Environmental Advisory Board

Meeting Agenda

February 26, 2025   3:00 P.M.

Centennial II HR Conference Room B

805 Central Avenue, Cincinnati, Ohio 45202

Virtual Attendance through Microsoft Teams

Order of Business

I.   **Public Comment**

II.   **Call to Order**

III.   **Administrative Action***
- Approval of January 29, 2025 – Meeting minutes

IV.   **Office of Environment and Sustainability Comments**

V.   **Information/Updates**
- Welcome to new Board Members:
  - Nayana Shah
  - Douglas Walton
  - Monica Perdomo
  - Emmy Schroder
- Thank you to all members who served during the 2024 year

VI.   **Items for Vote***
- Officer Elections:
  - Chair Nominees: Kylie Johnson, Van Sullivan
  - Vice Chair Nominees: Dave Schmitt, Nathan Alley
- Meeting Schedule for future meetings

VII.   **Presentations**
- Green Infrastructure Accelerator – Sam Dunlap

VIII. **Open Discussion**
- Policy Comments
- Cincy on Track

IX.   **Next Meeting**
-

X.   **Adjournment**

Board Action Requested

Agenda Packet Materials:

- Draft meeting minutes from 1/29/2025

Environmental Advisory Board
Minutes of January 29, 2025

Members Present:

- **In person:** Ashlee Young; Dave Schmitt; Kylie Johnson; Van Sullivan
- **Virtual:** Andrew Musgrave; Ericka Copeland; Julie Shifman; Nathan Alley; Rico Blackman; Susan Sprigg

Members Absent: Chad Day; Diana Hodge; Tanner Yess

Staff Present: Oliver Kroner; Amanda Testerman; Katherine Keough-Jurs

Meeting: A meeting of the Environmental Advisory Board was held on January 29, 2025 at 3:00 PM at Centennial II HR Conference Room B, 805 Central Avenue, Cincinnati, Ohio 45202.

Meeting Agenda:

- I. **Public Comment**
- II. **Call to Order at 3:08 PM**
- III. **Administrative Action***
  - Approval of December 18, 2024 – Meeting minutes
- IV. **Office of Environment and Sustainability Comments**
- V. **Information/Updates**
  - New Board member updates: Applications have been provided to City Manager for review and approval. We hope to have these members attend the February meeting. Any member whose term ended in December 31, 2024 will remain a member until their position is replaced or re-appointed.
  - Officer Nominations
    - Kylie Johnson: Chair
    - Van Sullivan: Chair
    - Dave Schmitt: Vice Chair
    - Nathan Alley: Vice Chair
  - Elections will take place at the February meeting. Please contact Amanda Testerman & Erin Kabel with additional nominations for Chair & Vice Chair
  - Van Sullivan and Kylie Johnson met with Councilmember Nolan and Councilmember Owens in January.
- VI. **Items for Vote***
- VII. **Presentations**
  - Comprehensive Planning Overview, presentation by Katherine Keough-Jurs
  - Proposed MSD Impervious Surface Fee, presentation by Larry Falkin
- VIII. **Open Discussion**
  - Discussion on current impact to City and federal grant and loan funding after the executive order and memo regarding the temporary pause of agency grant, loan, and other financial assistance programs.
- I. **Next Meeting**
  - Wednesday, February 26, 2025 at 3:00 PM
- II. **Adjournment at 4:31 PM**

Goal- Orient EAB to:

The group

What we've learned

The resources

The work we've done

Collaborate on Solutions

Problems

UNPREDICTABLE RAINFALL

Extreme Rainfall Increasing Over U.S.

This chart shows the percentage of the land area of the contiguous 48 states where a much greater than normal portion of total annual precipitation has come from extreme single-day precipitation events.

EXTREME ONE-DAY PRECIPITATION EVENTS
Contiguous 48 states, 1900-2015

Nine-year weighted average

Individual years

Percent of land area

SOURCE: NOAA

InsideClimate News

PERCENTAGE (%) OF SURFACE RUNOFF ON A VARIETY OF SURFACES

2% — GOOD GROUND COVER

14% — FAIR GROUND COVER

73% — POOR GROUND COVER

85% — BARE GROUND COVER
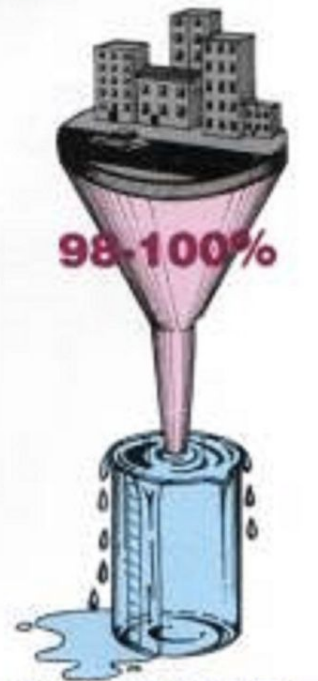
98-100% — CONCRETE/BITUMEN SURFACE/IMPERVIOUS

40% evapotranspiration

10% runoff

25% shallow infiltration

25% deep infiltration

Natural Ground Cover

38% evapotranspiration

20% runoff

21% shallow infiltration

21% deep infiltration

10%-20% Impervious Surface

35% evapotranspiration

30% runoff

20% shallow infiltration

15% deep infiltration

35%-50% Impervious Surface

30% evapotranspiration

55% runoff

10% shallow infiltration

5% deep infiltration

75%-100% Impervious Surface

Development increases the volume and rate of runoff from a site, and reduces groundwater recharge and evapotranspiration.

Soil Impacts
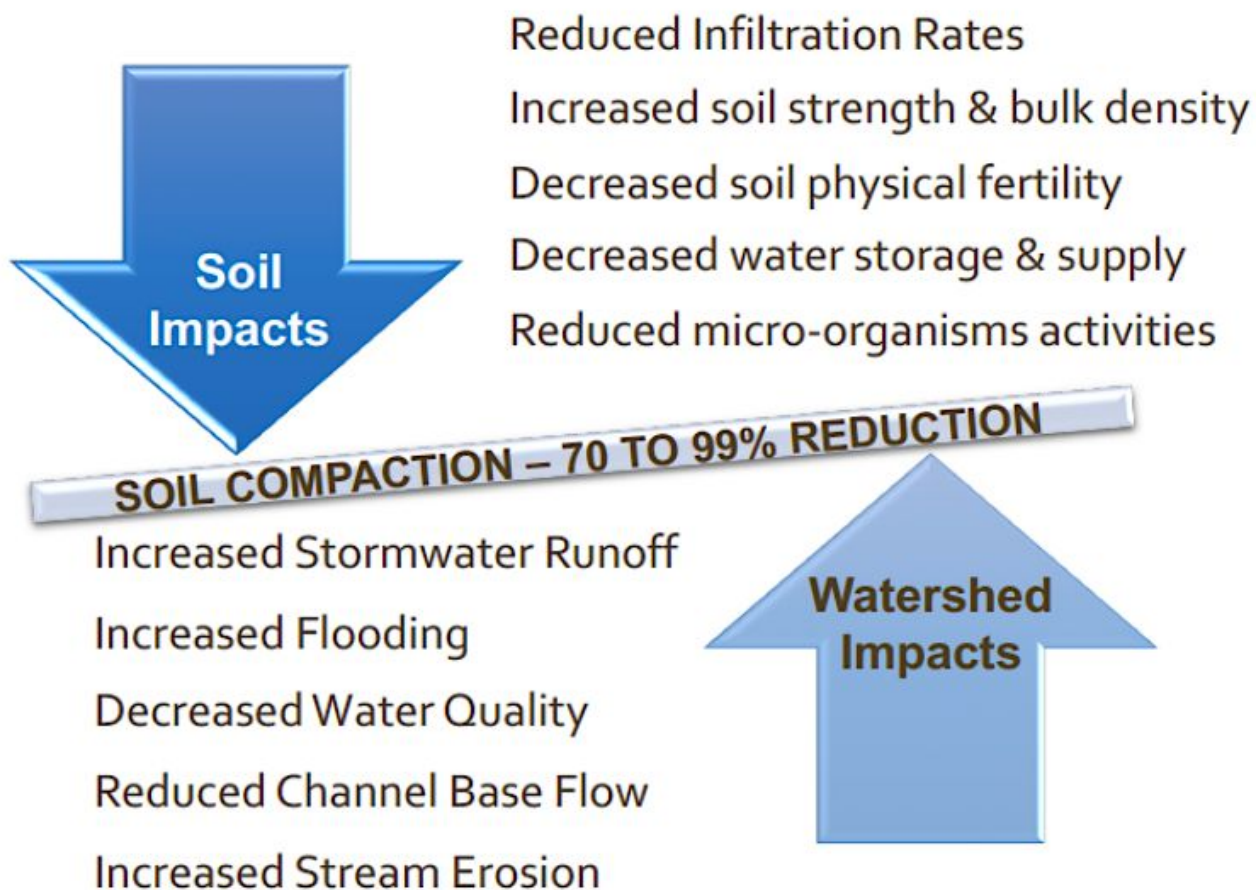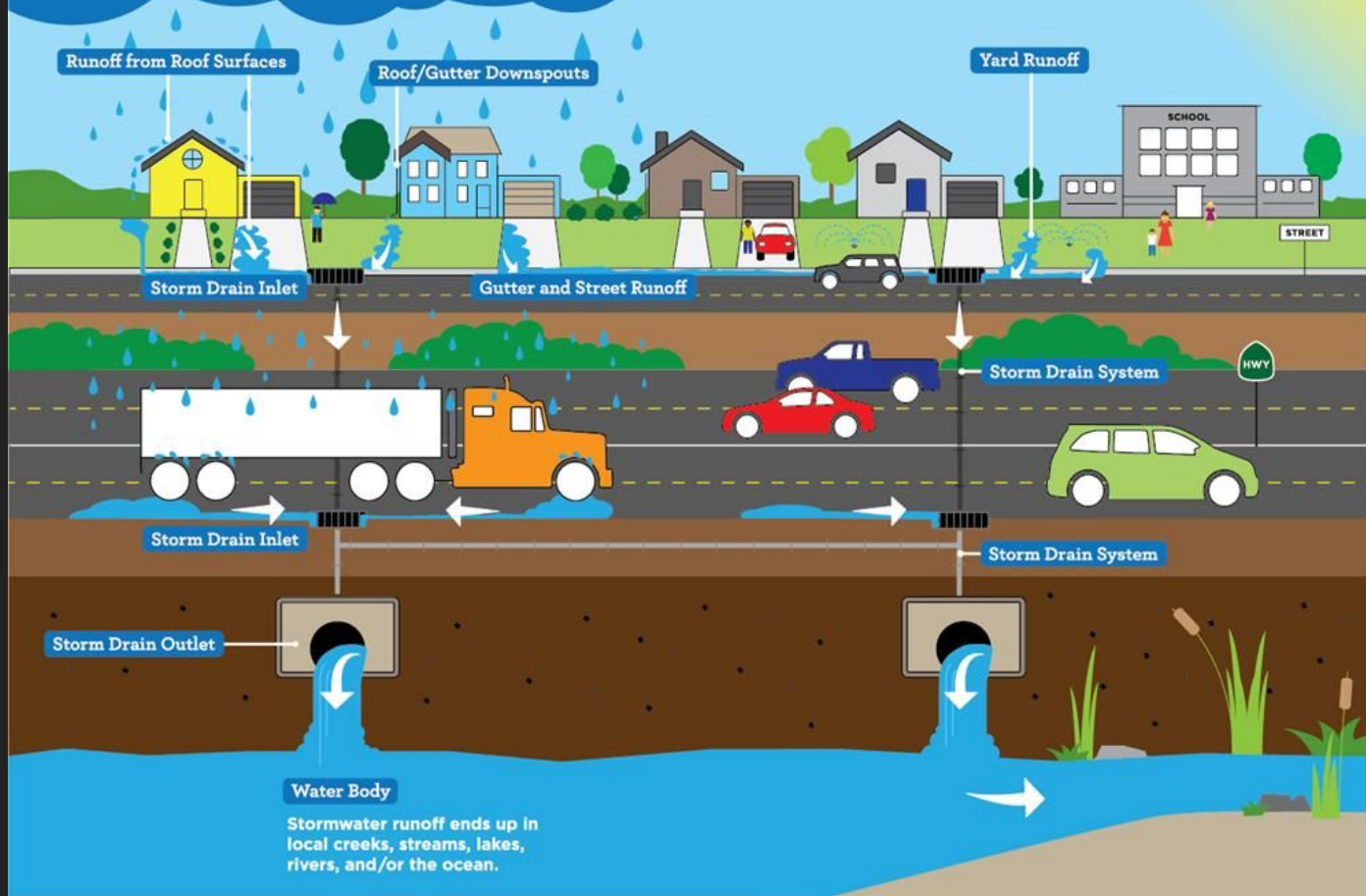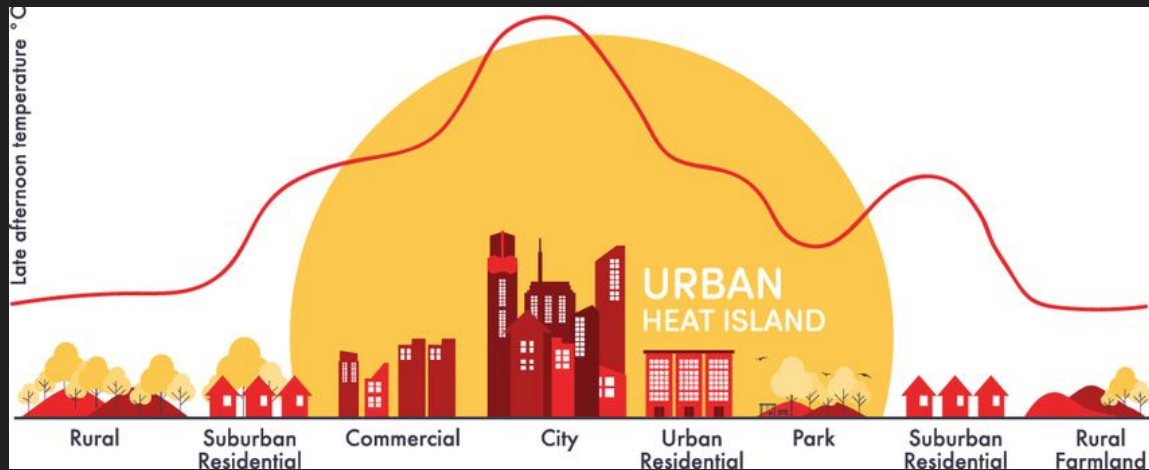- Reduced Infiltration Rates
- Increased soil strength & bulk density
- Decreased soil physical fertility
- Decreased water storage & supply
- Reduced micro-organisms activities

SOIL COMPACTION – 70 TO 99% REDUCTION

Watershed Impacts
- Increased Stormwater Runoff
- Increased Flooding
- Decreased Water Quality
- Reduced Channel Base Flow
- Increased Stream Erosion

Figure 2 - Watershed Impacts from Soil Compaction

Stormwater Runoff

Runoff from Roof Surfaces

Roof/Gutter Downspouts

Yard Runoff

SCHOOL

STREET

Storm Drain Inlet

Gutter and Street Runoff

Storm Drain System

HWY

Storm Drain Inlet

Storm Drain System

Storm Drain Outlet

Water Body

Stormwater runoff ends up in
local creeks, streams, lakes,
rivers, and/or the ocean.

The Problems are Interconnected

Why the urban heat island effect occurs

RURAL AREA

CITY

3° to 10°C hotter

Heat absorption and retention

GREATER

LESS

Plant transpiration and water evaporation from the soil

Water penetration
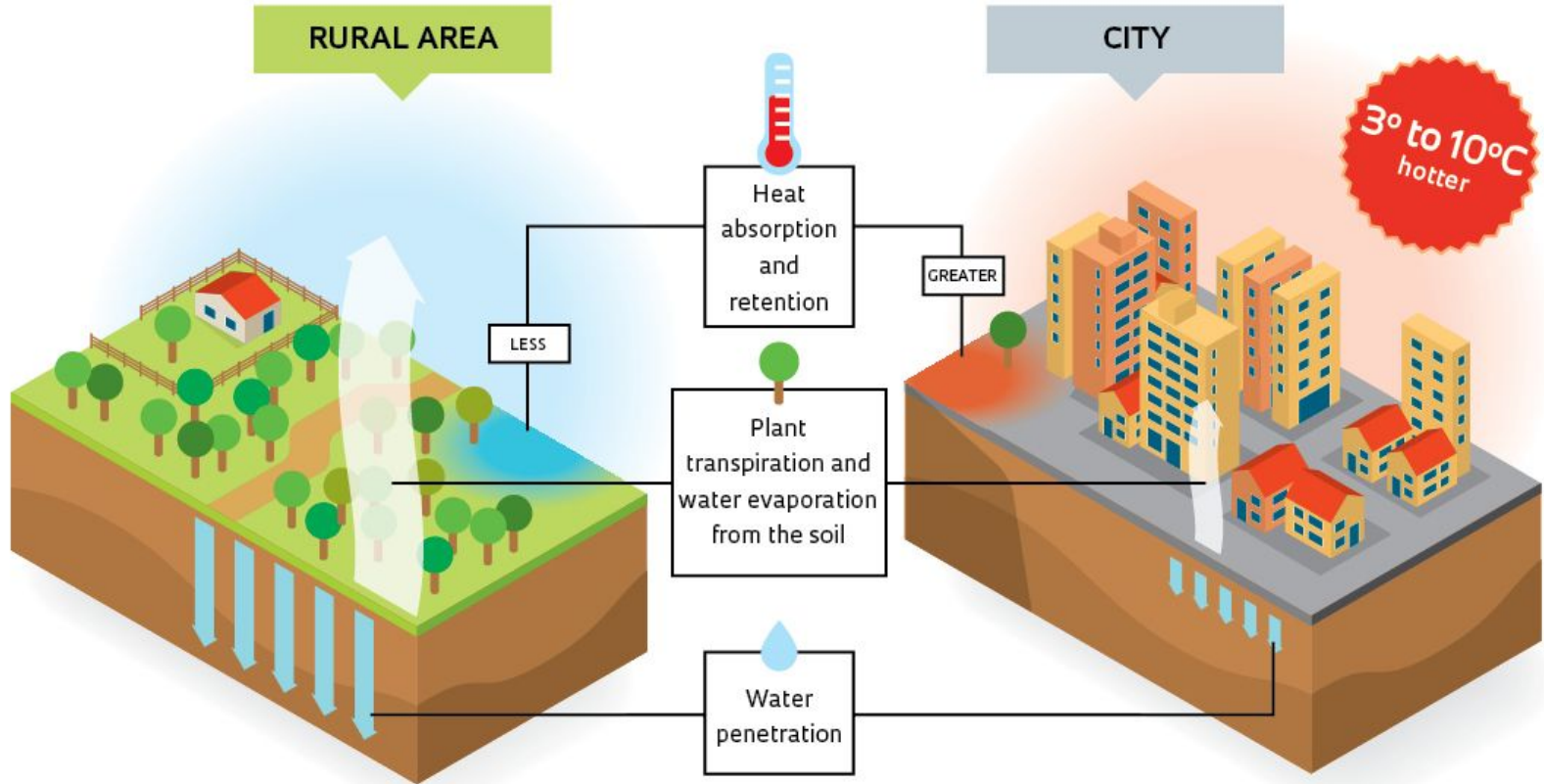
In a year, one tree…

…cools like **10 air conditioners** running continually.

…absorbs **750 gallons of stormwater**.

…filters **60 pounds of pollutants** from the air.

Earth Gauge

Cooling happens at the nexus of water, soil and vegetation

Before — COMPACTION

After

healthy soil has amazing water-retention capacity.

Every **1%** increase in organic matter results in as much as

25,000 gal of available soil water per acre.

Solutions

Water for the Recovery of the Climate

"Water for the recovery of the climate" refers to the concept that **by actively managing water systems and restoring natural water cycles through practices like rainwater harvesting, reforestation, and regenerative agriculture, humans can significantly mitigate climate change by regulating local microclimates and reducing extreme weather events**, essentially "healing" the climate through improved water retention on land. 🔗
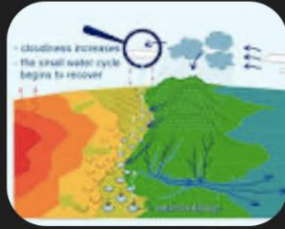
Key points about this concept:

The "small water cycle":

This concept emphasizes the importance of the local water cycle, where rainwater infiltrates the soil, evaporates, and returns as precipitation, which can be disrupted by human activities like deforestation and intensive agriculture. 🔗

Addressing climate at the nexus of water, soil & vegetation

Water: Slow it, Sink it, Spread it

Modifying the design of the urban landscape such that it retains, infiltrates and purifies the water that falls. Allowing for the cooling engine to do its work

How to do it?
→ Sponge Cities, Other terms that mean the same thing
Essentially, Green Infrastructure

Seems like a straightforward concept, but as we all know, in the context of a city, it doesn't end up being so

Opportunities

What We Learned and Now have Access to: Models for…

Equity-based GSI

Installation and maintenance across departments

GSI as workforce development

Funding mechanisms

Different implementation models

Policy

Regulatory mechanisms

Resources from Other Cities

GSI design manuals, training, curriculum

Standards and specifications

Models to quantify the impact of different GSI elements

RFP Templates

Kate England, GIP, ENV SP
Director of Green Infrastructure (City of Boston)

Harambee Park (BPRD | Dorchester)

Policy- all projects in ROW must include GI

    5 Design options

    Maintenance process

    Volunteer program

Maintenance contracts

    (1) porous pavement (2) landscape

    Maintain GI from all departments

    RFP process instead of low bid

Stormwater Fee

Jackson Mann Community Center (BCYF | Allston)

We're all in this together!

- GI Working Groups
  - Bi-monthly overall group
  - Three (3) subgroups: Coordination & Maintenance, Details & Specifications, Policy

- Capital requests for other departments' GI
  - e.g. $5 mil for Cummins Highway GI (Public Works)

- Construct GI with other departments
  - BPL, BPRD, BPS, PWD

What We Have Done Since Accelerator

SWOT

Actions, next steps

Monthly meetings

Green Infrastructure Accelerator – Team SWOT 12/4/24

Strengths
- Existing knowledge and want to implement GSI
- many partners interested in GSI
- OES has a hub for green innovation and special projects
- community involvement in GSI can be popular
- workforce development: KCB & GWORV
- CSN
- Strong non-profit presence
- Mayor/council/Manager buy in on need for GSI/natural stormwater solutions
- GSI accelerator resources
- dashboards of analogue types of projects, urban forestry, UTC, and air quality
- GSI implementation model, MSD has much experience building and maintaining GSI
- Green umbrella as a convenor
- Willingness to partner with various organizations

Weaknesses
- No one central point of contact for City GI
- City department silos and interdepartmental silos
- Hesitation from utilities to piggy pack on other dept lead projects
- No central location of project information for GI projects already constructed (knowledge lost)
- No city catalog or map of all GSI assets (age, type, owner, status)
- No clear vendor or contract that we can use to maintain assets
- City wide design construction maintenance standards
- Grant funding - then finding local match
- Creating a residential language for complicated info
- GSI as a budget item to departments who don't directly benefit
- No centralized fund for GSI or maintenance for depts to tap into
- GSI as a new maintenance item, lack of knowledge, care, budget, etc
- Lack of knowledge for how to plan for and maintain the assets

Opportunities
- Federal grant $
- Bipartisan Infrastructure Bil
- State funding H2Ohio or maybe Ohio River Basin Funding?
- Boston-like funding maintenance agreements
- Utilizing guidelines provided by webinars (taking approaches that other groups have and see how they fit in with our goals)
- GSI impact hub for modeling and making the case
- Create an innovative project that creates a new model for infrastructure
- Cinci Biochar as complementary initiative; need to highlight relevance for GSI
- GU Greenspace Alliance beginning to work with long-term planning - a way to incorporate GSI initiatives
- Implementation on private property
- Stellar boots on the ground orgs that have expertise in GI maintenance
- Lots of land to implement GI
- Need more partnership projects
- Data and tools already exist to quantify the benefits and we could use these

Threats
- Accessibility to funding
- funding for projects and maintenance
- IRA repeal possibility
- increasing storm severity and frequency more storm water runoff
- citizen opposition
- developers can dictate their willingness to incorporate GSI into their projects
- We have not embarked on a large-scale GSI project before - this is intimidating and partners might be unwilling to embark on the opportunity, but this can enable us to develop a system that addresses those concerns and works for our unique region

A Few Things to Highlight from SWOT- Strengths/Opps

Stakeholders assembled with an interest in pushing more GI forward

OES hub for green innovation and special projects

Climate Safe Neighborhoods- mechanism for community engagement

Areas for GI that we know would benefit MSD from a CSO perspective

Workforce development partners interested in the maintenance work

Technical experience with GI at MSD (but no funding for it for next 5 years)

Research partners

Term contracts as models that multiple departments can pull from

Biochar coming soon

Quick Spotlight on Biochar as a GSI Tool

Biochar as a complementary project

Can offer significant stormwater benefits

Need other departments bought in on biochar benefits to help make it as successful a project as possible

This is being done elsewhere:

Scaling Biochar in the Chesapeake

Stormwater manuals for WA State and Minnesota

Several efforts to develop standards and specifications for use of biochar in stormwater applications

Back to the nexus of water, soil & vegetation

Urban soils can be difficult

Biochar is a tool for supporting water and life in the soil and above the soil

Every square foot of soil can be considered a GI opportunity- build the sponge!

As the problems are interconnected, so are the solutions

A sponge city is **a city designed to absorb water and prevent flooding using green infrastructure**. These cities incorporate natural features like parks, lakes, and trees, and use permeable surfaces and green roofs.

How sponge cities work

- **Capture rainwater**: Sponge cities use green infrastructure to capture rainwater and release it slowly into rivers and streams.

- **Cool the city**: During hot weather, the water stored in permeable surfaces evaporates and cools the city.

- **Reduce flooding**: Sponge cities can reduce peak river flows by up to 65%.

Actions/Next Steps

Communication & Outreach

      Community outreach structure

      Inventory of what's already here

ID Potential Pilot Projects

      On City land and/or through other private/public partners who own land

Maintenance

      ID structure for maintaining GI assets (for multiple departments)

Financing

      Utilize resources available through GSI Accelerator

      ID opportunities for funding projects- grants, fees (impervious surface fee??)

Policy

      Direction from Council on including GI in projects (ex- Complete Streets)

      Ex from Boston- all new work in ROW must include GSI

What We Need

Signal and direction from Council that GI is a priority area for City

A coordinated structure for moving it forward (we have the start)

Policy and funding to support the work

A holistic framework

    GI as a climate management tool (as well as flood prevention, of course)

    Approach climate from the nexus of water, soil, & vegetation

How can we help?

Green Infrastructure Accelerator – Team SWOT 12/4/24

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- No centralized fund for GSI or maintenance for depts to tap into
- GSI as a new maintenance item, lack of knowledge, care, budget, etc
- Lack of knowledge for how to plan for and maintain the assets
- Lack of clarity around who maintains assets once they have been installed
- No GSI in MSD budget for the next 5 years
- Lack of enough GSI assets for MSD to justify maintenance staff (this can be solved for by including this as one piece of the larger workforce development programming already being done by partners in the GSI working group; or through multi-dept maintenance contracts)

Opportunities

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Action Brainstorm – from SWOT (1/13/2025)

Communication and outreach
- Need outlet for outreach & connection with the community (Margaux)
- Create central location of project information for GI projects already constructed & points of contact; catalog or map of all GSI assets (age, type, owner, status)

Potential projects/examples
- Create a map or understanding of hot spots where there are issues (NOAA data, landslide data and sewer back-ups)
- Create a space or outlet for reporting overland flooding? How does the County catalog this information?
  - Brand Lancaster, Tucson – example from Portland, OR- looking at CSOs for hot spots/priority areas
- Create list of examples & recommendations from other Cities/Municipalities (from accelerator)
  - Include funding examples too
- Identify pilot sites for potential implementation on City controlled land – and use modeling software to quantify benefits (software shown in accelerator session – **GSI Impact Hub**)
  - Identify types of infrastructure (curb cuts, bioretention swales, rain garden, etc.)
  - Have in location for CSN where community is already invested
- Inquiry to greenspace alliance members to GI research projects ~ help to identify pilot sites (Claire)
- Examples of projects that could happen in the ROW? What is possible?
  - Landscape design manual from Philadelphia in GSI Accelerator resources
- Other private/public partners that could get involved? (especially those who own lots of land) (County, UC, Schools, Hospitals)
- Seek opportunities to demonstrate the use of biochar as a stormwater management tool

Maintenance
- Maintenance agreements (MOU) of stormwater assets on City land (example DOTE builds, but would be maintained by other departments such as Parks or CRC)
- Term contract for maintenance of green-infrastructure assets (available for multiple departments)
  - Could be similar to the lawn & landscaping contracts currently used for mowing?
  - Is there additional funding for maintenance (grants or City funds?)
- Maintenance or landscape design guidebook (like Philadelphia)
- National GI maintenance certification program (bring to knowledge region)

Financing
- Utilize 'financial advisor' resource shown in accelerator to identify funding options for our area
- Create list for grant and funding resources that fits this work (Claire)
- Impervious Surface Fee – maybe just in the city of Cincinnati...

Policy
- Policy direction from Council on including GI in projects (example complete streets) ~ Boston as an example
- Identify partner who is able to move more quickly (Zoo?) that could lead here
- Can all City buildings/properties/new developments in ROW include some kind of GI element?