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City of Dothan, Alabama

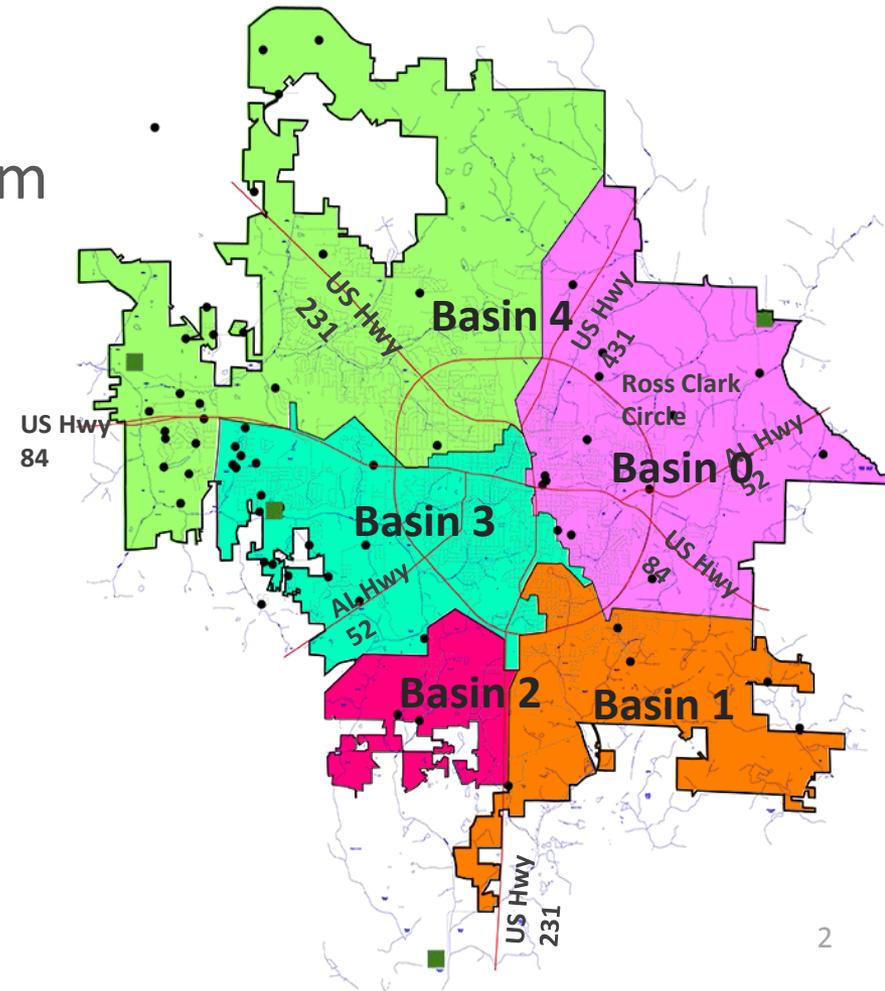
DOTHAN CLEAN WATERS PROGRAM CITY COMMISSION UPDATE

PRESENTED :

February 19, 2013

Program Overview

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



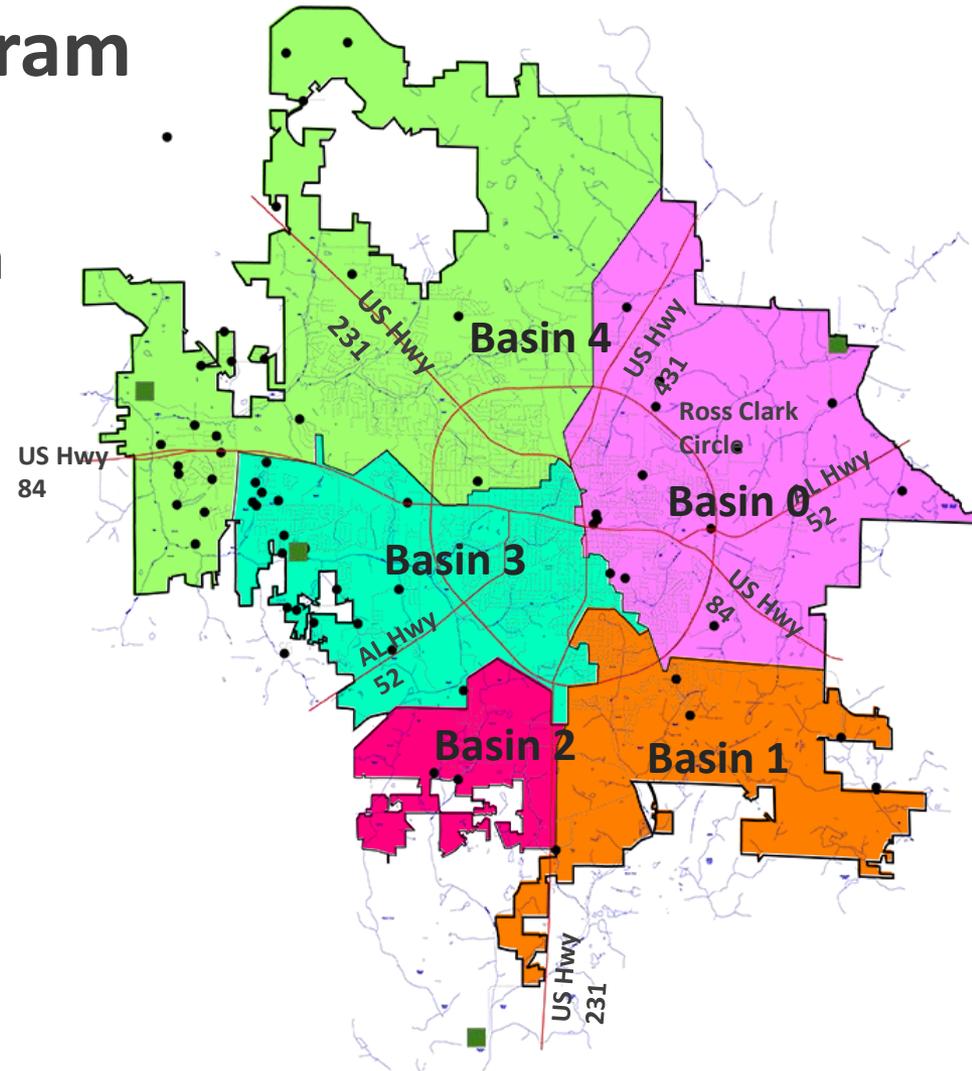
MOM Programs

- 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



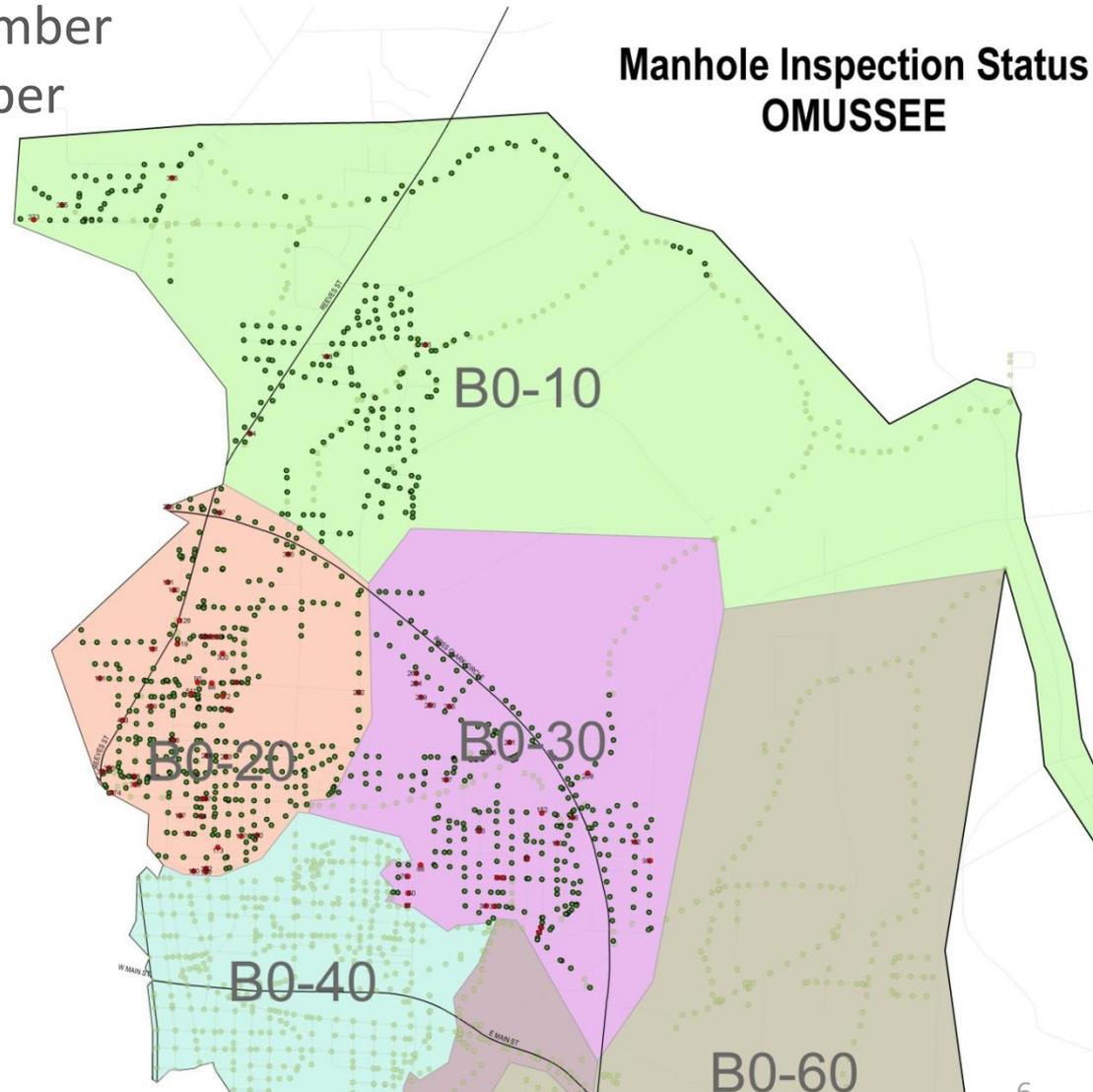
Dothan Clean Waters Program – Feb 19 Update

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)

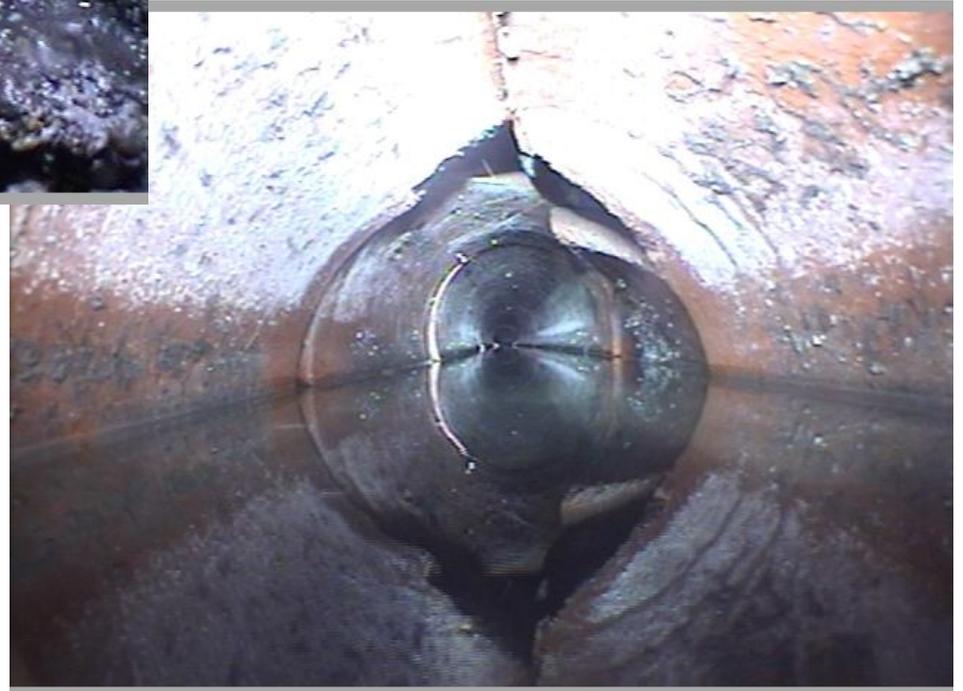
- Started Surveying in January
- MHs Surveyed = 520
- Approx. 110 MHs per day
(First Batch)



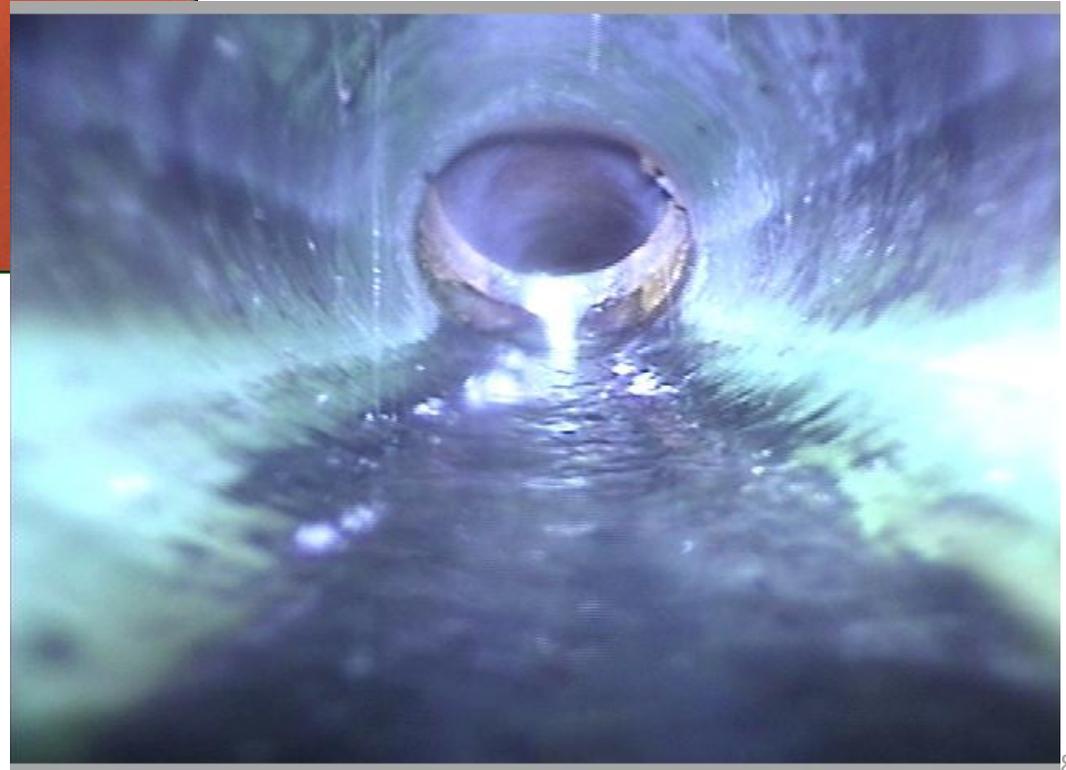
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Manhole Inspection Photos



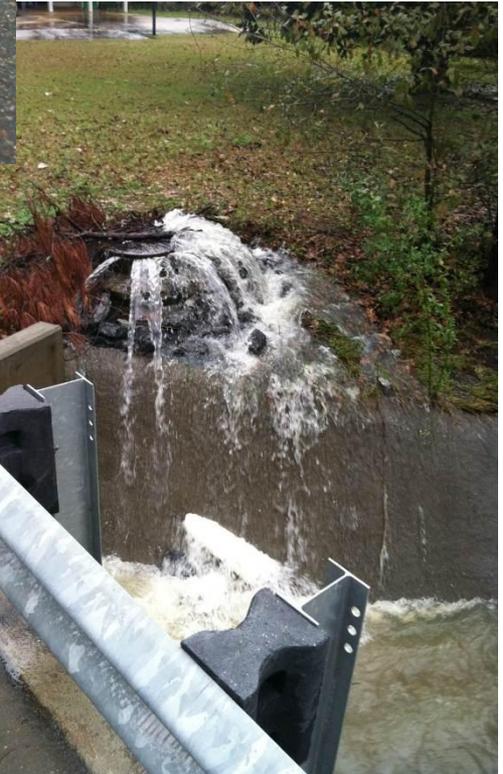
Dothan Clean Waters Program – Feb 19 Update



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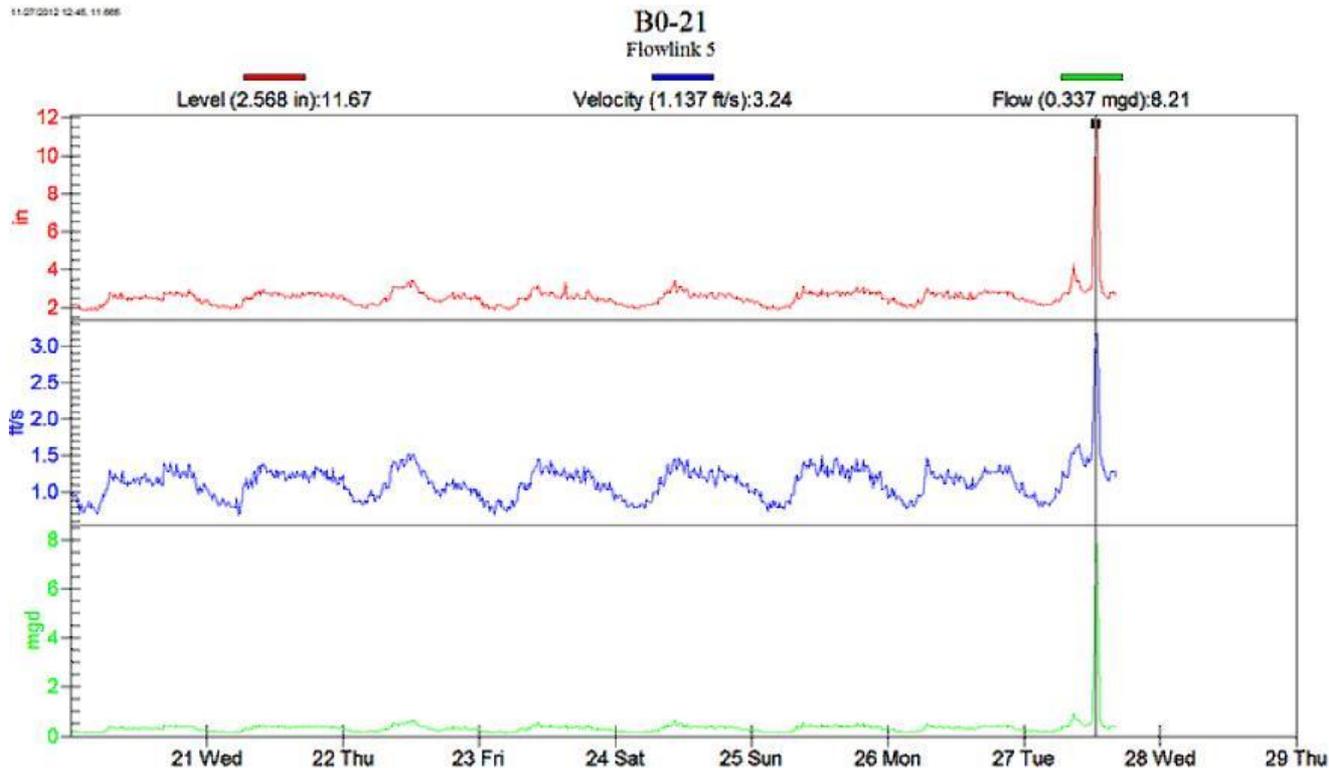
Dothan Clean Waters Program – Feb 19 Update



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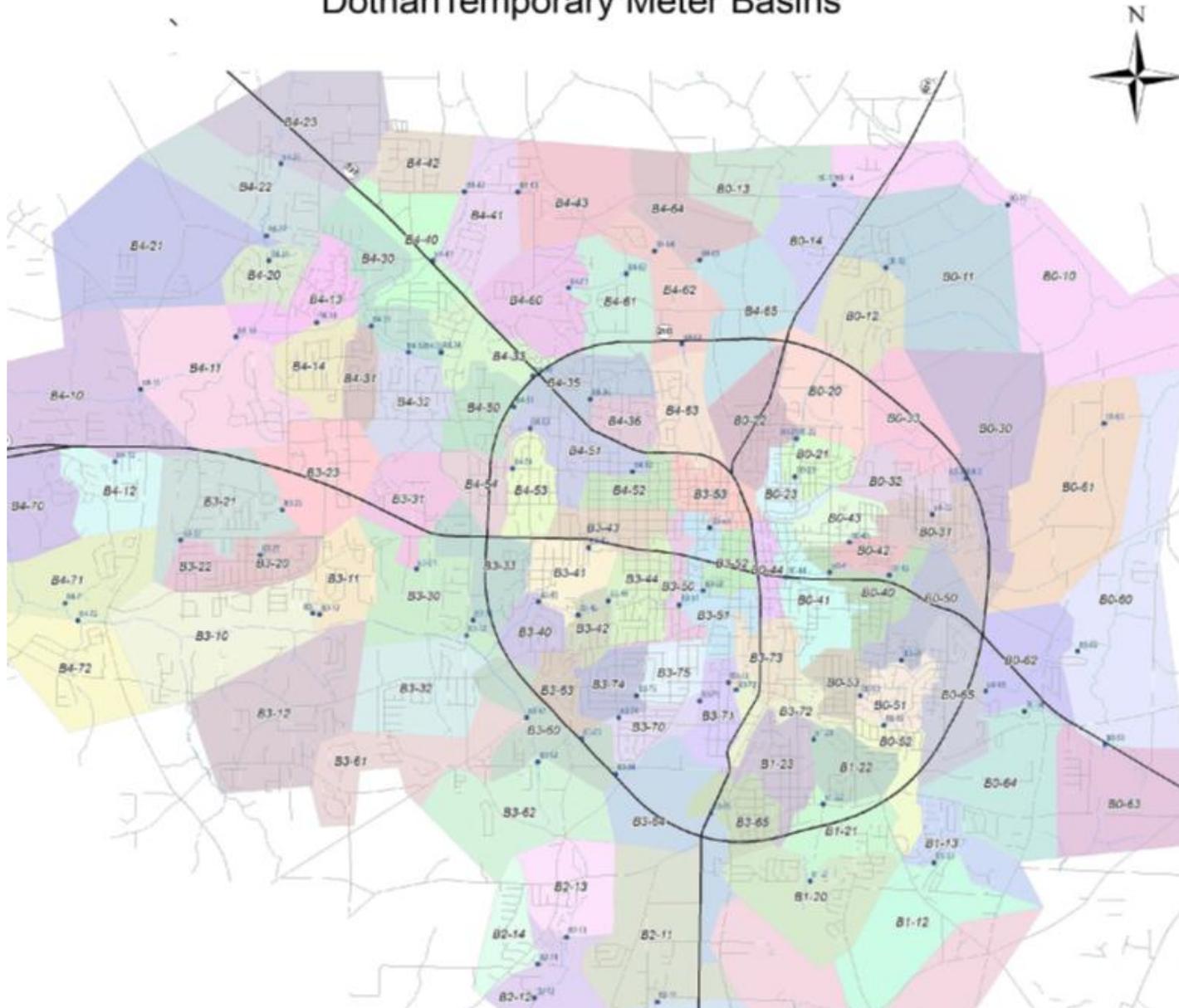
- Flow Measurement

- 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



Dothan Clean Waters Program – Feb 19 Update

Dothan Temporary Meter Basins



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

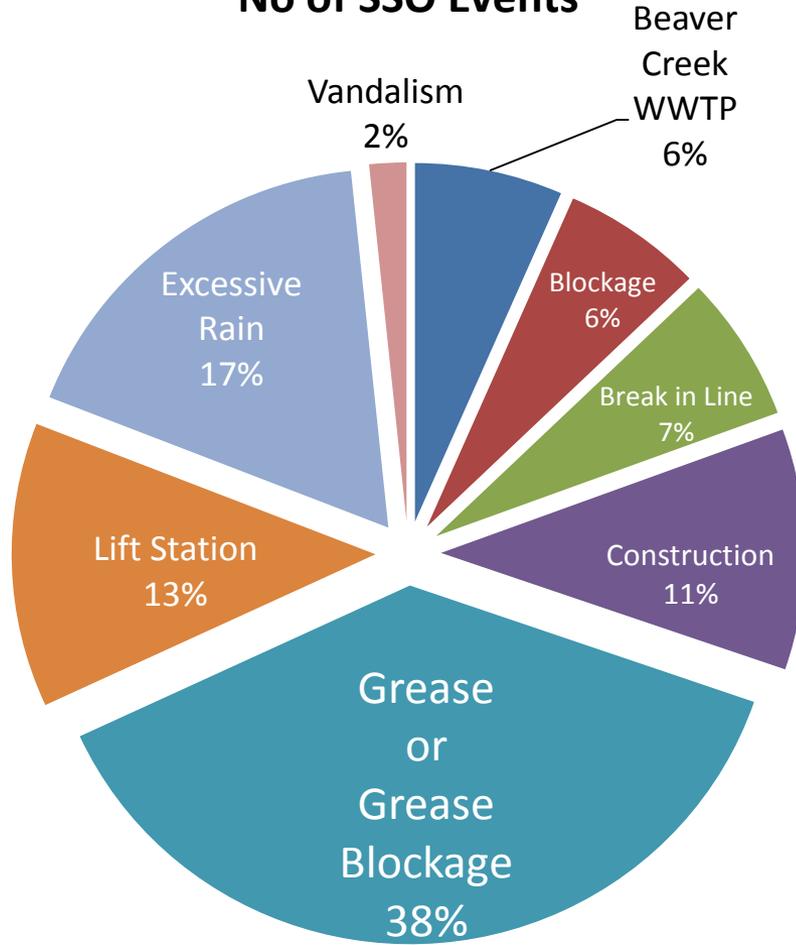
- Controlling FOG is an EPA AOC requirement
- Over 1/3 of the City's SSO events are attributed to FOG = 400,000± gallons of overflows (2008-2012)
- Increased sewer maintenance
- Causes issues at pump stations and WWTPs
- Deadline for Program Development = April 25, 2013



Dothan Clean Waters Program – Feb 19 Update

Dothan SSOs 2008 - 2012

No of SSO Events



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
3/3/2011 6:36:13 PM**



**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



Dothan Clean Waters Program – Feb 19 Update

Current Satellite Communities	Inter-Jurisdictional Agreement Status
Town of Cowarts	Expires: April 21, 2017
Houston County Board of Education	Expires: November 9, 2018
Town of Taylor	Expired: January 30, 2004
Town of Midland City	Expired: February 24, 2009
Town of Napier Field	Expired: January 29, 1999
Town of Kinsey	Expired: August 24, 2001
Houston County Water Authority	No Agreement



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

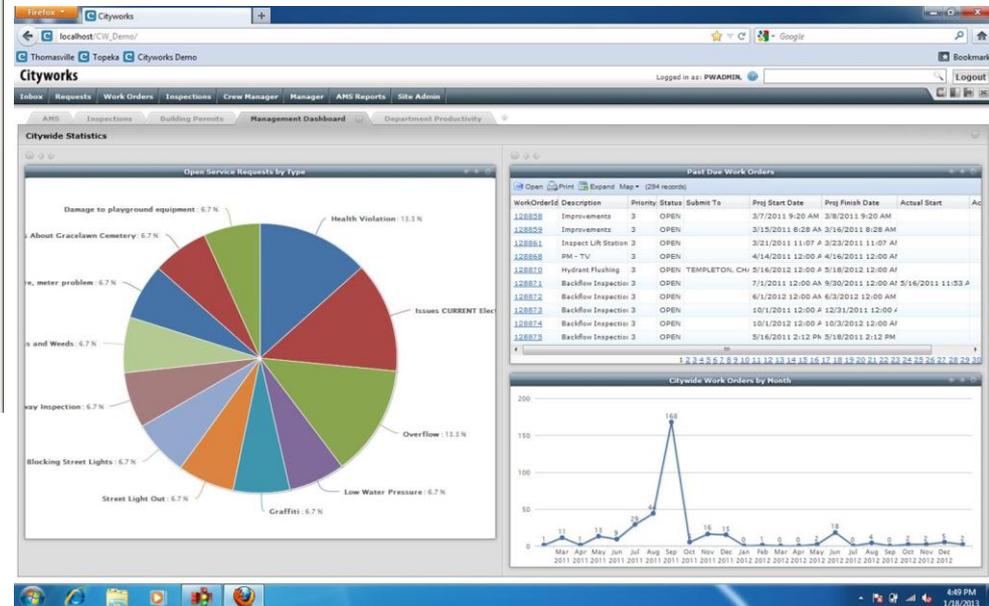


Information Management System Program

- Objective = A computerized system to help manage collection system information to reduce occurrences of SSOs

The screenshot displays the Cityworks web application interface. The top navigation bar includes 'Inbox', 'Service Requests', 'Work Orders', 'Inspections', 'GIS Search', 'Managers', and 'Admin'. The main content area is divided into several sections:

- Work Order:** Description: REPLACE, Number: 22, Entity Type: SWCLEANOUT, Category: (dropdown), Initiated By: WOOLPERT, WOOLPERT, Date: 1/18/2013 12:58 PM, Status: Open, Priority: Medium (2 to 5 days), Requested By: (dropdown), Supervisor: KEAVNEY, GARY J, Submitted To: (dropdown), Date: (dropdown), Projected Start: 1/18/2013 12:58 PM, Projected Finish: (dropdown), Opened By: (dropdown), Date: (dropdown), Closed By: (dropdown), Date: (dropdown), Completed By: (dropdown), After Hours: No, Actual Start: (dropdown), Actual Finish: (dropdown), Stage: Actual, Expense Type: Maintenance.
- Location Information:** WO Address: (text), Location Details: (text), Shop: (dropdown), Map Page: (dropdown), Tile Number: (text), District: (dropdown), X Location: (text), Y Location: (text).
- Assets:** A table with columns: Work Completed, Type, Id, EntitySid, Legacy Id. One row is visible: SWCLEANOUT, 0, 0.
- Work Cycle:** Repeat: Never, Interval: 6 Months.



- 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

<u>AOC Task</u>	<u>AOC Deadline</u>
Sewer Overflow Response Plan	Jan. 25, 2013 ✓
CMOM Self-Assessment	Jan. 25, 2013 ✓
Information Management System Plan	Jan. 25, 2013 ✓
1 st Quarterly Report	Jan. 30, 2013 ✓
FOG Control Program	Apr. 25, 2013
2 nd Quarterly Report	Apr. 30, 2013
Pump Station Ops & PM Program	July 25, 2013
Inter-jurisdictional Agreement Program	July 25, 2013
3 rd Quarterly Report	July 30, 2013



Questions?

