

GREAT LAKES REGION SUSTAINABLE MODELS FOR GREEN INFRASTRUCTURE MAINTENANCE

AUGUST 17–18, 2015

Executive Summary

Green infrastructure (GI) is defined as a strategy to alleviate stormwater overflow by utilizing natural conditions to slow the movement of water. GI helps to manage the flow of stormwater and mitigate flooding issues, and it has the potential to improve environmental quality and quality of life in the Great Lakes basin. However, on-the-ground practitioners face significant challenges that undermine their ability to install and maintain green infrastructure.

In August 2015, Cleveland Botanical Garden convened diverse GI stakeholders from across the Great Lakes region to develop consensus on how future conditions might be shaped to enable stakeholders to more easily install and maintain green infrastructure solutions in the Great Lakes basin. Through GI, Great Lakes communities can promote human, plant, and animal health while achieving economic development impacts from workforce development and the growth of the green job sector in landscape design and contracting field. Despite challenges, many practitioners are enjoying success. They are funding GI through a variety of sources, experimenting with resource-smart design, maximizing workforce development opportunities, and managing maintenance; however, much more could be achieved in a less complicated environment with more direct funding and better all-around coordination. This document summarizes the meeting's findings and includes handouts and notes from the meeting in the appendices.

Primary findings include:

- *GI can provide opportunities for social equity.* A variety of partners can help workforce development partners and social enterprises create meaningful work opportunities. Financial support for the creation and maintenance of high-road career lattices can offer a potential solution to the need for ongoing GI maintenance. Leveraging procurement language to prioritize local businesses and specifically those with workforce development partnerships can help those partners be more successful.
- *GI maintenance planning starts at the GI design phase.* The complexity of GI designs, including the number and types of design elements and plant species, should reflect actual maintenance capacity. Enabling GI maintenance contractors to provide input into GI designs may result in more easily maintained GI.
- *Give landscape professionals an opportunity to provide guidance about GI design* to ensure an achievable project with appropriate maintenance requirements. This requires open communication.
- *The community of practice needs to articulate GI as infrastructure with performance requirements*, rather than seeing GI installation as gardens. Too often GI is referred to as landscape design elements such as rain gardens, which provides a limited perspective of GI strategies and can force GI to conform to the aesthetic standards of a garden. In response to this, some groups are referring to specific installations as “stormwater control

measures” to specifically describe the end goal, while others use the term “natural infrastructure”.

- *The myriad of funding sources for GI—federal, state, local, public, and private—is unlike other infrastructure funds that are much larger and less complicated to access. The complexity of funding makes scaling up difficult, because it takes too much time to apply for, is very hard to manage and can be unpredictable. Additionally, there is very little funding for maintenance of GI over time.*
- *The variety of tools that could greatly help cities throughout the Great Lakes region make GI installation scalable are not well organized or easily accessible. For example, several entities had released design templates, open source design files, and example procurement language; however, these tools are scattered and not compiled in one easy-to-access location.*

BACKGROUND

Cleveland Botanical Garden hosts a program called *Vacant to Vibrant: Community Green Infrastructure*. *Vacant to Vibrant* is a multi-city initiative to identify best practices for transforming vacant urban properties into productive green infrastructure that ultimately preserves the quality of our Great Lakes with specific highlights in Cleveland, Ohio, Gary, Indiana, and Buffalo, New York. *Vacant to Vibrant* utilizes funding from the Great Lakes Protection Fund. Through its *Vacant to Vibrant* work, Cleveland Botanical Garden has met many practitioners in the green infrastructure space from across the Great Lakes region, and they are grappling with similar issues related to design, installation, workforce development, maintenance, and funding of both installation and maintenance.

On August 17–18, 2015, Cleveland Botanical Garden hosted professionals representing municipalities, sewer and environmental authorities, academic institutions, nonprofits, and for-profit design and maintenance contractors from across the Great Lakes region in Buffalo, NY to discuss the current state and future of green infrastructure maintenance in their communities and beyond.

The meeting was attended by the following stakeholders:

Local government officials: Cleveland, OH – Margaret Vanderbilt; Detroit, MI – Palencia Mobley; Gary, IN – Brenda Scott; and Peoria, IL – Mike Rogers.

Other taxing bodies: Erie County – Mary Rossi; Northeast Ohio Regional Sewer District – Matt Scharver; Milwaukee Metropolitan Sewage District – Lisa Sasso; and South Suburban Land Bank and Development Authority – Russell Rydin.

Community development corporation/workforce development nonprofits: Center for Employment Opportunities – Jamie Omerhodzic; Detroit Economic Growth Corporation – Malik Goodwin; Detroit Future City – Erin Kelly; PUSH Buffalo – Jenifer Kaminsky, Rahwa Ghirtmatzion and Joshua Smith; and Grandmont Rosedale Development Corporation – Chelsea Neblett.

Landscape design contractors: Buffalo Niagara Riverkeeper – Jeffrey Tunkey; Detroit Farm and Garden Classic – Jeff Klein; Hamilton Anderson Associates – Melissa Hollingsworth; and New Vista Enterprises – Michael Supler.

Great Lakes nonprofits: Alliance for the Great Lakes – Angela Larsen; Cleveland Botanical Garden – Sandra Albro and Ryan Mackin; Delta Institute – Bill Schleizer and Eve Pytel; and Illinois-Indiana Sea Grant – Eliana Brown.

Property developers and managers: Burton, Bell, Carr Development Inc. – Sherita Mullins and Buffalo Niagara Medical Campus – Mark McGovern.

The meeting attendees convened on the evening of August 17 to tour the Push Green Development Zone. Jenifer Kaminsky and Rahwa Ghirtmatzion showcased green infrastructure installations and the greenhouse where they grow plan materials, and they shared their vision of green infrastructure and workforce development. On August 18, attendees reconvened to discuss best practices and their lessons learned. This document details those findings.

FINDINGS

Meeting attendees shared how they were overcoming challenges and focused their findings around needed tools and resources, design recommendations, multidisciplinary collaboration, workforce development, and the need for larger and less complicated funding models. This section describes the ways in which practitioners are overcoming challenges, their recommendations, and the potential impact of the recommendation.

How Practitioners are Overcoming Challenges to GI

How practitioners are funding the installation and maintenance of GI include:

- Hardest Hit funds
- Drainage charge
- Housing and Urban Development Funds
- Foundation
- Property owner fees
- General operating funds
- Social enterprise fee
- Redevelopment / Casino
- Sideways / Leverage
- NY Permits
- Escrow
- Diverting from other projects
- Pull from parks
- Cleveland STEM – Growing power
- Climate ambassadors
- Section 13 local watershed
- MS4 Education funding – MI City
- Milwaukee Metropolitan Sewerage District (MMSD) funds installations and signage from Capital and Operations and Maintenance budgets
- Instillation – Cleveland template
- Rain Tax Rock Island

Resource-smart design approaches:

- Give landscape professionals access to provide guidance to decisions about design, they can get achievable project with appropriate maintenance. This requires open communication.
- Ensure that plant replacement for the second and third year and beyond are considered.

Strategies to maximize workforce development opportunities:

- Use institutional stakeholders, such as schools, to maintain grounds, because they already have grounds covered and install GI there.
- ILSEA Grants
- Private / corporate and other agents could fund work in other geography to bank mitigation impact
- Public works departments
- Green works/green teams
- Mayor's Youth Program (Peoria)
- University of MN – St. Anthony Falls – maintenance check list
- Detroit has integrated water management
- MMSD conservation easement/maintenance easement/maintenance covenant for maintenance

How municipalities are managing maintenance:

- Organizing the community to request maintenance assistance
- Connecting to affordable trainings
- Workforce development agencies can be successful respondents to city RFP for maintenance and installations

Municipal and Local Government Procurement and Project Management Recommendations

Recommendation M1: Develop a suite of tools or share existing tools, such as procurement tools (standard/model RFP and RFQ language) and design templates and specifications, to reduce time and cost of getting green infrastructure underway and to improve outcomes and enable municipalities to share tools. Identify opportunities to ensure equity by prioritizing local firms that may also be minority-, women-, or veteran-owned businesses and those firms with workforce development partnerships.

Recommendation M2: Cities need to assess their existing conditions in specific ways to avoid wasted time and expense. Specifically, cities should do an underground utilities scan, include the scan in their GI RFP, and develop site characteristics that make the site either particularly good or bad for GI (e.g., an index that deprioritizes brownfields with known contaminants that should not be a potential site for GI).

Recommendation M3: The community of practice installing GI, which includes funders, NGOs, and local governments among others, must be more proactive with funding to mitigate seasonality challenges to improve success and plant survivability. Because certain plant materials must be planted in the spring or fall, funders that fast-track funding to install green infrastructure by specific dates (that may not be aligned with planting requirements) are undermining the success of

their GI installation. Additionally, local governments need to better align GI project needs with existing funding streams.

Recommendation M4: The community of practice installing GI, which includes funders, NGOs, and local governments among others, should continue to dialog with each other to share lessons learned.

Recommendation M5: Create a procurement mechanism that enables designers to be paid for assistance to municipality in planning the project. Enable landscape professionals to provide guidance on design decisions to achieve project with desirable appearance and appropriate maintenance.

Recommendation M6: Reduce barriers to GI installation by streamlining permitting process; updating ordinances for GI components such as curb cuts, downspout disconnects; and loosening requirements for sewer overflow connections and set-backs that can be addressed with adjustments to GI volume capacity.

Implementation of municipal recommendations could achieve the following impacts:

- ✓ Controlled appearance thanks to design templates
- ✓ Reduced staff time developing new tools
- ✓ More predictable outcomes thanks to consistent procurement and design tools
- ✓ Select better locations for GI to reduce failed installations and waste resources
- ✓ Reduced contractor expenses due to underground utility challenges
- ✓ Increased cost savings or better budget control due to streamlined designs

Landscape Design Recommendations:

Recommendation L1: Articulate GI as infrastructure with performance requirements rather than landscaped design elements or gardens. While prioritizing direct benefit of stormwater management over co-benefits such as social equity and aesthetic, look for opportunities for equity and aesthetic improvements.

Recommendation L2: Emphasize function over form by using both easier to maintain plant materials and easier to install and maintain plans. The number of design elements, including the number/species of plants, should reflect actual maintenance capacity. Currently, design practitioners tend to underestimate the actual maintenance requirements of native plants and high plant biodiversity.

Recommendation L3: Utilize consistent design with predictable metrics, e.g. New York State, Portland Oregon, Chicago Metropolitan Water Reclamation District or Delta Institute templates.

Recommendation L4: Invest in flow measures to be able to quantify impact of installations, e.g. gallons of stormwater treated or project gallons of discharge/overflow mitigated.

Implementation of landscape design recommendations could achieve the following impacts:

- ✓ Reduced staff time developing new tools
- ✓ More predictable outcomes thanks to consistent procurement and design tools

- ✔ Select better locations for GI Reduced contractor expenses due to underground utility challenges

Workforce Development Recommendations:

Recommendation W1: NGOs, land managers and local governments should maximize workforce development opportunities from GI to achieve dual benefits of high-road green career opportunities and mechanisms for ongoing maintenance

Recommendation W2: Create standard requirements (e.g., certification, curricula) for GI workforce training.

Recommendation W3: Market workforce trainees with GI experience to landscape firms seeking to build capacity.

Recommendation W4: The civic sector and others should encourage businesses hiring laborers with little experience to hire workforce development participants.

Recommendation W5: Public land managers installing GI should leverage workforce development programs for installations and maintenance.

Recommendation W6: Seek partnerships with landscape contractors and acknowledge existing landscape contractor businesses.

Recommendation W7: Improve the quality of GI jobs by reducing seasonality impacts to GI workforce programs, urging wage consistency, streamlining permits, and helping mitigate risk of working on vacant land.

Implementation of workforce development recommendations could achieve the following impacts:

- ✔ Increased job and skill-building opportunities for residents
- ✔ Increased placement of workforce trainees to private landscape businesses
- ✔ Decreased training costs with more predictable outcomes

Funding Recommendations:

Recommendation F1: Review local, state, and federal funding to identify the least cumbersome ways to publically fund GI that is in the public right of way. GI in the public way could potentially utilize roadway funds that pay for sewers.

Recommendation F2: Create framework to leverage sanitation agency consent decrees to fund ongoing maintenance.

Recommendation F3: Acknowledge the need to fund GI installed on public and private lands differently.

Recommendation F4: Coalesce around performance standards to make GI conform to specific infrastructure requirements to enable states to more easily fund GI in the public way.

Recommendation F5: Those funding GI should consider ongoing support for maintenance either by providing funding for maintenance or encouraging applicants to identify how they might fund maintenance.

Recommendation F6: Encourage agencies to require ongoing maintenance for stormwater permits to create awareness of the need for long term maintenance.

Recommendation F7: Prioritize GI requests that integrate workforce development opportunities in installation and maintenance to improve the social impact of GI.

Implementation of funding recommendations could achieve the following impacts:

- ✓ Increased public funding for installation and maintenance
- ✓ Reduced administrative cost of multi-funder GI installations
- ✓ Consistent maintenance results in better GI performance

APPENDICES

Monday, August 17

- 6pm Check-In and Networking
- 6:30pm Tour of PUSH Green Development Zone
- 7:30pm Dinner

Tuesday, August 18

Setting the Stage

- 8am Breakfast
- 8:30am Welcome and Introductions
- 8:45am Problem Statement: *State of green infrastructure operations and maintenance: overview of challenges and high-level case studies of what is being done*
- 9am Case Study: *How PUSH facilitated conversation with practitioners; different actors in the decision making and implementation chain*
- 9:15am Assessing your city's existing capacity for GI maintenance
Valuing and prioritizing resource, social and financial capacity needs

Understanding the Capacity to Maintain

- 10:15am Budgeting: What maintenance funds are needed and when?
Traditional and innovative ways to pay for maintenance
- 11:15am *Resource Smart Design* – maintenance considerations when selecting GI installation
Social Capital – maximizing workforce development opportunities
Municipal Management – how municipalities are managing maintenance
- Noon Lunch
- 12:30pm Expanding Landscape Contractor Capacity
Get existing firms to add skill and leverage workforce trainees
Policy tools: local, state and federal policy mechanisms
- 1:30pm Converting Cost to Value: Full cost accounting for both green/grey infrastructure, forecasting maintenance costs
- 1:45pm Wrap up and next steps

Green Infrastructure Community Assessment for Maintenance Capacity

Forecasting Post Installation Resource Needs

BACKGROUND: Stakeholders have opted to install green infrastructure, which will require an ongoing to commitment for maintenance.

NOW WHAT?

GOAL: Assess your community's short term and long term capacity for green infrastructure maintenance

PART 1: IDENTIFY RESOURCE STAKEHOLDERS:

Review the list of stakeholders below and ADD regional/ local stakeholders from your community who should be engaged in a discussion about green infrastructure maintenance. What do they bring to the table?

CITY OF: _____

- Local supportive elected officials
- City Planner, Public Works & Natural Resources Mgr
- Metropolitan Planning Organization
- State Department of Environmental Management
- State Economic Development Department
- State Finance Authority
- State Department of Workforce Development
- Community Development Agency and/or Chamber of Commerce
- Local Engineers
- Local Workforce Development Agency
- Local Community Colleges
- Local Landscape Designers and Contractors
- Local Environmental Groups
- Local Universities/Botanical Gardens and Arboretums
- Federal Agencies
- Nurseries and Tree Farms
- **Additional Partners**

Expertise	Financial	Labor	Policy	Advocate	Other

PART 2: ASSESS THE EXISTING CONDITIONS (5 minutes)

Discuss how you might assess the existing conditions and what questions you should answer.

STARTING QUESTIONS

- Where are you going to install GI?
- What do you know about stormwater management at that location?
- How much do you know about the site?
 - Is the land use type industrial, residential, commercial or mixed?
 - What is the site's proximity to transportation infrastructure (rail, road, river)?
 - Who owns the site now and who has owned it over the last 50 years?
 - What types of users were they? Previous heavy industrial users may suggest contamination.
 - What is the land use and zoning for that area?
 - What does the community want from that space?
- Are there labors that may work for the City or a partner agency, who could maintain the GI?
- Are there local contractors who could maintain the GI?
- Do either city or local contractor labors have the skills or expertise to maintain your GI?

WHAT OTHER QUESTIONS MIGHT YOU ASK?

IMPORTANT CONSIDERATIONS

- **ECOSYSTEM SERVICES**
- **LAND USE**
- **ECONOMIC**
- **TRANSPORTATION**
- **ECONOMICS**
- **AESTHETICS**
- **REDEVELOPMENT**
- **HISTORIC PRESERVATION**
- **COMMUNITY NEEDS**
- **WORKFORCE DEVELOPMENT**

My questions

PART 3: READINESS FOR MAINTAINING GREEN INFRASTRUCTURE

GI Maintenance Criteria	Yes	No
Financial resources: Funding or mechanisms for green infrastructure maintenance.		
Financial resources: Ability to use municipal funds typically used for gray infrastructure and economic development		
Financial resources: Ability to leverage capital funds for maintenance.		
Human capital: Skilled professional manager for landscape design and contracting		
Human capital: Skilled and unskilled laborers for maintenance		
Human capital: Workforce development partner or community college for training workforce. Human capital: Workforce development partner or community college for training workforce.		
Landscape design: GI guidance to ensure that GI installation is achievable.		
Landscape design: GI guidance to control for appearance and maintenance,		
Landscape materials: access to replacement plant materials		
Policy:		

August 18, 2015
 8:00 – 2:00 pm
 237 Main Street
 Suite 1200, Buffalo, NY
 GLBC Regional Meeting Notes

<i>Municipal Government</i>	<i>Other Taxing Body or Land Bank</i>	<i>Great Lakes Non Profit</i>	<i>CDC or Workforce Non profit</i>	<i>Landscape</i>	<i>Other</i>
Brenda Scott Henry, City of Gary	Lisa Sasso Milwaukee Metropolitan Sewage District	Angela Larsen, Alliance for the Great Lakes	Chelsea Neblett, Grandmont Rosedale Development Corporation	Jeffrey Tunkey, Buffalo Niagara Riverkeeper	Mark McGovern, Buffalo Niagara Medical Campus
Margaret Vanderbilt, City of Cleveland	Mary Rossi, Erie County	Bill Schleizer and Eve Pytel, Delta Institute	Erin Kelly, Detroit Future City	Jeff Klein, Detroit Farm and Garden Classic	Sherita Mullins, Burten, Bell, Carr Development, Inc.
Mike Rogers, City of Peoria	Matt Scharver, Northeast Ohio Regional Sewer District	Eliana Brown Illinois-Indiana Sea Grant	Jamie Omerhodzic, Center for Employment Opportunities	Melissa Hollingsworth, Hamilton Anderson Associates	
Palencia Mobley, City of Detroit	Russell Rydin, South Suburban Land Bank and Development Authority	Ryan Mackin, Sandra Albro, Cleveland Botanical Garden	Jenifer Kaminsky, Joshua Smith, Rahwa Ghirtmatzion, PUSH	Michael Supler, New Vista Enterprises	
			Malik Goodwin, Detroit Economic Growth Corporation		

8:30 AM Welcome

Sandra Albro welcomed attendees to the meeting. Attendees received a brief overview of the day and introduced themselves. They shared words that green infrastructure and stormwater evoke for them.

Those included:

Swale	Earthworms	Food
Moist	Vibrant	Expensive
EPA	Life	No Maintenance
Sand	Disconnect permit	Scalable Impact
Beechwhistle / Poop	Environmental task force	Holding strategy
Living (Infrastructure)	No mow fescue mix	Stabilization
Transformation	Manage water where it falls	Justice
Moist	Bee a rainkeeper	Confused
Jobs	Infrastructure	Successful (Infiltration)
Snowmelter	Wetlands	

8:45 AM Problem Statement

Sandra Albro briefly discussed the state of green infrastructure operations and maintenance. She asked attendees to share their experience to help achieve a future where GI is an important and well utilized tool for improving environmental quality and quality of life in the Great Lakes Basin. By developing consensus on what future conditions should be, we as Great Lakes stakeholders can advocate or plan for how to get there.

By doing so, we hope reverse the impacts of the current situation where the impact of the current situation is fewer installations and poorly maintained installations keep the Great Lakes Region from embracing GI solutions which promote human, plant and animal health with economic development impacts from workforce development and growing green job sector in landscape design and contracting field.

Sandra also discussed the need to better align green infrastructure cost models with grey infrastructure cost models to emerge at an apples to apples comparison for impact.

9:00 AM Case Study: PUSH

Jenifer Kaminsky provided an overview of how PUSH facilitated conversation with practitioners and incorporated different actors in the decision making and implementation chain.

9:15 AM Assessing your city's capacity for GI maintenance to value and prioritize resource, social and financial capacity needs.

Eve Pytel facilitated a three-part exercise to assess community capacity for maintenance.

Part 1: Pairs identified resource needs who could provide expertise, financial, labor, policy, advocacy or other capital. The following were identified:

- Local supportive elected officials
- Individual Residents

- Community Groups
- Sewer Authority
- City Planner, Public Works and Natural Resources Manager
- Metropolitan Planning Organization
- State Department of Environmental Management
- State Economic Development Department
- State Finance Authority
- State Department of Workforce Development
- Community Development Agency and/or Chamber of Commerce
- Local Engineers
- Local Workforce Development Agency
- Local Community Colleges
- Local Landscape Designers and Contractors
- Local Environmental Groups
- Local Universities/Botanical Gardens and Arboretums
- Federal Agencies
- Nurseries and Tree Farms
- Foundation partner

Attendees identified that residents, philanthropists, land trust, sewer authority, labor and finance were not adequately reflected and that they are needed before, during and after installation.

Part 2: Pairs discussed what questions or concerns they would consider with respect to GI through the lens of knowing what they know now, what questions should they have asked or been concerned about.

Attendees reflected on several issues:

- Site issues and long term control
- Long term interest in the GI
- Get less fussy and complicated with GI installations
- Getting clarification on getting credit and potential payment from sewer authority or other body
- Planning for plant replacement in year 2-5
- Better cost estimate on maintenance needs
- Implications of GI in the public right of way versus on private or other property
- Better ideas and plans for metrics

Part 3: The attendees reflected on specific types GI maintenance criteria with most attendees that financial resources for maintenance is amongst the most needed asset. Accounting, metrics, performance measures, and strong facilitators to move GI forward were identified in addition to the following criteria to determine capacity to install GI:

- Financial resources: Funding or mechanisms for funding green infrastructure maintenance.

- Financial resources: Ability to use municipal funds typically used for gray infrastructure and economic development
- Financial resources: Ability to leverage capital funds for maintenance.
- Human capital: Skilled professional manager for landscape design and contracting
- Human capital: Skilled and unskilled laborers for maintenance
- Human capital: Workforce development partner or community college for training workforce.
- Landscape design: GI guidance to ensure that GI installation is achievable.
- Landscape design: GI guidance to control for appearance and maintenance,
- Landscape materials: access to replacement plant materials

10:15 AM Budgeting - what maintenance funds are needed and when? Traditional and innovative ways to pay for maintenance

Where is money now?

Hardest Hit funds	Pull from parks
Drainage charge	Cleveland STEM – Growing power
HUD Funds	Climate ambassadors
Foundation	SXN 13 local watershed
Property owner fee	MS4 Education funding – MI City
General operating funds	Milwaukee Metropolitan Sewerage District (MMSD) funds installations and signage from Capital and Operations and Maintenance budgets
Social enterprise fee	Other resources to offset financial need
Redevelopment / Casino	IL Master Naturalist Labor
Sideways / Leverage	Volunteers*
NY Permits	
Escrow	
Diverting from other projects	

** Several attendees noted that volunteers are not free because volunteer management is critical to making that work well.*

Where should money come from?

Embrace partners	Rate payers / stormwater fees
Public private partnerships	Planning / transportation funds
Permit / deed restrictions	Metropolitan Planning Organizations
Stormwater permit with maintenance req. (NY State / sewer authority)	Offset for large producers

How do we evolve?

Improved consistent training / signage	Leverage other infrastructure
Improved standards	Accountability mechanism
Abbreviated training	Simplify installation
Pictures of emergent plants (Gary has)	Offsite mitigation in lieu of fees

Mitigation banking
 Utilize workforce labor model subsidy
 Court community service
 Vocational rehabilitation
 Leverage other trainees
 School – Community
 Place GI in place where it creates value i.e. corporate campus
 Adopt a park, utilize corporate foundation for maintenance
 GIS model
 Plan maintenance
 Forecast performance
 Decision support for maintenance
 Inventory to enforce / inspect
 Long term control plan for sewer
 Put GI in Right of Way in consent decree
 Distinguish purpose of GI
 Purpose
 Private / public owner
 Accept that co-benefits need to be funded by other organizations that desire the generated cobenefit
 Landscape architects don't lead and don't dictate but they can significantly change maintenance costs. Needs to be early

Engage community
 Fund planning
 Engage proactively with many private actors such as smaller landscape firms, not just big companies
 Public needs to follow private sector projects
 Understand full process work categories and align with funds
 Look for municipal budget category to align aspects of GI project with
 Full strategy
 Comprehensive budget needs
 Timelines
 Multiple other funding opps
 Direct alignment with municipal budget
 Detroit / commercial fee / drainage charge
 Clarify business incentives so businesses can be confident in investment
 Ecosystem values
 Leveraging multiple funds
 Improve building and other codes
 Strategy has to prioritize geographic focus
 Articulate benefits

11:15 AM The budget conversation continued with participants divided into three focus groups: landscape design and contracting; workforce and community economic development and municipal management.

	Landscape	Workforce/CDC	Municipal
	Resource smart design: maintenance considerations when selecting GI installation	Social Capital - maximizing workforce development opportunities	Municipal management - how are municipalities managing maintenance
How are we?	When landscape professionals have access to provide guidance to decisions about design, they can get achievable project with appropriate maintenance. This	Schools / ed / school districts have money to maintain grounds ILSEA Grants Private / corporate and other agents could fund work in other geography to bank mitigation impact Public Works	Organize community to request These benefits – CBA In procurement process, orgs learning to well respond to city RFP When season can be extended Affordable training?

	requires open communication.	Green works/green teams Mayor’s Youth Program (Peoria) University of MN – St. Anthony Falls – maintenance check list Tipping points (planning / education) Detroit has integrated water management MMSD has conservation easements/maintenance covenants	Connecting to affordable trainings “I really just want a job”
How can we?	Open communications Respect for expertise Enough site information is known to mitigate risk Client expectations are realistic.	Develop curriculum (green job training) – pair with companies for actual jobs Integrated water utilities: drinking, sanitary, stormwater Strategic implementation approach – public / private partnerships RFQ – open source – provide / get a list of vendors Integrated muni dept (trans, parks, planning, water)	Promote workforce development to someone hiring laborers with little experience. Put GI into workforce development pipeline Workforce development participants know where to go for help Good places to post hiring calls. Performance based agreement
When can’t we?	Site unknowns Lack of coordination and collaboration result in work stoppage. Work stoppage is significant risk Funding constraint requires installation at suboptimal time such as peak summer which will reduce survivability Scarcity in budget does not allow for future replacement planting	When there is not collaboration (between muni management department) & utilize government agencies No comprehensive implementation strategy Union requirements (value – untapped partner – especially over long-term period) Will stop work if not at-the-table Sole source procurement Laws that don’t allow youth to the involved (liability)	Grants limit size conditions Funding stream issues Educational background Lack of community support or engagement

12:00PM Lunch

12:30 PM Expanding Landscape Contractor Capacity. How can we get existing firms to add skill and leverage workforce trainees? How can we make it easier for landscape design and installation to be successful? Are there policy tools: local, state and federal policy mechanisms and needed tools?

Landscape RFQ / RFA

- Lack of clarity
- Not getting questions answered
- Client must have clarity on desired outcome.
- More consistency in bids
- RFQ / looking for community
 - o Bid on individual projects
- Nonprofit / Landscape
 - o Subsidize with expertise
- Municipal processes
- It is a hardship to unfunded parties to need to provide so much unfunded expertise to municipalities and other partners.

Landscape

- To permit or not to permit
- Personal code interpretation
- Design manuals NY
- Municipal expertise / enforcement
- Integration / Continuing Education credits
- Examine business to business opportunities
- Invite scope writing
- Tax deductible options for pre-submittal conference consultation and expertise.
- Encourage local competition
- Create ways to leverage bid bond / insurance support from bigger firms to smaller firms to enable small firms to compete.
- Seasonality vs funding dates
- Funding needs to be aligned with seasonality
- Extend period
- Inform funders
- Fall vs Spring guidance
- Plant materials need 1 full year with 1 appropriate plant season
- Maintenance regs / life cycle

How can we mitigate site unknowns to make GI installation better?

- Municipality / Phase I
- Underground utility scan
- Leverage University for soil / timing challenges
- Prioritize geography
- Get strong facilitators and create a strategy for decision making
- When a site is being demolished and it is going to GI, can we get demo contractor to leave site excavated to reduce excavation cost.
- Brainstorm around loss mitigation

- Cheaper for landscape contractor to suffer loss and install, even when client should provide change order because onsite complication is too much.

What can be done in discovery to reduce risk?

- Underground utility scan
- Prevailing wage
- Prepay
- Risk management / time
- Checking payment / forms
- Overcome challenge that big firms don't want to do work and small firms can't afford it work on GI because municipalities are too hard to work with.
- Manage equipment cost for excavation better.
- Improve communication on site issues. Specifically on soil issues, and funding constraints.
- Vacant lot / risk
- Don't know until you get on site / change order
- Demo spec to control fill and compaction
- Determine site characteristics for cities so we don't try to do GI on brownfield sites. IE We know not to use sites in Cleveland pre 1990 – 2000 because basements were not fully removed.
- Improve site selection
- Clarify roles / responsibilities
- Municipalities need to manage and identify who does what for the contractor
- Different funding sources have constraints/ City might not be able to supplement shortfall

2 PM Meeting Close: At the meeting close Sandra Albro asked everyone to share their final thoughts and what they want the most moving forward. Prior to opening that session, Sandra shared the Potential outcomes of convening; Common ground on the challenges to GI maintenance, Common future vision about design/implementation/workforce solutions that can drive down costs of GI and make green jobs available to all; Sharing of lessons learned and how other Great Lakes stakeholders are addressing challenges and generating an advice to funders document.

- Standard requirements for workforce training
- Communication / listening / articulation
- Improved communication.
- Privileged to dialog and tap into others. Visit us
- Gives me a road map. Communication, need to ramp up
- Brand new experience. Interesting. We need less rain
- 1 minute elevator pitch – community / knowledge
- Design guidelines to consider maintenance
- Partnerships / buy in
 - o Let's try to act in concert
- More of this multidisciplinary conversation
- New ideas, more funding
- Partnerships & collaboration

- Excited / want to share how we did it
- Contractors care / had to see your work not maintained
- Landscape needs to listen to installer
- Time, space, to install and evaluate
- Workforce sector and good wages
- Entry level job training
- GI Installation specs & criteria
- Collaboration. Use resources, glean best practices, and share lessons learned
- Additional admin, facilitation, experienced GI facilitators
- Municipal training education, site plan to implementation to maintenance
- Internal resources to make the water department get there
- Everybody integrated from the start
- Long term commitment
- Conversation + more operating + admin so I could do the business planning and evaluate
- Monitoring / Data report out / Permitting – what / how