City of Dothan, Alabama

DOTHAN CLEAN WATERS PROGRAM
CITY COMMISSION UPDATE

PRESENTED:
February 19, 2013
Program Overview

- MOM Programs
- Capacity Assurance Program
- Information Management System
- Omussee WWTP Planning
MOM Programs

- MOM = Management, Operations, and Maintenance
- EPA Guidelines for a Best Practices
- Operations & Maintenance Manual for the Collection System
- Includes:
  - Sewer Overflow Response Program (SORP)
  - Inter-jurisdictional Agreement Program
  - Fats, Oils, Grease Control Program (FOG)
  - Gravity Line Preventive Maintenance Program
  - Pump Station Operations & Preventive Maintenance Program
  - Continuing Sewer System Assessment Program (CSSAP)
  - Infrastructure Rehabilitation Program (IRP)
Capacity Assurance Program

- Objective = To ensure that there is sufficient capacity in the wastewater system to add new users or increase flow from existing users
- Involves:
  - Hydraulic model of system
  - Must have capacity during wet weather
  - Design storm = 2yr, 24hr rain event ~4.75 in.)
Capacity Assurance Program

- Maintain a Connection List (City)
- Survey the System
- Collect Flow Data
- Conduct Hydraulic Modeling
- Perform Capacity Assessment
  - All Gravity Collector Lines
  - All Force Mains
  - All Pump Stations
  - All Wastewater Treatment Plants
- Develop a Capacity Credit System
Manhole Inspections (Three Crews)
• Completed pilot area in November
• Started Inspections in December
• Total # Manholes ~10,000
• Omussee Basin
  – MHs Inspected = 2,300
  – Total Manholes = 2,419
• Starting in Cypress Basin
• Approx. 60 – 80 MHs per day

Manhole Surveys (Two Crews)
• Started Surveying in January
• MHs Surveyed = 520
• Approx. 110 MHs per day
  (First Batch)
Dothan Clean Waters Program – Feb 19 Update

Manhole Inspection Photos
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• Flow Measurement
  – 24 permanent flow meters installed approximately a year ago
  – Installed 85 temporary flow meters in December
  – 6 temporary meters installed in satellite communities
  – 7 temporary rain gauges, 8 permanent rain gauges
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Fats, Oils, & Grease (FOG) Control Program

• What is FOG?
  ➢ Generally Fats, Oil, and Grease (FOG) from animal or vegetable sources
  ➢ Major source are Food Service Establishments (FSE)
  ➢ Estimated 600± FSEs in City of Dothan
Fats, Oils, & Grease (FOG) Control Program

- Controlling FOG is an EPA AOC requirement
- Over 1/3 of the City’s SSO events are attributed to FOG = 400,000± gallons of overflows (2008-2012)
- Increased sewer maintenance
- Causes issues at pump stations and WWTPs
- Deadline for Program Development = April 25, 2013
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Dothan SSOs 2008 - 2012
No of SSO Events

- Beaver Creek WWTP 6%
- Vandalism 2%
- Excessive Rain 17%
- Blockage 6%
- Break in Line 7%
- Construction 11%
- Lift Station 13%
- Grease or Grease Blockage 38%
- Grease or Grease Blockage 38%

FOG Hotspot Area

Legend
- Sewer Lines
- FSE
- FOG SSO

No of SSO Events
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FOG Program Components Include:

- City Ordinance Revisions
- New FOG Ordinance
- Standards for Grease Control Equipment at FSEs
- Hot Spot ID with Forensic Analysis
- Inspection and Permit Program
- Waste Hauler Certifications
- Waste Treatment Adjustments
- Public Education on FOG
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Around Manhole 1393

Overflow And Grease Buildup
At Manhole 1393 3/2/2011
2:53:41 PM
Inter-jurisdictional Agreement Program

• Requires the City to enter into inter-jurisdictional agreements with satellite communities when City renews agreements or when entering into new agreements.

• The Inter-jurisdictional Agreement Program requires that a satellite communities must:
  – Limit their peak wastewater flow to the City
  – Have an industrial pretreatment program
  – Have their own FOG Control Program
  – Use MOM Programs to minimize peak flows
<table>
<thead>
<tr>
<th>Current Satellite Communities</th>
<th>Inter-Jurisdictional Agreement Status</th>
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</thead>
<tbody>
<tr>
<td>Town of Cowarts</td>
<td>Expires: April 21, 2017</td>
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<tr>
<td>Houston County Board of Education</td>
<td>Expires: November 9, 2018</td>
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<tr>
<td>Town of Taylor</td>
<td>Expired: January 30, 2004</td>
</tr>
<tr>
<td>Town of Midland City</td>
<td>Expired: February 24, 2009</td>
</tr>
<tr>
<td>Town of Napier Field</td>
<td>Expired: January 29, 1999</td>
</tr>
<tr>
<td>Town of Kinsey</td>
<td>Expired: August 24, 2001</td>
</tr>
<tr>
<td>Houston County Water Authority</td>
<td>No Agreement</td>
</tr>
</tbody>
</table>
Preventive Maintenance Programs

• Pump Station Ops & PM Program
  – Emergency Operations
  – Inspections/Evaluations
  – SCADA use (installation underway)

• Gravity Line PM Program
  – Maintenance of Way
  – Inspections/Evaluations
  – Critical Line Segments

• Force Main PM Program
  – Location Preservation
  – Air Relief Maintenance
  – Corrosion Inspections
Preventive Maintenance Programs Results

- Work Order Management
- Progress Tracking
- Staffing Needs and Evaluation
- Planning Tool
- Preventive Identification
Information Management System Program

- Objective = A computerized system to help manage collection system information to reduce occurrences of SSOs
• Information Management System (IMS) Program
  – IMS Program Planning
    • Evaluation of Needs
    • Identification of Available Software
    • Evaluation of Alternative Software Packages
    • Selection of Software - Cityworks
    • Preparation of an Implementation Plan
  – IMS Implementation

• Cityworks is widely used in the public works sector
  – Integrated with your Geographic Information System
  – Links to your accounting system (HTE)
  – Can be used to manage other City information in the future
## 2013 AOC Deadlines

<table>
<thead>
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<th>AOC Task</th>
<th>AOC Deadline</th>
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<tr>
<td>Sewer Overflow Response Plan</td>
<td>Jan. 25, 2013</td>
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<tr>
<td>CMOM Self-Assessment</td>
<td>Jan. 25, 2013</td>
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<tr>
<td>Information Management System Plan</td>
<td>Jan. 25, 2013</td>
</tr>
<tr>
<td>1(^{st}) Quarterly Report</td>
<td>Jan. 30, 2013</td>
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<tr>
<td>FOG Control Program</td>
<td>Apr. 25, 2013</td>
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<tr>
<td>2(^{nd}) Quarterly Report</td>
<td>Apr. 30, 2013</td>
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<tr>
<td>Pump Station Ops &amp; PM Program</td>
<td>July 25, 2013</td>
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<tr>
<td>Inter-jurisdictional Agreement Program</td>
<td>July 25, 2013</td>
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<tr>
<td>3(^{rd}) Quarterly Report</td>
<td>July 30, 2013</td>
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Questions?