### Sewer Overflow Abatement Plan Public Input Meeting

#### **Meeting Topics**

Sewer Overflow Abatement Program Overview

Jeffersontown Treatment Center Elimination Update

**Chenoweth Hills Treatment Center Elimination Project** 

Fairmount Rd Pump Station Storage Basin Project



May 2013





### Survey of Guests





### Sewer Overflow Abatement Presentation Objectives

- History of Louisville Sewers and Overflows
- Sewer Overflow Abatement Plan Overview
- Progress Report
- Working Together to Keep Sewer Rates Lower
- Three Most Frequently Asked Questions





## History of Louisville Sewers & Sewer Overflows

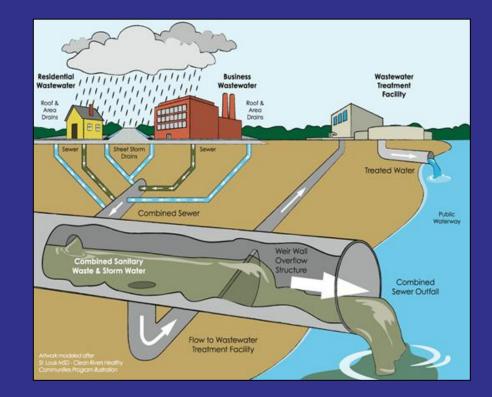




## Combined Sewer Overflow Inside I-264

#### Challenges

- Stormwater sewers & sanitary sewers were built to operate in "combined" pipe
- Wastewater treatment first built in 1958, but not sized for stormwater







### **Combined Sewer Overflows**

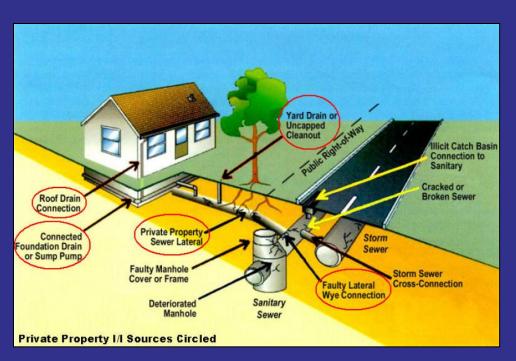




## Sanitary Sewer Overflows Along/Outside I-264

#### Challenges

- Original clay pipe sanitary sewers have deteriorated over time, allowing clean water entry into public system
- Groundwater sump pumps & rainwater downspouts connected to sanitary sewer from private property make up 50% of extra flow







### **Sanitary Sewer Overflows**

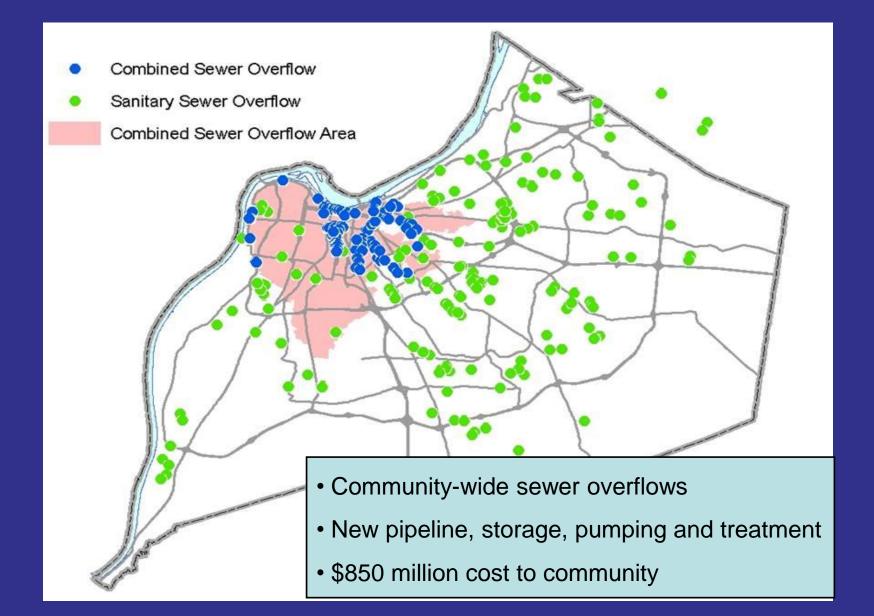


## Sewer Overflow Abatement Mandate

- 2005 Mandate from Federal EPA and Kentucky to abate overflows
- 2008 MSD submitted \$850 million plan to satisfy the mandate
- 2009 Federal EPA and Kentucky approve the plan
  - Combined Sewer Overflow program complete by 2020
  - Separate Sewer Overflow program complete by 2024







#### **Cost of Regulatory Compliance**

City	Total	System Size	Cost per mile
	(Cost in Billions)	(Miles)	
Louisville	\$0.85	3,200	\$265,625
Indianapolis	\$1.20	3,000	\$400,000
Nashville	\$1.50	3,000	\$500,000
Knoxville	\$0.65	1,200	\$541,667
Sanitation District 1	\$0.88	1,600	\$550,000
St. Louis	\$4.70	6,700	\$701,493
Cincinnati	\$3.25	3,000	\$1,081,667
Atlanta	\$4.00	2,200	\$1,818,182
Cleveland	\$3.00	N/A	N/A
Columbus	\$2.50	N/A	N/A





## Sewer Overflow Abatement Plan





### Overflow Abatement Projects Approved 2009 Plan

#### Gray infrastructure

- Pipeline projects
- Storage basins
- Pump station expansions
- Wastewater treatment plant expansions

#### Source control program

- Green infrastructure projects for stormwater reductions
- Rainwater downspout disconnections from sewers
- Groundwater sump pump disconnections from sewers



Smoke testing on public sewer indicates improper downspout connection to the sanitary sewer

### Implementation Progress 2007 - 2013

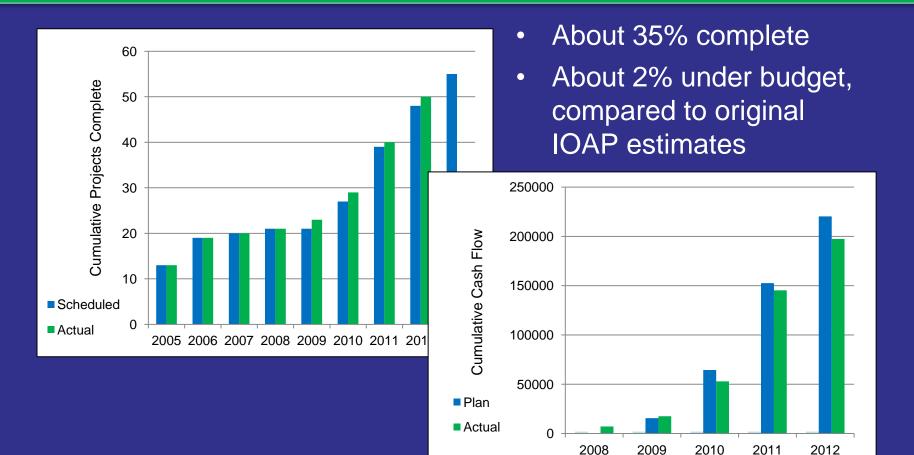
- Gray Infrastructure
   Projects
  - 35% completed
  - 24% in design or construction
- Green Infrastructure
   Projects
  - 47 completed
  - 36 in design or construction
  - 49% of program budget committed

- I/I Reduction Projects
  - 12 sewer rehabilitation projects completed
  - 7 sewer rehabilitation projects in design or construction





#### Implementation Progress Report On Schedule, Under Budget

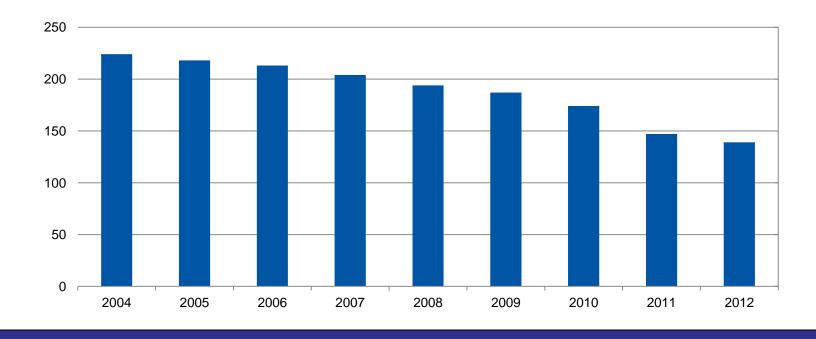






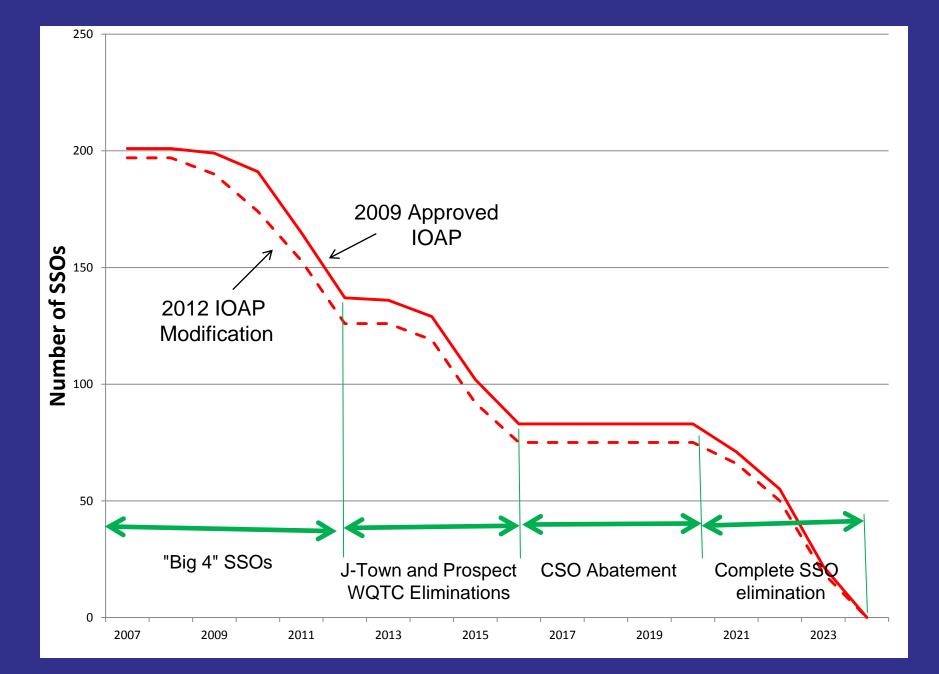
#### **Overflow Eliminations** Initial Focus on SSOs per ACD Prioritization

**Remaining SSO Locations** 









#### Beechwood Village Pumped Overflows Eliminated

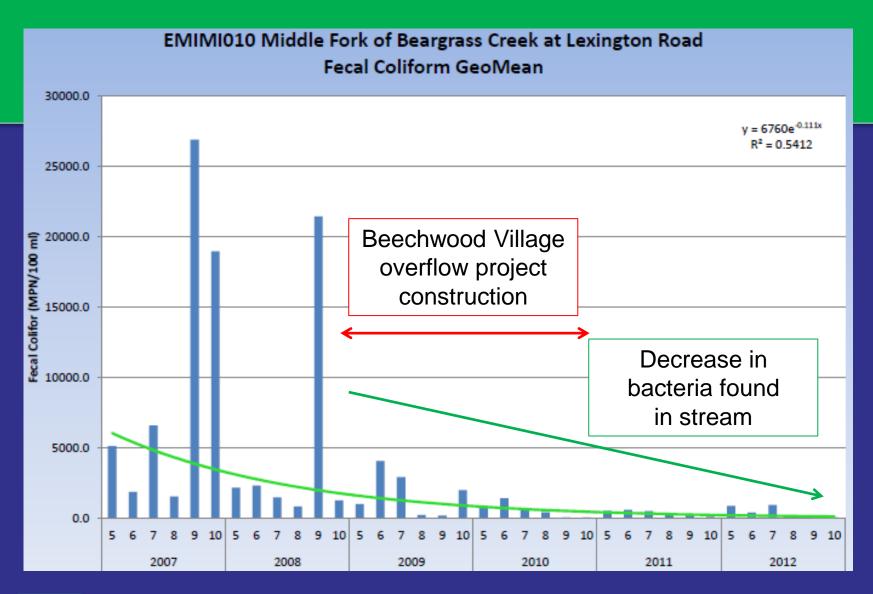


Beechwood Village Pumped and Gravity Overflows SSO Volumes 2005 – 2011

- 152 SSO events
- 425 MG observed volume
- Overflow closed 09/29/2010











#### Derek R. Guthrie WQTC Expansion Enables SSO Capture and Flow Diversion



Southeast Diversion Structure SSO Volumes 2005 – 2011

- 66 SSO events
- 160 MG observed volume
- Overflow closed 12/19/2011

Construction Progress May 2012





#### Highgate Springs Pump Station Pumped Overflows Eliminated



Highgate Springs Pumped Overflows SSO Volumes 2005 – 2011

- 80 SSO events
- 285 MG observed volume
- Overflow closed 11/29/2012





#### Hikes Lane Interceptor Pumped Overflows Eliminated



Hikes Point Pumped Overflows SSO Volumes 2005 – 2011

- 305 SSO events
- 443 MG observed volume
- Overflow closed
   11/29/2012





## Sewer Overflow Abatement Plan

#### **Proposed 2012 Modifications**





### **Proposed Modifications Continuous Plan Improvement!**



### Why a Plan Modification?

- Opportunity to improve the IOAP
  - Expanded flow monitoring
  - Updated and re-calibrated models
- Adaptive management approach specifically addressed in approved IOAP
  - EPA and KDOW have expressed support and appreciation for pro-active plan updates
  - Received preliminary approval for several necessary plan modifications





#### How Has Plan Been "Improved"?

- Project "right-sizing" assures continued regulatory compliance
  - No change in overall capital costs
  - Improvements in total overflow reduction
- Schedule adjustments for project right-sizing within regulatory deadlines
  - Capital spending is slower
  - Overflow reductions achieved faster





#### How Were Projects Impacted?

- 7 projects got larger, 7 projects got smaller
- 3 projects have higher level of overflow control, 1 project has lower control level
- 12 projects move forward in schedule
- 4 projects move back in schedule for "green" infrastructure & size increases
- Program Costs Remain at \$850 Million

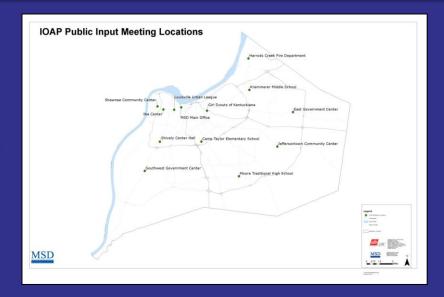




#### How Was the Public Informed?

# IOAP Project Review & Public Input Meetings

- Held 13 meetings across county since Sept 2011
- Informed on IOAP Modification benefits
- Discussed site specific implementation issues
- Formal Public Hearing held March 26







#### How Will Modified Plan be Approved?

MSD Board approved submittal of modified plan to the EPA and Kentucky Division of Environmental Protection on May 13, 2013

Modified plan submittal to occur within next 30 days



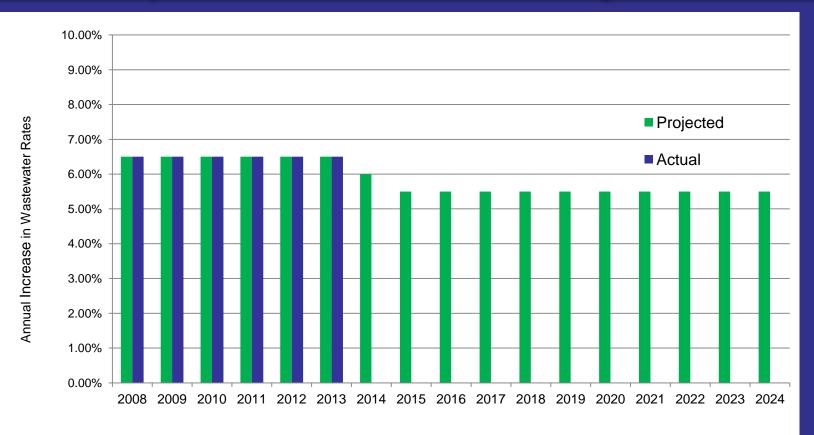








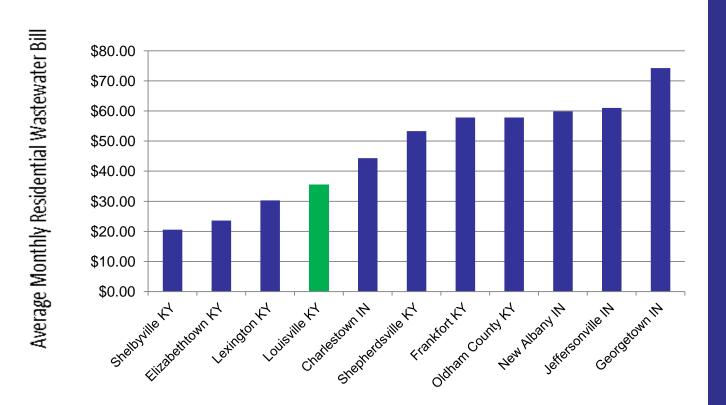
### MSD's Rate Increases Compared to 2009 IOAP Projection







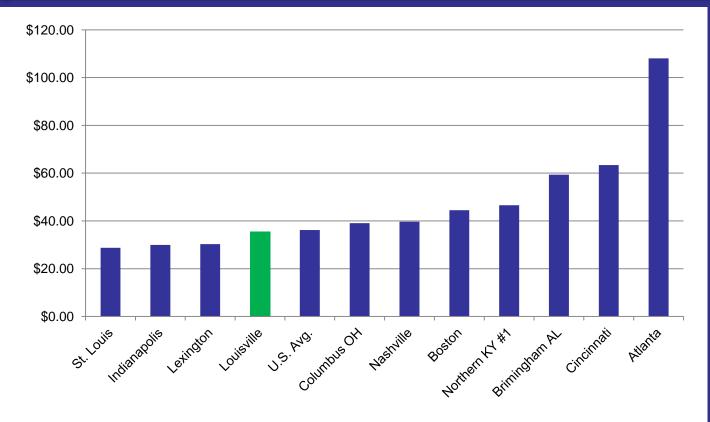
### MSD's Rates Compared to Surrounding Communities







### MSD's Rates Compared to Consent Decree Communities







### MSD's Rates Senior Citizen Discount Application

#### Applicability

- 65 years of age or older
- household gross income of \$35,000 or less per year
- must be on MSD sewers

#### **Customer Relations 587-0603**

MSD	Louisville and Jej	Gerson County Metropolitan Sewer District
	ITIZEN DISCOUNT APPL or older with household gross income of must be on MSD servers)	
Date://		
LWC Bill Account Number:	(Attach copy	of LWC bill)
Name of Applicant:		
Service Address:(Street)		(State) (Zip)
Resident telephone number: ()	Da	ate of Birth: / /
Please submit a document for <u>eacl</u>	<u>h</u> of the categories below and ch	eck the appropriate box:
Proof of Income	Proof of Residency	Proof of Age
□ IRS Tax Return & Schedules*	Deed/Title	Drivers License
Social Security Form SSA	Lease/Rental Agreement	Birth Certificate
Other	<ul> <li>Property Tax Bill/PVA</li> <li>Other</li> </ul>	Other
Tax Return and Schedules filed within Hereby apply for a 30% Senior Citizer Consent Decree Surcharge for the servi of the above property, that I am 65 year year and that I have provided all relevan that at MSD's discretion, I may be reque Executed thisday	a Discount of the amount billed for sa ce address listed above. I certify that s of age or older, that my household nt documents relating to my income, irred to renew this application each yo	mitary sewer service and the EPA I am the legal title/leaseholder/renter gross income is \$35,000 or less per age and residency. I also understand car.
Signature of Applicant:		
Please mail application and suppo MSD Aftn: Senior Citizen Discount Progra 700 W. Liberty Street Louisville, KY 40203		g address:
Rev. Form Date: 7/13/10		

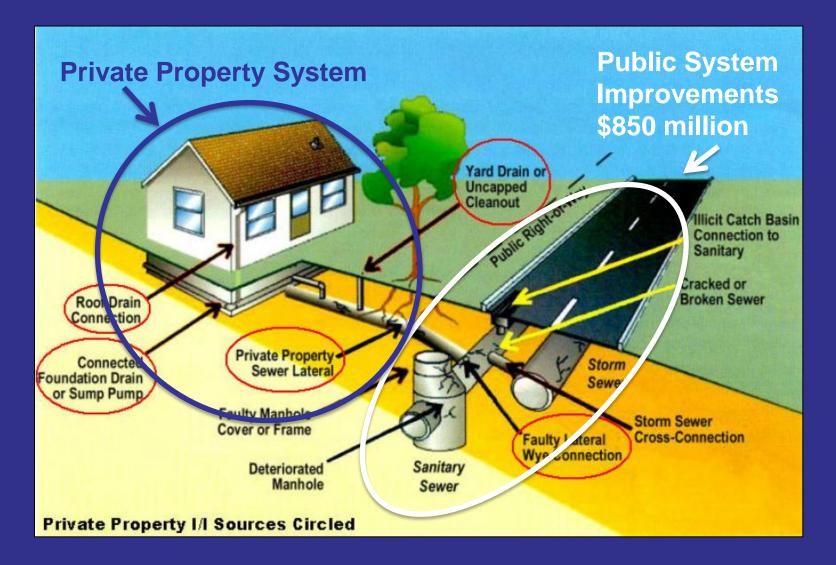




### Working Together To Keep Sewer Rates Lower!!







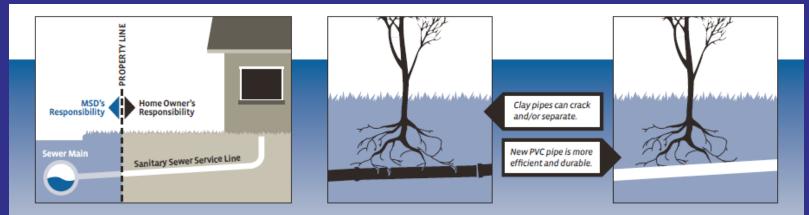






MSD Sanitary Sewer Line Replacement Program 587-0603









- Turn downspouts onto the ground
- Capture rain from down spouts to use for watering your gardens and landscaping
  - Rain barrels
  - Rain gardens







Disconnect sump pumps from the sewer system

- Single biggest source of private-side unauthorized connections
- Should outlet to the ground or stormwater system

Plumbing Modification Program 587-0603







Delay using dishwashers and washing machines until after rain events have passed

**Sewers are FULL!** 



Put dental floss, hair, and rags in the trash NOT down the toilet!





accumulates at pumps and causes sewer overflows and basement backups

### What You Can Do To Help Keep Sewer Rates Lower!!

#### Put fats, oils & greases in the trash NOT down the drain!!!!

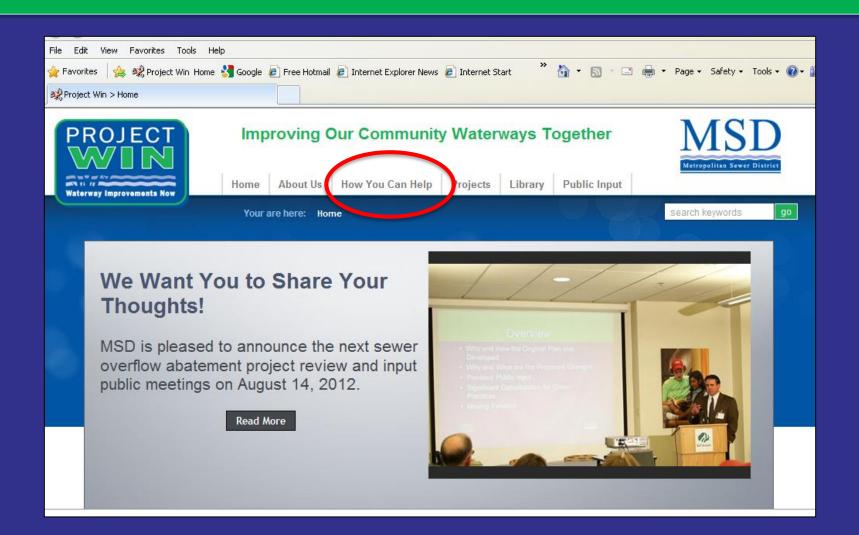


**Grease accumulates in pipes** 

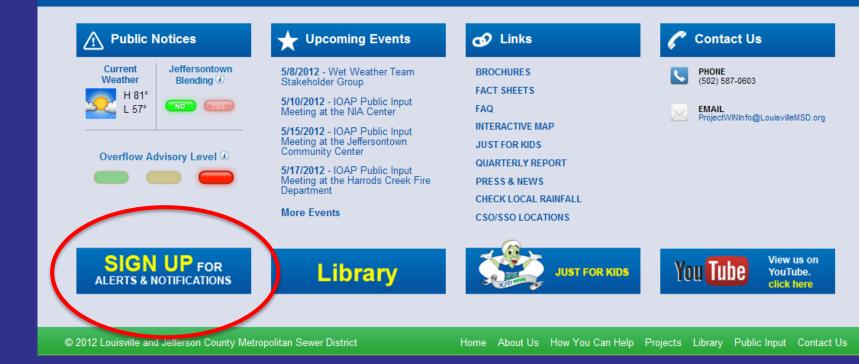


Put hot grease in metal container, let cool, TRASH!

#### Project WIN Website - msdprojectwin.org



#### Project WIN Website - msdprojectwin.org



# **Frequently Asked Questions**





# **Frequent Question #1**

- Why are you doing \$850M worth of sewer work? Is it really necessary?
- Why are you charging customers more money while we are in a recession?

**Unfunded Federal Mandate** Control combined sewer overflows by 2020 Eliminate sanitary sewer overflows by 2024





# **Frequent Question #2**

• Why is this the first we've heard about this large work effort?

MSD held 22 public meetings in 2007/2008 prior to submitting the plan to regulators for approval

Please Complete the Customer Survey





# **Frequent Question #3**

### Will my input matter?

- Depending on project status, public input can impact
- Final project location
- Site design to minimize neighborhood impact
- Project appearance





#### **Public Input** Sewer Overflow Abatement Program/Projects

Provide comments and ask questions

- 4 Ways to Provide Comments Tonight
  - Note card or comment form
  - Information station or on video
- Via email at commentsIOAP@msdlouky.org
- Via mail:

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





# **Working Together** Information Stations

Customer Relations	Sewer Overflow Projects	Project WIN Information
Backup, sewer or drainage issues	See if your property is near a current or future overflow project	Things you can do at home to help keep sewer rates lower
Plumbing Modification & Sewer Service Line Programs	Ask questions about the sewer overflow abatement program	Project WIN Website navigation assistance
Senior Citizen Discount Program		Signup for overflow alerts and meeting notifications

# Sewer Overflow Abatement Project Presentations



