

# RiverSmart Homes: Seeking Success with Residential Stormwater BMPs

## Results from Participant Surveys and Lessons Learned

Presentation to the  
Chesapeake Bay Urban Stormwater Workgroup

April 21, 2015

# Agenda

- About RiverSmart Homes
- Main Questions
- Our Research
- About RiverSmart Participants
- Top Five Findings

# DC's "RiverSmart Homes"

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## District Department of the Environment

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About DDOE

### Resources

- ▶ Applications, Licenses & Permits
- ▶ Environmental Data & Maps
- ▶ For Businesses
- ▶ For Residents
  - ▶ Environmental Health & Safety
  - ▶ Eco-Friendly Living
  - ▶ Outdoor Activities
  - ▶ Get RiverSmart
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    - RiverSmart Communities
    - RiverSmart Schools
    - RiverSmart Rooftops
    - RiverSmart Rebates
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  - Recycling, Waste and Hazards
  - ▶ Stormwater and Flooding
  - ▶ Grants and Funding



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### RiverSmart Homes

<< Get RiverSmart main page

The RiverSmart Homes program offers incentives to District of Columbia homeowners interested in reducing stormwater pollution from their properties.

#### Stormwater Pollution in the District

Stormwater is simply rainwater that, rather than remaining on the land where it falls, flows off of the site. Rainwater becomes stormwater when it falls on impervious surfaces such as rooftops, driveways, roads, sidewalks and even lawns. As stormwater moves from our yards to our streams it picks up pollutants such as oil and grease from our roadways and driveways, nutrients from fertilizers on our lawns, and bacteria from pet waste and other animal excrement. Once in the stream, the fast-moving surges of water associated with storms cause erosion and destroy habitat for fish and other wildlife. Thankfully, new development and large renovations of properties in the District are now required to install items that reduce stormwater pollution.



### Skip the Bag - Save the River



District businesses selling food or alcohol are required to charge \$.05 for each disposable paper or plastic carryout bag. Find out about DC's Bag Law.

### EnergySmart DC



The RiverSmart Homes program offers incentives to District of Columbia homeowners interested in reducing stormwater pollution from their properties.

# About “RiverSmart Homes”



# About “RiverSmart Homes”

- More than 5,000 households have installed rain gardens, rain barrels, native landscaping, pervious pavement, or planted trees with help from this program
- *The program is about more than rebates -- they offer onsite technical assistance to homeowners*
- There is a two-to-three month waiting period for prospective homeowners who wish to participate.



## Main Questions

- What motivates people to participate?
- Once they've participated, are they maintaining the project they had installed?
- Once they've participated, are they installing additional projects on their own?
- Once they've participated, have they learned more about stormwater and its effects on local streams and the community?

## Our Research

- A detailed demographic analysis of past participants
- In-depth interviews with 60 past participants
- An online survey of past participants



# About RiverSmart Participants

Participating homeowners belong to a fairly narrow demographic and lifestyle group.

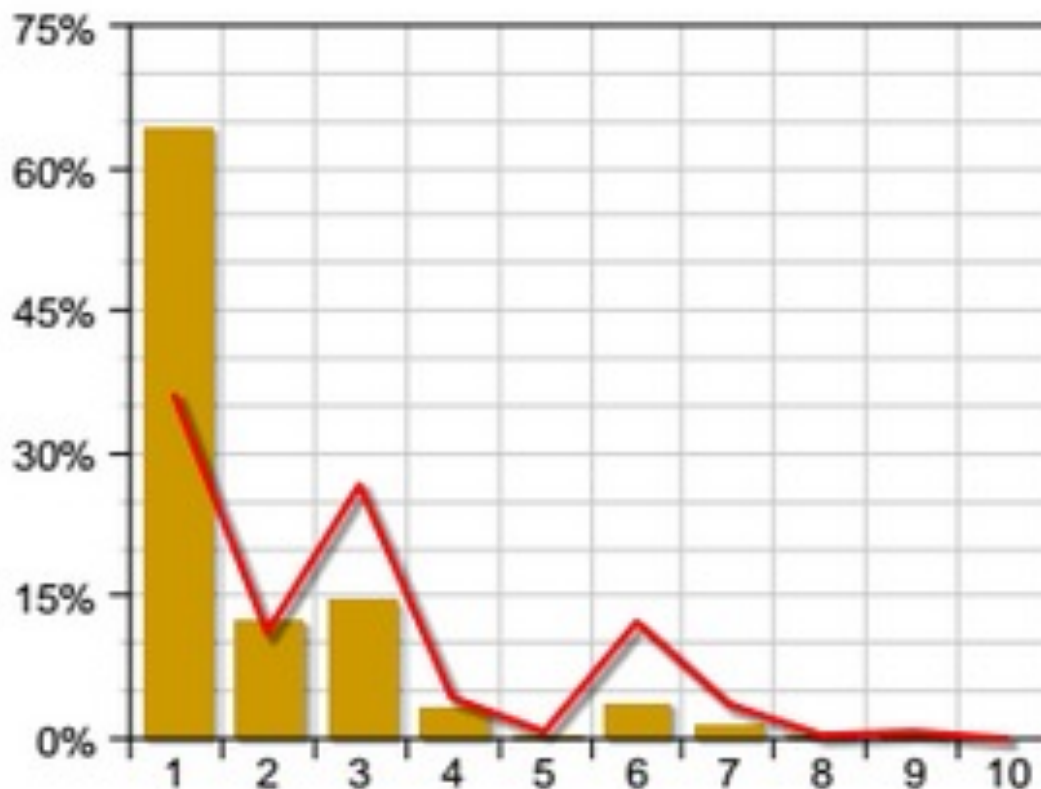
Typical participants are:

- Middle-aged professionals
- Owns a single family home, neither mansion nor shack
- Small household -- one or two adults, one or no kids
- Financially responsible, secure, and generous to charities
- Interested in environment, likely to enjoy cooking and fishing



# About RiverSmart Participants

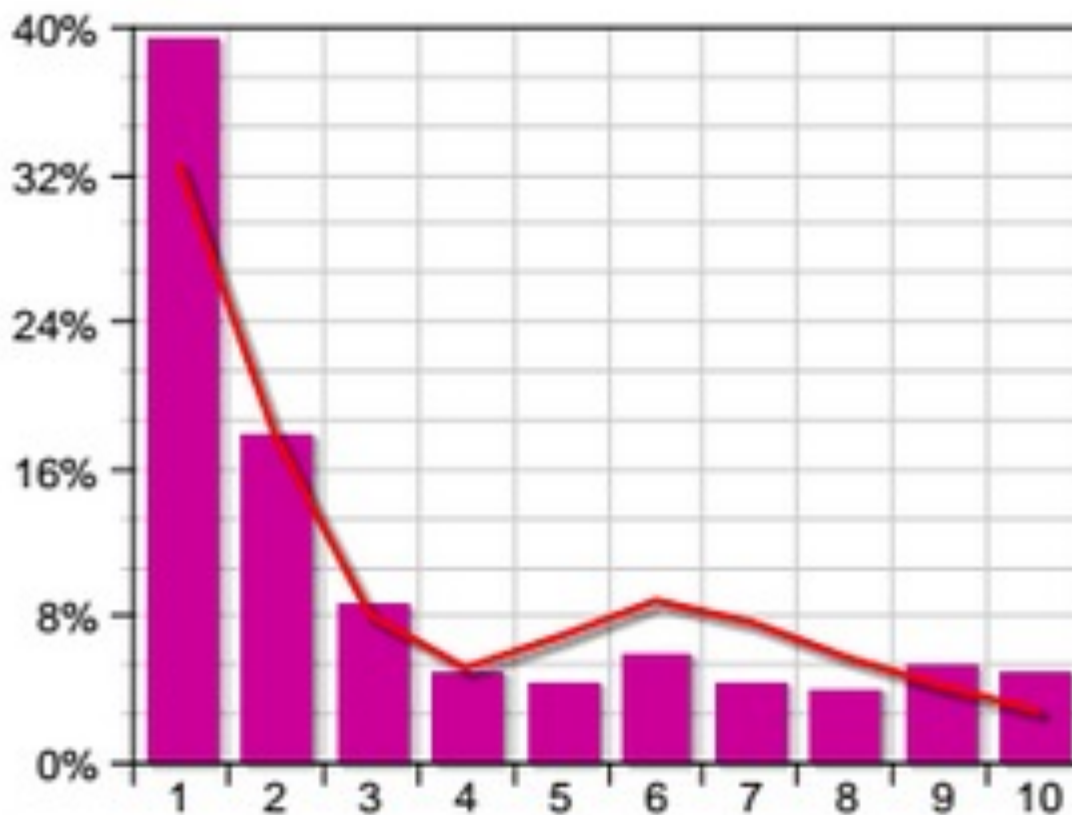
Semcasting Charitable Contribution Decile (Red: State Average)



RiverSmart participation has a very strong correlation with charitable giving. More than  $\frac{2}{3}$  are among the most generous 10% of DC residents.

# About RiverSmart Participants

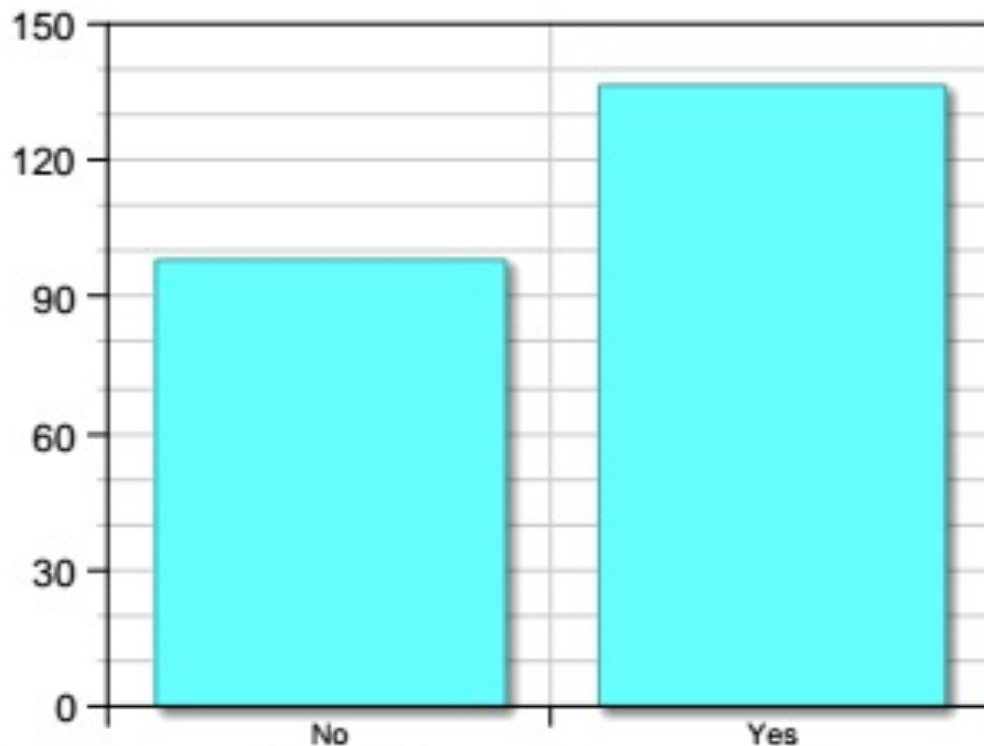
Semcasting Recession Sensitivity Decile (Red: State Average)



RiverSmart homeowners aren't necessarily the wealthiest --  
but they are financially secure

# About RiverSmart Participants

## Environmental/Wildlife Causes

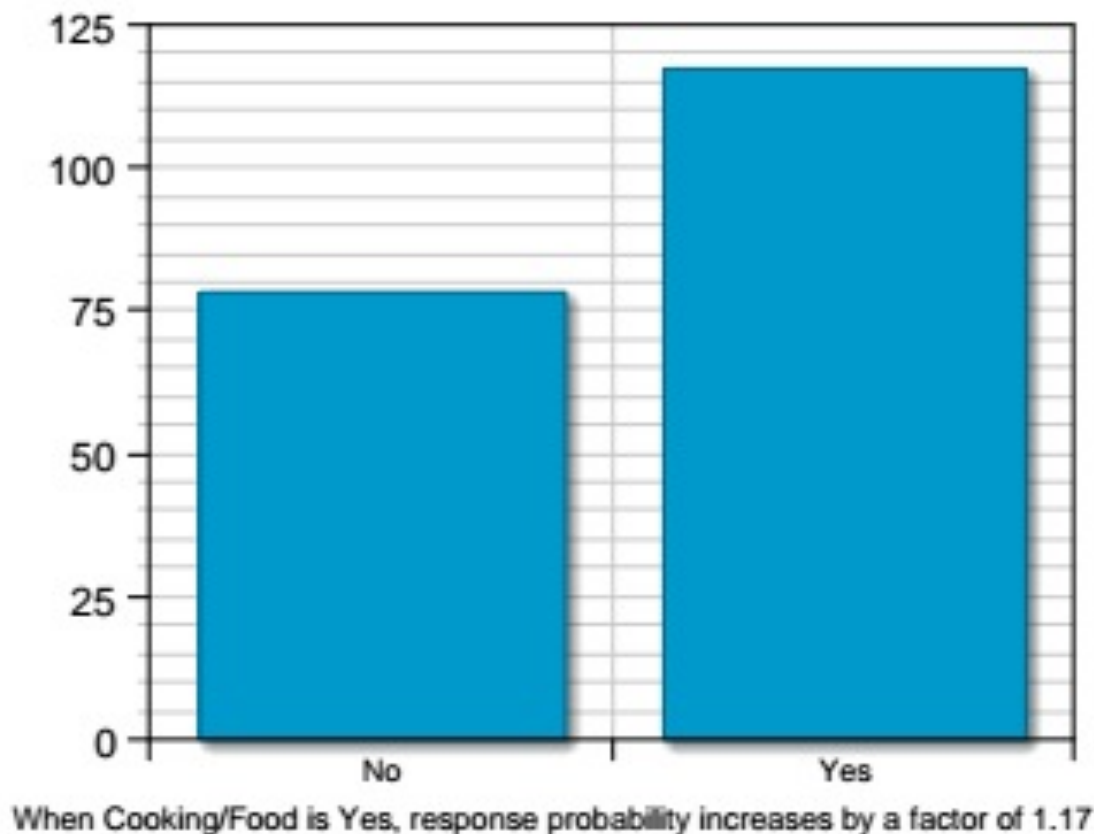


When Environmental/Wildlife Causes is Yes, response probability increases by a factor of 1.36

RiverSmart homeowners tend to be interested in the environment.

# About RiverSmart Participants

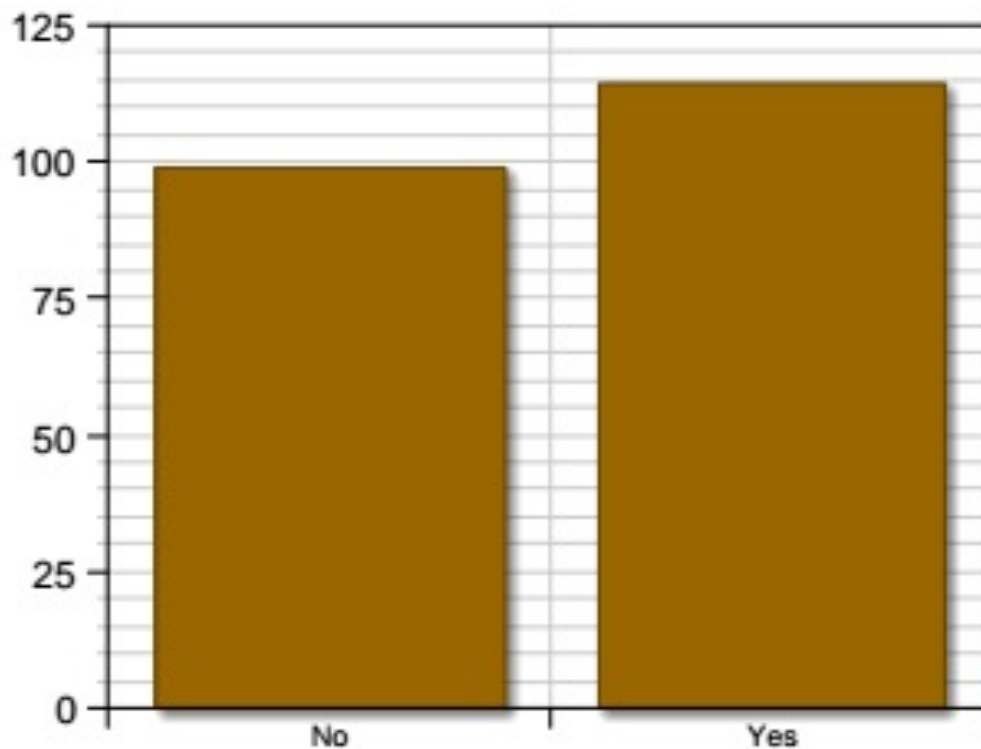
## Cooking/Food



RiverSmart homeowners tend to like to cook!

# About RiverSmart Participants

## Fishing



When Fishing is Yes, response probability increases by a factor of 1.15

RiverSmart homeowners tend to like to fish.

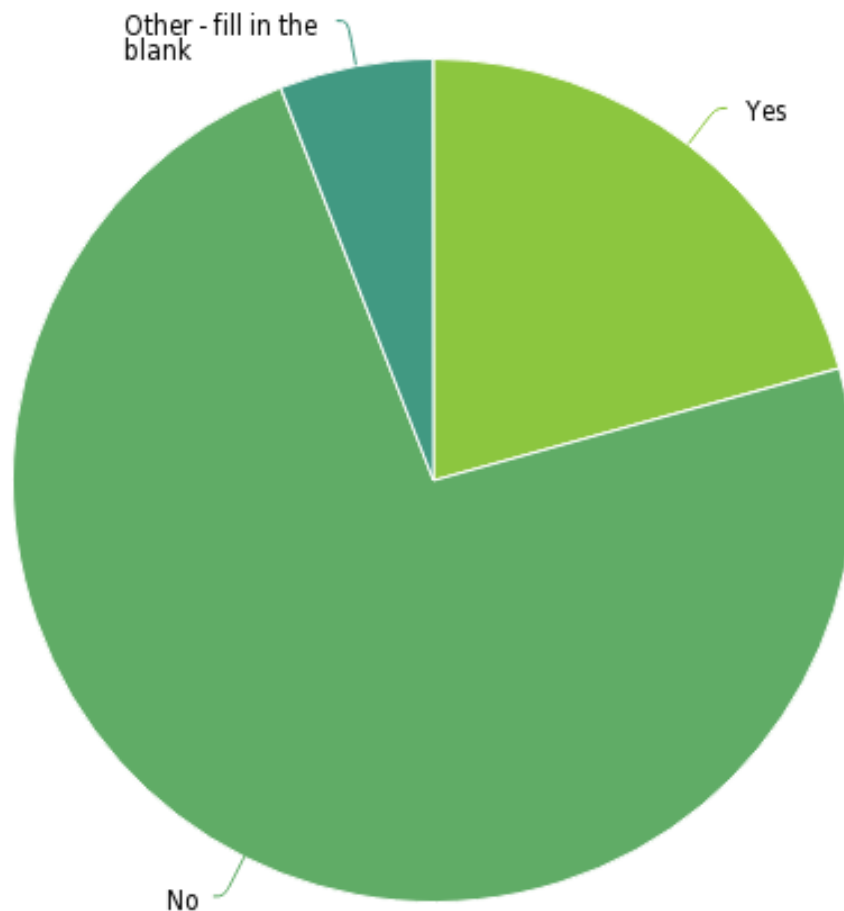
# Top Five Findings

1. The program's success is due to the combination of technical and financial assistance to help homeowners. Offering rebates is just not enough.
2. Word of mouth is the main way households hear about the program.
3. Participating homeowners belong to a fairly narrow demographic and lifestyle group. To reach a wider population, active promotion will be necessary.
4. Homeowners are diligent about maintaining their BMPs -- but are confounded by selection, care, and replacement of native plants.
5. Participating homeowners want some ability to receive assistance with plant care post-installation.



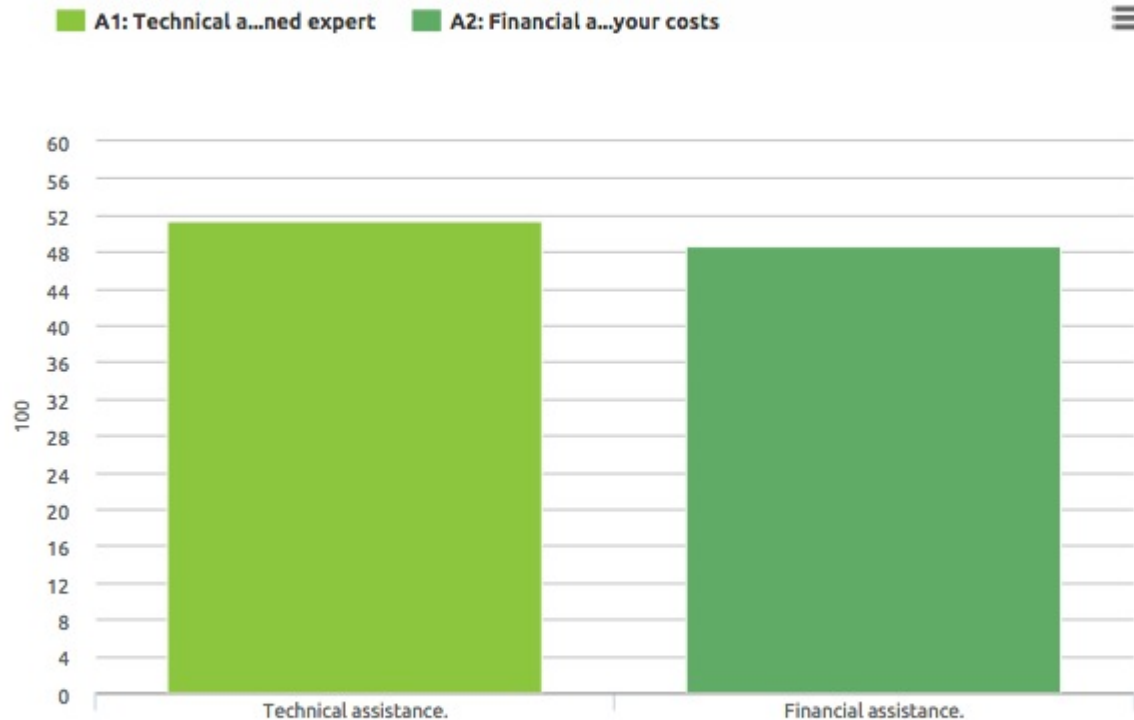
# Finding #1

**Question #14: AFTER participating in RiverSmart, have you installed any other stormwater management projects on your own?**



# Finding #1

**Q17:** Thinking about future stormwater management projects, how important are the following relative to each other?



Answer (average)

(based on 888 responses)

1: Technical assistance on your property from a trained expert

51

2: Financial assistance to help cover your costs

49

Even after going through the entire process once before, these veteran stormwater stoppers value technical assistance slightly more than financial assistance!

# Finding #1

- “I’d also like to learn more from RiverSmart of what else I can do. Now that I have a rain barrel, where do I go next? Is there something else I can do in my yard? Is there some other way to get involved in the community? **Guidance on what the next steps are would be helpful.**”
- “I would love to be able to participate in the cost share again, but if that’s not available then the technical expertise is really valuable to me. Just to have someone come tell me “you could put this type of rain barrel here and this is how you would do it” would be valuable. **Even if I have to pay for it all just having the right person give me direction is very important.**”

## Finding #2

Answer	Responses (743 total)
A2: Friend or family member	26.5% (197)
A1: Past RiverSmart Homes participant	22.4% (167)
A5: DDOE website	19.2% (143)
A9: Other - fill in the blank	16.0% (119)
A4: Internet search	13.8% (103)
A7: Email listserve	13.1% (98)
A3: Print media (newspaper, magazine)	9.0% (67)
A6: Flyer	8.6% (64)
A8: Seminar or class	3.4% (26)

Word of mouth is the main way households hear about the program and how participants gain interest.

## Finding #2

- “I tell friends and neighbors about it. I told my neighbor and they are doing some work for her next spring. Sometimes it takes a minute for neighbors to get it and my neighbors are not as focused as me to try something new.”
- “I think getting the rain barrel was a start to make me feel better about myself, that I’m making a difference, along with recycling my trash, and taking cloth bags to the supermarket. I tell people about what I’m doing and I’m an ambassador. My children are homeowners and I hope they will participate too. Start with your immediate circle and tell them about it, and they tell friends, and they tell friends, and it goes on from there.”

# Finding #3

**Question #21: What would help others in your community to learn about the RiverSmart Homes program?**

Answer	# Answering	% Answer
Notices in neighborhood listservs and Internet forums	624	70.2%
Signage at RiverSmart Homes to identify and inform the public about the project (s) install	494	55.6%
Mailers or door hangers	459	51.6%
Tours of homes with installed projects	449	50.5%
More press in the newspaper or on the news	404	45.4%
Neighborhood meetings	393	44.2%
Flyers or posters at local stores and restaurants	279	31.4%
Advertisements on Facebook and other websites	198	22.2%
Other - fill in the blank (See responses in Appendix A)	59	6.6%



## Finding #3

- “Getting the word out to people, especially on my side of town. I live on the Southeast side, and me and my neighbor had no idea. I just happened to get lucky and hear from someone that lives in the Northwest. Pretty much everyone in my area owns their homes and don’t know about these programs. The upper northwest gets a lot more notifications, [so it would be a good idea to branch out and further the area and demographics that can apply for the program.](#)”
- “More direct neighborhood wide involvement/ outreach. [Especially in lower income areas.](#) Many of my neighbors have no idea what RiverSmart Homes is. Many don't go online to seek this information out so more community based meetings or mailers.”
- “Great program and I would like to see more done in schools to "raise up" the next generation and [help ensure that all communities are able to participate in the program regardless of socio-economic status.](#) I don't see too many rain barrels in the 'hood. I know you are working on this, but I see that the need may be greater than the resources.”

# Finding #4

## 1: Empty your rain barrel.

Answer	Responses (743 total)
A4: 6 or more times	30.0% (223)
A5: Not applicable	25.0% (186)
A2: 1 or 2 times	22.3% (166)
A3: 3 or 5 times	16.6% (124)
A1: Rarely or never	5.9% (44)

## 2: Water your plants or trees with rain water from rain barrel(s).

Answer	Responses (743 total)
A4: 6 or more times	54.3% (404)
A5: Not applicable	25.3% (188)
A3: 3 or 5 times	9.6% (72)
A2: 1 or 2 times	5.5% (41)
A1: Rarely or never	5.1% (38)

## Finding #4

- “After install I had questions on plants and pruning. Still do--harder to get advice on native plants that aren't widely sold.”
- “I thought waiting and watering it according to instructions would be enough but in that time it seems like everything has pretty much died.”
- “What I would like to see is tips and suggestions on how to continue nurturing the trees, rain gardens, etc... as soon as Spring arrives, there should be tips as to what to do with the trees, shrubs.”

# Finding #5

**Question #11: What resources would help you to maintain your project? Please reorder from most helpful to least helpful.**

Answer	Average Score (Lower score = higher priority)
Annual home visit from contractor, RiverSmart staff, or other professional trained person.	3.13
"How to" □ manual left at your home.	3.43
Maintenance reminders sent to you via email, text or phone call.	3.74
Online educational videos.	3.91
Plant lists with care instructions specific to local conditions.	3.97
Community seminars or classes.	4.66
Annual maintenance service for a set cost (someone comes to your house).	5.16

## Finding #5

- “I like the idea of someone coming back to help check on the rain garden and spruce it up and give advice on how to take care of it.”
- “What needs to happen is to have at least one return visit at minimum within a year. It would be helpful to provide advice to the homeowner as needed if things aren't looking as good as they should.”
- “Having someone follow up with people is important, so people know that someone is going to call to check in about your project, or someone is going to be calling about pruning. Its one thing to plant a tree in the first place, but having someone follow up adds value.”

# Top Five Findings

1. The program's success is due to the combination of technical and financial assistance to help homeowners. **Offering rebates is just not enough.**
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## Main Questions

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