

# Integrated Overflow Abatement Plan Modification Overview

May 2012



# Objectives

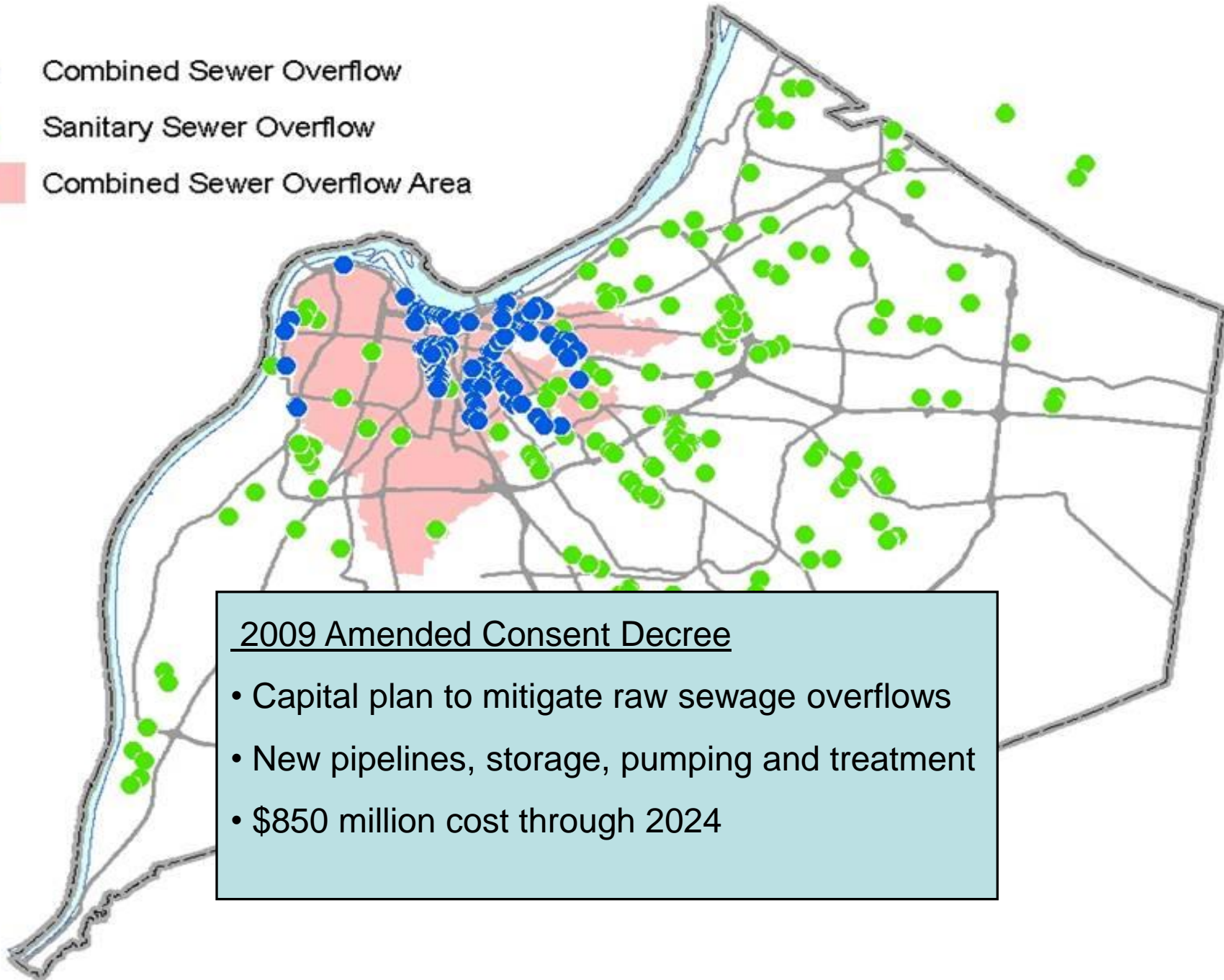
- Progress Report on IOAP
- IOAP Modifications
- IOAP Revision Schedule
- Public Input Opportunities



# IOAP IMPLEMENTATION PROGRESS



- Combined Sewer Overflow
- Sanitary Sewer Overflow
- Combined Sewer Overflow Area



2009 Amended Consent Decree

- Capital plan to mitigate raw sewage overflows
- New pipelines, storage, pumping and treatment
- \$850 million cost through 2024

# Implementation Progress\*




- 46 of 119 Certified Complete (incl. green demonstration)
- 25 Projects in Design
- 12 Under Construction
- Big Four Projects – approx 0.5% under budget
- IOAP – approx. 30% under budget

\* Budget statistics are assuming uniform internal force account, then comparing current capital budget for completed projects to 2009 IOAP budget projections



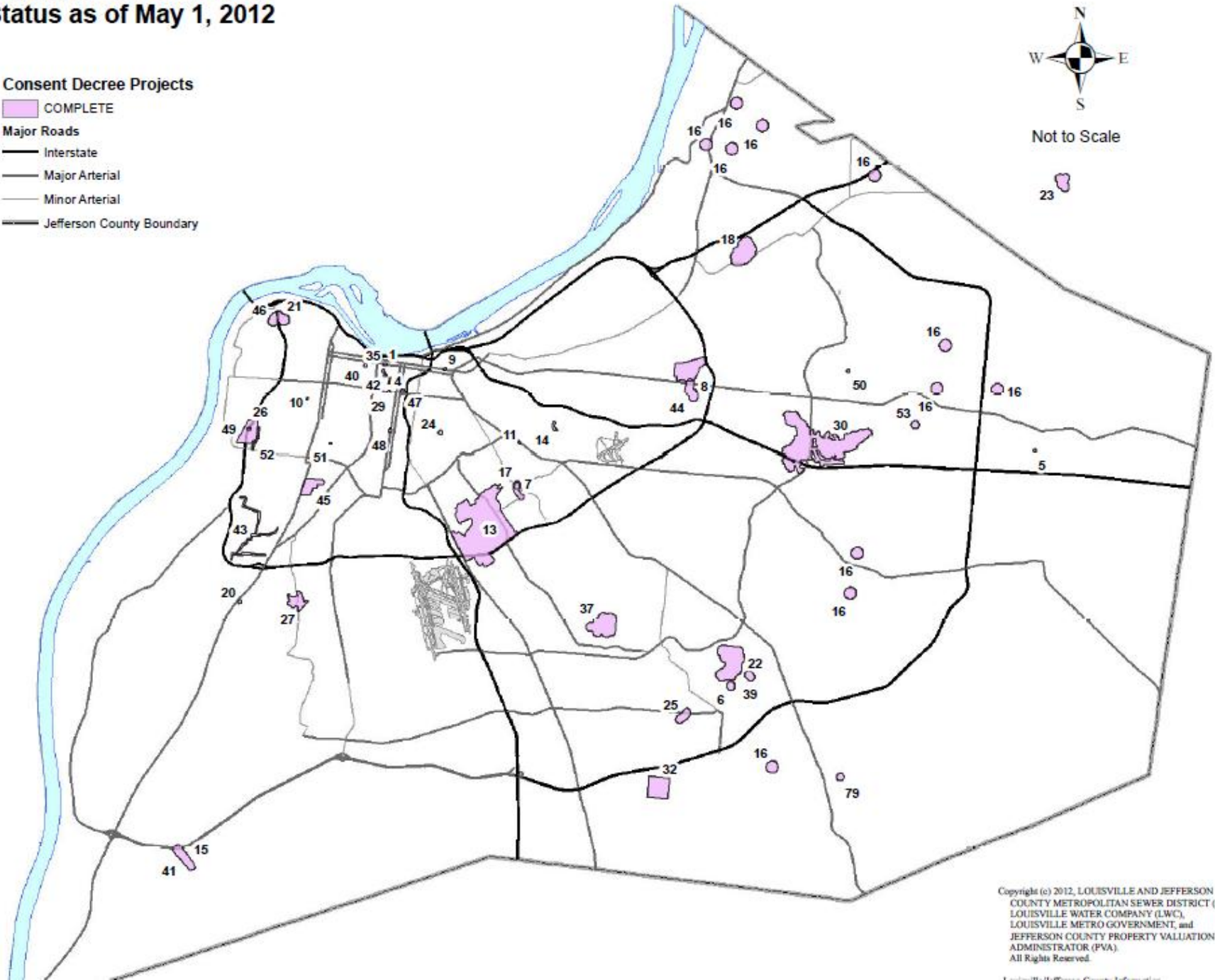
# Consent Decree Project Status as of May 1, 2012

## Consent Decree Projects

-  COMPLETE
- Major Roads**
  -  Interstate
  -  Major Arterial
  -  Minor Arterial
  -  Jefferson County Boundary



Not to Scale



# Consent Decree Project Status as of May 1, 2012

## Consent Decree Projects

CONSTRUCTION

DESIGN

## Major Roads

Interstate

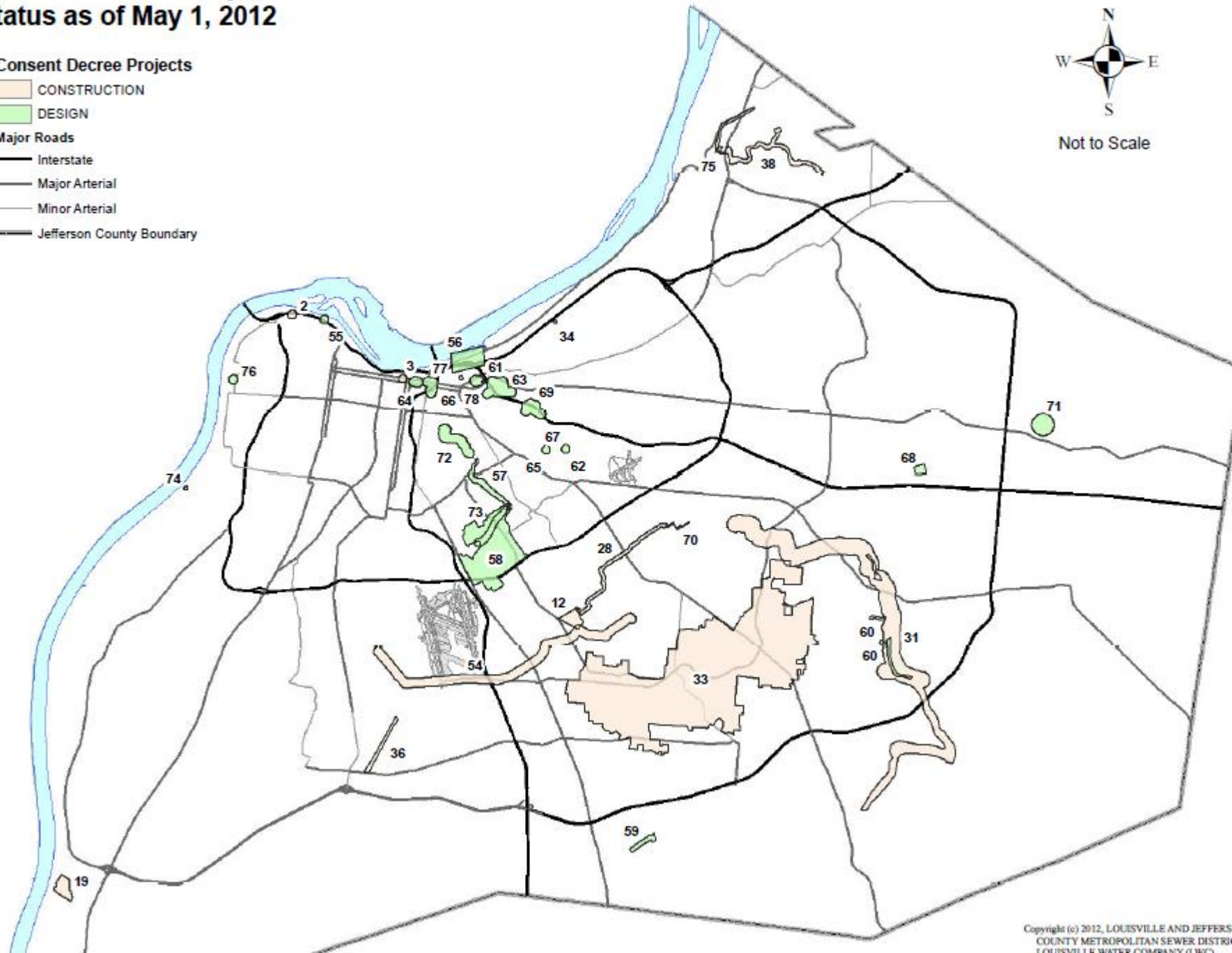
Major Arterial

Minor Arterial

Jefferson County Boundary



Not to Scale





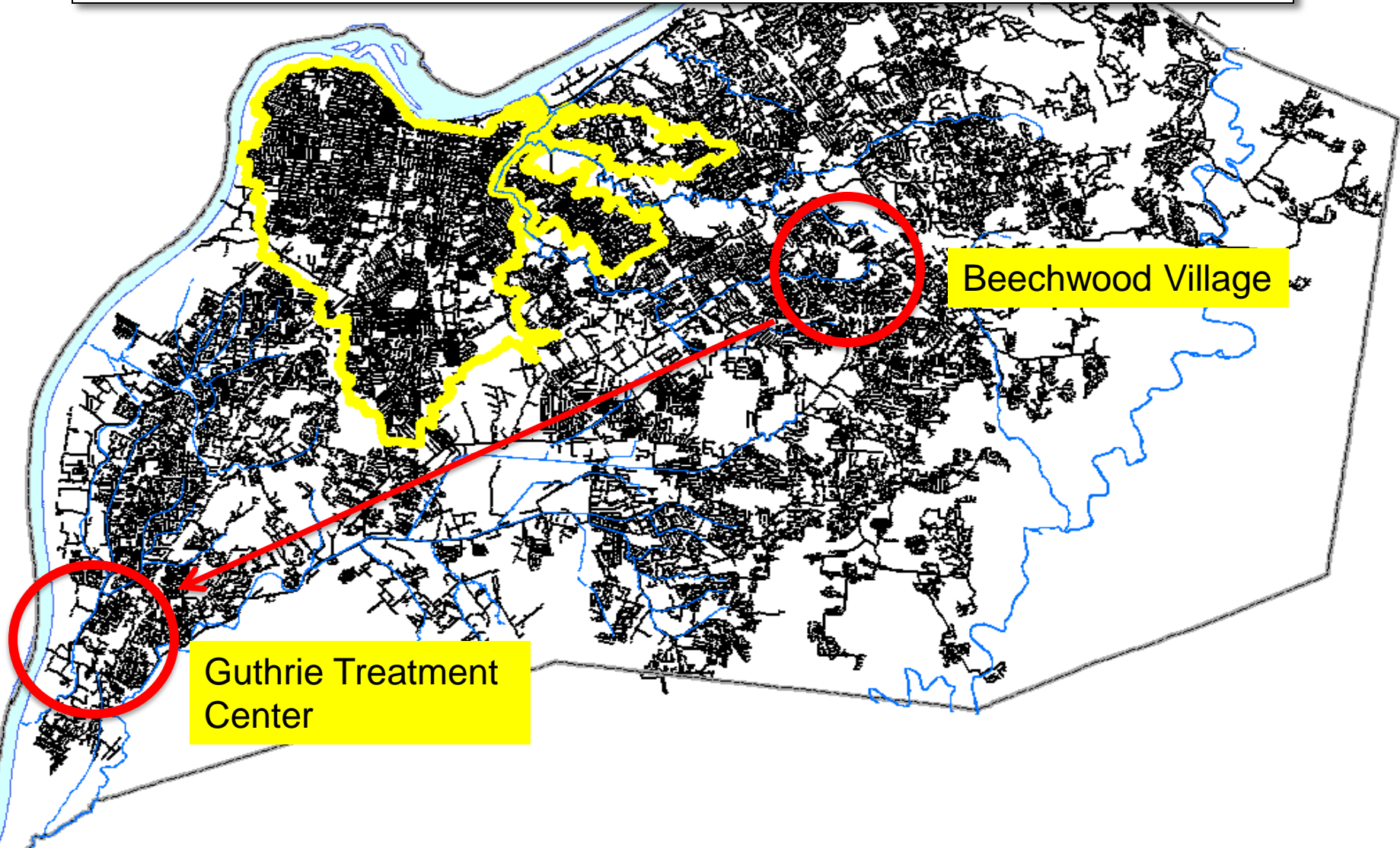




*Measure Twice, Cut Once*

# IOAP MODIFICATIONS

# BEHAVIORAL UNDERSTANDING



# Improving Model Accuracy



Surface Representation

Underground (Sewer) Representation

Add Rainfall

**CSO Outfall**

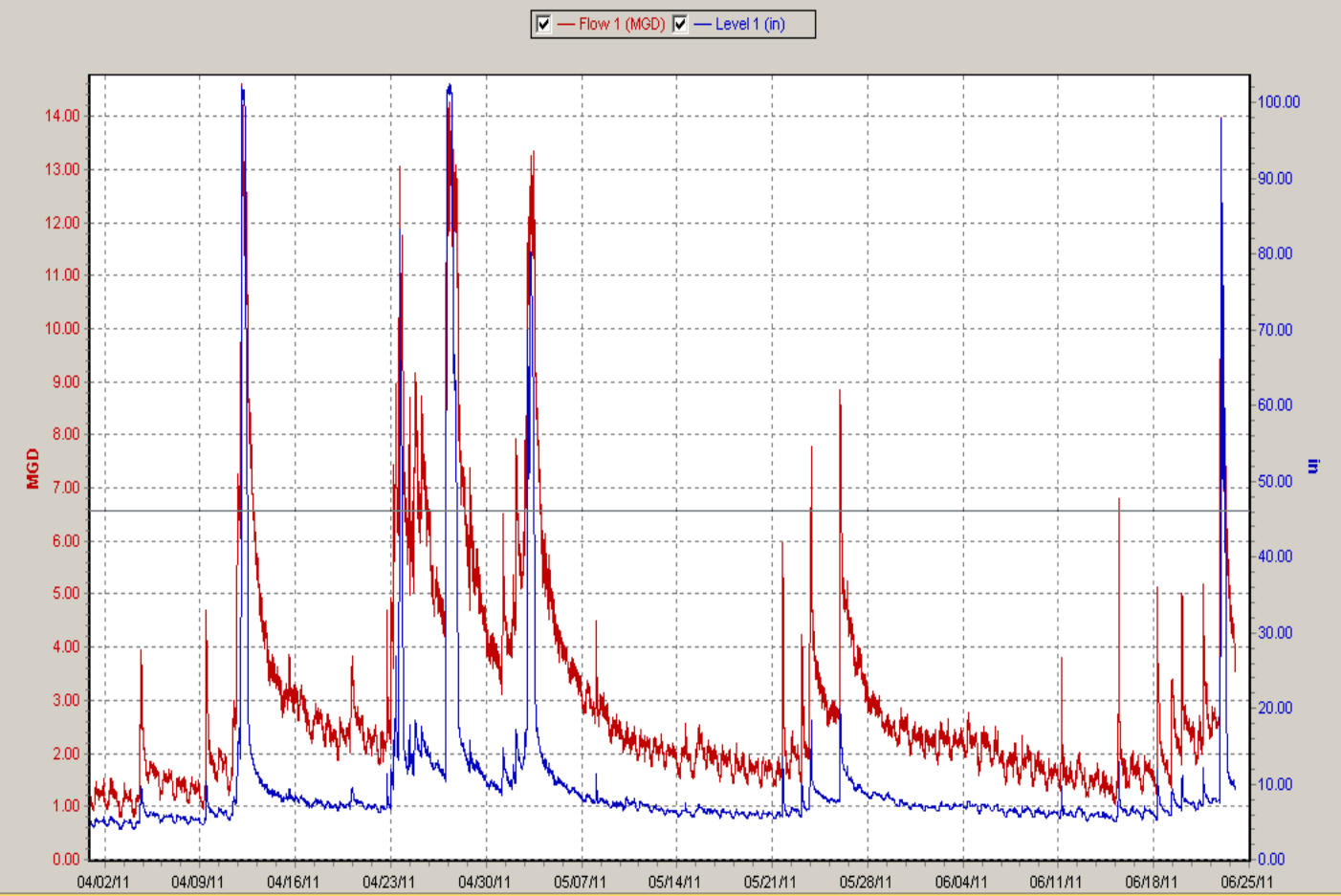


**Flow Meter**

- 08349\_1711\_Spring\_Dr
- 08354\_1916\_Spring\_Dr
- 08499\_W\_Breck\_St
- 08770\_Buchanan\_Washington St
- 08816\_2431 Maple Street
- 08816\_25th\_and\_Maple\_Hist
- 08843\_8th and Magazine
- 08850\_8th and York
- 08870\_Brent\_st
- 08901A\_2nd\_and\_Broadway
- 08935-00
- 08954\_Nightingale Pump Station
- 100756A-X\_Level\_Frankfort\_Ave
- 11070\_Center\_and\_Florence\_C
- 11267\_Hoertz\_and\_Sylvia
- 114703\_7th and Congress Alley
- 115139\_4639 Beaver Rd
- 115281\_Shelbyville Rd Plaza
- 11970\_Campbell and Market\_C
- 11971\_Campbell and Main
- 12022\_801\_Vine\_St
- 1203102
- 12439\_102 Webster St
- 12834\_1400 Story Ave
- 1293102
- 13474\_1709 Nightingale Rd
  - Measurements
    - Call Log
    - Flow 1
      - Max
      - Avg
      - Min
    - Level 1
      - Max
      - Avg
      - Min
  - Local Battery
  - Sigma Battery
  - Telog Local Battery
  - Velocity 1
  - Saved Reports
  - Alerts
  - Documents
- 13710\_1621 Lytle Street
- 15928\_1944 Richmond Dr
- 16139\_2082 Douglas Dr

13474\_1709 Nightingale Rd

13474\_1709 Nightingale Rd (04/01/11 to 06/25/11)



	A	B	C
1	Time	Flow 1 (MGD)	Level 1 (in)
1250	04/14/11 00:00:00	3.709	8.901
1251	04/14/11 00:15:00	3.597	8.923
1252	04/14/11 00:30:00	3.384	8.857
1253	04/14/11 00:45:00	3.496	8.899

# IOAP Volume 1, Chapter 6.5.3.6

## Adaptive Management

### Required Overflow Reduction Targets

- Improve system monitoring
- Re-calibrate & upgrade sewer models
- Run behavioral statistics on overflows
- Review project approaches & sizing
- Negotiate modifications as needed
- Must be based on established community value system

**Preliminary Discussions w/ regulators underway**

# IOAP 2012 Modification Summary

- 7 projects got larger
- 3 projects have higher level of overflow control, 1 lower
- 7 projects got smaller
- 12 projects forward – some split from other projects
- 4 projects backward – implement green and evaluate size
- Program Costs Remain at \$850 Million

see project handout for more details



# 2009 vs. 2012 CSO Long Term Control Plan

- **19 Gray Infrastructure Projects**
  - 4 Sewer Separations (moving to inline storage and green)
  - 13 Storage basins (split, adjusted sizing, eliminated 1, combined 2)
  - Replacement and expansion of Nightingale Pump Station
  - 1 High-Rate Wet Weather Treatment Facility
- **Green Infrastructure Projects – more focused**
- **9 Flood Pump Station Projects for DWO's**
- **Green to Gray 'Right Sizing' Allowable**



# 2009 vs. 2012

## Sanitary Sewer Discharge Plan

- Gray infrastructure
  - 16 conveyance (pipeline projects)
  - 19 storage basins (eliminating 1, adding 1)
  - 10 pump station upgrades or expansions
  - 1 wastewater treatment expansion
- Source Control Program Over 15%

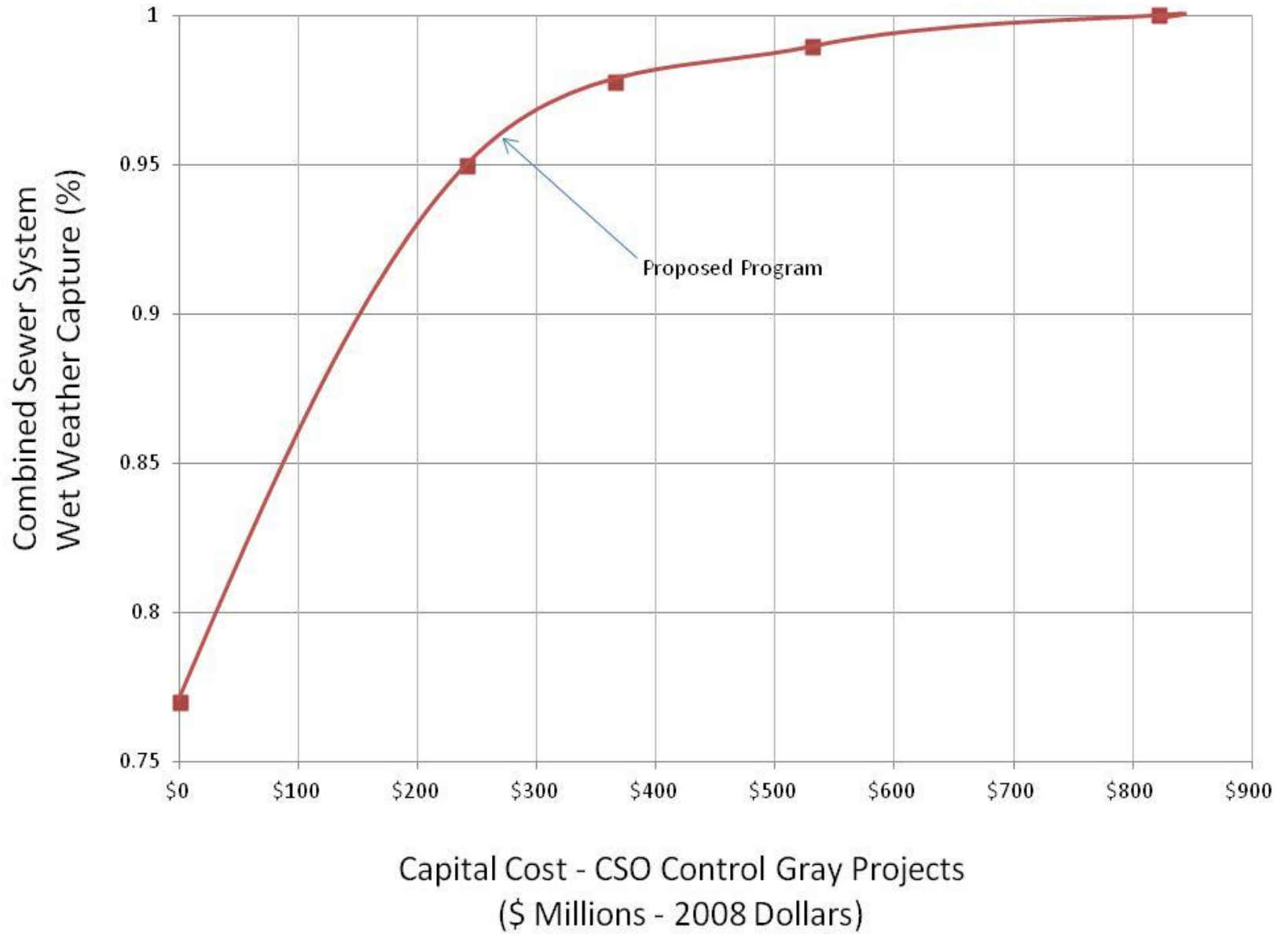


**Smoke Testing for Illicit Connections**



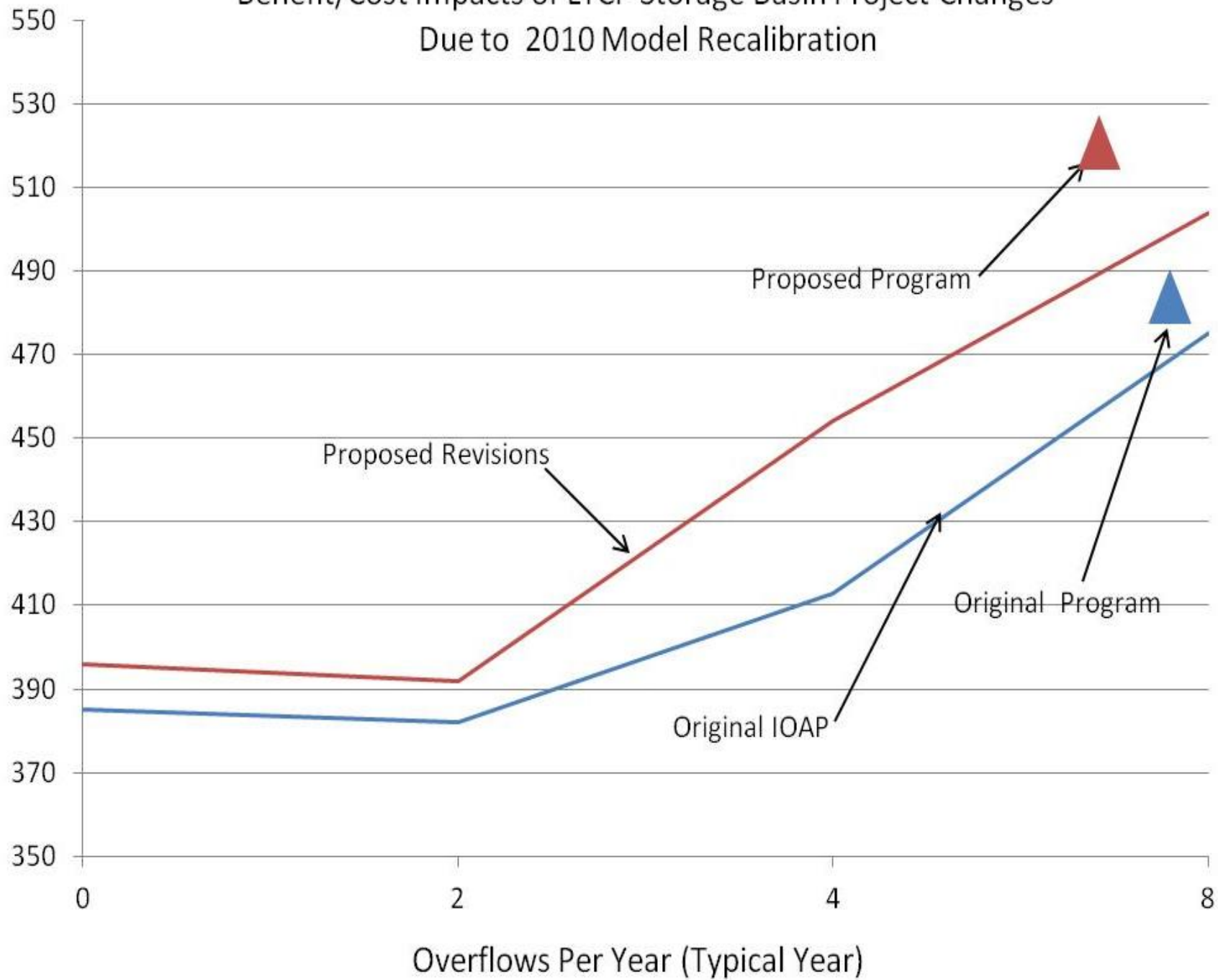
**New Pipeline Construction**

# CSO Reduction Point of Diminishing Return



# Benefit/Cost Impacts of LTCP Storage Basin Project Changes Due to 2010 Model Recalibration

Cumulative Benefit / Cost Score  
All LTCP Storage Basin Projects



## Schedule

<u>Schedule</u>	<u>Timeframe</u>	<u>Complete</u>
IOAP Vol. 1, 2 & 3 Markup for Potential Revision	Feb-2012	x
EPA, KDEP & MSD Meeting (Atlanta)	Feb-2012	x
Overflow Report Submittal - prelim email for discussion	Mar-2012	x
Overflow Report Submittal - certified package	Mar-2012	x
WWT Stakeholder Group Proposal - prelim email for discussion	Apr-2012	x
<b>IOAP Project Schedule Justification Package EPA/KDEP Submittal</b>	<b>May-2012</b>	
WWT Stakeholder Group Meeting	May-2012	x
<b>First Round Public Input Meetings</b>	<b>May-2012</b>	
IOAP Revisions for EPA/KDEP Submittal - First Draft	Jun-2012	
Submittal to EPA/KDEP - First Draft	Jun-2012	
EPA, KDEP & MSD Meeting	Jul-2012	
IOAP Revisions for Public Input	Aug-2012	
Second Round Public Input Meetings & Web posting	Sep-2012	
IOAP Revisions for Public Comment and Submittal	Sep-2012	
Production for Submittal (Web posting and DVD at libraries)	Sep-2012	
Submit Notice of 30-day Public Comment Period	Oct-2012	
Public Hearing (14 days after notice)	Oct-2012	
Compile Responsiveness Document	Nov-2012	
Board Approval	Nov-2012	
Final IOAP Submittal to EPA/KDEP	Nov-2012	



# Moving Forward

- Continue discussions with EPA regarding proposed project modifications
- Additional public input sought early Fall 2012
- Public Hearing late Fall 2012

# Moving Forward

- Public Involvement Today
  - Solicit Feedback on Modifications
  - Submit comments through June 15
  - Formal responses will sent via letter
- Signup to receive notifications

Project WIN Website - [msdprojectwin.org](http://msdprojectwin.org)





## Improving Our Community Waterways Together



- Home
- About Us
- How You Can Help
- Projects
- Library
- Public Input

Your are here: Home

search keywords  go

### We Want You to Share Your Thoughts!

MSD is pleased to announce the next round of sewer overflow abatement project review and input public meetings on May 10, 15 and 17.

[Read More](#)



#### COLLABORATING PROJECTS



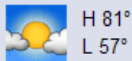
Project WIN is MSD's program to respond to the Federal Consent Decree. Project WIN includes a series of sewer overflow reduction projects defined in the Integrated Overflow Abatement Plan (IOAP) . [read more](#)

Use our interactive map to locate MSD sewer overflow abatement projects across the MSD service area. [read more](#)

Although we sometimes take it for granted, the conditions of our streams, creeks, and the Ohio River impact our quality. [read more](#)

### Public Notices

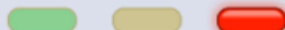
Current Weather



H 81°  
L 57°

Jeffersontown Blending

Overflow Advisory Level



### Upcoming Events

5/8/2012 - Wet Weather Team Stakeholder Group

5/10/2012 - IOAP Public Input Meeting at the NIA Center

5/15/2012 - IOAP Public Input Meeting at the Jeffersontown Community Center

5/17/2012 - IOAP Public Input Meeting at the Harrods Creek Fire Department

[More Events](#)

### Links

- BROCHURES
- FACT SHEETS
- FAQ
- INTERACTIVE MAP
- JUST FOR KIDS
- QUARTERLY REPORT
- PRESS & NEWS
- CHECK LOCAL RAINFALL
- CSO/SSO LOCATIONS

### Contact Us

PHONE  
(502) 587-0603

EMAIL  
[ProjectWINInfo@LouisvilleMSD.org](mailto:ProjectWINInfo@LouisvilleMSD.org)

**SIGN UP** FOR  
ALERTS & NOTIFICATIONS

**Library**



**JUST FOR KIDS**

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View us on YouTube.  
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# Public Input Sought

- Comment tonight (written or video)
- Provide comments by June 15, 2012
- Via email at [commentsIOAP@msdlouky.org](mailto:commentsIOAP@msdlouky.org)
- Via mail:

MSD IOAP Project Comments  
Attention: Project WIN Program Manager  
700 West Liberty St.  
Louisville, KY 40203

