$5.1-M	\$8.0-M	\$3.1-M	\$9.6-M	\$27.9-M
NMC	\$24.7-M	\$23.4-M	\$24.6-M	\$19.5-M	\$5.2-M	\$97.5-M
Stormwater	\$36.9-M	\$64.8-M	\$97.8-M	\$103.3-M	\$82.2-M	\$385.0-M
Drainage	\$16.6-M	\$34.9-M	\$60.7-M	\$56.7-M	\$51.4-M	\$220.4-M
Floodplain Management	\$4.4-M	\$4.0-M	\$4.0-M	\$4.0-M	\$4.0-M	\$20.4-M
Ohio River Flood Protection	\$14.2-M	\$24.4-M	\$31.1-M	\$40.9-M	\$24.1-M	\$134.8-M
Stormwater Quality (MS4)	\$1.7-M	\$1.4-M	\$1.9-M	\$1.7-M	\$2.7-M	\$9.4-M
Support Systems	\$11.0-M	\$6.2-M	\$6.6-M	\$8.0-M	\$5.1-M	\$36.9-M
Capital Equipment	\$1.4-M	\$1.9-M	\$2.4-M	\$2.4-M	\$2.4-M	\$10.5-M
Facilities	\$8.8-M	\$3.6-M	\$3.7-M	\$4.9-M	\$1.7-M	\$22.7-M
IT	\$0.7-M	\$0.3-M	\$0.3-M	\$0.3-M	\$0.6-M	\$2.1-M
LOJIC	\$0.1-M	\$0.4-M	\$0.3-M	\$0.5-M	\$0.4-M	\$1.6-M
Grand Total	\$225.1-M	\$259.5-M	\$244.1-M	\$228.9-M	\$158.0-M	\$1.12-B

Projects focused on public and employee *health and safety*, regulatory compliance, environmental protection, property protection, sustainability and economic development



2016 Rate Proposal Lacked Support

- MSD's outreach in 2016 did not reach broad audience
- Council members understood issues, but reported constituent concerns
- Mayor and Metro Council said "Tell the story" then try again



The Challenge:

Capturing the community's attention about
"out of sight, out of mind" aging systems



- Wastewater
- Stormwater
- Flood Protection



The Response:



A strategic outreach approach of:

- ✓ Messaging
- ✓ Direct Engagement and Input
- ✓ Communication Tools



MSD's Critical Repair & Reinvestment Plan

Addresses Public Health and Safety Risks



Upgrade Ohio River Flood Protection



Reduce Neighborhood Flooding



Minimize Viaduct Flooding



Upgrade Wastewater Treatment Facilities



Prevent Collapsing Sewers

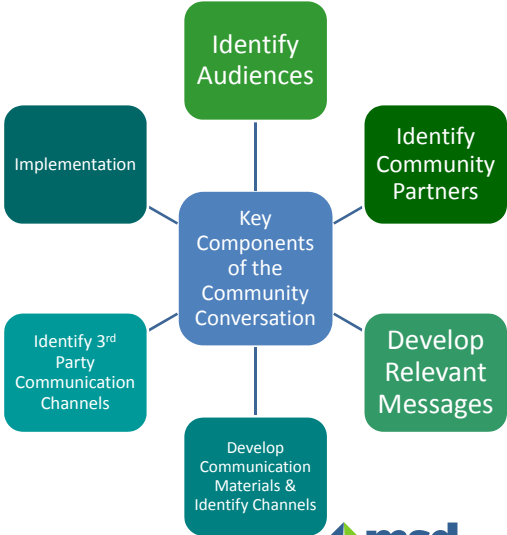



Comply with Consent Decree



MSD Developed Extensive Outreach Program

- Broad community audience
- Two-way conversation
 - Dialog in meetings
 - Written comments
 - On-line information and input opportunity
- Well documented results





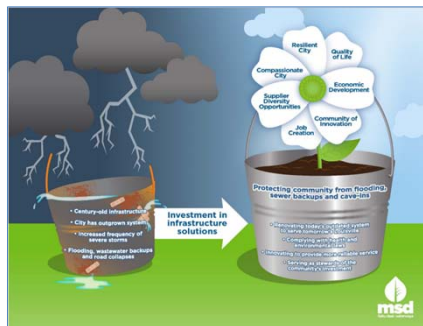
Communication Pathways Meetings

- MSD staff focus groups and internal meetings
- MSD meetings
 - Project
 - Special events
- Metro Council district meetings
- Community organization meetings
 - Professional organizations
 - Advocacy groups
 - Neighborhood groups
 - Faith-based leaders



Communication Pathways Print and Electronic Media

- Libraries
- Newsletters
 - MSD Streamline
 - Metro Council members
 - Other
- Metro TV
 - Tony Parrott video
 - Metro Council Intergovernmental Affairs Committee meeting
 - “Rusty Bucket” spots
- Bill Insert
- Newspaper Articles
- Radio and TV news stories
- Pop-Up Banners and Handouts



Communication Pathways Internet and Social Media

- MSD web page
 - Six risk areas
 - Story map
 - Video links
- Email blasts
- Twitter
- Facebook



Community Input Documentation

- Social media analytics
- Community Input Form analytics
- Documented questions and concerns from the public
 - Email
 - Letters
 - Live meeting discussion

msd CRITICAL REPAIR & REINVESTMENT PLAN
Voice your opinion

Name: _____

Address: _____

City: _____ Zip: _____

Email: _____

Would you like to receive our newsletter? No Yes, postal mail Yes, email

1. I understand and agree with the need for investing in the community's wastewater, stormwater and flood protection systems in order to reduce risks to public health and safety rather than continuing to defer critical repairs and reinvestment.

I do not agree that the risks to public health and safety are as great as presented.

I don't yet have an opinion on this.

2. I believe it is important to begin addressing the public health and safety risks as quickly as possible.

I believe that MSD should defer addressing these public health and safety risks until after 2022 when the required federal consent decree work is complete.

3. I support an increase in residential rates of up to \$10 per month (with a proportional increase in industrial/commercial rates) to immediately begin to fund critical wastewater, stormwater, and flood protection needs to address public health and safety risks.

I prefer an increase in residential rates of not more than \$4 per month (with a proportional increase in industrial/commercial rates) with the understanding that this continues to fund critical repair and reinvestment in wastewater, stormwater, and flood protection needs.

4. I support the expansion of MSD's Rate Relief Program to assist customers who meet federal criteria established for other ability rate assistance programs.

I do not support the expansion of MSD's Rate Relief Program to assist customers who meet federal criteria for other ability rate assistance programs.

Comments: _____

For more information visit LouisvilleMSD.org/CriticalRepairPlan



MSD's Message Reached Broad Audience November 2016 through mid-April 2017

- 593 MSD employees
 - 151 LIUNA
 - 128 NAGE
- 1,500 meeting attendance
 - 30 meetings to date
 - 60 groups
- 180,000+ social media impressions
- 5,593 web page views
- 122,858 bill inserts

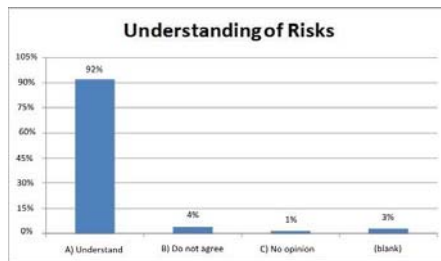
FEBRUARY 2017 CRITICAL REPAIR & REINVESTMENT PLAN SOCIAL MEDIA ANALYTICS				MARCH 2017 CRITICAL REPAIR & REINVESTMENT PLAN SOCIAL MEDIA ANALYTICS			
	IMPRESSIONS (number of times post is displayed)	WEB VISITS FROM SOCIAL MEDIA POSTS	TOTAL POSTS/ TWEETS		IMPRESSIONS (number of times post is displayed)	WEB VISITS FROM SOCIAL MEDIA POSTS	TOTAL POSTS/ TWEETS
FACEBOOK	41,688	657	17	FACEBOOK	46,217	1,365	24
TWITTER	56,120	869	41	TWITTER	37,598	488	22
TOTAL	97,808	1,526	58	TOTAL	83,815	1,853	46

FEBRUARY 2017 CRITICAL REPAIR & REINVESTMENT PLAN WEBSITE ANALYTICS			MARCH 2017 CRITICAL REPAIR & REINVESTMENT PLAN WEBSITE ANALYTICS		
PAGE VIEWS (each time a visitor views a page)	AVERAGE TIME ON PAGE	PAGE RANK ON MSD WEBSITE OF ALL MSD WEB PAGES	PAGE VIEWS (each time a visitor views a page)	AVERAGE TIME ON PAGE	PAGE RANK ON MSD WEBSITE OF ALL MSD WEB PAGES
2,666	1:27	2	2,927	1:17	2



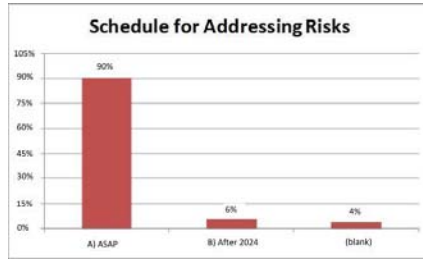
Community Input Form Results Question 1 – Understanding of Risks

- Representative Comments
 - We can't continue to defer on repair and replacement to critical infrastructure...that's what got us to this point in the first place.
 - This investment is critical for a greatly under priced resource largely taken for granted. In a world where we pay 2 dollars for 12 ounces of bottled water and 5 dollars for warm milk from a coffee shop, 30 cents a day is not too much to ask for the children and for our future.
 - There are no market forces that act to keep you in check or to force you to be more efficient. You tell a good story here- but is this the full story? or in 5 years will you be back for yet more money?... Not buying it.



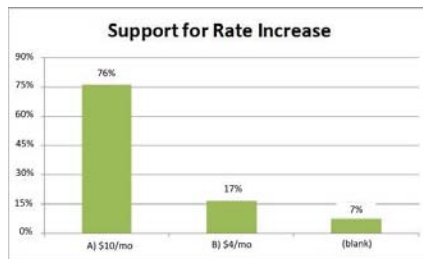
Community Input Form Results Question 2 – Urgency of Need

- Representative Comments
 - Catastrophic failures are already occurring, and they will continue at a higher frequency if MSD is not provided the adequate funds to address these public health and safety issues.
 - Putting off our required investments only kicks the can of obligations and needs and increases the costs to taxpayers.
 - We do not need any additional charges at this time. One project at a time should be sufficient.
 - We have spent phenomenal amounts of money because of the decree. Let's take a break, and reevaluate after this massive spending is complete.



Community Input Form Results Question 3 – Support for Additional Funding

- Representative Comments
 - \$10/month is a small price to pay compared to the public health and safety risks. I fully support the higher rate.
 - \$10/month extra is a minimal investment when you look at it in regards to how much people spend on cellular and television services, two items that aren't critical for sustaining life like clean water is.
 - I only had 2 choices so I had to pick 1, but I need more information.
 - We can take our chances. Scare tactics don't work for most people.
 - I do not support an increase in residential rates at all. I believe that we are often overcharged as it is... I'm sure there are plenty of profits that are made every single time a resident pays a bill;

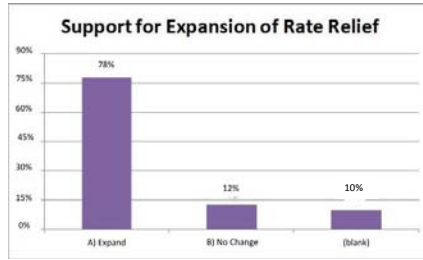


Community Input Form Results

Question 4 – Low-Income Rate Relief Support

- Representative Comments

- It is necessary to ensure the impact of necessary increases are muted for those already feeling the sting of other utility increases, and associated burdens. Criteria beyond the federal standards should be examined to offer further support to citizens
- Rate assistance programs have laudable goals and good intentions, but are misguided. The utility bill is a bill that should be paid first. People who need assistance should get it through other government hand out programs
- How can you justify raising the rates of others to pay BILLIONS of dollars for improvements, and how do you figure you can give relief to others?



General Comments

Small Sampling

- Not to be political either way, but Trump said big spending on infrastructure is on the way, so perhaps that could potentially help here; I will write my preferred State representative about this.
- Problem is delay - get it started ASAP. Hope there are shovel ready - Feds want projects to do now. McConnell should be able to get Louisville to top of list
- I'm thankful there are people who know about these things and they do something about it.
- We can no longer afford to continue to "kick the bucket" down the road. We need to act now while interest rates are at an all time low.
- Wow I had no idea. Very informative. I support the critical repair & reinvestment!!!
- This is a very difficult situation. On the one hand, problems need to be addressed, but it is hard to comes up with the money. Tough decisions are ahead. Good luck



Overall Conclusions

- MSD's Community Conversation initiative touched a large number of our customers through a diverse outreach strategy
- People who took time to learn about the Critical Repair Plan
 - Understood the critical infrastructure investment needs
 - Supported starting work to address these needs immediately
 - Indicated support for additional funding up to \$10/mo
 - Supported expansion of MSD's low-income rate relief program
- The Community Conversation must continue to build trust and demonstrate progress



Next Steps

- MSD Infrastructure and Finance Committee (April 18, May 8)
- MSD Board preliminary approval (May 22)
- Metro Council first reading (mid-June)
- Metro Council committee meeting
- Metro Council second reading and public hearing (mid-July)
- MSD Board public notification and comment period, potential final action (July 24)
- New rates effective August 1 2017






Preliminary FY18 Capital Budget


April 18, 2018

**Wet Weather
Team
Stakeholder
Group**



20 Year Facility Plan Recommendation First 5 Years

Facility Plan Rec.	FY18	FY19	FY20	FY21	FY22	FY18-FY22
Wastewater	\$177.2-M	\$188.5-M	\$139.8-M	\$117.6-M	\$70.7-M	\$693.8-M
CMOM	\$22.5-M	\$17.6-M	\$27.1-M	\$30.6-M	\$48.1-M	\$145.9-M
Consent Decree (IOAP)	\$127.9-M	\$142.4-M	\$80.1-M	\$64.4-M	\$7.7-M	\$422.5-M
Development	\$2.1-M	\$5.1-M	\$8.0-M	\$3.1-M	\$9.6-M	\$27.9-M
NMC	\$24.7-M	\$23.4-M	\$24.6-M	\$19.5-M	\$5.2-M	\$97.5-M
Stormwater	\$36.9-M	\$64.8-M	\$97.8-M	\$103.3-M	\$82.2-M	\$385.0-M
Drainage	\$16.6-M	\$34.9-M	\$60.7-M	\$56.7-M	\$51.4-M	\$220.4-M
Floodplain Management	\$4.4-M	\$4.0-M	\$4.0-M	\$4.0-M	\$4.0-M	\$20.4-M
Ohio River Flood Protection	\$14.2-M	\$24.4-M	\$31.1-M	\$40.9-M	\$24.1-M	\$134.8-M
Stormwater Quality (MS4)	\$1.7-M	\$1.4-M	\$1.9-M	\$1.7-M	\$2.7-M	\$9.4-M
Support Systems	\$11.0-M	\$6.2-M	\$6.6-M	\$8.0-M	\$5.1-M	\$36.9-M
Capital Equipment	\$1.4-M	\$1.9-M	\$2.4-M	\$2.4-M	\$2.4-M	\$10.5-M
Facilities	\$8.8-M	\$3.6-M	\$3.7-M	\$4.9-M	\$1.7-M	\$22.7-M
IT	\$0.7-M	\$0.3-M	\$0.3-M	\$0.3-M	\$0.6-M	\$2.1-M
LOJIC	\$0.1-M	\$0.4-M	\$0.3-M	\$0.5-M	\$0.4-M	\$1.6-M
Grand Total	\$225.1-M	\$259.5-M	\$244.1-M	\$228.9-M	\$158.0-M	\$1.12-B



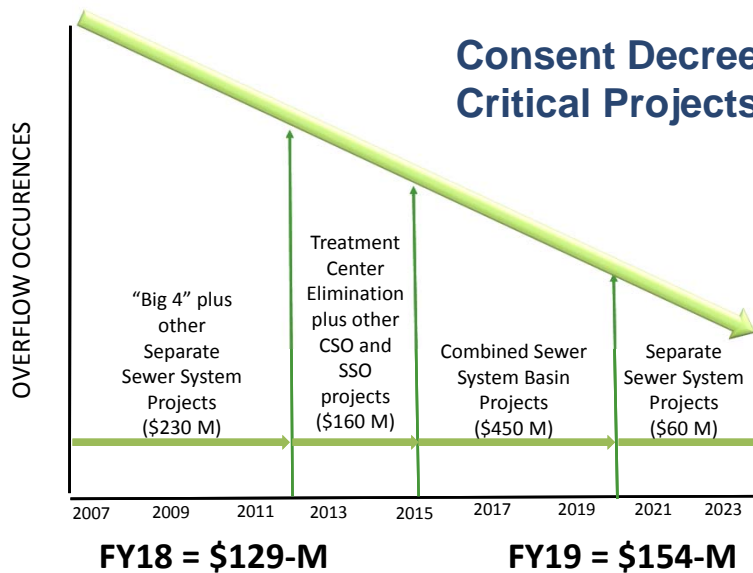
Budget Development Considerations



* Five CSO basins increased in size, Logan Basin scope change, Ohio River Tunnel scope change from three basins.



Consent Decree Critical Projects



Five Year Capital Plan Baseline Priorities

PRIORITY	DESCRIPTION	PROJECT EXAMPLES
1	Projects required per the Consent Decree/IOAP, MS4 permit, USACE flood protection system inspections, written commitment, regulatory code compliance and contractual agreements already executed.	Storage Basins ~\$364.1-M Hite Creek WQTC Expansion ~\$19.6-M Morris Forman Headworks Replacement ~\$3.0-M In-Line Storage ~\$4.7-M
2	Projects considered mission-critical to mitigate infrastructure failure risks where no contingency or redundant process/alternatives are available.	Paddys Run FPS Full Rehab ~\$41.7-M Morris Forman Sedimentation Basin ~\$12.5-M DRI Program ~\$16.2-M Canal Street Floodwall ~3.0-M
3	Projects considered mission-critical, but where contingencies are available to temporarily mitigate the risks of infrastructure failure.	Vehicle & Equipment Replacement ~\$17.5-M Disaster Recovery Center ~\$0.5-M MFWQTC Elevator Repairs ~\$0.4-M

 Safe, clean waterways

Engineering CIP – Priorities Baseline

ENG CIP - Baseline	FY18	FY19	FY20	FY21	FY22	FY18-FY22
Wastewater	\$192.0-M	\$219.8-M	\$181.3-M	\$104.1-M	\$84.4-M	\$781.6-M
CMOM	\$35.5-M	\$37.7-M	\$52.2-M	\$46.8-M	\$61.5-M	\$233.7-M
Consent Decree (IOAP)	\$128.9-M	\$153.6-M	\$96.5-M	\$34.7-M	\$8.0-M	\$421.8-M
Development	\$2.6-M	\$5.1-M	\$8.0-M	\$3.1-M	\$9.6-M	\$28.4-M
NMC	\$25.0-M	\$23.4-M	\$24.6-M	\$19.5-M	\$5.2-M	\$97.7-M
Stormwater	\$34.6-M	\$62.8-M	\$98.0-M	\$103.9-M	\$82.2-M	\$381.5-M
Drainage	\$12.4-M	\$32.7-M	\$60.5-M	\$54.5-M	\$51.4-M	\$211.6-M
Floodplain Management	\$4.4-M	\$4.0-M	\$4.0-M	\$4.0-M	\$4.0-M	\$20.4-M
Ohio River Flood Protection	\$15.5-M	\$24.8-M	\$31.7-M	\$43.6-M	\$24.1-M	\$139.8-M
Stormwater Quality (MS4)	\$2.3-M	\$1.3-M	\$1.8-M	\$1.7-M	\$2.7-M	\$9.7-M
Support Systems	\$17.3-M	\$10.0-M	\$9.7-M	\$10.3-M	\$7.1-M	\$54.4-M
Capital Equipment	\$3.9-M	\$3.9-M	\$3.9-M	\$3.9-M	\$3.9-M	\$19.5-M
Facilities	\$12.4-M	\$5.6-M	\$5.1-M	\$5.9-M	\$2.2-M	\$31.2-M
IT	\$0.7-M	\$0.3-M	\$0.3-M	\$0.3-M	\$0.6-M	\$2.1-M
LOJIC	\$0.4-M	\$0.1-M	\$0.5-M	\$0.3-M	\$0.4-M	\$1.6-M
Grand Total	\$243.9-M	\$292.6-M	\$289.1-M	\$218.2-M	\$173.7-M	\$1.22-B

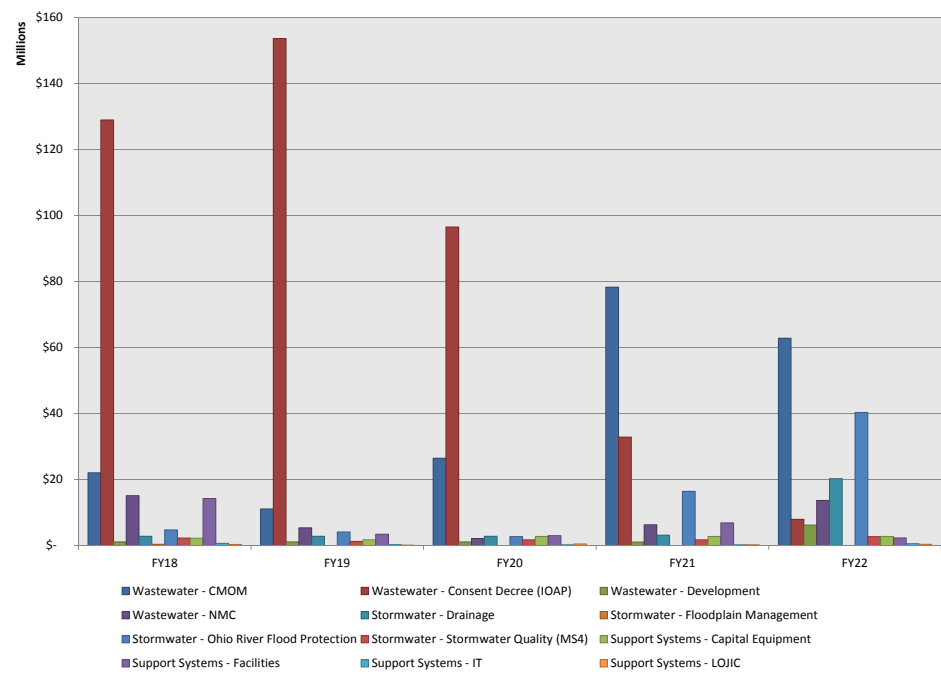
 Safe, clean waterways

Engineering CIP - Alternative Scenario

ENG CIP - ~\$4/mo in FY18	FY18	FY19	FY20	FY21	FY22	FY18-FY22
Wastewater	\$167.2-M	\$171.2-M	\$126.2-M	\$118.6-M	\$90.6-M	\$673.9-M
CMOM	\$22.0-M	\$11.1-M	\$26.5-M	\$78.3-M	\$62.8-M	\$200.8-M
Consent Decree (IOAP)	\$128.9-M	\$153.6-M	\$96.5-M	\$32.9-M	\$8.0-M	\$419.9-M
Development	\$1.1-M	\$1.1-M	\$1.1-M	\$1.1-M	\$6.2-M	\$10.6-M
NMC	\$15.1-M	\$5.4-M	\$2.2-M	\$6.3-M	\$13.7-M	\$42.6-M
Stormwater	\$10.2-M	\$8.2-M	\$7.3-M	\$21.3-M	\$63.3-M	\$110.3-M
Drainage	\$2.8-M	\$2.8-M	\$2.8-M	\$3.2-M	\$20.2-M	\$31.8-M
Floodplain Management	\$0.4-M	\$0.0-M	\$0.0-M	\$0.0-M	\$0.0-M	\$0.4-M
Ohio River Flood Protection	\$4.8-M	\$4.1-M	\$2.7-M	\$16.4-M	\$40.3-M	\$68.3-M
Stormwater Quality (MS4)	\$2.3-M	\$1.3-M	\$1.8-M	\$1.7-M	\$2.7-M	\$9.7-M
Support Systems	\$17.6-M	\$5.6-M	\$6.5-M	\$10.1-M	\$6.1-M	\$45.8-M
Capital Equipment	\$2.3-M	\$1.8-M	\$2.8-M	\$2.8-M	\$2.8-M	\$12.3-M
Facilities	\$14.3-M	\$3.4-M	\$3.0-M	\$6.9-M	\$2.3-M	\$29.9-M
IT	\$0.7-M	\$0.3-M	\$0.3-M	\$0.3-M	\$0.6-M	\$2.1-M
LOJIC	\$0.4-M	\$0.1-M	\$0.5-M	\$0.3-M	\$0.4-M	\$1.6-M
Grand Total	\$195.0-M	\$185.0-M	\$140.0-M	\$150.0-M	\$160.0-M	\$830.0-M



FY18-FY22 ENG CIP Alternative: ~\$4/mo in FY18

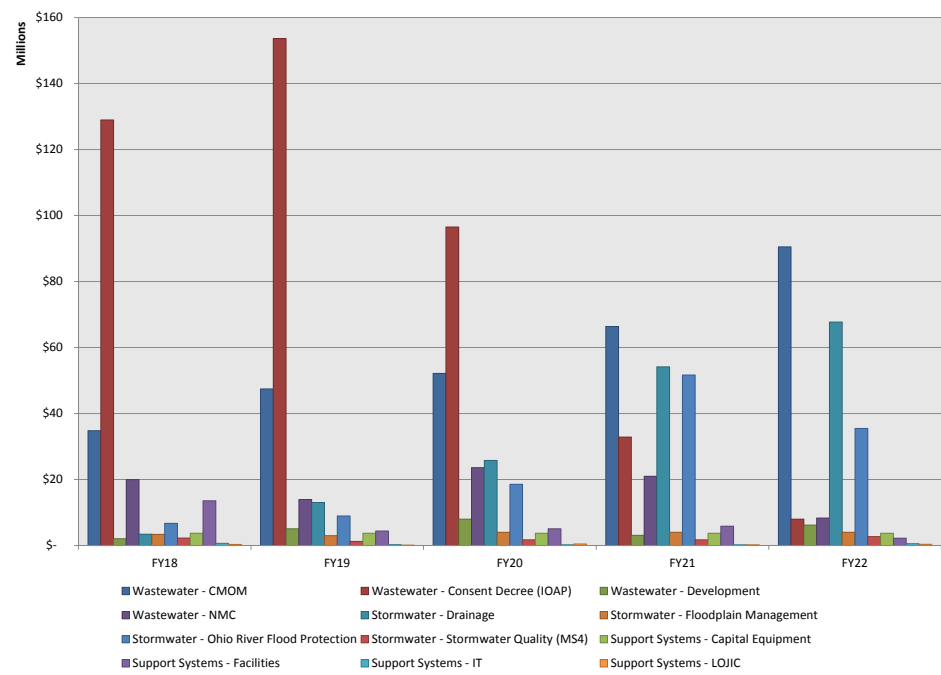


Engineering CIP - Alternative Scenario

ENG CIP - ~\$10/mo in FY18	FY18	FY19	FY20	FY21	FY22	FY18-FY22
Wastewater	\$185.8-M	\$220.1-M	\$180.3-M	\$123.3-M	\$113.1-M	\$822.6-M
CMOM	\$34.8-M	\$47.5-M	\$52.1-M	\$66.4-M	\$90.5-M	\$291.3-M
Consent Decree (IOAP)	\$128.9-M	\$153.6-M	\$96.5-M	\$32.9-M	\$8.0-M	\$420.0-M
Development	\$2.1-M	\$5.1-M	\$8.0-M	\$3.1-M	\$6.2-M	\$24.5-M
NMC	\$20.0-M	\$13.9-M	\$23.6-M	\$21.0-M	\$8.4-M	\$86.9-M
Stormwater	\$15.8-M	\$26.3-M	\$50.1-M	\$111.6-M	\$109.9-M	\$313.8-M
Drainage	\$3.4-M	\$13.1-M	\$25.8-M	\$54.2-M	\$67.7-M	\$164.2-M
Floodplain Management	\$3.4-M	\$3.0-M	\$4.0-M	\$4.0-M	\$4.0-M	\$18.4-M
Ohio River Flood Protection	\$6.8-M	\$9.0-M	\$18.6-M	\$51.7-M	\$35.5-M	\$121.5-M
Stormwater Quality (MS4)	\$2.3-M	\$1.3-M	\$1.8-M	\$1.7-M	\$2.7-M	\$9.7-M
Support Systems	\$18.4-M	\$8.6-M	\$9.6-M	\$10.1-M	\$7.0-M	\$53.7-M
Capital Equipment	\$3.8-M	\$3.8-M	\$3.8-M	\$3.8-M	\$3.8-M	\$18.8-M
Facilities	\$13.6-M	\$4.4-M	\$5.1-M	\$5.9-M	\$2.2-M	\$31.2-M
IT	\$0.7-M	\$0.3-M	\$0.3-M	\$0.3-M	\$0.6-M	\$2.1-M
LOJIC	\$0.4-M	\$0.1-M	\$0.5-M	\$0.3-M	\$0.4-M	\$1.6-M
Grand Total	\$220.0-M	\$255.0-M	\$240.0-M	\$245.0-M	\$230.0-M	\$1.19-B



FY18-FY22 ENG CIP Alternative: ~\$10/mo in FY18



FY18-FY20 Reduction in CRRP Wastewater Projects	ENG CIP Baseline	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$4/mo in FY18	Baseline vs. ~\$4/mo in FY18
CMOM					
CCWQTC ASSET MGMT REHAB & REPLACE	\$900,000	\$900,000	N/C	\$500,000	-\$400,000
CCWQTC FORCEMAIN EXTENSION	\$177,000	\$177,000	N/C	\$0	-\$177,000
CCWQTC SAND FILTER REPLACEMENT	\$4,500,000	\$4,500,000	N/C	\$2,000,000	-\$2,500,000
CCWQTC SERVICE AREA INVENTORY FOR CRITICAL PS	\$300,000	\$300,000	N/C	\$0	-\$300,000
COLLECTION SYSTEM SPARE PUMP INVENTORY	\$3,000,000	\$3,000,000	N/C	\$1,300,000	-\$1,700,000
DRGWQTC SERVICE AREA INVENTORY FOR CRITICAL PUMP STATIONS	\$300,000	\$300,000	N/C	\$0	-\$300,000
FFWQTC SERVICE AREA INVENTORY FOR CRITICAL PS	\$300,000	\$300,000	N/C	\$0	-\$300,000
FY18 PMP	\$2,500,000	\$2,500,000	N/C	\$2,250,000	-\$250,000
FY18-FY22 OPERATIONS RENEWAL & REPLACEMENT	\$18,300,000	\$18,300,000	N/C	\$15,300,000	-\$3,000,000
FY19 CMOM PM ASSIST	\$225,000	\$187,500	-\$37,500	\$187,500	-\$37,500
FY19 PMP	\$2,000,000	\$2,000,000	N/C	\$1,000,000	-\$1,000,000
HCWQTC SOLIDS EXPANSION	\$6,800,000	\$6,800,000	N/C	\$1,500,000	-\$5,300,000
HITE CREEK WQTC EXPANSION	\$19,553,703	\$17,553,703	-\$2,000,000	\$3,623,703	-\$15,930,000
LAND ACQUISITION	\$2,400,000	\$2,400,000	N/C	\$1,300,000	-\$1,100,000
LEA ANN WAY PUMP STATION ELIMINATION	\$8,000,000	\$6,000,000	-\$2,000,000	\$0	-\$8,000,000
LEA ANN WY WEST REHAB QUAD 1	\$400,000	\$400,000	N/C	\$500,000	\$100,000
MAJOR INTERCEPTOR REHABILITATION	\$5,500,000	\$5,500,000	N/C	\$3,000,000	-\$2,500,000
MF COLLECTION SYSTEM BAFFLES	\$624,000	\$400,000	-\$224,000	\$0	-\$624,000
MFWQTC SERVICE AREA INVENTORY FOR CRITICAL PS	\$900,000	\$900,000	N/C	\$0	-\$900,000
MFWQTC SERVICE AREA MH AND ARV FLOODPROOFING FOR 100 YR STORM	\$136,000	\$136,000	N/C	\$0	-\$136,000
MFWQTC SERVICE AREA PS FLOODPROOF FOR 100	\$328,000	\$248,000	-\$80,000	\$0	-\$328,000
NIGHTINGALE REHAB	\$4,200,000	\$4,200,000	N/C	\$1,500,000	-\$2,700,000
SLIP LINE JTWQTC	\$1,398,000	\$1,398,000	N/C	\$0	-\$1,398,000
Development					
FLOYDS FORK ZONE B SEWERS	\$7,900,000	\$7,900,000	N/C	\$0	-\$7,900,000
FLOYDS FORK ZONE C SEWERS	\$4,000,000	\$4,000,000	N/C	\$0	-\$4,000,000
KTC GREENWOOD RD ASSESSMENT	\$525,000	\$0	-\$525,000	\$0	-\$525,000
NIMC					
MF CENTRAL BUSINESS DISTRICT CSO CAMERAS	\$1,248,000	\$1,248,000	N/C	\$0	-\$1,248,000
MFWQTC DAFT REHAB & TWAS PIPING REPLC	\$1,500,000	\$1,500,000	N/C	\$0	-\$1,500,000
MFWQTC DIGESTER LIDS & MIXERS	\$4,500,000	\$4,500,000	N/C	\$0	-\$4,500,000
MFWQTC EQUIPMENT RENEWAL AND REPLACEMENT	\$25,500,000	\$15,000,000	-\$10,500,000	\$900,000	-\$24,600,000
MFWQTC SEC CLARIFIERS & RAS/WAS PUMPING	\$6,500,000	\$5,500,000	-\$1,000,000	\$0	-\$6,500,000
MFWQTC SEDIMENTATION BASIN REHAB	\$12,500,000	\$8,500,000	-\$4,000,000	\$500,000	-\$12,000,000


FY18-FY20 Reduction in CRRP Stormwater Projects	ENG CIP Baseline	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$4/mo in FY18	Baseline vs. ~\$4/mo in FY18
Drainage					
AUBURNDALE EARLY ACTION PROJECT	\$12,600,000	\$4,200,000	-\$8,400,000	\$0	-\$12,600,000
CITY OF HURSTBOURNE EARLY ACTION PROJECT	\$6,000,000	\$3,000,000	-\$3,000,000	\$0	-\$6,000,000
MASTER PLAN IMPLEMENTATION	\$6,000,000	\$5,000,000	-\$1,000,000	\$0	-\$6,000,000
NEWBURG EARLY ACTION PROJECT	\$10,250,000	\$3,000,000	-\$7,250,000	\$0	-\$10,250,000
POPE LICK EARLY ACTION PROJECT	\$6,100,000	\$1,220,000	-\$4,880,000	\$0	-\$6,100,000
PROSPECT EARLY ACTION PROJECT	\$6,000,000	\$1,500,000	-\$4,500,000	\$0	-\$6,000,000
SEATONVILLE EARLY ACTION PROJECT	\$3,400,000	\$3,400,000	N/C	\$0	-\$3,400,000
STORMWATER MASTER PLAN	\$4,000,000	\$4,000,000	N/C	\$0	-\$4,000,000
VALLEY CREEK EARLY ACTION PROJECT	\$5,540,000	\$3,000,000	-\$2,540,000	\$0	-\$5,540,000
VIA11 E BRANDEIS AVE & BROOK VIADUCT FLOOD RELIEF	\$28,043,000	\$2,000,000	-\$26,043,000	\$0	-\$28,043,000
VIA16 3RD & EASTERN PKY VIADUCT FLOOD RELIEF	\$5,808,000	\$0	-\$5,808,000	\$0	-\$5,808,000
WHISPERING HILLS EARLY ACTION PROJECT	\$2,560,000	\$2,560,000	N/C	\$0	-\$2,560,000
Floodplain Management					
FLOOD RESPONSE-BUYOUTS MITIGATION&GRANTS	\$12,000,000	\$10,000,000	-\$2,000,000	\$0	-\$12,000,000
Ohio River Flood Protection					
10TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$1,035,000	\$0	-\$1,035,000	\$0	-\$1,035,000
17TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$2,525,000	\$2,525,000	N/C	\$0	-\$2,525,000
34TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$2,000,000	\$0	-\$2,000,000	\$0	-\$2,000,000
5TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$820,000	\$0	-\$820,000	\$0	-\$820,000
ALLOCATION - ANNUAL FLOOD PUMPING STATIONS EQUIPMENT RENEWAL AND REPLACEMENT	\$3,000,000	\$3,000,000	N/C	\$2,500,000	-\$500,000
FLOODWALL & LEVEE RISK ASSESSMENT	\$750,000	\$0	-\$750,000	\$0	-\$750,000
FLOODWALL/LEVEE RPR & TOE DRAINS	\$2,250,000	\$2,250,000	N/C	\$1,500,000	-\$750,000
LEVEE & FLOODWALL REPAIR & RENEWAL LIGHT	\$1,875,000	\$1,500,000	-\$375,000	\$750,000	-\$1,125,000
PADDYS RUN FPS FULL REHAB	\$31,575,000	\$8,000,000	-\$23,575,000	\$0	-\$31,575,000
ROBERT J. STARKEY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$4,360,000	\$2,180,000	-\$2,180,000	\$0	-\$4,360,000
WESTERN PARKWAY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS	\$11,648,000	\$4,648,000	-\$7,000,000	\$0	-\$11,648,000
WESTERN PARKWAY FPS - RELIABILITY IMPROVEMENTS (EVALUATION REPAIRS)	\$3,334,000	\$3,334,000	N/C	\$0	-\$3,334,000

FY18-FY20 Reduction in CRRP Support Systems Projects	ENG CIP Baseline	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$4/mo in FY18	Baseline vs. ~\$4/mo in FY18
Capital Equipment					
FY18 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/C	\$2,000,000	-\$1,500,000
FY19 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/C	\$1,500,000	-\$2,000,000
FY20 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/C	\$2,500,000	-\$1,000,000
SYSTEMS AUTOMATION	\$1,200,000	\$750,000	-\$450,000	\$750,000	-\$450,000
Facilities					
LOUISVILLE GREEN MAJOR MAINTENANCE	\$3,000,000	\$3,000,000	N/C	\$1,000,000	-\$2,000,000
MFWQTC ELEVATOR REPAIRS	\$400,000	\$400,000	N/C	\$0	-\$400,000
ROOF REPLACEMENTS	\$3,230,458	\$3,204,950	-\$25,508	\$3,200,000	-\$30,458

FY18-FY20 Reduction in CRRP Projects	Baseline vs. ~\$10/mo in FY18	Baseline vs. ~\$4/mo in FY18
Wastewater	-\$7.0-M	-\$128.5-M
Stormwater	-\$103.2-M	-\$169.7-M
Support Systems	-\$0.5-M	-\$7.4-M
Grand Total	-\$110.6-M	-\$305.6-M

Recommendation

ENG CIP - ~\$10/mo in FY18	FY18	FY19	FY20	FY21	FY22	FY18-FY22
Wastewater	\$185.8-M	\$220.1-M	\$180.3-M	\$123.3-M	\$113.1-M	\$822.6-M
CMOM	\$34.8-M	\$47.5-M	\$52.1-M	\$66.4-M	\$90.5-M	\$291.3-M
Consent Decree (IOAP)	\$128.9-M	\$153.6-M	\$96.5-M	\$32.9-M	\$8.0-M	\$420.0-M
Development	\$2.1-M	\$5.1-M	\$8.0-M	\$3.1-M	\$6.2-M	\$24.5-M
NMC	\$20.0-M	\$13.9-M	\$23.6-M	\$21.0-M	\$8.4-M	\$86.9-M
Stormwater	\$15.8-M	\$26.3-M	\$50.1-M	\$111.6-M	\$109.9-M	\$313.8-M
Drainage	\$3.4-M	\$13.1-M	\$25.8-M	\$54.2-M	\$67.7-M	\$164.2-M
Floodplain Management	\$3.4-M	\$3.0-M	\$4.0-M	\$4.0-M	\$4.0-M	\$18.4-M
Ohio River Flood Protection	\$6.8-M	\$9.0-M	\$18.6-M	\$51.7-M	\$35.5-M	\$121.5-M
Stormwater Quality (MS4)	\$2.3-M	\$1.3-M	\$1.8-M	\$1.7-M	\$2.7-M	\$9.7-M
Support Systems	\$18.4-M	\$8.6-M	\$9.6-M	\$10.1-M	\$7.0-M	\$53.7-M
Capital Equipment	\$3.8-M	\$3.8-M	\$3.8-M	\$3.8-M	\$3.8-M	\$18.8-M
Facilities	\$13.6-M	\$4.4-M	\$5.1-M	\$5.9-M	\$2.2-M	\$31.2-M
IT	\$0.7-M	\$0.3-M	\$0.3-M	\$0.3-M	\$0.6-M	\$2.1-M
LOJIC	\$0.4-M	\$0.1-M	\$0.5-M	\$0.3-M	\$0.4-M	\$1.6-M
Grand Total	\$220.0-M	\$255.0-M	\$240.0-M	\$245.0-M	\$230.0-M	\$1.19-B



Questions?



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