Robbins: Reimagining Stormwater Investment

- Metropolitan Water Reclamation District of Greater Chicago
- Richard Fisher, PE
MWRD – Our Mission

Protect Drinking Water Supply

Prevent CSOs to Waterways

Manage and Treat Wastewater

Recover Resources
The authority for general supervision of stormwater management in Cook County was conveyed to the District by the Illinois State legislature.

Detail Watershed Plans (DWP) completed for the 6 major watersheds of Cook County: Cal-Sag Channel, Little Calumet River, Lower Des Plaines, North Branch of the Chicago River, Poplar Creek, and Upper Salt Creek.

District’s authority was amended to allow for flood-prone property acquisition and to plan, implement, finance, and operate local stormwater management projects.

Phase I Projects
Identified from the DWP’s to address overbank flooding “riverine flooding”

Phase II Projects
Working with local communities and agencies to address local drainage problems.

Stormwater Masterplans
Investigate “urban flooding” issues and evaluate potential green and gray infrastructure solutions.
6 Major Watersheds
Over 900 square miles, & 125 Communities,
Combined sewer areas comprise 375 square miles served by TARP
100-Year Storm Event Inundation Area
Flooding impacting > 140 acres (~20% of total land in Robbins or 0.22 sq. miles)
Alternative #2

- Existing 84 in dia bypass conduit
- 137TH STREET
- 8.84 acre ft detention basin
- 150 ft - 7'x5' box culvert
- Flood wall
- Channel widening - 20 ft bottom width (3:1 side slope)
- Re-grading along eastern slope
- BERM along channel w/ overflow at EL 597.20
- 48 in dia outlet conduit
- INV 588.00 US
- INV 587.50 DS

Metra (Rock Island) rail line
Challenges of the Previous Work

- Engineered solutions focused only on stormwater management
  - Effective, but high cost ($6M)
  - Provided 25-year level of protection
  - Solution impacted at least some homes
  - Plans for future development incomplete and not integrated with stormwater alternatives
  - No added benefits beyond flood control
HELP ME
HELP YOU
Robbins: Reimagining Stormwater Investment

- Continuous Flooding
- Lack of investment & services
- Vacant land
- Lack of sports fields
- Lack of major open spaces
- Poor relationship to transit
“Let’s design a flood control solution that will maximize local assets and spur economic development.”
Vision Plan for Robbins

- MWRD would like to assist in implementing a local plan
- Maximize local assets
  - People
  - History
  - Transportation
  - Proximity to industry, city
- Guided by and partnered with the Village
Job creation
Potential for transit-oriented development
Creation of recreational spaces
Connections to the regional resources
Community Engagement

Public meetings and workshops

1. No Relocation of Residents
2. Solve the Flooding
3. Respect and engage the historic legacy of Robbins
4. Attract new residents
5. Facilitate development of affordable housing and retail
6. Inspire job creation
7. Create space for youth sports and seniors
8. Engage nature through learning, fishing, walking, & rowing
9. Establish a strategy for maintenance and maximizing the value of land around the park
Vision:
A green-blue stormwater solution for Robbins which includes wetlands, lakes, parks and playfields.

District 1 – Creating Robbins Park
3 Development Districts

District 1 – Robbins Park
District 2 – Transit-Oriented Development District
District 3 – Industrial District
Stakeholder Engagement

**Technical Experts:**
Cook County Department of Transportation and Highways
Regional Transit Authority
Illinois Department of Natural Resources
Chicago Botanic Garden
The Nature Conservancy
South Suburban Mayors & Managers Association

**Funders/Influencers:**
Cook County
U.S. Department of Housing and Urban Development
Illinois Housing Development Authority
Illinois Department of Natural Resources
The Nature Conservancy
South Suburban Mayors & Managers Association
Metropolitan Planning Council

**Land Holders:**
South Suburban Land Bank and Development Authority
Cook County Land Bank Authority
Housing Authority of Cook County
OpenLands

**Core Group for Infrastructure and Pre-Development Leadership:**
Village of Robbins
Metropolitan Water Reclamation District
Cook County
South Suburban Land Bank and Development Authority

**Stewards/Workforce:**
U.S. Department of Defense / Innovative Readiness Training Program
Morton Arboretum
Chicago Botanic Garden
OAI, Inc.
Illinois Department of Natural Resources - Millennium Reserve

**Other Interested Partners:**
Illinois Environmental Protection Agency
Forest Preserve District of Cook County
Chicagoland Metropolitan Agency for Planning
Argonne National Lab
Illinois Association of Park Districts

**Potential Private Partners:**
UIC’s Voorhees Center
Impact Engine
MacArthur Foundation
Grand Victoria Foundation
Chicago Community Trust
Rural Studio
Corvias
Owner of Robbins Power Center
Miller Canfield
Chi-Cal Rivers Fund
Section 319 Grant
Grants Applied

- Chi-Cal Rivers Fund – NFWF - $300 k
- CMAP’s Local Technical Assistance Grant
- Chicago Community Trust/ Univ. Illinois Chicago - $100 k
- Innovative Readiness Training Grant
- FEMA’s Pre-Disaster Mitigation Grant
- Section 319 Grant
- Community Development Block Grant – DR $2.2 m
Lessons Learned ...

• Thinking outside the box
• Community outreach
• Underserved communities lack capacity and resources
• Time
• Long-term maintenance remains an issue
Questions?

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