

Communities of the Future Advisory Committee

December 16, 2010

Agenda

- Welcome and Introductions
- Planning for Open House
- Lick Run Value Engineering Study
- USEPA Efforts – input opportunity
- West Fork Source Control Discussion
- Action Items and Plans to Move Forward



PROJECT GROUNDWORK
your pipeline to clean water

We Need Your Input...

to make our rivers and streams cleaner and healthier.

Please join us

to talk one-on-one with

MSD representatives, local

leaders, and city and county

officials to discuss potential

Open House

6:00 - 8:30 p.m.

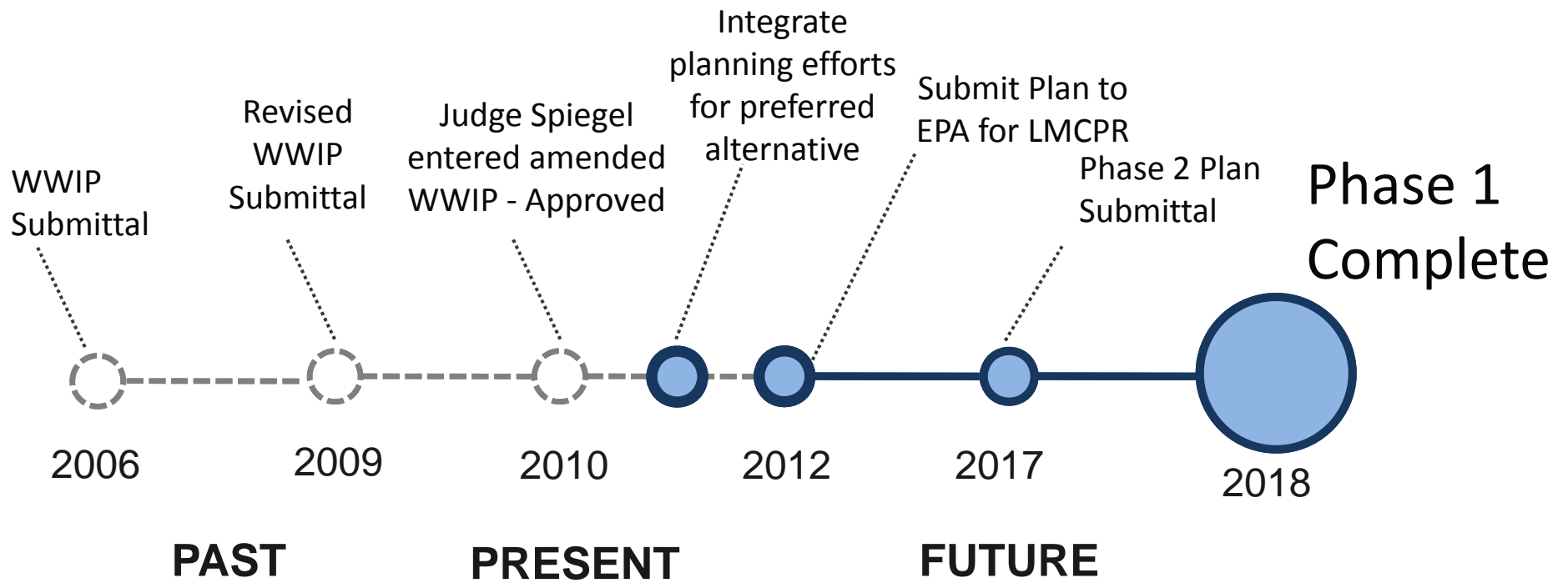
Wednesday, January 19, 2011

Orion Academy in South Fairmount

*The Metropolitan Sewer District of Greater Cincinnati
(MSD) is hosting an open house for residents of the
Lick Run watershed.*

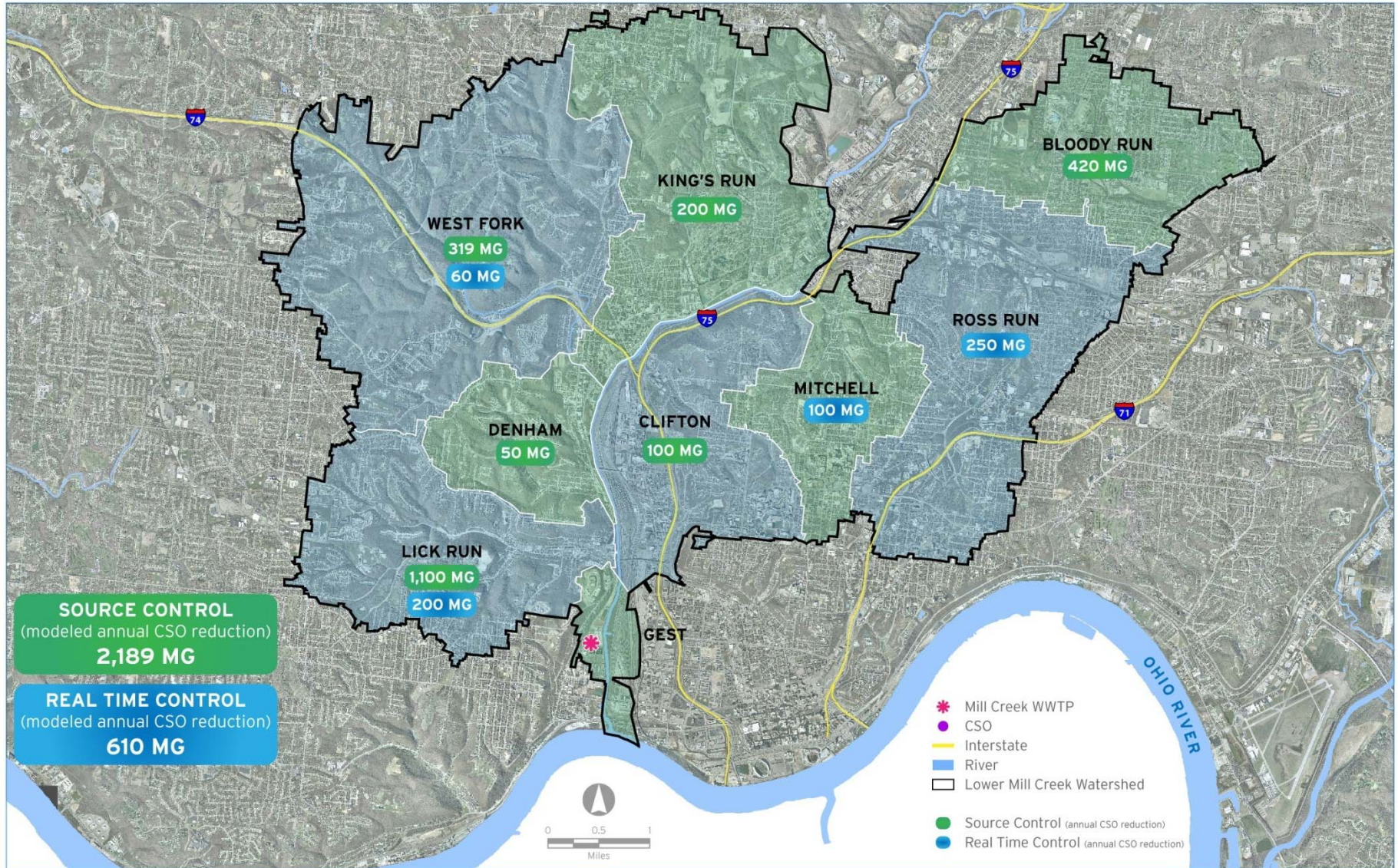
*This watershed includes South Fairmount and
portions of East and West Price Hill and Westwood.*

Drop by anytime between 6-8:30 p.m. to talk



Consent Decree Update

Lower Mill Creek



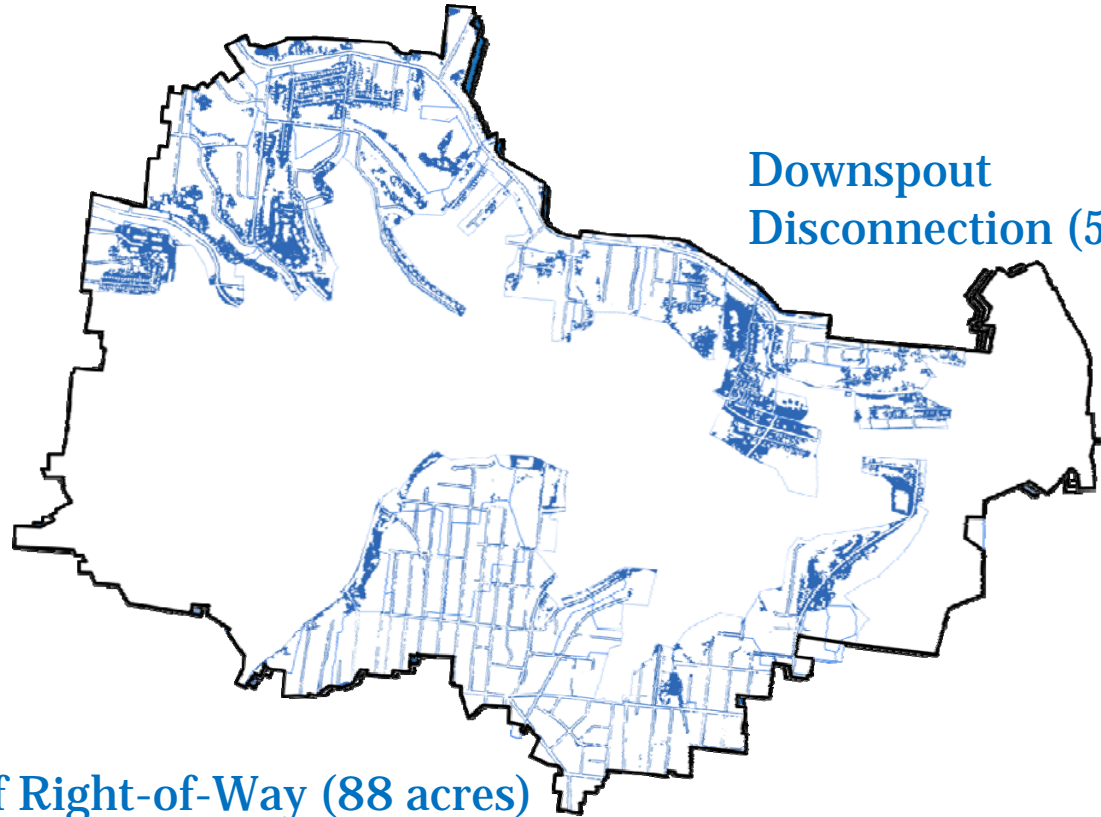
Modeled annual CSO reduction based on typical year rainfall

Lick Run Wet Weather Strategy

Lick Run Watershed

62 catchments 2.1 billion gallons
(annual stormwater runoff)

Strategic Storm Separation
& Detention



Downspout
Disconnection (50%)

Reforestation - 50% of Right-of-Way (88 acres)
50% of Steep Hillsides (231 acres)

Lick Run Value Engineering Study

- Team Member: John Aldrich, CDM

Value Engineering Team

Howard Greenfield (ARCADIS)	Bill Cesanek (CDM)
Don Walker (AECOM)	John Aldrich (CDM)
Kerry McWalter (AECOM)	Jeff Sharon (Brown & Caldwell)
Chris Yoder (MBI)	Larry Jaworski (Brown & Caldwell)

Background: MSD Lick Run Wet Weather Strategy

- Consent Decree
 - Tunnel default project
- Proposed MSD Wet Weather Strategy
 - Control stormwater sources
 - Perform selective sewer separation
 - Convey 10-year hillside storm and 100-year storm in the valley
 - Use BMPs to improve stormwater quality
 - Support community reinvestment
 - Create surface channel
 - Potential to restore natural systems
 - Perform sewer separation in four other catchments

Analysis: MSD Lick Run Wet Weather Strategy

- CSO control performance
 - Stormwater capture percentage appears reasonable
 - Model calibration appears reasonable
 - Cost-effective opportunities for stormwater capture are incorporated into Strategy
 - Approach for conveying flows is reasonable; however, it appears that some technical issues need to be addressed that may add costs, e.g.:
 - Deep drop manholes
 - Crossing existing pipes
 - Traffic control
 - Approach to addressing elevation conflicts with existing 19.5' conduit

Analysis: MSD Lick Run Wet Weather Strategy

- Overall, appropriately conservative approach for CSO performance
 - Does not take credit for reforestation or downspout disconnections
 - Surplus quantity of CSO reduction
- Implementation of alternative as proposed requires significant disruption to community and motorists
- Minimal attempt to improve stormwater quality through:
 - Structural separators
 - Detention ponds
 - Forebay and valley ponds

Analysis: MSD Lick Run Wet Weather Strategy, *cont*

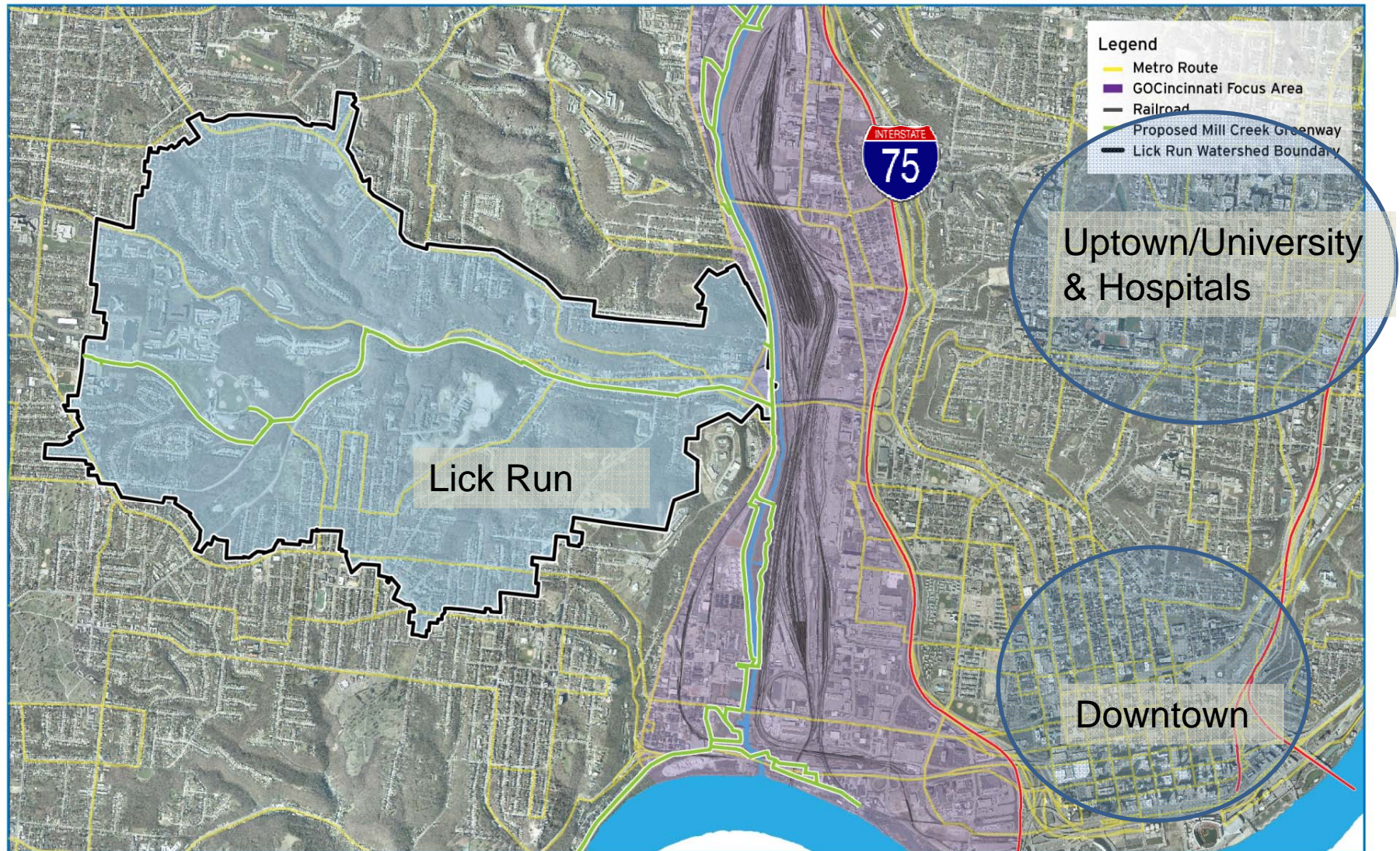
- Community Improvement Opportunities
 - Multiple alternatives for stormwater conveyance presented but not vetted
 - Open channel with box culvert
 - Wide channel
 - Seven buried pipes
 - Potential for surface water feature to offer development value is not addressed
 - CSO control is independent of improvement opportunities
 - Limited to valley: hillside opportunities undefined

Analysis: MSD Lick Run Wet Weather Strategy, *cont*

COMPARISON OF COSTS (in millions) FOR WET WEATHER STRATEGIES

Cost Element	Description of Alt. Channel With Box Culvert	Wide Open Channel	Seven Buried Pipes	Tunnel
Sewer Separation	\$42.3	\$43.2	\$43.2	
Stream Channel	\$48.2	\$30.0		
Medium Level Amenities	\$16.3	\$16.3	\$8.0	
Right of Way	\$20.0	\$20.0	\$20.0	
Downspout Disconnections	\$3.1	\$3.1	\$3.1	
Buried Pipes			\$30.0	
Four other Storm Water Projects (1.1 billion gallons @ \$0.17/gal.)	\$187.0	\$187.0	\$187.0	
1.5 miles of 30 ft. Diameter Tunnel				\$350.0
Total	\$316.9	\$299.6	\$291.3	\$350.0

Lick Run Watershed- 12% of MSD CSO volume



I-75 corridor, Metro lines, rail corridors, Mill Creek
Within 2 mile radius of 2 major job centers: Downtown and University/Hospitals

USEPA Project Integration

- Cincinnati USEPA Research & Development Team Member: Bill Schuster

USEPA Project Integration

Region 5 Team Member: Jon Grosshans,
Bob Newport, Brooke Furio



Lick Run Corridor:
Concept Plan and Action Strategy

To be discussed:



Lick Run Wet Weather Strategy

- CSO Control Plan
- Green vs. Grey



Land Revitalization Concept Plan and Actions

- Connections to other City, State, and Federal efforts
- More than just a sewer project



Your Input and Direction

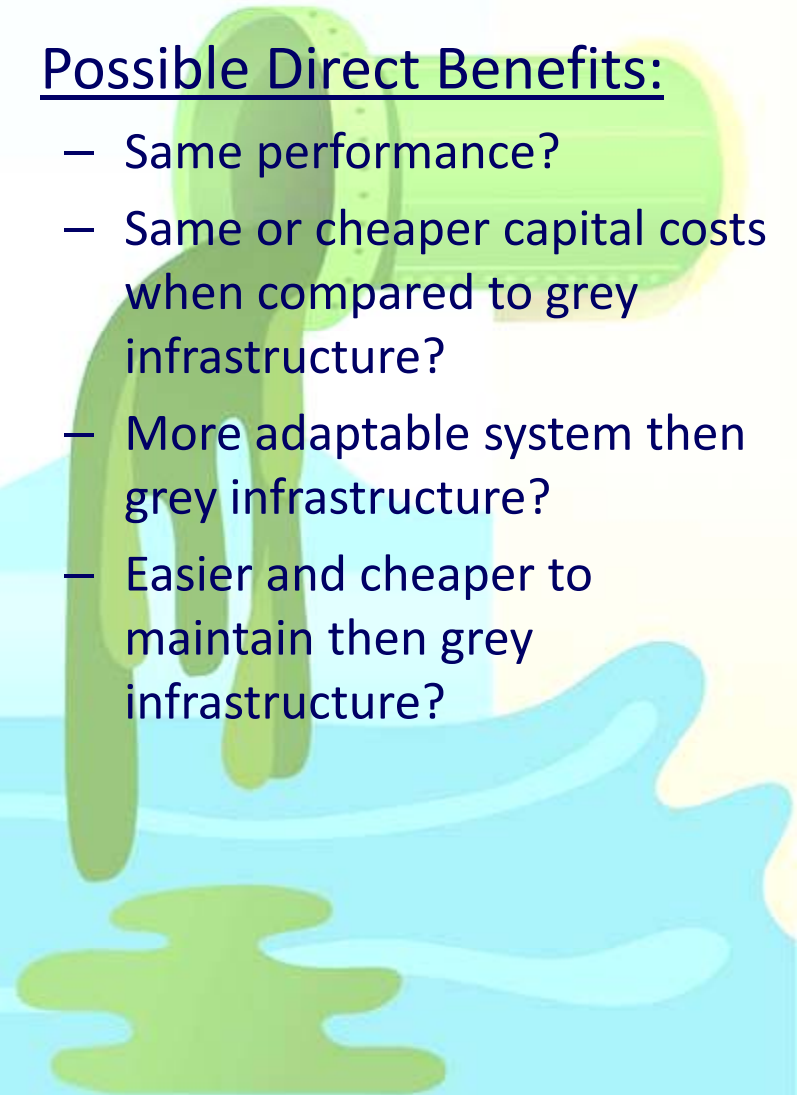
- Areas to explore
- Upcoming work

Overview of the Concept

At the sewershed scale use green infrastructure practices to **create a community asset** that can be leveraged for Economic & Community Development and help keep the business enterprise (sewer district) financially viable for the next 10, 20, 30, 50 years.

Possible Direct Benefits:

- Same performance?
- Same or cheaper capital costs when compared to grey infrastructure?
- More adaptable system than grey infrastructure?
- Easier and cheaper to maintain than grey infrastructure?



Create a Community Asset that can be leveraged for Revitalization



Human Nature, Inc.

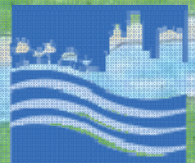


PROJECT GREENWORKS
your planet is their work

Create a Community Asset that can be leveraged for Revitalization



Human Nature, Inc.



PROJECT GREENWORKS
your vision is their world

Lick Run Concept Plan and Action Strategy



- Where are we now?
 - Initial interviews and research complete
- Who is completing the work?
 - Technical Assistance - Tetra Tech, SRA
- End product:
 - Develop concept plan and action strategy

Essentially, a **road map** that connects projects



More than a sewer project

Synthesis Plan



More than a sewer project

Synthesis Plan



Partnership

- Partnership for Sustainable Communities: EPA (Land, Water, EJ, Air) HUD, and DOT
 - Technical Assistance Funding from EPA
 - Received \$2.4M HUD Community Challenge Grant



Project scope

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Lick Run Concept Plan and Action Strategy



- Where are we now?
 - Initial interviews and research complete
- Framework for Implementation
 - Identify current federal investments;
 - Identify challenges and opportunities;
 - Meet COF Advisory Committee;
 - Identify revitalization drivers in and around project area;
 - Develop concept plan;
 - Develop action strategy.



Lick Run Corridor: Partnerships

- Multiple levels of stakeholders increases depth of understanding
- Work done on multiple levels:
 - Federal
 - State
 - Local
 - Neighborhood level



Connections

- Brownfields
- Transportation
- Economic Development
- Housing
- Environmental
- Social



Exercise

- Priority connection #1?
- Connections (Opportunities) not already identified?
- What challenges will need to be overcome?



Comments



West Fork Watershed Source Control

- Kelly Kuhbander, Strand Associates