



Innovative Approaches to Stormwater Management in Milwaukee

30th Street Corridor Wet Weather Relief Project

Kim Siemens, PE

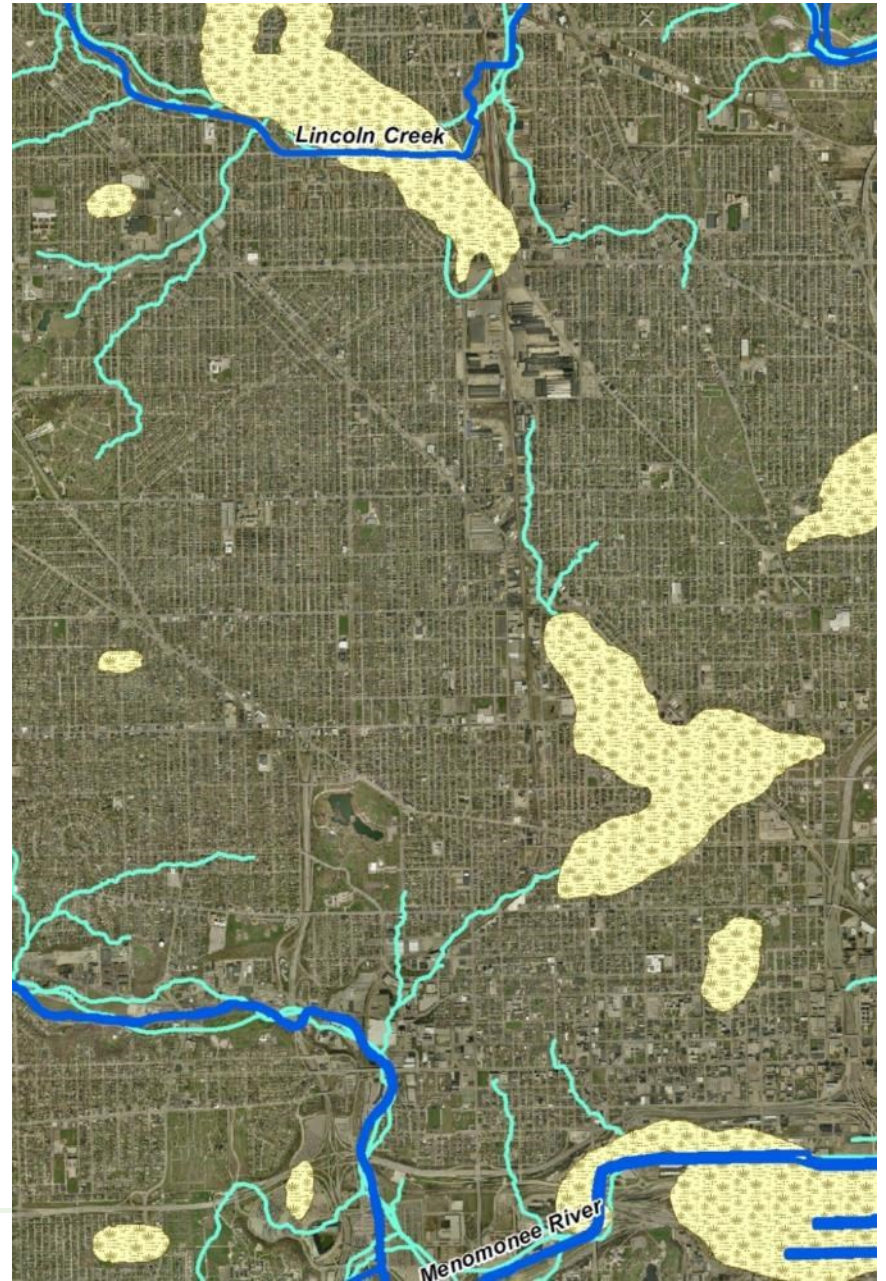
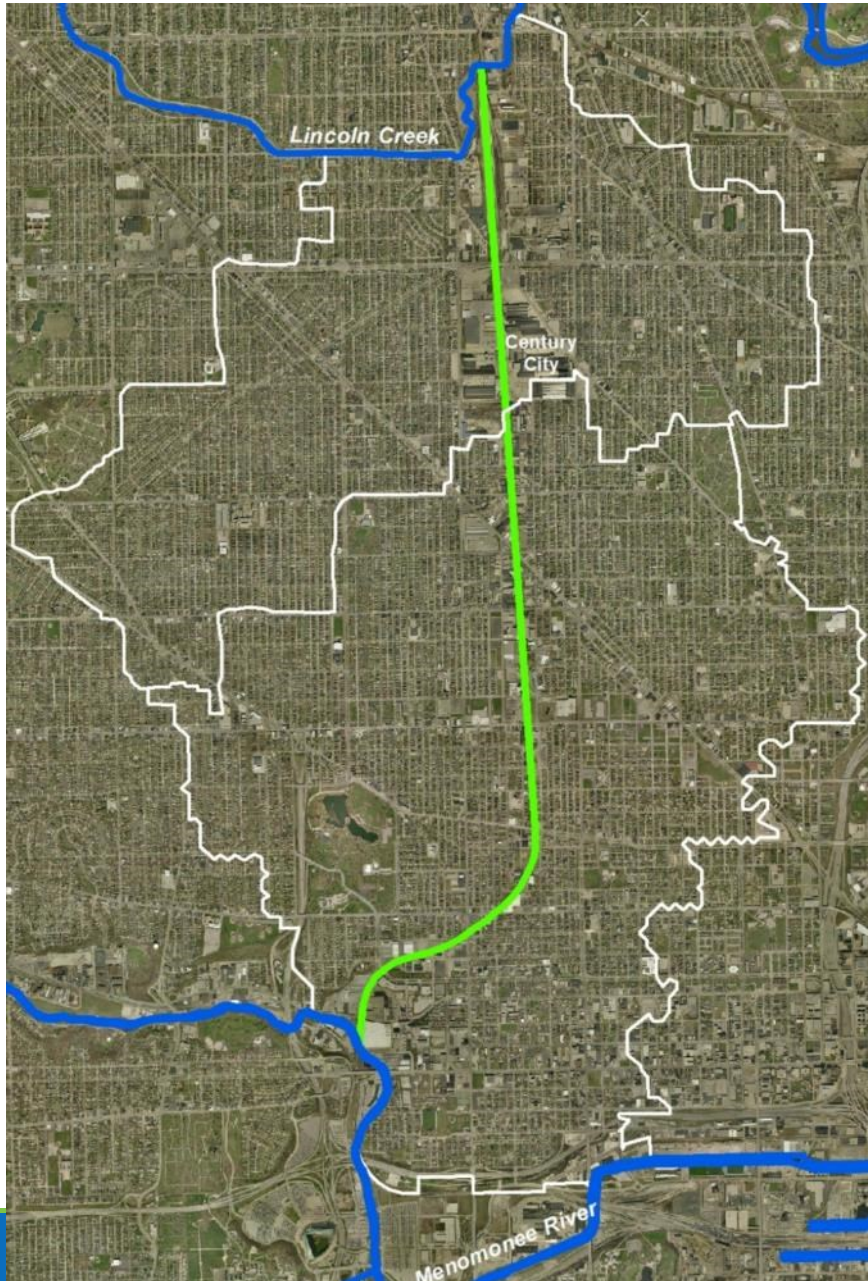
November 2, 2018



July 22, 2010



30th Street Industrial Corridor



Integrated Regional Stormwater Management Program

Mission:

Recommend improvements in areas that are prone to chronic stormwater flooding upstream of the regulatory floodplain due to disruption of overland flow paths through land development and/or constrained storm/combined sewer capacity.

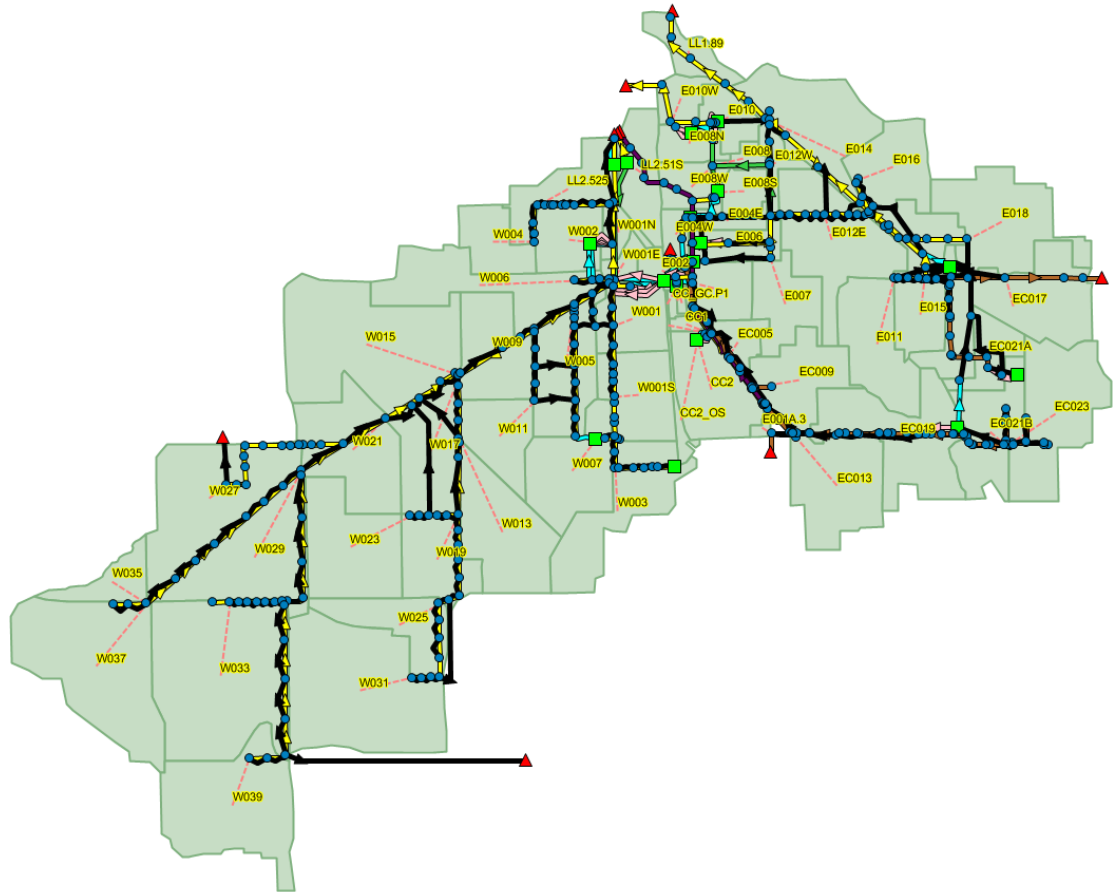
Consider:

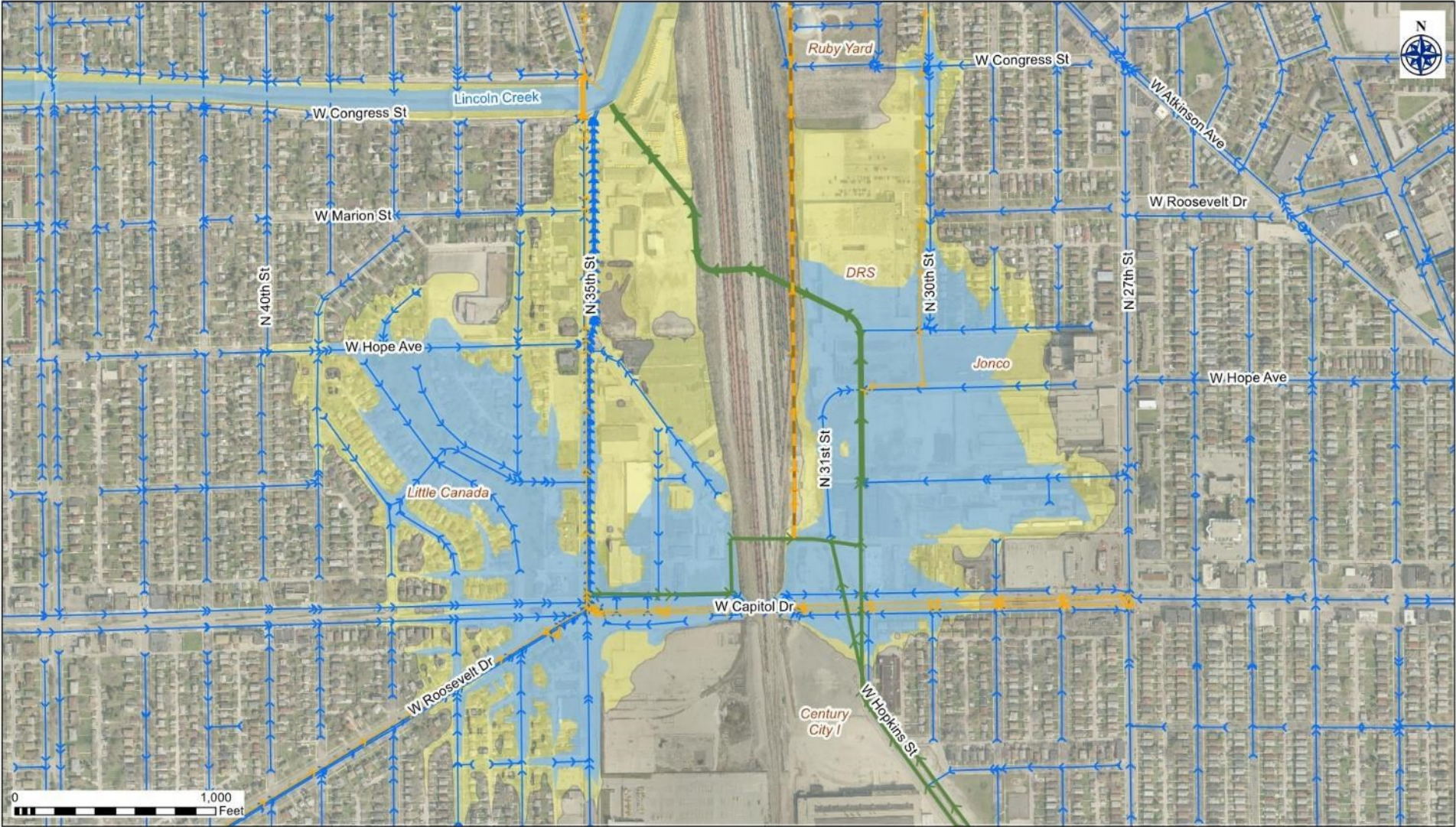
- *Redevelopment*
- *Environmental remediation*
- *Job creation/retention*
- *Restored economic vitality*
- *Safe neighborhoods*
- *Water quality*
- *Green infrastructure initiatives*



Modeling

- Simulate various storm events
- Characterize the capacity of the existing drainage system
- Develop concepts for flood management improvements





Inundation Areas

- July 2010 Event
- 100 Year Storm

Existing Utilities

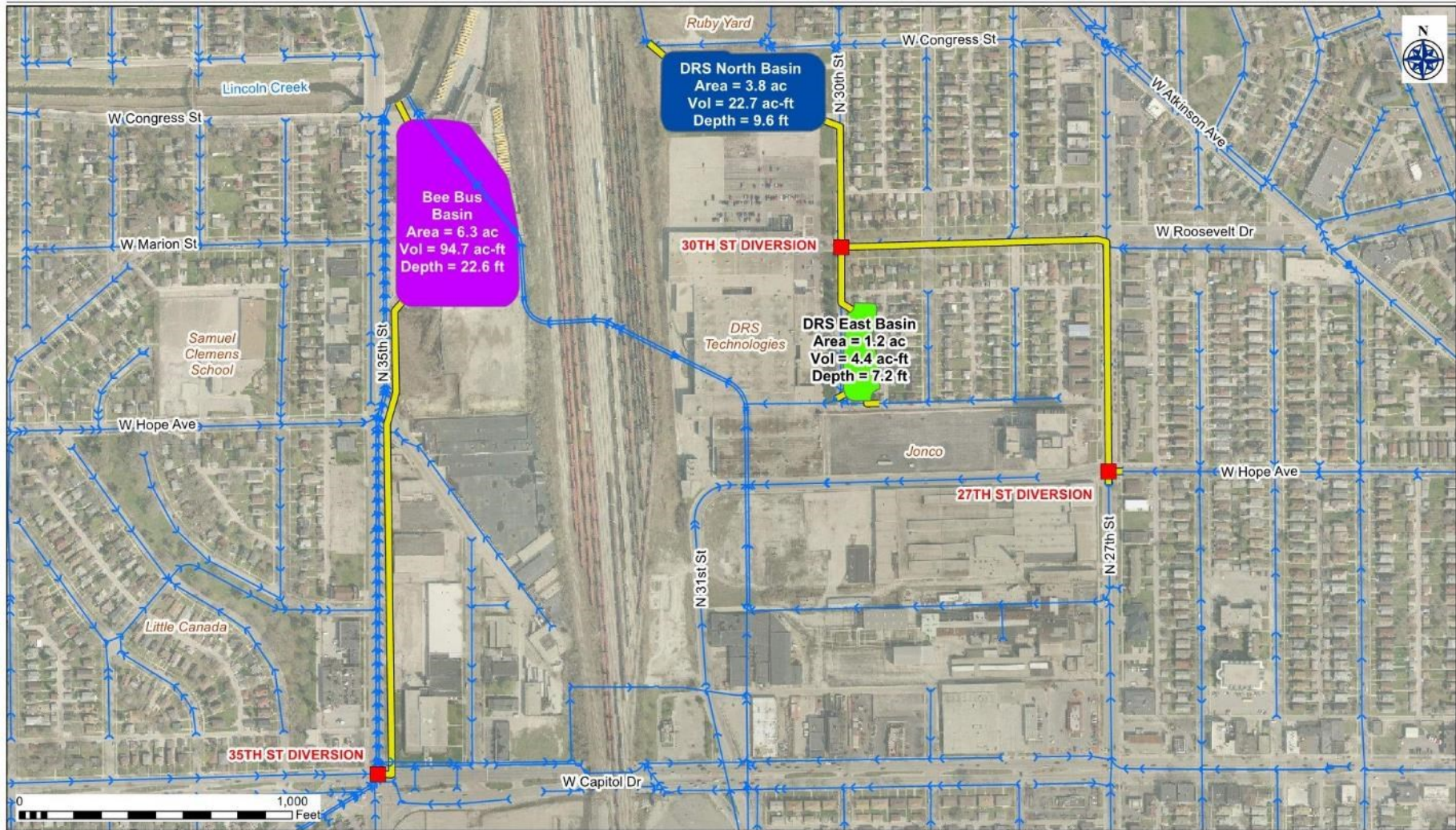
- MMSD Metropolitan Interceptor Sewer
- MMSD Combined Sewer Overflow
- MMSD Inline Storage System
- City of Milwaukee Storm Sewer

INUNDATION AREAS [EXISTING CONDITION]

Capitol Drive Viaduct Vicinity



Recommended Plan



East Basin



East Basin



North Basin



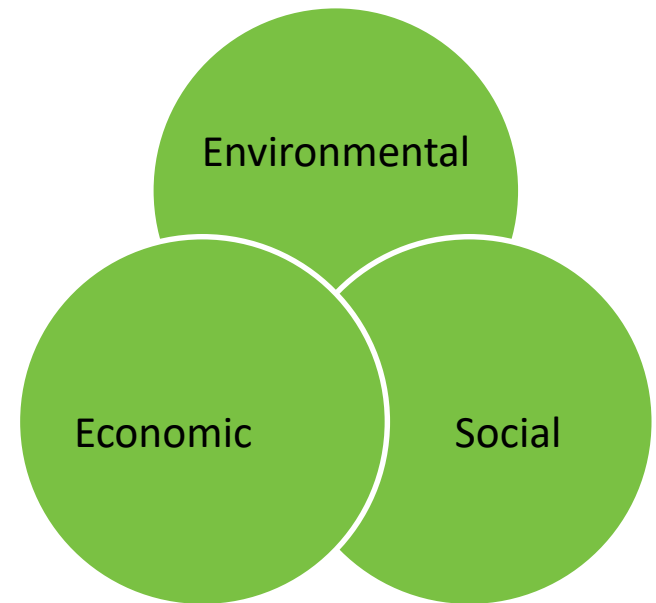
North Basin



Sustainability

➤ ISI Envision Checklist updated throughout design

- Reduction in flood risk
- Reduction in impervious area
- Enhancements to public space
- Removal of contaminated soil
- Beneficial reuse of excavated material
- Native plantings
- LED lighting
- Crime Prevention Through Environmental Design
- Meaningful public outreach



Transferability to the Calumet

- Similarities between The Corridor and the Calumet
 - Dense urbanized area, limited green space
 - Strained by frequent flooding
 - Limited downstream drainage capacity
 - Limited resources to address the problem
- Lessons learned that can be applied to projects in the Calumet
 - Projects like these take time
 - Multi-benefit solutions are preferred
 - Outreach to the community is critical
 - Partnerships between agencies are key to success



THANK YOU

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