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WWT Stakeholders Meeting # 40 9/29/2016



WET WEATHER
STAKEHOLDER TEAM

Agenda



Wet Weather Team
Stakeholder Group Agenda
September 29, 2016
5:30 p.m. – 8:00 p.m.

- 5:00 – 5:45 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 Response to the Consent Decree Midpoint Review
Angela Akridge, MSD Chief Engineer
- 6:15 – 6:30 IOAP Update
John Loechle, MSD Engineering Director
- 6:30 – 6:45 Facility Plan Update
Gary Swanson, CH2M
- 6:45 – 7:15 Facility Plan Stakeholder Vision - Feedback
Gary Swanson
- 7:15 – 7:45 Facility Plan Support Memo - Feedback
Clay
- 7:45 – 7:55 Observer Comments, Wrap-up and Adjourn
Clay

Meeting Summary

Meeting Summary
Wet Weather Team Stakeholder Group Meeting
September 29, 2016
MSD Main Office, Louisville

The Wet Weather Team (WWT), chartered by the Louisville and Jefferson County Metropolitan Sewer District (MSD), met on September 29, 2016, at MSD's main office. The objectives of the meeting were to:

- Provide an update on the Consent Decree Midpoint Review recommendations implementation process.
- Provide a Consent Decree Integrated Overflow Abatement Plan (IOAP) update.
- Review the Facility Plan status, Stakeholder Vision memo, and Stakeholder support memo.

Welcome

Clay Kelly of Strand Associates opened the meeting by welcoming the members and reviewing the meeting objectives, agenda, and basic ground rules. Clay welcomed the WWT's newest member, Deborah Bilitski, the Director of Develop Louisville with Louisville Metro Government.

MSD Update

Tony Parrott, MSD Executive Director, noted that MSD's Board approved the FY17 budget and an accompanying 6.9 percent rate increase. This rate increase allows MSD to continue to implement the Consent Decree capital improvements but does not provide any budget to implement the recommendations of the Facility Plan. Fortunately, MSD has been able to maintain its favorable bond rating despite the growing unfunded need for infrastructure renewal and replacement.

Tony shared that MSD will be having numerous community conversations about the needs identified in the Facility Plan with the intention of generating public understanding and support for the necessary rate increase to implement it. He added that there is no federal or state funding available for the capital projects in the Facility Plan and therefore it must be a locally funded effort. If Louisville is to continue to grow then it will need the infrastructure to support that growth. Tony pointed out that there is a financial risk to allowing infrastructure to become unreliable. Businesses will not locate or expand in those areas in which basic services are not dependable.

A stakeholder asked whether there were any consequences of not meeting the Consent Decree deadlines. Tony and Brian responded that every project has a deadline and there is a \$1.5 million per year per project penalty to which MSD would be subjected if those deadlines are missed. Therefore, MSD must continue to stay focused on the necessary resources and attention required to complete the Consent Decree projects. Similarly, there is an equally dire risk associated with the lack of investment in non-Consent Decree infrastructure needs which are being identified in the Facility Plan.

Response to Consent Decree Midpoint Review

Angela Akridge, MSD Chief Engineer, introduced this topic by saying that as part of the OneWater initiative, the Mayor had asked for a third-party independent review of the MSD's Consent Decree compliance program. Overall, the program received an "A-" but noted areas of improvement needed in project/risk management and budget/schedule compliance in the second half of the program.

Angela explained that the early parts of the program were during the recession. MSD was often the only entity putting out construction contracts. As a result, there were high numbers of bidders that drove costs down. As the economy has improved, contractors became more selective on whose project they bid and report that MSD was not an "Owner of Choice." This resulted in higher prices which puts MSD at risk of not meeting the budget for the program. It should be noted that availability of funding or access to funding is not an allowable reason for non-compliance. Without action, costs would continue to rise and the ability to fund other needed investments would be put in jeopardy due to the priority given to the Consent Decree response.

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To address these issues, MSD organized a response plan with eight initiatives consisting of 31 tasks and 136 activities. The eight initiatives are:

1. Project Management
2. Training
3. Schedule and Budget
4. Project Bidding
5. Risk Management
6. Cost Management
7. Performance Measurement
8. Skilled Trade Staffing

The response plan is focused on immediate payback activities and is a priority in the organization. The implementation of the plan is showing results already. In the nine months since the response plan was initiated, the average number of bidders per contract has risen and costs are normalizing near expected, fair market value. Staff training is on the rise and project control procedures are being implemented.

IOAP Update

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

- The Logan Street Combined Sewer Overflow (CSO) Basin will be buried with open space at the surface. MSD is coordinating with Metro on the public input process for the “leave-behind” at the site.
- MSD has secured a deadline extension from the Environmental Protection Agency (EPA) for the Nightingale CSO Basin Project due to weather delays. The project site is in the floodplain and the numerous heavy rains made construction at the site impossible for extended periods of time.
- At the Clifton Heights CSO Basin, the community preferred an open field with minimal structures or leave-behinds. The area is visited by turkeys and foxes who are beloved by the neighbors, so a meadow cover for the basin surface is preferred.
- Tony Parrott added that the Southwest Parkway CSO Basin project will create over 200 jobs over the next three years. MSD and the design-build team are conducting outreach to hire local residents and project neighbors.
- The community has provided input and feedback on the design process for the I-64 and Grinstead CSO Basin. John reminded the attendees that MSD had to purchase the former Jim Porter’s site because so much of the project was in the floodplain that construction would not have been feasible within the timeframe allowed under the Consent Decree. The property will be used as a staging and storage area during construction. Once construction is complete, MSD plans to sell the property.
- The Portland CSO Basin has been coordinated with Metro Parks and will result in an expanded and enhanced park when the project is complete.

20-Year Comprehensive Facility Plan Update

Gary Swanson of CH2M-Hill explained that the draft recommended Facility Plan was submitted to MSD on August 31, 2016. MSD currently has around 40 people involved in the review process. The intention is to update and publish the Plan for public comment by the end of the year.

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20-Year Comprehensive Facility Plan - Stakeholder Vision

Gary reviewed an updated version of the technical memo summarizing the key points of the Facility Plan that was presented to the WWT Stakeholders in May. He reminded the group that in the IOAP process, the WWT preferred to review and support a similar document rather than the entire IOAP document and that he envisioned a similar process for the Facility Plan.

Specific items in the memo and comments from the WWT included:

- After pointing out that the memo discussed changing weather patterns, specifically the increased frequency of extreme storms, a stakeholder noted that impervious area has increased significantly, which leads to an even greater volume of run-off that must be managed.
- Gary said that the current draft of the Facility Plan does not include enhanced nutrient removal at MSD's water-quality treatment centers as it was not expected to be a regulatory requirement in the next 20 years. However, a recent EPA memo on the subject may spur rethinking on the timeline that could cause up to \$1 billion in upgrades to be pushed within the 20-year Facility Plan time frame. A stakeholder followed up by saying that if most of the nutrient loadings in our waterways come from stormwater run-off and not treatment center discharges, source control and watershed management would seem to be a more cost-effective solution. Gary responded by saying that it would probably be more cost-effective but difficult to regulate.
- Angela and Gary both explained that the current MSD budget does not include any Facility Plan projects for at least seven more years due to the Consent Decree work that must be completed during that time. As discussed earlier in the meeting, a rate increase larger than 6.9% will be necessary to begin those efforts sooner.
- A stakeholder asked whether revenues are consistent or if they are rising because of growth in the City. Tony answered that revenues are consistent and are within a few percentage points of MSD's projections. The challenge is that while population is growing, water consumption is dropping. The reduced water consumption is due to a shift from a manufacturing and industrial economy (heavy water use) to a service and knowledge economy (light water use). In addition, fixtures and appliances continue to increase in water efficiency (low-flow toilets, e.g.). Because service rates are based on water usage, the proportional decrease in consumption reduces the revenue effect of rate increases.
- A stakeholder asked for more information on how MSD budgets for surprises or unexpected expenses. Tony, Gary, and Angela responded by saying that it was getting harder and harder to predict because maintenance has been deferred for so long and for so many assets that there are no applicable metrics to use. The Facility Plan addresses the need to replace, renew, and/or rehabilitate assets pro-actively rather than waiting for failure and addressing them from emergency funds. The Facility Plan also makes recommendations on the level of maintenance that should be performed. Angela concluded the discussion by saying that if MSD does not address these issues there could be another Consent Decree that will force it.
- One stakeholder observed that a potential approach to raising revenues besides across the board rate increases would be to adjust the minimum charge. Gary agreed that is an approach, but the professional standard is to set the minimum charge so that it pays for fixed costs that are the same regardless of consumption. Maintaining that standard limits the effectiveness of adjusting minimum charges, but the standard is fair to all users.
- A stakeholder posed the question of what would happen if MSD just said "no" to growth or additional developments because the infrastructure cannot support it. Tony replied that as a community we need to stay ahead of this or the economy will shrink because of businesses leaving.
- As part of a larger discussion about affordability, the impact of rate increases to economically vulnerable users, and what can be done to protect customers from overly burdensome bills, a stakeholder asked what the effect would be if a proposed rate increase was not applied to customers who

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would have to spend more than 2 percent of their income on water and sewer bills. Gary and Brian explained that laws require for rates to be applied consistently. Because of that, rate relief is funded through other sources of income than rate proceeds. MSD's proposed approach includes implementing a rate relief program that will effectively keep rates the same or less than they are today for qualifying low-income customers. This would happen concurrently with the proposed rate increase.

- Several stakeholders urged MSD to include the impacts to affordability, MSD's plans for rate relief, how it would work, and specific examples as part of the community outreach.
- Angela closed the discussion by sharing that discussions about affordability are being had throughout the profession. Leaders have realized that planning our infrastructure for what the poorest members of our communities can afford leaves us with infrastructure that cannot perform at the level necessary. The preferred approach is to plan for the infrastructure we need and utilize rate relief to mitigate the burden on vulnerable families.

Facility Plan Support Memo

Gary asked the Stakeholders to review the Facility Plan Support Memo and provide feedback. He stated that the Facility Plan Team is asking them to sign the document, so their input to the content and message of the support memo is critical.

Several Stakeholders shared comments and recommendations:

- Instead of using rain depths or storm definitions, use outcomes such as preventing street flooding, or damage to buildings.
- Use "climate change" instead of "increased frequency of extreme storms" as that term is more familiar to the general public.
- Refer to storms by their chance of occurring in a given year. For example, say "a storm with a 10 percent chance of occurring in a year" rather than "a 10-year storm."
- Avoid implying that flooding will be prevented in every location across the county. There are locations that are meant to flood and there should not be buildings (i.e., floodplains).
- Include a discussion about OneWater and how this fits in that strategy.
- Separate Item No. 5 into two items, one on community outreach and one on the necessary rate increase.
- Many Stakeholders recommended removing the third sentence in Item No. 5 that begins "For the most part..."

Several Stakeholders discussed how to phrase and describe the scale of the necessary rate increase. Many Stakeholders expressed concern about endorsing a rate increase that is generally described or nonspecific while others were not concerned about the inclusion of qualifiers.

Observer Comments, Wrap-Up, and Adjourn

Clay said that he would be following up with the Stakeholders on any specific comments or concerns about the Support Memo. The goal is to have consensus support at the next meeting.

There were no comments from the observers.

Clay closed the meeting by saying that the specific date for the next meeting has not been determined but will likely be before December.

Meeting Materials

- Agenda for the September 29, 2016 WWT Stakeholder Group Meeting

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- Copy of the presentation slides - IOAP Update; Response to the Consent Decree Midpoint Review
- Draft Facility Plan Stakeholder Vision Memo
- Draft Facility Plan Support Memo

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September 29, 2016
MSD Main Office, Louisville**

Meeting Participants

Wet Weather Team Stakeholders (Present)

Stuart Benson, Louisville Metro Council, District 20
Deborah Bilitski, Louisville Metro Government, Direct of Develop Louisville
Allan Dittmer, University of Louisville Provost Office
Mark French, University of Louisville Speed School of Engineering
Arnita Gadson, retired Executive Director, Kentucky Environmental Quality Commission
Tom Herman, retired from Zeon Chemicals
David James, Louisville Metro Council, District 6
Maria Koetter, Louisville Metro Government, Director of Sustainability
Kurt Mason, District Conservationist, Jefferson County Soil Conservation District
Gina O'Brien, Brightside Executive Director
David Tollerud, University of Louisville, School of Public Health and Information Sciences
David Wicks, Kentucky Conservation Committee, Jefferson County Public Schools Center for Environmental Education (retired)

Wet Weather Team Stakeholders (Not Present)

Steve Barger, Labor (retired)
Susan Barto, Mayor of Lyndon
Billy Doelker, Key Homes
Rick Johnstone, Deputy Mayor, Louisville Metro Mayor's Office (retired)
Rocky Pusateri, Elite Built Homes
Lisa Santos, Irish Hill Neighborhood Association
Bruce Scott, Kentucky Waterways Alliance (retired)
Marty Storch, Louisville Metro Parks
Tina Ward-Pugh, WaterStep, citizen representative, former Metro Council member

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
Lopez High, MSD
Stephanie Laughlin, MSD
Matt Newman, HDR
Mark Sneve, Strand Associates

No Meeting Handouts

IOAP Update

September 29, 2016



Logan CSO Basin - Schedule

- Contract Amount: \$47,906,892.40
 - Walsh Construction
- Consent Decree deadline: December 31, 2017
- Contract Substantial Completion: August 20, 2017
- Percent Complete (by Time): 50%
- Percent Complete (by Budget): 45%
 - Rock anchor installation 99% complete
 - Six of eight floor pours complete
 - Revised design complete
 - Walsh is preparing final pricing and schedule



aerial
innovations
TN, KY, AL



Logan CSO Basin

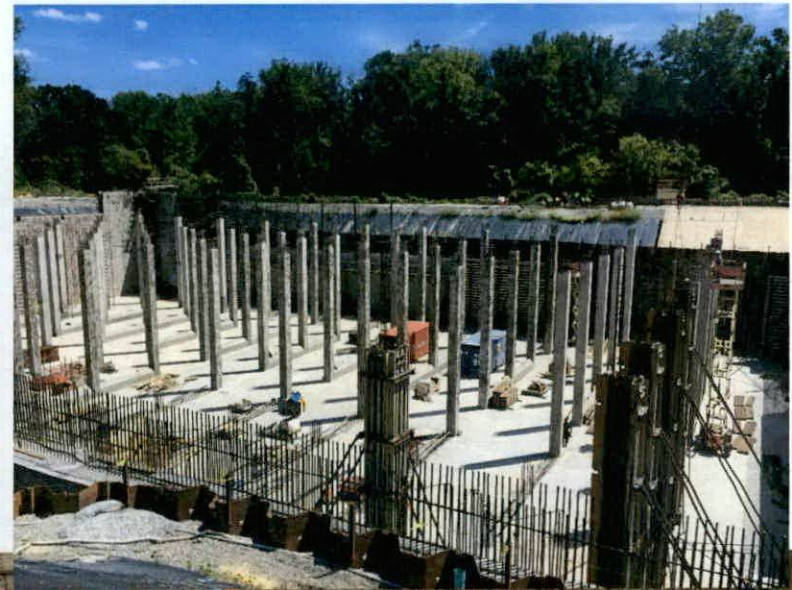




Nightingale CSO Basin Project



Nightingale Pump Station



Nightingale Pump Station - Schedule

- Contract Substantial Completion: September 21, 2016
- Estimated Substantial Completion: April 14, 2017
- Percent Complete (by Time): 68%
- Percent Complete (by Budget): 37%
- Ongoing tasks
 - Rock anchor installation: 100%
 - Basin slab installation: 85%
 - Wall & Column installation: 75%

Muddy Fork CSO Basin Project



Muddy Fork Interceptor SSO Storage Basin



Muddy Fork Basin

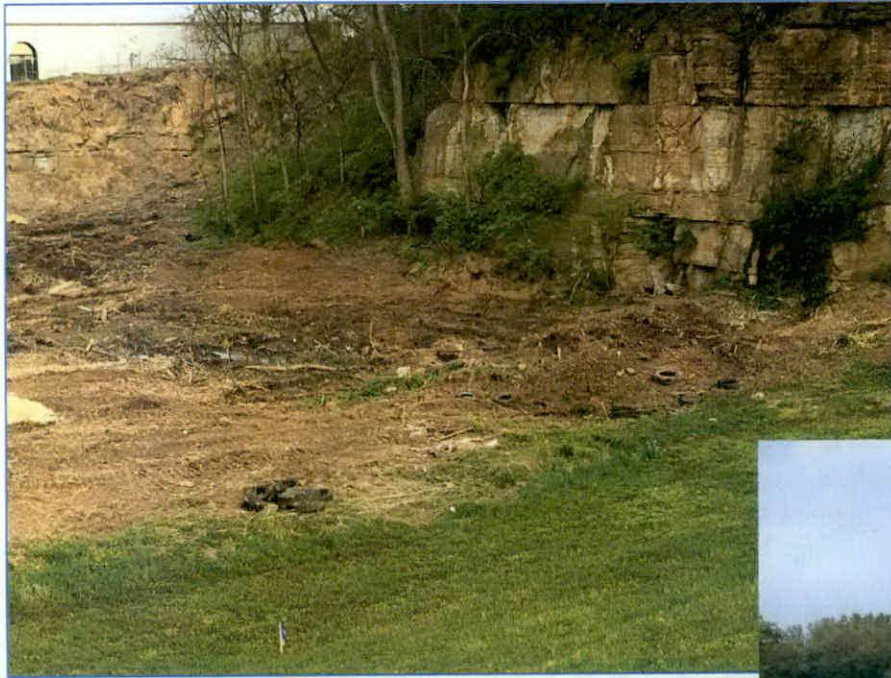


Muddy Fork Basin



Clifton Heights CSO Basin





Southeast



Southwestern Parkway CSO Basin

Gateway Capital Design Coordination Meeting

September 22, 2016



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

Project Update



Project Schedule

- Projected 60% Submittal November 14, 2016
- Projected 60% GMP Submittal January 5, 2017
- Projected 100% Submittal May 2017
- Projected Substantially Operational December 31, 2018
- Consent Decree Deadline December 31, 2018

I-64 and Grinstead CSO Basin

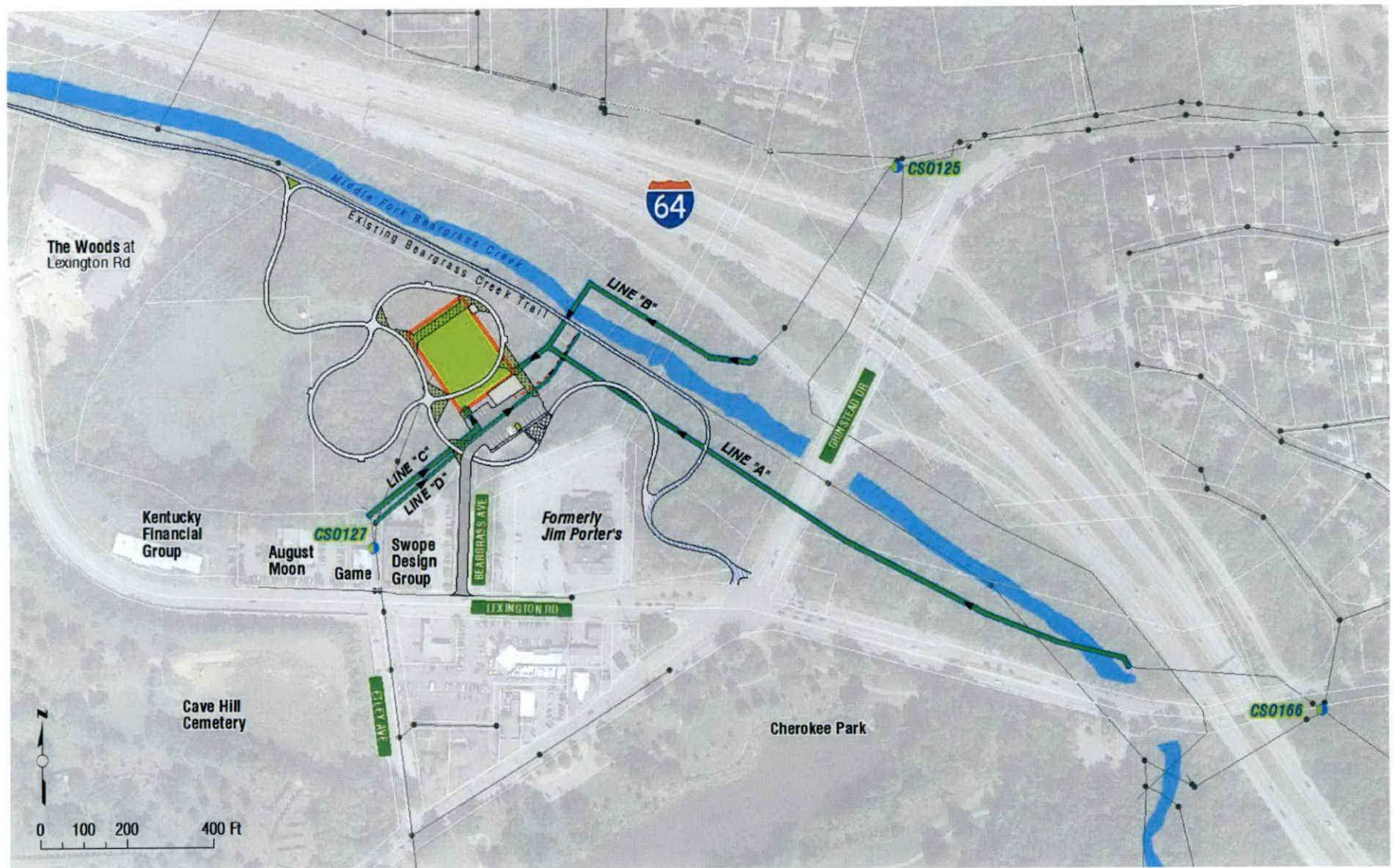




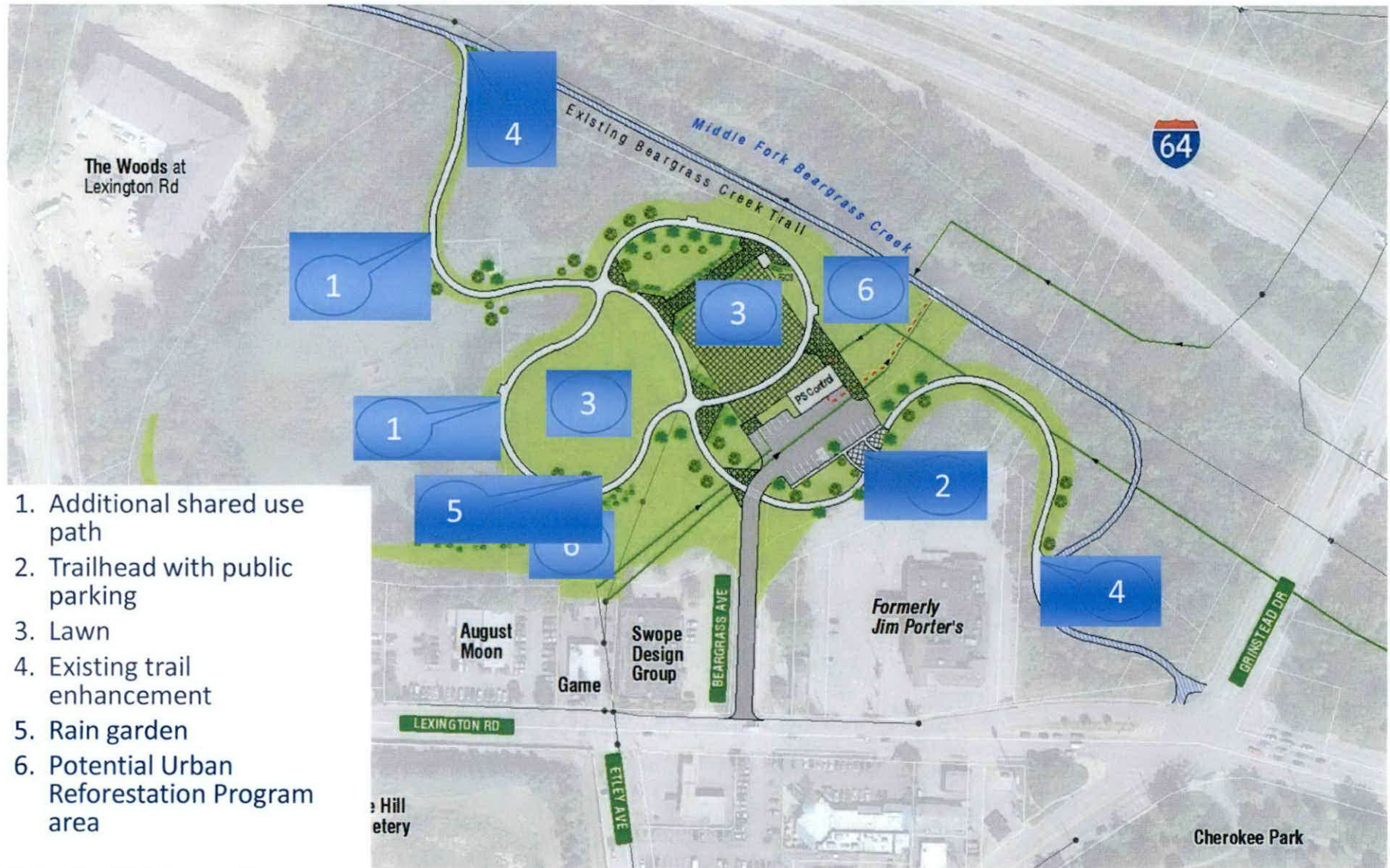
Project Summary

- 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

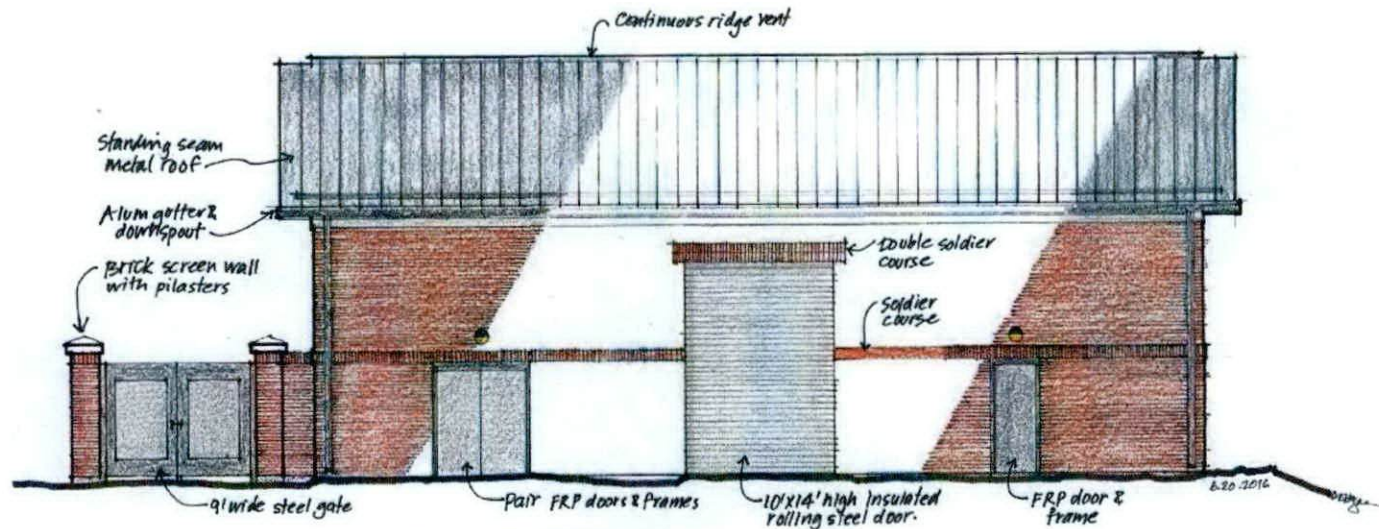
Project Design Update



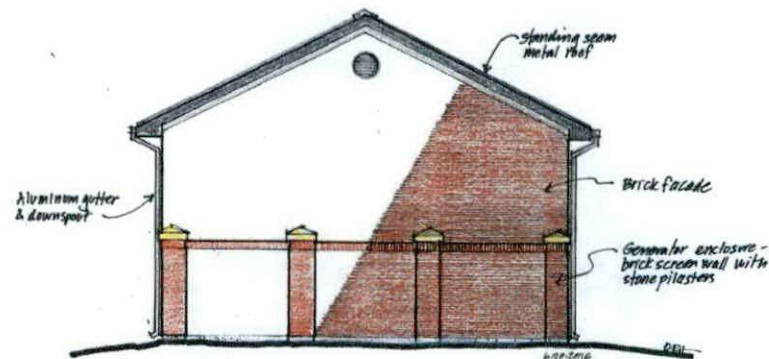
Designed Community Enhancements



Control/Pump Station Building Facade



A FRONT ELEVATION
CONTROL ROOM & PUMP STATION



A SIDE ELEVATION
CONTROL ROOM & PUMP STATION

Portland CSO Basin

30% Gateway Capital Design Coordination Meeting

April 28, 2016



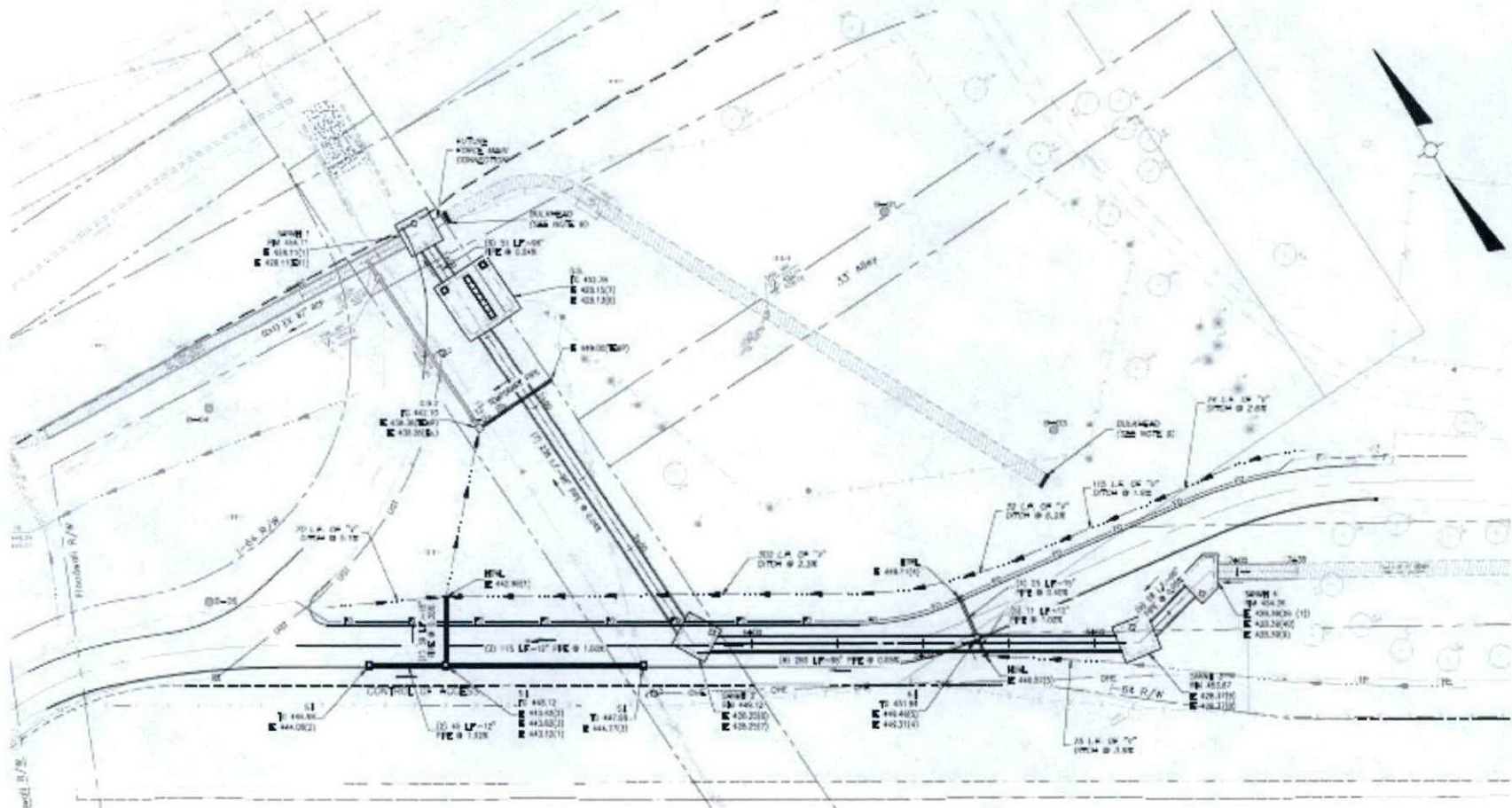
Project Summary

- Basin storage volume is 6.7 Million Gallons
- Basin will be underground and covered
- Addresses one (1) CSO location
 - 019
- Level of Control (per Typical Year) is eight
- Consent Decree Deadline: December 31, 2019

Proposed Site Layout









Questions?

Wet Weather Team Stakeholder Group

Consent Decree Mid-Point Review Construction Cost Escalation Response Plan

September 29,
2016



Keeping Commitments and Making Progress

- Background – what were the issues?
- CD/CIP Evaluation response plan update
 - Successes
 - Measurable results
- More work to do
 - Adaptive management

Consent Decree Response

Third Party Review

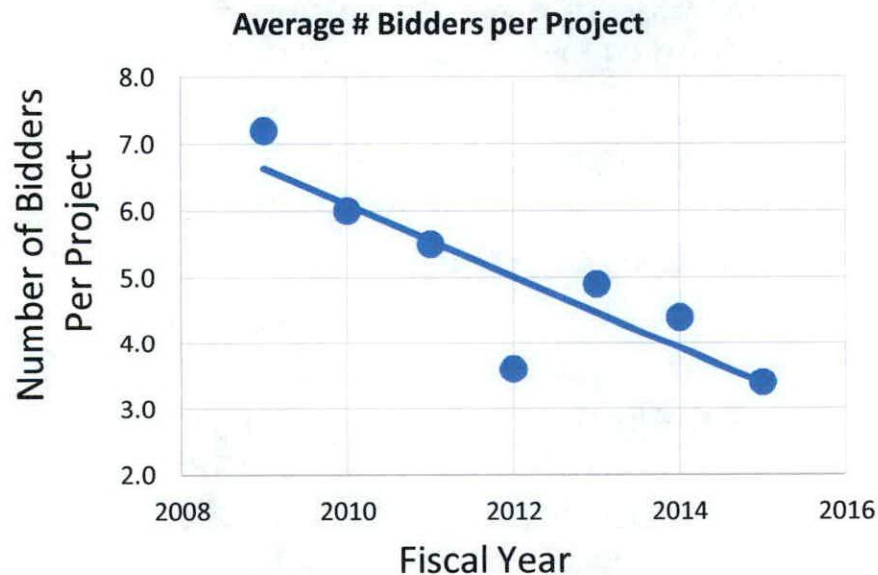
- Third party review initiated through “One Water” due diligence review
- MSD’s response program “Best in Class” in plan development, adaptive management modifications, CD compliance record, public outreach, and funding
- **Improvement needed in project management and risk management processes, tools, and organization**
 - Concern about risks to budget and schedule for 2nd half of program
 - Noted construction market changes and increased potential for stakeholder-driven delays
- **Overall grade A-**

Table ES-1: Summary Scorecard of Peer Review Findings

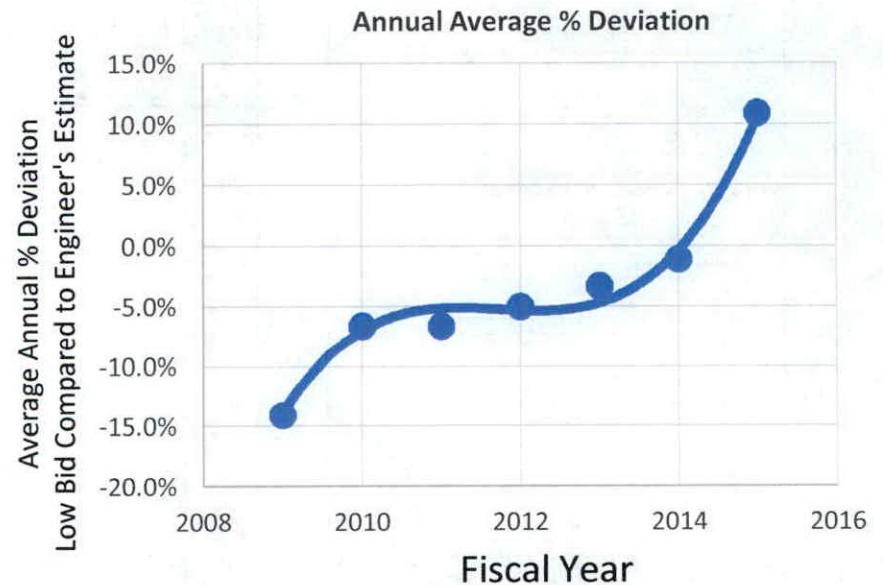
Program Element	Peer Review Finding ID	Rating (A – F)	Comments
1. IOAP objectives and approach to overflow control	S.2	A	MSD has developed a plan with reasonable, achievable and affordable levels of CSD and SSD control. The mix of traditional (grey) and sustainable (green) infrastructure, balanced with an adaptive management approach to program implementation, is expected to both meet regulatory requirements and the needs of the community.
2. Cost control and adherence to budget	SC.5 PR.3 PR.4 PR.9	C	<p>Although MSD has generally done a good job managing program costs to date, budget issues have emerged recently with some projects. The following elements will contribute to the challenge of meeting the targeted \$850M program budget:</p> <ul style="list-style-type: none"> • Current budget for future projects may not be adequate due to cost escalation from an improving economy, presence of other large, local construction projects and scope changes related to facility sizing • Existing contract language may be shifting excessive construction risk to contractors thereby creating cost impacts as a result • Potentially tight schedules for upcoming projects could impose additional cost <p>Remaining projects should be re-estimated and rigorous cost control strategies implemented on the revised budgets.</p>
3. Schedule management	SC.9 PR.5 PR.8	C+	All ACD deadlines have been met which has led to reduced stipulated penalties in some instances. However, no programmatic schedule tracking system is in place. Risk of future schedule issues is emerging.
4. Regulatory compliance status	S.10	A	MSD has dramatically improved its relationship with KDEP and U.S.EPA Region 4 in recent years. MSD is now respected by the regulatory agencies and able to effectively negotiate IOAP program compliance requirements with them as implementation proceeds.
5. Public outreach	S.11	A	MSD has developed and conducts highly effective outreach to the public including the use of a Wet Weather Team Stakeholder Group. Public input is solicited and incorporated into project implementation. There is broad public support for the program but some project specific opposition that pose schedule and budget risks.
6. Program funding	S.6 SC.7	A	MSD has developed a funding strategy that has received broad public support with relatively little opposition. Funding of the program appears to be secure well into the future. Moderate rate increases remain within the authority of the MSD Board to approve which creates less uncertainty about program funding. Funding needs outside the IOAP could compete for limited funds in the future, but MSD is addressing this with facilities planning.
7. MSD staffing to support program: Engineering and Management Operations	SC.1 SC.2 SC.4 SC.6	B+ C	<p>MSD has excellent staff in place, but there are concerns about MSD’s ability to hire and retain key staff in the face of growing market pressures for those staff. There are also concerns about succession planning over the life of the program and lack of experience on large projects.</p> <p>Staffing levels may not be sufficient for some compliance needs, especially for skilled trades and professionals who are being lost to private industry. Complex facilities being added to collection system require sufficiently trained and experienced staff to operate properly.</p>
8. Data collection and management	S.9	B+	MSD has established an excellent network of equipment for flow and rainfall monitoring to support the program and SCADA programming resources to support operations.
9. Project document management	SC.8	B-	MSD maintains good access to project documents, but could benefit from the consistent application of document management systems.

Deeper Dive Into Cost Escalation Issues

Construction Cost Escalation Risk Review



Improving economy provides greater opportunity for contractors to be selective in the project they bid, reducing competition for MSD projects



Contractors report MSD is not "Owner of Choice", so reduced competition results in higher bid prices

Response Action Plan

- Consolidated recommendations from both reports
- Added MSD Auditor recommendations on prevailing wage and local labor preference administration
- Eight Initiatives, 31 Tasks

Project Management	1.1	Fill Critical Positions/PM Cradle to Grave Assignments
	1.2	ACD Document Control
	1.3	SOPs to involve Operations
	1.4.1	PM Handbook (SOPs)
	1.4.2	Certified Payroll Recommendation
	1.4.3	Local Hire Recommendation
	1.5	Engineer of Record RFPs and Selection
	1.6	Inspector Supervisor & Inspector Positions Posted/Filled
Training	1.7	Robust Construction Management Strategy Implemented
	1.8	Construction Inspector Handbook (SOPs)
	2.1	PMs Trained
	2.2	PMI Certification Used for Advancement
	2.3	Training/Development of new ACD staff
	2.4	Safety Training
	2.5	SORP & ACD Compliance Training
	3.1	Project Management Tools
Program Scheduling & Budgeting	3.2	Standard Project Template
	3.3	Public Involvement in Project Template
	3.4	Implement PM Tools
	4.1	More bidders (advertise across broader geography)
Project Bidding	4.2	Contractor outreach program
	4.3	Standard bidding SOP
	4.4	Revised bid bond requirements
	5.1	Revised construction contract documents
Risk Management	5.2	Managed Risk Registers for all Projects
	5.3	Post Construction Monitoring
	5.4	Project Post Mortem SOP
	6.1	Gateway Meetings & Variance Meetings
Cost Management	6.2	Right-Sized Construction Contingency
	6.3	Updated IOAP Cost Estimates with SOP
	6.4	Right-Sized Contingency with Planning Level Estimates
	6.5	Updated Budgets/Contingency for Projects Under Construction
	6.6	Fully Developed Change Management Approach/System
	6.7	Implemented VE SOP
	6.8	Design/Build Delivery in MSD Construction Toolbox
	7.1	Performance Metrics are Selected, Tracked, Used in Decision-Making
Performance Measurement	7.2	Dashboard Displays Performance Metrics
	7.3	Metrics Utilized in Job Performance and Goal Setting
	8.1	Current Staffing Levels are adequate to meet IOAP goals/5-Year Staffing Plan in Place
Staffing	8.2	Succession Plan for Key ACD Response Positions

Activity Tracking

Format Per Infrastructure Committee Directive

136 activities scheduled out to June 2017

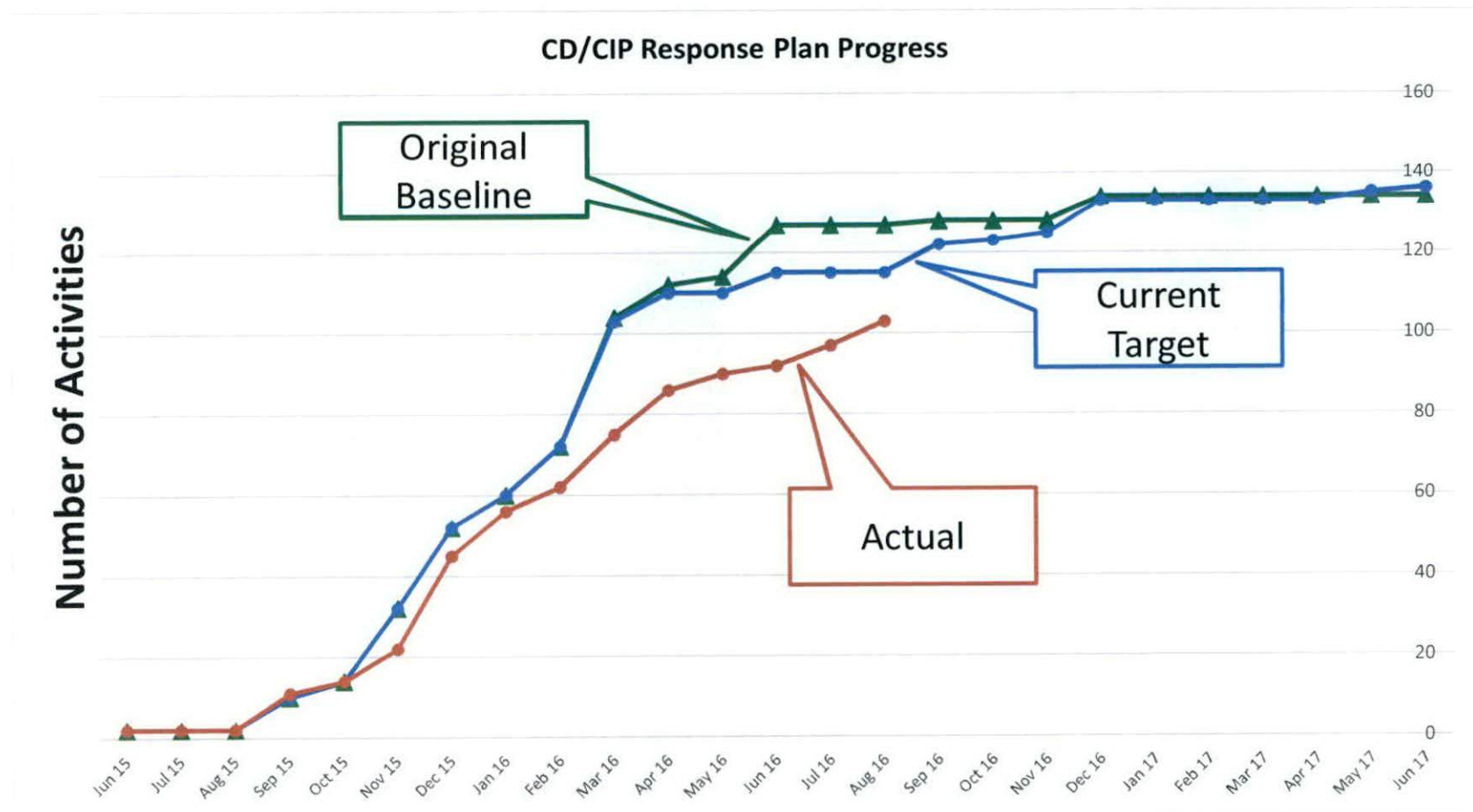
CD/CIP Evaluation Response Plan

Prioritization Key: 1 = Completion by 12.31.15; 2 = Completion by 3.31.16; 3 = Completion by 6.30.16; 4 = Completion by 9.30.16; and 5 = Completion by 12.31.16

Color Code: Green = Complete Yellow = Being Worked On Grey = Not Started

MSD Activity Number	Category	Recommendation	Recommendation Source		MSD Response - Deliverables	Lead Responsibility	Collaborate	Outside Resources Needed	Priority*	Completion	Target Completion Date	Actual Date Completed	Percent Complete	Progress
			Cost Escalation Risk Review	Consent Decree Mid-Point Review										
1	Project Management												23%	
1.1	Project Management	Provide "cradle to commissioning" project management	X	X									46%	
1.1.1	Project Management	Provide "cradle to commissioning" project management	X	X	Publish revised organization chart aligned to Planning, Treatment, Collection, and Flood Protection	Akridge			1	Q3 2015	9/4/2015	9/4/2015	100%	Reorganization developed and communicated with staff
1.1.2.1	Project Management	Provide "cradle to commissioning" project management	X	X	Inventory active projects including consideration of size, complexity, and completion status	Loechle	Powell		1	Q3 2015	9/30/2015		100%	Inventory complete
1.1.2.2	Project Management	Provide "cradle to commissioning" project management	X	X	Develop approach to PM assignments	Loechle	Powell		1	Q4 2015	11/30/2015		75%	Draft complete
1.1.2.3	Project Management	Provide "cradle to commissioning" project management	X	X	Implement cradle to commissioning PM assignments	Loechle	Powell		1	Q4 2015	11/30/2015		25%	Some project assignments revised
1.1.3.1	Project Management	Provide "cradle to commissioning" project management	X	X	Identify key Engineering management and support position vacancies and prioritize hiring needs	Akridge	Loechle, Johnson, Buckler, French		1	Q4 2015	10/31/2015		100%	
1.1.3.2	Project Management	Provide "cradle to commissioning" project management	X	X	Prepare revised or draft PAOs for key Engineering management and support positions	Akridge	Loechle, Johnson, Buckler, French		2	Q1 2016	1/31/2016		10%	
1.1.3.3	Project Management	Provide "cradle to commissioning" project management	X	X	HR/Mercer evaluation of final PAOs for key Engineering management and support positions	HR	Akridge	Mercer	2	Q1 2016	2/28/2016		0%	
1.1.3.4	Project Management	Provide "cradle to commissioning" project management	X	X	Post positions, interview, hire key Engineering management and support positions	HR	Akridge		3	Q2 2016	6/30/2016		0%	

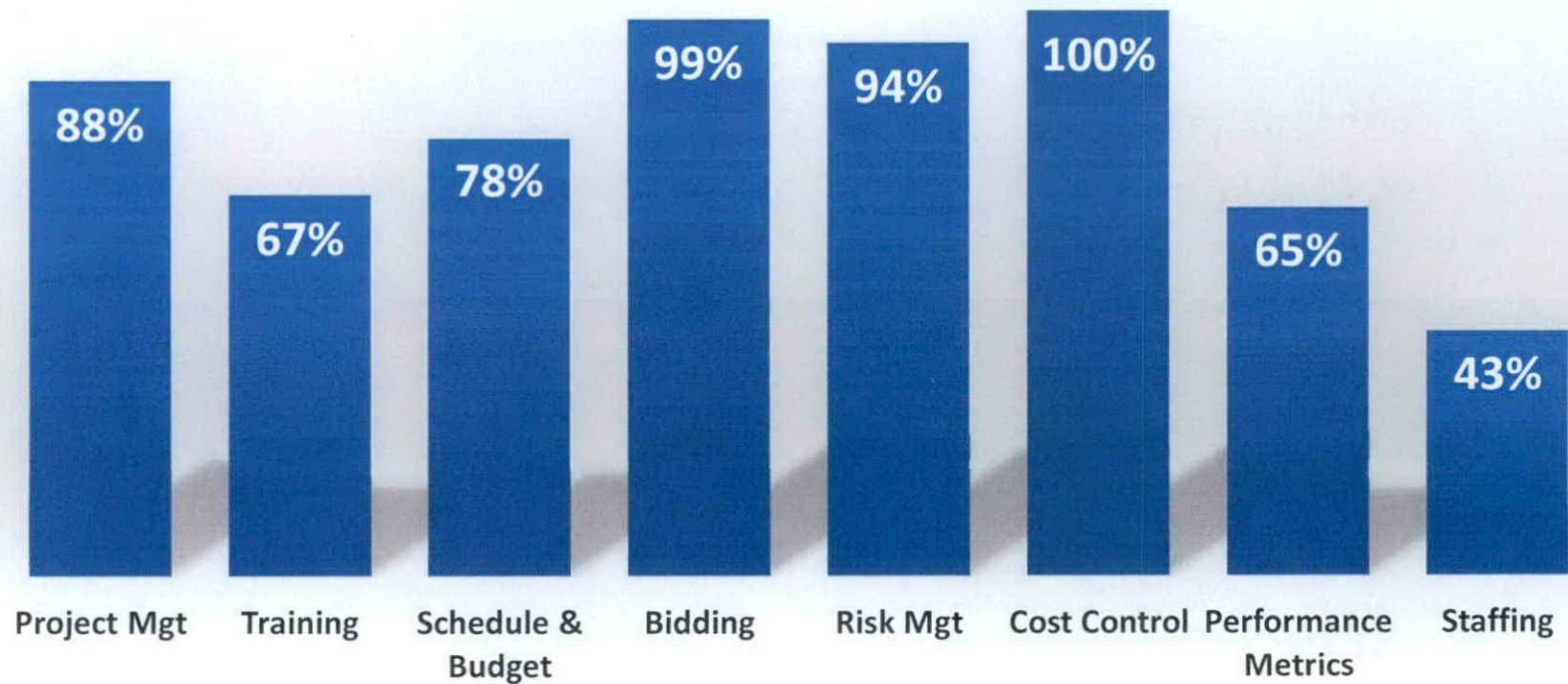
Overall Progress



Task Progress

Focused on Immediate Payback Activities

Percent Complete by Initiative



Significant Achievements To Date

Initiative 1 – Project Management

- “Cradle to Commissioning” Project Management implemented
- Draft CIP & Inspection Handbooks currently under management review
- Digital Compliance Library System for ACD documents Phase 1 complete
- Key Engineering positions in hiring process
- Construction Phase Support
 - Hired 11 Inspectors and a seasoned Inspection Supervisor to bring resources in-house
 - Procured Resident Project Representatives for large and complex projects
- Building internal program support reducing need for current and future outside resources

Significant Achievements To Date

Initiative 2 – Training

- Project Managers attended Project Management Fundamentals training
- Reviewed and determined PMI Certification potentially appropriate for future
- Hold annual SORP training for MSD Board and staff
- Quarterly overflow response training for field staff

Significant Achievements

Initiative 3 – Schedule & Budget

- Developed schedule and budget tool to provide a detailed look at all of the project schedules and budgets
- Developed standard Work Breakdown Structure and implementation checklists to capture critical path and important tracking items
 - Includes Risk Management Plan development
 - Includes Stakeholder Communication Events
 - Includes permitting milestones
- ACD projects loaded into project scheduling system

Significant Achievements

Initiative 4 – Project Bidding

- Developed enhanced advertising procedures to increase potential bidding competition
- Held first Contractor Outreach Event – 163 attendees
- Recommended lowering bid bond requirements to Kentucky Revised Statute requirements/industry standards to encourage more participation by smaller construction companies
- Standardizing project management approach (Initiative 1) provides Contractors with assurance of contract management consistency



Significant Achievements

Initiative 5 – Risk Management

- Revised construction contract to conform to industry standards
- Identified risk management approach and toolset
 - Validated tool set with project manager workshop
 - Populating risk registers for active projects
 - Routinely discussion risk management in project meetings

Significant Achievements

Initiative 6 – Cost Management

- Developed structure and schedule for design and construction “Gateway Meetings” to facilitate change management discussions
 - Monthly review meetings successfully bringing change management issues and challenges to consensus decisions
- Evaluated and standardized design and construction contingency practices according to industry guidelines
- Conducted Value Review workshops on three major CSO Storage basin projects (Clifton, Logan, and Portland)
- Implementing design-build delivery approach on one current project (Southwestern) and evaluating potential for upcoming projects

Significant Achievements

Initiative 7 – Performance Measurement

- Developed metrics for:
 - Lifetime IOAP Performance
 - Annual CIP Program Performance
 - Project Performance
 - Project Management
- Configured program and project performance dashboard within SharePoint structure

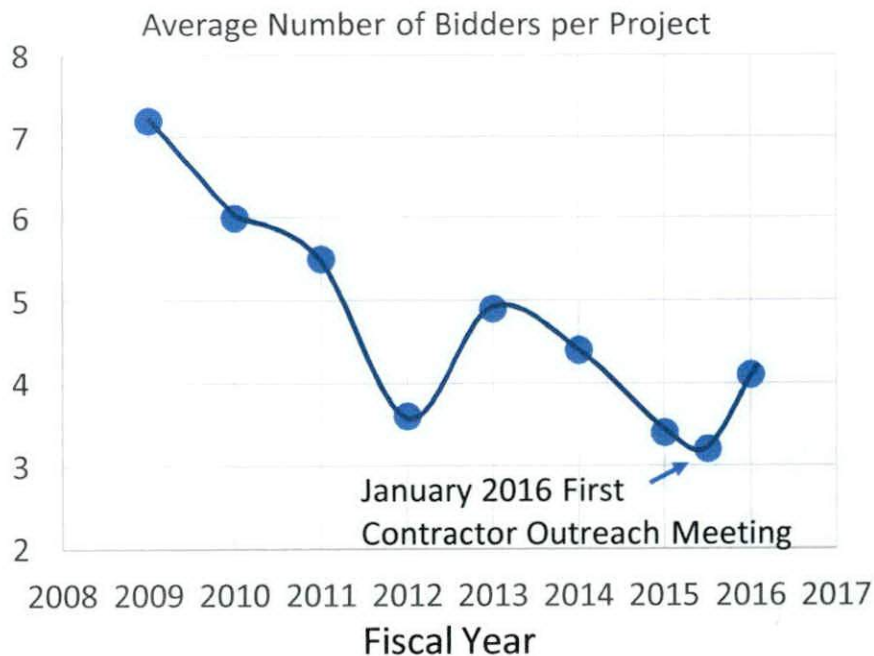
Significant Achievements

Initiative 8 – Skilled Trade Staffing

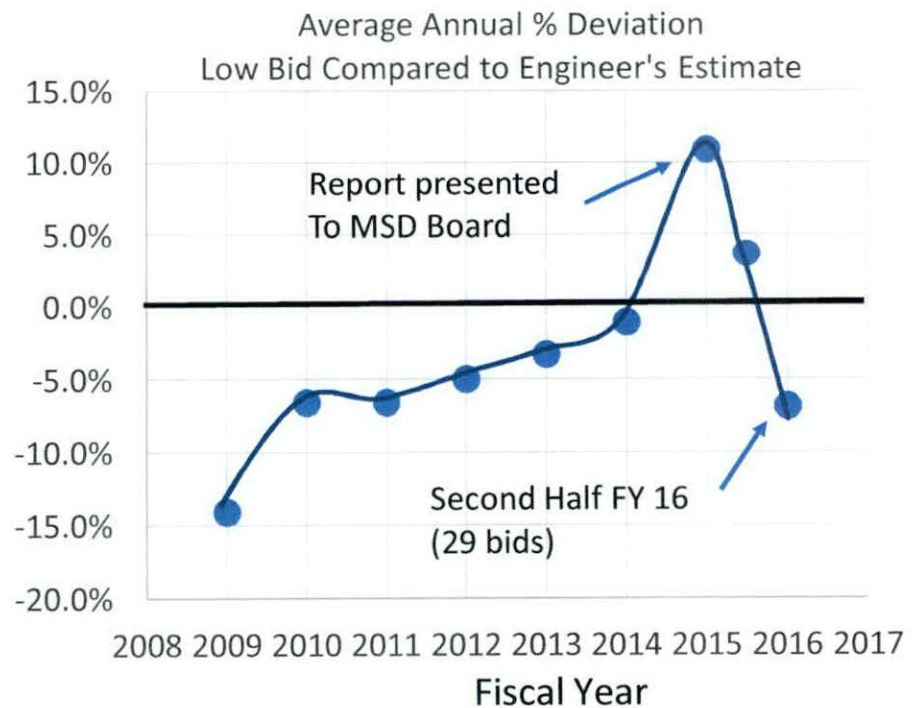
- Facilitated workshop with Operations Division to identify and prioritize skilled trade staffing needs and priorities
 - FY 17 operating budget partially closes the staffing gap
 - Emphasis on filling approved positions
 - Facilities Plan will address impact of new facilities over next 20 years
- Operations and HR identifying source of hiring and retention challenges (e.g. Ford) and developing response plan

Construction Industry Response

MSD's Initiatives Reversing Trends



Contractor Outreach Program in January 2016 appears to have increased contractor interest in MSD work as measured by bidders per project



Response to MSD's revised business approach has increased competition and reduced bid prices in FY 2016

Upcoming Significant Milestones

- Upcoming Training Events
 - Risk Management
 - Change Management
 - Stakeholder Involvement
- Developing “Lessons-Learned” review procedures to build institutional knowledge
- Launch Project Controls SharePoint System
 - Will pull schedule data from Microsoft Project and budget/cost data from SAP
 - Will hold risk and change information
 - Will display general project information and link to project documents

Upcoming Significant Milestones

- Incorporate sustainable on-going training plan for PMs and Engineering Management
- Complete transitions of Prevailing Wage and Local Labor compliance activities to Finance Division
- Complete transitions of easement and land acquisition activities to Legal Division
- Adopt standard bidding schedule and coordination with LWC and Louisville Metro
- Implement risk management program on all IOAP and other significant projects



Questions?