Community engagement: Upcoming activities

Objectives:

• Continue to promote awareness of the project
• Watershed residents understand the range of strategies considered to address flooding
• Project team receives community feedback that helps refine strategies to pursue further

Tools:

• Updated online open house and survey
• Public watershed tour(s)
• Tabling at public events
The RainReady Approach
Non-Structural Solutions to Urban Flooding

Clean Water Services Presentation | February 5, 2018
Dawn Thompson & Marcella Bondie Keenan | Center for Neighborhood Technology
Overview

About CNT and RainReady

The Problem of Urban Flooding

RainReady Community
• Case Study: Village of Midlothian, IL

RainReady Home
• Case Study: Village of Oak Park, IL

Q & A
Center for Neighborhood Technology

About Us
- Founded in 1978
- Sustainable Urban Solutions
- Climate
- Water
- Transportation
- Community Development

Community-Based Programs
- Outreach + Education
- Community Organizing
- Resilience Planning
- Program Administration
The Problem of Urban Flooding
Resident Interviews

- Health: Mold, Stress
- Finances: Lost wages, Home repairs
- Social: Isolation, Embarrassment
Defining Community Risk

Community Meetings

When my property flooded, I lost my...

- Television
- Couch
- Love seat
- 2 hassocks
- 4 bookshelves
- Desk & Chair

- 2 bookshelves
- Storage shelves
- Freezer
- Grandfather clock
- Tape storage rack
Insurance Claim Analysis

The Prevalence and Cost of Urban Flooding
A Case Study of Cook County, IL
Phase One (May 2013)

Median Income and Highest Concentrated Damage

- Hardest Impacted Zip Codes
  Highest Number and Dollar Payout
- Zip Code
- Floodplain

Median Household Income
Cook County Median $50,813
- $19,000 to $47,000
- $47,000 to $62,000
- $62,000 to $81,000
- $81,000 to $138,000
- Greater than $138,000
Major Findings

1. 92% flooding outside floodplain

2. Average household damage per flood: over $4,000

3. Low-income areas suffered most
URBAN FLOODING AWARENESS ACT STUDY, IL
The RainReady Program and Approach

Principles

▪ Based on community needs + goals
▪ Incentivize community-wide benefits
▪ Offer evidence-based solutions
▪ Promote “fair share” approaches

▪ Suite of solutions to fight urban flooding:
  ▪ RainReady Home
  ▪ RainReady Community
One of 12 homes with repeat flooding
Reaches 3 foot
Over 15 year period

HELEN LEKAVITCH, MIDLOTHIAN, IL: April 2013. 12 residents. One abandoned the property IN 2012, the others are advocating for solutions

RAINREADY COMMUNITY
Establish a shared understanding of flood risk

Achieve consensus on priority solutions that provide multiple benefits to the community

Provide municipal and community leaders with a clear roadmap for plan implementation

Pursue plan implementation concurrent to plan development by advancing priority projects
Defining Community Risk

**Respondents experiencing flooding problems**
- 93% Yes
- 7% No

**71 survey respondents**
- $2,242 is the average amount spent on stormwater-related repairs
- $9,314 is the average amount residents are willing to invest to reduce risk of future damage

**How does water enter properties?**
- 24: Back-up through drains
- 26: Seeping through walls
- 10: Flawing through doors/windows
- 17: Pooling/ponding in yard
- 11: Overflow from street, creek, nearby body of water
- 2: Other
- 2: Don't know

**What is the level of worry about flooding’s impact on property value?**
- Extremely worried: 30%
- Very worried: 11%
- Moderately worried: 22%
- Slightly worried: 19%
- Not at all worried: 19%

635 surveys collected
Educating and Empowering Local Champions for Plan Development and Implementation

Resident Education
- Understanding flood insurance
- Living with water
- Proper maintenance of green infrastructure
- Resident leadership and workbook
- Green infrastructure tours
- One-to-one meetings
- Committee meetings

Municipal Education Workshops
- Green infrastructure maintenance
- Floodplain 101
- Building effective partnerships
Public Engagement and Education

Natalie Creek
Create a plan for Natalie Creek that minimizes destructive overbank flooding, improves water quality, and provides a beautiful place for residents and visitors to walk, run, and bike.

Repair the existing recreational trail network between Pulaski and Kostner and work with upstream partners to extend, add lighting and benches, and increase stormwater capacity.

Your Street
Inaugurate a street-by-street program that upgrades village roads to manage stormwater run-off from impervious surfaces. Start with a plan for 147th Street that includes permeable paving, bioswales, tree planting, bike lanes, and benches to simultaneously reduce flooding, enhance business opportunity, and improve the quality of village life.

Your Street
Inaugurate a street-by-street program that upgrades village roads to manage stormwater run-off from impervious surfaces. Start with a plan for 147th Street that includes permeable paving, bioswales, tree planting, bike lanes, and benches to simultaneously reduce flooding, enhance business opportunity, and improve the quality of village life.

RECOMMENDED NEXT STEPS
- CMAP's Local Technical Assistance (LTA) Program could help design and implement a plan for 147th Street.
- The Village has received funding from CCLP's Complete Streets Technical Assistance Program to plan for stormwater management and non-motorized transportation on 147th Street.

GET INVOLVED!
Want to stay in the loop on this project? Sign up for regular project updates.

QUESTIONS?
Contact the project team at [email] or phone [phone number].

FUNDING
[Insert funding information here.]

PARTNERS
[Insert partner logos and names here.]
**RainReady Steering Committee Commitment**

- Ensure authentic community representation
- Residential advocates for effective solutions
- Commit to plan implementation
- Community ambassadors
- Help conduct outreach
SOLUTION DESIGN

Recommended interventions:
- Individual property
- Street and neighborhood
- Village wide
Case Study
Case Study: The Village of Midlothian

Village Snapshot
• Southern Cook County, Illinois
• 2.8 square miles
• Incorporated in 1927

Demographic Data
• Total Population – 14,906
• Total Households – 4,319
• Median income - $30,000

The Problem
• Natalie Creek
• 3 Watersheds

Source: 2000 and 2010 Census. 2015 American Community survey five year estimates
RAINREADY MIDLOTHIAN COMMUNITY ACHIEVEMENTS

✓ Complete Streets Project: local technical assistance grant
✓ Active Trans Complete Streets Policy - $80K
✓ Morton Arboretum impervious surface replacement - $18K
✓ IGIG parking lot & rain garden
✓ Regional Transportation Authority access to transit
✓ Metropolitan Water Reclamation District Natalie Creek Project - $9 M
✓ Local revenue funding: dedicated revenue streams “pending discussions”
✓ Two rain gardens constructed

• Over $10 million for flood mitigation projects
Inherited an unknown flood risk
“Previous owner never said anything…”

Maintenance is an afterthought
“Didn’t know sump pump didn’t work…”

Resigned to live with flooding
“Everyone on my block floods…”

 Unsure which Contractor to trust
“I got three wildly different bids…”

There’s willingness to pay, but they’re balancing other home costs
“first I have to fix my heater…”
RainReady Home Programs

Key Projects

➢ RainReady Oak Park
➢ Enterprise Community Partners
➢ Chicago Residential Flood Assistance Program
➢ Cook County Residential Resilience Program
Field Assessment Process

Image Courtesy of: Institute for Catastrophic Loss Reduction
**IMPROVEMENTS**  
*Total Estimated Cost: $5,000-$7,300*

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<th>Projects</th>
<th>Measure</th>
<th>Detail</th>
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| 1. Divert stormwater from entering property at alley. | • Install curb (~3-4") along extent of eastern property line at edge of parking pad. | Anticipated Maintenance: N/A  
Cost Range Estimate: $600-$1,300  
Optional: Reconstruction of existing stair.  
Notes: May require coordination with neighbors to ensure proper diversion. |
| 2. Capture rainwater in landscape areas | • Install rain garden with below-grade storage along eastern edge of patio.  
• Install permeable paving in place of existing patio area to drain to rain garden. | Anticipated Maintenance: Seasonal weeding and care of rain garden. Removal of debris for permeable surface.  
Cost Range Estimate: $3,600-$4,800 |
| 3. Drain flood water from sidewalk and under porch to catchbasin | • Clean and repair floor drain  
• Clean silt and debris from existing catch basin.  
• Install area drain from sidewalk adjacent to south façade to catchbasin | Anticipated Maintenance: Removal of debris contributing to area and floor drains.  
Cost Range Estimate: $800-$1,200 |

**MAINTENANCE**  
*Total Estimated Cost: $300-$700*

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| 1. Regular Building Sewer Inspection and Cleaning | • Televise building sewer | Anticipated Maintenance: Annual televising is recommended by reviewing contractor.  
Cost Range Estimate: $200-$300/year  
Optional: Chemical treatment of drain to prevent root growth. |
| 2. Regular Gutter Cleaning | • Removal of leaf and organic debris from gutters and downspouts | Anticipated Maintenance: Annual televising is recommended by reviewing contractor.  
Cost Range Estimate: $200-$300/year  
Optional: Chemical treatment of drain to prevent root growth. |
Monitoring & Evaluation
Case Study: RainReady Oak Park

Assessment + Education
Scope Design
Construction Verification
Evaluation
Program Design

Objectives
- Reduce runoff to sewer system
- Reduce site drainage problems

Applicant Selection

Eligible Measures
- Rain gardens + Cisterns
- Depaving + Permeable pavers

Financing
- 50% match up to $1,300
Outreach + Education

**Program Outreach**
- Community meeting
- Direct email
- Newsletter
- Social media

**Flood Education**
- My RainReady
  - Parcel-specific data
  - Guided questionnaire
  - Flood protection tips
- RainReady Socials

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My.RainReady.org
Assessment + Education

Key Concerns
• Seepage / Mold
• Sustainability
• Beautification

Homeowner Education
• Benefits of GI
• Site drainage
• Maintenance
Scope Design

PLANT LIST for PART SUN & CLAY
Great Blue Lobelia (Lobelia siphilitica)
Shoestring (Dedecathos moschata)
Red milkweed (Asclepias incarnate)
White coreopsis (Coreopsis gladiata)
New England aster (Symphoricarpus novae-angliae)
Olive goldenrod (Solidago virginiensis)

Landscape and Building Exterior Observations

- The south yard is unevenly graded.
- The downspouts are discharging into low spots that can trap and hold water against the south foundation wall.
- The soil texture is a clay loam.
Construction Verification

Before

After
Construction Verification

Before

After
Private Investment

LEVERAGE ACHIEVED

$1 : $1.8

Average Project Cost: $3,845
Average Grant: $1,300
Average Private Investment: $2,345
Total Private Investment: $26,914
QUESTIONS?

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