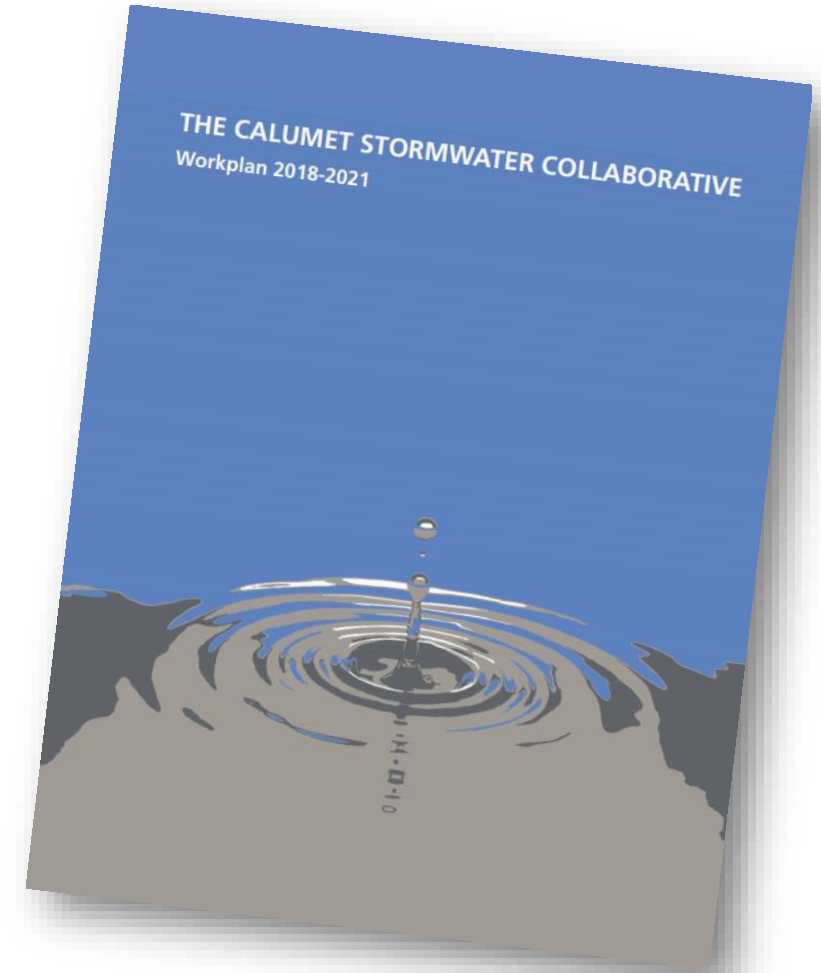


# CSC 3-YEAR WORKPLAN YEAR-1 UPDATE

# CSC 3-year Workplan

- Thanks for your time and insight in formulating—and now executing—this body of work!
- Launched Oct. 5, 2018 = 14 months
- How are we doin'??

[metroplanning.org/calumet](https://metroplanning.org/calumet)



# Fundamental Goals

Significant reduction in non-overbank flooding

Grey and green infrastructure maintains its designed performance over time

Increase municipal capacity and reduce fragmentation across Calumet government actors

Data-driven decision-making is more prevalent in stormwater management planning

# Multi-year, phased approach

## PHASE 1: Foundational Activities

- Developing baselines and trainings
- Measuring near-term successes
- Refinement

## PHASE 2: Prioritized Strategies & Capacity Building

- Utilizing outputs from Phase 1
- Strategic direction of future activities
- Refinement

## PHASE 3: Targeted Implementation

- Advancing targeted activities
- Measuring long-term successes
- Refinement

# Phase 1: Foundational Activities

## ACTIVITY 1

- Establish a baseline of existing green infrastructure

## ACTIVITY 2

- Establish a baseline of non-overbank flooding

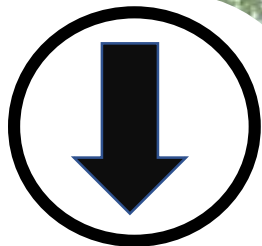
## ACTIVITY 3

- Develop and begin to execute systems to provide relevant training and strengthen management systems to bolster green infrastructure implementation and maintenance

## ACTIVITY 4

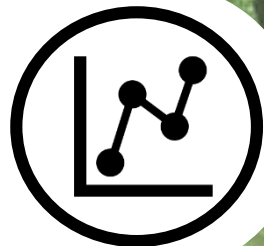
- Establish a baseline of municipal capacity in stormwater management

Non-overbank  
flooding



Do we need it?

Data-driven  
planning



Can we do it?

Establish baseline of existing green infrastructure

**WHAT WE FOUND**

What will we do with it?



**Existing GI**

**New GI**

# WHAT WE FOUND

Who will use it?

+ Funders/Researchers

Regional Planners & Agencies

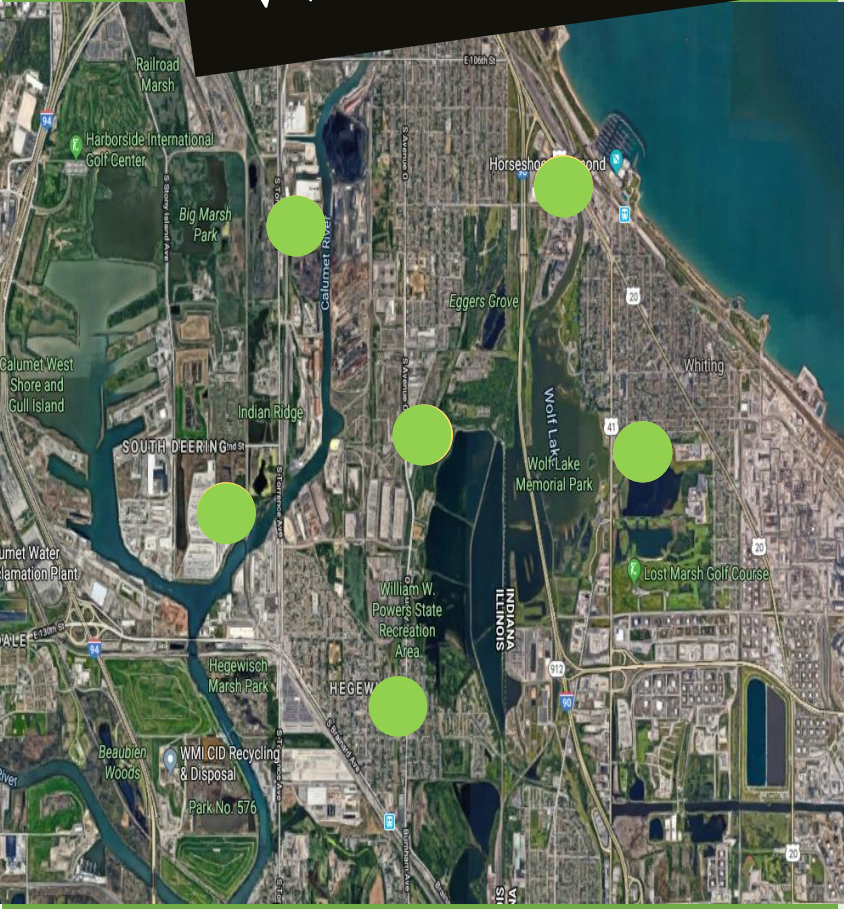


+ Municipalities

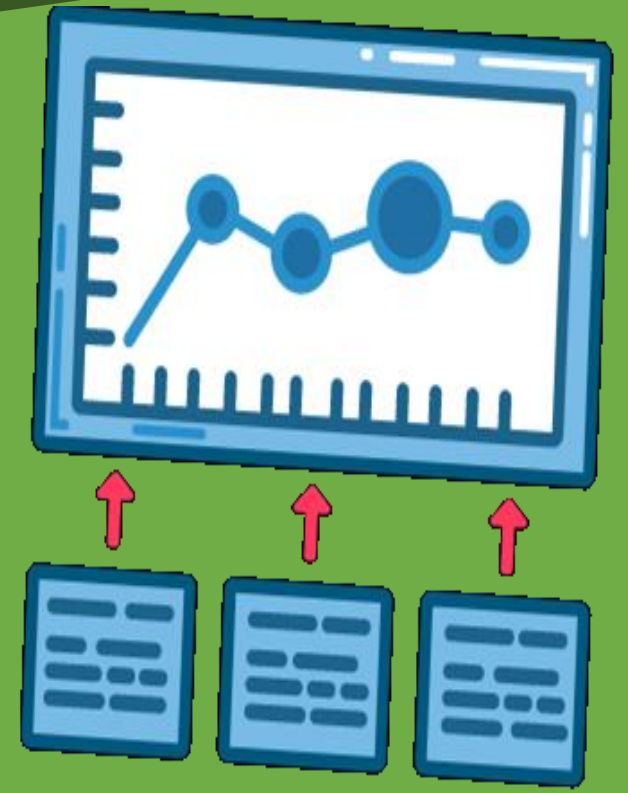
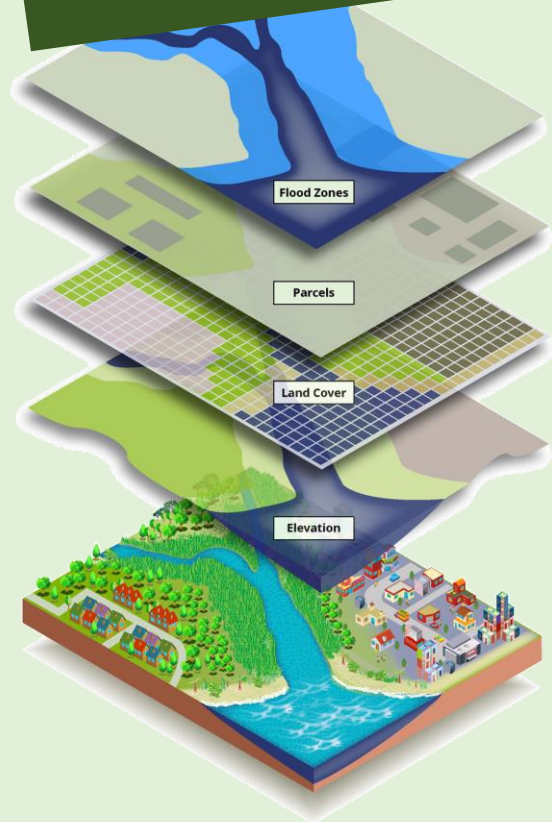




# WHAT WE FOUND

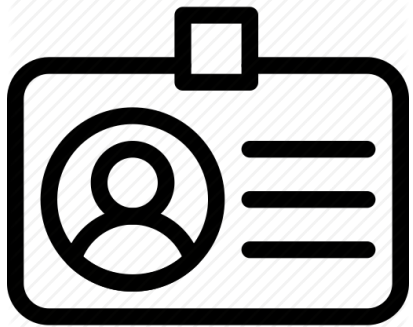


# What will it look like?

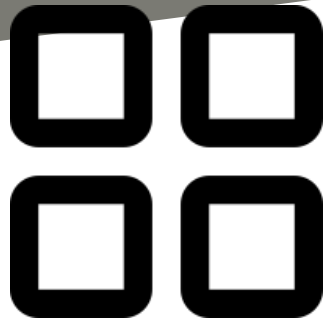


# WHAT WE FOUND

# What will it look like?



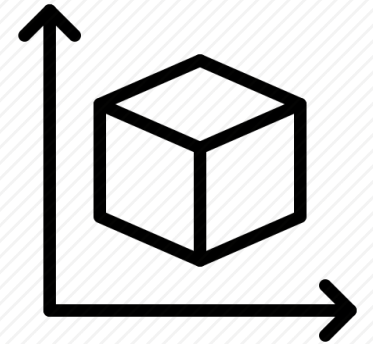
Name



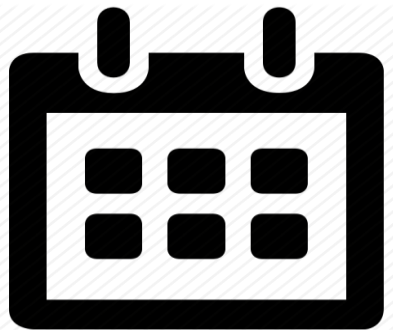
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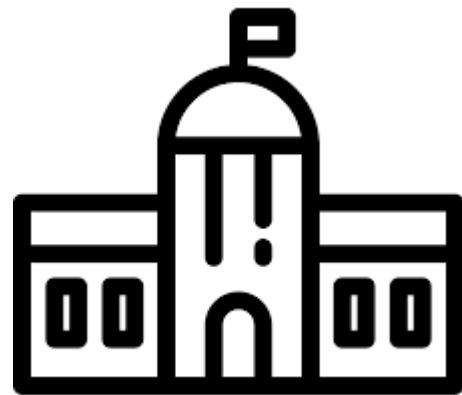
Status



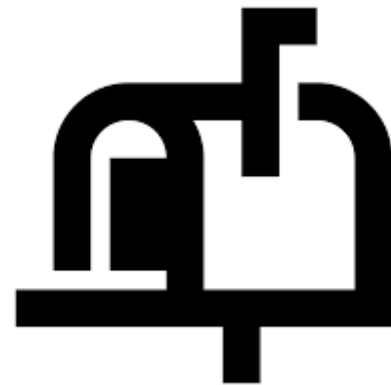
Size



Date built



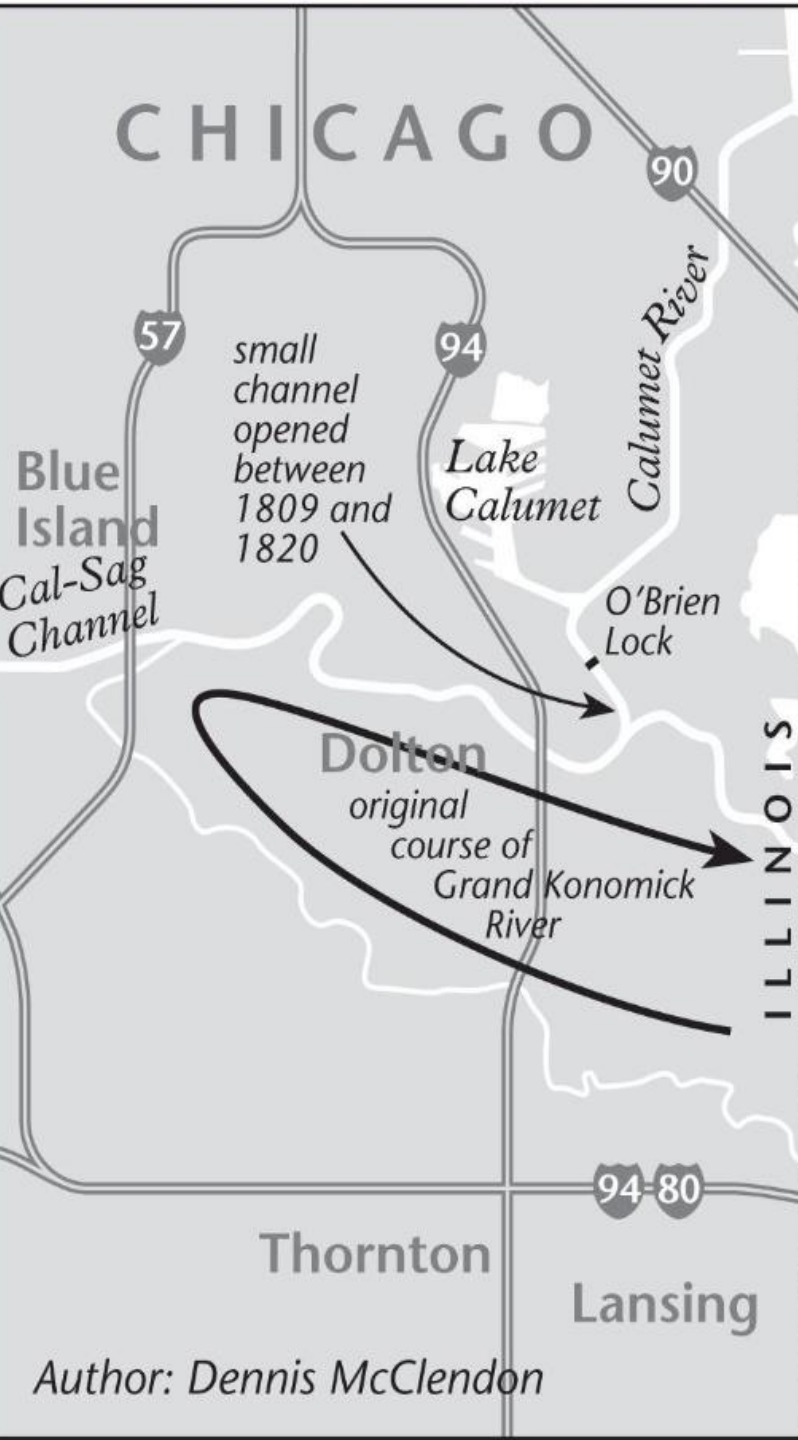
Municipality



Address



Lat-Long



WHAT WE FOUND

WHERE DO WE MOST NEED DATA?

Author: Dennis McClendon

# WHAT WE FOUND

# WHERE DO WE MOST NEED DATA?

Calumet  
COLLABORATIVE

[www.calumetcollaborative.org](http://www.calumetcollaborative.org)



**WHAT WE FOUND**

**WHAT GI SHOULD BE CAPTURED?**

**Performance**

**Scale**

**Focus**

**Intentionality  
& benefits**



WE DID IT!

NOW WHAT FOR 2020?



WE DID IT!

NOW WHAT FOR 2020?



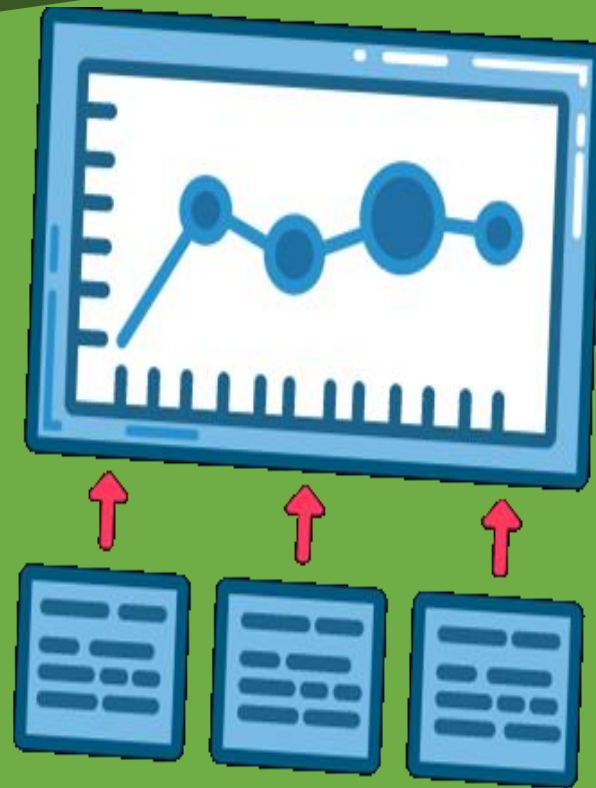
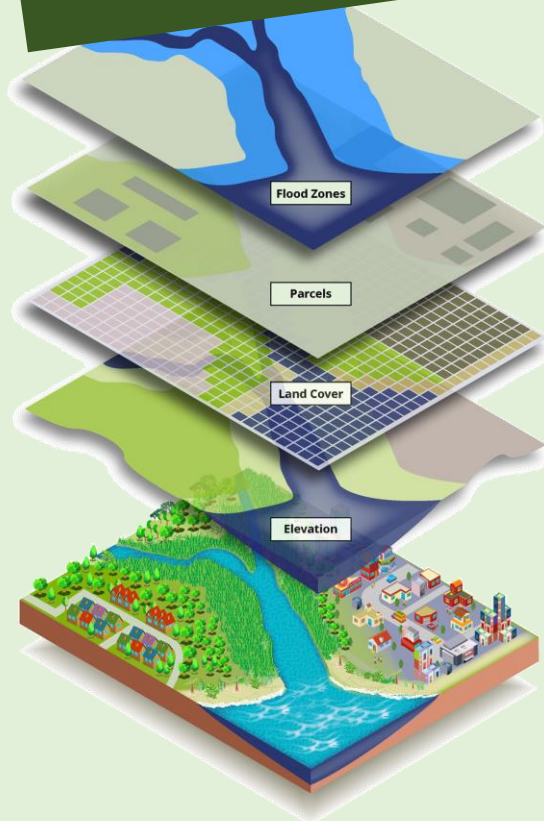
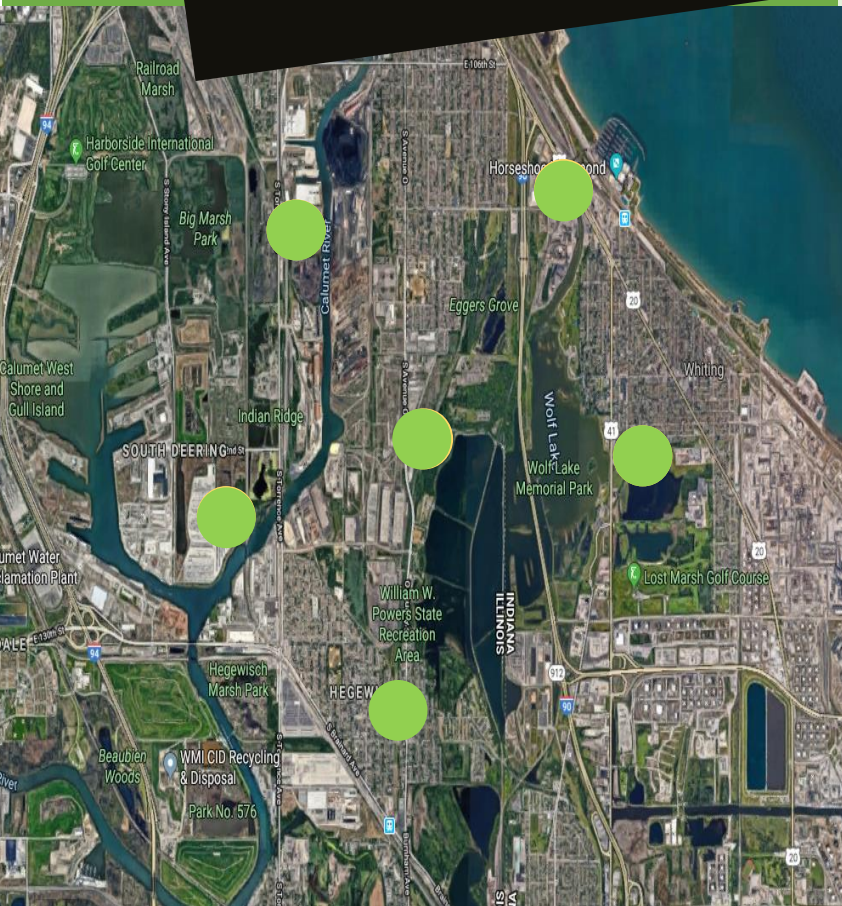
## PHASE 2

- Convene a listening session with representatives of data providers
- Collect existing data from preliminary known data sources
- Contact Calumet-region engineering firms for municipal permit data
- Direct outreach to municipalities and data providers



# AND THEN...

# What about 2021 and beyond?







# Urban Flooding Baseline

It's on like...

A photograph of a flooded city street. The water is deep and reflects the surrounding buildings and traffic lights. A person in a bright yellow raincoat is walking across the street. In the background, there are multi-story brick buildings, utility poles with power lines, and a church steeple. A sign for 'COINER' is visible on the left. The overall scene is overcast and appears to be during or after a heavy rain event.

Goal:  
move toward a  
comprehensive  
understanding of  
urban flooding in  
the Calumet Region

# Update

- As of Wednesday, CNT is funded to do the work!
- First Phase: Tee it up
  - Develop shared definitions
  - Inventory existing work by CNT, CMAP, MWRD, and others
  - Review other methods nationally
  - Identify existing datasets
  - Determine needs for new primary data
  - Research “use cases” for the data
  - Determine data management needs
  - Determine most useful way to present results
- Second Phase: do that dang thing



# Training and Maintenance Workgroup

Calumet Stormwater Collaborative

December 6, 2019

# Workgroup Objectives

1. NGICP Training: Work With MWRD/ WEF/ Other Partners To Bring To Chicago
2. Rainscaping Master Gardener Training: Work With Purdue University And CSC Member Organizations To Adapt To Chicago
3. 1-day (8- hour) Training
4. Shared Services Model: Work With Workforce Development Agencies To Advance
5. GI Procurement And Contracts: Develop Guidance/Model Language



Photo: CNT



# Bringing the National Green Infrastructure Certification Program (NGICP) to Chicago

- Training Held At Stickney Plant 4/22/19 – 4/26/19
- Well-attended
  - Attendees Included John Watson, Margaret Schneemann, Emily Okallau, Mollie Dowling (First Day)
- Positive Reviews
- Workgroup Is Exploring If/How The Training Could Be Provided Again In The Chicago Area
  - Possible Partnership With Parkland College



Metropolitan Water  
Reclamation District  
of Greater Chicago

**OAI** OPPORTUNITY  
ADVANCEMENT  
INNOVATION  
in WORKFORCE DEVELOPMENT

**Sea Grant**  
ILLINOIS - INDIANA

# Adapting Rainscaping to Illinois

MOU with University of Illinois & Purdue

Program participants receive:

- Five, 3-hour training modules in a workshop setting
- Training on planning, installation, and maintenance
- Hands-on experience
- Create demonstration bioretention /rain garden with community partners in public space (i.e., county Extension office)
- Target audience: Master Gardeners, conservation agencies & organizations, stormwater professionals, and landscape companies & consultants.
- Modules: flexible and work with partners to tailor to Chicagoland – i.e., adding modules on home flood mitigation

# 1-day (8-hour) Green Infrastructure Training

- Green Infrastructure Basics
- Audience:
  - Beginning Learners, Those Looking For Core Basics To Get Into The GI Field
  - Municipal Employees Thinking About GI, Responsible For GI (E.G., Park District Or DPW)
  - People With Work Experience In Landscape Field Who May Know About Turf And Ornamental Plants But May Not Have Experience Or Expertise In Green Infrastructure
- Outline For The Training Developed
- Work Proceeding On Modules
- Plan Is To Pilot This Training Two Times In First Quarter 2020
  - Calumet Area And Also NW Indiana



# GI Maintenance Shared services

- Funding Received To Pilot This Concept In Calumet Region And Also NW Indiana
  - OAI
- Research Underway
  - MPC is research partner
- RFQ To Line Up An Implementation Partner
- Working To Identify Sites Where Services Will Be Provided
- Priority – Disadvantaged Communities
- In Early 2020
  - IAGs with Communities
  - Business Plan / Detailed Budget / Maintenance Schedules
- Shared Services Field Work In Spring / Summer / Fall Of 2020

CSC Foundational Activity #4

# ESTABLISH A BASELINE OF MUNICIPAL CAPACITY IN STORMWATER MANAGEMENT

Year end review - December 6, 2019

Priority	Factors	Measure	Survey Question	Capacity Building Activity
Fiscal Management	Project funding	Pre-award survey for state funding	Does your government submit the Illinois survey?	Grant management process review
Fiscal Management	Project funding	Grant writing	Do you employ a grant writer?	Grant management process review
Fiscal Management	Project funding	Applied to 319 grant application	Did you apply to the 319 grant application?	Grant management process review
Fiscal Management	Project funding	Dedicated funding source	Do you have a dedicated funding source for stormwater infrastructure?	Financial business process review
Fiscal Management	Financial Management	Maintenance schedule	Do you develop and execute an asset maintenance schedule?	Asset management process review
Fiscal Management	Financial Management	Billing	Do you utilize an automated billing system?	Billing process review
Fiscal Management	Shared service agreements	Equipment	Do you share equipment with other local government organizations?	Purchasing process review
Fiscal Management	Shared service agreements	Purchasing	Do you engage in cooperative purchasing?	Purchasing process review
Operation Management	Capital improvement plan	CIP process utilized	Do you develop and execute a Capital Improvement Plan?	CIP business process review
Operation Management	Capital improvement plan	Asset inventory maintained	Do you currently maintain an asset inventory?	Asset management process review
Operation Management	Capital improvement plan	Green infrastructure	Do you identify and maintain information on green infrastructure assets built in your area?	Asset management process review
Operation Management	Capital improvement plan	Gray infrastructure	Do you identify and maintain information on gray infrastructure assets built in your area?	Asset management process review
Operation Management	Capital improvement plan	Asset inventory	Do you identify all of your stormwater infrastructure (type, location, condition)?	Asset management process review
Operation Management	Capital improvement plan	Asset condition assessment	Does your organization assess the conditions of stormwater infrastructure annually?	Asset management process review
Operation Management	Stormwater planning	Permeable land	Do you track porous pavement or developed vs undeveloped land?	Land use planning process review
Operation Management	Stormwater planning	Stormwater management CIP	Do you engage in a stormwater management planning process?	Municipal stormwater management plan review
Operation Management	Stormwater planning	Emergency planning	Do you have an updated emergency stormwater plan (in the last 3 years)?	Municipal stormwater management plan review
Operation Management	Stakeholder engagement	Community education programs	Do you currently engage the public on stormwater issues?	Citizen engagement plan
Operation Management	Stakeholder engagement	Regional planning participation	Do you currently engage in planning activities with other municipalities?	Regional planning activity
Human Resources	Staff experience	Public Works department	Does your municipality have a public works department?	HR needs assessment
Human Resources	Staff experience	Engineering ready	Do you have any engineers on staff?	HR needs assessment
Human Resources	Staff experience	Consulting relationships	Do you contract for engineering/water management services?	HR needs assessment
Human Resources	Training needs	AWWA membership	Does a staff member have an AWWA membership?	Training activities
Human Resources	Training needs	Professional Development	Do you provide professional development activities to staff?	Training activities
Human Resources	Turnover	Succession planning	Do you engage in a succession planning process?	Succession plan development
Human Resources	Turnover	Continuity with NGOs/consultants	Do you have a succession plan for contract employees?	Succession plan development
Information Management	Information systems	ERP system	Do you have an up to date enterprise resource planning (ERP) system?	ERP utilization review
Information Management	Information systems	Protect data from consultant	Do you own your management data, or must go to a consultant to access your information?	Contract negotiation
Information Management	Information systems	Process documentation	Do you have documentation of your business process?	Process documentation activities
Information Management	Information systems	GIS mapping	Does your organization track stormwater assets in a Geographic Information System (GIS)?	GIS utilization review
Information Management	Information systems	Data sharing	Do you share stormwater data with neighboring communities?	Regional information sharing

# Data gathering process

- Original Plan
  - Finalize indicators
  - Develop a survey
  - Outreach to municipalities
- Changes during the year
  - Pivoted to editing MWRD survey
    - 2 versions released, March and April
  - CSC outreach

# Inclusion of edits and questions

DRAFT

The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) is conducting a survey to understand the needs and issues in your community [\(stormwater-related and beyond\)](#) as they expand their Stormwater Master Planning Program. The current focus of the Program and this questionnaire is Urban Flooding. Urban Flooding is defined as flooding that is not caused by water from a river or stream, [but flooding caused by stormwater runoff overflows into streets or basements.](#)

[Information from the survey will inform future MWRDGC assistance to communities \(e.g. funding, technical assistance\) as well as other non-MWRDGC actors' efforts in supporting stormwater management in the region. Answering this two-part questionnaire will help the MWRDGC prioritize areas for future study.](#)

## Questionnaire Part 1:

Please visit [SURVEYMONKEY LINK HERE](#), or fill out this paper questionnaire and return to [V3 Companies, 7325 Janes Avenue, Woodridge IL 60517](#). Responses are requested within [\(provide date\)](#). [\(provide QR code\)](#)

### e1. Community information.

Name of Community: \_\_\_\_\_

Name of Respondent: \_\_\_\_\_ Title: \_\_\_\_\_

Email of Respondent: \_\_\_\_\_ Phone: \_\_\_\_\_

e2. [What Rank the following topics in order of priority for addressing in your community and according to the different perspectives from would your municipal staff, elected officials, and public citizens. If possible, contact someone representing the other perspectives to inform the ranking. say are the top three issues facing your community? Write 1, 2, and 3 in each column to indicate the top concerns for each type of person.](#)

	Municipal Staff	Elected Officials	General Public
Affordable Housing			
Crime			
Drinking Water			
Economic Development			
Employment Rate			
Flooding (Urban Flooding)			
Local Revenue			
Parks and/or Open Space			
Pollution			
Public Transportation			
School / Education			
Taxes			
Traffic Congestion			

Metropolitan Water Reclamation District of Greater Chicago

**STORMWATER**  
**MASTER PLANNING**  
 Partnering for Resilient Communities

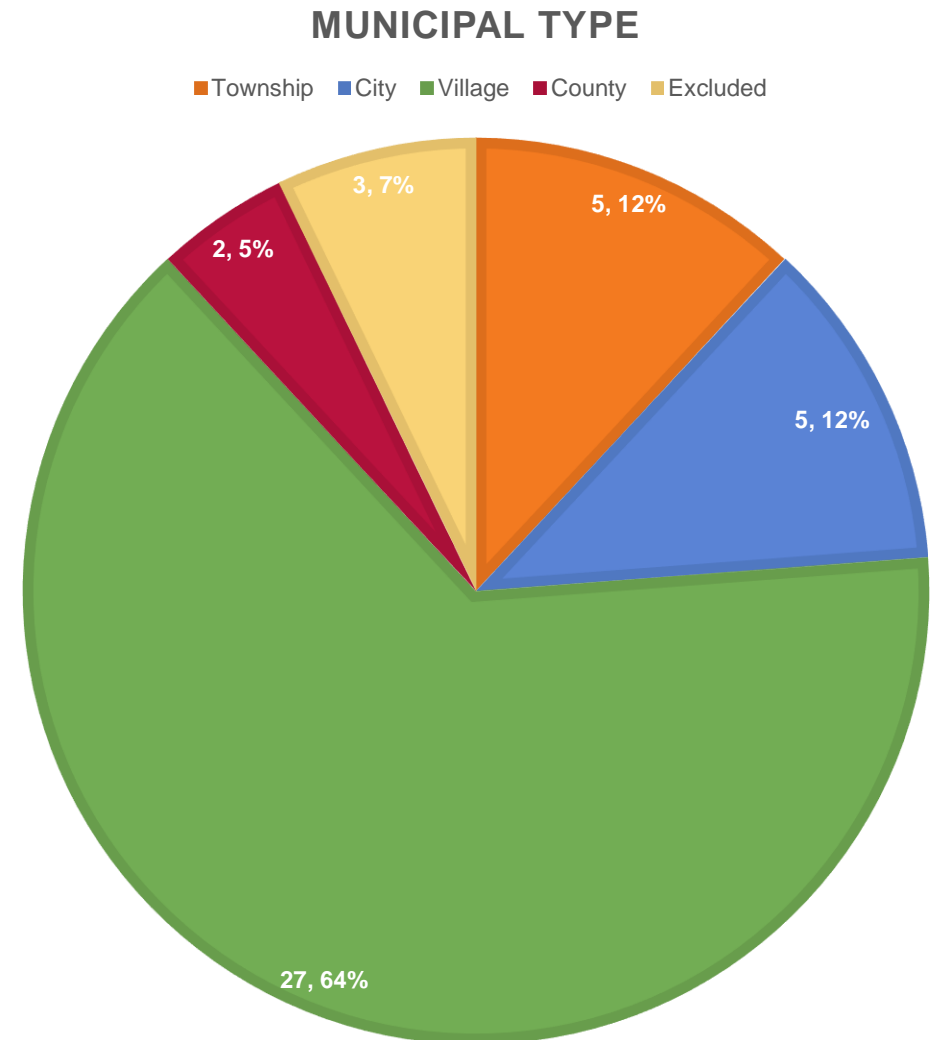
**Municipal Staff Survey on Urban Flooding**  
 April 2019



Metropolitan Water  
 Reclamation District  
 of Greater Chicago

# Responses of Calumet communities

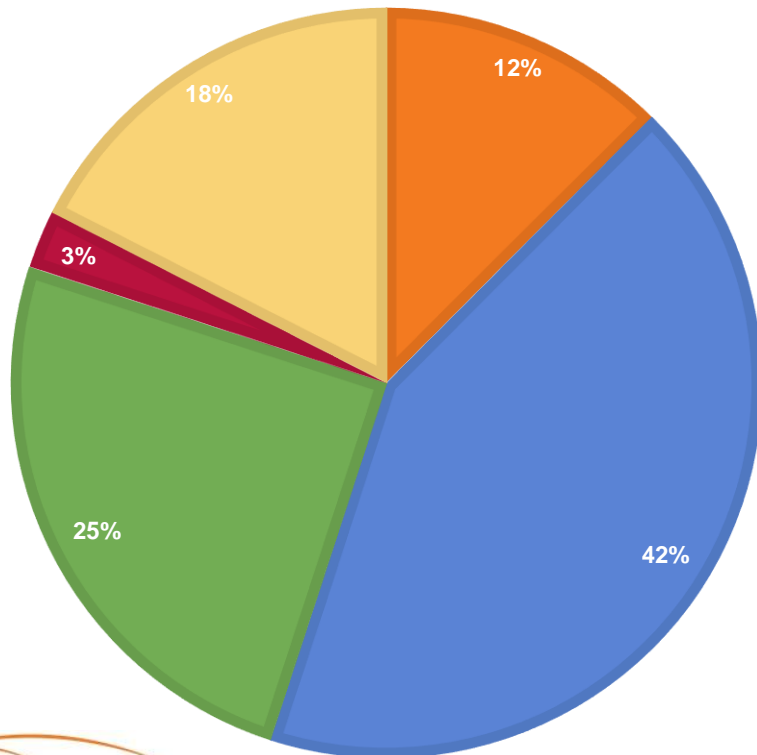
- 39 responses
- 33 unique govts (6 repeats)
- 27/52 CSC communities (approx. 55%)
  - 3 excluded (outside of MWRD boundary)
- Additional units of govt
  - Forest Preserve District of Cook Co.
  - Cook County Dept. of Transportation
  - Berwyn Township
  - Bremen Township
  - Palos Township
  - Stickney Township



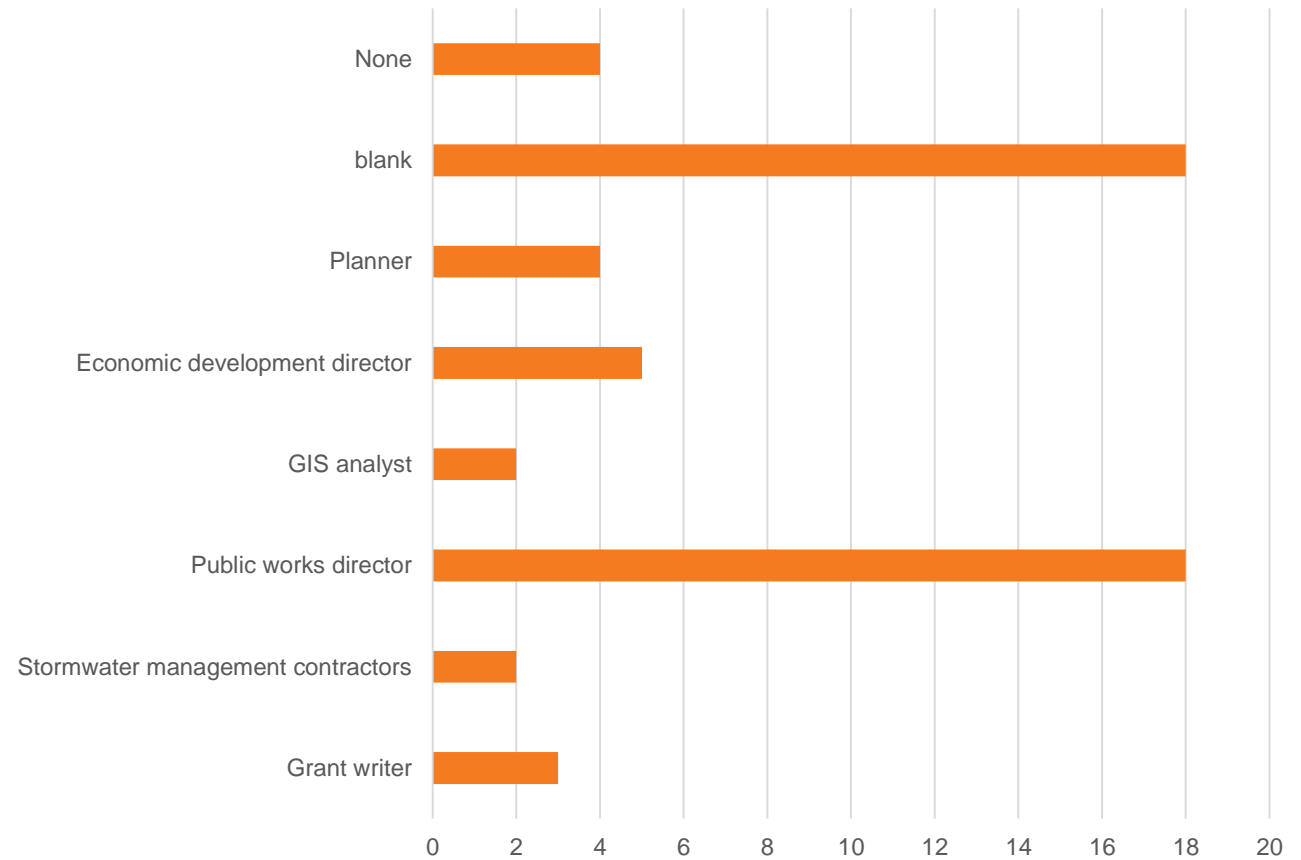
# Stormwater staff

## ENGINEERING STAFF TO ADDRESS STORMWATER AND FLOODING

- Yes, we have engineer(s) on staff;
- Yes, we use consulting engineers, through a full-time or on-call contract;
- Yes, we use consulting engineers, contracted for specific projects or tasks only;
- No
- blank

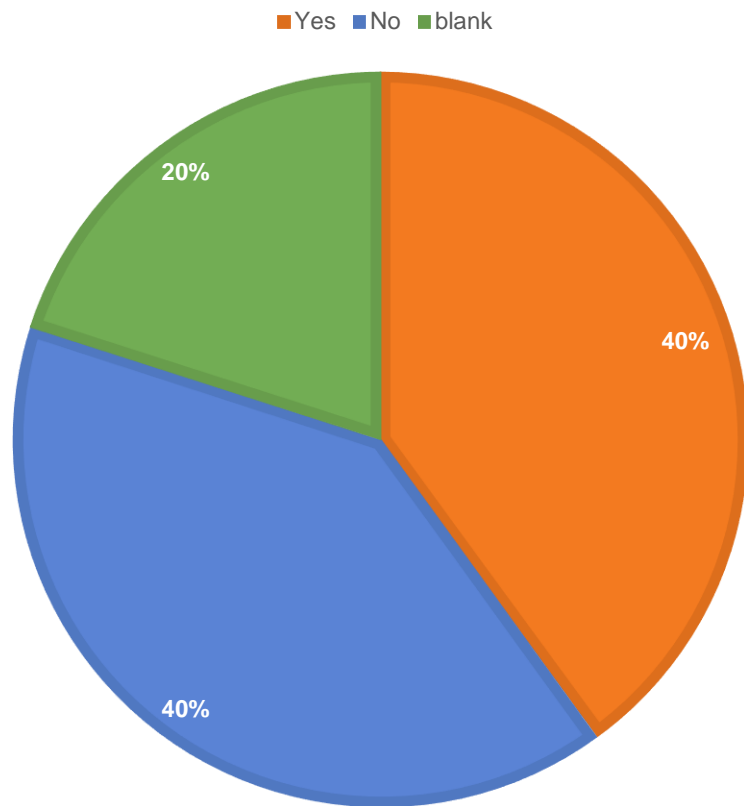


## Stormwater related positions

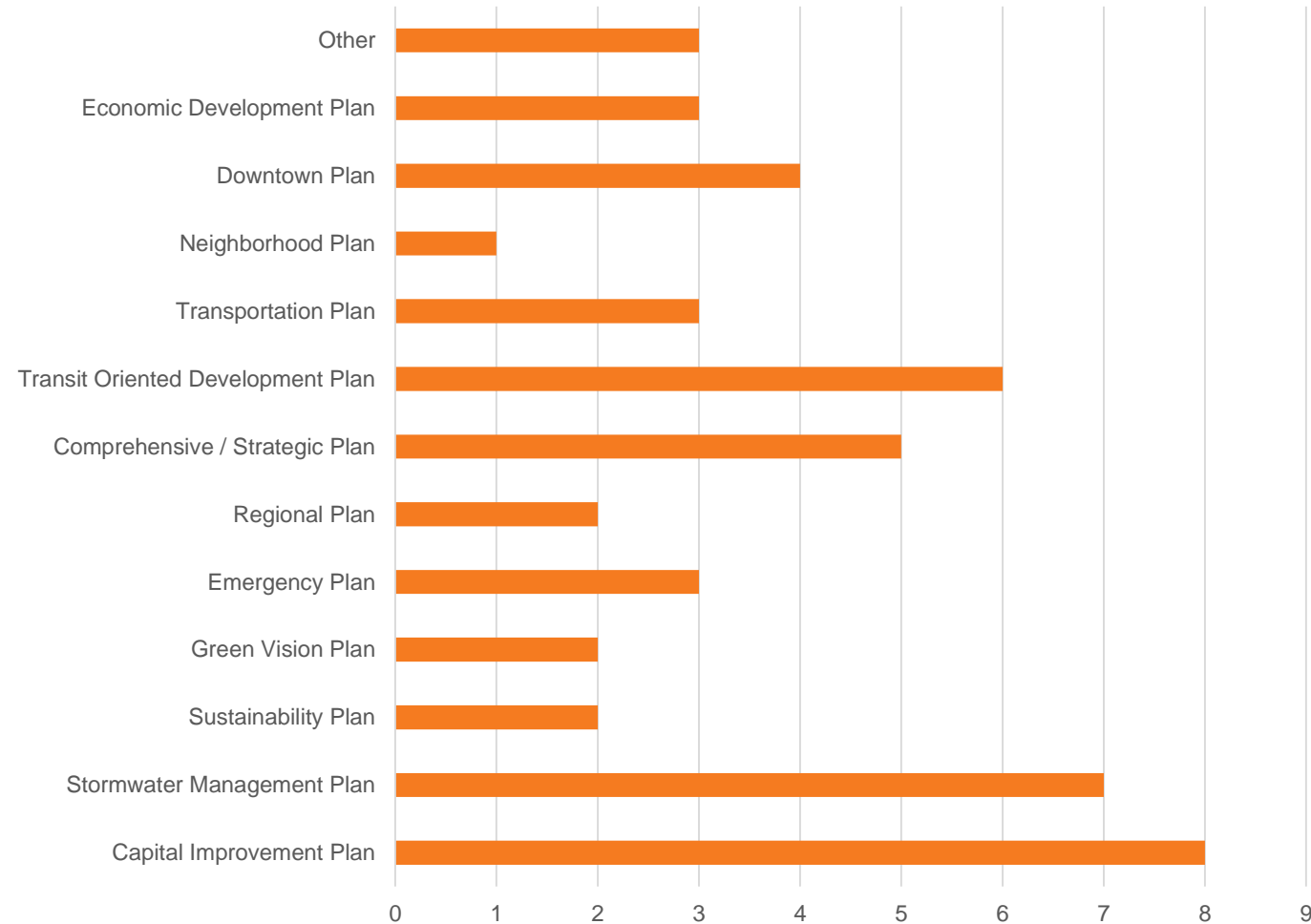


# Stormwater planning

## EXISTING STORMWATER PLAN



## Planning Activities

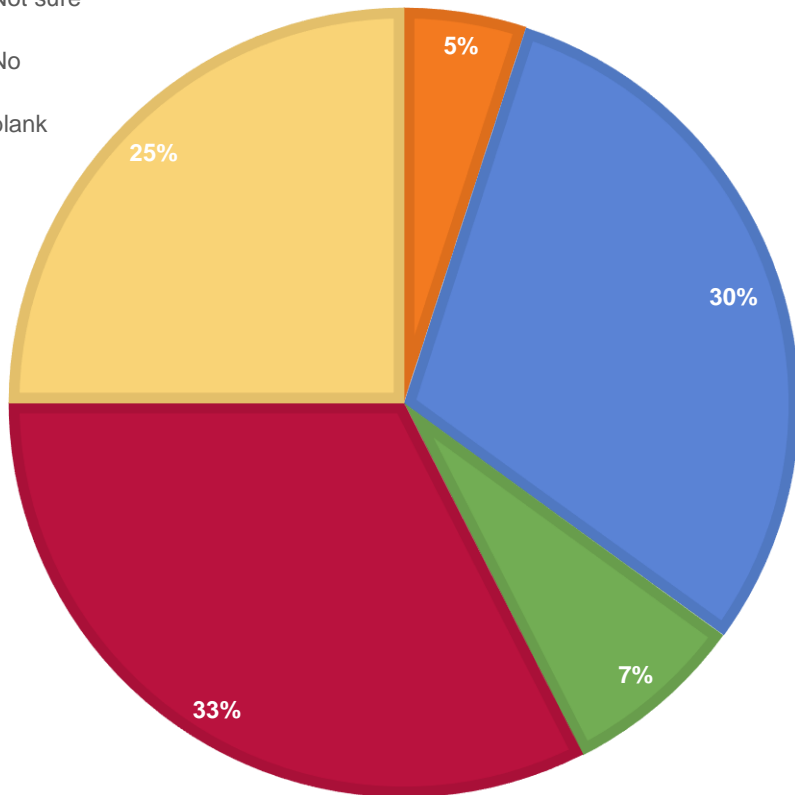




# Asset maintenance and GI

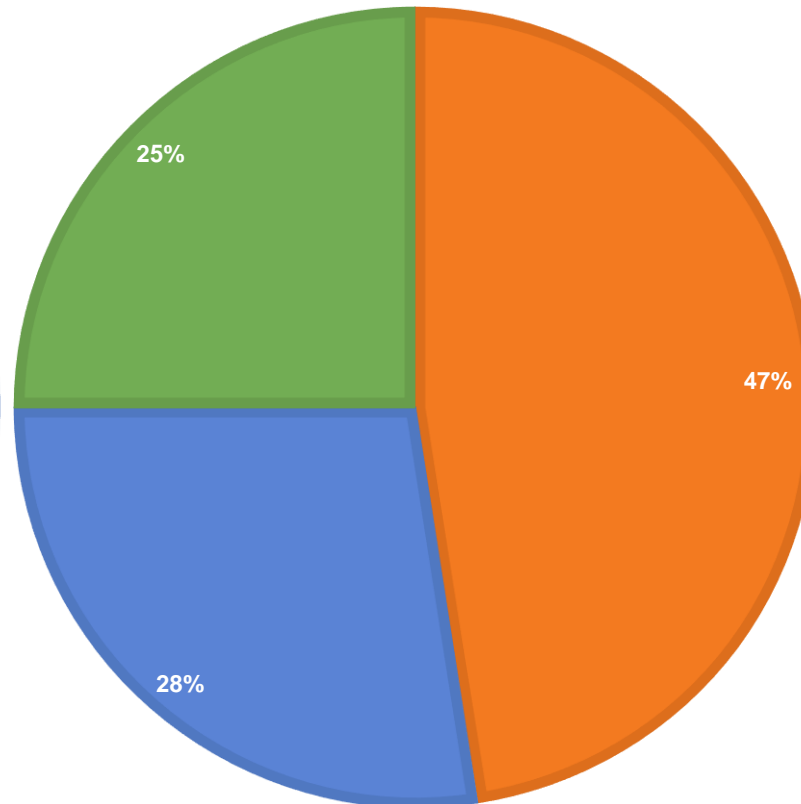
## ASSET MAINTENANCE SCHEDULE

- Yes, for all fixed assets;
- Yes, for stormwater and sewer infrastructure but not for other assets (or unsure about other assets);
- Not sure
- No
- blank



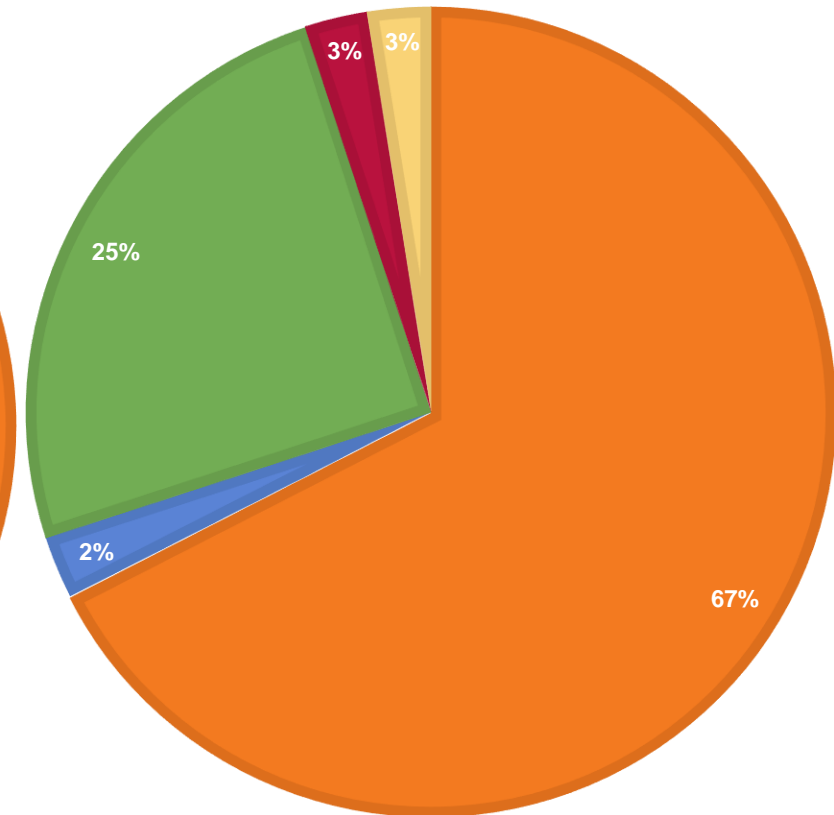
## INCORPORATE GI INTO INFRASTRUCTURE

- Yes
- No
- blank



## INCORPORATE GI INTO FUTURE PROJECTS

- Yes
- No
- blank
- Not sure
- It depends on the project



# Next steps

- Brainstorm activities for the CSC to increase municipal capacity
- Discuss alignment of understanding with other working group activities

# Phase 1: Foundational Activities

## ACTIVITY 1

- Establish a baseline of existing green infrastructure

## ACTIVITY 2

- Establish a baseline of non-overbank flooding

## ACTIVITY 3

- Develop and begin to execute systems to provide relevant training and strengthen management systems to bolster green infrastructure implementation and maintenance

## ACTIVITY 4

- Establish a baseline of municipal capacity in stormwater management

# CSC 2019 ATTENDANCE

*And...*

...the Perfect Attendance Award...

...goes to



**Katherine Moore Powell**  
*The Field Museum*





# Honorable Mentions (Jan.-Nov. 2019)

## 10 meetings

- Katherine Moore Powell, The Field Museum
- Adam Slade, MPC

## 9 meetings

- Karoline Qasem, Geosyntec
- Justin Keller, MPC

## 8 meetings

- Emily Okallau, CRTI
- Kate Evasic, CMAP
- Jeff Edstrom, Illinois Coastal Program
- Saki Handa, Mott MacDonald
- Danielle Gallet, MPC

# Honorable Mentions (cont.)

## Government Agencies

Chicago Park District

Cook County

Cook County Dept. of Homeland Security and Emergency Mgmt.

DuPage County

Forest Preserves of Cook County

IDNR Coastal Management Program

IDNR Prairie Research Institute

Metropolitan Water Reclamation District of Greater Chicago

## Planning, Land Managers + Academics

Chicago Metropolitan Agency for Planning

Columbia University NY

Illinois Institute of Technology

Illinois State Water Survey

Illinois-Indiana Sea Grant

The Field Museum

University of Illinois at Chicago

## Communities

Village of Midlothian

## Private Companies

Antero Group

Barnes & Thornburg LLP

Baxter & Woodman, Inc.

CDMSmith

Christopher Burke Engineering

Daylight

Geosyntec

Greenleaf Advisors

Hey and Associates

Jacobs

JLC Environmental Corp.

Metro Strategies

Mott MacDonald

Robinson Engineering

SmithGroup

Strand Associates, Inc.

## Community Groups, etc.

Chatham (RainReady Chatham Committee)

Delta Institute Emerging Leaders

Floodlothian Midlothian

independent residents

## NGOs

Alliance for the Great Lakes

Audubon Great Lakes

Calumet Collaborative

Center for Neighborhood Technology

Chicago Region Trees Initiative/The Morton Arboretum

Delta Institute

Friends of the Chicago River

Illinois Environmental Council

Metropolitan Planning Council

OAI, Inc.

Openlands

The Conservation Fund

The Nature Conservancy

Thanks for a tremendous 2019!