City of Akron, Integrated Planning Agenda

* Akron, Ohio
  - Cuyahoga River Watershed
  - Akron Sewershed
* Consent Decree (CD)
* Akron Integrated Plan (IP)
* Integrated Plan (IP)
  - IP Issues and Challenges
  - Akron IP Success
  - Akron IP Lessons Learned
Cuyahoga River Watershed

- Watershed Divide
  - Cuyahoga River Watershed
  - Tuscarawas River Watershed
- Akron Water Supply
- Cuyahoga Valley National Park (CVNP)
- Cuyahoga River Water Trail
- Great Lakes Area of Concern
Akron Sewershed

- **Akron Sewershed**
  - 85,000 Active Accounts
  - Serving 350,000 People
  - 110 square miles

- **Collection System**
  - 679 miles of sanitary sewers
  - 169 miles of combined sewers
  - 32 CSOs (prior to AWR)
  - 2 Storage Basins (prior to AWR)
* Water Reclamation Facility (WRF)
  - Average Flow 72mgd
  - Peak Flow 280mgd
  - Conventional Activated Sludge with Step Feed
  - Anaerobic Digestion with Power Generation

* 269% Sewer Rate Increase
  - 10 year period

* $57 Per Month Sewer Only
  - 5HCF
Complete all Projects:  
October 31, 2027

Complete all CD Requirements by: 
October 15th, 2028

CD Filed: November 2009
LTCP Update: November 2011
CD Entered: January 2014

Green Infrastructure Modification: 
October 14, 2015

First Amendment to CD: September 20, 2016

Proposed Second Amendment to CD: June 5, 2018
Consent Decree

5 Sewer Separations
10 Storage Basins
2 Tunnels
WRF Step Feed Projects
WRF BioACTIFLO
Mud Run Pump Station and Basin
Main Outfall Parallel Sewer
OCIT Enhanced High Rate Treatment
Capacity, Management, Operation and Maintenance (CMOM)

$1.4 Billion
($870 Million to $1.14 Billion)

HIGH BURDEN
2.46% MHI
(2.1% to 9.5%)
Integrated Plan
Integrated Plan

- building infrastructure that will protect public health and maintain water of the highest quality in the most cost-effective manner while providing local jobs
- achieve greater environmental benefits, earlier, at an affordable cost
- make an unaffordable program, less unaffordable
- 2.4 billion gallons of cso and wrf secondary by-pass to 75 million gallons of cso (typical year)
Integrated Plan

* Akron Integrated Planning Framework Plan

- Mini-IP Project Evaluation
- Develop Project List
- Stakeholder Involvement
- Triple Bottom Line Evaluation
- Water Quality Activities
- Financial Analysis
- Final Integrated Plan
- Ongoing Plan Improvements
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<th><strong>Consent Decree Projects</strong></th>
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<td>5 Storage Basins &amp; 5 Green/Conv./Sep.</td>
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<td>Capacity, Management, Operation and Maintenance (CMOM) – 5 Year Schedule</td>
<td>CMOM</td>
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Integrated Plan

- Projects Completed 1,440 days early (exception of OCIT)
- WRF Provided Additional 860 Million Gallons Early and Continues to Provide an Additional 30 Million Gallons of Biological Secondary Treatment During Peak Flow Events
- Capital Cost
  - Savings $83 Million
- Proposed Capital Cost
  - Savings $77 Million
- Financial Costs
  - Savings $118 Million

65% of CD Projects Completed
27% of CD Projects in Construction
65% of the Projected Project Costs Spent or Committed

Potential Additional Savings of $100 Million with Future Integrated Planning Process
Integrated Plan (IP)

IP Issues and Challenges
Akron IP Success
Akron IP Lessons Learned
IP Issues and Challenges

- Existing Consent Decree
  - Current Project Schedules
  - Time for Review and Uncertainty
  - Enforcement vs Science
- Piling on Syndrome
- Need for Affordability Considerations (Schedule)
- Priority Based on Water Quality
- Need for Adaptive Management
- National Support for Green Technologies
Akron IP Success

* Proven Environmental Benefits
  * CSO and WRF Secondary By-Pass Reduction
  * Cuyahoga River Water Quality
  * Cuyahoga River Water Trail
  * Great Lakes AOC (Removal of Beneficial Use Impairments)

* Savings for the Akron Sewer Customers
* Greater Environmental Benefit
* No Schedule Extensions Requested
* Earlier Project Completions
* Potential Additional Benefits
  * Gorge Dam Removal
  * Northside Interceptor Separations
  * CMOM 10 Year Schedule
Akron IP: Lessons Learned

- Keep Expectations in Check
- Time
- Project Costs
- Green Not Always Cheaper
- Model Predictions / Real Time Control
- Stakeholder Support
- Lack of Water Quality Consideration
- Recognition of Affordability
- Major and Minor CD Conditions