

Marcella Bondie Keenan | Center for Neighborhood Technology

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#### Hierarchy for Stormwater Management



#### **AVOID IT**

Avoid stormwater runoff by protecting open space

#### **SINK IT**

Catch and sink runoff by adding porous paving, trees, and rain gardens to urban areas

#### **HOLD IT**

Hold runoff temporarily through detention basins in parks, golf courses, reservoirs, etc.

#### **SEND IT**

Send runoff to treatment facilities using pipes, tunnels, and ditches



### Community Benefits of Green Infrastructure

	Reduces Stormwater Runoff											Improves Community Livability						
Benefit	Reduces Water Treatment Needs	Improves Water Quality	Reduces Grey Infrastructure Needs	Reduces Flooding	Increases Available Water Supply	Increases Groundwater Recharge	Reduces Salt Use	Reduces Energy Use	Improves Air Quality	Reduces Atmospheric CO <sub>2</sub>	Reduces Urban Heat Island	Improves Aesthetics	Increases Recreational Opportunity	Reduces Noise Pollution	Improves Community Cohesion	Urban Agriculture	Improves Habitat	Cultivates Public Education Opportunities
Practice	600							<b>#</b>	*	CO <sub>2</sub>			K	\$ TO S	ţţţ	*		
Green Roofs					0	0	0											
Tree Planting					$\bigcirc$		$\bigcirc$											
Bioretention & Infiltration							0	0								$\bigcirc$		
Permeable Pavement					0							0	0		0	0	0	
Water Harvesting							0					0	0	0	0	0	0	









Source: The Value of Green Infrastructure: A Guide (CNT)

# RainReady Oak Park Program

Home Assessment Report + Landscape Design

Construction Support

**Evaluation** 







# **Program Design**

#### **Program Objectives**

- Reduce runoff to sewer system
- Reduce residential drainage problems

#### **Eligible Measures**

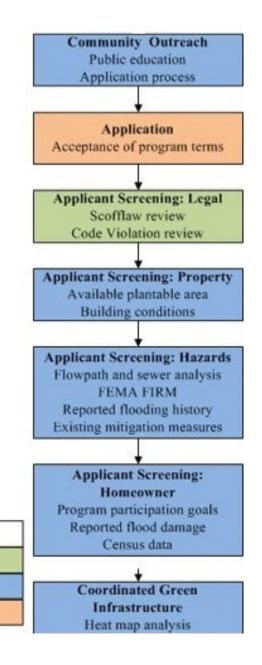
- Rain gardens + Bioswales
- Depaying + Permeable pavement
- Cisterns + Dry wells
- Other approved green infrastructure

#### **Program Financing**

50% match up to \$1,300

#### **Participant Selection**

- Scofflaw review
- Applicant prioritization



Task Lead

Municipality

CNT

Homeowner





# Outreach + Education

The 2019 program opened with a lengthy waitlist, as a result of the previous year's outreach. In order to minimize program wait times, minimal promotion was conducted in 2019.

In lieu of general outreach, CNT contacted waitlisted applicants via phone calls and direct emails. Interested applicants were invited to an application review meeting. During this phone call, applicants discussed their RainReady goals and constraints, learned about the benefits and limitations of green infrastructure, and were reminded of the program requirements. Applicants who confirmed an intent to meet program requirements were enrolled in the program.

All applicants were also provided with on-demand resources such the My RainReady diagnostic tool, fact sheets, and videos.



Photo credits: CNT, 2018

### Outreach + Education



#### Online Flood Education

#### My RainReady

- Parcel-specific data
- Guided flood risk questionnaire
- Flood protection tips for homeowners
- Customized recommendations report based on questionnaire answers
- Freely available to all
- Web: myrainready.cnt.org







# Program Results: 2017 - 2019

#### **Outreach + Education**

- 2 Community Meetings (2016; 2018); approx. 50 attendees
- Tabling at Oak Park Earth Fest (2018; 2019)
- Village newsletter & social media; CNT newsletter & social media
- Media mentions: Chicago Tribune; Around Oak Park
- Individual outreach to 175 applicants

#### **Program Enrollment**

- 221 Completed applications
- 69 Completed home assessments

#### **Completed Installations**

- 36 Rain Gardens or Bioswales
- 4 Dry Wells
- 6 Depayings

#### **Stormwater Management**

Estimated **724,000 gallons of rain**diverted from Oak Park's sewer system





### Investment

#### LEVERAGE ACHIEVED

1:3.25

Average Project Cost: \$4,021

Average Grant: \$1,238

Total Private Investment: \$156,830



# 169-s.f. rain garden

#### **Before**



#### **After**



Photo Credit: Serhii Chrucky for Red Stem Native Landscapes





## 2,600-gal. dry well + yard drain

**Before** 



**Construction** 



**After** 







# 350-s.f. rain garden + bioswale

**Before** 



#### **After**







# 951-s.f. side yard + front yard rain gardens

#### **Before**



#### After







## Participant Feedback: 2019

7/10 Extremely or Very Satisfied with Program

6/10 Not likely to make improvements without Program

Most effective outreach:

Village newsletter, RainReady website

94% Extremely or Very Satisfied with Landscaping Performance

**0% Reported Flooding** after construction



### Recommendations

- Re-initiate resident outreach activities, including promotion through the Village newsletter and social media.
- Conduct contractor outreach + create a public database of landscape installers interested in bidding on RainReady Oak Park work.
- Begin application review and enrollment invitation for waitlisted applicants as early as possible during the program year. Do not wait until the close of the annual application deadline.
- Continue to conduct scofflaw review on a rolling basis, after the invited applicant submits all grant agreement documents.
- Conduct outreach to program participants to re-enroll who received an
  assessment but did not complete an eligible project before the close of
  annual deadline. Establish earlier milestone deadlines for projects initiated
  during a previous year.
- Continue enhanced application review activities, including contacting applicants for a verbal review of grant requirements and interview with RainReady assessor.
- Update grant reimbursement forms to include a photo of completed work.



### THANK YOU

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For more information, please visit https://www.cnt.org/projects/rainready-oak-park



## **About CNT**

### Innovations laboratory for urban sustainability

Our goal is to advance urban sustainability and shared prosperity through initiatives in water, transportation, and climate. We are a "think and do tank" that offers programs, policy, and research.

