PROJECT GROUNDWORK
your pipeline to clean water

We Need Your Input...

to make our rivers and streams cleaner and healthier.

Community Design Workshop #2

Community Design Workshop #3

Lick Run Alternative Project

Thursday, February 23, 2012
6:00 - 9:00 p.m.
(starts promptly at 6:00 p.m.)

Orion Academy
in South Fairmount
1798 Queen City Ave., Cincinnati, OH 45214
Map on back.

Please Join Us . . .

Please join us on Thursday, February 23, 2012, to view and provide input on a **preliminary Lick Run Master Plan.** The plan, which incorporates public input from the first two community design workshops, will contain a preliminary design concept for the proposed urban waterway in South Fairmount.

The meeting will begin promptly at 6:00 p.m. with a presentation, followed by small group sessions to review and discuss the plan. **No RSVPs are necessary.** You do not need to have attended any of the past workshops to attend this one. We encourage your participation and input at any stage of the process.

What's the Lick Run Alternative?

The Lick Run project — located in South Fairmount and portions of East and West Price Hill and Westwood — is a series of underground storm sewers and natural, aboveground waterways to transport stormwater and drainage to the to the Mill Creek. This project would eliminate about 800 million gallons of combined sewer overflows (CSOs) annually. It is an "alternative" to a deep, underground storage tunnel and enhanced high-rate treatment facility.

The central element of this alternative project would be an urban waterway in South Fairmount between Queen City and Westwood avenues east of White Street.

Location of Community Design Workshop #3

For more information about the Lick Run project and to view results from previous Lick Run Community Design Workshops, please visit www.projectgroundwork.org/lickrun. You can also call the MSD Engineering Customer Service Line at (513) 557-3594 or email MSD.Communications@cincinnati-oh.gov.

MSD
1600 Gest Street
Cincinnati, OH 45204

LICK RUN WATERSHED MASTER PLAN

Community Design Workshop #3

February 23, 2012

Tonight's Agenda

CSO Control Mandates: Lower Mill Creek

Summary of Community Engagement

Preliminary Lick Run Master Plan

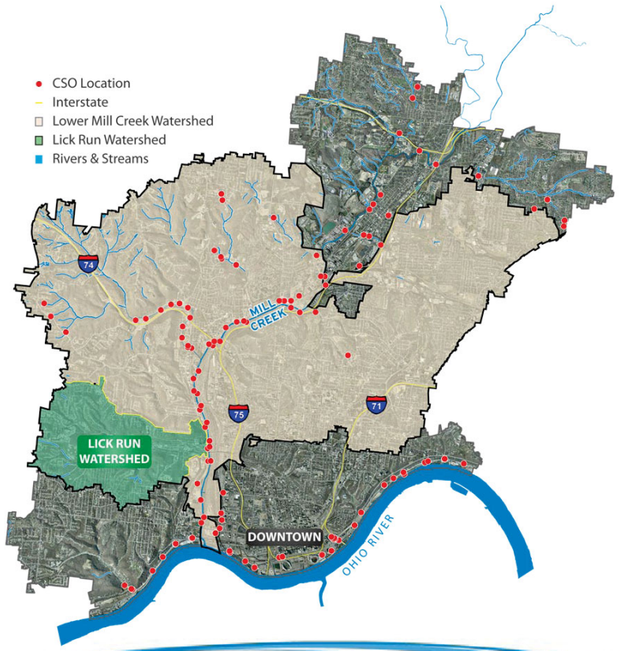
- Preliminary Urban Waterway Concept
- Question & Answer Opportunity
- Long-term Vision Plan

Breakout Sessions

- Review and discuss the Preliminary Urban Waterway Concept
- Review and discuss the Long-Term Vision Plan
- Identify gaps and potential refinements

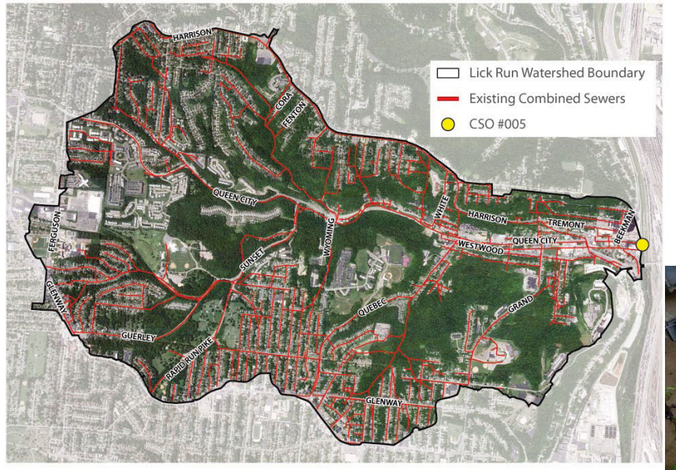
CSO Control Mandates: Lower Mill Creek

MSD is focusing on watersheds within the Lower Mill Creek that experience high volumes of CSOs.



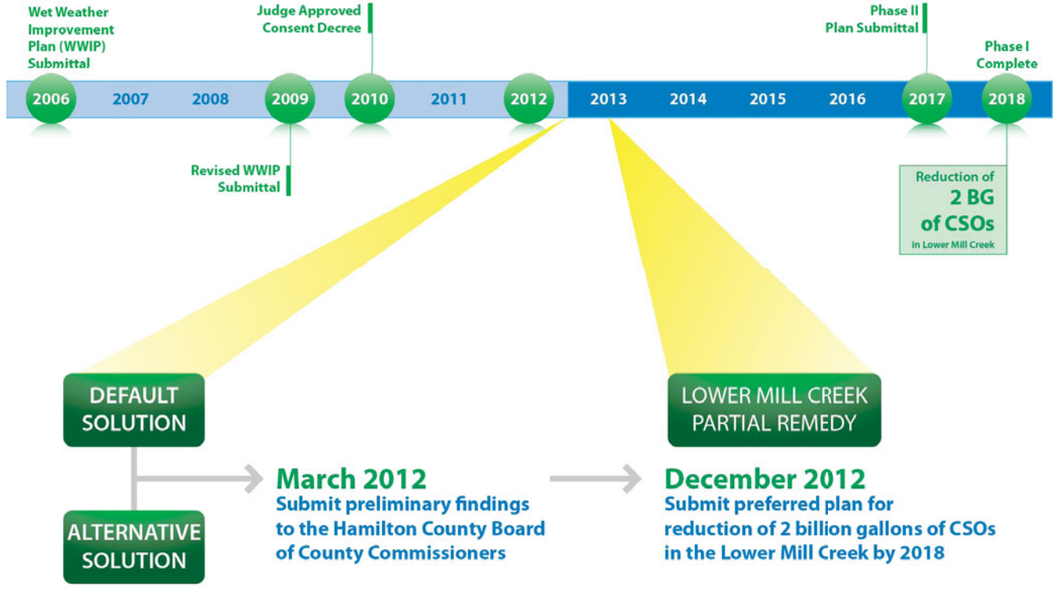
CSO Control Mandates: Lower Mill Creek

The Lick Run Watershed contributes the largest volume of overflows from combined sewers of any watershed in Hamilton County.



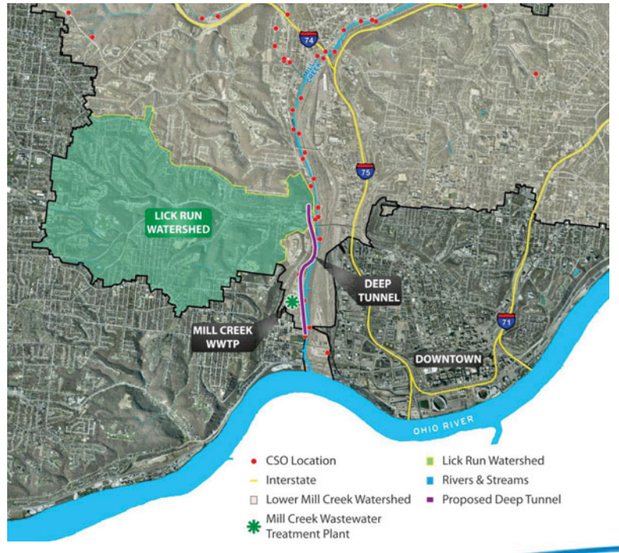
CSO #005 during wet weather

CSO Control Mandates: Lower Mill Creek



"Default" Solution

The "default" solution specified in MSD's Consent Decree is an underground storage tunnel parallel to Mill Creek.



Estimated cost (in 2006 dollars)

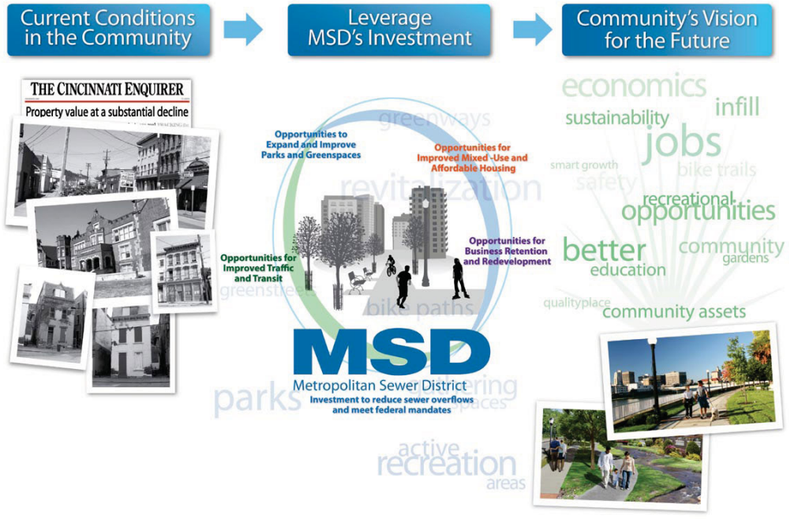
$244 million

Costs will continue to be refined based on additional design and assessment

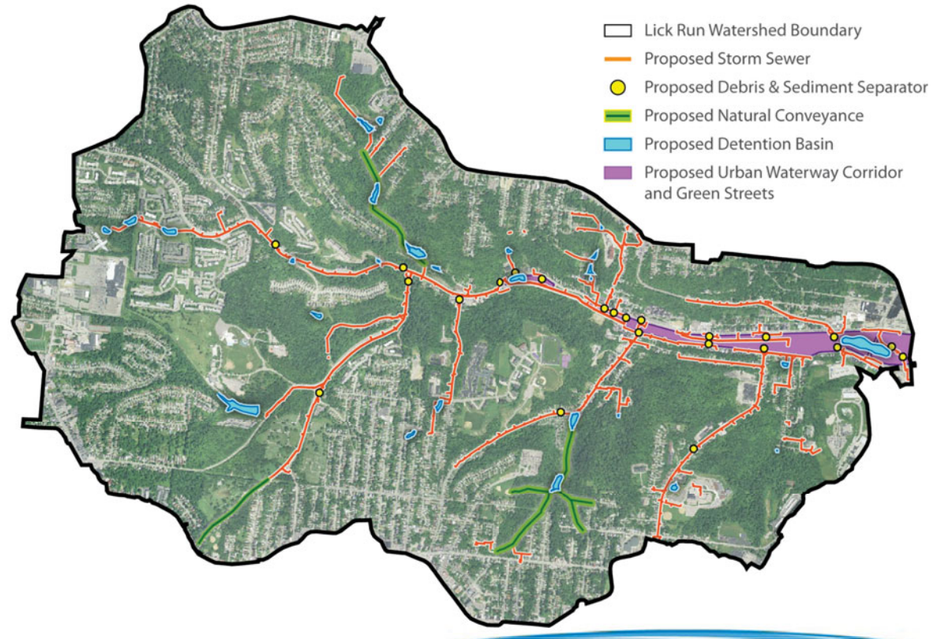
Presentation of the Preliminary Lick Run Master Plan

Alternative Solutions

MSD is partnering with local agencies and communities to create a more sustainable model for meeting CSO compliance mandates.



Alternative Solutions: Lick Run Alternative Project



Community Engagement Process

COMMUNITY OPEN HOUSE — January 2011

COMMUNITY DESIGN WORKSHOP #1 **AWARENESS** — August 2011 **Visual Preference Survey**

COMMUNITY DESIGN WORKSHOP #2 **EXPLORATION** — October 2011 **Strengths & Weaknesses of Alternatives & Concepts**

COMMUNITY DESIGN WORKSHOP #3 **VISION** — February 2012 **Identify Gaps & Refinements**

FINAL LICK RUN MASTER PLAN — March 2012 **Lick Run Alternative Project**

Community Engagement Process: CDW #1

What we learned from your input

- Character of the proposed urban waterway and open space network
- South Fairmount neighborhood business district (uses, character)
- Historic and cultural features
- Watershed planning guidelines

Community Engagement Process: CDW #2

Western Gateway Zone
1 Concept

Narrow Channel Zone
3 Concepts

Eastern Gateway Zone
3 Concepts

What we learned from your input

- Urban waterway that complements the urban environment
- In-stream water quality features and ecological benefits
- Opportunities for civic amenities (trails, gathering spaces, recreation)
- Opportunities for businesses and mixed-use areas
- Pedestrian safety improvements

Additional Community Input (South Fairmount Community Council)

South Fairmount Community

Needs

- Safe/Clean Green sustainable community
- Blight removal
- Business District for community residents
- Home ownership opportunities
- Jobs
- Transportation links
- Public areas
- Recreation
- Resource Center

Wants

- Viable housing stock
- Develop home sites
- Develop business sites
- Jobs
- Public areas
- Recreation
- Resource Center

Don't Want

- Wholesale removal of businesses anchored in community
- Loss of jobs for residents
- More than 5% assisted rental properties

South Fairmount: Existing Conditions

Community-Identified Cultural & Historical Resources

Early Success Projects / Enabled Impact Projects

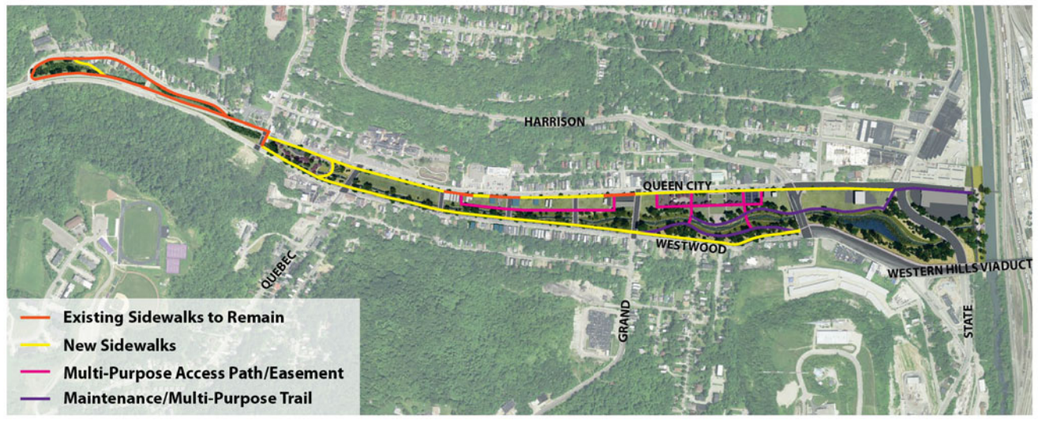
Preliminary Urban Waterway Concept

The Base Project

Urban Waterway Alignment & Water Quality Features

The Base Project

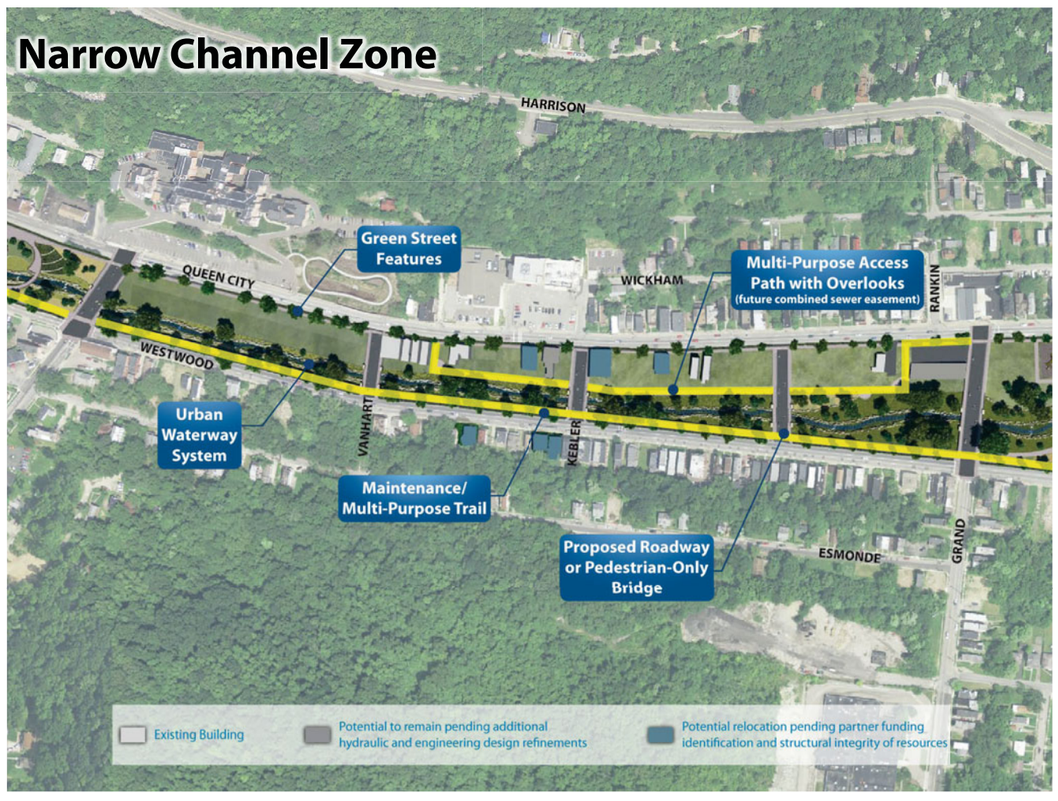
Maintenance Access, Sidewalks & Trails



The Base Project


Western Gateway Zone
Bioswale/
Rain Gardens
Wetland Forebay
(for water quality)
QUEEN CITY
WHITE
HARRISON
Bioswale/
Rain Gardens
WESTWOOD
Surface Parking
(Trail & Maintenance Access)
QUEEN CITY
Maintenance/
Multi-Purpose Trail
Waterway
Daylighting
Feature
QUEBEC
Urban
Waterway
System
Existing Building


Western Gateway Zone
Waterway Daylighting Feature
Looking north towards Queen City


Narrow Channel Zone
HARRISON
Green Street
Features
QUEEN CITY
WICKHAM
Multi-Purpose Access
Path with Overlooks
(future combined sewer easement)
RANKIN
WESTWOOD
Urban
Waterway
System
VANHART
KEBLER
Maintenance/
Multi-Purpose Trail
Proposed Roadway
or Pedestrian-Only
Bridge
ESMONDE
GRAND
Existing Building
Potential to remain pending additional
hydraulic and engineering design refinements
Potential relocation pending partner funding
identification and structural integrity of resources


Narrow Channel Zone
Overlooks to Urban Waterway
Looking south towards Westwood Avenue


Civic Recreation Hub
HARRISON
WICKHAM
RANKIN
QUEEN CITY
WESTWOOD
ESMONDE
HARRISON
Existing Sprayground
Relocated Playground
Recreation Hub
Relocated Basketball Courts
Urban Waterway System
Maintenance/ Multi-Purpose Trail
Pedestrian Bridges
Maintenance/ Multi-Purpose Trail
Existing Building
Potential to remain pending additional hydraulic and engineering design refinements


Civic Recreation Hub
Urban Waterway & Open Space Network
Looking north towards Queen City


Eastern Gateway Zone
PINETREE
MILL CREEK
QUEEN CITY
HARRISON
STATE
WESTERN HILLS VIADUCT
Maintenance/ Multi-Purpose Trail
Open Space Linkage with Mill Creek
Waterway Outfall Feature
Urban Waterway System
Water Quality Feature
Existing Building
Potential to remain pending additional hydraulic and engineering design refinements


Eastern Gateway Zone
Water Quality Feature
Looking south towards Westwood

Questions from the Community

Implementation

Timeline

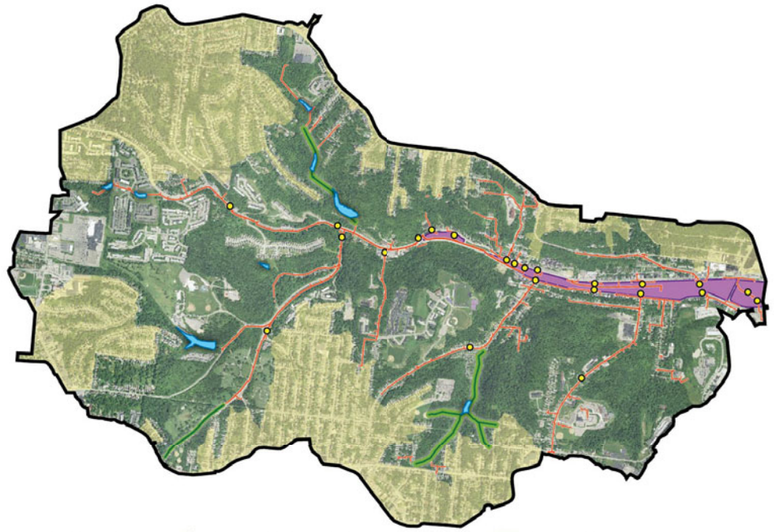
Costs

Impacts

Maintenance

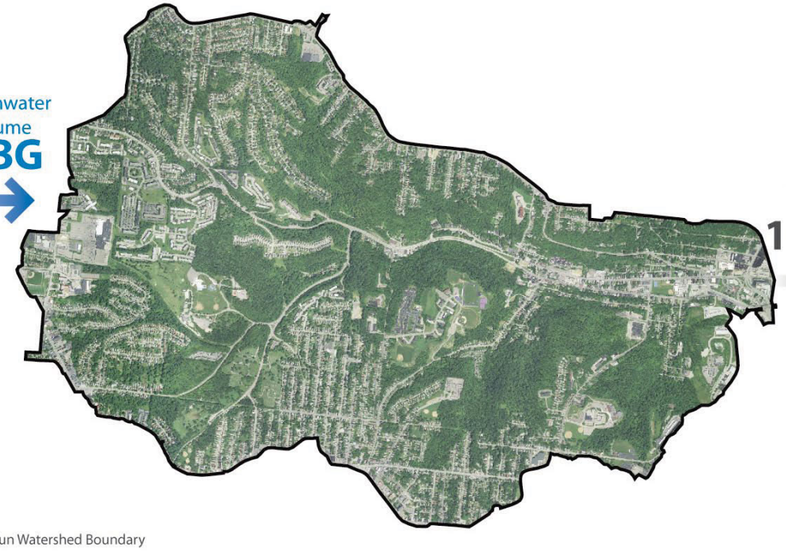
Community Goals

What options did MSD explore when developing the Lick Run Alternative Project?



What options did MSD explore when developing the Lick Run Alternative Project?

Annual Stormwater Runoff Volume
3.02 BG



Annual CSO Volume
1.50 BG

Lick Run Watershed Boundary

How did MSD define the Urban Waterway Concept?

TRADITIONAL APPROACHES

Series of large underground storm sewers
Restricted use of open space

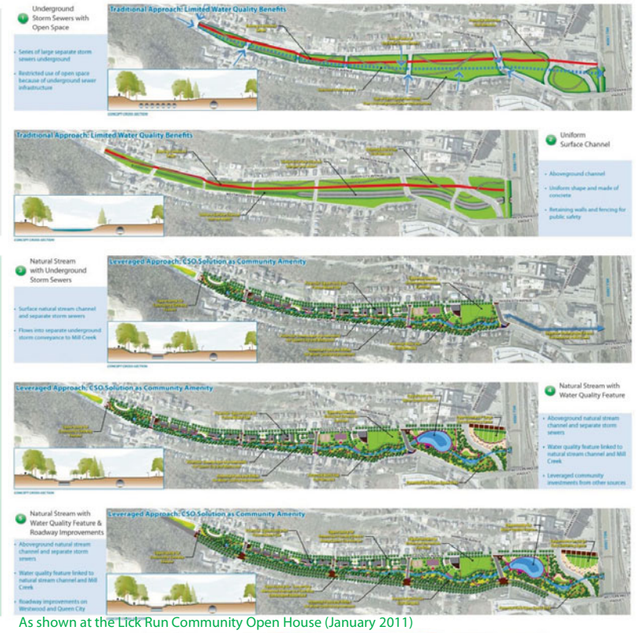
Uniform Surface Channel
Retaining walls and fencing

ALTERNATIVE APPROACHES

Urban Waterway System

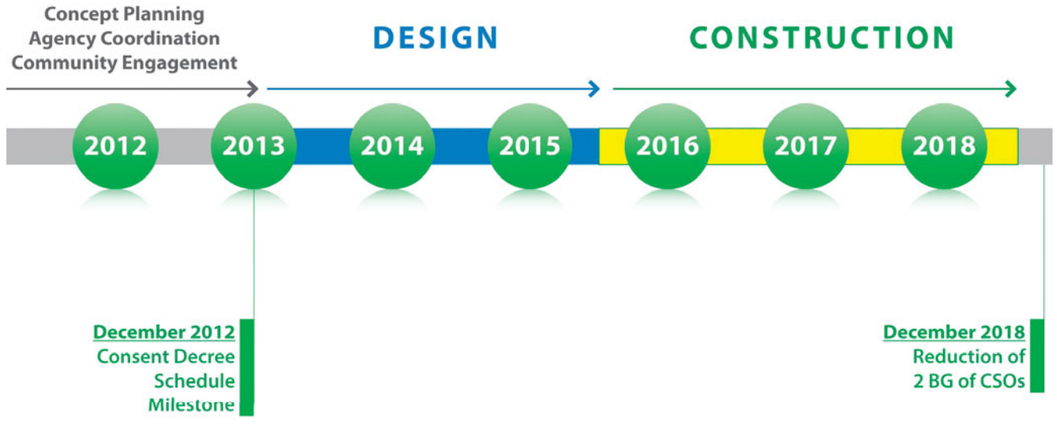
Underground storm sewer conveyance box (minimizes risks to public safety)

Maximum water quality improvement



As shown at the Lick Run Community Open House (January 2011)

When would MSD construct the proposed project (if approved)?



What components of the project would be constructed by 2018?

Preliminary Urban Waterway Concept – The Base Project

What is the cost?

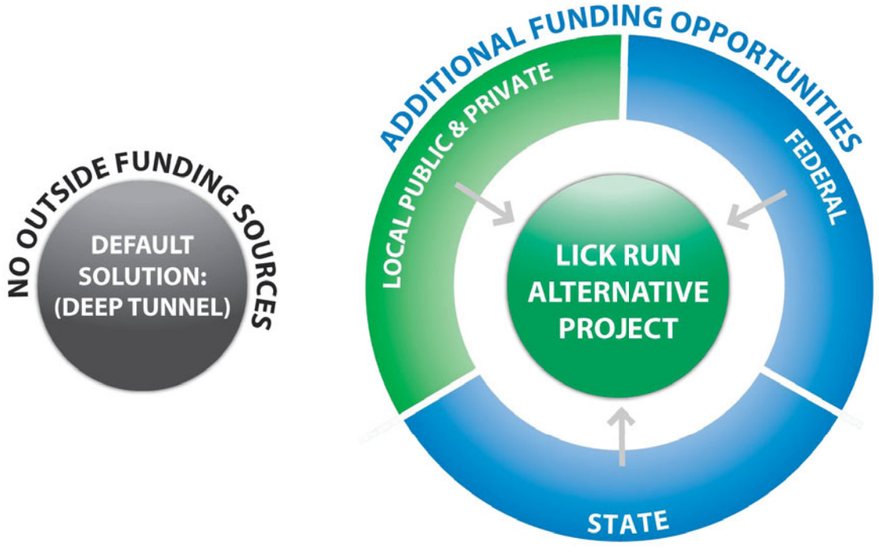
	DEFAULT SOLUTION: (DEEP TUNNEL)	LICK RUN ALTERNATIVE PROJECT
Capital Cost	$$$$	$$
Operations & Maintenance Costs	$$$	$
Economic Benefits	—	√√√ ???

Who is paying for this project?

PROJECT GROUNDWORK
your pipeline to clean water

Project Groundwork is primarily funded by MSD customers (ratepayers) through monthly or quarterly sewer bills.

Who is paying for this project?



How is MSD addressing the maintenance needs of the proposed urban waterway and associated open space?

MSD is working closely with Cincinnati Parks and the Cincinnati Recreation Commission to plan for and provide maintenance needs through these public agencies.

What process is MSD using to acquire property?

PROPERTY APPRAISAL PROCESS

STATE-CERTIFIED APPRAISERS

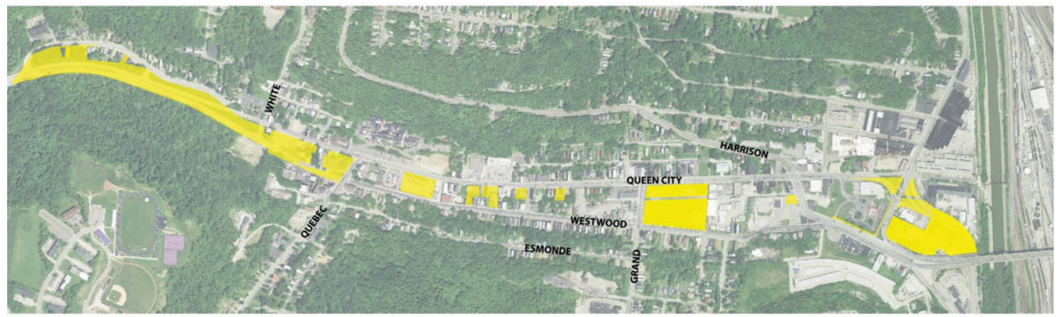
Under Ohio law, MSD must follow appraisal guidelines established in the **Uniform Standards of Professional Appraisal Practice (USPAP)**

PROPERTY ACQUISITION & RELOCATION PROCESS

MSD-MONITORED RELOCATION PERSONNEL

MSD is following guidelines established in the federal **Uniform Relocation Act (URA)** to determine relocation and business reestablishment compensation

What properties are currently publicly owned?



Publicly-owned property (City of Cincinnati and Hamilton County)

Hamilton County Auditor's Database
February 2012

How is MSD addressing the needs of local businesses in the planning process?

ONE-ON-ONE MEETINGS

Spring 2010 - Today
MSD met a number of local businesses to introduce Project Groundwork and the Lick Run Alternative Project

MSD continues one-on-one dialogue with local business owners

COMMUNITIES OF THE FUTURE ADVISORY COMMITTEE

March 2010 - Today
MSD gains community input on Project Groundwork through this advisory committee

CFAC includes members of the South Fairmount Business Association and Community Council

SOUTH FAIRMOUNT BUSINESS ASSOCIATION

July 2010 - Today
As invited, MSD has attended meetings of the SFBA, making presentations and directly responding to questions and concerns

MSD has met regularly with a core committee of members

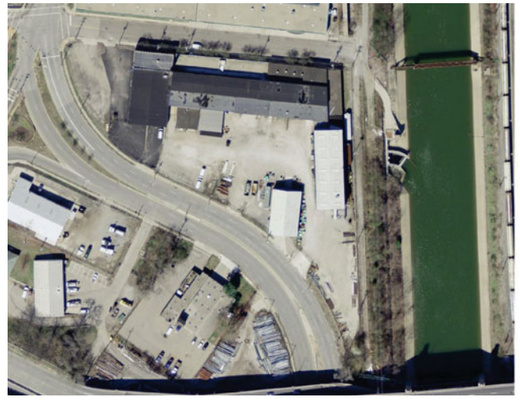
MSD has held input sessions to review materials prior to and after Community Design Workshops

SURVEY OF BUSINESSES

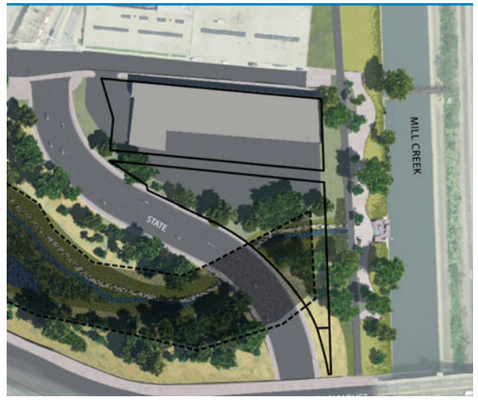
January 2012
MSD conducted a survey of businesses, at the request of the SFBA

How does the Lick Run Master Plan affect other, complementary efforts?

How is MSD addressing the needs of local businesses in the planning process?



Existing



Proposed

One-on-one discussions are critical for productive outcomes.

How could MSD's investment support future public/private investments?

Preliminary urban waterway concept plan

How could MSD's investment support future public/private investments?

Transportation Network Improvements

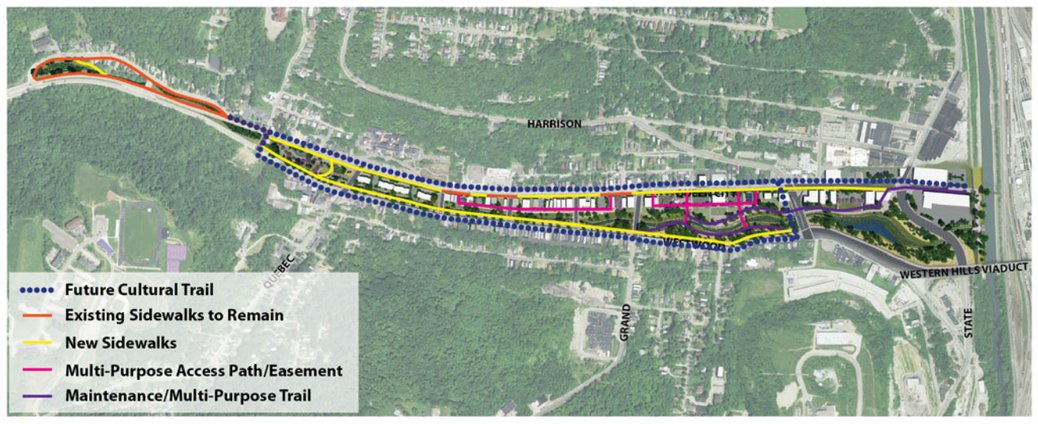
Westwood Avenue **Queen City Avenue**

How could MSD's investment support future public/private investments?

Preliminary Long-Term Vision Plan

METROPOLITAN SEWER DISTRICT of greater CINCINNATI

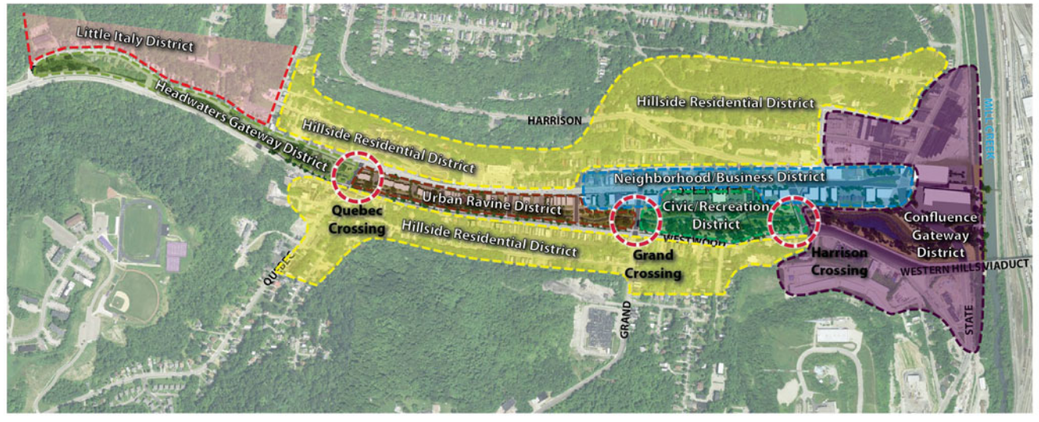
How could MSD's investment support future public/private investments?



Cultural Trail Concept

METROPOLITAN SEWER DISTRICT of greater CINCINNATI

How could MSD's investment support future public/private investments?



Neighborhood District Concept

Lick Run Alternative Project: Preliminary Urban Waterway Plan

1. After seeing the presentation, do you have a better understanding of what MSD is proposing to implement as part of an alternative solution for CSO reduction?
   [ ] **Yes** [ ] **No** (If not, please explain why.)

2. What are the **strengths** of the preliminary Urban Waterway Plan?

3. What are the **weaknesses** of the preliminary Urban Waterway Plan?

4. What, if any, potential **refinements** would you propose for the preliminary Urban Waterway Plan?

5. Given your understanding at this point, do you support MSD's investment in the **alternative** to the deep tunnel?
   [ ] **Yes** [ ] **No**

Components of the Long-Term Watershed Vision

6. What are the **strengths** of the Long-Term Watershed Vision Plan?
   [ ] **Yes** [ ] **No** (If not, please explain why.)

7. What are the **weaknesses** of the Long-Term Watershed Vision Plan?

8. What, if any, potential **refinements** would you propose for the Long-Term Watershed Vision Plan?

Exit Questions

9. Do you feel better informed after this meeting than before? [ ] **Yes** [ ] **No**
   (If not, please explain why.)

10. Did you attend previous Lick Run Community Design Workshops? (If yes, please specify.) [ ] **Yes** [ ] **No**
    [ ] **Workshop #1 (August 2011)** [ ] **Workshop #2 (October 2011)**

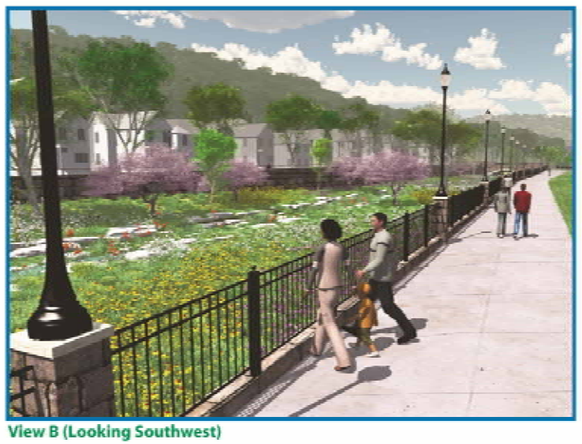
11. Additional comments? (optional)

Name_____ Email_____
Phone_____

METROPOLITAN SEWER DISTRICT of greater CINCINNATI
LICK RUN WATERSHED
Participant Handout

PRELIMINARY URBAN WATERWAY PLAN

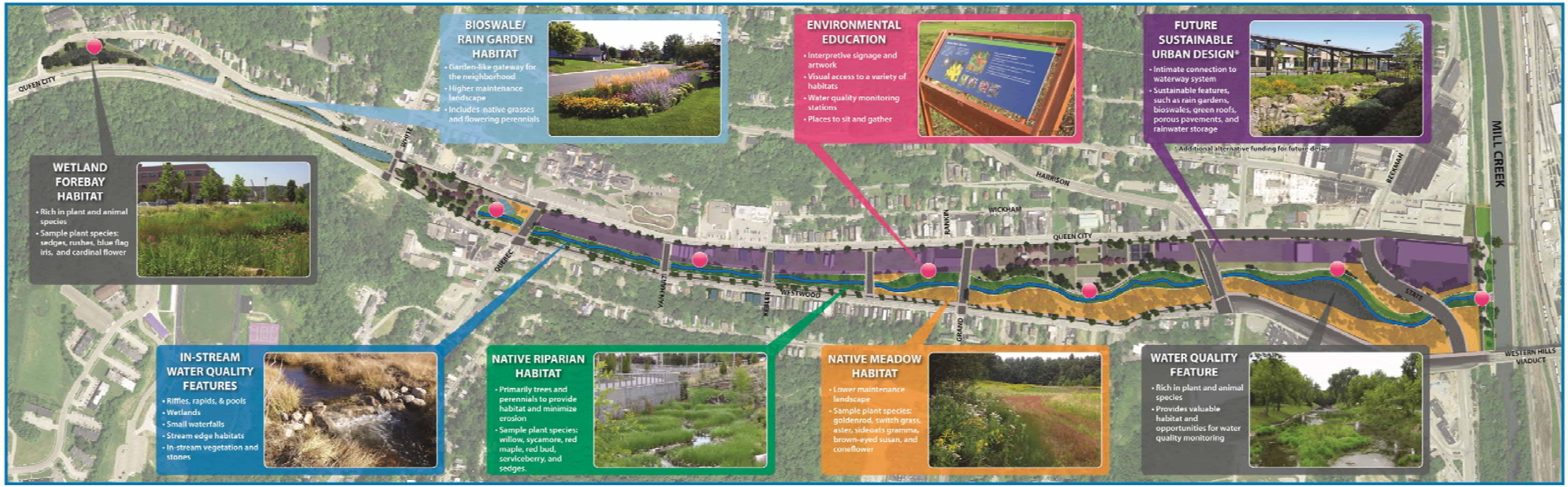

View A (Looking Northwest)


View B (Looking Southwest)


View C (Looking Northwest)


View D (Looking Southwest)

URBAN WATERWAY CHARACTER & ECOLOGY



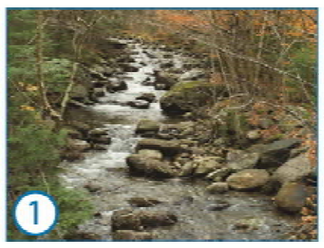
N

0 150 300
Feet

Spectrum of Waterway Character

DESIRED CHARACTER OUTCOME

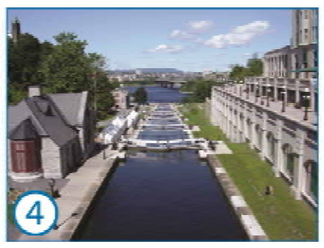
EXISTING CONDITIONS



Natural Stream

Enhanced Waterway

Designed Waterway



Structured Waterway

Channelized Waterway

Stream in Storm Sewer

Combined Sewer

Natural ● ● ● ● ● ● ● **Piped**

METROPOLITAN SEWER DISTRICT of greater CINCINNATI

LICK RUN WATERSHED

NETWORK OF CSO REDUCTION SOLUTIONS

1 Rainfall = Stormwater Runoff

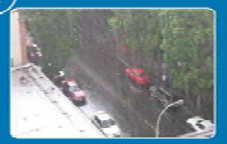
On an **undeveloped landscape**, stormwater runoff:

- Slows and filters through vegetation & soil
- Infiltrates into the ground

On a **developed landscape**, stormwater runoff:

- Increases in volume, velocity, pollution, and temperature
- Minimally infiltrates into the ground
- Can negatively impact natural waterways

2 Runoff Diversion



A network of community solutions more effectively manages stormwater runoff by:

- Reducing inputs to the combined sewer system
- Reducing pollutants
- Replenishing groundwater
- Improving natural systems

Stormwater management strategies can be applied at home, in neighborhoods, and throughout the Lick Run Watershed.

3 Household Strategies

Stormwater best management practices (BMPs) that residents can incorporate at home include:

- Downspout disconnection (where permitted)
- Rain gardens & bioswales
- Rain barrels & cisterns
- Green roofs
- Trees and other plantings
- Porous pavements

4 Neighborhood Strategies

Stormwater BMPs that can be implemented in neighborhoods include:

- Reduced pavement width (where possible)
- Porous pavements
- Street trees and stormwater planters
- Collecting and treating stormwater in parks and open spaces

5 Source Control Strategies

Proposed **source control strategies** include:

- New storm sewers to capture stormwater runoff and reduce the volume of stormwater entering combined sewers
- Natural conveyance strategies to capture, infiltrate, and treat stormwater

6 Structural Stormwater BMPs

Structural stormwater BMPs trap heavy sediment like sand, and they collect floatable trash and debris. These structures are designed to be easily accessed and maintained.

7 Proposed Urban Waterway

The proposed urban waterway:

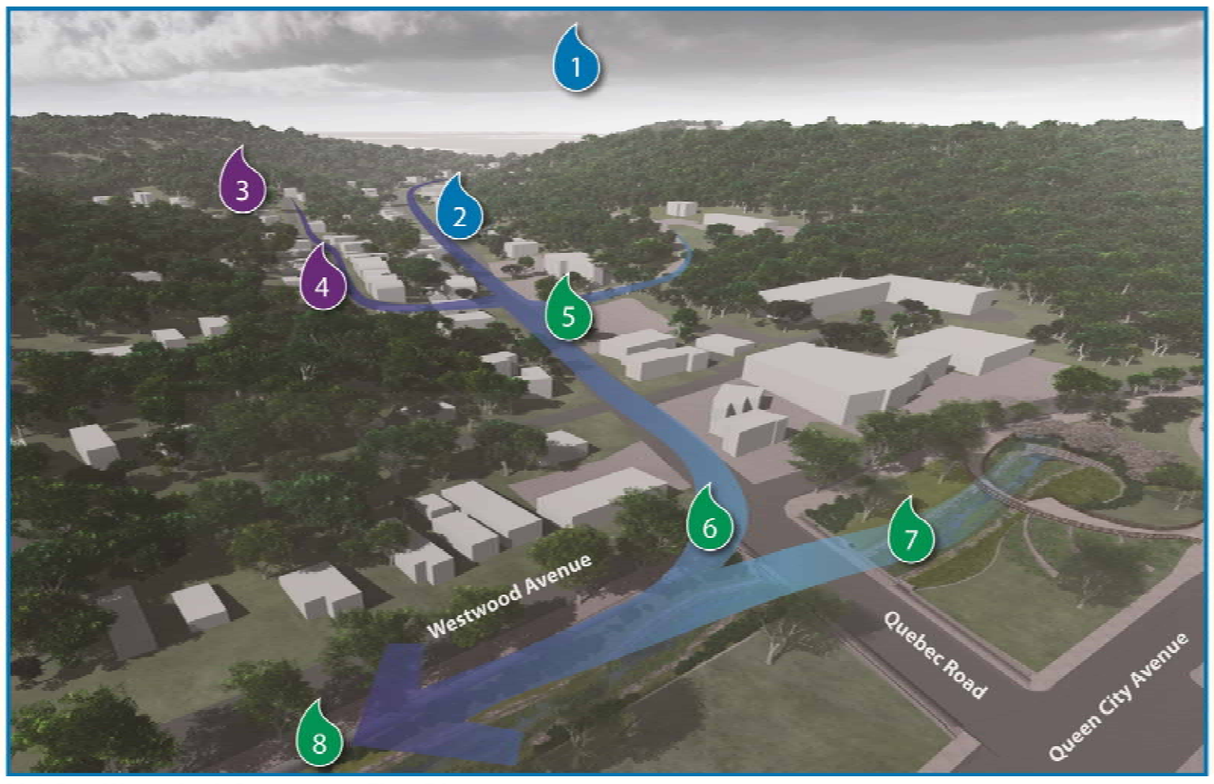
- Conveys captured stormwater runoff to Mill Creek
- Improves water quality
- Provides wildlife habitat
- Includes an open space network
- Provides opportunities for environmental education

8 Healthier Mill Creek

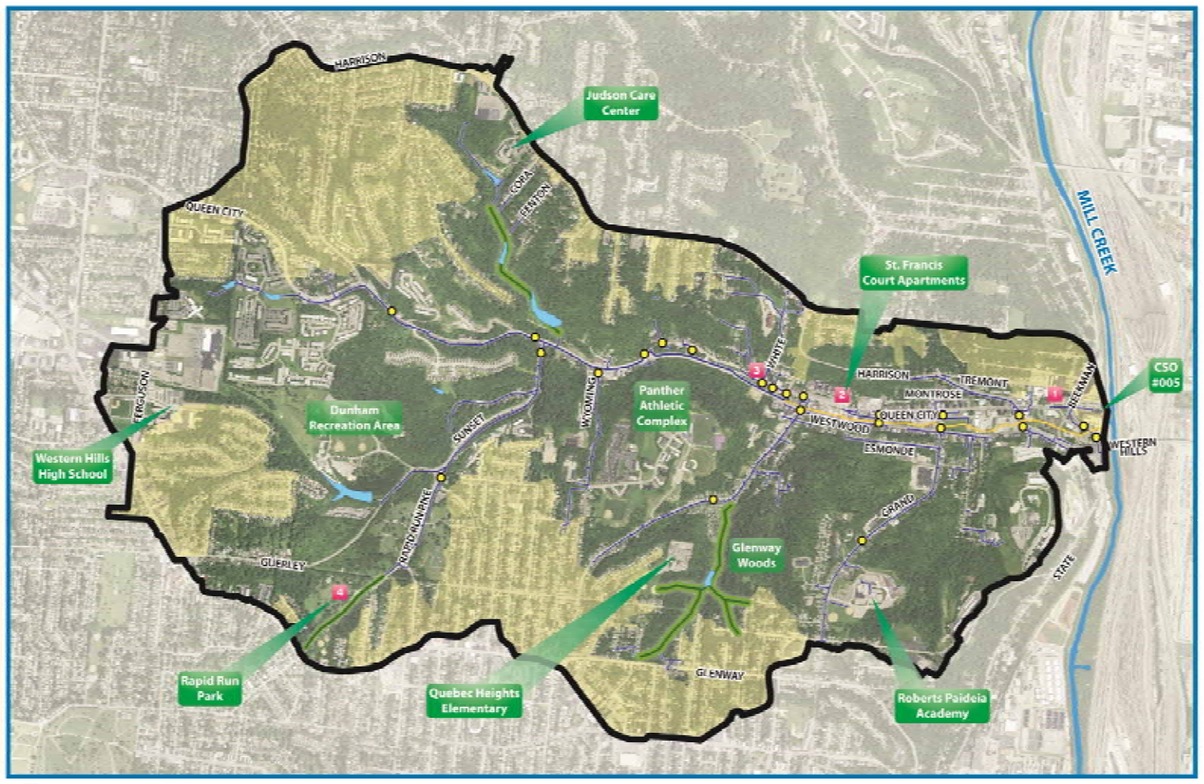
The proposed urban waterway will help reduce combined sewer overflows (CSOs) and improve water quality in Mill Creek.

The integrated source control strategies in the Lick Run Watershed, combined with other sustainable infrastructure projects in the Lower Mill Creek watersheds, will gradually heal this endangered regional resource.

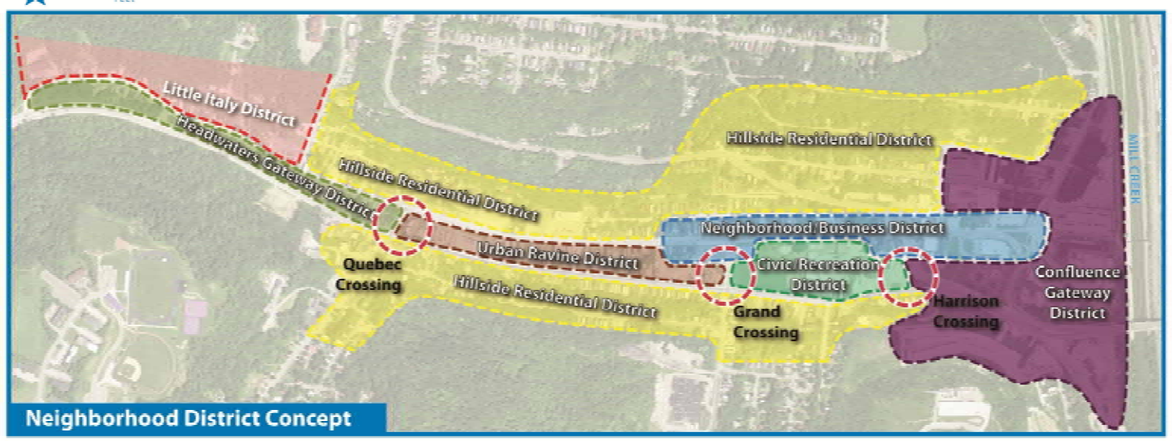
MSD's Proposed Solutions in the Lick Run Watershed



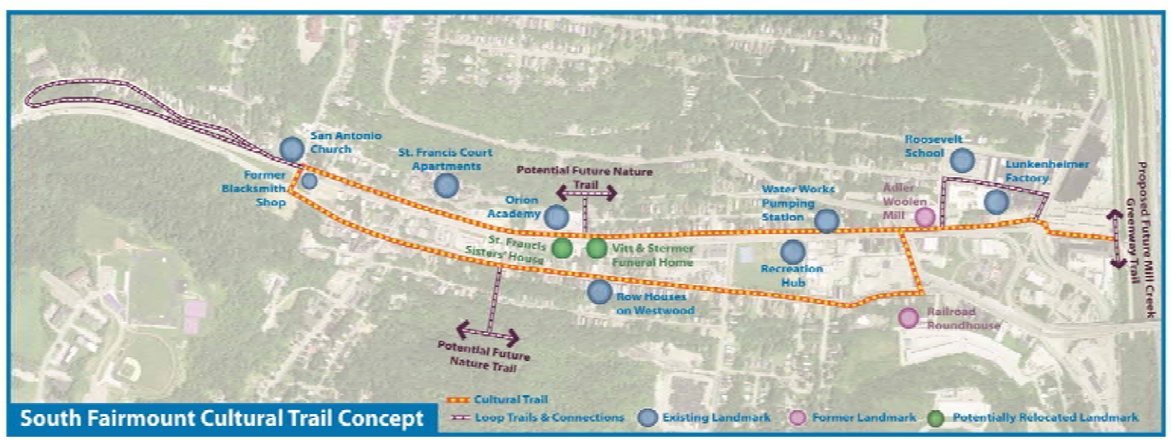
Lick Run Watershed: Stormwater Flow Diagram



PRELIMINARY LONG-TERM VISION PLAN



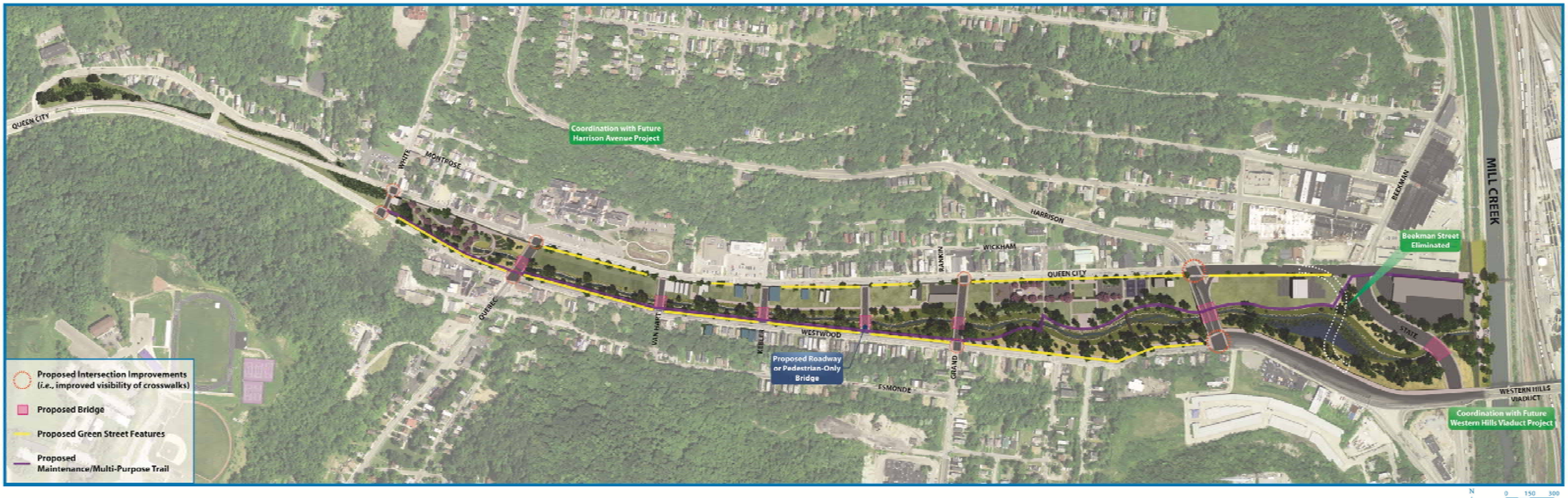
Neighborhood District Concept



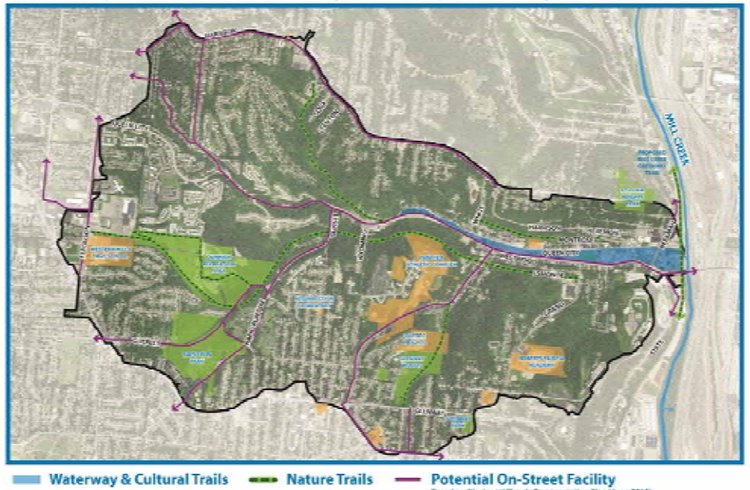
South Fairmount Cultural Trail Concept

TRANSPORTATION NETWORK & TRAILS

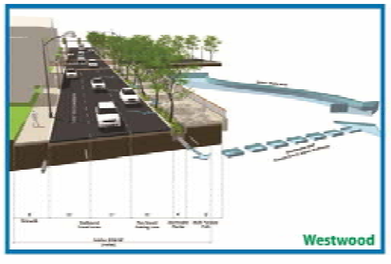
PRELIMINARY URBAN WATERWAY PLAN



WATERSHED-WIDE BIKE & TRAILS NETWORK

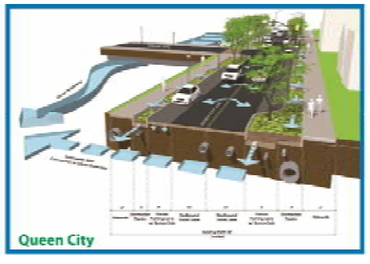


Waterway & Cultural Trails — Nature Trails — Potential On-Street Facility
Based on Cincinnati Bicycle Transportation Plan (June 2010)
Plan Review & Assessment are Underway



NEAR-TERM RECOMMENDATIONS

One-way Traffic Remains
Pedestrian Safety Improvements
Integrated Stormwater Planters (south side of Queen City and north side of Westwood)



LONG-TERM STUDY

Two-way Travel Lanes
Integrated Stormwater Planters and Bump-Outs with Street Trees
Expands Existing Right-of-Way
Requires Further Technical Refinement, Agency Coordination, and Community Engagement

METROPOLITAN SEWER DISTRICT of greater CINCINNATI

LICK RUN WATERSHED

Long-term Watershed Vision Plan

How could MSD's investment support future public/private investments?

Additional investment in the Lick Run watershed - identified in the preliminary long-term vision plan - could be achieved over time with support from public and private investment. Long-term investment is envisioned to include:

- viable, walkable **neighborhood business district**
- **enhanced transportation network**
- **multi-use Cultural Trail**
- **market-driven land development**
- additional **streetscape improvements**
- **enhanced civic/recreation hub**
- additional **public amenities** (e.g., benches, lighting, trash receptacles, wayfinding)

*The Long-term Watershed Vision Plan (not shown) can be viewed in the presentation for Community Design Workshop #3. Visit: **www.projectgroundwork.org/lickrun** and follow the links under Community Involvement.

In Your Words...

Written comments from workshop participants:

"We can see our money being used in a more useful way: creating waterway, business opportunities, recreation."
~ resident, Lick Run Watershed

"It needs to be sure not to remove current businesses but seek rather to provide relocation opportunities for them to remain and be a part of the new revitalized community."
~ resident, Lick Run Watershed

"[The] plan selection is most useful to Lick Run Valley residents and most economical to MSD patrons also."
~ property owner

"The plan has gotten the support of the Lick Run Valley inhabitants."
~ resident, Lick Run Watershed

For updates on the Lick Run Project, please continue to visit: **www.projectgroundwork.org/lickrun**. You can also contact MSD Engineering Customer Service at **(513) 557-3594** or send an e-mail to **MSD.Communications@cincinnati-oh.gov.**

METROPOLITAN SEWER DISTRICT of greater CINCINNATI

LICK RUN WATERSHED

RESULTS OF COMMUNITY INPUT
COMMUNITY DESIGN WORKSHOP #3

FEBRUARY 23, 2012

PROJECT GROUNDWORK
your pipeline to clean water

Lick Run Community Design Workshop #3

On Thursday, February 23, 2012, the Metropolitan Sewer District of Greater Cincinnati (MSD) hosted its third of three "Community Design Workshops" at Orion Academy (charter school) in South Fairmount to gather public input on the proposed Lick Run Alternative Project.

What's the Lick Run Alternative?

The Lick Run Project is a series of underground storm sewers and natural, above ground waterways to transport stormwater and natural drainage to the Mill Creek. This storm sewer separation project would eliminate about 800 million gallons of combined sewer overflows (CSOs) annually into the Mill Creek. It is one of several watershed-based solutions being proposed to the U.S. EPA and other regulators as an alternative to a deep, underground storage tunnel and enhanced high-rate treatment facility.

The central element of this project is an urban waterway in South Fairmount between Queen City and Westwood avenues, east of White Street.

Focus of Community Design Workshop #3

The workshop featured an overview presentation, Q&A, and small group breakout sessions to evaluate the strengths, weaknesses, and potential refinements for the preliminary Lick Run Master Plan. The plan was developed with input from the first two Community Design Workshops, held in August and October 2011. The results of Community Design Workshop #3 are summarized inside.

Preliminary Lick Run Master Plan

The preliminary Lick Run Master Plan contains the Lick Run Alternative project, including a refined preliminary design concept for the proposed urban waterway in South Fairmount. In addition, the plan includes a preliminary Long-term Watershed Vision Plan that identifies additional public amenities that could be achieved over the long term through public or private investment.

The three Community Design Workshops played a critical role in this process. The community's willingness to share ideas, suggestions and concerns, complete surveys and engage in constructive dialogue helped directly shape the master plan. Although this phase of the effort is complete we encourage you to remain engaged and informed.

What's Next?

Preliminary findings on the Lick Run Alternative and the tunnel will be presented to the Hamilton County Board of County Commissioners for consideration in March 2012. In December 2012, MSD will submit its preferred remedy for resolving CSOs in the Lower Mill Creek watershed to the U.S. EPA and other regulators.

Major Findings from the Workshop

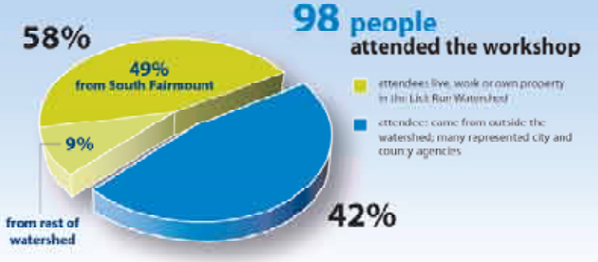
Breakout Session Feedback:

- Perceived **strengths** of the proposed urban waterway include: **lower up-front & lifetime costs, potential for urban revitalization, neighborhood beautification, ecological benefits, and attention paid to the historic fabric.**
- Perceived **weaknesses** of the proposed urban waterway include: **impact to existing businesses, traffic and parking issues, lack of identified funding, and lack of clear economic benefit provided by green space.**
- Participants reinforced the importance of **preserving as many existing and historic buildings as possible, addressing public transportation opportunities, encouraging urban infill for future development, and coordinating** with future Harrison Avenue and Western Hills Viaduct projects.

93% of respondents support the proposed Lick Run Alternative, compared to 5% who support the deep tunnel and 2% who are unsure. *(41% of attendees responded to this question)*

71% of respondents attended a prior Community Design Workshop. *(35% of attendees responded to this question)*

93% of respondents said that after seeing the presentation, they have a better understanding of what MSD is proposing to implement as part of the alternative solution for CSO reduction. *(47% of attendees responded to this question)*



South Fairmount Corridor

These preliminary design concepts for a proposed urban waterway in South Fairmount (Cincinnati, Ohio) were developed by the Metropolitan Sewer District of Greater Cincinnati (MSD) with input from the community and public/private partners. The concepts were presented for public review at the Lick Run Community Design Workshop #3 on February 23, 2012 in Cincinnati as part of a preliminary Lick Run Master Plan. They will undergo additional refinement prior to integration into a final plan. The U.S. EPA has final approval over implementation of this project.

Perceived Strengths

- Potential for urban revitalization, including the promotion of urban infill and a more livable, walkable community
- Enhanced beauty and aesthetics of neighborhood
- Ecological and environmental benefits
- Lower up-front & lifetime costs
- Attention given to neighborhood's history
- Improved neighborhood identity & quality of life

Perceived Weaknesses

- Impact on local jobs and businesses
- Parking accommodations fall short of demand
- Lack of identified funding
- Economic benefits of green space not clear
- Traffic noise could detract from ambiance of the waterway
- Waterway could split the neighborhood north and south

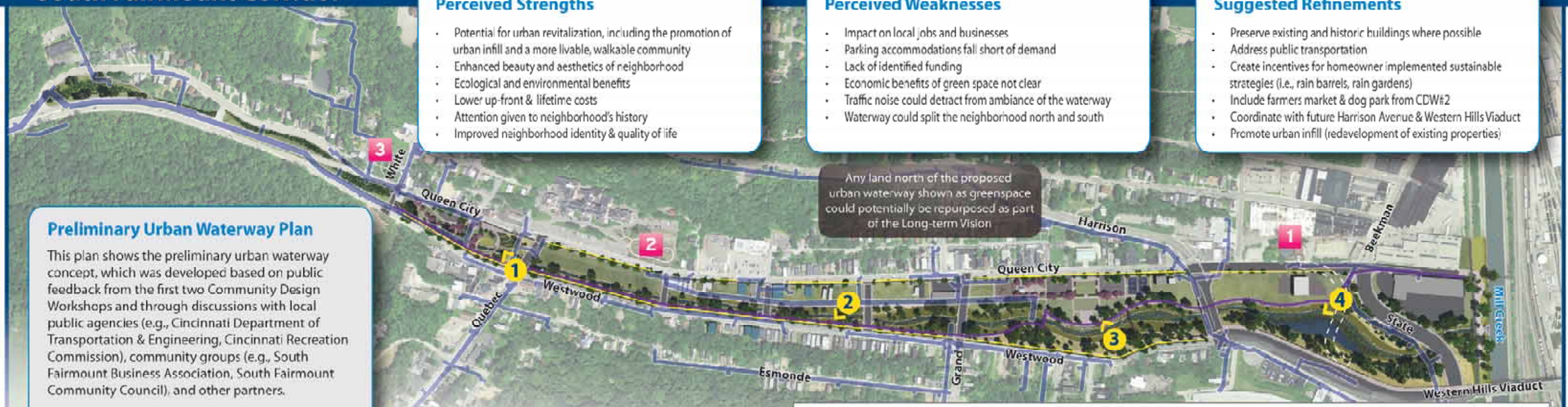
Suggested Refinements

- Preserve existing and historic buildings where possible
- Address public transportation
- Create incentives for homeowner implemented sustainable strategies (i.e., rain barrels, rain gardens)
- Include farmers market & dog park from CDW#2
- Coordinate with future Harrison Avenue & Western Hills Viaduct
- Promote urban infill (redevelopment of existing properties)

Preliminary Urban Waterway Plan

This plan shows the preliminary urban waterway concept, which was developed based on public feedback from the first two Community Design Workshops and through discussions with local public agencies (e.g., Cincinnati Department of Transportation & Engineering, Cincinnati Recreation Commission), community groups (e.g., South Fairmount Business Association, South Fairmount Community Council), and other partners.

If approved by the Board of County Commissioners and Regulators, this plan represents the "Base Project," or what could be constructed by 2018 to meet MSD's mandated schedule for Consent Decree compliance in the Lower Mill Creek.



Enabled Impact Projects (formerly referred to as "Early Success Projects") are pilot projects constructed to demonstrate innovative green infrastructure strategies while helping reduce the volume of stormwater runoff entering MSD's combined sewer system. Examples include bioinfiltration (rain gardens) and pervious pavement.

1 Immanuel United Church Enabled Impact Project
2 St. Francis Enabled Impact Project
3 San Antonio Church Enabled Impact Project
Proposed Storm Sewer
Proposed Green Street Features
Proposed Maintenance/Multi-Purpose Trail
Existing Building
Potential to remain pending additional hydraulic and engineering design refinements
Potential relocation pending partner funding identification and structural integrity of resources

Headwaters Gateway District

(Looking Northwest) This image depicts the daylighting of stormwater into the proposed urban waterway. The proposed urban waterway will contain water quality features (limestone rock) and a well-vegetated riparian edge. Rain gardens will help to intercept stormwater from Queen City Avenue and direct it into the waterway. Lighting is included to ensure the multi-purpose trail on Westwood is well lit and safe for pedestrians.

Urban Ravine District

(Looking South toward Westwood) This image depicts the character of the proposed urban waterway through the Urban Ravine. The waterway contains a heavily-vegetated riparian edge, trees, and limestone rock. The height of the retaining wall from Westwood is visible. A pedestrian railing and lighting along the maintenance path and overlooks are included for safety (and as required by code).

Civic Recreation Hub

(Looking Northwest) This image depicts the character of the proposed urban waterway near the Civic Recreation Hub. Native vegetation is included to help reduce maintenance needs and to provide water quality benefits during high flow events. The pedestrian bridge in the background is above the modeled 100 year floodplain elevation; so during large volume rain events, water elevations would be contained within the heavily-planted areas.

Eastern Gateway District

(Looking South toward Westwood) This image depicts the character of the proposed urban waterway at the water quality feature. The multi-purpose path provides safe, well-lit access. During low volume rain events, runoff flows north of the water quality feature to Mill Creek. During high volume rain events, water flows both north of and into the water quality feature. This feature provides valuable terrestrial and aquatic habitat.