

Interactions and Connections Across Space, Time, Scale, & Sectors



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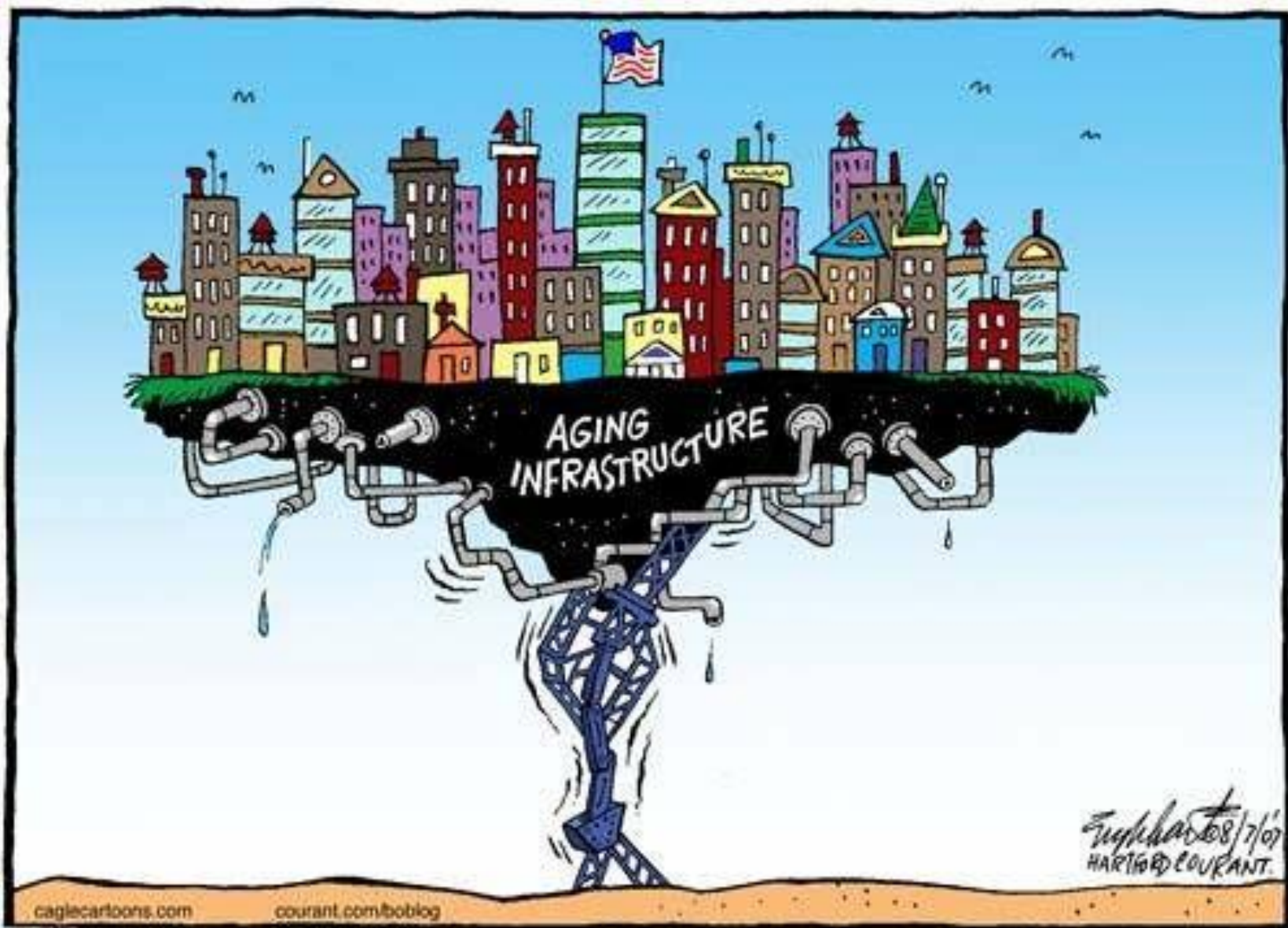
ALLIANCE FOR THE GREAT LAKES
ENSURING A LIVING RESOURCE FOR ALL GENERATIONS



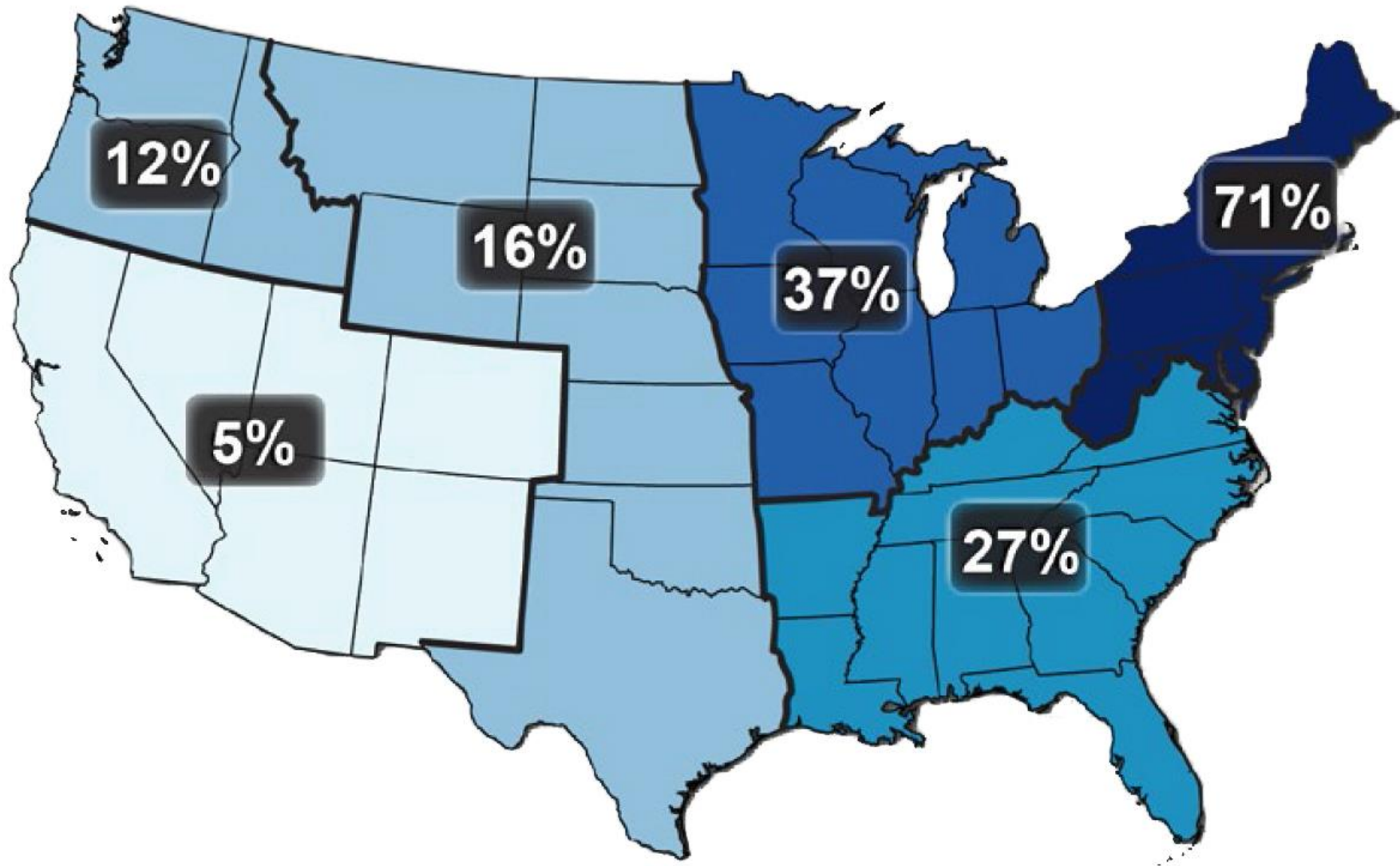








Euphrosyne 8/7/07
HARTFORD COURANT.

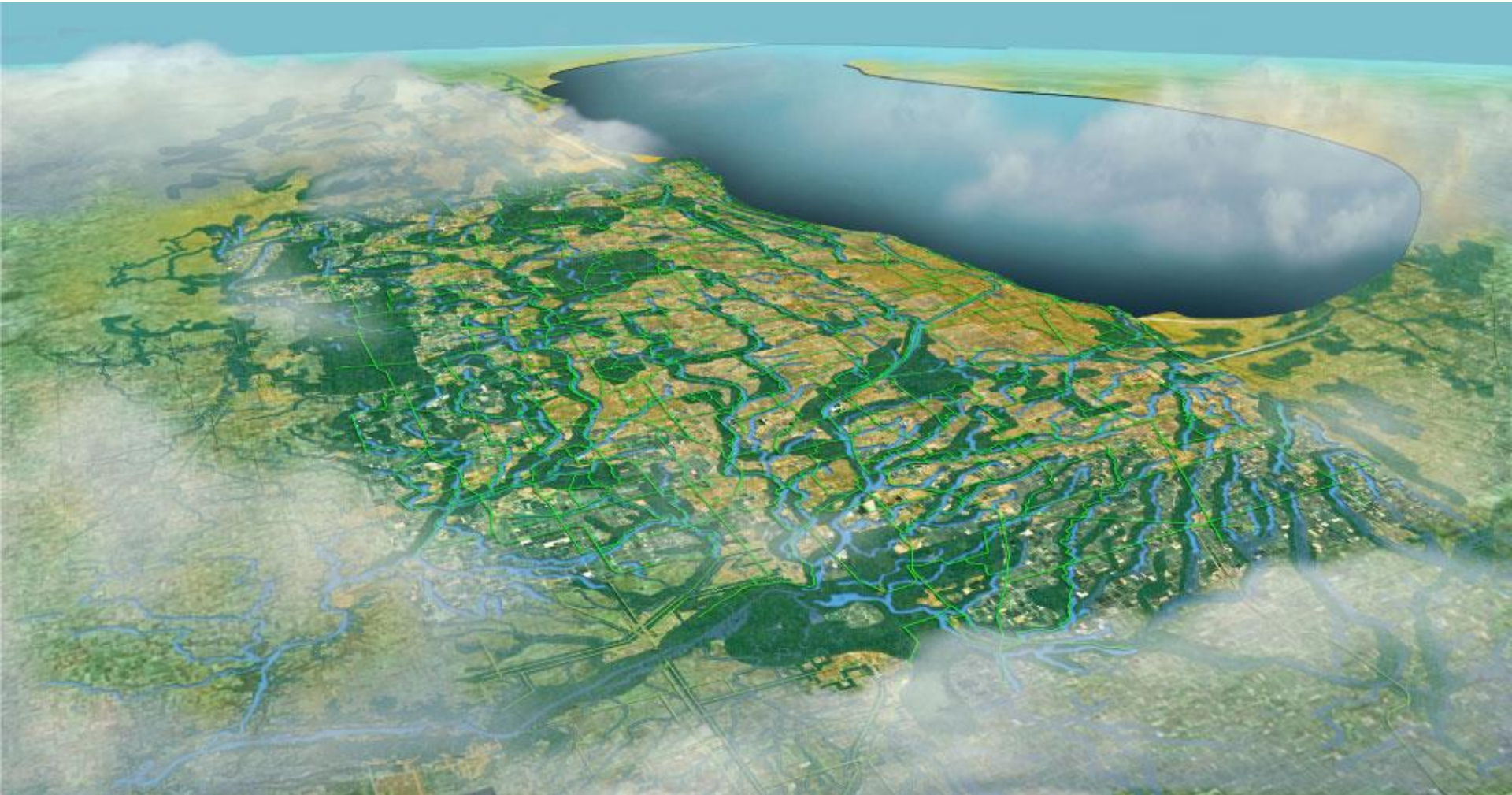






WATER QUALITY ADVISORY

**BACTERIAL LEVELS HERE CURRENTLY
EXCEED STATE STANDARDS.**



Chicago Wilderness

CMAP

**Engage
Stakeholders**

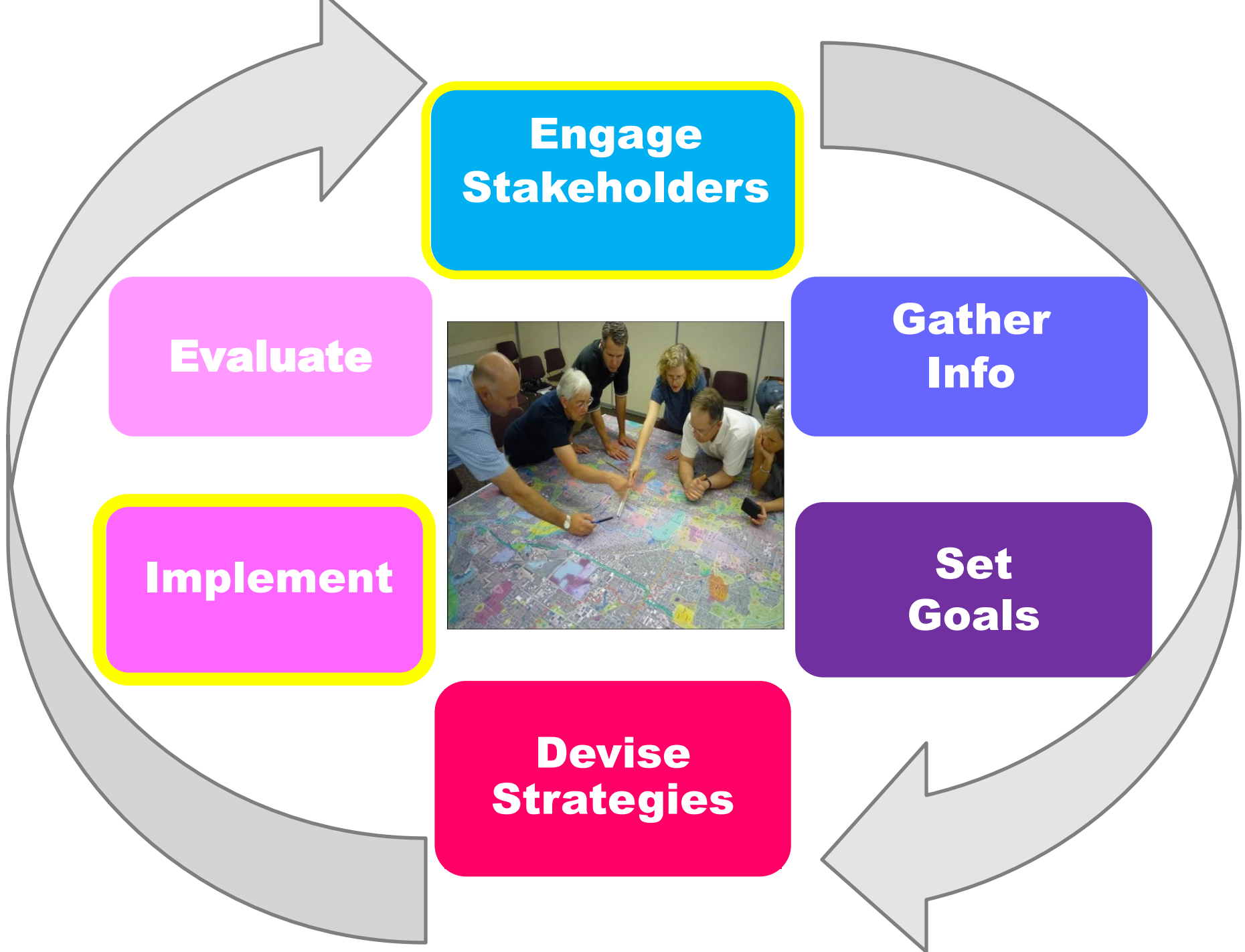
**Gather
Info**

**Set
Goals**

**Devise
Strategies**

Implement

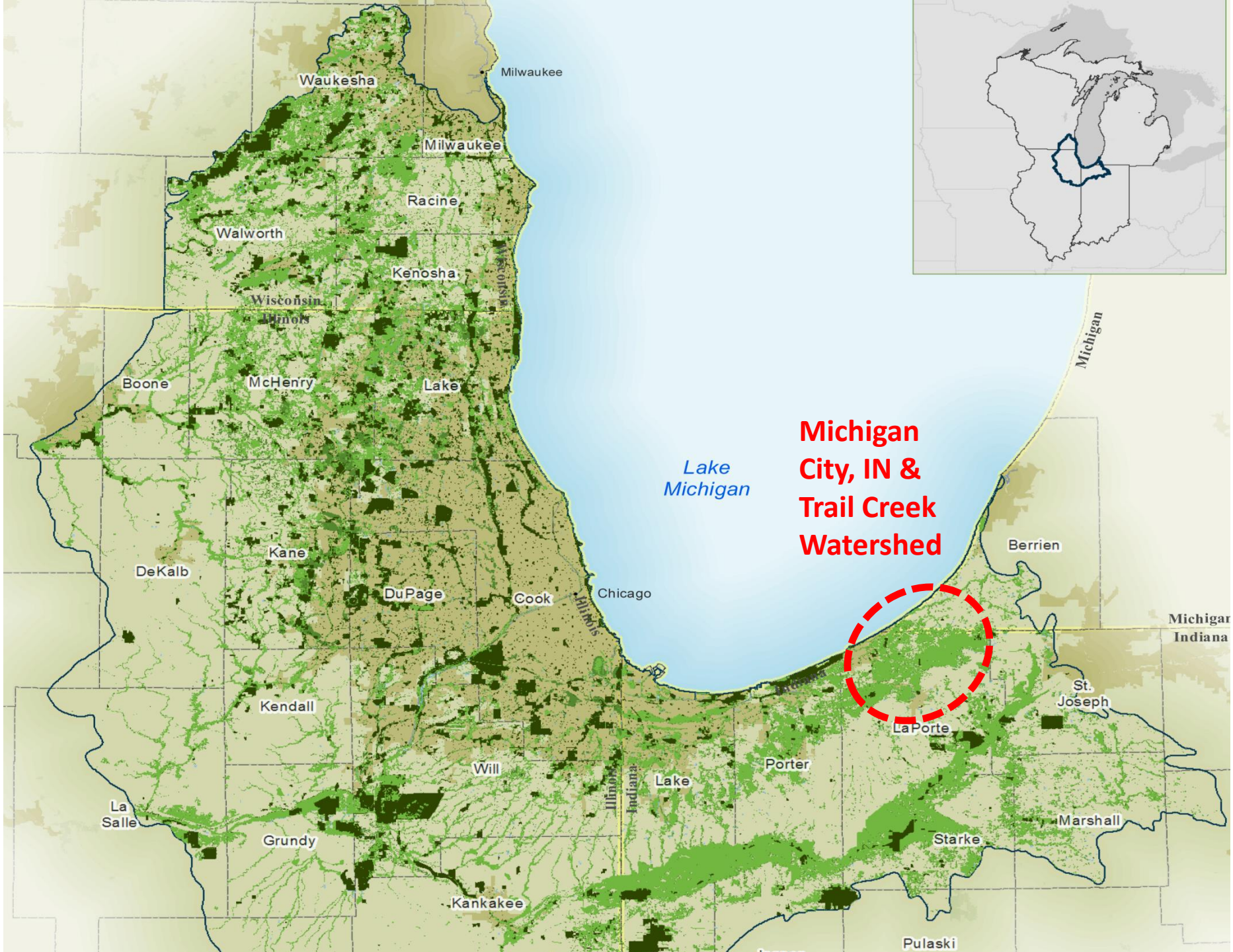
Evaluate





THE GREAT LAKES









Engage Stakeholders

Evaluate

Set Goal

Implement

Gather info

Devise Strategies

IT'S EASIER IF WE ALL PULL TOGETHER



Stakeholders

- Ron Meer, **Mayor**
- Michael Kuss, **Sanitary District**
- Jim Meyer, **Sanitary District**
- Craig Phillips, **Planning Department**
- Shannon Eason, **Parks Department**
- Frank Selheimer, **Forestry**
- Nicole Messacar, **Soil & Water Conservation District, and Trail Creek watershed**
- Natalie Johnson, **Purdue University Calumet, and Urban Waters**

**Engage
Stakeholders**

Evaluate

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Goals

- **Meet and exceed water quality standards**
- **Increase infiltration on site**
- **Decrease volume of stormwater entering sewer system**
- **Increase recreational access**

**Lake Michigan Implementation Strategy,
*artistic rendering of proposed river walk***



Riverwalk redevelopment along Trail Creek looking northwest from U.S. Route 12 bridge

More Extreme Rain Events

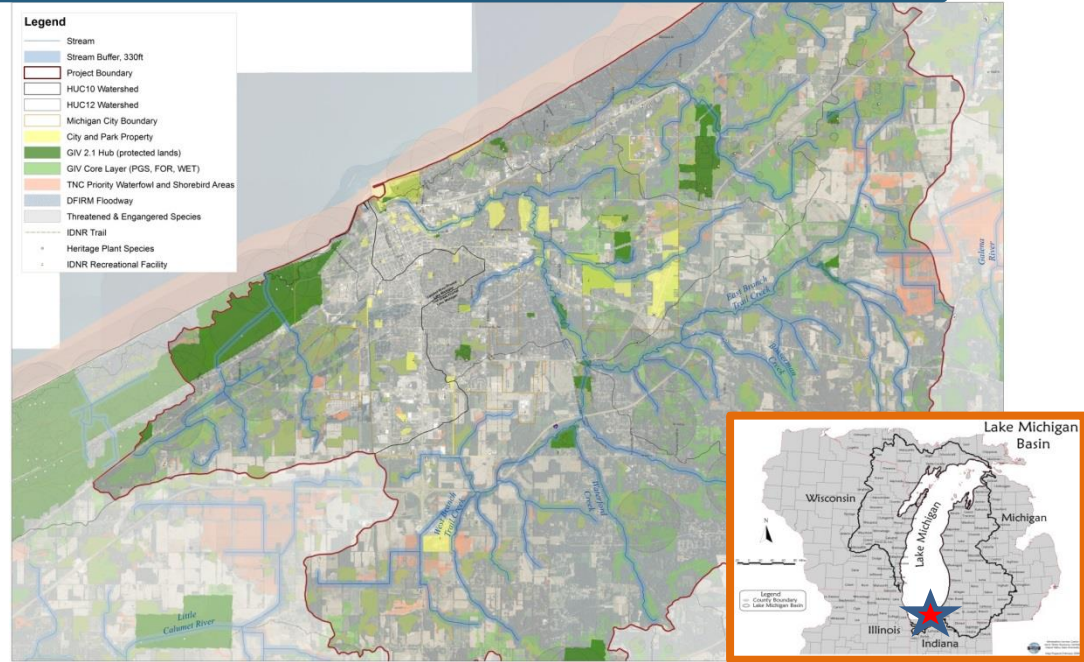


Increased

- Flashiness
- Streambank erosion
- Run off



- Increased nutrients, pollutants, sediments
- Decreased use of recreational amenities
- Increased frequency of erosion
- Scouring of aquatic habitats



Engage Stakeholders

Evaluate

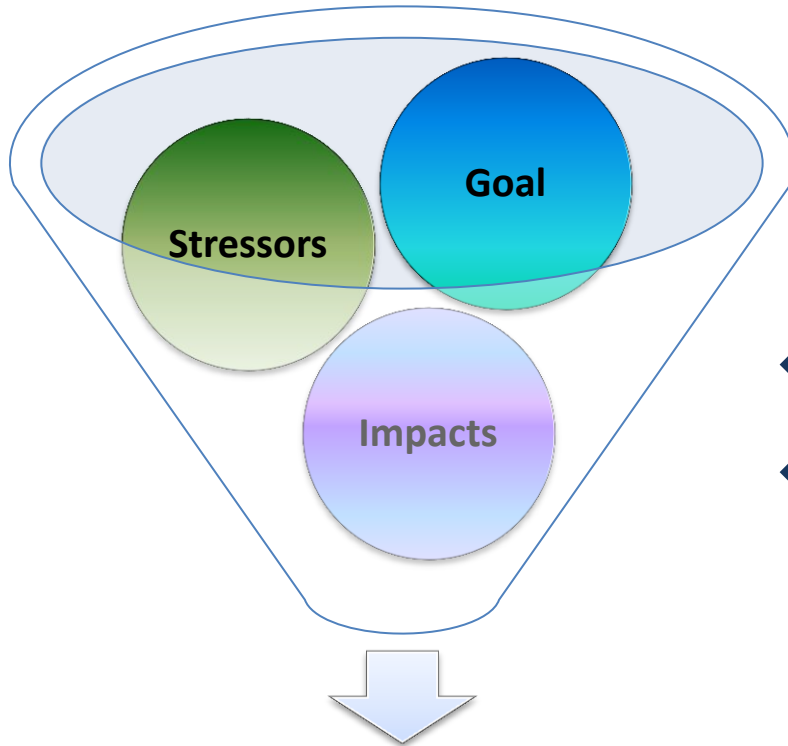
Set Goal

Implement

Gather info

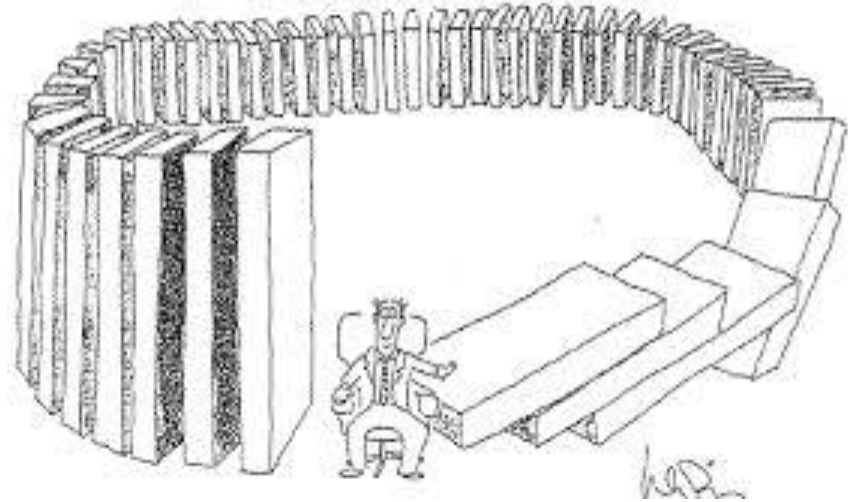
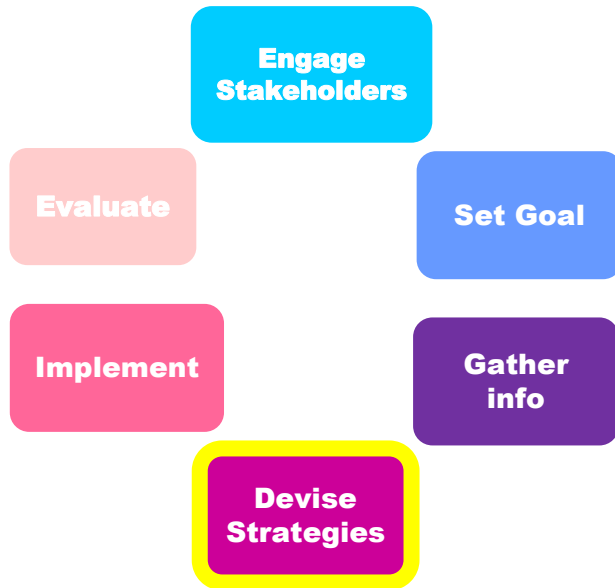
Devise Strategies

Adaptation Strategies



- ❖ Connect strategies back to goal
- ❖ Identify timeframe & types for strategies

Adaptation Strategies



Adaptation Strategies 2014-2015

- Implement demonstration projects
- Implement policies (*zoning, MS4*)
- Develop land acquisition criteria

Engage Stakeholders

Evaluate

Set Goal

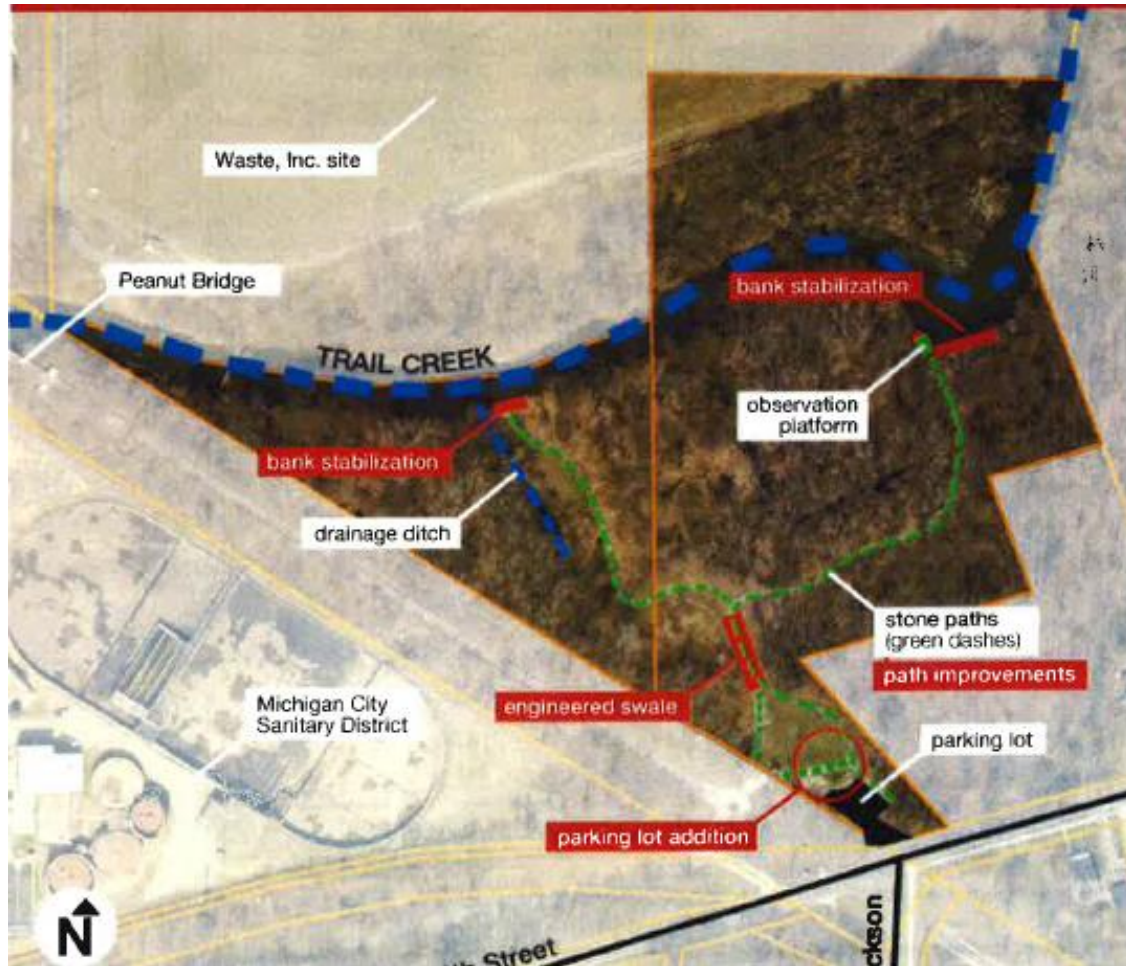
Implement

Gather info

Devise Strategies

Demonstration project

Winding Creek Cove Park



Engage Stakeholders

Evaluate

Set Goal

Implement

Gather info

Devise Strategies

Demonstration project

Wabash Street Project



Engage Stakeholders

Evaluate

Set Goal

Implement

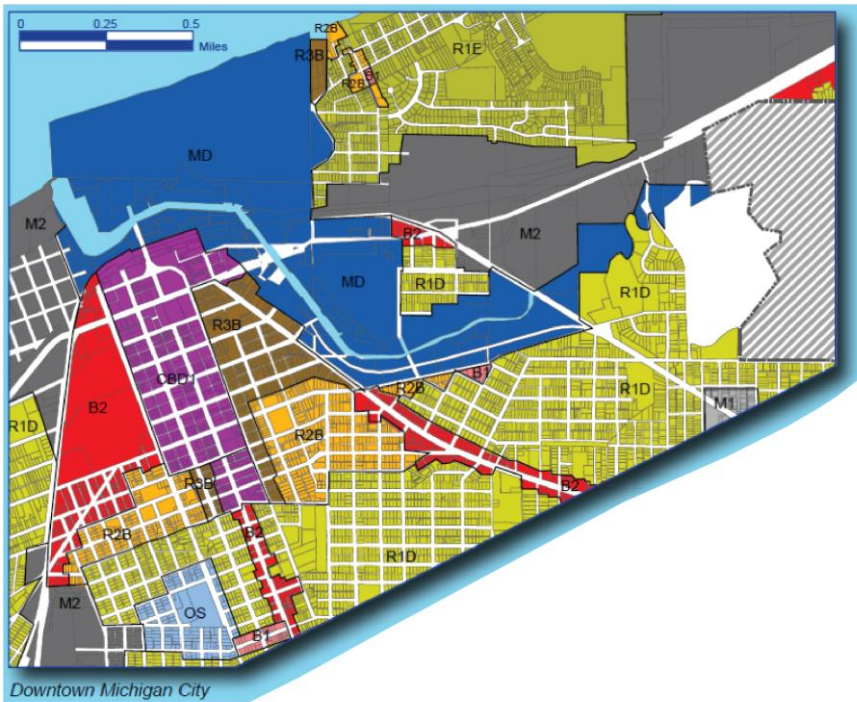
Gather info

Devise Strategies

Policies

Current Conditions

Current Zoning, Marina District (MD)



Planned Development in the Marina District



Engage Stakeholders

Evaluate

Set Goal

Implement

Gather info

Devise Strategies

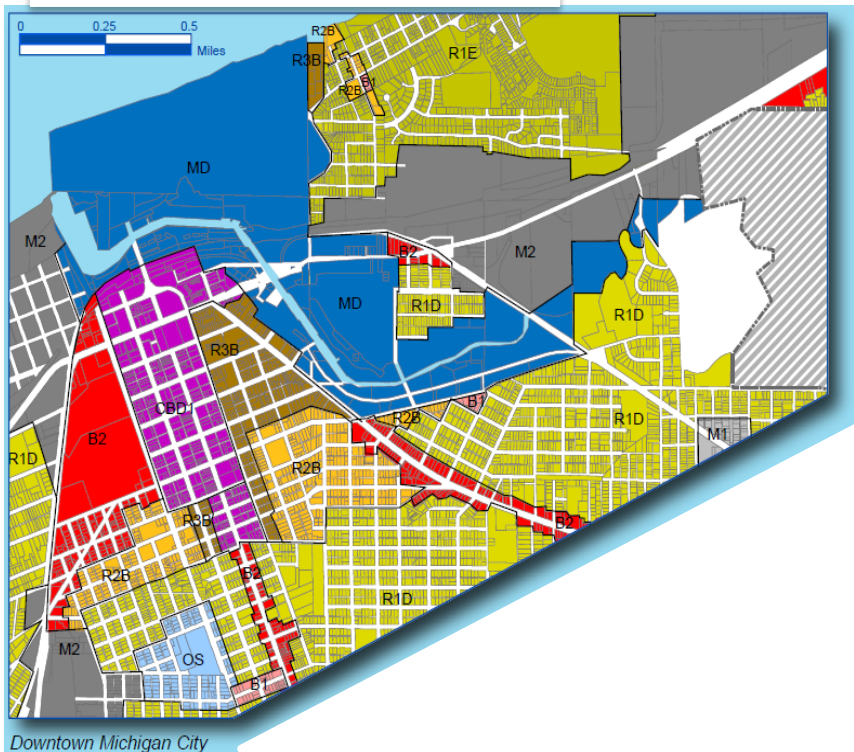
Policies

Current Conditions

Zoning Concerns

MD




Marina District



- No setbacks from waterway
- No building orientation to the waterway
- No recommended stormwater control
- No trail protection
- Maximum impervious cover encouraged

Policies


Recommendation

-  Zone A Boundary (Marina District)
-  200-foot Buffer
-  100-year Floodplain


-  Proposed Trails
-  No-Impact Parcels

Impacted Parcel Characteristics:

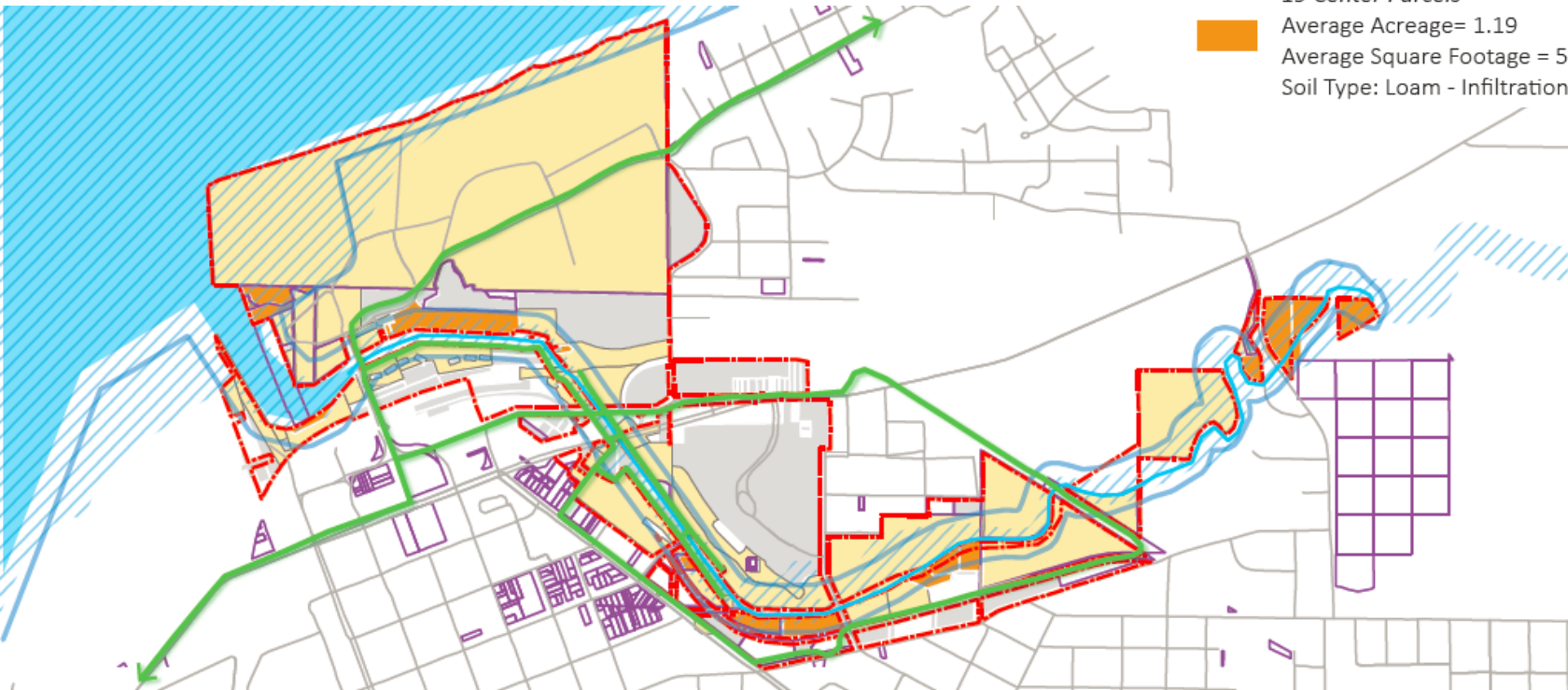
43 Edge Parcels

-  Average Acreage = 4.34
- Average Square Footage = 188,972.62
- Soil Type: Sandy - Infiltration rate = .8 in/hr

19 Center Parcels -

-  Average Acreage = 1.19
- Average Square Footage = 51,919.19
- Soil Type: Loam - Infiltration rate = .4 in/hr

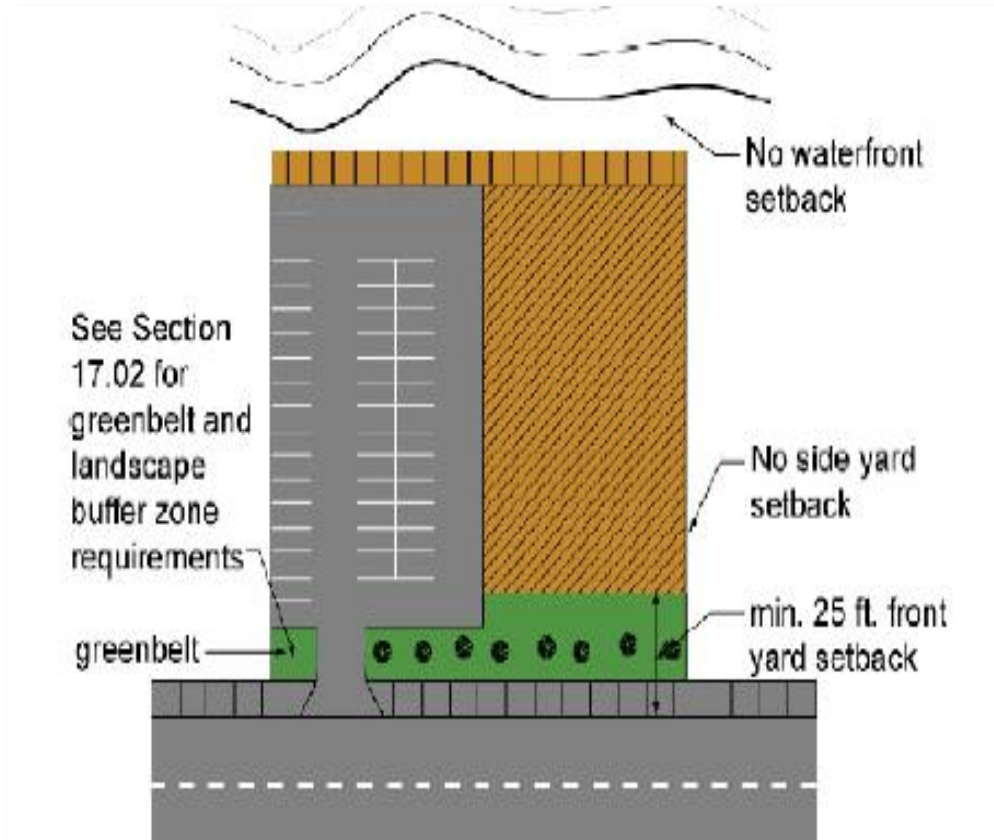
Marina District Overlay: Impact Zone



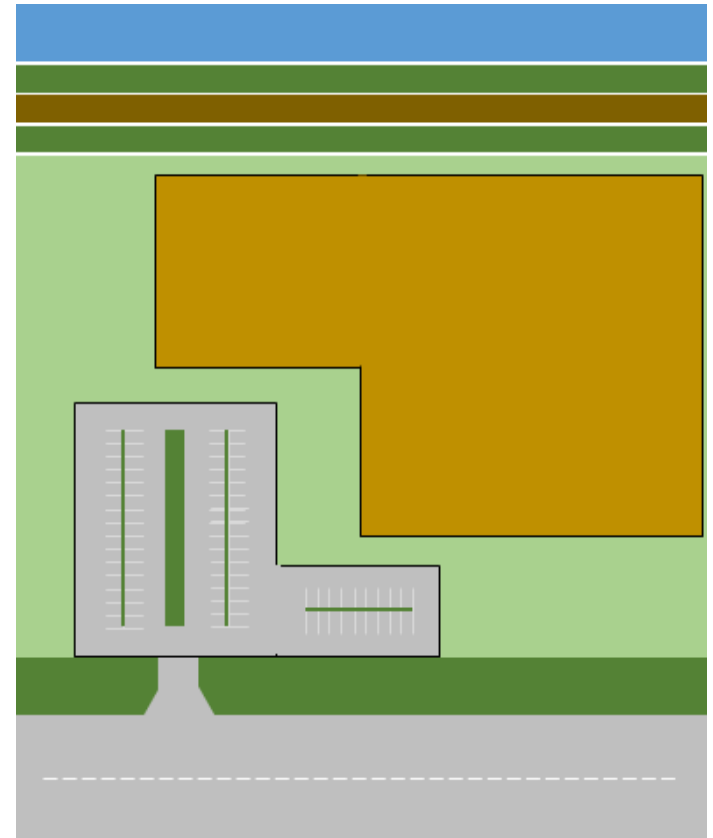
Policies

Recommendation

Impact Zone Site Design Requirements

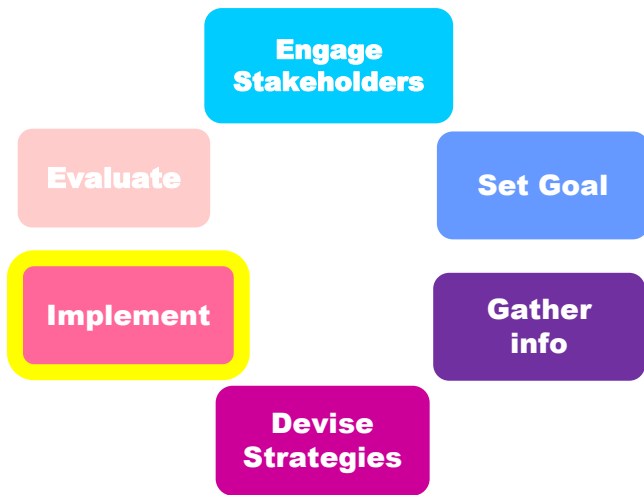


Old



New





Policy Recommendations

Municipal Separate Storm Sewer System Code (MS4)

- Required pre-development meeting with planning
- Must meet specific infiltration requirements
- Must be clear about who is responsible for maintenance and what maintenance is required

Engage Stakeholders

Evaluate

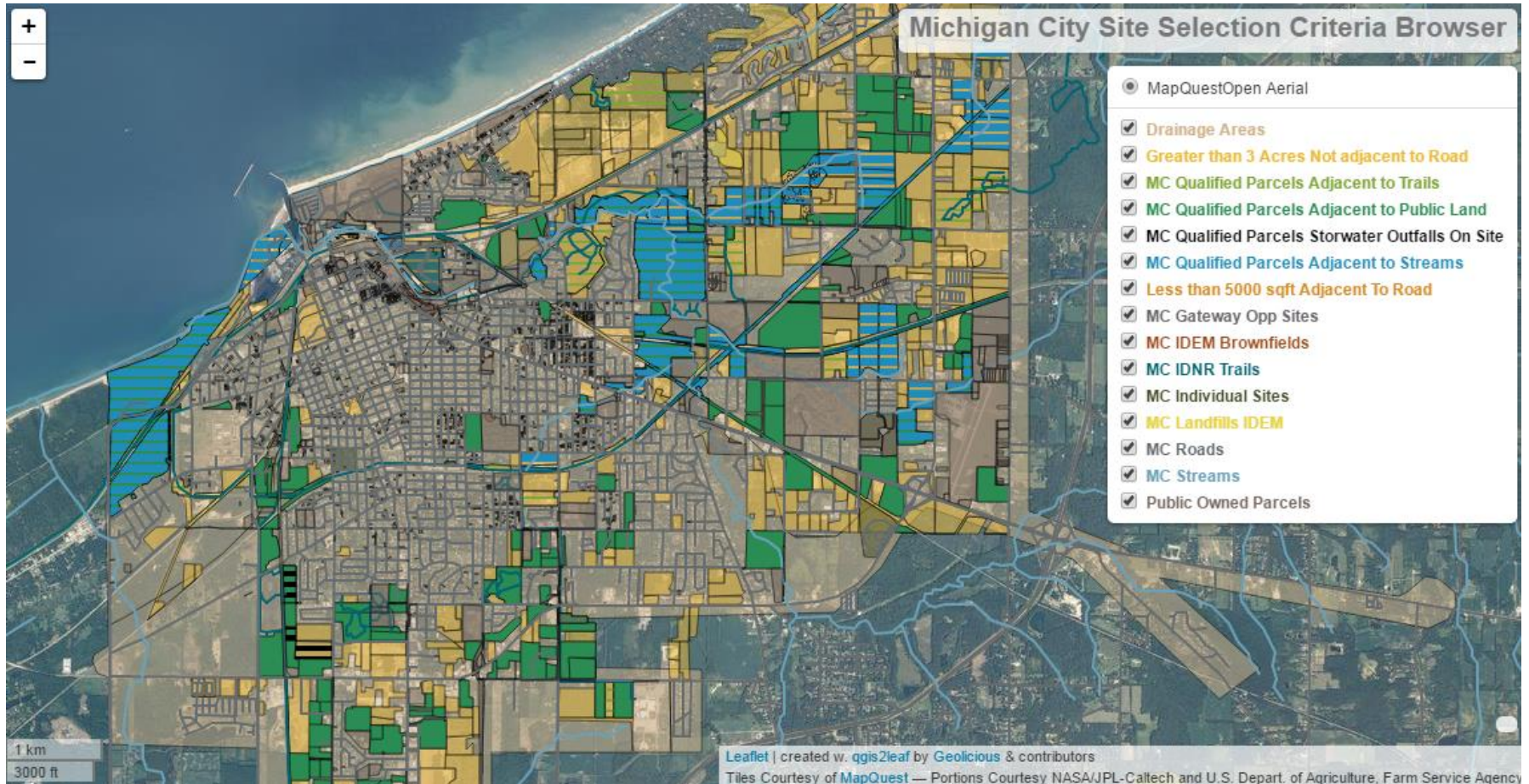
Set Goal

Implement

Gather info

Devise Strategies

Land Acquisition Criteria



**Engage
Stakeholders**

Evaluate

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info**

**Devise
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Building Political and Public Support

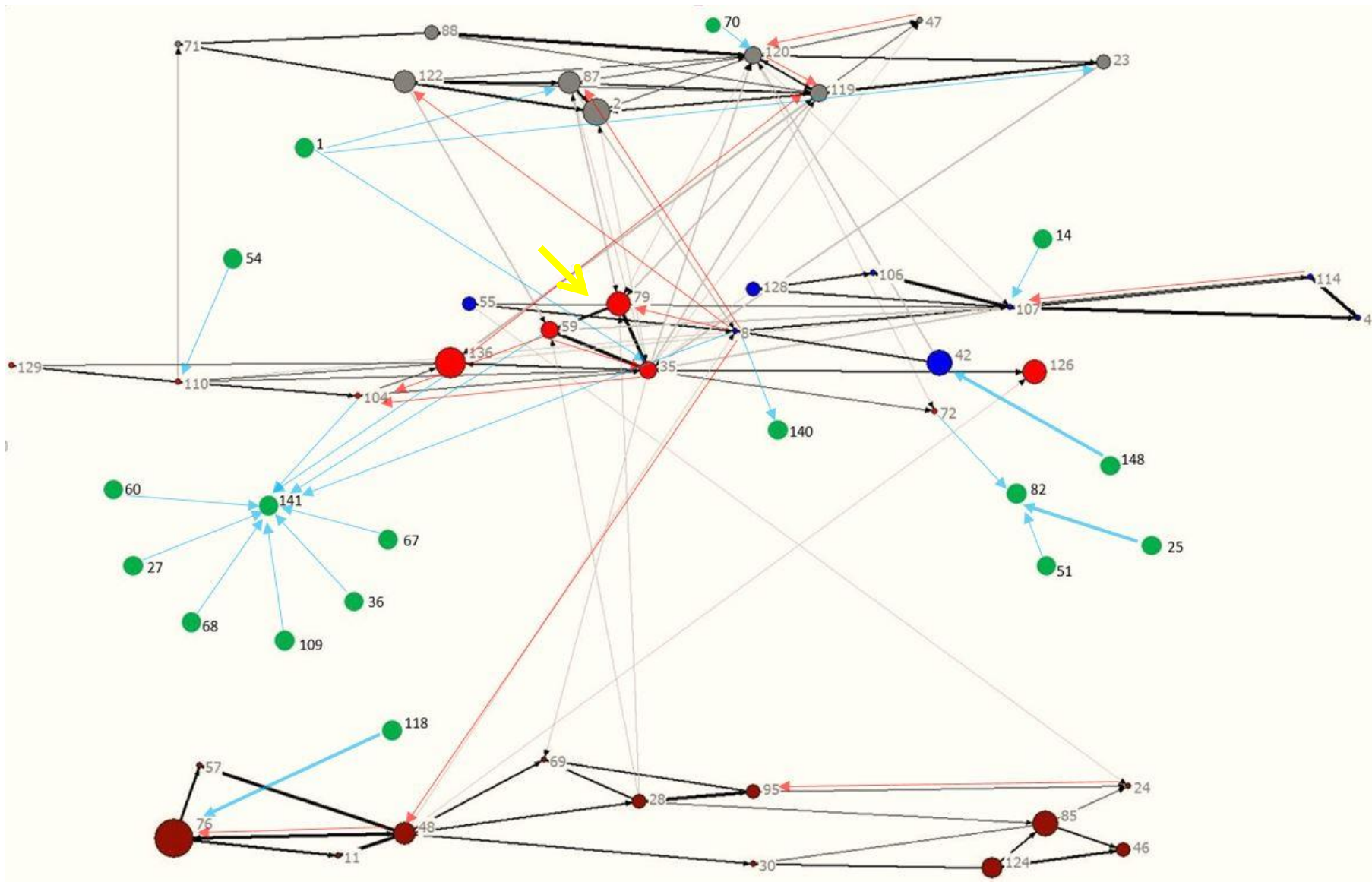
City-Wide Implementation

Workshop Series

- **Field trip for elected officials**
- **Maintenance challenges and solutions discussed with municipal staff**
- **Residents and businesses adjacent to the Wabash St project**



- Social network research
- Targeted facilitation / intervention
- Key sectors and anchors
- Implementation



Developing a Community of Climate-Informed Conservation Practitioners to Protect a Priority Landscape in Illinois and Wisconsin

Angela Larsen¹, Abigail Derby Lewis², Olga Lyandres¹, Tingqiao Chen^{3,4}, Ken Frank^{3,4}

¹Alliance for the Great Lakes

²The Field Museum, Science Action Center

³Michigan State University, Department of Fisheries and Wildlife within the College of Agriculture and Natural Resources

⁴Michigan State University, Department of Counseling, Educational Psychology and Special Education within the College of Education

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Larsen, A., Derby Lewis, A., Lyandres, O., Chen, T., Frank, K. 2014. Developing a Community of Climate-Informed Conservation Practitioners to Protect a Priority Coastal Landscape in Illinois and Wisconsin.

For further questions, please contact alarsen@greatlakes.org or aderby@fieldmuseum.org



White Paper:

Larsen, A., Derby Lewis, A., Lyandres, O., Chen, T., Frank, K. 2014. ***Developing a Community of Climate-Informed Conservation Practitioners to Protect a Priority Coastal Landscape in Illinois and Wisconsin.***

http://glisa.umich.edu/media/files/projectreports/GLISA_ProjRep_ILWI_Ravines.pdf

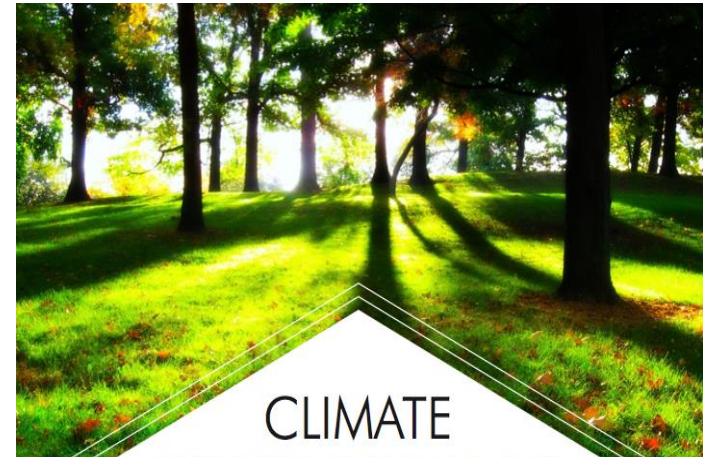
Tools and Resources

US EPA Climate-Ready Estuaries workbook

Being Prepared for Climate Change
A Workbook for Developing
Risk-Based Adaptation Plans

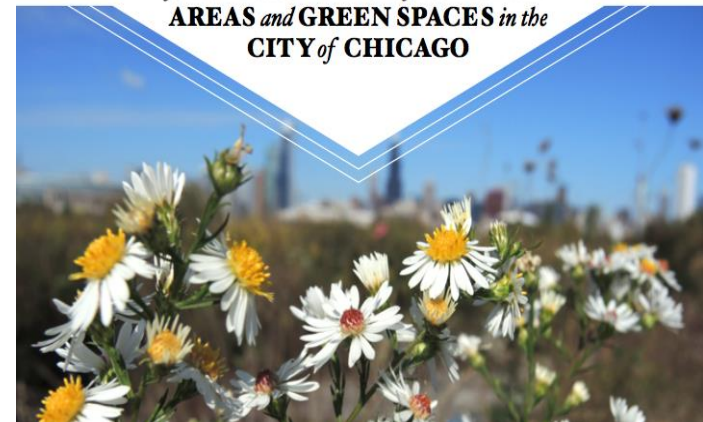


Climate Consideration Guidebook



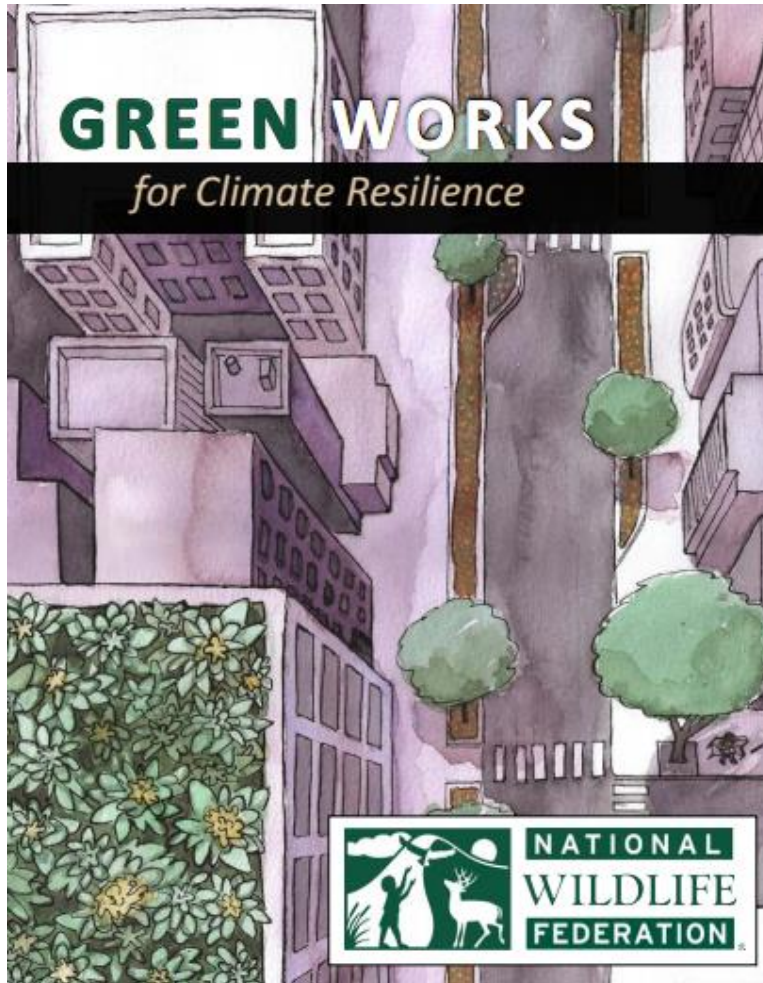
CLIMATE CONSIDERATIONS

for **MANAGEMENT of NATURAL
AREAS and GREEN SPACES in the
CITY of CHICAGO**



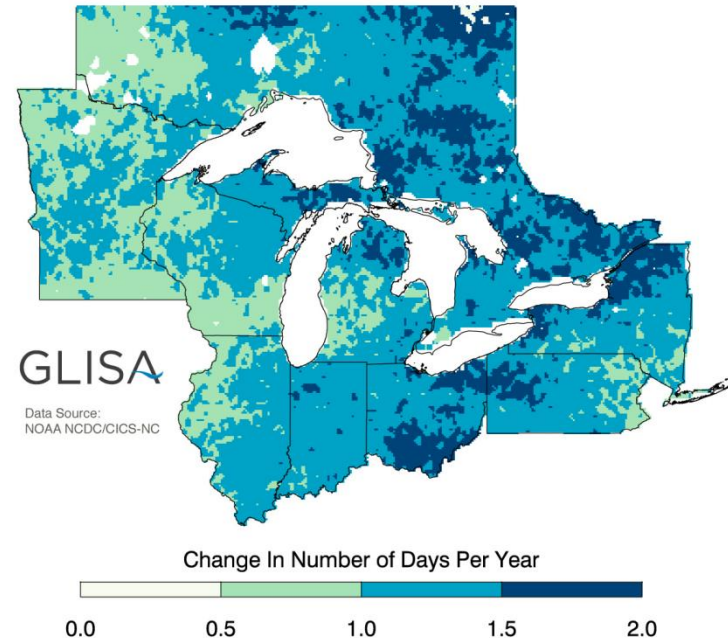
Tools and Resources

Green Works for Climate Resilience



Great Lakes Integrated Science and Assessment Center (GLISA)

Projected Change in Number of Heavy Precipitation Days
Period: 2041-2070 | Higher Emissions: A2



Thank you!



The Project Team

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Thank you

