

**What's it all about, Alfie,  
is it only numbers we count?**

**Evaluating public education & outreach**

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# No No No

Numbers

I worked a lot...

Report Dates: From 7/1/17 to 6/30/18					
532 Programs/Activities		11672 Students	628 Adults		
ActivityType:		202 Programs/Activities			
TOTAL	Teacher led activity	202 Programs/Activities	4782 Students	Adults	
Videos: Splash-Water and Sewer, and The Journey of Your Water		202 Programs/Activities	4782 Students	Adults	
8/15/2017	Glendale Elementary	4	80	4th grade	
8/22/2017	Harpeth Valley Elementary	7	189	4th grade	
8/30/2017	Inglewood Elementary	4	100	3rd and 4h grade	
8/31/2017	Donelson Christian Academy	3	60	4th grade	
9/12/2017	Cumberland Elementary	4	100	4th grade	
9/20/2017	Granbery Elementary	4	100	4th grade	
9/21/2017	Granbery Elementary	2	50	4th grade	
9/22/2017	Robert E. Lillard Elem. @ Kings Lane	4	80	4th grade	
9/25/2017	Jere Baxter Middle School Special Education classroom	1	4	middle school	
9/26/2017	Pennington Elem.	3	75	4th grade	
9/27/2017	Percy Priest Elem.	5	125	4th grade	
9/29/2017	David Lipscomb Middle School	5	72	5th grade	
10/2/2017	Carter-Lawrence Elementary Magnet	3	75	4th grade	
10/4/2017	Shwab Elem.	3	75	4th grade	
10/17/2017	Jackson, Andrew Elementary	5	125	4th grade	
10/20/2017	Cotton, Hattie Elementary	3	60	4th grade	
10/27/2017	Westmeade Elem.	4	100	4th grade	
10/30/2017	Gower Elementary	6	150	4th grade	
10/31/2017	Green, Julia Elementary	2	50	4th grade	

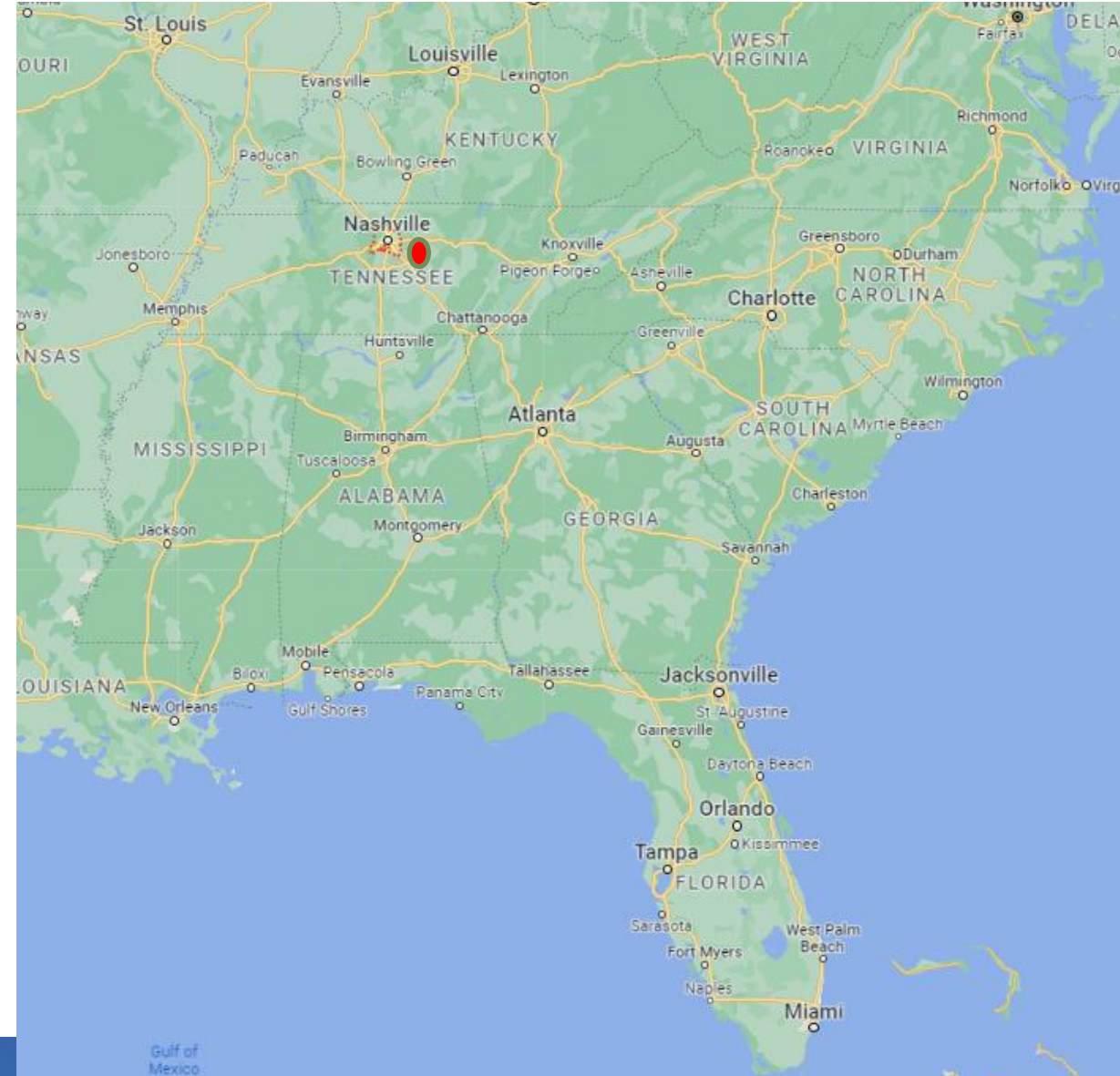


# Nashville and Davidson County Metro Water Services Stormwater Division/NPDES Office

- 4<sup>th</sup> largest MS4
- 1 and ½ education staff

## Today we will look at

- Types of evaluation
- Application to public education and outreach
- Reporting



# Why evaluate?



permits



budget justification



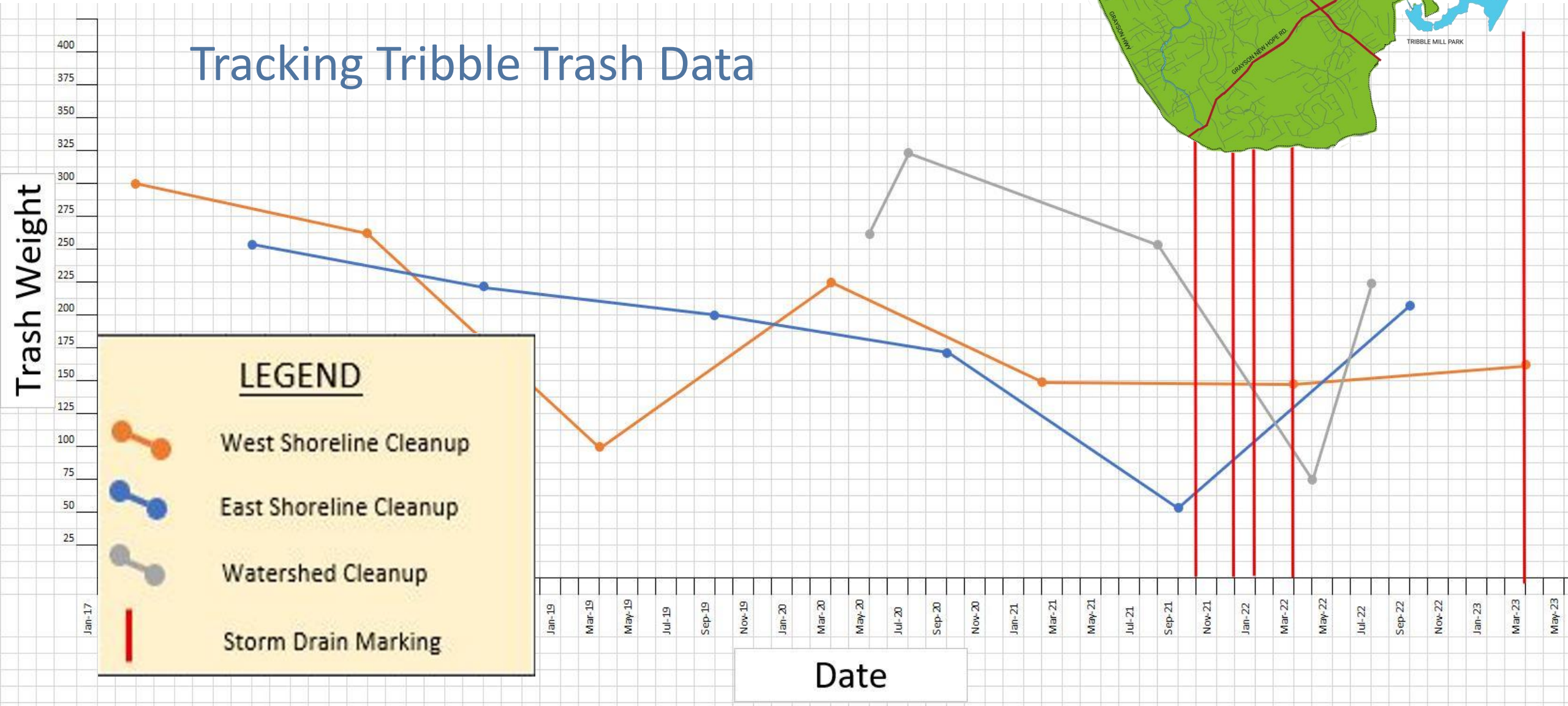
assessment



continuous improvement

# I believe in data, Alfie

## Tracking Tribble Trash Data



**LEGEND**

- West Shoreline Cleanup
- East Shoreline Cleanup
- Watershed Cleanup
- Storm Drain Marking

# Let's figure out how to use this data

Actions Taken

Impact?

## Summary of MWS Facilitated Tennessee Smart Yard Actions Taken During FY22

<b>Total Yard Certifications in Davidson County, July 1, 2021 - June 30, 2022 =</b>	<b>45</b>
<b>Actions Taken by Certified Yard Owners</b>	<b>Reported</b>
Determine your family's landscape objectives and level of maintenance desired.	44
Leave grass clippings on lawn.	44
Use composted grass clippings, leaves, pruned plant parts, kitchen scraps to improve soils.	42
Assess yard site conditions and incorporate into sketch.	41
Use organic pine straw, pine bark leaves, or hardwood mulch.	41
Protect all soil surfaces with vegetation to minimize erosion by rainfall and runoff.	41
Mow grass high, creating deeper root systems and reducing water needs.	40
Use landscape waste on site.	40

# Let's use our reporting for improvement

Program Description	Outcomes/ Measures of Success	Recommendations for Improvement
<p><i>Stormdrains and Stormwater</i>            Students used a topographical map of school property and surrounding streets to locate storm drains.            Students heard about the Stormwater Control Measure Inspector career.</p>	<p>Students demonstrated an understanding preventing non-point source pollution in storm drains by accurately completing an inspection form and identifying litter and debris issues.</p>	<p>Add Adopt-A-Storm Drain</p> <p>This could become a teacher-led program if an introductory video is created</p>

Goal: Career exploration

Success looks like:

- Students participate in career-related activity
- Students meet a professional



\* Yes, we still list the numbers!

# Let's Steal Some Evaluation Tools

## Academic

Formative

Summative

## Training

Reaction

Learning

Behavior

Results

## Trade Shows

Traffic

Trends

Input

## Tour Companies

ChatGPT



# Academic evaluation types

## FORMATIVE

How's it going right now?  
Are we on track?

### Methods

- Comments
- Show of hands
- Poll
- Q/A

## SUMMATIVE

Did people learn what I  
wanted them to learn?

### Methods Quiz

- Open Question

# Plan for Evaluation FIRST

Goal

What do we want participants to know and do after the program?

Success looks like...

- Learning?
- Actions?

Data we can collect

- Qualitative
- Quantitative

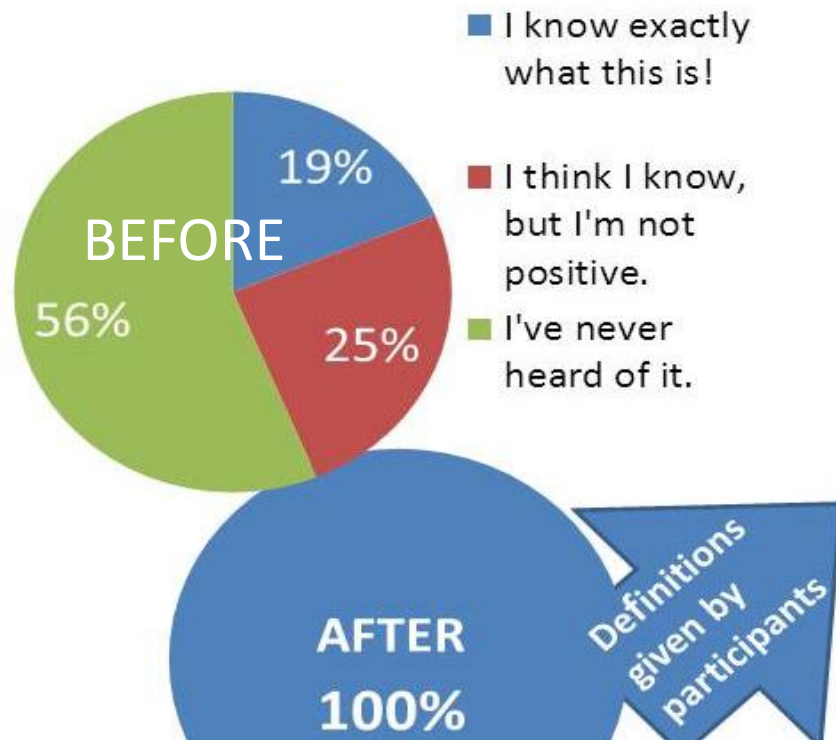
Activity

What will help achieve the goal?

# Evaluate Learning

## Pre-survey

What is a  
hose backflow preventer?



## Post-survey

Write a definition:

- *A stopper that prevents backflow into a household water supply.*
- *Will prevent water going back into the faucet*
- *Protects water*
- *Lets water only flow one way*

# Training: Kirkpatrick's New World Evaluation

REACTION



LEARNING

*Did they learn what I wanted them to learn?*

BEHAVIOR

*Did it change?*

RESULTS/ROI

*Was it worth it?*

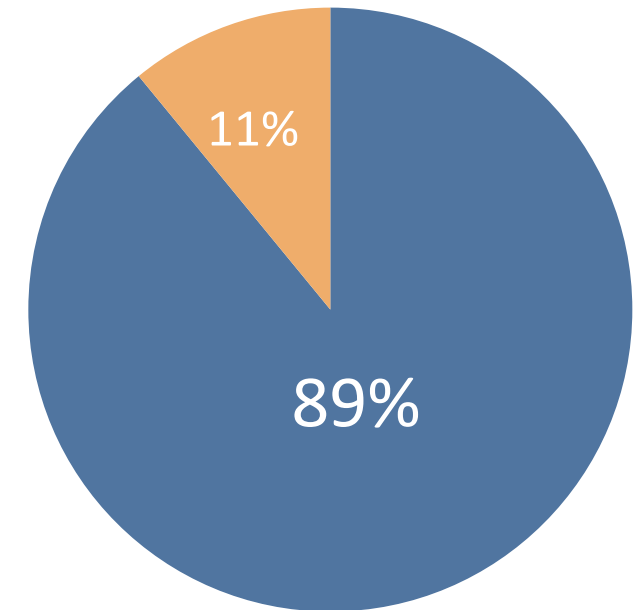
# Evaluation Form & Reporting

One thing I WILL DO to **PREVENT BACKFLOW** (contaminated water that flows back into the home drinking water pipes) at my home is

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stop leaving hose in pool	leave air gap	won't leave water hose on the ground	don't leave hose in water	use HBVB	no answer	unrelated (maybe came in late?)
1	6	3	3	5		
0	6	0	2	3	3	1
	2	4		1	1	
2	2	2		3		1

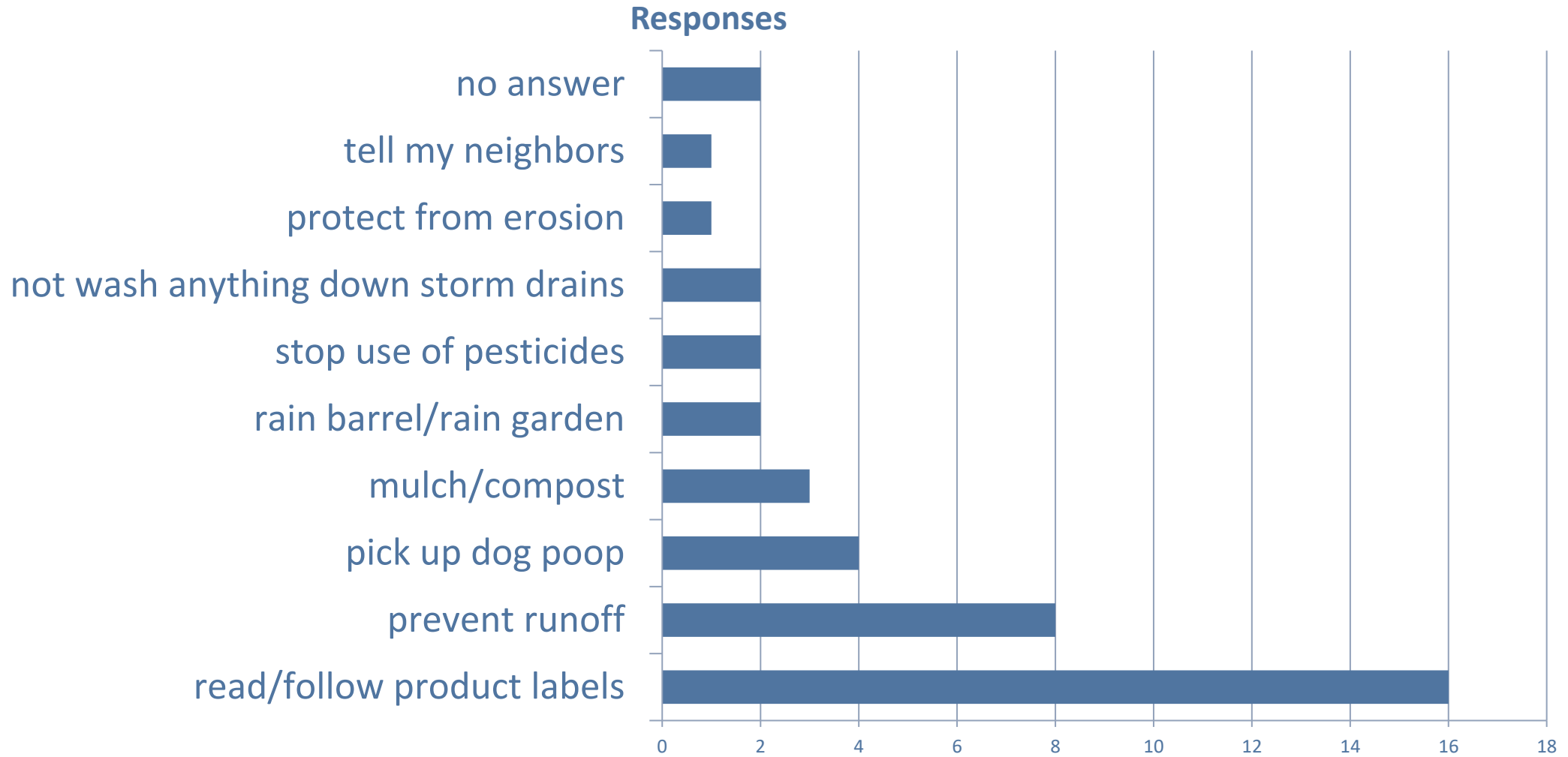
## Backflow Education Survey Results



- Preventive measure learned
- Preventive measures not learned

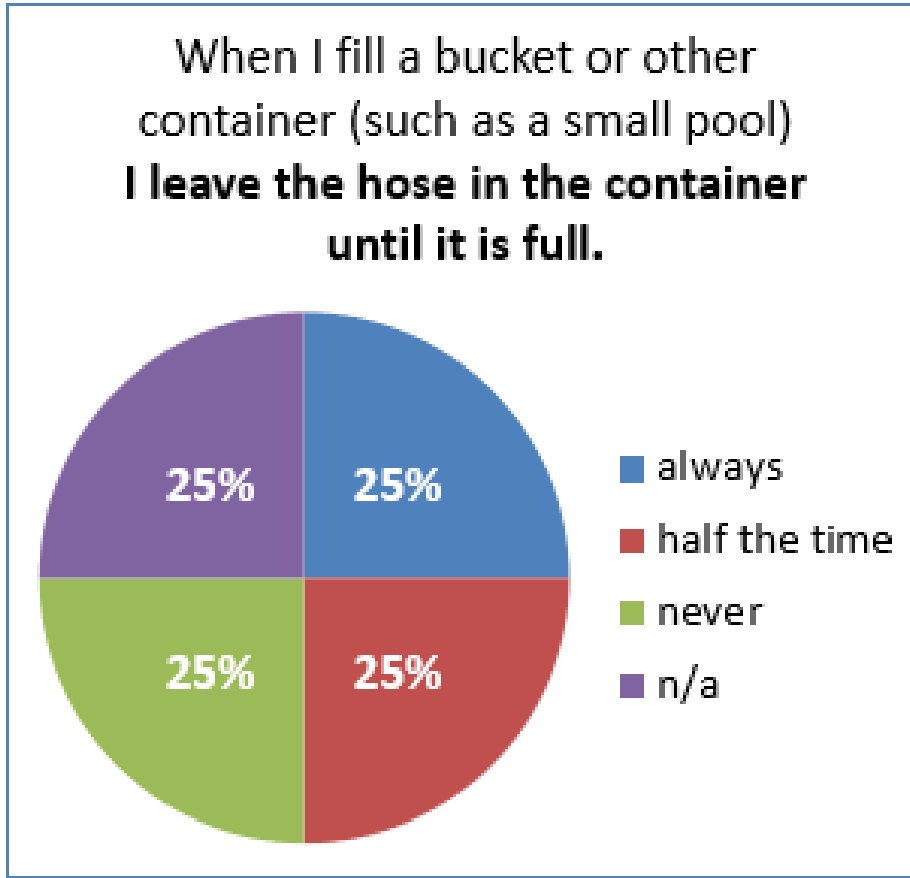
One thing I WILL DO while I am gardening that will **PREVENT WATER**

**POLLUTION** is \_\_\_\_\_

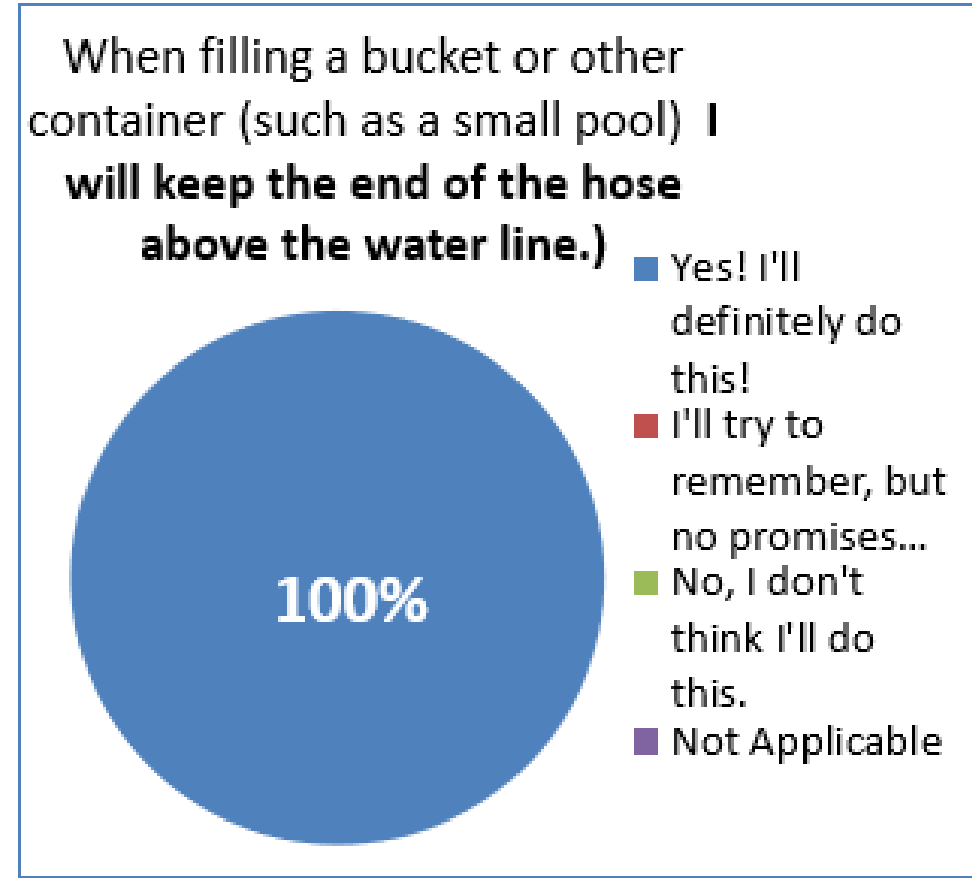


# Evaluating and Reporting Behavior

## BEFORE



## AFTER



# ROI/Impact



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## Tennessee Smart Yard Certification Anniversary Survey

What has been most transformative for you and your yard that resulted from your Tennessee Smart Yard certification?

Your answer

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# Reporting

**Participants are learning the importance of reducing stormwater runoff.**

Enjoyed learning about the many ways I can improve our property to alleviate stormwater runoff

Learning about how to reduce stormwater

*Even one or 2 yards in the neighborhood practicing smart yard principles can have an effect on neighbors. if entire neighborhoods have permission, so to speak, to mow less frequently then maybe the practice will change.*

*reduced stormwater by diverting house gutter downspouts from sewer connection*

*Protecting the edge of our creek has improved the erosion problem. I believe it also has helped with the water coming off the land being cleaner by the time it gets to the creek.*

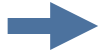
# Support the Behavior

Tennessee Smart Yard Certification  
Anniversary Survey

Have you maintained the actions you adopted as you certified your Tennessee Smart Yard?

Yes

No



Please let us know why you haven't kept up your certification practices.

Moved and haven't certified new property yet.

Was not satisfied with results.

Change in

Too time

Too cost

Other:

Which principles, if any, do you feel you need more information to fully realize in your yard?

Right Plant, Right Place

Manage Soils and Mulch

Reduce, Reuse, Recycle

# Keeping it Simple

<p style="text-align: center;"><b>[REACTION]</b></p> <p>I liked...</p>	<p style="text-align: center;"><b>[LEARNING]</b></p> <p>I learned...</p>
<p style="text-align: center;"><b>[BEHAVIOR]</b></p> <p>In the future I will...</p>	<p style="text-align: center;"><b>[SUPPORT OPPORTUNITY]</b></p> <p>I still have questions about...</p>
<p>This activity could be improved by...</p>	<p>Comments:</p>

# Exhibitors and Trade Shows



TRAFFIC



TRENDS



INPUT

# Example Plan for Evaluation

Goal

Interaction at TN Smart Yards booth

Success looks like...

Meaningful conversations about residential runoff pollutants

Data we can collect

- # of people = TRAFFIC
- Actions taken = TRENDS
- Topics discussed = INPUT

Activity

Poll

# Traffic

||| ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Trends

Input

Smart Yard Actions	I do this	Need More Information, I might do this	Not Applicable or Not Interested
	Assess yard site conditions and incorporate into sketch.	<del>    </del> ✓ ✓ ✓ ✓	<del>    </del>
Remove or avoid using invasive/exotic plants and incorporate native plants.	<del>    </del> <del>    </del>    ✓ ✓ ✓		
Maintain a 2-3 inch layer of mulch in plant beds and over tree and shrub roots, leaving at least 2 inches of space at the base of trunks.	<del>    </del>       ✓ ✓	 ✓	

# Evaluation Report and Recommendations

**TRAFFIC** 53 Conversations

**TRENDS** Visitors are

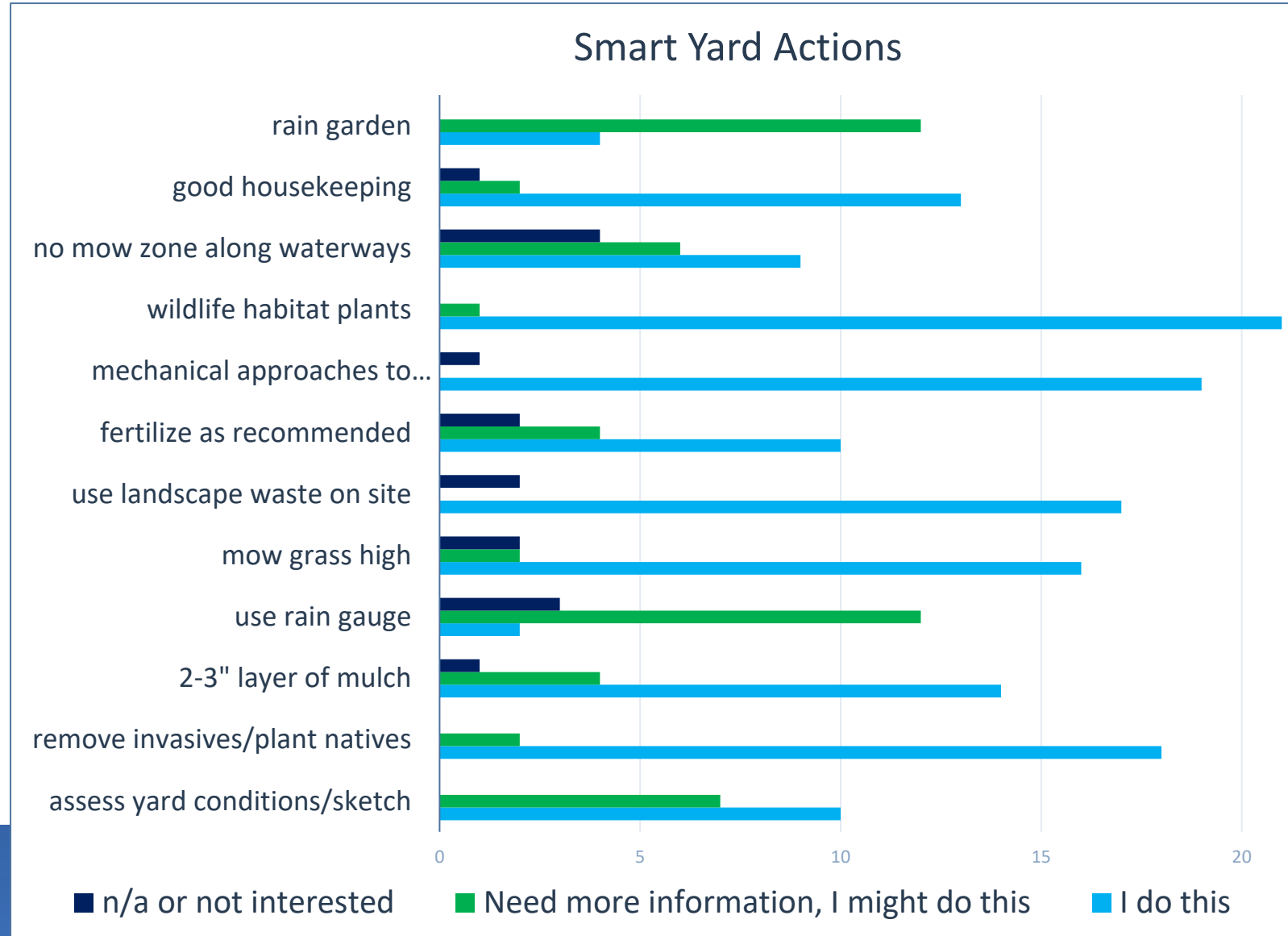
- Using plants for wildlife
- Not using pesticides
- Mowing grass high

**INPUT** Visitors need information on

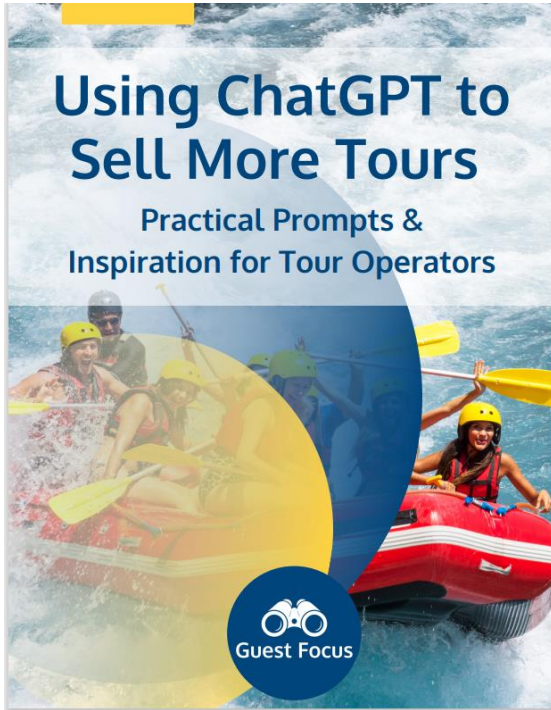
- Rain gardens
- No mow/waterway buffers
- Rain gauge use

**RECOMMENDATIONS**

- Link “protecting wildlife” to TNSY
- Rain gauge DIY or Give aways
- Posters with photos
- QR code for detailed information



# Tours: ChatGPT has entered the room



*Please create a program impact statement.*

**ChatGPT**

- Can you specify the program?
- What is the target audience?

*TN Smart Yards environmentally friendly landscaping*

*Audience is gardeners*

**ChatGPT**

- Do you have specific data and metrics?
- Are there social or environmental impacts you want to emphasize?

*I have qualitative and quantitative data  
Please emphasize social and environmental impacts*



# Revised Prompt

- Summarize the poll results from Farmers' markets, with a **focus on visitors' attitudes and intentions regarding actions that reduce stormwater runoff.**
- **Craft an impactful statement** highlighting the key findings and implications of these results. The summary and impact statement will be included in an annual report for industry regulators.

Here is the data:

# Impact Statement: Outreach at Farmers' Markets

- The poll results from Farmers Markets illuminate **a profound willingness among visitors to embrace sustainable yard practices** that mitigate stormwater runoff. The overwhelming support for actions like removing invasives, mulching, using landscape waste, and adopting wildlife-friendly practices underscores a clear commitment to environmental stewardship.
- These findings underscore the potential for fostering community-driven stormwater management initiatives. **It is imperative that we recognize and harness this enthusiasm to promote educational programs and policies that empower individuals to reduce stormwater runoff.** By capitalizing on this groundswell of support, we can collectively make substantial strides toward a more sustainable and environmentally conscious future.

# Next: We sent Gretchen back to school!

- HOD 6200: Program Evaluation
- Open to **4-5 community leaders who are working in a community-based organization and have an identified program evaluation need** or interest that is not currently being supported by a professional program evaluator.



# Take Aways



Plan for evaluation

Use short and specific evaluation forms

Report Outcomes and Recommendations,  
not just numbers

Befriend ChatGPT