2014 Chesapeake Watershed Agreement

Achieving the Goal of Stewardship

Developing a Citizen Stewardship Indicator Pilot Survey Results

March 1, 2016

What is the Stewardship Goal?

"Increase the number and diversity of local citizen stewards and local governments that actively support and carry out conservation and restoration activities that achieve healthy local streams, rivers and a vibrant Chesapeake Bay."

Why Measure Progress?

- Collect and share data that is useful to practitioners in informing program design and improvements
- Predict/quantify/prioritize the water quality and other engagement values of stewardship programs and citizen actions.
- Provide an accurate and easily (relatively) scalable baseline of stewardship actions
- Increase/maintain support for investments in citizen stewardship efforts.

Citizen Stewardship Framework

Increasing citizen actions for watershed health

Photos Courtesy Chesapeake Bay Program

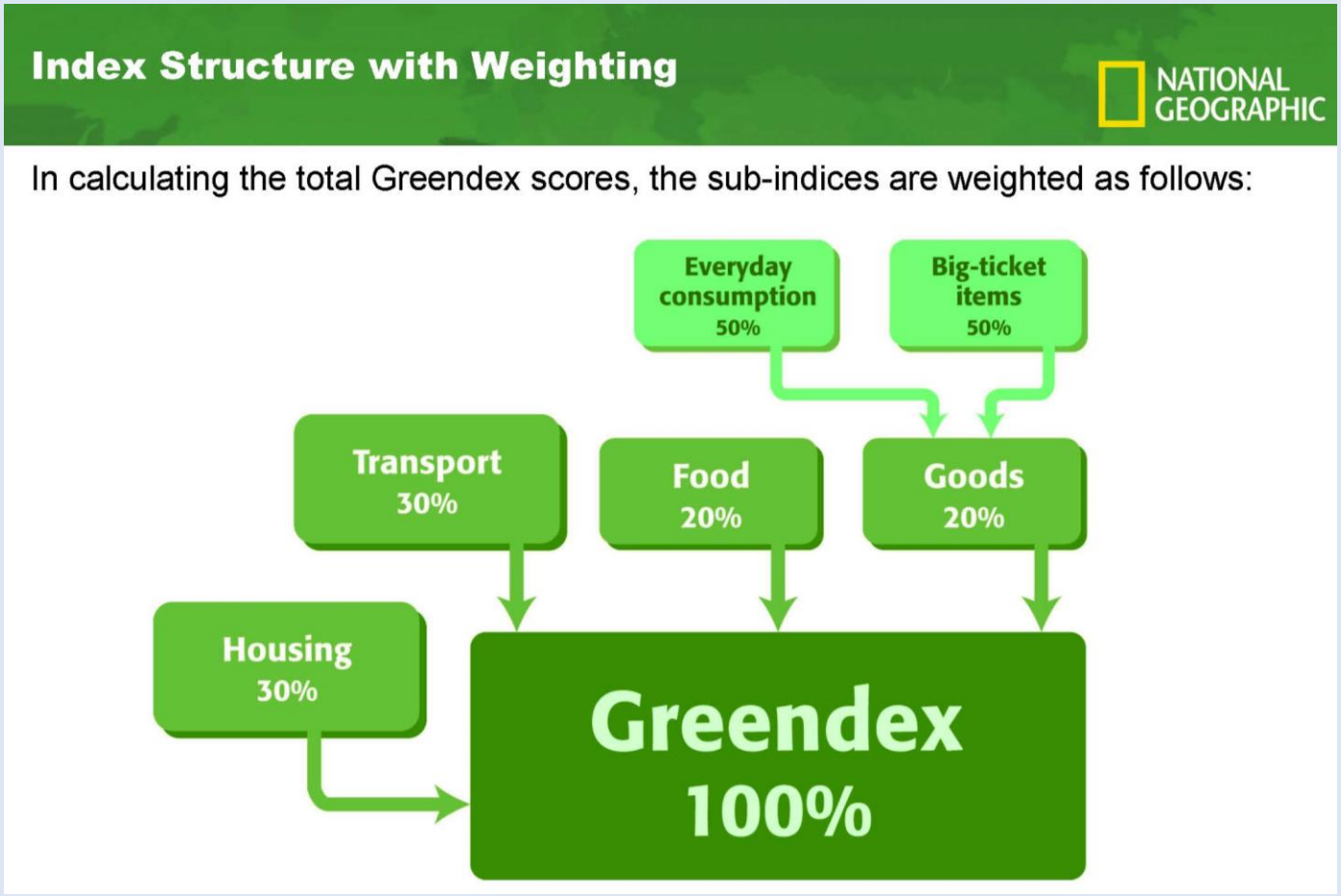
STEWARDSHIP INDICATOR

MEASUREMENT CRITERIA

1. Involves individual decision-making
2. Is repetitive and can be tracked over time
3. Can be broadly adopted
    A. Not just by experts
    B. Not pre-emergent
4. Has an impact on water health
5. And/or will engage the public

Puget Sound Behavior Index

- Measures both positive and negative behaviors.
- 28 behaviors
- Stratified for 12 counties
- Scale: Never, Seldom, Sometimes, Usually, Always



- **Meta-index with 4 sub-indices.**
- Internally weighted.
- 65 variables.

From 2015 Stakeholder Process:

- ✓ 2025 time horizon for this Indicator.
- ✓ Tracking human behavior.
- ✓ Design as a meta-index.
- ✓ Measure:
  - Stewardship Behaviors
  - Future Likelihood of Adoption
  - Volunteerism
  - Keys to Individual Engagement
  - Civic Engagement Behaviors

What This Survey Tool is *Not*

- ✓ The citizen stewardship index will NOT verify implementation of behaviors or practices per Bay Program protocols. Other tools like the Smart Tracker exist for this purpose.
- ✓ It will NOT answer why questions.
- ✓ It will NOT measure public policy preferences.
- ✓ It will not measure perceptions and attitudes, except those that directly drive stewardship behavior.

Questionnaire Structure

- Introduction and Screening (8)

1. Stewardship Behaviors (19)
2. Future Likelihood (19)
3. Volunteerism (5)
4. Keys to Individual Engagement (8)
5. Civic Engagement (6)

- Classification (12)

Measured Behaviors

- Pet waste
- Leaves/Lawn clippings (2)
- Litter (2)
- Fats, grease, contaminants down the drain (2)
- Fertilizer use (2)
- Pesticide/Herbicide use (2)
- Conservation landscaping
- Rain garden installation
- Septic system
- Tree planting
- Downspout redirect
- Rain barrel (2)
- Water conservation

Response Scales

Yes/No:

In the last several years, have you…?
Reduced an area of grass lawn by planting native plants?

Frequency (5-point):

For each of the following things, please tell me if you never, seldom, sometimes, usually, or always do it.
Pick up your dog's waste and dispose of it in the trash.

Agreement (5-point):

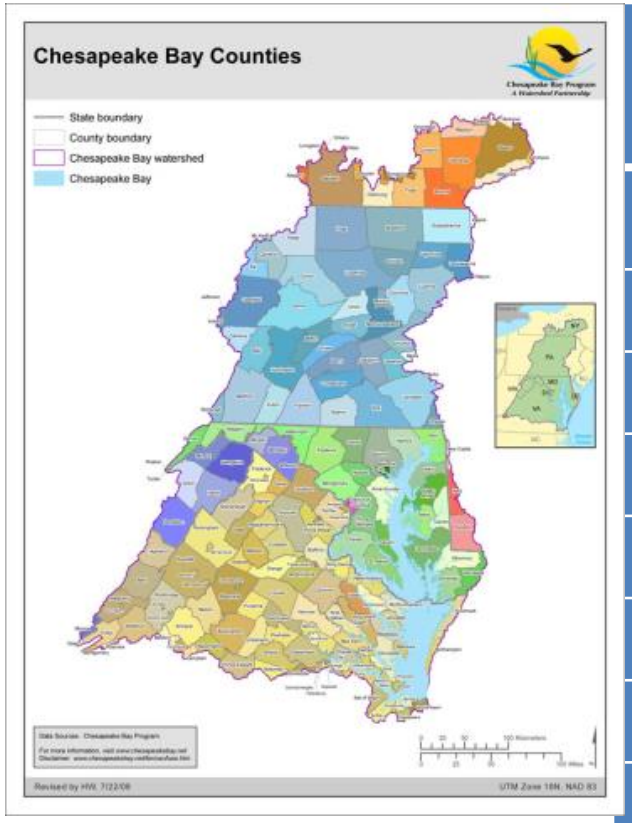
For each of the statements that follow please tell me if you strongly disagree, somewhat disagree, are neutral, somewhat agree, or strongly agree.
Polluted water affects me personally.

Likelihood (3-point):

Looking forward over the next year or so, how likely are you to do each of these things using the scale not likely, somewhat likely, or very likely.
Have your septic system inspected or pumped out.

Citizen Stewardship Index

Pilot Sampling Methodology



	Pilot Program Feb 2016
	N=2,000
DC	402 (±4.9%)
MD	400 (±4.9%)
PA	398 (±4.9%)
VA	400 (±4.9%)
WV	199 (±6.9%)
NY	101 (±9.8%)
DE	100 (±9.8%)

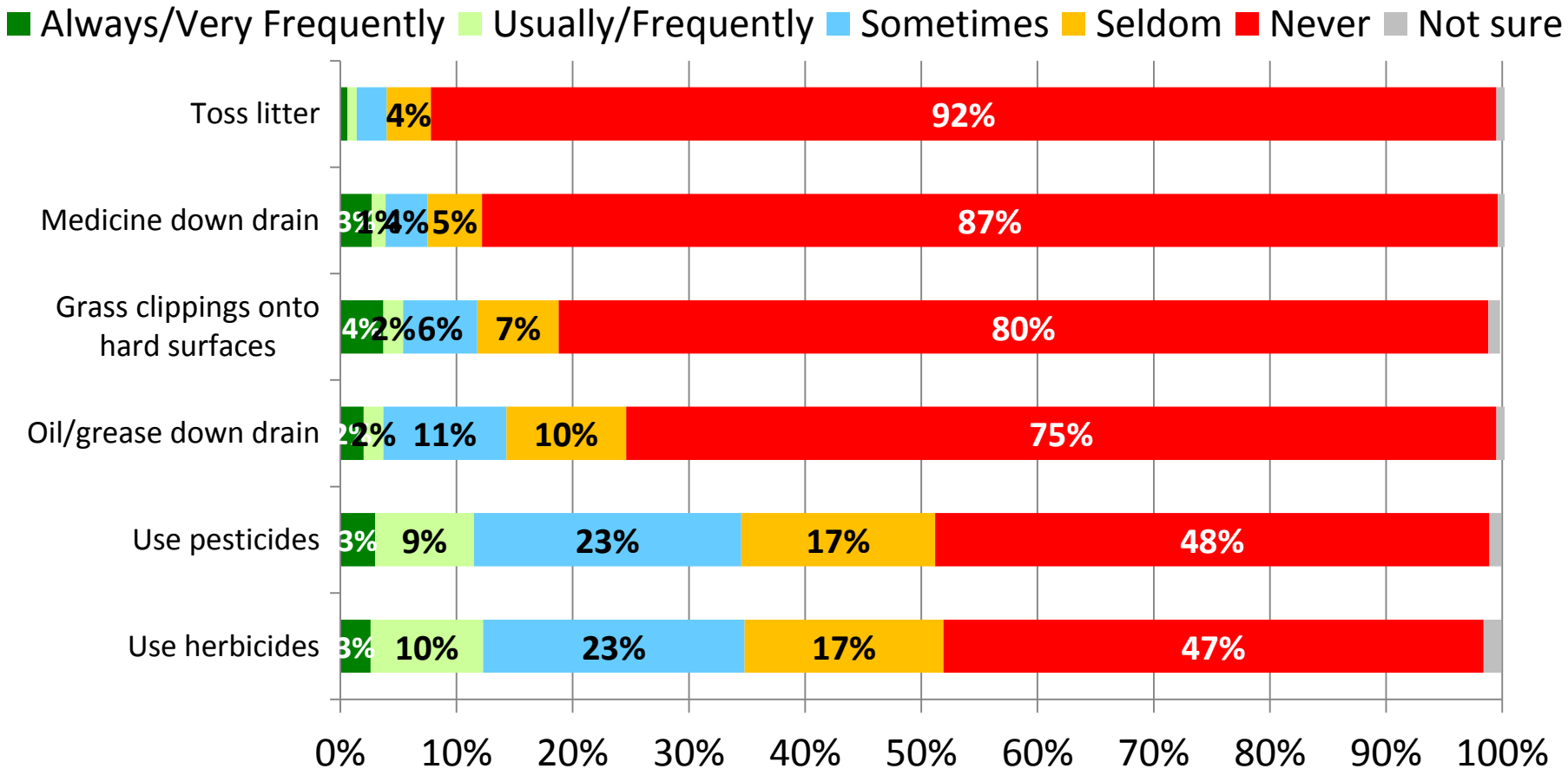
23 days in field
13-minute interview
43% cell/57% landline

Stewardship Behaviors

Pilot Citizen Stewardship Indicator

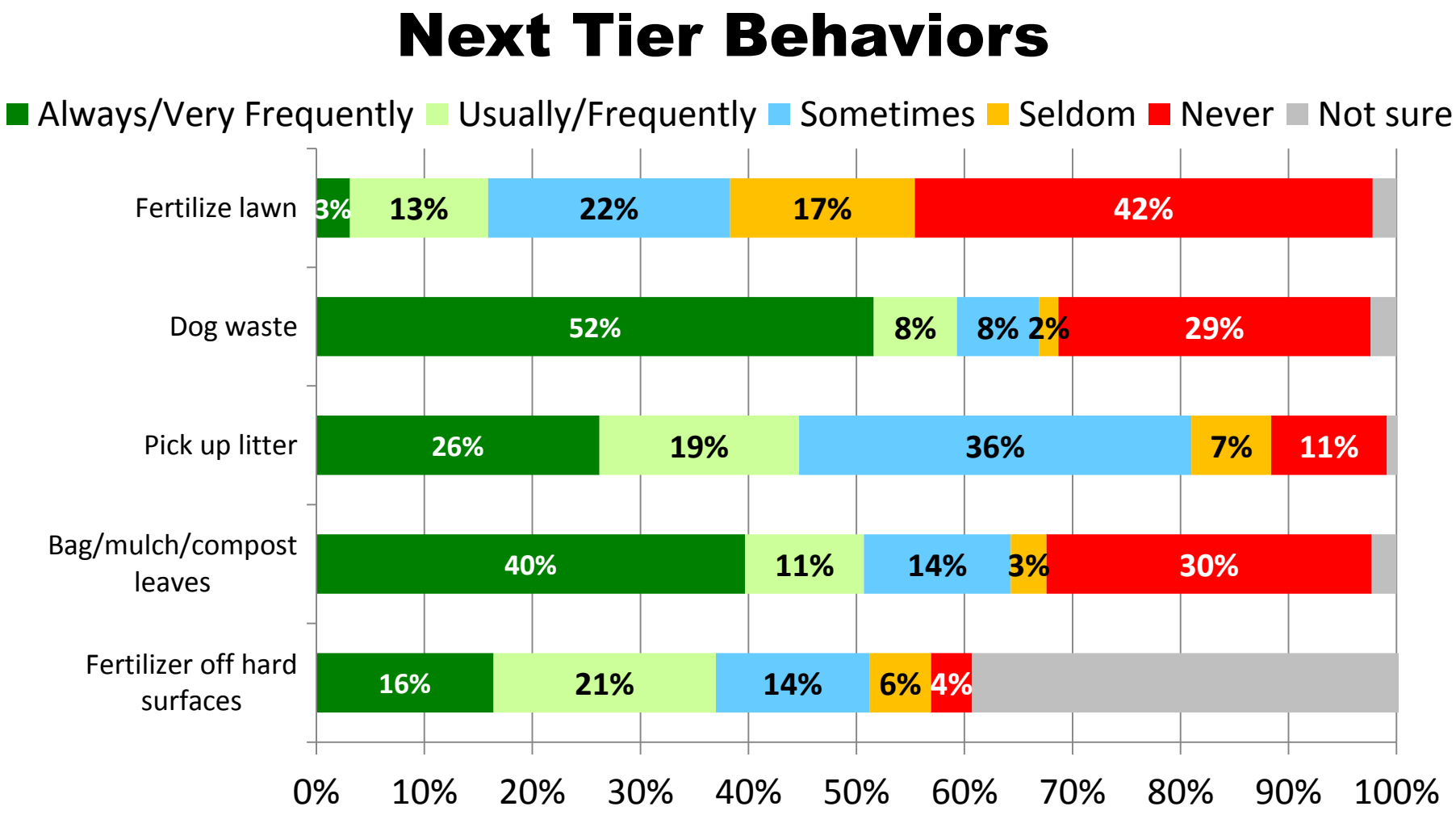
Weighted Data: Preliminary Weights (3/1/2016)

Top Performing Behaviors



Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)



Pilot Citizen Stewardship Indicator

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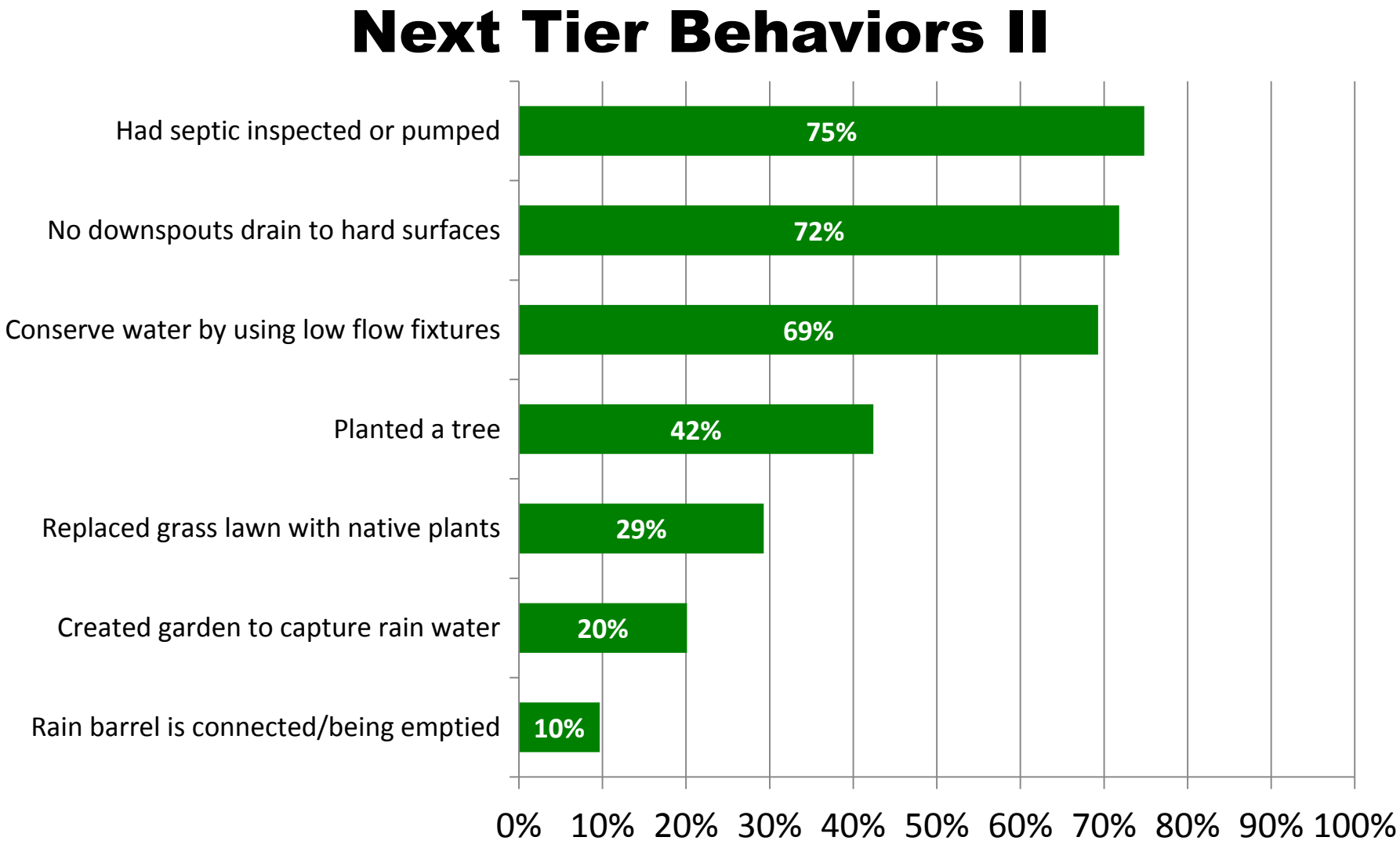


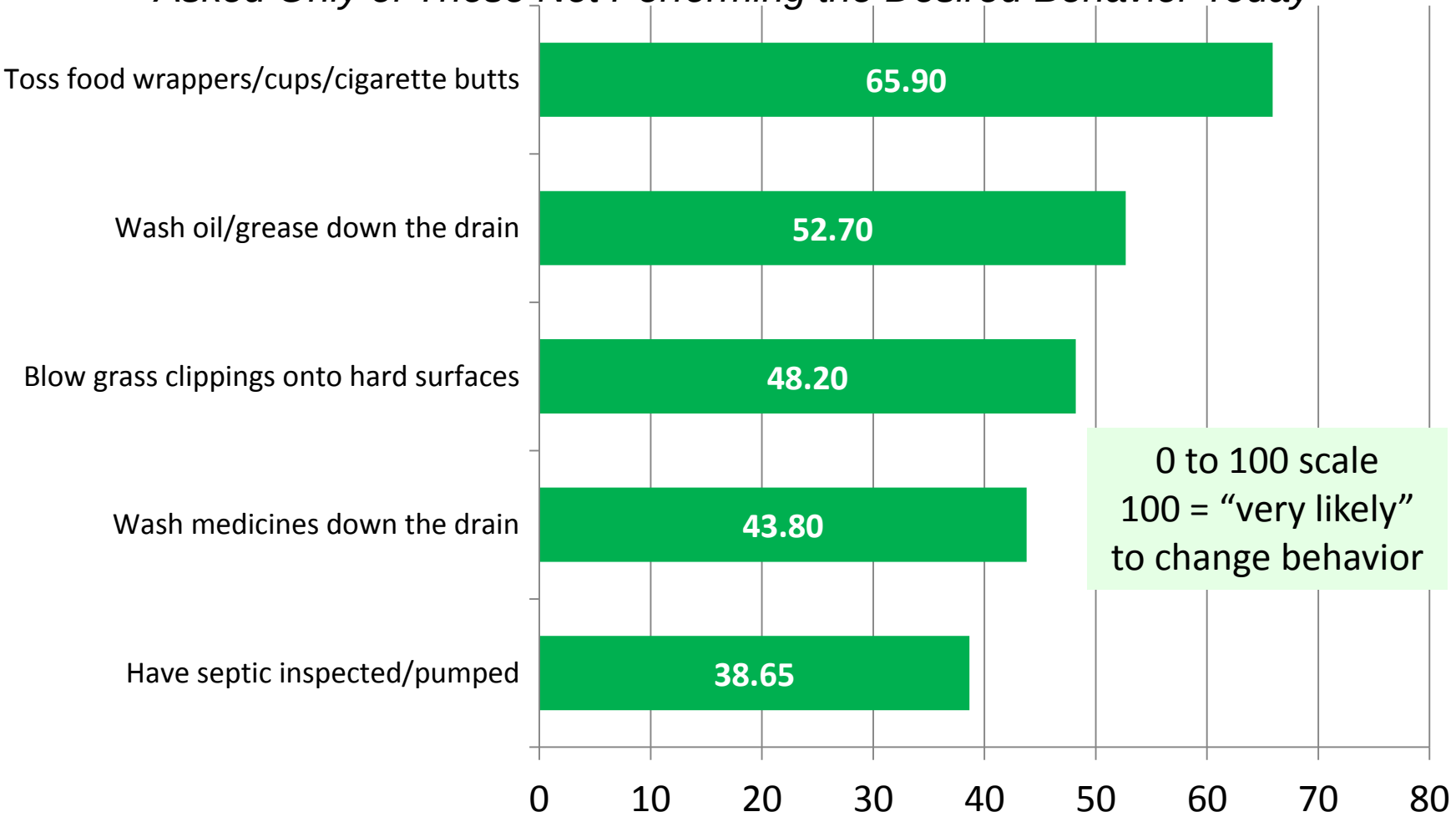
Likelihood to Change Behavior

Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

Behaviors Most Susceptible to Change

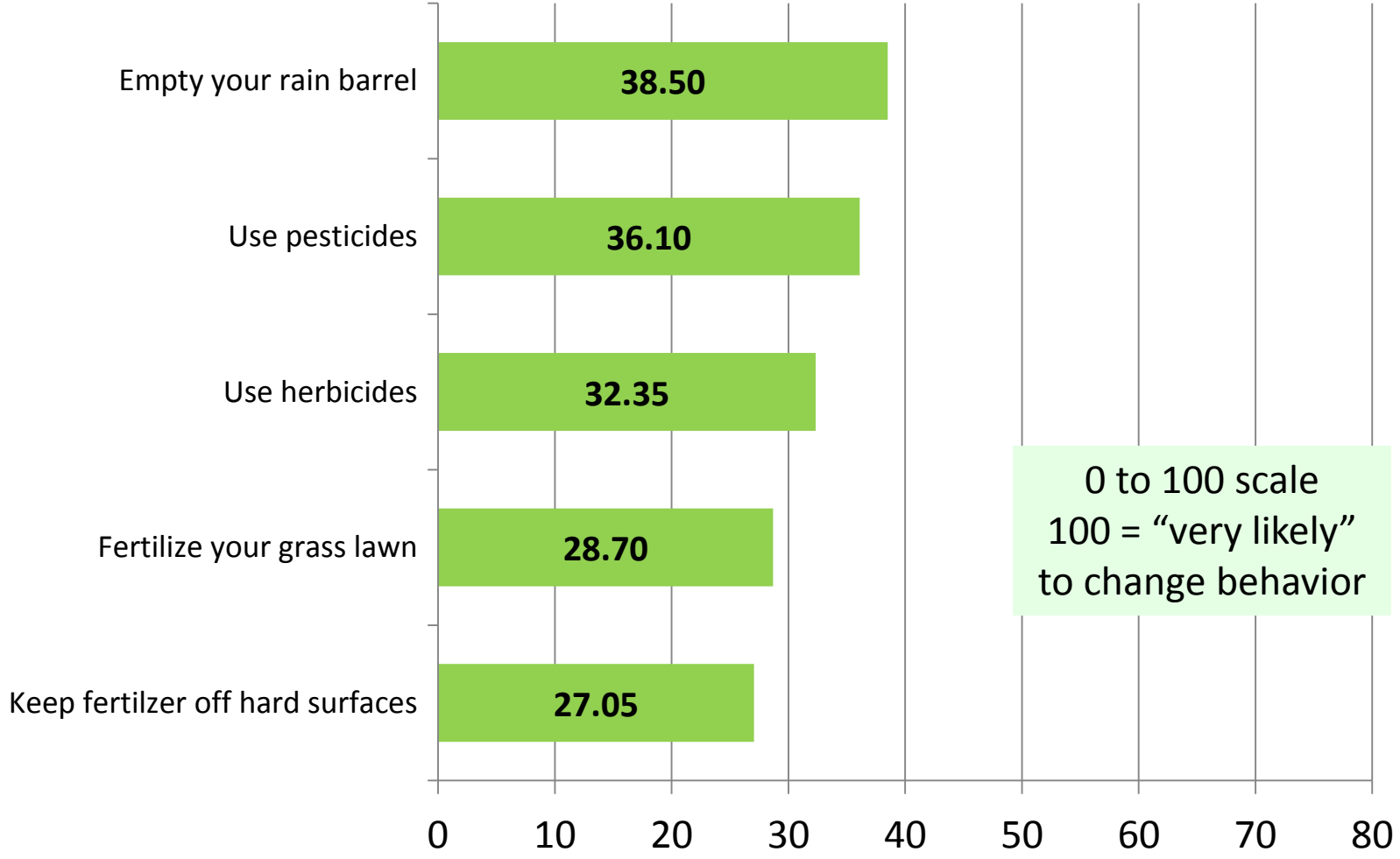
Asked Only of Those Not Performing the Desired Behavior Today



Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

Behaviors Susceptible to Change II



Pilot Citizen Stewardship Indicator

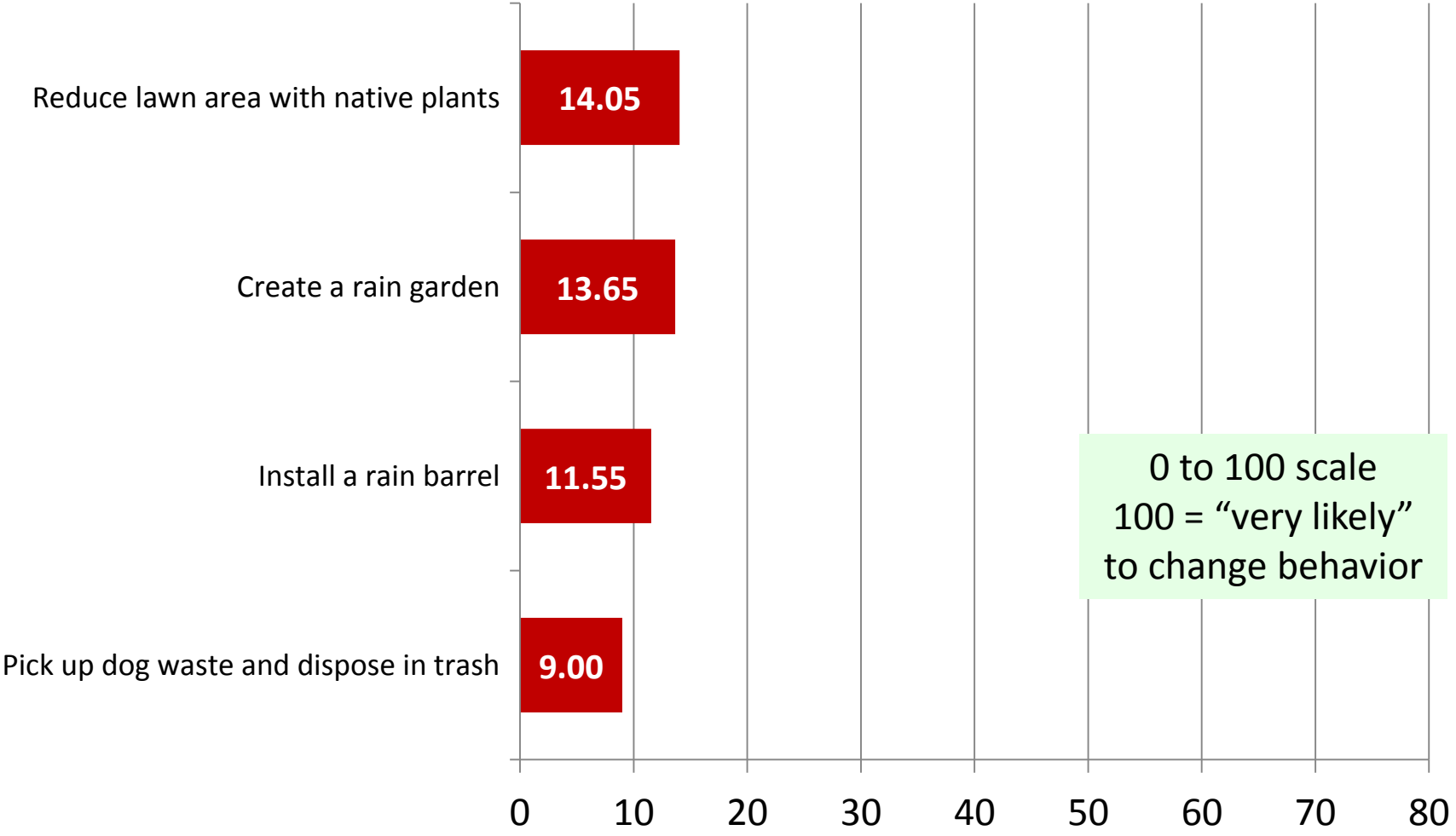
Weighted Data: Preliminary Weights (3/1/2016)

Behaviors Less Susceptible to Change

Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

Behaviors Least Susceptible to Change

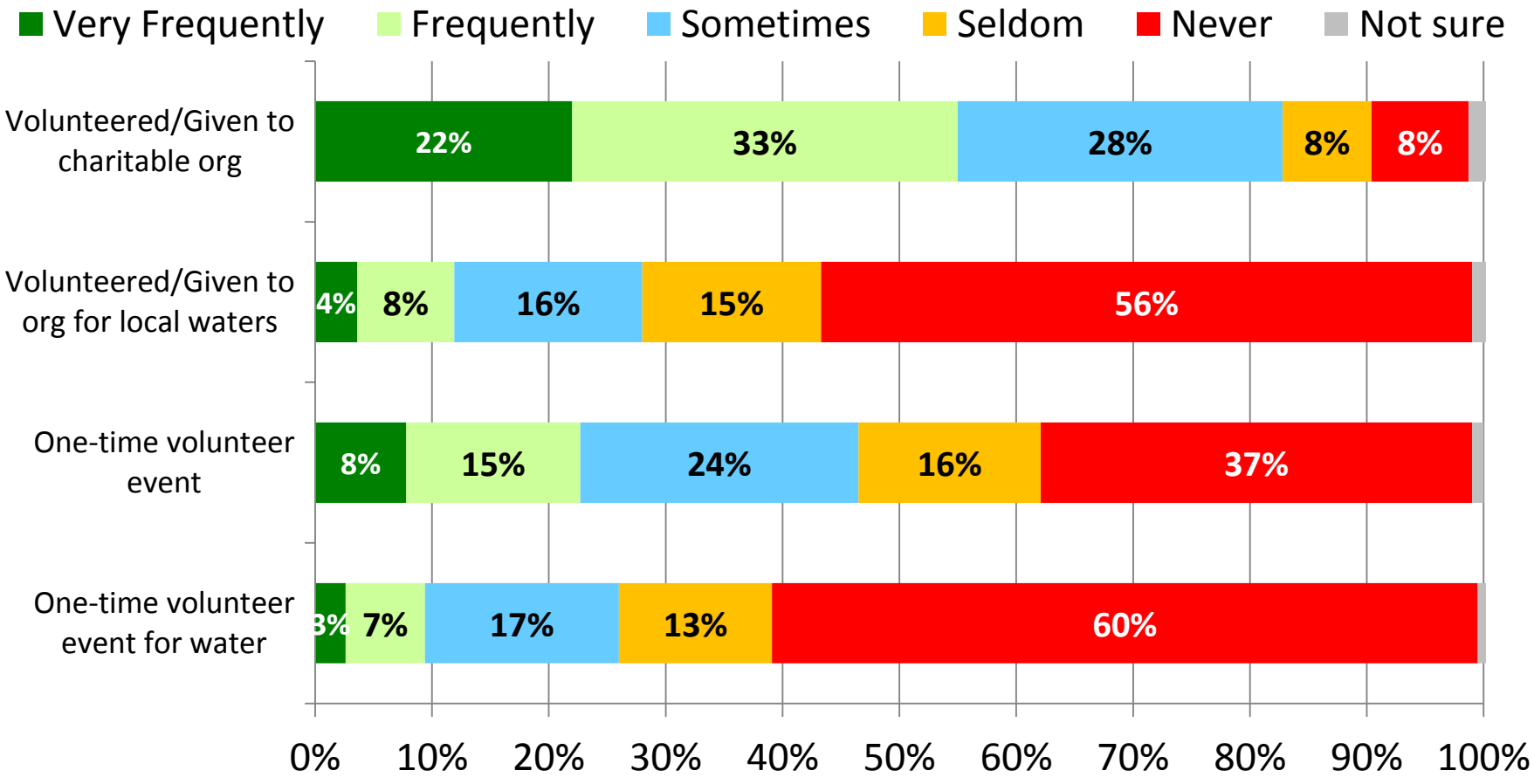


Volunteerism

Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

Volunteerism



42% can think of at least one group in their own community that is working to clean up and protect local waters.

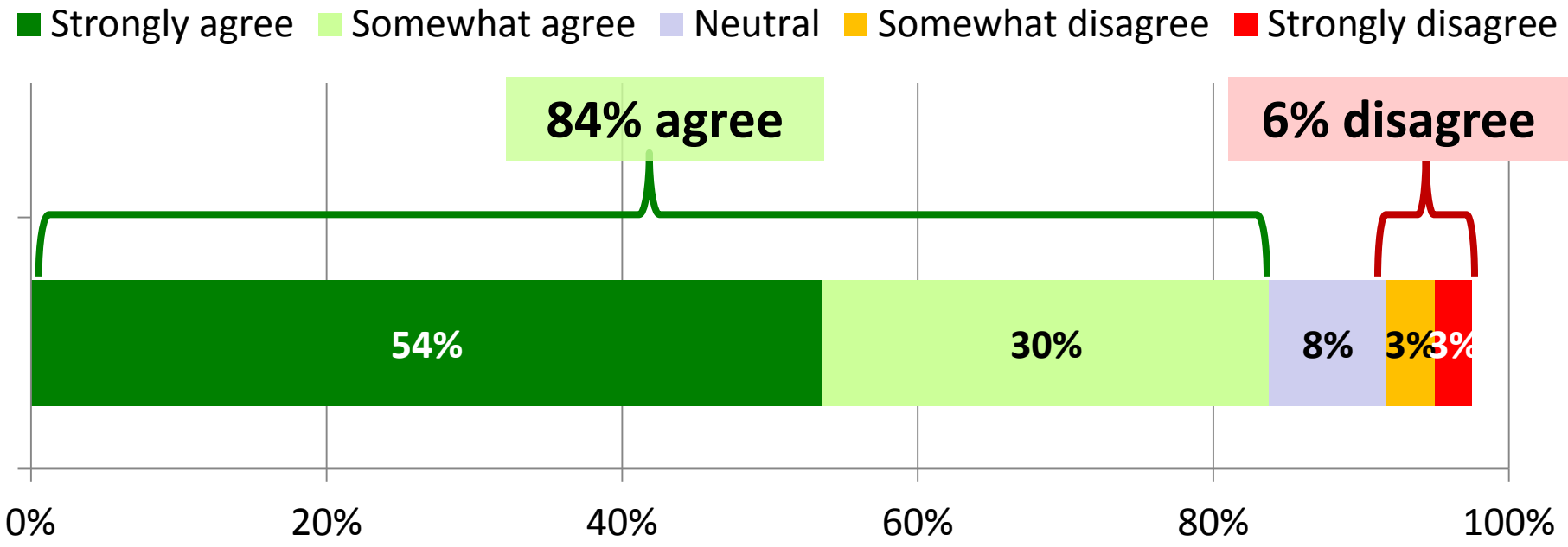
Keys to Individual Engagement

Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

If people work together, water pollution around here can be fixed.

Level of Agreement

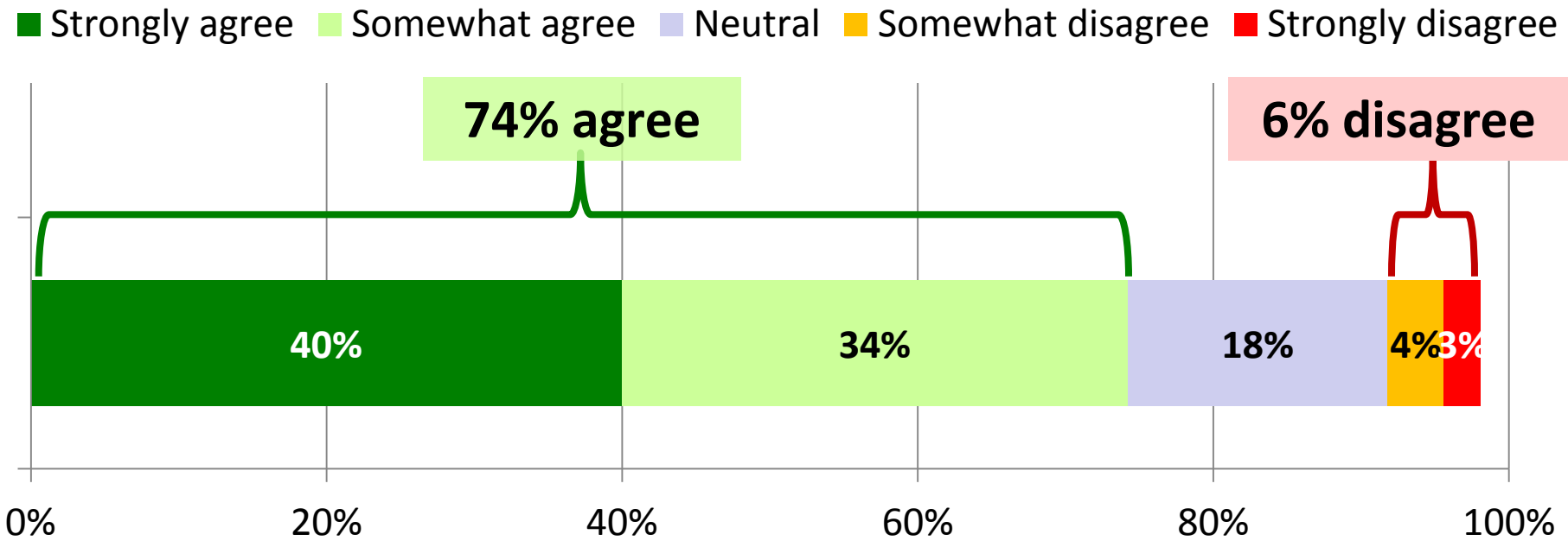


Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

I want to do more to help make local waters healthier.

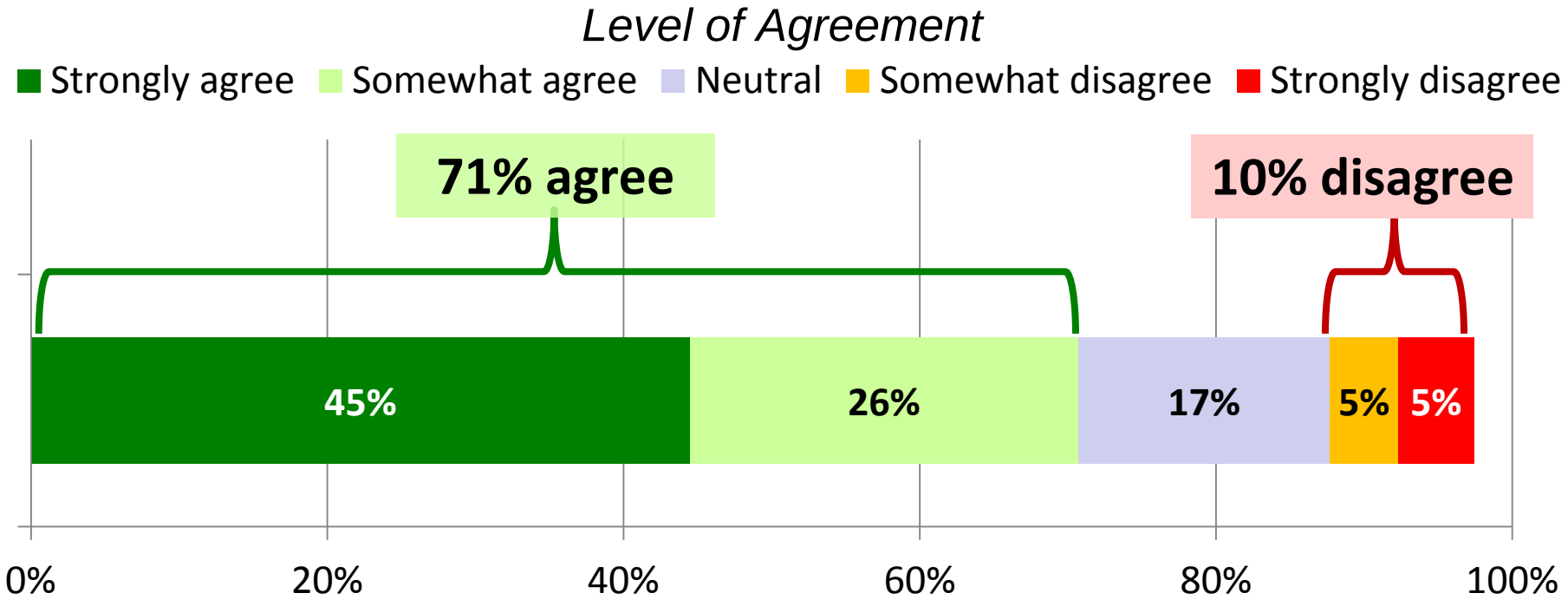
Level of Agreement



Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

I am more likely to vote for a candidate for office who makes it a priority to protect the natural environment.

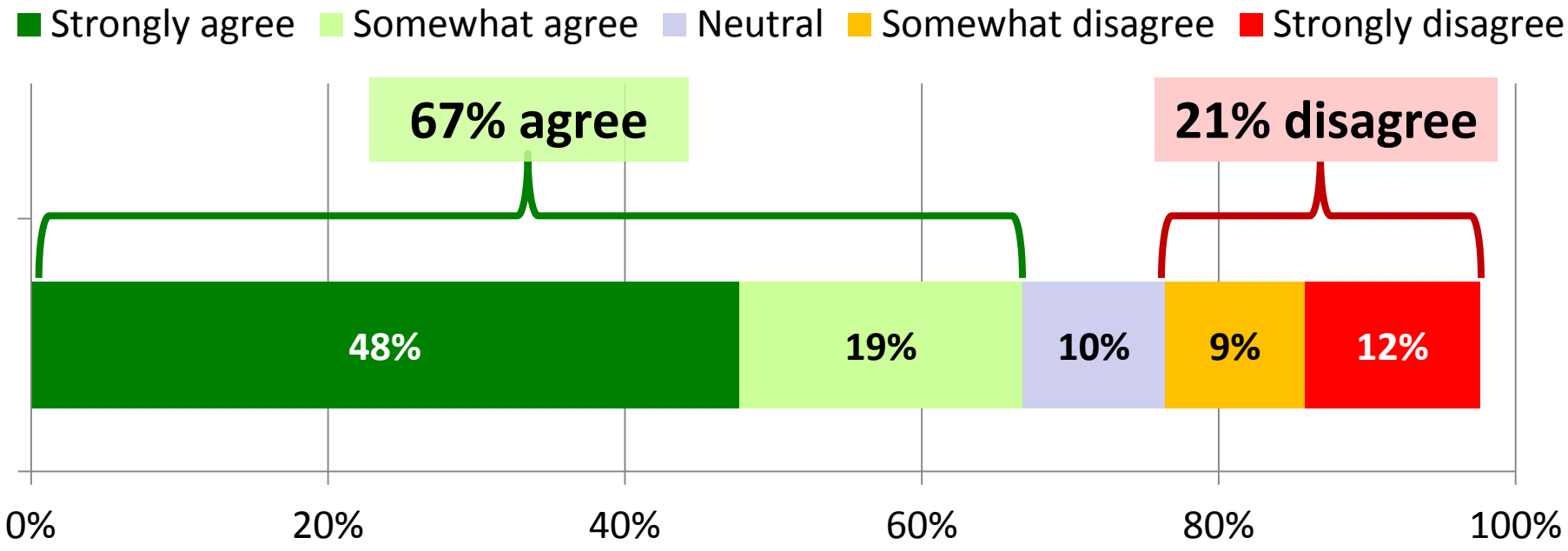


Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

Polluted water affects me personally.

Level of Agreement

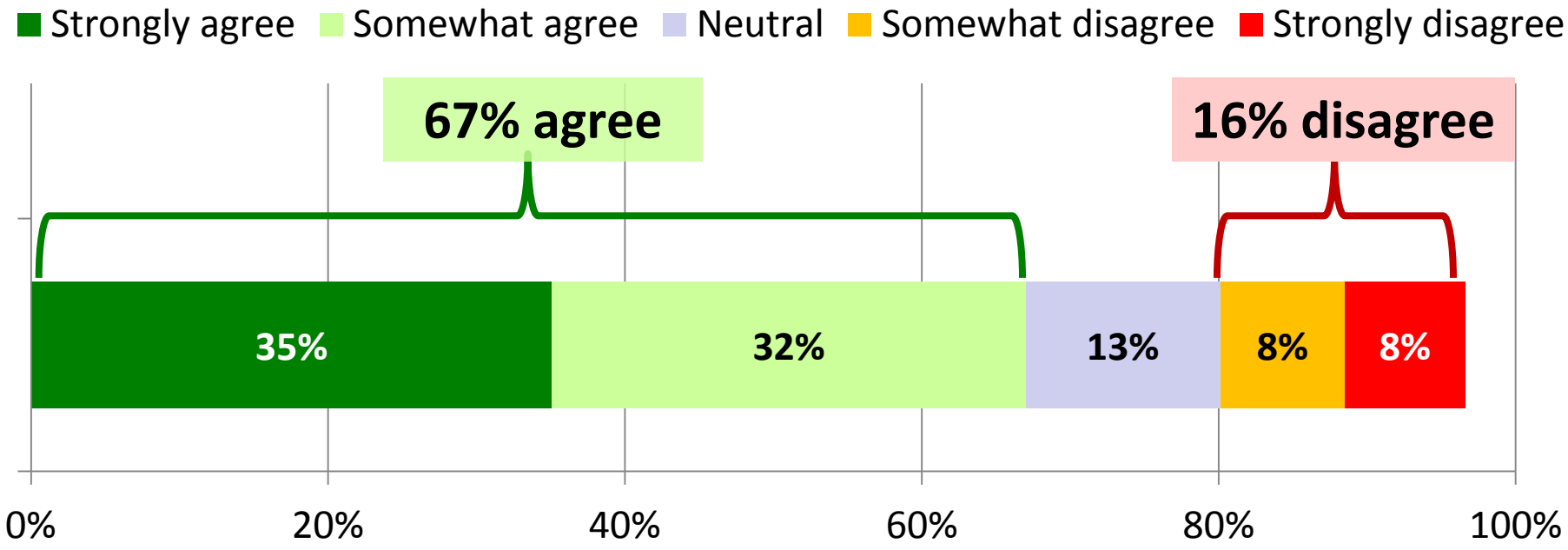


Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

I know some things I can do to help reduce water pollution where I live.

Level of Agreement

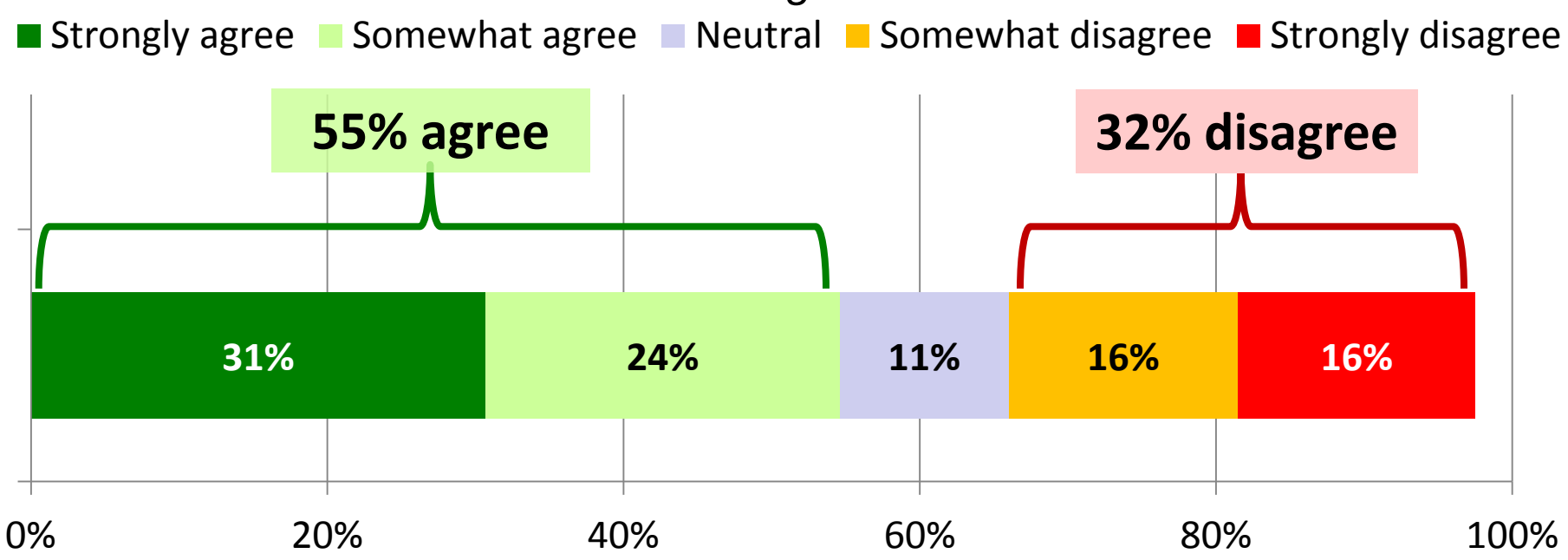


Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

If I wanted to volunteer to help the natural environment locally, I would know how to do that.

Level of Agreement

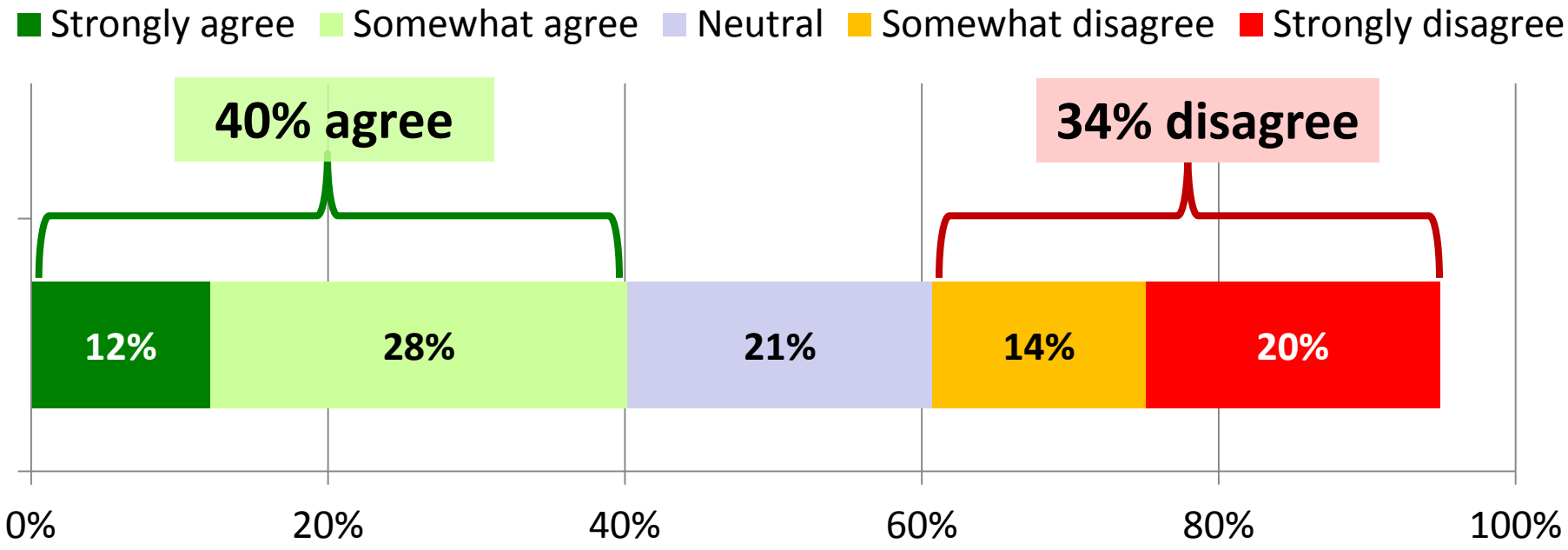


Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

Leaders in my community pay attention to the opinions of people like me.

Level of Agreement

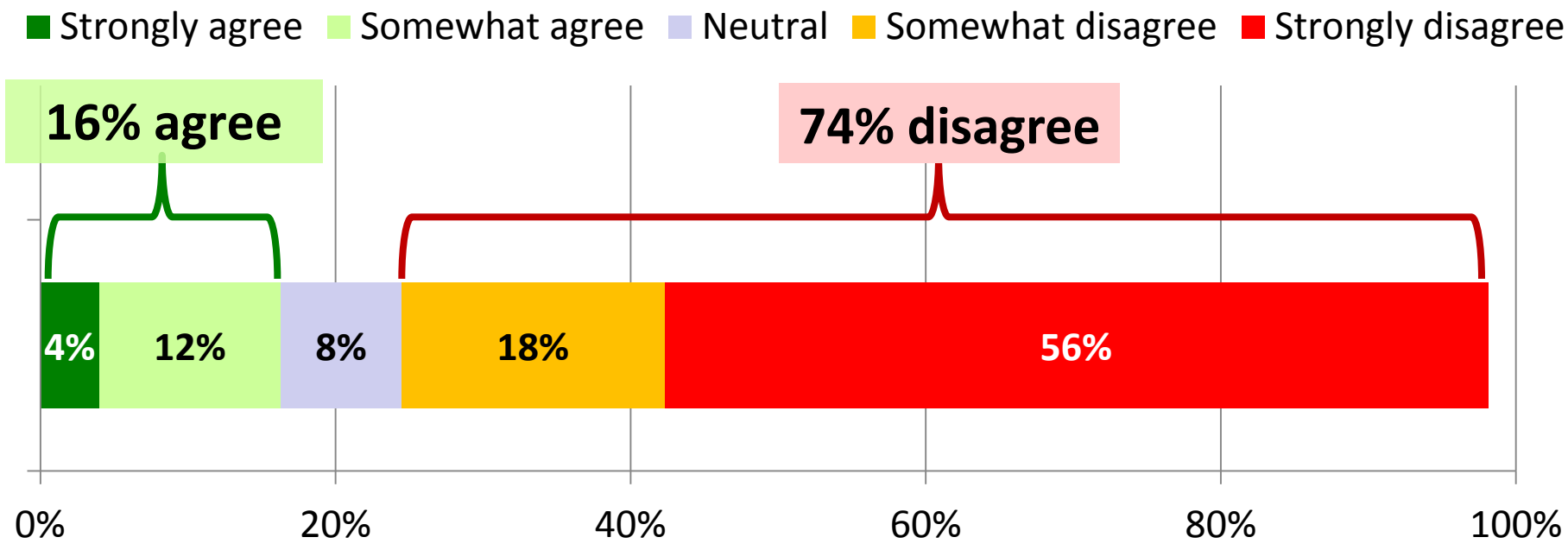


Pilot Citizen Stewardship Indicator

Weighted Data: Preliminary Weights (3/1/2016)

I am causing water pollution where I live.

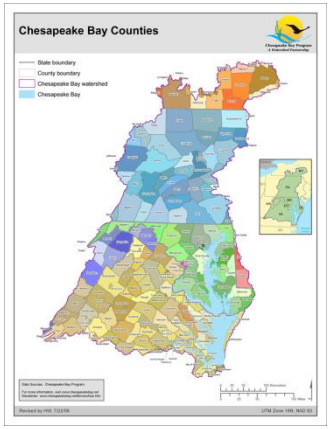
Level of Agreement

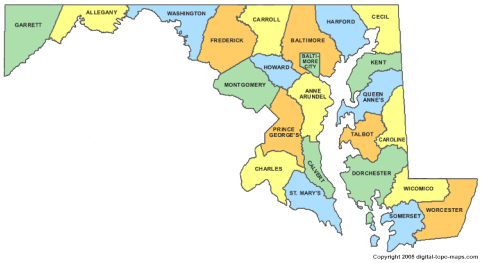


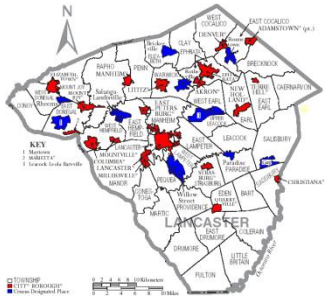
Indicator Next Steps and Scale-up

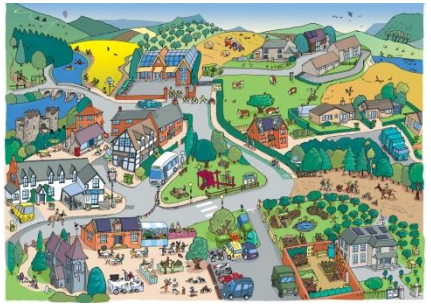
Citizen Stewardship Index

Measuring Stewardship Progress









	Regional Index	State or Jurisdiction Index	County or Municipality Index	Community Index
Tool	Index Survey	Index Survey	Index Survey	Baysurvey.org
Date	Pilot Winter 2015/2016	Pilot Winter 2015/2016	TBD	Ongoing
Result	Pilot (+/- 2.2%)	Pilot (+/- 4.9% to 9.8%)	2016 TBD	Scalable to most local level

Citizen Stewardship Index

Sampling Methodology

	Pilot program (2015)	Rollout Option 1 (2016+)
	N=2,000	All states statistically significant N=5,200
MD	400 (±4.9%)	1,000 (±3.1%)
VA	400 (±4.9%)	1,000 (±3.1%)
PA	400 (±4.9%)	1,000 (±3.1%)
DC	400 (±4.9%)	800 (±3.5%)
WV	200 (±6.9%)	600 (±4.0%)
NY	100 (±9.8%)	400 (±4.9%)
DE	100 (±9.8%)	400 (±4.9%)