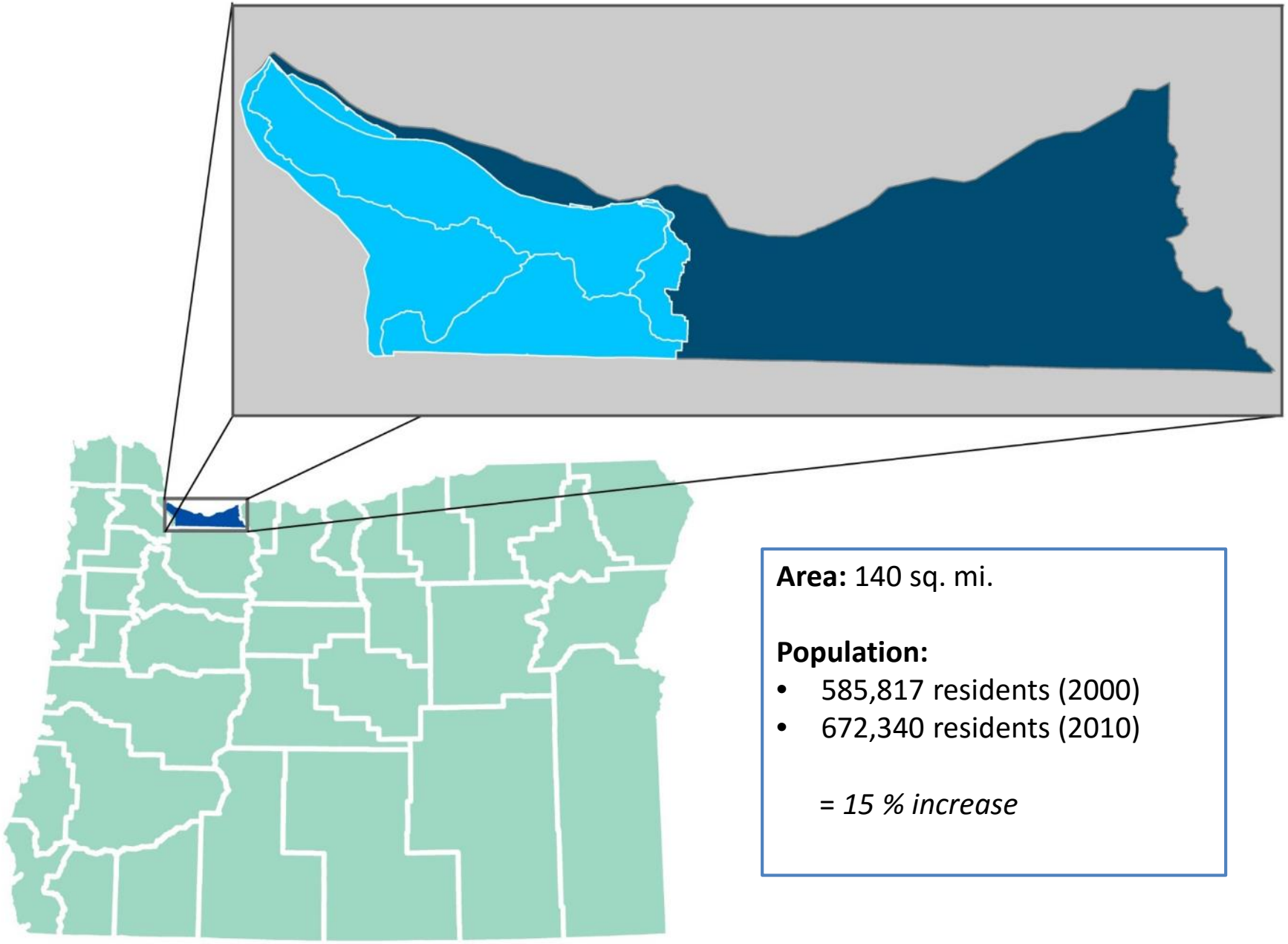
Urban Lands Program

- Background and Context
- Program Goals, Activities, and Achievements
  - Tracking & Measuring success
  - Looking forward - trajectory
- Key challenges
- Looking Forward – Goal refinement



Area: 140 sq. mi.

Population:

- 585,817 residents (2000)
- 672,340 residents (2010)

= 15 % increase

EAST MULTNOMAH
soil & water conservation district

Program Resources and Funding

2014 Urban Lands Goals

1. Work with jurisdictions to reach quantifiable improvements in water quality and quantity parameters that are adversely affected by urban landscapes.

2. Reduce seasonal increase in outdoor water used to irrigate urban landscapes during summer months.

3. Increase urban wildlife habitat.

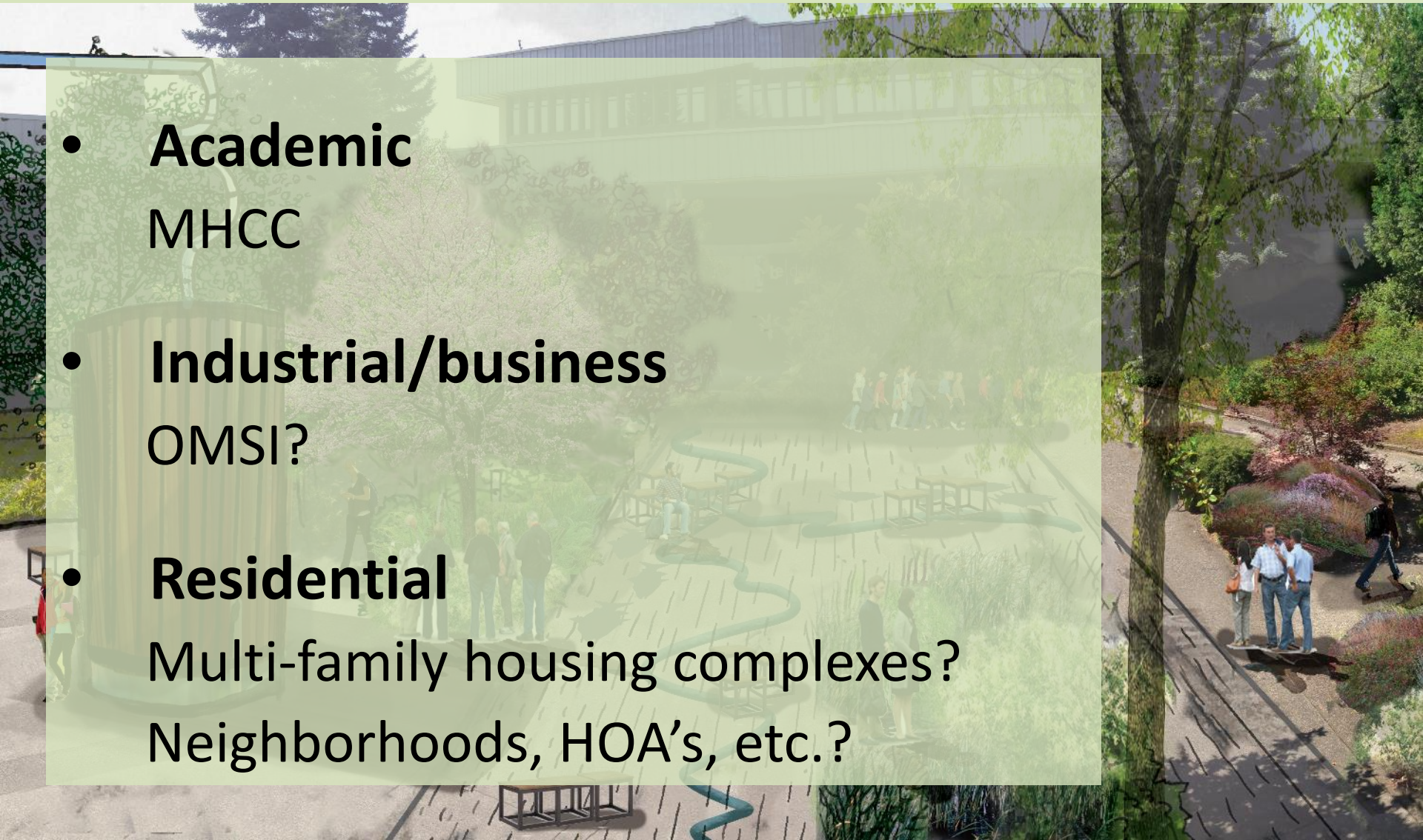
Current Strategies to Achieve Goals

1. Demonstration projects
2. Technical and financial assistance
3. Adult education
4. Promotional events
5. Web-based tools

1. DEMO PROJECTS

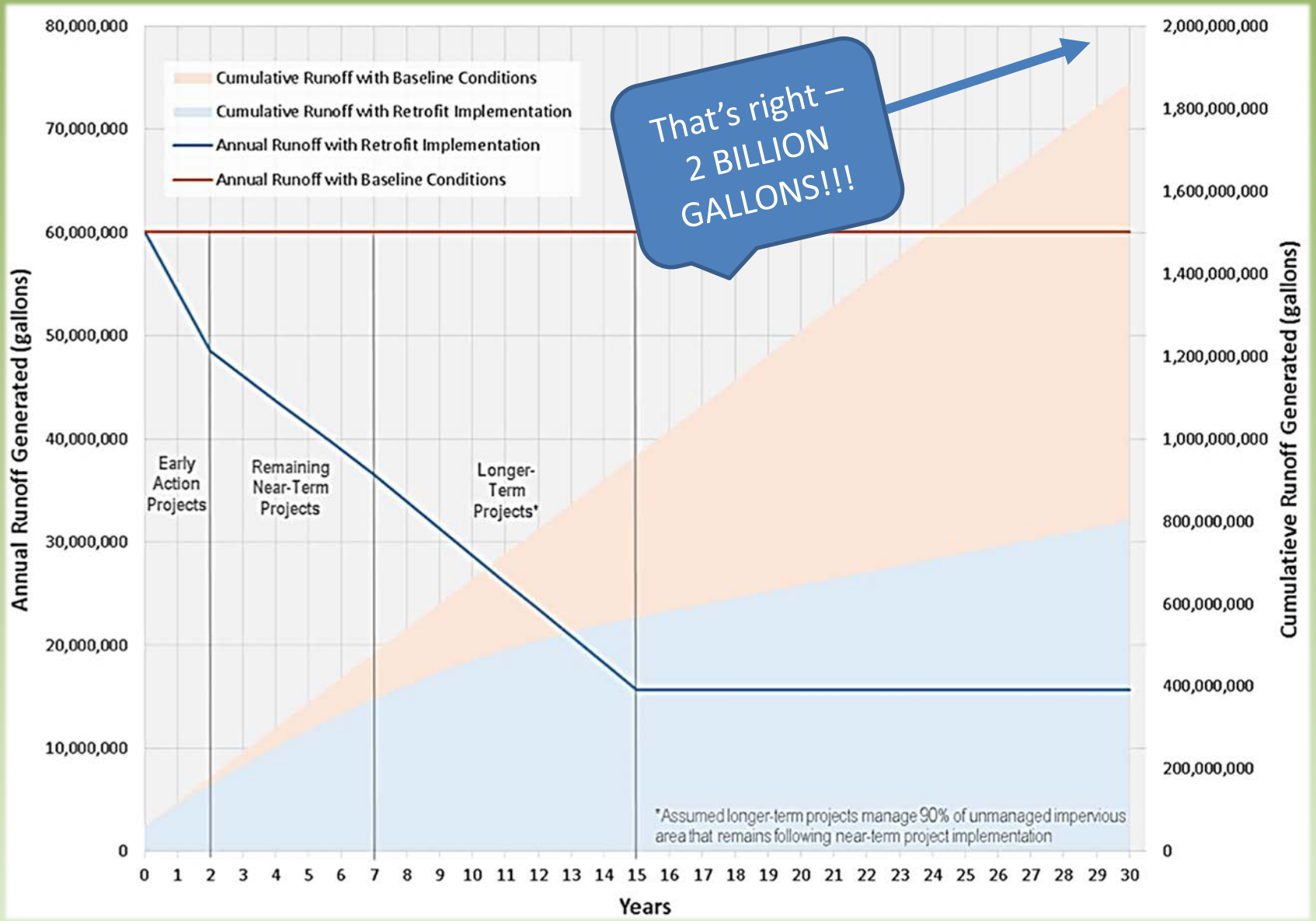
- Academic
- Industrial/Business
- Residential

1. DEMONSTRATION PROJECTS



- **Academic**
  MHCC
- **Industrial/business**
  OMSI?
- **Residential**
  Multi-family housing complexes?
  Neighborhoods, HOA's, etc.?

Demonstration Projects: MHCC



Looking Forward:
Large Demonstration Projects

Trajectory – Expand into Industrial/business and Residential

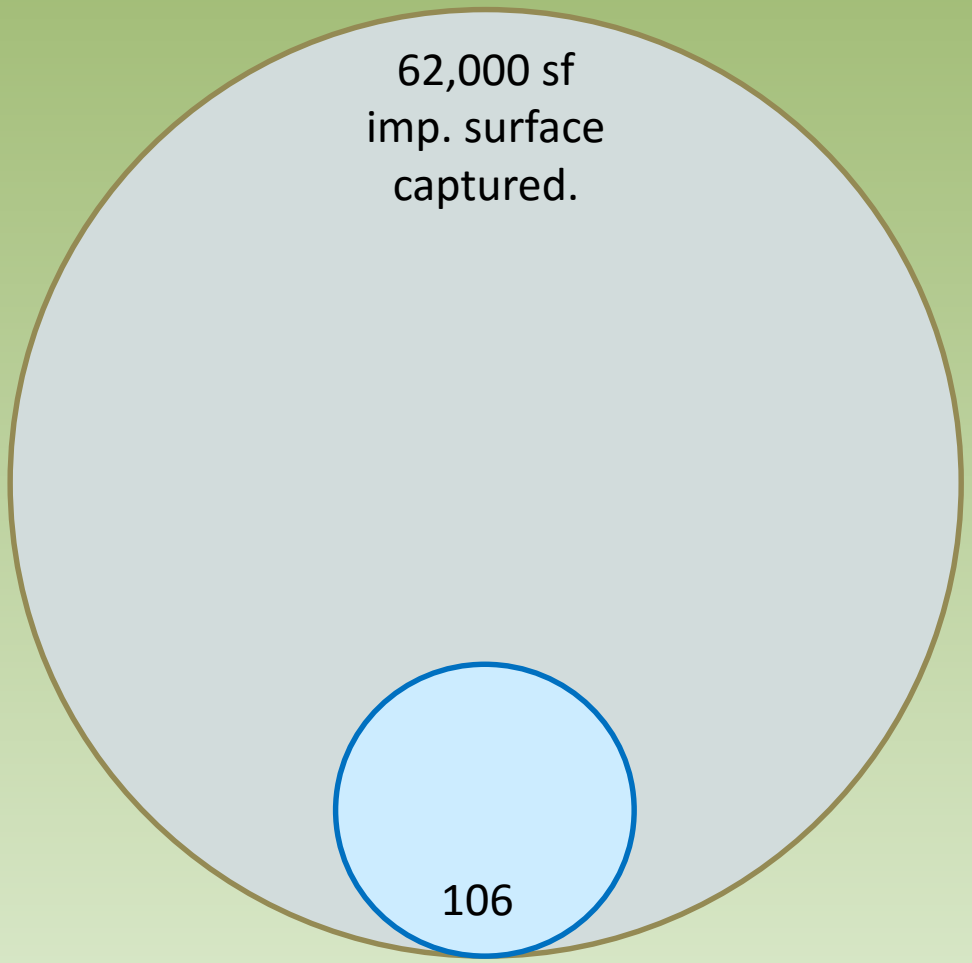
Budget – Incremental increases as the program engages new demonstration partners

2. TECHNICAL/FINANCIAL ASSISTANCE

- Rain Garden Incentives and Registrations
- Technical Assistance (1x1 site visits)
- CLIP (Cooperative Landowner Incentive Program)

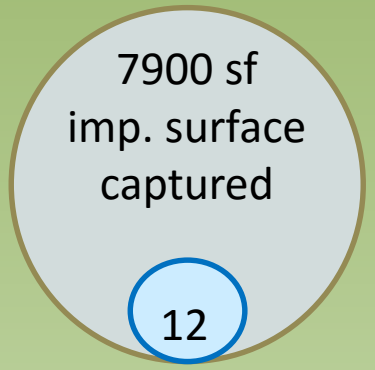
Stormwater Runoff Captured

Registration Program:



Gardens registered

Incentive Program:



Gardens installed

Note: *graphs not to scale*

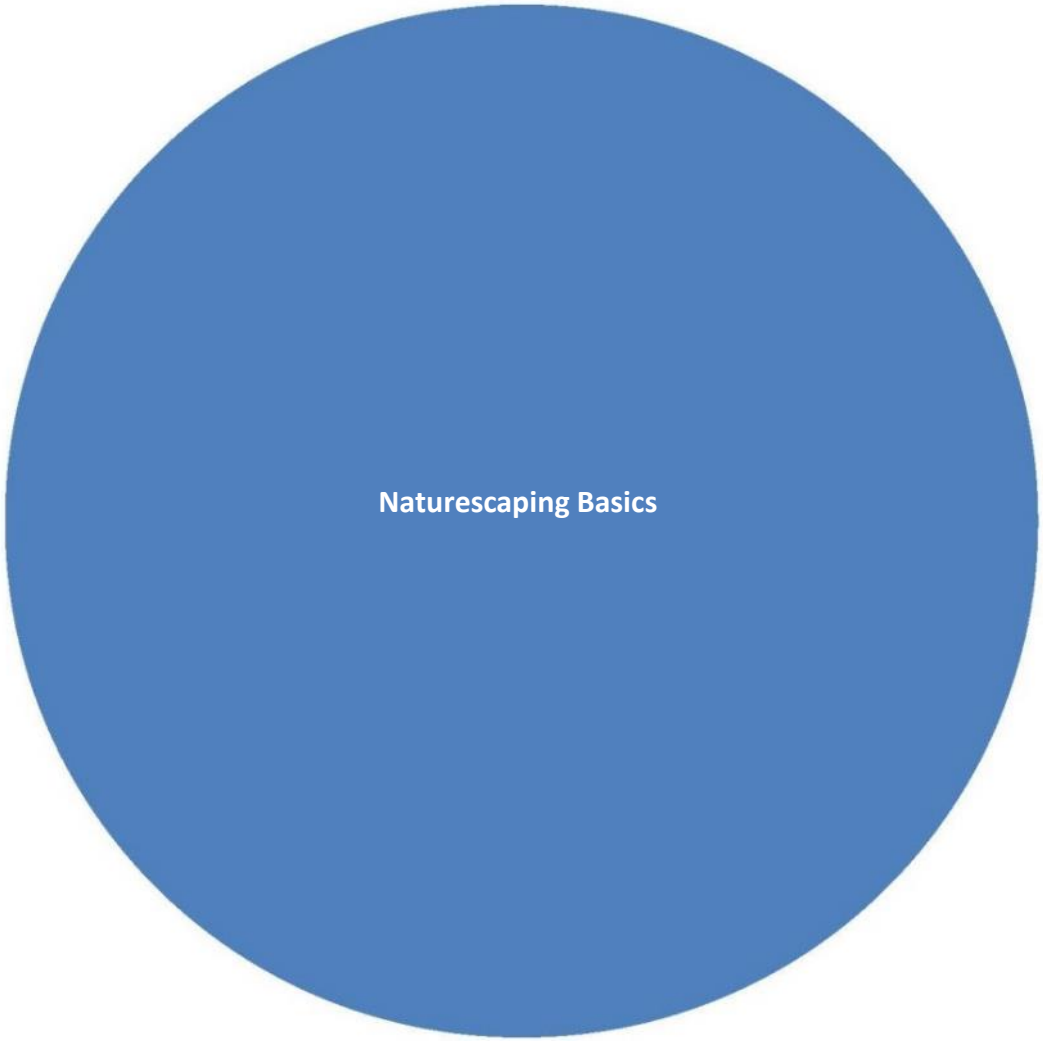
Looking Forward:
Technical & Financial Assistance

- Improve urban CLIP and incorporate RGI
- Administer SPACE grants through Urban Lands program
- Likely will need expanded budget for urban CLIP and possibly SPACE over time

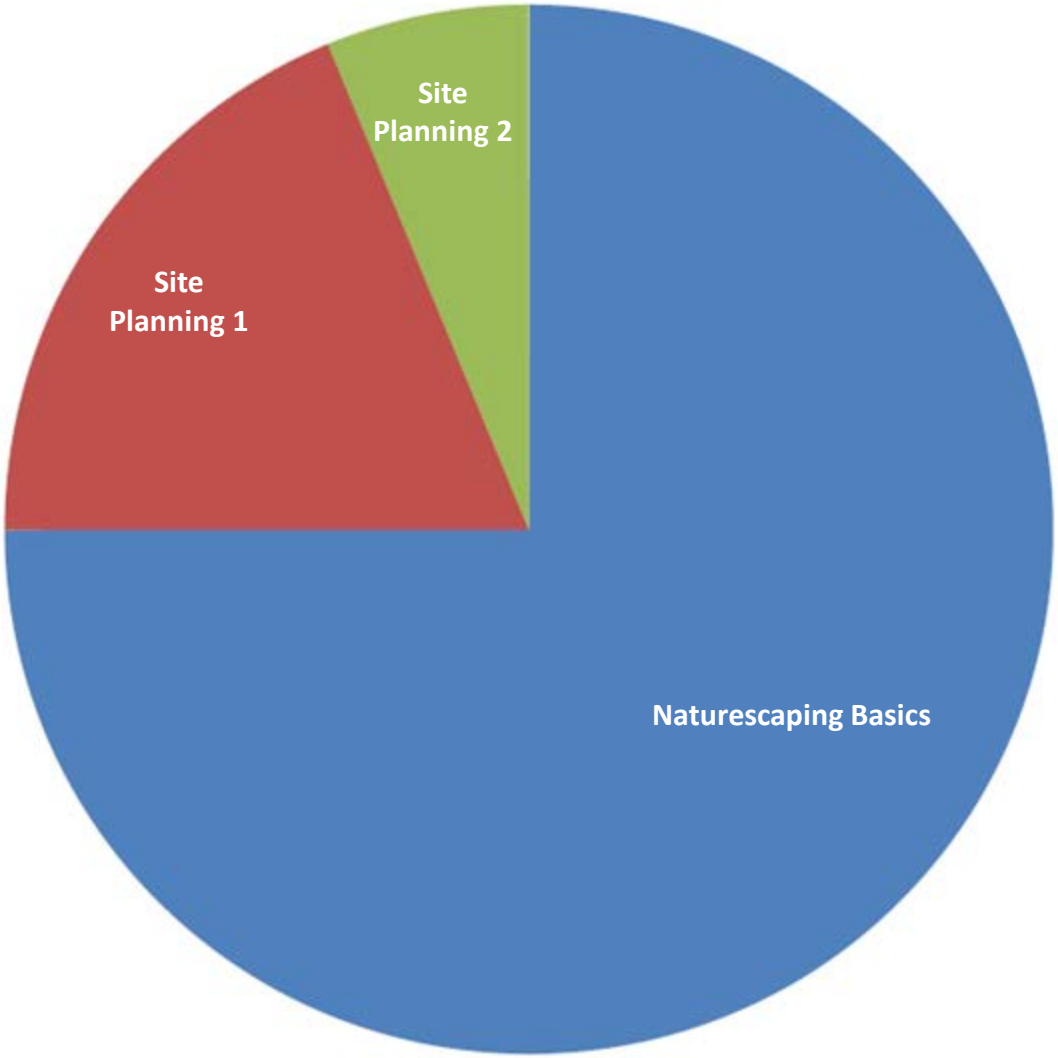
3. ADULT EDUCATION

- Workshops
- Working groups

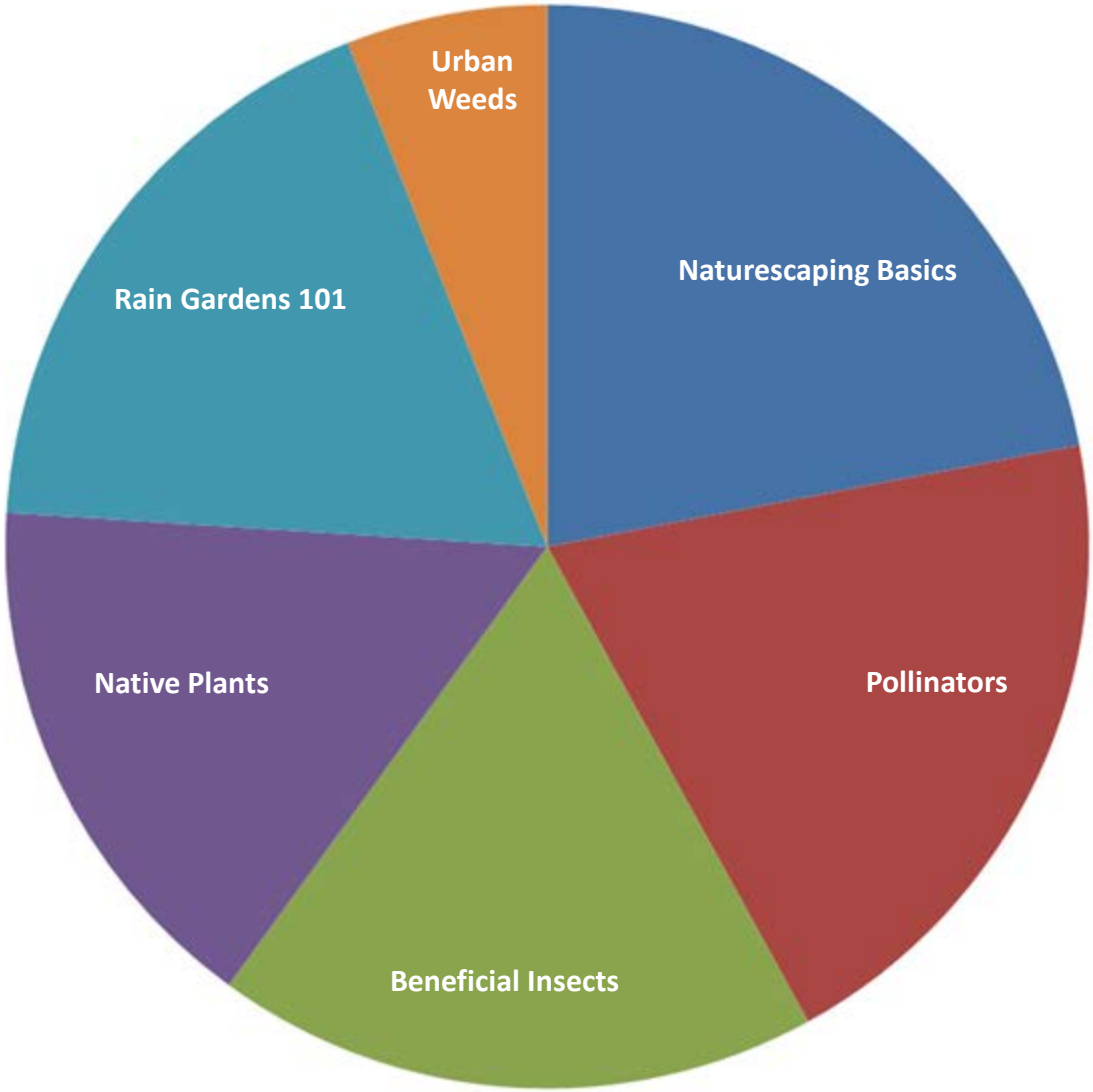
Workshop Offerings: 1995 - 1999



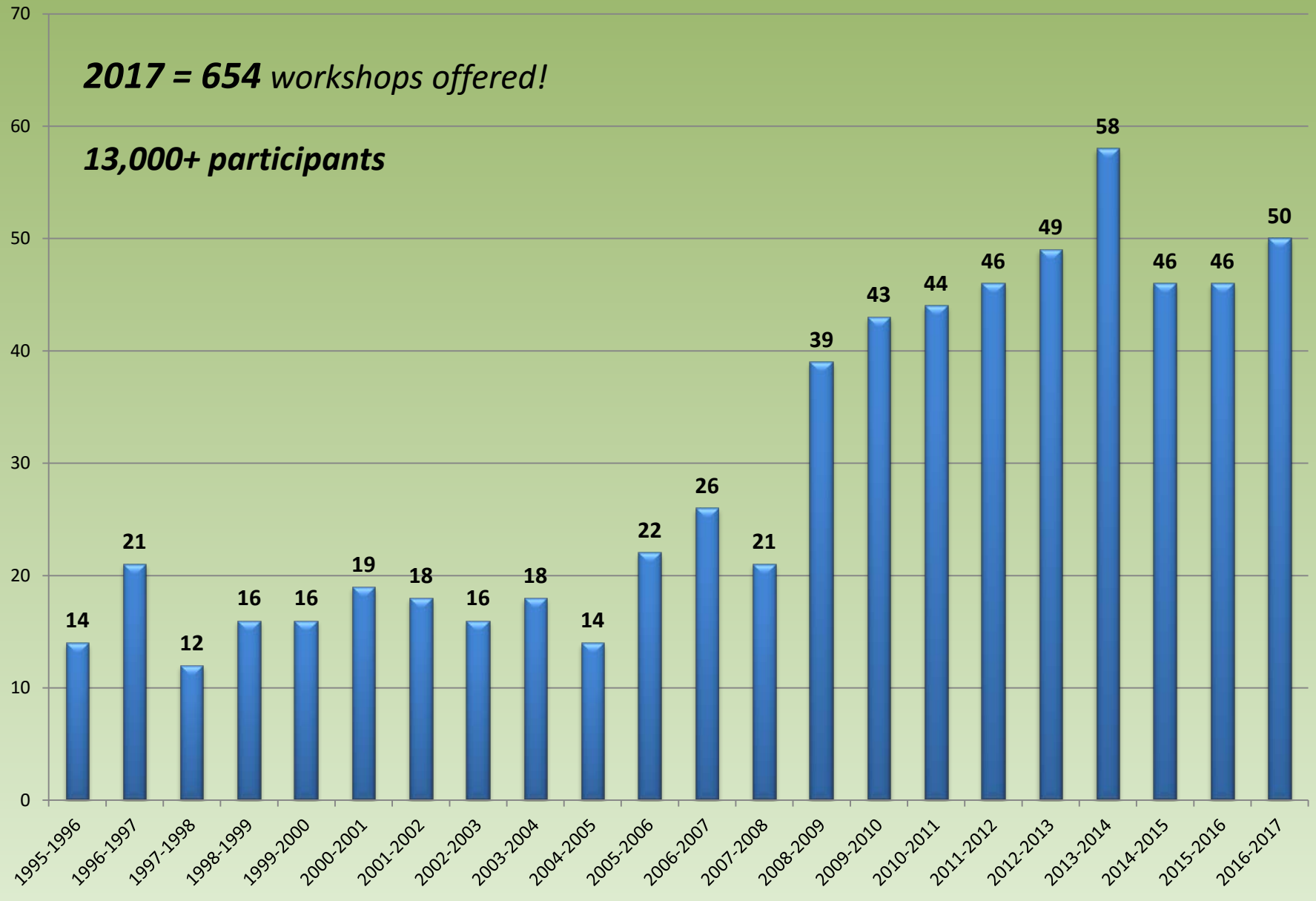
Workshop Offerings: 1999 - 2007



Workshop Offerings: Present Day

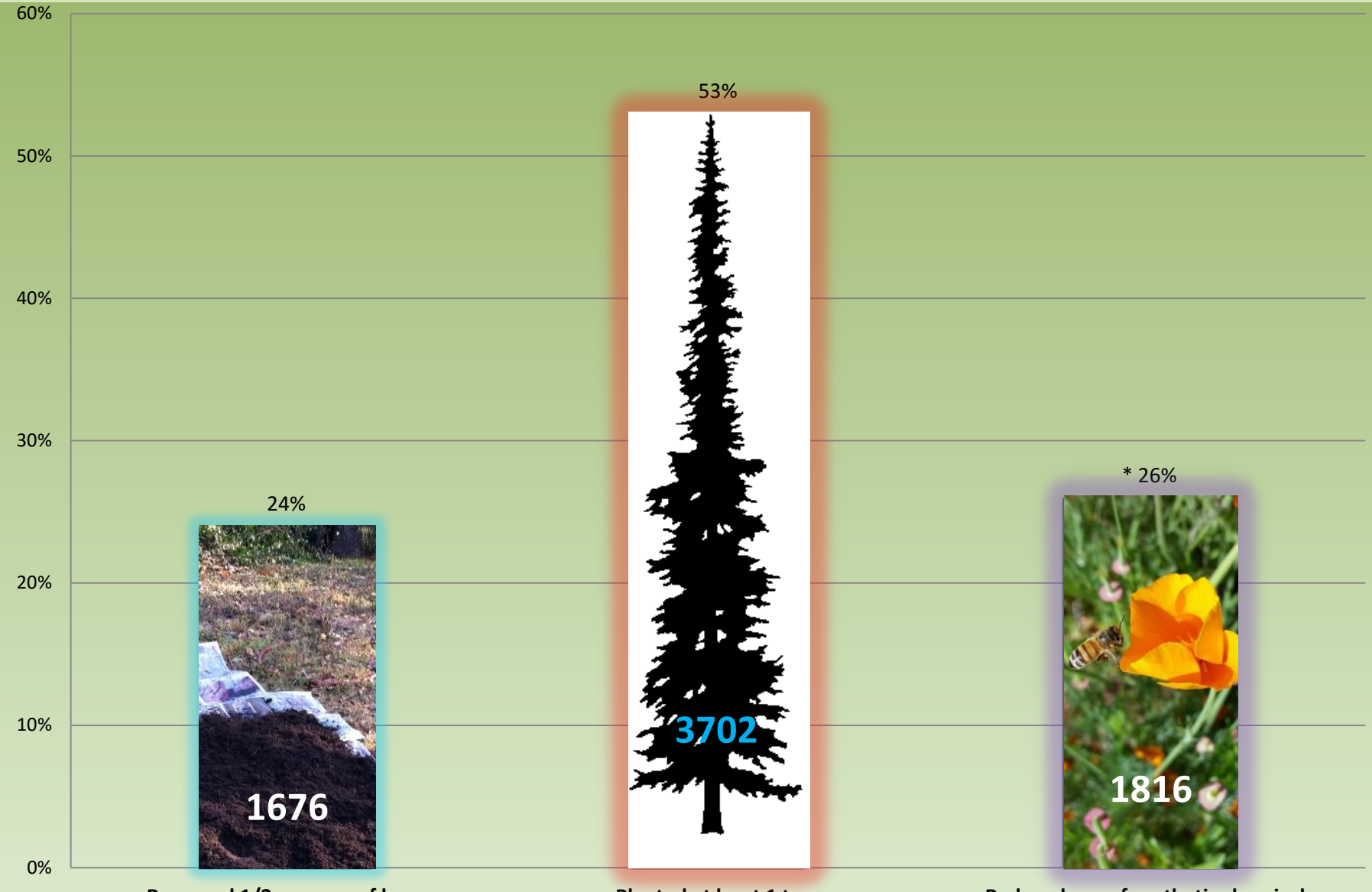


Workshops offered per year, 1995-2017

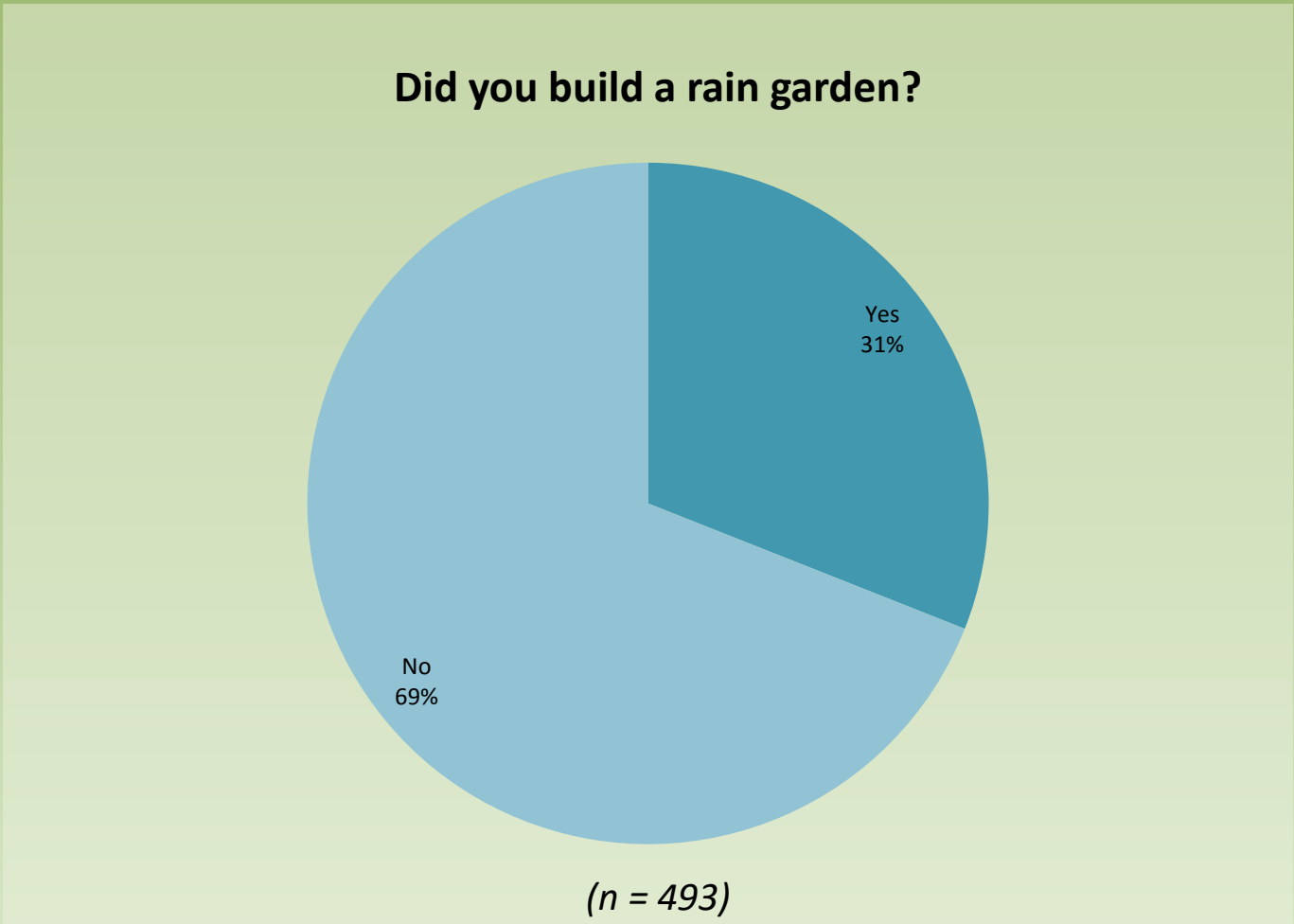


On the Ground: Naturescaping

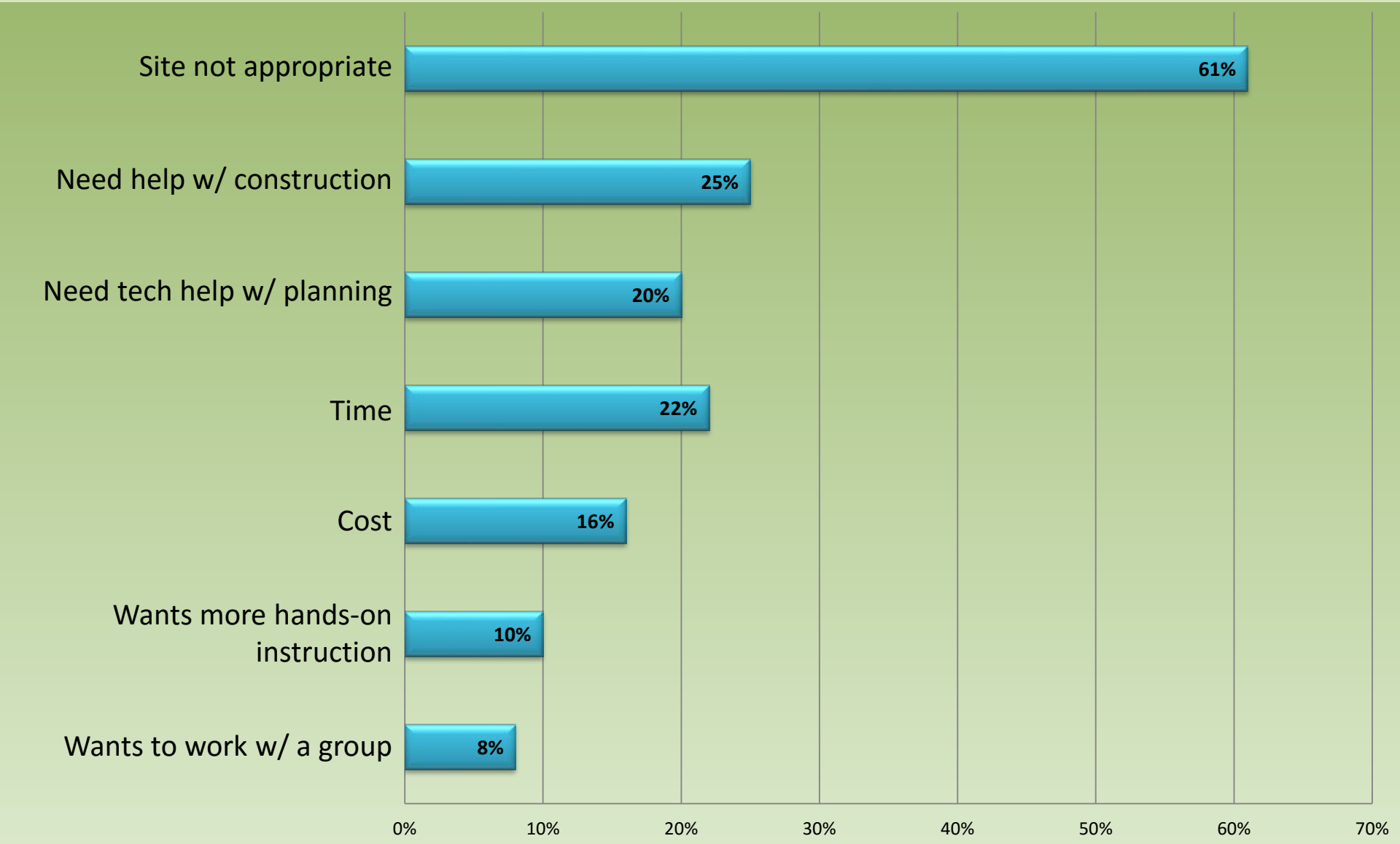
(n = 579)



On the Ground: Rain Gardens



Barriers to Building a Rain Garden



Looking Forward: Workshops & Working Groups

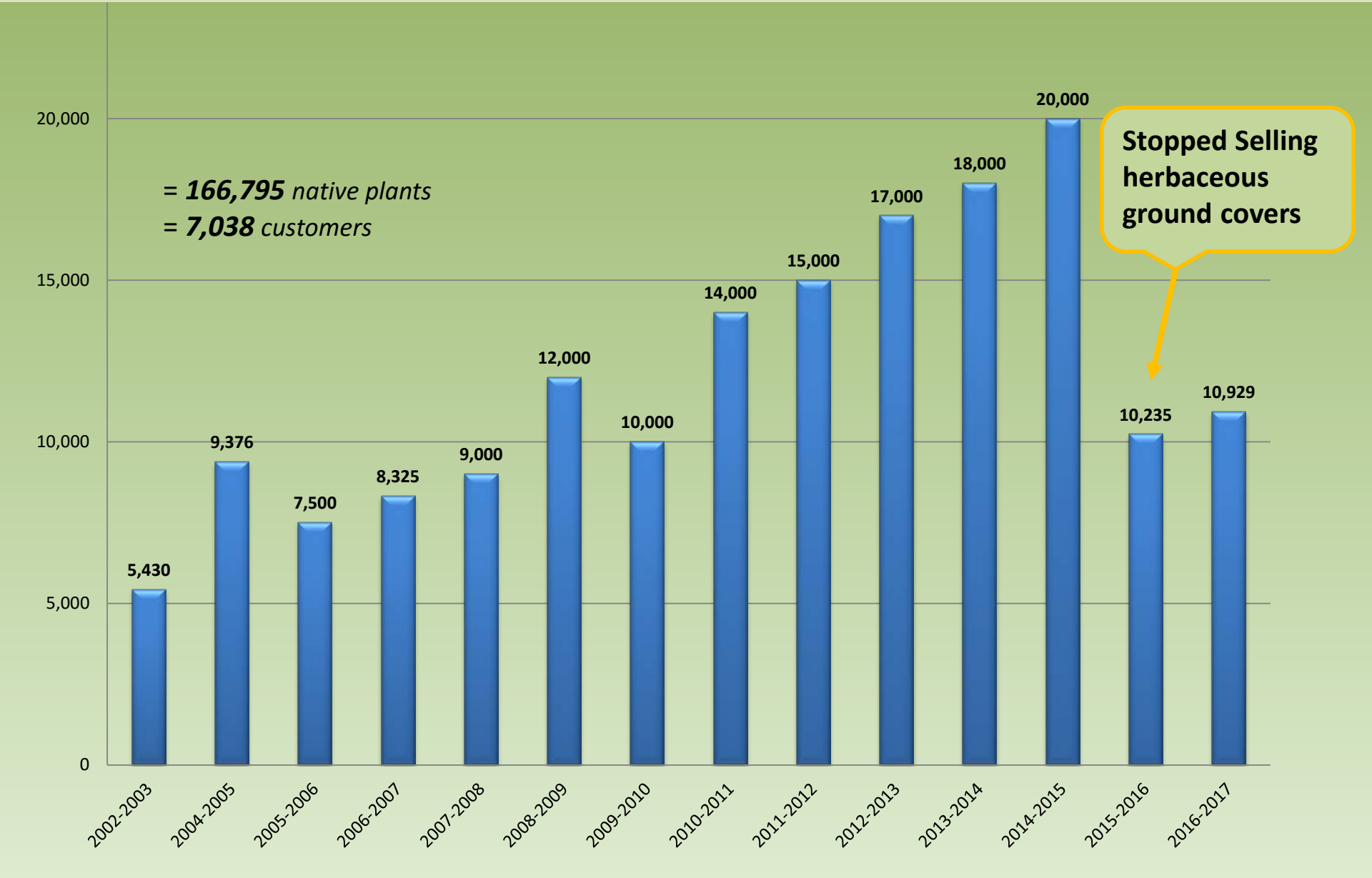
Anticipated trajectory: Status Quo

- Approximately 40-50 workshops/year
- Be responsive to public interest, add new topics as needed
- Incorporate more hands-on learning opportunities

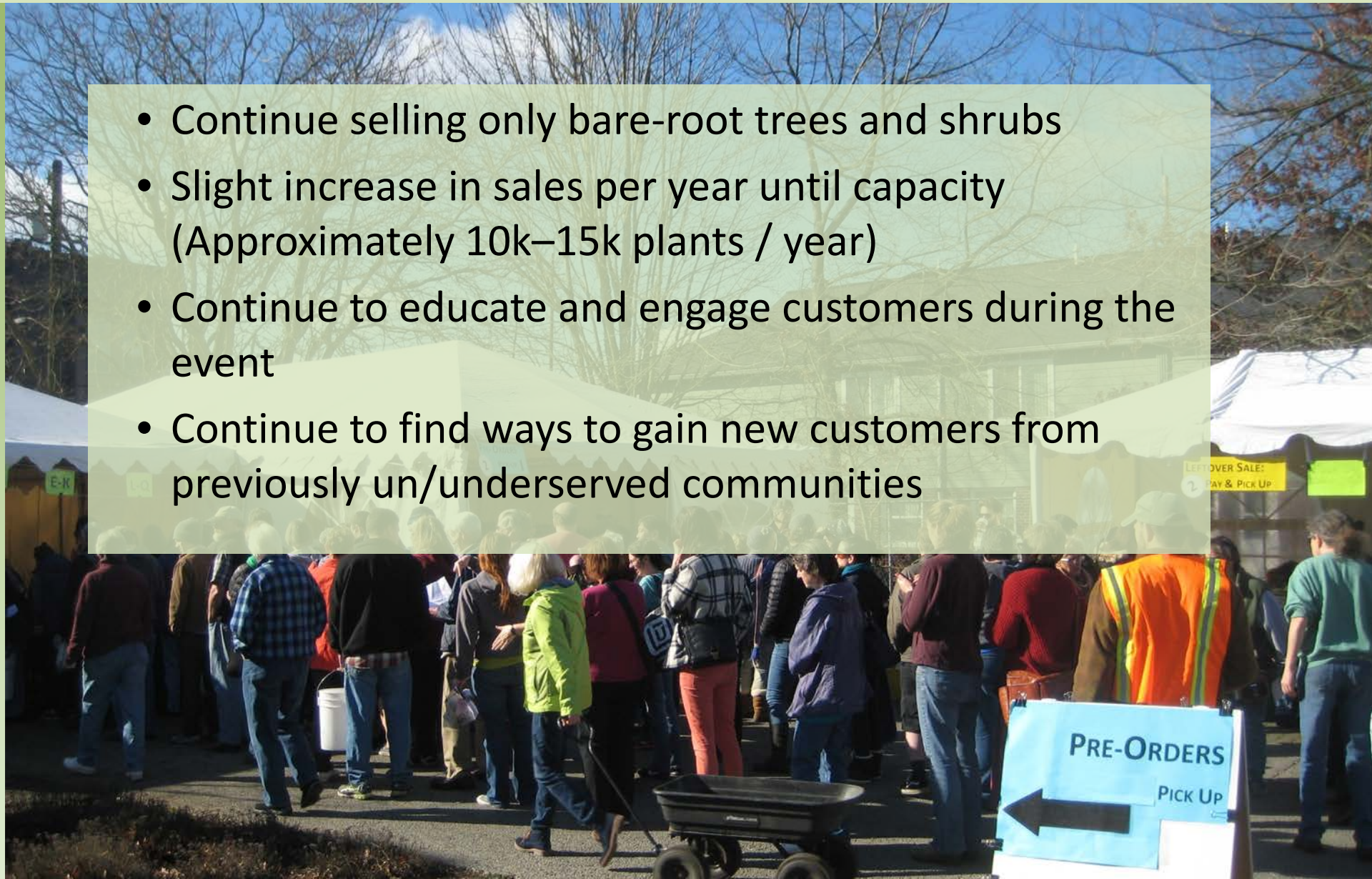
4. PROMOTIONAL EVENTS

- Plant Sale
- Yard Tour
- Tabling

Native Plant Sale - # plants sold/year



Looking Forward: Native Plant Sale



- Continue selling only bare-root trees and shrubs
- Slight increase in sales per year until capacity (Approximately 10k–15k plants / year)
- Continue to educate and engage customers during the event
- Continue to find ways to gain new customers from previously un/underserved communities

Looking Forward: Naturescaped Yard Tour

- 8-10 yards featured, 500 participants
- Continue to feature more grantees on the tour
- Begin featuring Demonstration projects

5. WEB-BASED TOOLS & REGIONAL CAMPAIGNS

- **IPM web tool:**

  solvepestproblems.org

- **Native Plants web tool:**

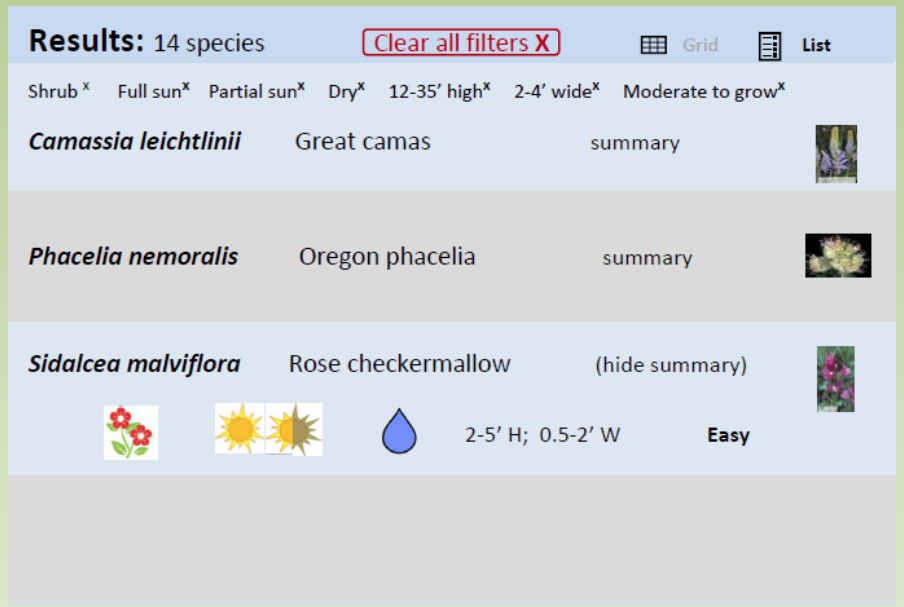
  Oregon Flora Project Gardening Portal

- **Regional campaigns**

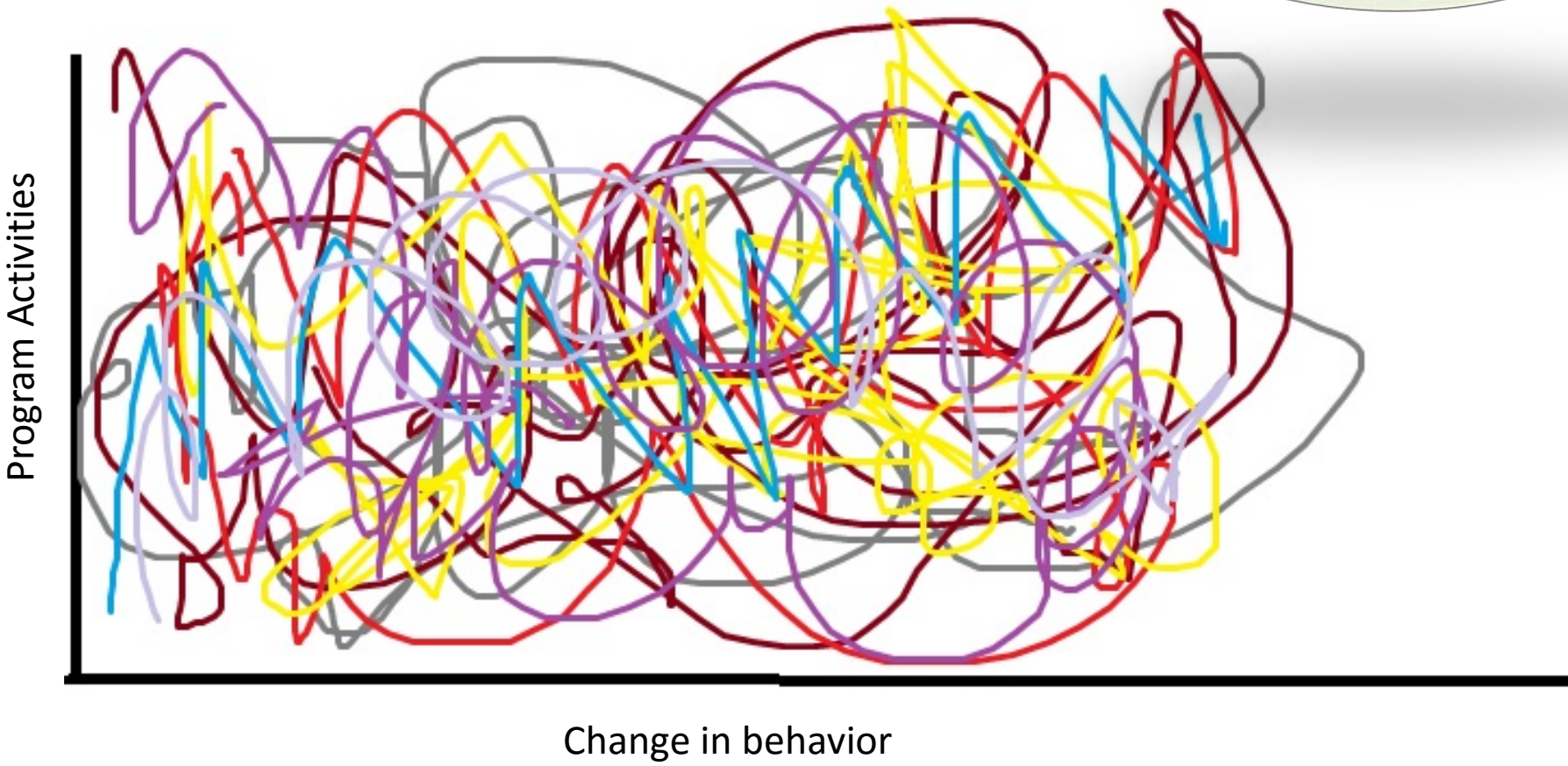
  Clean Rivers and Streams campaign

Looking Forward: Web-based Tools & Regional Campaigns

- Funding
- Help guide efforts



Tracking Program Effectiveness



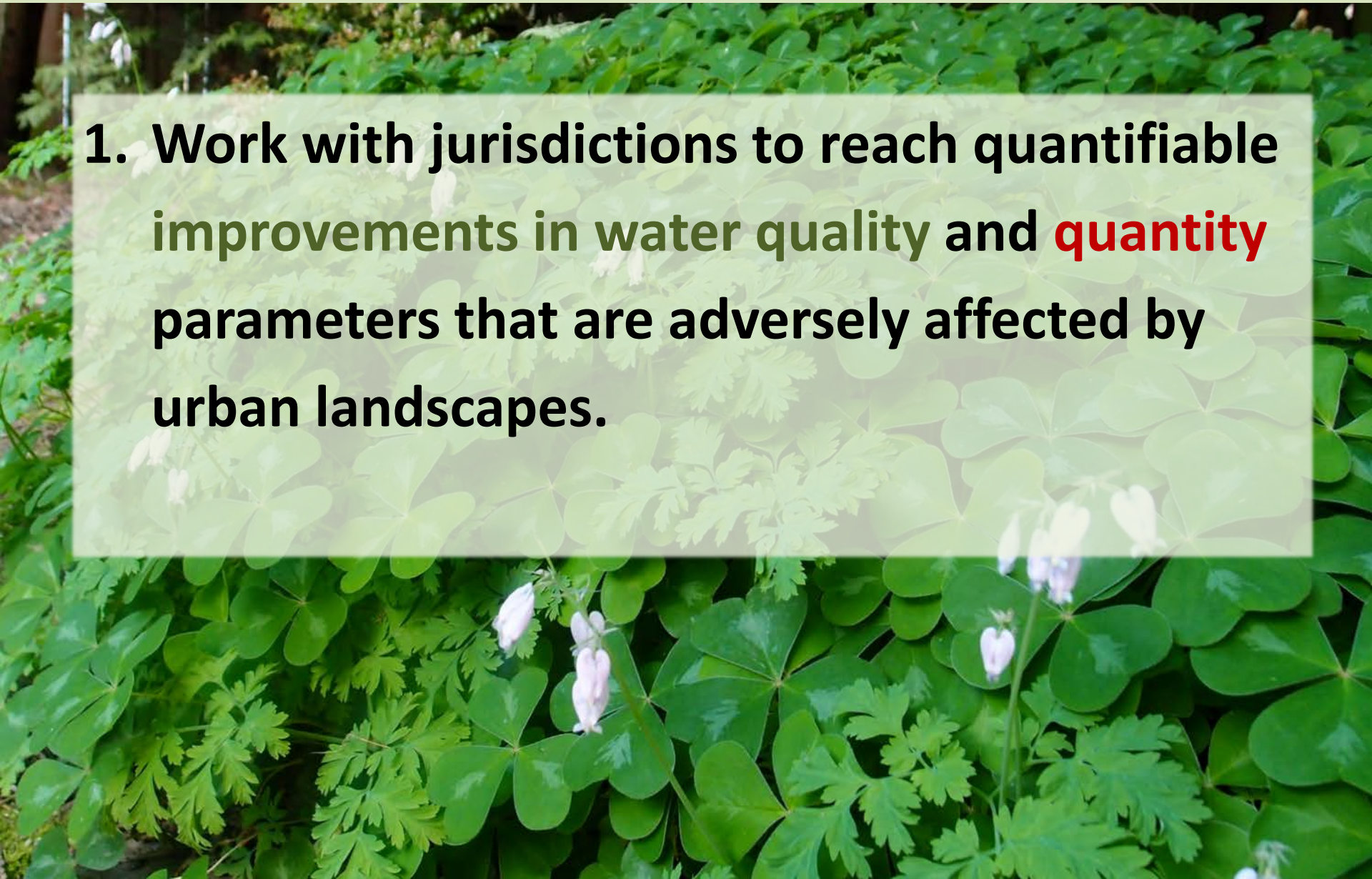
Key Challenges

Identifying priority areas and audiences

Reaching un/underserved audiences

Tracking success

2014 Urban Lands Goals



1. **Work with jurisdictions to reach quantifiable improvements in water quality and quantity parameters that are adversely affected by urban landscapes.**

Looking forward: Proposed goals

Goal 1:
Improve water quality in the urban area of our district.

- **Objective:** Increase public understanding of water quality concerns and methods to improve through daily actions
- **Objective:** Work with large-scale property owners to improve/decrease stormwater runoff
- **Objective:** Increase number of disconnected downspouts in our district
- **Objective:** Increase number of rain gardens installed in our district

2014 Urban Lands Goals

2. Reduce seasonal increase in outdoor water used to irrigate urban landscapes during summer months.

Looking forward: Proposed goals

Goal 2:
Decrease outdoor water use in urban area of our district.

- **Objective:** Promote practical and effective water conservation methods.

2014 Urban Lands Goals

3. Increase urban wildlife habitat.

Looking forward: Proposed goals

Goal 3:
Improve and increase urban wildlife habitat in our district.

- **Objective: Increase number of native plants in the ground.**
- **Objective: Increase tree canopy coverage in our district.**
- **Objective: Increase public understanding of native plant habitat and invasive removal.**

2017 Proposed Urban Lands Goals

Goal 1:
Improve water quality in the urban area of our district.

Goal 2:
Decrease outdoor water use in the urban area of our district.

Goal 3:
Improve and increase urban wildlife habitat in our district.

Looking forward:
Overall Resources Needs 2017-2022

Staffing - STATUS QUO

Budget – incremental increase as we increase:

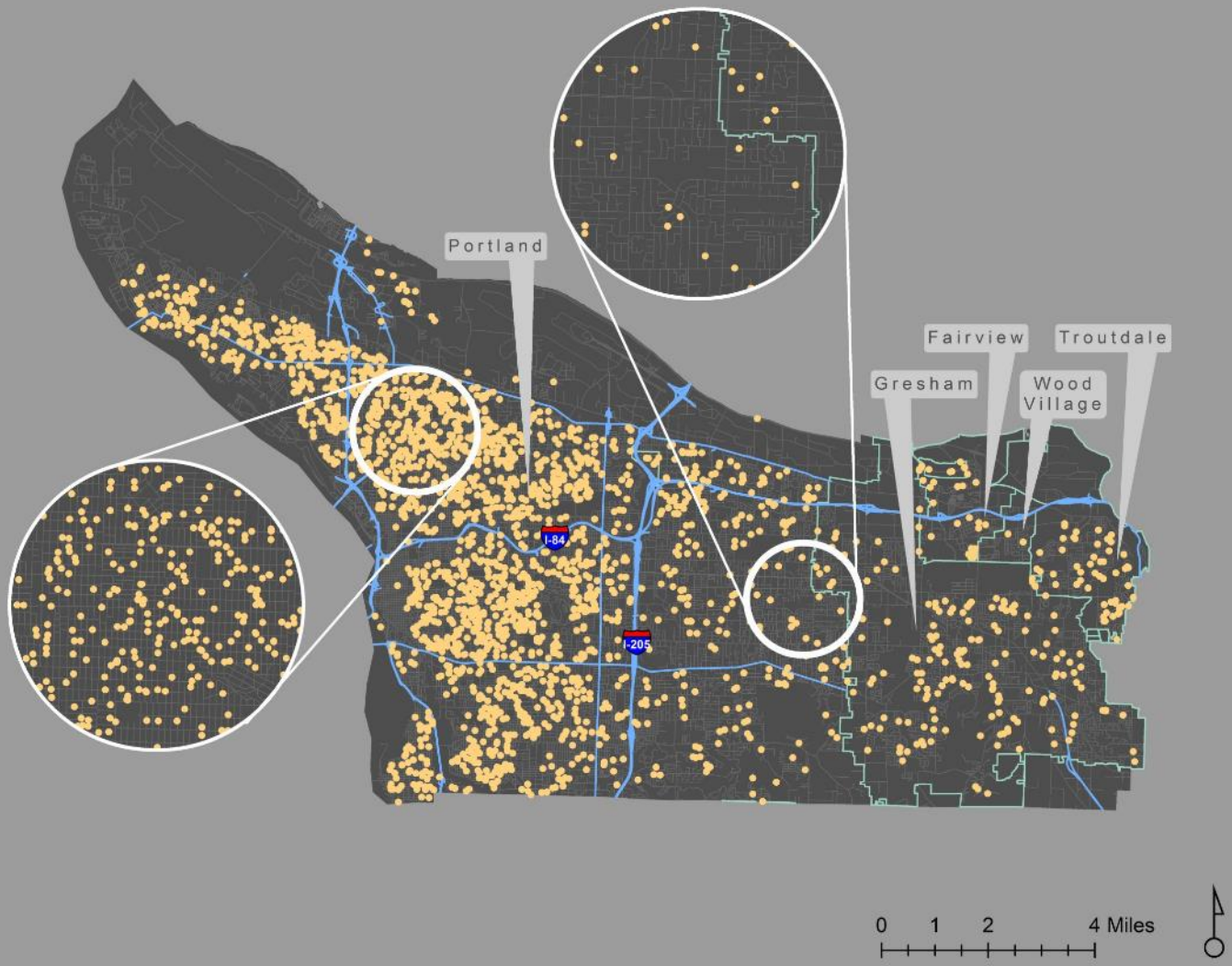
- Investment in Demonstration projects
- CLIP – financial incentives for urban residents
- SPACE – as we increase visibility of this grant
- Contracts to help us retrieve or achieve data needs

END
Or Beginning……?

MHCC Project Staging

Location of Workshop Participants

(Density comparison)



Technical Assistance

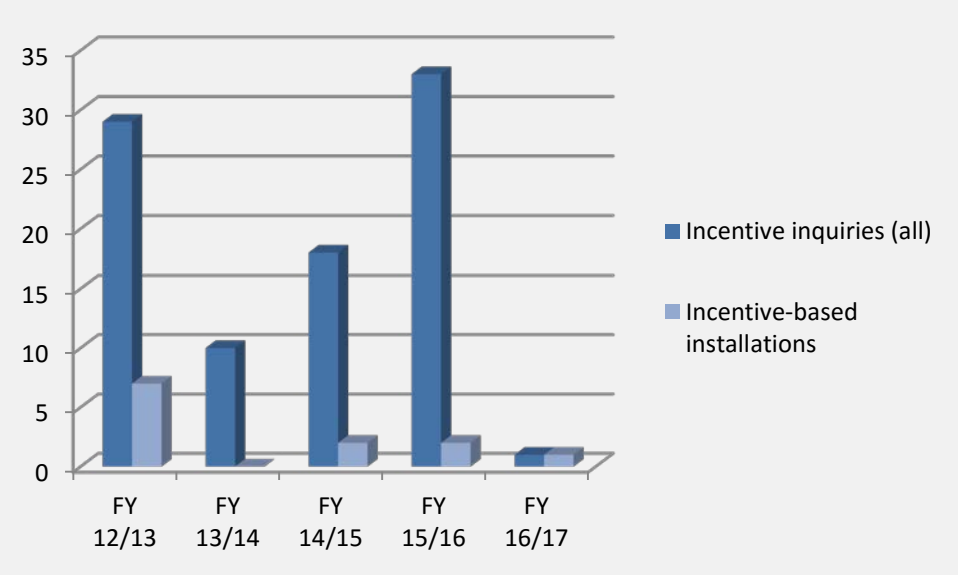
(Since FY14/15)

Type	FY 14/15	FY 15/16	FY 16/17	FY 17/18
General	42	81	48	4
RGI	Not tracked	19	7	
Grants	Not tracked	6	6 funded, 4 potential	3 potential
Total	42	106	65	9

Note: RGI and grant assistance numbers are likely higher; some data incomplete at this time.

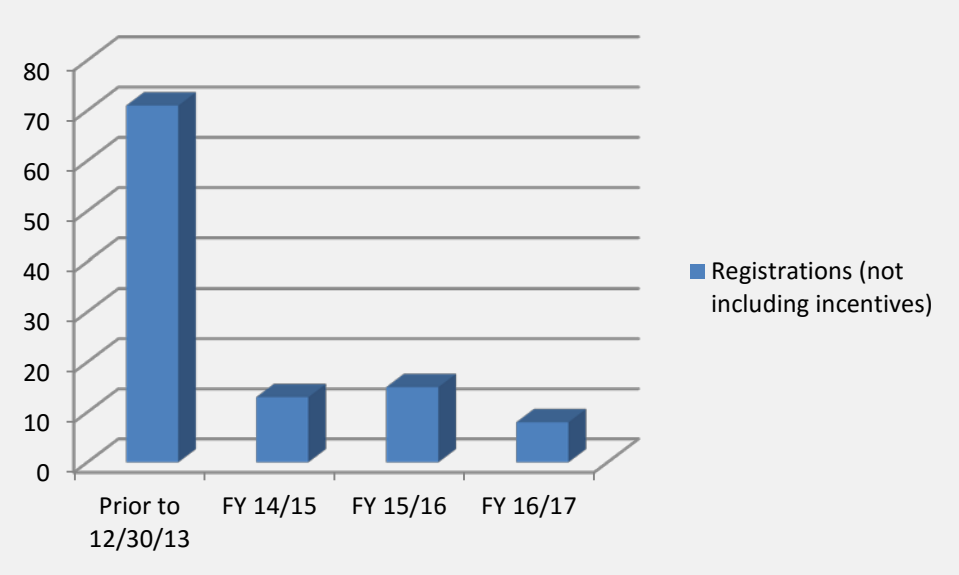
Rain Garden Incentive Program

(Since FY 12/13)



FY	Inquiries	Installations
12/13	29	7
13/14	10	0
14/15	18	2
15/16	33	2
16/17	1	1

Rain Garden Registration Program



FY	# Registrations
Prior to 12/30/13	71
14/15	13
15/16	15
16/17	8

Monitoring

Education: Workshops and Yard Tour

- Participant surveys
- Education effectiveness is hard to measure

Trouble reaching certain audiences

Demo Projects

- Impervious
- Water quality sampling where feasible
- Not all urban streams are tested for urban contaminants

Workshop Participant Demographics (Race)

Race	Average Fall 2014 – Spring 2016
African American / Black	1%
African	0%
East Indian	0%
Asian	4%
Slavic	2%
Latino / Hispanic	3%
Pacific Islander or Native Hawaiian	1%
White	**86%**
Native American / Alaska Native	1%
Middle Eastern	0%
Other	1%

Workshop Participant Demographics
(Age and Gender)

Age	Average Fall 2014 – Spring 2016
25 or under	5%
26-35	20%
36-45	19%
46-55	13%
56-65	**26%**
66-75	16%
76 or better	1%

Gender	Average Fall 2014 – Spring 2016
Male	22%
Female	**76%**
Other	1%

Workshop Participant Demographics (Income)

Income	Average Fall 2014 – Spring 2016
Under $10,000	3%
$10-20,000	7%
$20-30,000	8%
$30-50,000	17%
$50-70,000	**21%**
$70-90,000	16%
$90-120,000	18%
$120,000+	11%

Tracking and Information Needs: Workshops (KT)

Unknown	Opportunity
Surveys capture minimal data that reflects measurable, on-the-ground change	• Improve surveys. • Cross-reference EMSWCD & BYHCP participant data.
Only Naturescaping & Rain Garden workshop alumni are surveyed.	Develop a "universal" survey that captures information that is relevant to all workshop attendees.
Long term behavior change and resulting on-the-ground transformation.	Survey workshop alumni every year in order to track progress and change over the long term.

Tracking and Information Needs: Events

Native Plant Sale

- **Unknowns:**
  - Survival rate of plants
  - Location of customers
  - Demographics of customers
- **Opportunities:**
  - Survey past customers on plant survival
  - Conduct site visits to survey plants
  - Survey future customers on demographics and location

Naturescaped Yard Tour

- **Unknowns:**
  - We track behavior change with survey, but response is partial.
  - On-the-ground impact of behavior change.
- **Opportunities:**
  - Have participants fill out pre-event survey with optional demographic survey when registering for the event.
  - In-depth survey to capture on-the-ground changes due to participation.

Monitoring and Information Needs: Technical assistance)

Tracking internally

Tracking measurable impact on the resources over time

Monitoring and Information Needs: Demonstration projects - CC

- Existing unknowns/information-data needs related to program.
  - # of “walk by” visitors to garden each year
- Opportunities for solving unknowns/information-data needs related to program.
  - Set up an interactive visitor check-in book
- Monitoring needed to track achievement of outcomes/goals.

Monitoring and Information Needs: Demonstration projects - MHCC

- Existing unknowns/information-data needs related to program.
    - Water quality data
- Opportunities for solving unknowns/information-data needs related to program.
  - Student and community-based science at new LID
- Monitoring needed to track achievement of outcomes/goals.

Challenges

Tracking change and success of education

Reaching all our constituents

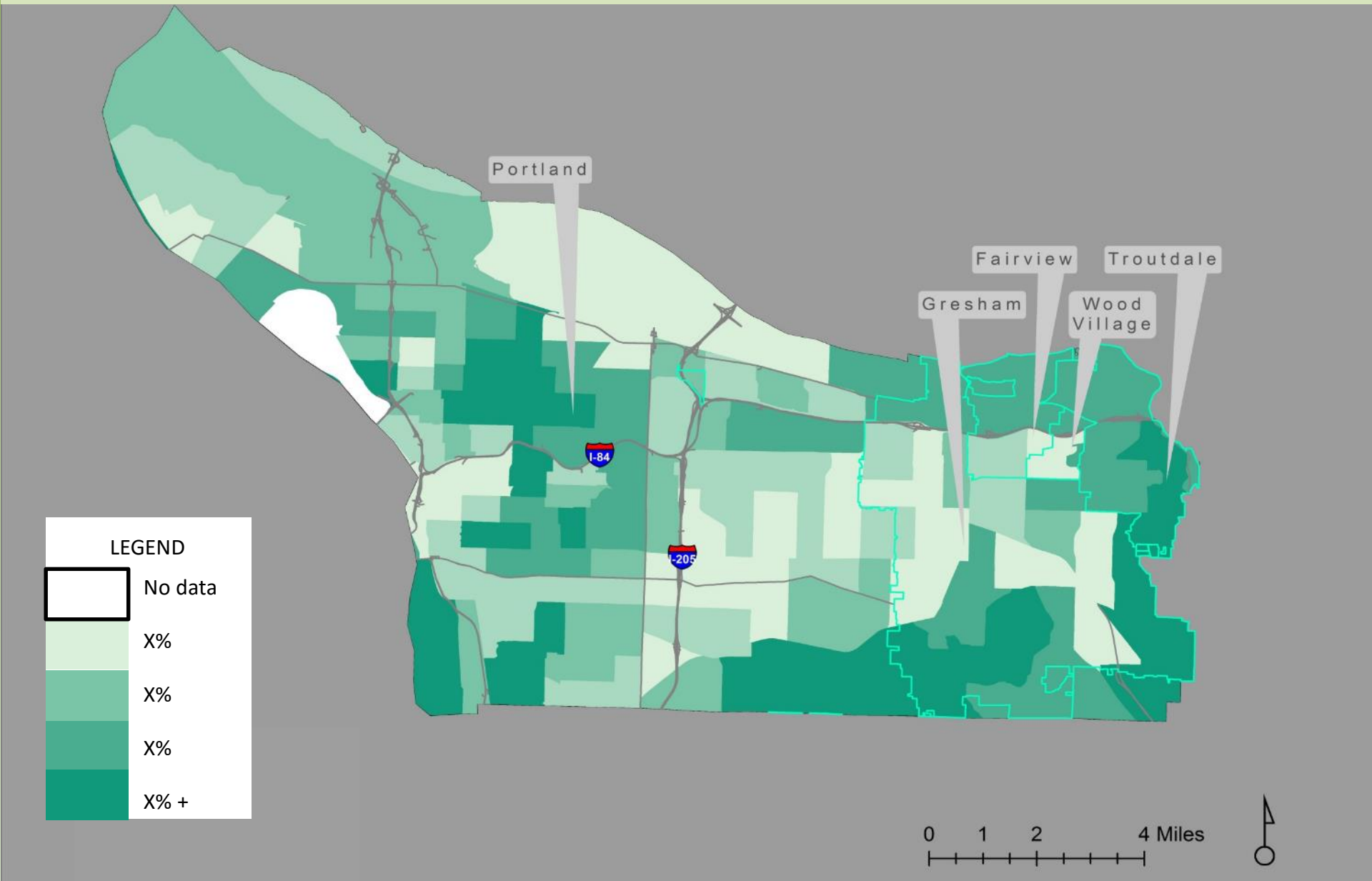
Tracking data across jurisdictions and tying it to our work

CHALLENGES

Reaching our many diverse constituents

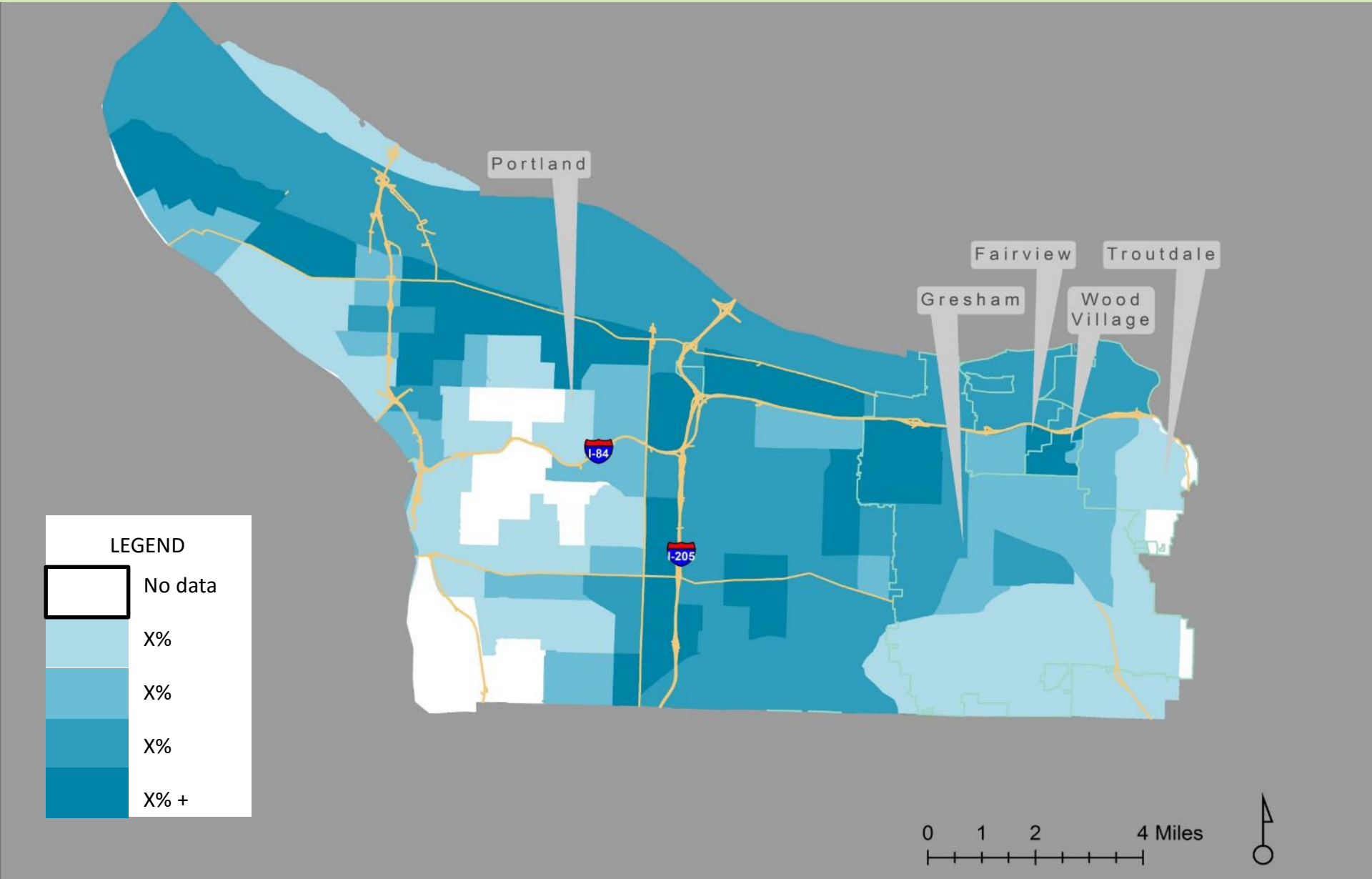
Demographics of Urban Residents

(Median household income)



Demographics of Urban Residents

(Density of communities of color)



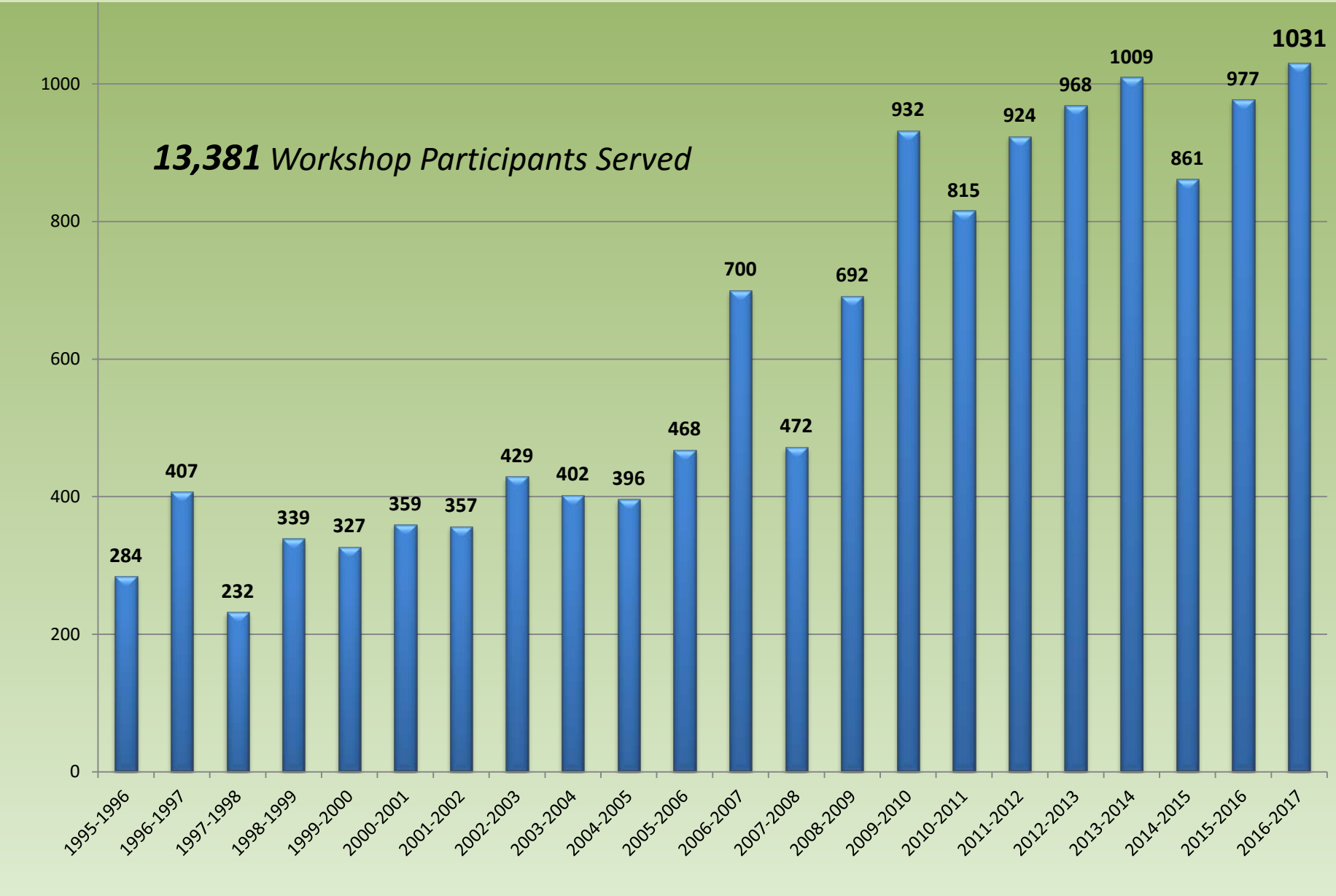
TECHNICAL ASSISTANCE AND RAIN GARDEN INCENTIVES PROGRAM

Tracking our success

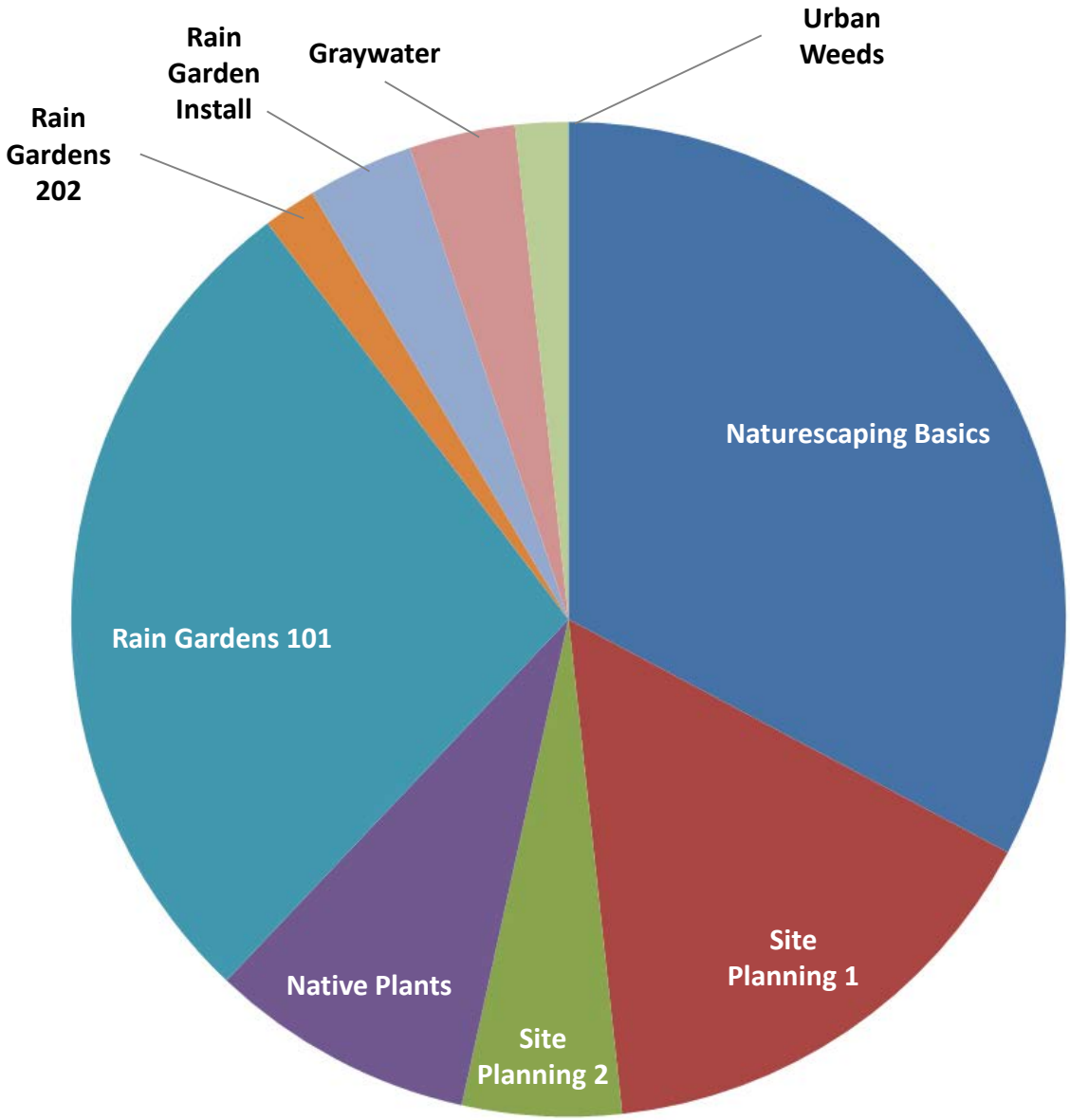
NATIVE PLANT SALE

Tracking our success

Workshop Attendees per year: 1995-2017



Workshop Offerings: 2013-2014



Goals, activities, and achievements

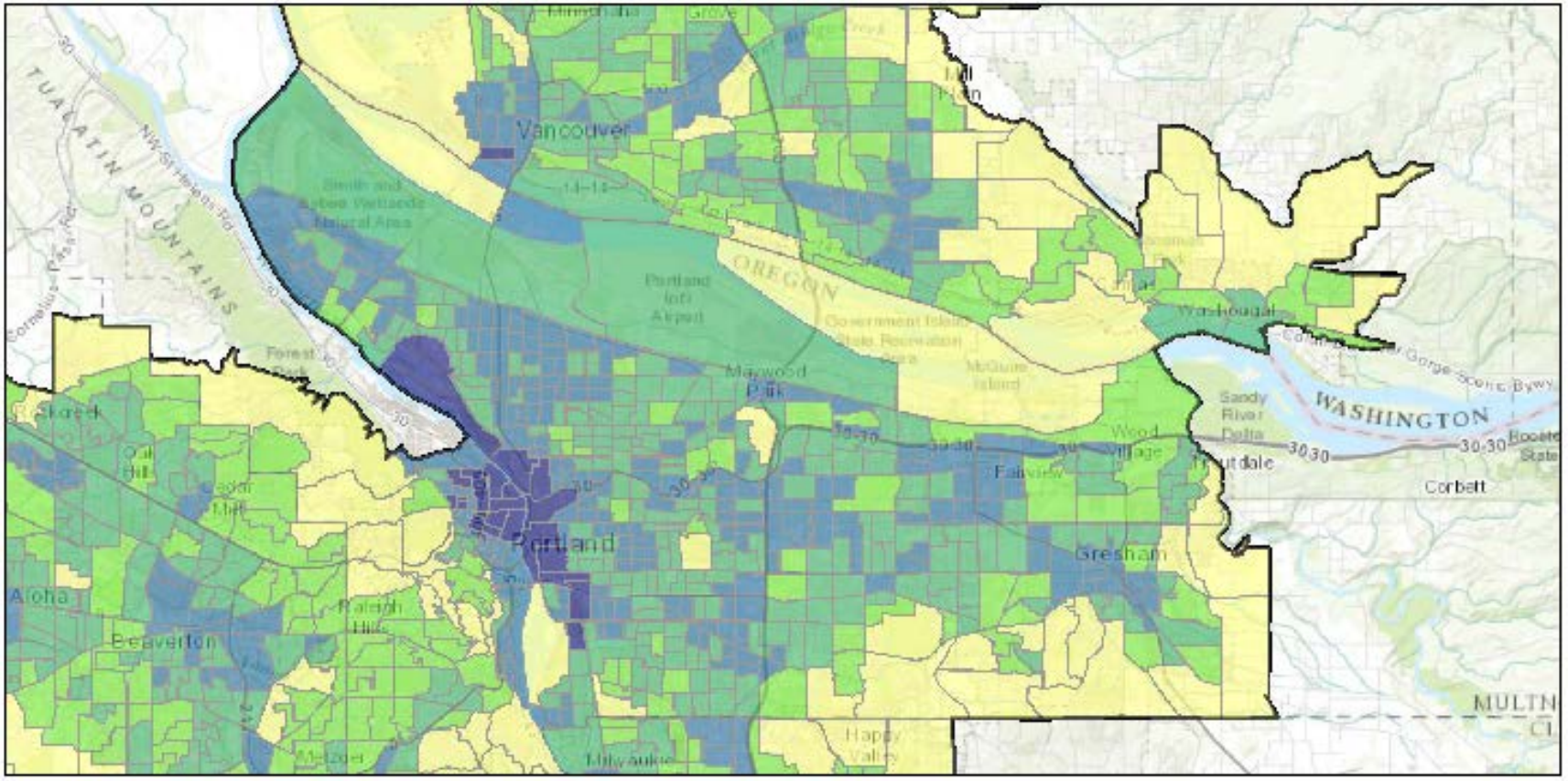
Population & Increasing population

Our Niche

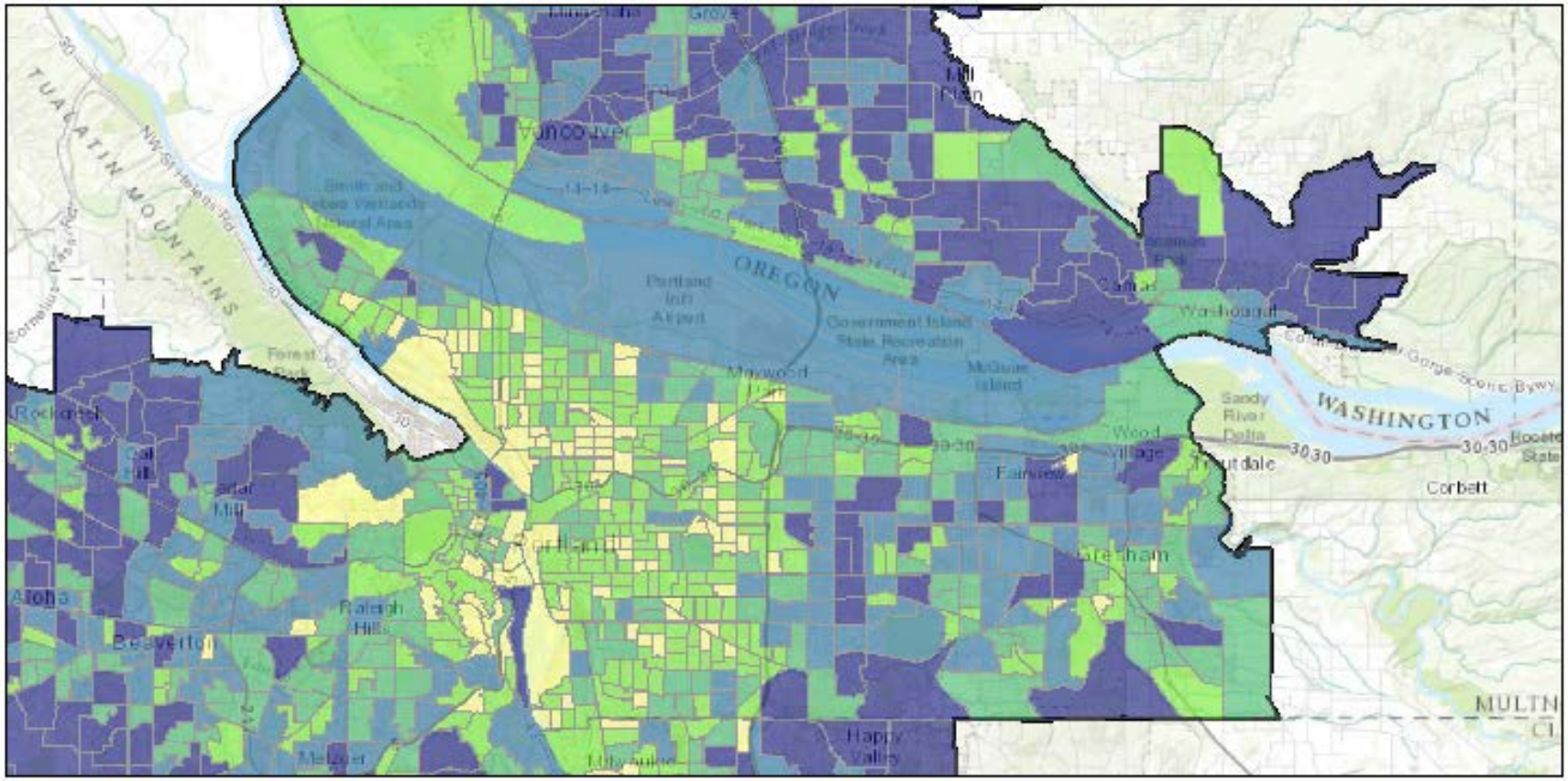
- Adult conservation education
- Non-regulatory technical assistance & cost-share
- Demonstration projects
- Plant Sale

People

Percent Impervious Area



Daily Domestic Water Use



July 31, 2017

eaLyrNum_9

- 0.0 - 56.1
- 56.2 - 84.8
- 84.9 - 120.1
- 120.2 - 169.9
- 170.0 - 2,069.9

EnviroAtlas Community Boundary

*water use data per capita in gallons of water per day

1:288,895

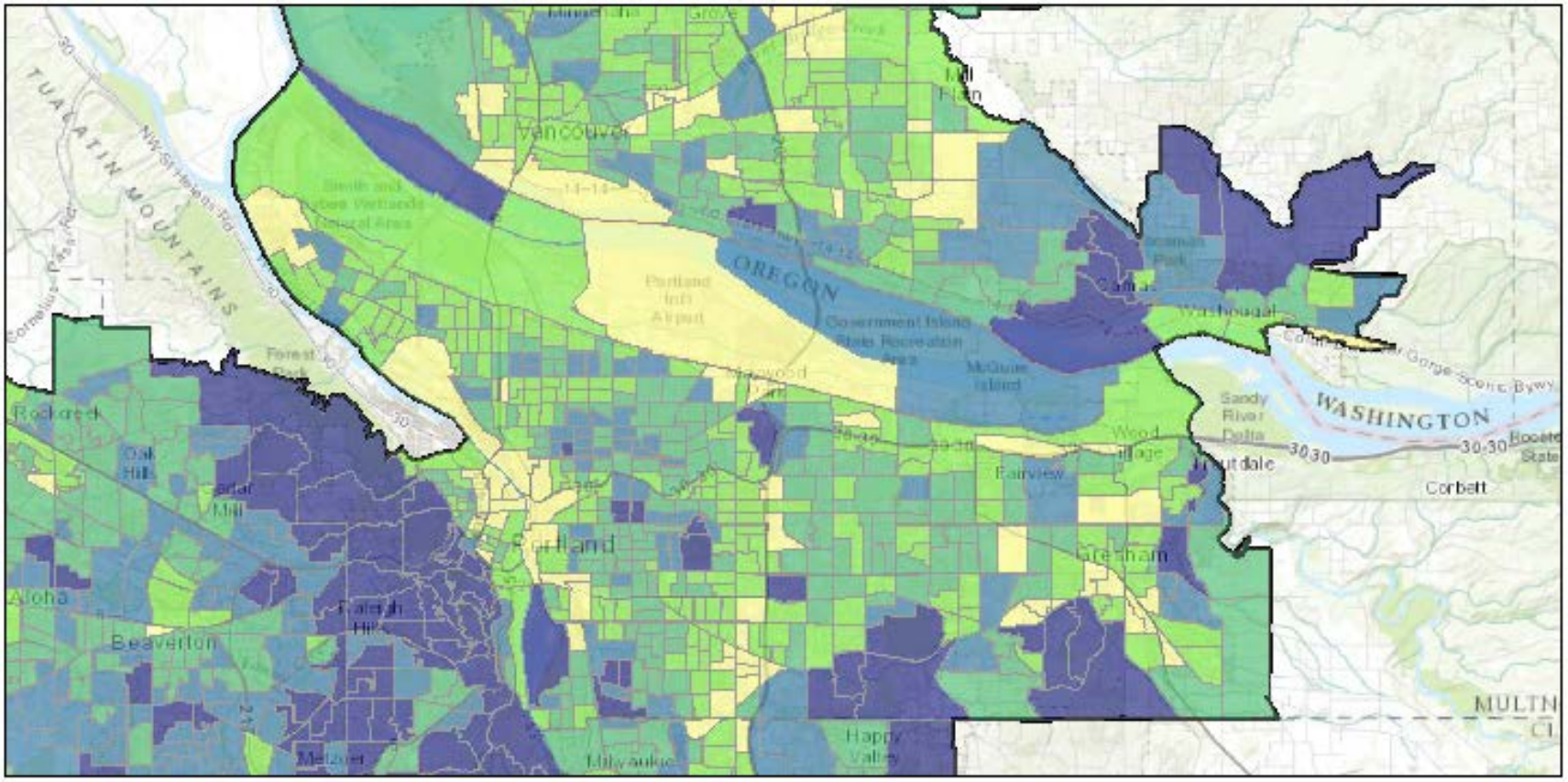
0 2.5 5 10 mi

0 4 8 16 km

Sources: Esri, HERE, DeLorme, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

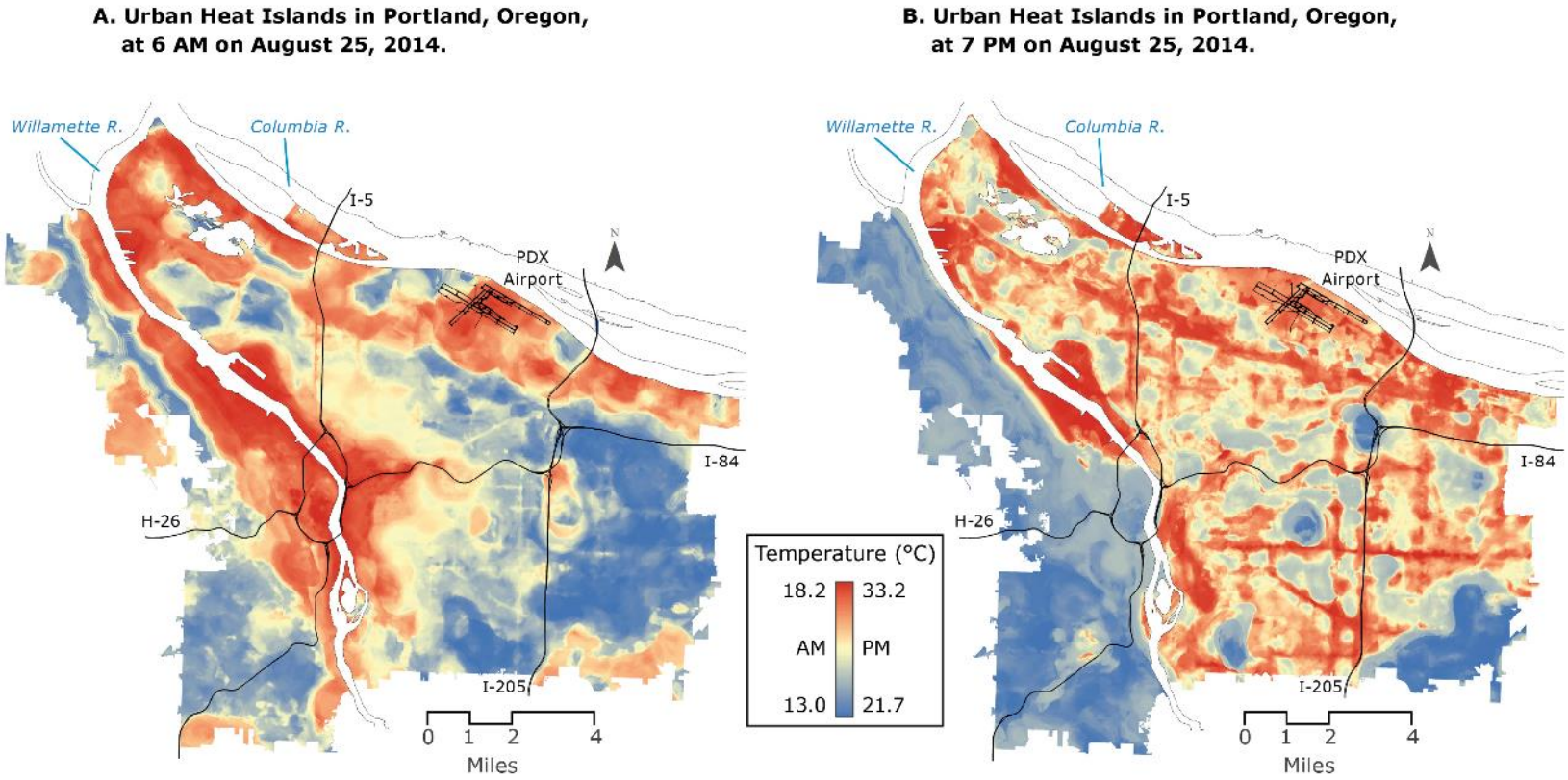
EnviroAtlas User
U.S. Environmental Protection Agency

Percent Tree Cover



Urban Heat Island

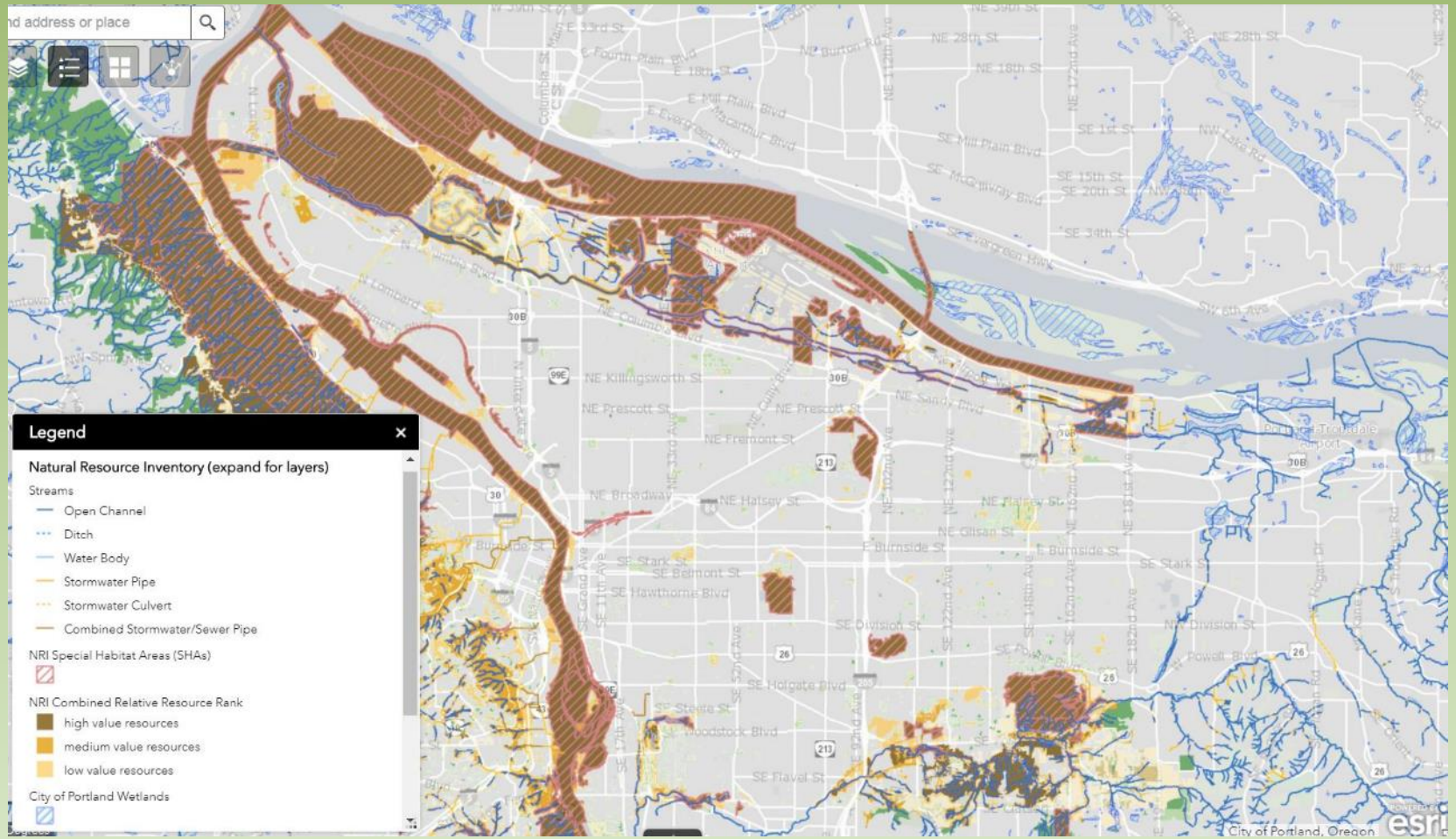
(morning/night comparison)



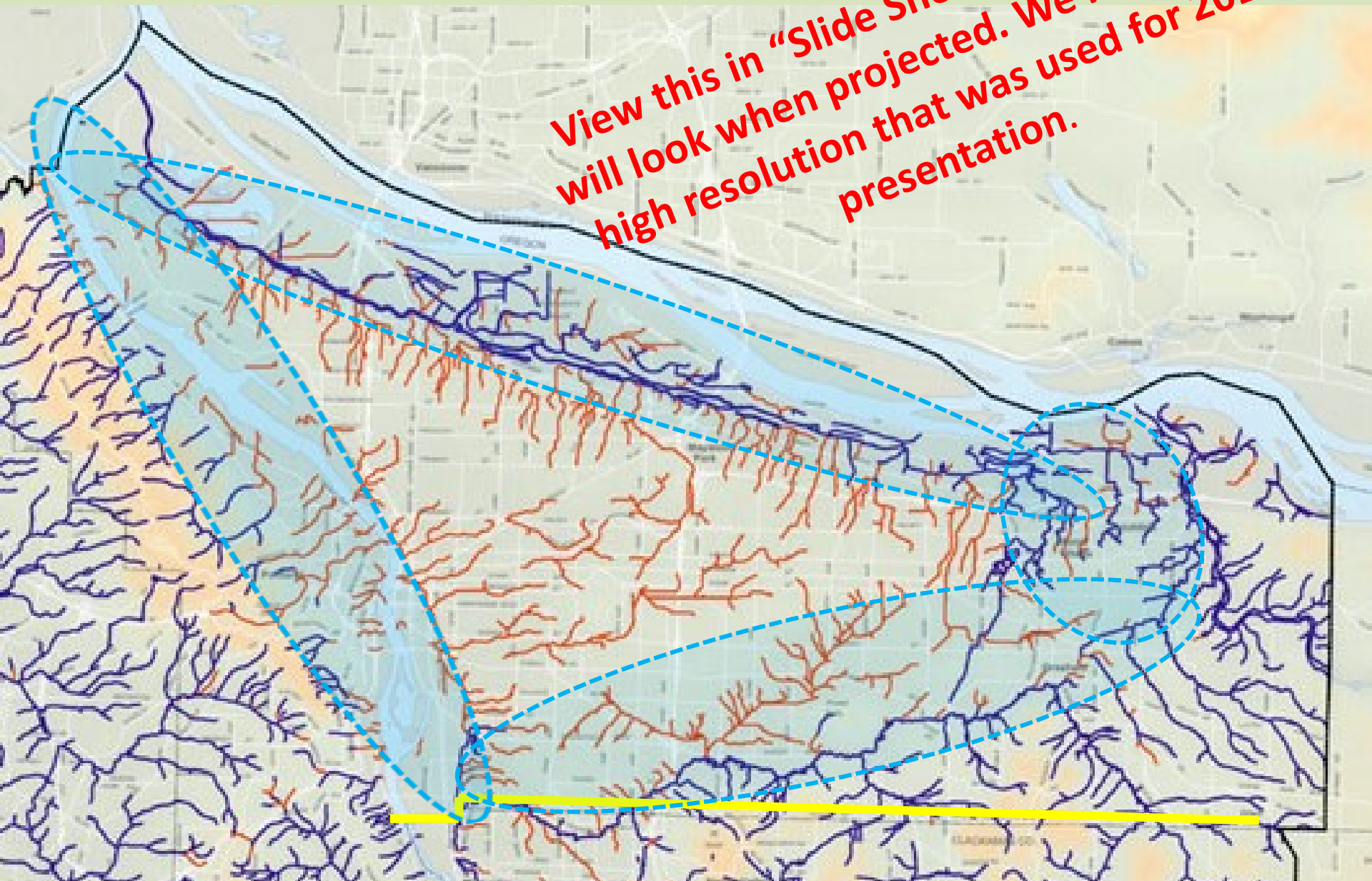
Data Source: Sustaining Urban Places Research (SUPR) Lab, Portland State University, 2015

Voelkel J, Shandas V, Haggerty B. Developing High-Resolution Descriptions of Urban Heat Islands: A Public Health Imperative. Prev Chronic Dis 2016;13:160099.

High Value Natural Areas



Disappearing Streams

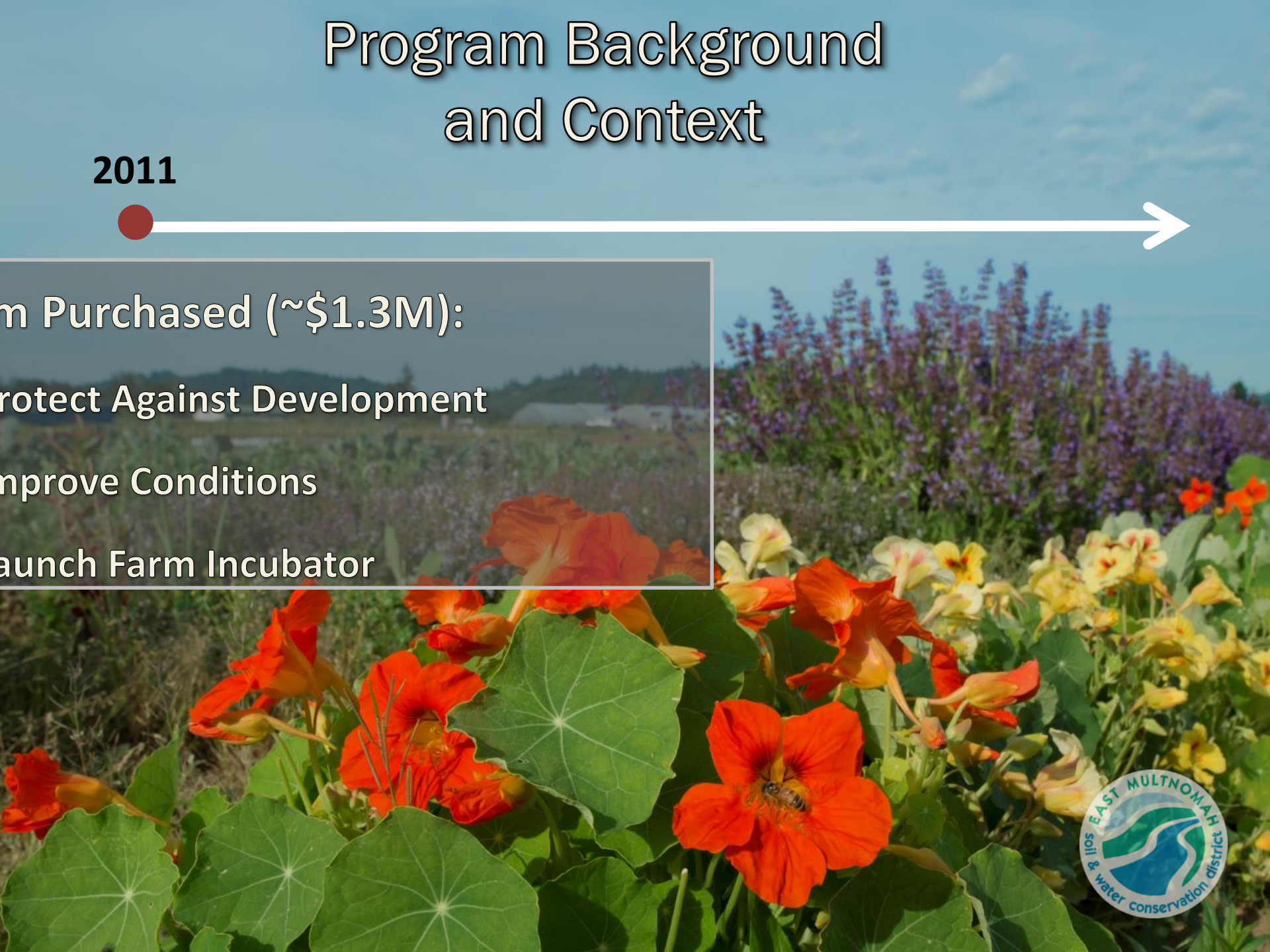


Program Background and Context

2011

m Purchased (~$1.3M):

rotect Against Development

nprove Conditions

aunch Farm Incubator