Unified Government
Integrated Overflow Control Program

January 23, 2017
Kansas City Urban Stormwater Conference
Background
Sewer System Metrics

- ~$34 million 2016 budget
- 160 square mile service area
- 40,000 residential accounts
- 3,500 commercial/industrial accounts
- 115 employees
- 5 wastewater treatment plants
- 1,200 miles of sewers
- 71 wastewater pump stations
- 9 flood pump stations
- 20 miles of flood control levees (support)
- Combined, separate sanitary and storm sewers
CSO Receiving Streams

- Kansas River (7 outfalls)
- Missouri River (6 outfalls)
- Mattoon Creek (2 outfalls)
- Jersey Creek (24 outfalls)
Partial Consent Decree
CSO Long-Term Control Plan

- **September 1996**
  - KDHE issues NPDES Permit requiring CSO compliance

- **November 2000**
  - CSO Long-Term Control Plan submitted

- **August 2001**
  - First sewer separation project began (Jersey Creek)

- Reduced number of CSO outfalls from 66 to 39 and annual overflow volume by almost 20%
Partial Consent Decree History

- January 2007 - CSO Long-Term Control Plan considered inadequate by EPA
- 2008 - EPA initiated enforcement alleging violations of the Clean Water Act
  - NPDES Permit
  - MS4 Permit
  - Dry weather CSOs and constructed SSOs
  - Inadequate CSO LTCP and SWMP
Partial Consent Decree History

- May 2013 - Partial Consent Decree became effective
- Key compliance measures
  - Stormwater Management Plan
  - FOG Control Program
  - CMOM Program Plan
  - PCD Stipulated Projects (Treatment and Collection Systems)
  - Combined Sewer System Characterization Plan
  - Sanitary Sewer System Characterization Plan
  - Integrated Overflow Control Plan (Submitted 9/30/16)
Characterization and Assessment
Findings
Infrastructure Condition Assessment

- Substantial infrastructure upgrade, renewal, operation, and maintenance needs
Water Quality Characterization

- Water quality standards and uses cannot consistently be met due to pollution sources other than CSOs

<table>
<thead>
<tr>
<th>E. COLI LOADING CONTRIBUTION</th>
<th>KANSAS RIVER</th>
<th>MISSOURI RIVER</th>
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<tbody>
<tr>
<td>Upstream sources</td>
<td>~73%</td>
<td>~95%</td>
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<td>UG CSO discharges</td>
<td>~10%</td>
<td>~3%</td>
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Financial Capability Assessment

- Burden and level of debt required to meet the desired level of control would be unacceptable and unsustainable.
Public Participation

- Fix existing sewer system
- Phased approach to make smarter decisions
- Affordability is important
- Address community priorities
- Provide employment opportunities for citizens
Integrated Overflow Control Plan
Recommended 10-Year Plan

• Focusing on fixing the pipes and facilities that we already have

• Learning more about how our system works so that we can make smart decisions

• Working toward reducing overflows to improve water quality and protect public health
Recommended $200 Million Plan

- Investigate and repair existing sewer pipes
- Upgrade technology throughout facilities to monitor the system
- Construct a new wastewater treatment plant
- Reduce rainwater getting into combined sewers by repairing pipes and installing green infrastructure
- Increase maintenance of existing sewer pipes and facilities
Recommended Plan Components

**PROJECT TYPE**
- Combined Sewer Overflow Control, $11M
- Implementation & Compliance, $15M
- Infrastructure Upgrades, $15M
- Sanitary Sewer Overflow Control, $41M
- Anticipated Regulatory Requirements, $1M
- Infrastructure Renewal, $117M

**PROJECT SYSTEM**
- System-Wide, $11M
- Pump Stations & Force Mains, $26M
- Stormwater, $29M
- Collection System, $48M
- US Army Corps of Engineers Flood Control, $5M
- Treatment Facilities, $81M

Total: $200M
Projected Typical Monthly Bill

Monthly bill will increase by about $2 each year for the next 10 years.
The Future
Recent Developments

- January 2016 – Plan implementation began
- September 2016 – Plan was submitted on time
- December 2016 – Final PCD-stipulated project completed
- December 2016 – DOJ requested additional information and clarification regarding the financial capability assessment
Future Compliance Schedule?
Future Compliance Schedule?

- Phase I: CSO Long-Term Control Plan
- Phase II: Integrated Overflow Control Plan, Consent Decree Commitment
- Phase III: Updated Integrated Overflow Control Plan, Final Compliance Consent Decree

- 2000
- 2016
- 2025

Second Partial Consent Decree