

Municipal Actions to Protect and Improve Water Quality

MTAAP Meeting #4

February 15, 2017



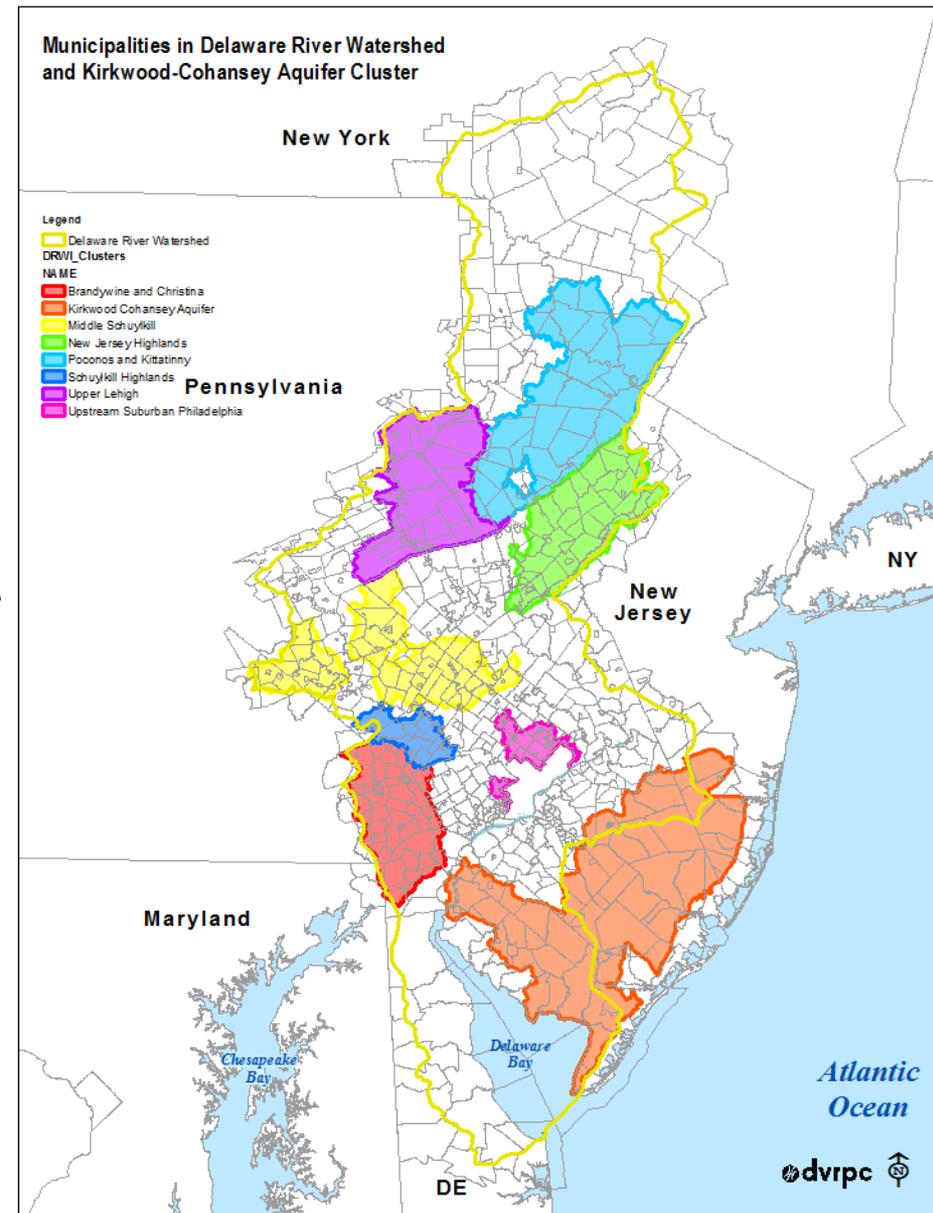
Introductions: MTAAP

Purpose of this Project

- Improve the ability of organizations to assist municipalities in their efforts to improve and protect water quality.
- **Main research questions:**
 - What are the barriers to, and conditions of, success for municipal-based conservation practices?
 - Where and how could technical assistance be more effective?

MTAAP

- 843 municipalities
- Political science
- Stakeholder-based research
 - Technical Assistance Panel
- Blend of qualitative/quantitative
 - Task 2 Stakeholder Interviews
 - Task 3 Municipal Outreach
 - Task 4 Case studies
 - Task 5 Create recommendations endorsed by MTAAP



Project Components

Project
Planning

Municipal
Outreach
(Interviews)

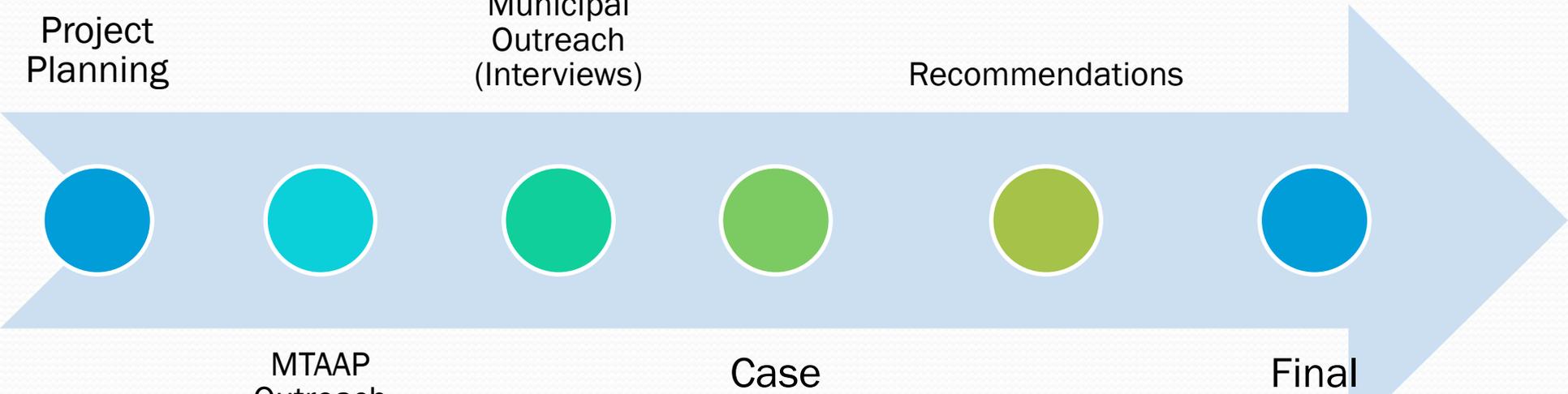
Recommendations

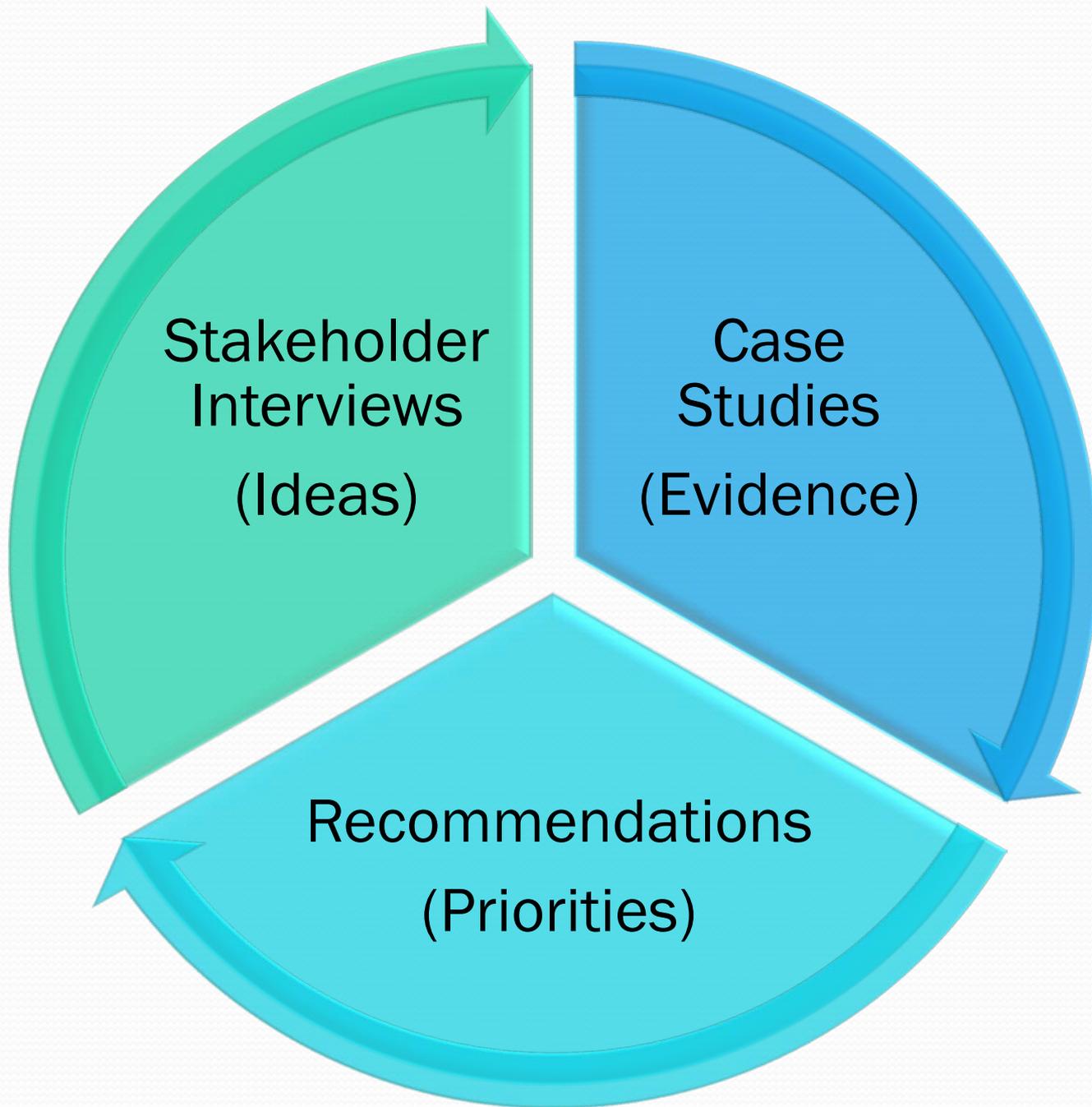


MTAAP
Outreach
(Stakeholder
Interviews)

Case
Studies

Final
Report



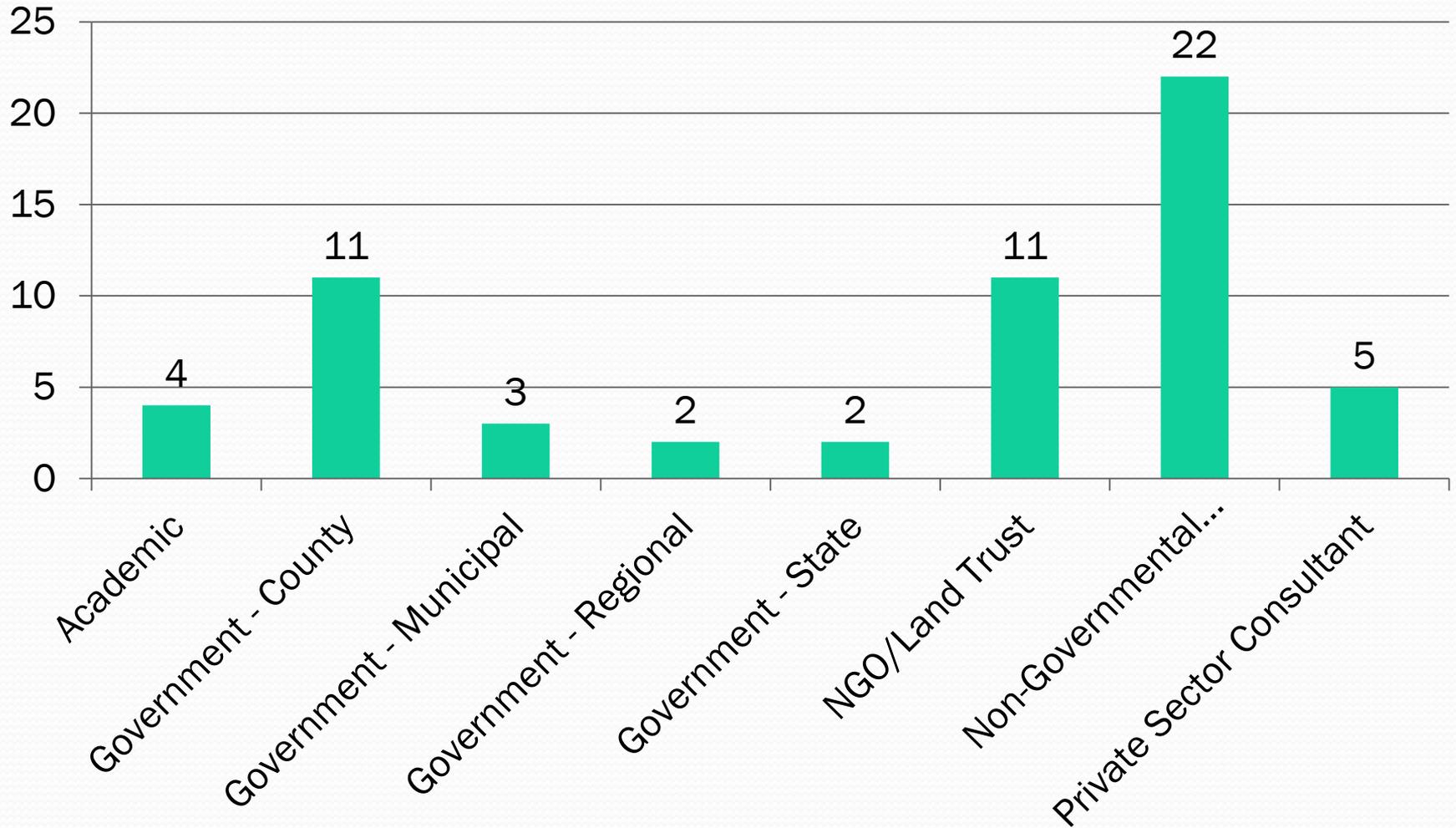


Stakeholder Interviews: Findings

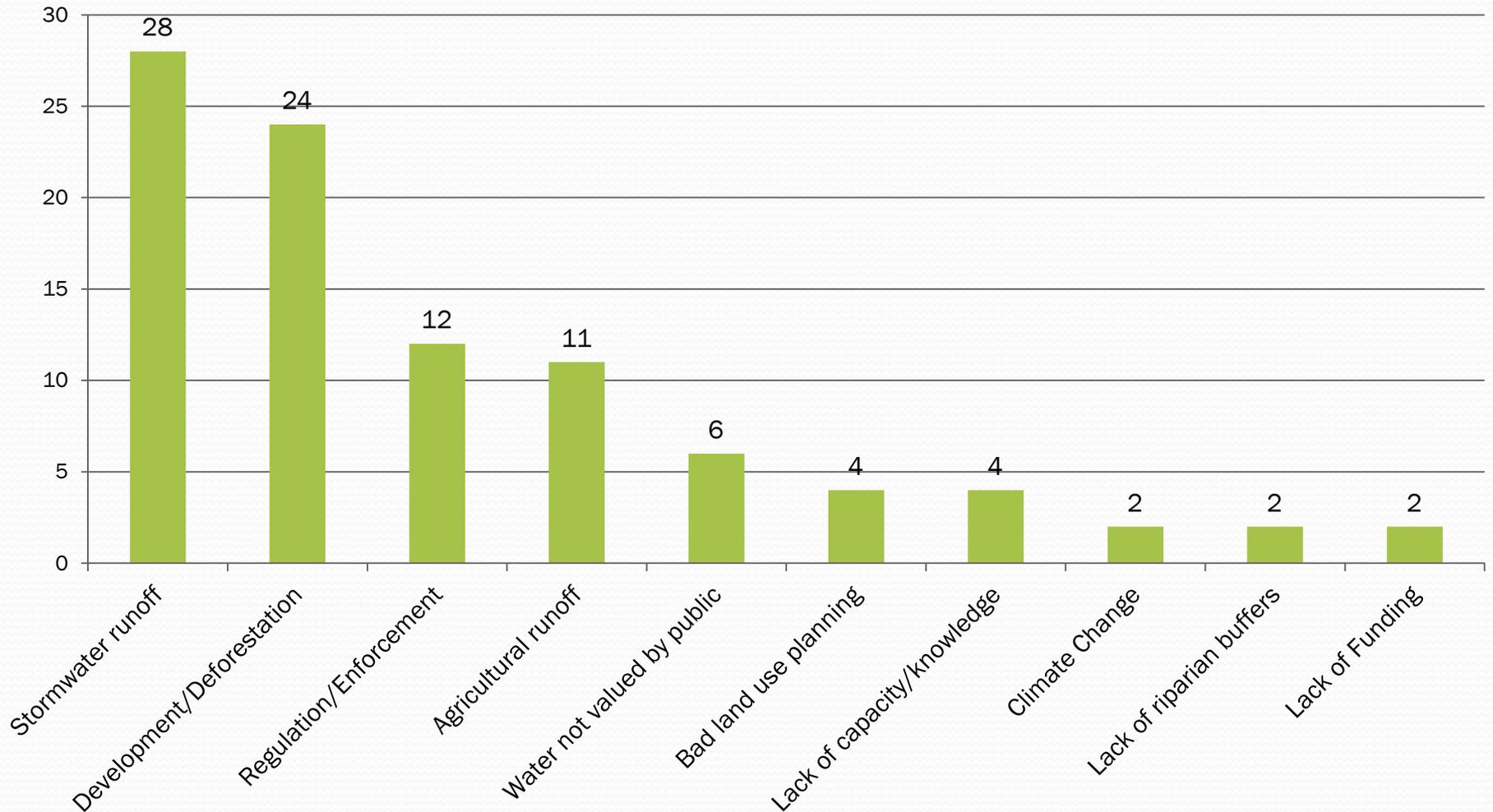
Purpose of Interviews

- Learn about new stakeholders as quickly as possible
- Reconnect with partners
- Collect opinions on threats, strategies and recommendations
- Solicit best practices (organizations and municipalities)
- Interviewed 60 stakeholders
- About 40 joined MTAAP

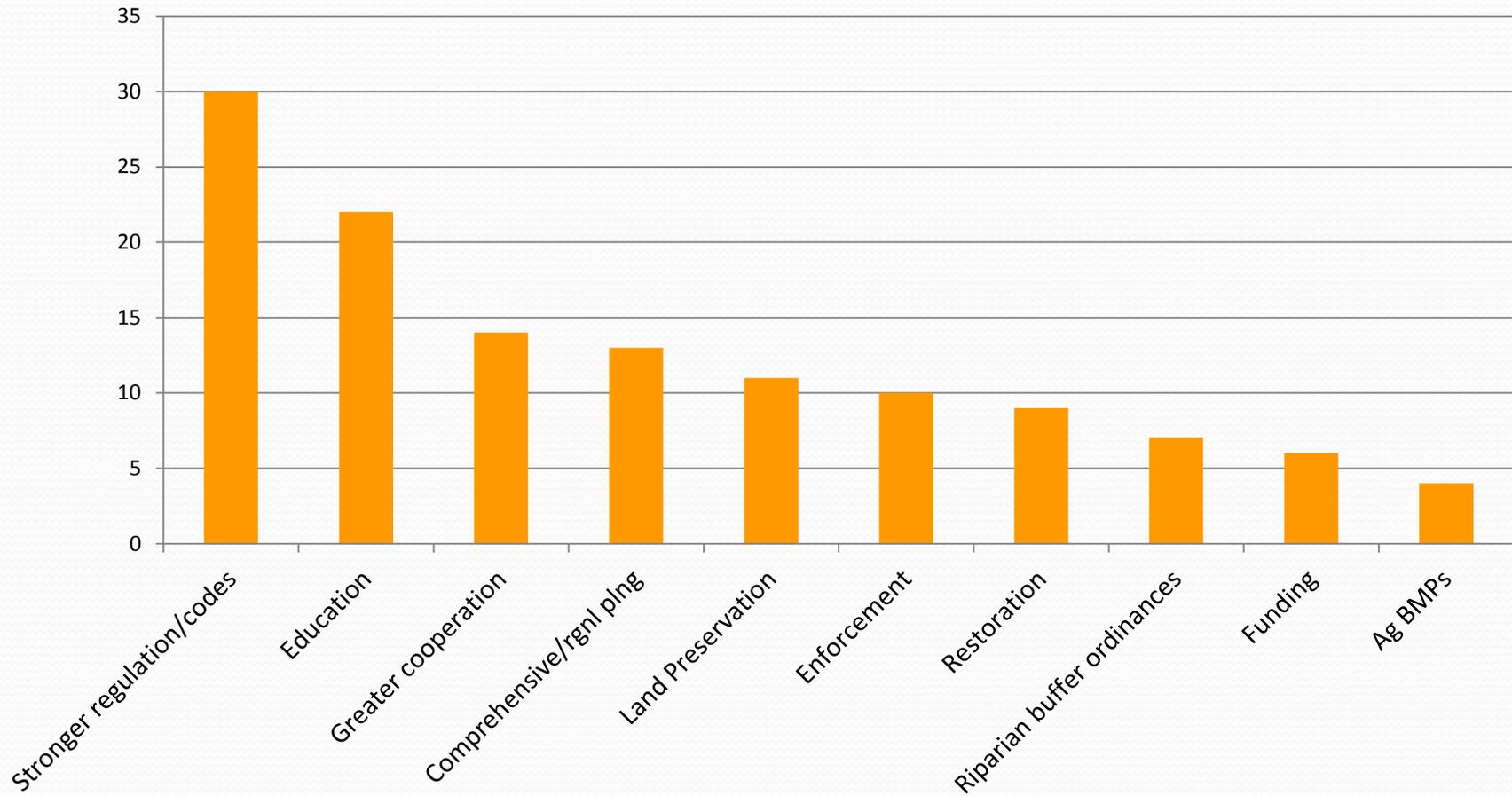
Who we spoke to...



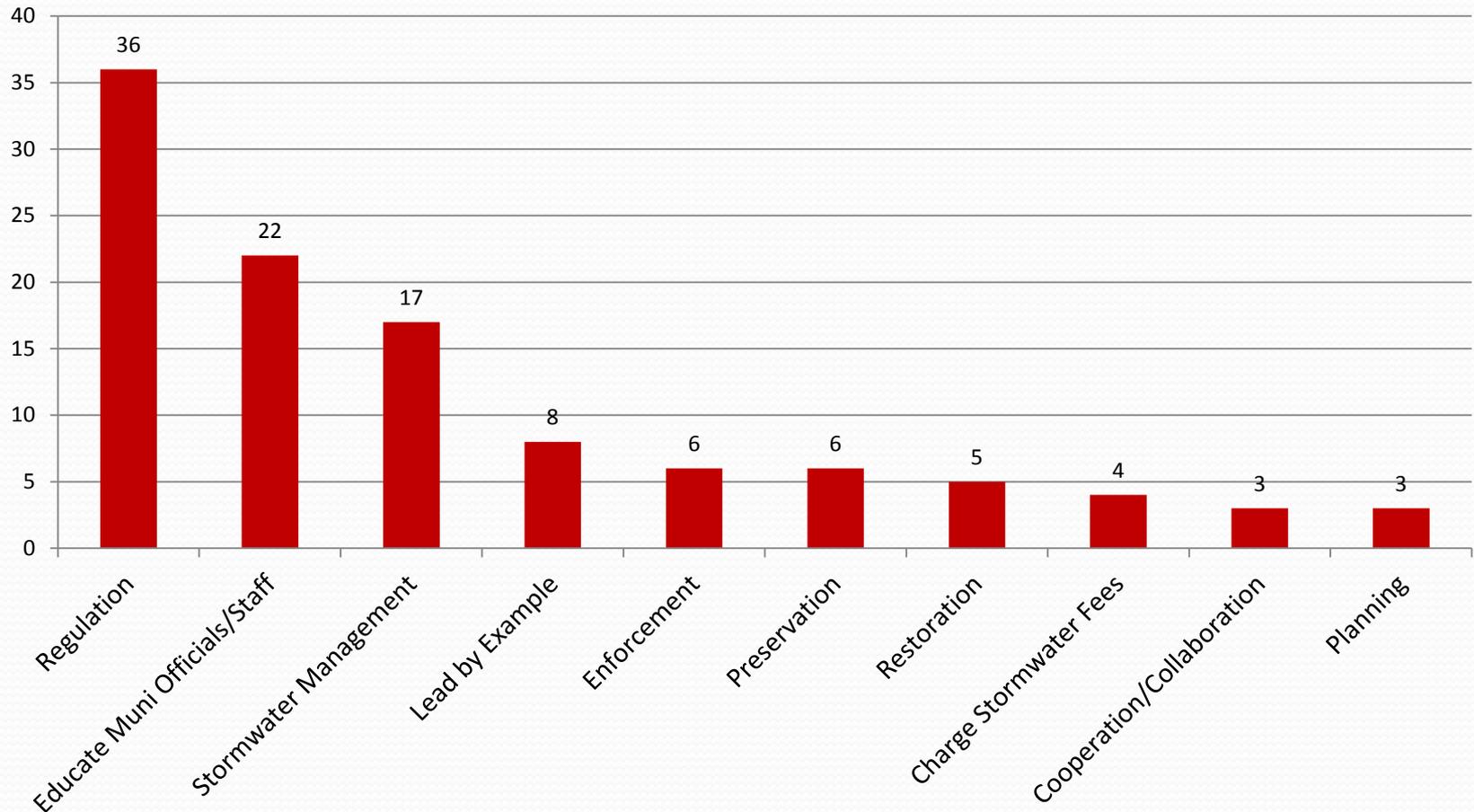
Biggest Threats – to the watershed



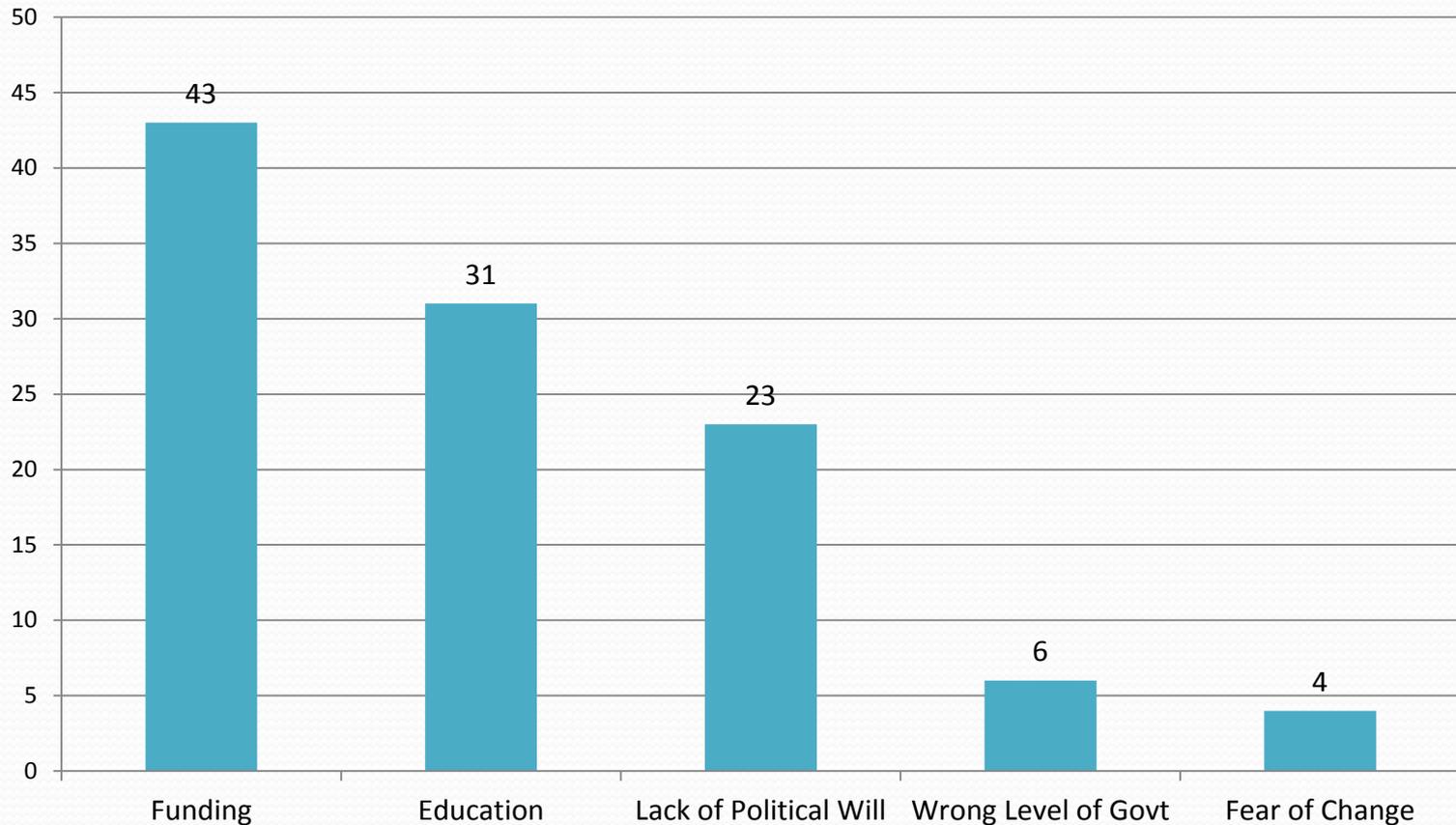
Important Strategies to improve or maintain water quality



Important Municipal Actions



Greatest Limitation faced by municipalities



Municipal Outreach & Case Studies

Case Studies

- In-depth case studies (5-10 pages)
- Aiming for 20

17 Case Studies

- Abington Township, Montgomery County (Gaadt)
- Camden City, New Jersey (Gaadt)
- Durham Township, Bucks County (Center for Watershed Protection)
- East Bradford Township, Chester County (PEC)
- Hamilton Township, Mercer County (NLT)
- Kidder Township, Carbon County (DVRPC)
- Lambertville city, Hunterdon County (DVRPC)
- Lower Salford Township, Montgomery County (PHS)
- Lower Saucon Township, Northampton County (DVRPC)
- Montgomery Township, Montgomery County (Brandywine Conservancy)
- Newark CCD, New Castle County (SSM)
- Pilesgrove Township, Salem County (SSM)
- Reading city, Berks County and Wyomissing Borough, Berks County (DVRPC)
- Smithfield Township, Monroe County (DVRPC)
- Stillwater Township, Sussex County (DVRPC)
- Warrington Township, Bucks County (Gaadt)
- West Chester City, Chester County, PA (PEC)

Consultants



BRANDYWINE
CONSERVANCY

CENTER FOR
WATERSHED
PROTECTION



gaadt
perspectives



pec



PHS



SSM

Abington, Montgomery County, PA



Source: Abington Township

Relevant Recommendations:

- Buy out of repetitive loss properties
- Wants new state funding source
- Municipality leading by example
- Educate landowners (done by EAC)

Camden City, Camden County, NJ



Relevant Recommendations:

- Integrating LID into municipal planning law
- Invest in existing organizations/alliances at county/subwatershed level
- Regularly highlight best practices through awards

Durham Township, Bucks County, PA



By Shuvaev - Own work, CC BY-SA 3.0,
<https://commons.wikimedia.org/w/index.php?curid=22766502>

Relevant Recommendations:

- Invest in existing organizations/alliances at county/subwatershed level
- Educate riparian landowners

East Bradford, Chester County, PA



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Relevant Recommendations:

- Create new state funding sources
- Provide more precise guidance to municipalities
 - Better understanding of how sediment load reduction requirements are determined
 - Better understanding of how restoration projects are credited
- Educate landowners

Hamilton Township, Mercer County, NJ



By Eva and Rodney Hargis - IMG_2953Uploaded by gamweb, CC BY-SA 2.0,
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Relevant Recommendations:

- Undertake citizen science (volunteers conducted riparian investigations)
- Have non-profits undertake technical work for municipalities
- Educate property owners (rain barrels, rain gardens)
- Lead by example (three rain garden demonstration projects on school properties)
- Train elected officials
- Stop giving waivers/variances/special exceptions

Kidder Township, Carbon County, PA



By I, Mtruch, CC BY-SA 3.0,
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Relevant Recommendations:

- Strike Force

Lambertville City, Hunterdon County, NJ



By Jared Kofsky/PlaceNJ.com - Own work, CC BY-SA 3.0,
<https://commons.wikimedia.org/w/index.php?curid=21038494>

Relevant Recommendations:

- Lead by example (rain garden plantings)
- Creating a locally funded open space program
- Integrating Low Impact Development into municipal planning law

Lower Salford, Montgomery County, PA



By Doug Kerr - originally posted to Flickr as Lederach, Pennsylvania, CC BY-SA 2.0,
<https://commons.wikimedia.org/w/index.php?curid=10221193>

Relevant Recommendations:

- Have non-profits undertake technical work for municipalities
- Lead by example
- Invest in existing organizations/alliances at county/subwatershed level

Lower Saucon Township, Northampton County, PA



By JERRYE & ROY KLOTZ MD - Own work, CC BY-SA 3.0,
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Relevant Recommendations:

- Educate landowners
- Create a locally funded open space program
- Undertake citizen science

Montgomery Township, Montgomery County, PA



Relevant Recommendations:

- Invest in existing organizations/alliances at county/subwatershed level

Newark City, New Castle County, DE





Relevant Recommendations:

- Municipal stormwater authority

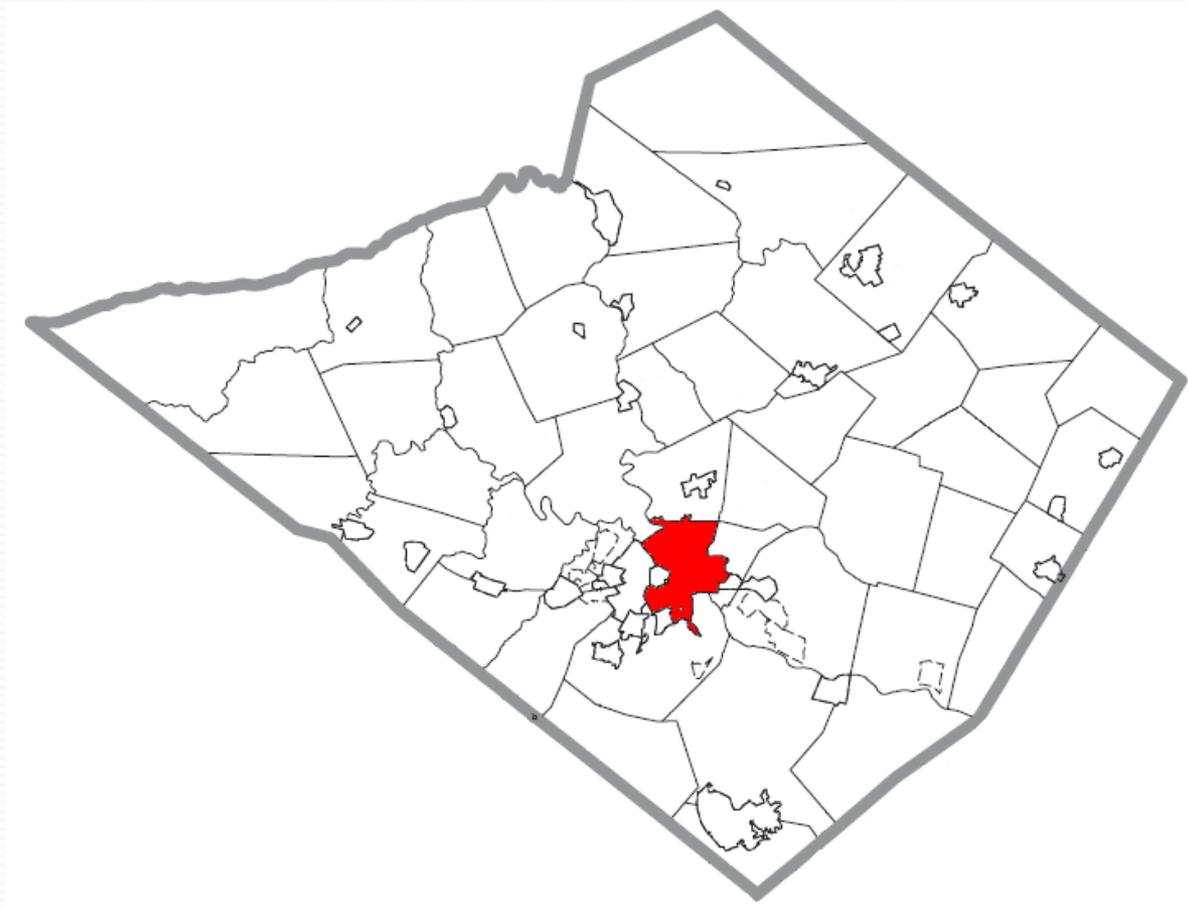
Pilesgrove, Salem County, NJ



Relevant Recommendations:

- Match farmers with technical assistance providers
- Educate riparian landowners
- Educate school children
- Lead by example

Reading City and Wyomissing Borough, Berks County, PA



https://en.wikipedia.org/wiki/Reading%2C_Pennsylvania

Relevant Recommendations:

- Invest in existing organizations/alliances at county/subwatershed level
- Train local officials

Smithfield Township, Monroe County, PA



By Jerrye & Roy Klotz, MD - Own work, CC BY-SA 4.0,
<https://commons.wikimedia.org/w/index.php?curid=35002351>

Relevant Recommendations:

- Establish a locally funded open space program
- Legislate minimum riparian buffer protections

Stillwater Township, Sussex County, NJ



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https://en.wikipedia.org/wiki/File:Swartswood_Lake_Stillwater_Township_New_Jersey.jpg

Relevant Recommendations:

- Need new state funding sources
- Need septic ordinances

Warrington, Bucks County, PA





Relevant Recommendations:

- Create new state funding sources

West Chester, Chester County, PA



Relevant Recommendations:

- Downstream municipalities pay for improvements in upstream municipalities

Questions?



Ranked Recommendations

Results from Survey

Ranking Recommendations

- 400 recommendations synthesized to 48 distinct recommendations
- For purpose of ranking, organized into 4 “actors”
 - Collaborative (mix of organizations – recs tend have moving parts)
 - Nonprofits
 - Municipalities
 - State agencies

Ranking Recommendations

- Survey sent to 60 MTAAP members
 - 46 members make up “core” of MTAAP
 - 27 responses of 60 (45% response rate)
 - (Or 59% response rate of core group)
- Open for three weeks in January
- Identify what are priorities for MTAAP
 - Wisdom of group
 - Compare to Stakeholder Interview Findings
 - Find the “Coalition of the Willing”
 - MTAAP Members expressed interest in developing recommendations

Top Ten

Normalized Ranking	Short Recommendation	Section
0.330	Lead by example	Municipal
0.333	Create new state funding sources	State
0.337	Municipal stormwater fee	Municipal
0.374	Integrate LID in municipal planning laws and SW regulations	State
0.385	Create LOSP (ballot initiatives)	Municipal
0.392	Undertake Citizen Science	Nonprofit
0.417	Legislate minimum riparian buffer protection regulations	State
0.439	Provide more precise guidance to municipalities	State
0.447	Incentive program that encourages property owners	Municipal
0.452	Educate landowners	Nonprofit

Collaboratives

Average Ranking	Normalized Ranking	Short Recommendation
5.22	0.475	Strike Force
5.3	0.482	Invest in existing organizations/alliances at county and subwatershed level
5.37	0.488	Legal Defense Team
5.59	0.508	Identify Existing DRW-wide group to take on new responsibilities
5.84	0.531	Watershed Academy
6.12	0.556	Matching farmers with right TA providers
6.27	0.570	Regularly highlight best practices through awards
6.3	0.573	Convene Experts to determine biggest bang for BMP bucks
6.37	0.579	Multi-Million dollar messaging campaign
6.52	0.593	Green Certification

Collaboratives – High Degree of Variance = Less Agreement

3	6	9	2	8	1	10	5	4	7	11
6	5	8	4		1	11	3		7	
8	5	7	9	10	11	4	3	6	1	2
4	8	3	1	9	6	10	7	5	2	11
5	10	11	8	1	6	9	3	7	4	2
7	9	2	4	11	6	3	1	8	10	5
4	7	1	2	8	5	10	11	3	6	9
8	6	10	9	5	4	7	3	11	1	2
2	1	8	7	4	9	6	11	10	3	5
7	8	3	1	4	11	2	6	10	9	5
1	9	10	8	5	4	2	6	11	7	3
2	3	10	6	8	4	5	7	9	11	1
4		8	9	3	1	2	11	10	5	6
8	11	1	4	2	3	7	9	10	5	6
8	10	6	2	4	9	11	5	1	3	7
1	7	3	10	8	4	6	11	9	2	5
1	4	7	2	5	6	10	3	11	9	8
9	1	4	10	11	5	3	7	2	8	6
10	3	6	2	8	9	4	5	1	11	7
5	6	10	7	1	11	3	9	8	2	4
10	2	1	3	5	6	11	7	4	8	9
1	7	10	11	8	4	3	5	9	2	6
4	9	3	1	6	11	8	5	7	2	10
5	8	2	3	11	6	10	9	4	1	7
2	3	4	6	5	8	7	9	10	1	11
8	3	1	5	2	11	4	10	6	9	7
8	1	3	7	11	10	2	5	6	9	4

Nonprofits

Average Ranking	Normalized Ranking	Short Recommendation
3.92	0.392	Undertake Citizen Science
4.52	0.452	Educate landowners
4.8	0.480	Work with traditional providers (NJLM, PSATS) to train officials
4.85	0.485	Undertake Technical Work
4.96	0.496	Stop giving waivers, variances, and special exceptions
5.77	0.577	Work with traditional providers (NJLM, PSATS) to post high-quality model ordinances
6.19	0.619	Collection of municipal outreach materials
6.58	0.658	Expand PSU Master Watershed Steward Program and Rutgers' Water Quality Monitoring Stewards program
6.62	0.662	Create videos
6.77	0.677	Water quality education curriculum for elementary students

State Agencies

Average Ranking	Normalized Ranking	Short Recommendation
5	0.333	Create new state funding sources
5.61	0.374	Integrate LID in municipal planning laws and SW regulations
6.26	0.417	Legislate minimum riparian buffer protection regulations
6.58	0.439	Provide more precise guidance to municipalities
7.25	0.483	Keep SW BMP manuals up-to-date
7.34	0.489	Buy-out repetitive loss properties
8.04	0.536	Downstream municipalities/sourcewater protection projects upstream
8.38	0.559	LTAP Classes
8.42	0.561	Resolve conflicts between rules and regulations re: drinking water, wastewater, stormwater, surface water
8.56	0.571	Regional stormwater fees

Municipal

Average Ranking	Normalized Ranking	Short Recommendation
3.96	0.330	Lead by example
4.04	0.337	Municipal stormwater fee
4.62	0.385	Create LOSP (ballot initiatives)
5.36	0.447	Incentive program that encourages property owners
6.13	0.511	Municipal or regional sw authority
6.24	0.520	Official maps
6.42	0.535	Fast-track municipal review LID/GSI projects
6.65	0.554	Septic ordinances
7.04	0.587	Dedicate existing local taxes
7.64	0.637	Sheriff sales as a way to acquire riparian lands

Call-outs

Short Recommendation	Section	Total Call-Outs
Municipal stormwater fee	Municipal	6
Legal Defense Team	Collaborative	6
Watershed Academy	Collaborative	5
Invest in existing organizations/alliances at county and subwatershed level	Collaborative	4
Incentives/penalties for municipal officials and staff to participate in water quality training	State	4
Stop giving waivers, variances, and special exceptions	Nonprofit	3
Work with traditional providers (NJLM, PSATS) to train officials	Nonprofit	3
Buy-out repetitive loss properties	State	3
Convene Experts to determine biggest bang for BMP bucks	Collaborative	3
Multi-Million dollar messaging campaign	Collaborative	3

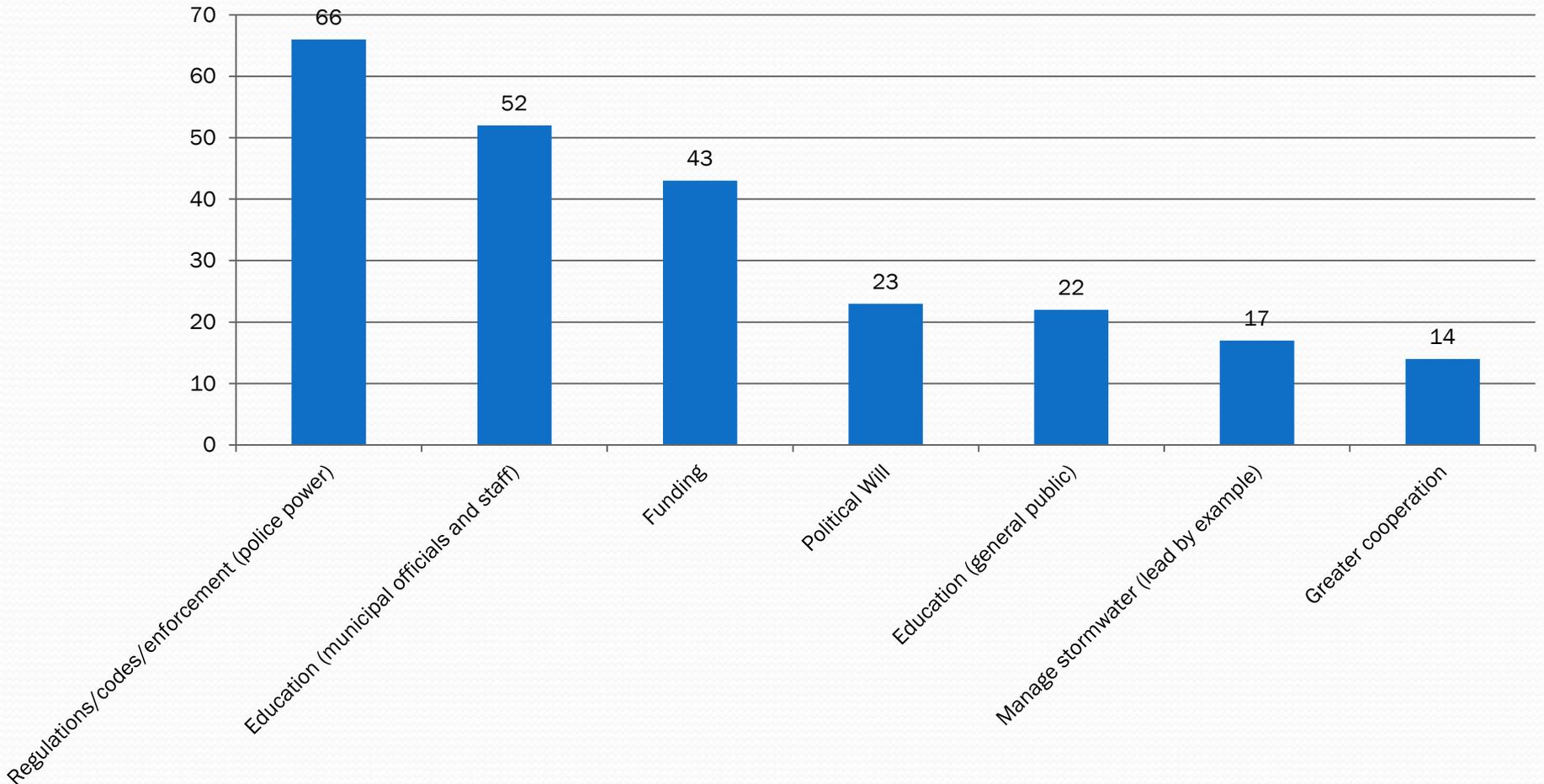
Call-outs

- Most Innovative: Legal Defense Fund (6)
- Most Achievable: Convene Experts to determine biggest bang for BMP bucks (3)
- Most Important to do RIGHT NOW: Incentives/penalties for municipal officials and staff to participate in water quality training (3)
- Biggest Impact over LONG-TERM:
 - Watershed Academy (2)
 - Municipal Stormwater Fee (2)
 - Stop Giving Waivers (2)

General Take-aways from Survey

- When given choice between municipal and regional, survey respondents chose municipal (now).
- When given choice between fee and authority, survey respondents chose fee (now).
- Recommendations that used proper names as examples or specifics ranked lower.
- Some recs are now more easy to combine knowing group's priorities and "phasing."
 - Ex. A strike force of professionals approaching municipalities; and a watershed academy that is the go-to

Comparing Interviews to Survey Results – most important actions, biggest limitations



	Manage stormwater (lead by example)	Regulations	Education (general public)	Education (municipal officials and staff)	Funding	Political Will	Greater cooperation
Lead by example	X		X	X			
Create new state funding sources					X	X	
Municipal stormwater fee	X				X	X	
Integrate LID in municipal planning laws and SW regulations		X					
Create LOSP			X		X	X	
Undertake Citizen Science			X	X		X	
Legislate minimum riparian buffer protection regulations		X					
Provide more precise guidance to municipalities	X			X			X
Incentive program that encourages property owners			X				X
Educate landowners		X	X				X
Strike Force		X		X			X

Moving Recommendations

Forward

- 48 + 1 recs
- Down to 27
- 10+ will be developed by MTAAP members
 - Still confirming with some MTAAP members

Normalized	Short Recommendation	Section	MTAAP Members	DVRPC S
0.33	Lead by example	Municipal	Seung Ah Byun, Brandywine	Christina
0.33	Create new state funding sources	State		Chris
0.34	Municipal stormwater fee	Municipal		Chris
0.37	Integrate LID in municipal planning laws and SW regulations	State		Melissa
0.39	Create LOSP (ballot initiatives)	Municipal		Alison
0.39	Undertake Citizen Science	Nonprofit	Julie Slavet, TTF	Alison
0.42	Legislate minimum riparian buffer protection regulations	State		Laura
0.44	Provide more precise guidance to municipalities	State		Melissa
0.45	Incentive program that encourages property owners	Municipal		Alison
0.45	Educate landowners	Nonprofit	Jeanne Ortiz, Steven Staffier, Audubon	Melissa
0.47	Strike Force	Collaborative	Jen Adkins, PDE (John Theilacker, Carol Collier, Ann Hutchinson, Susan Caughlan)	Alison/Me
0.48	Keep SW BMP manuals up-to-date	State		Alison
0.49	Undertake Technical Work	Nonprofit		Melissa
0.49	Legal Defense Team	Collaborative	Alice Baker, PennFuture	Alison
0.49	Buy-out repetitive loss properties	State		Chris
0.50	Stop giving waivers, variances, and special exceptions	Nonprofit	Sandra Yerger	Christina
0.51	Identify Existing DRW-wide group to take on new responsibilities	Collaborative	Madeline Urbish/DRW Coalition (Jen Adkins/PDE)	Patty
0.52	Official maps	Municipal		Christina
0.54	Downstream municipalities/sourcewater protection projects upstream	State		Alison
0.55	Septic ordinances	Municipal		Laura
0.56	Matching farmers with right TA providers	Collaborative	Grant DeCosta, Brandywine	Alison
0.56	LTAP Classes	State		Christina
0.56	Resolve conflicts between rules and regulations re: drinking water, wastewater, stormwater, surface water	State		Alison
0.58	Multi-Million dollar messaging campaign	Collaborative		Chris
0.59	Green Certification	Collaborative		Alison

Lead by Example

- Municipalities should **lead by example** by implementing Best Management Practices (BMPs)/Green Stormwater Infrastructure (GSI) projects in parks and other municipal-owned properties with high visibility with educational signage and outreach.
 - Seung Ah Byun, Brandywine



Source: Philadelphia Water Department



Source: Greenroofs.com

Create New State Funding Sources

- Create new state funding sources dedicated to matching municipal efforts that preserve land for water quality purposes.
 - DVRPC



STATE OF NEW JERSEY

DEPARTMENT OF ENVIRONMENTAL PROTECTION

GREEN ACRES PROGRAM - Preserving & Enhancing New Jersey's Great Outdoors since 1961

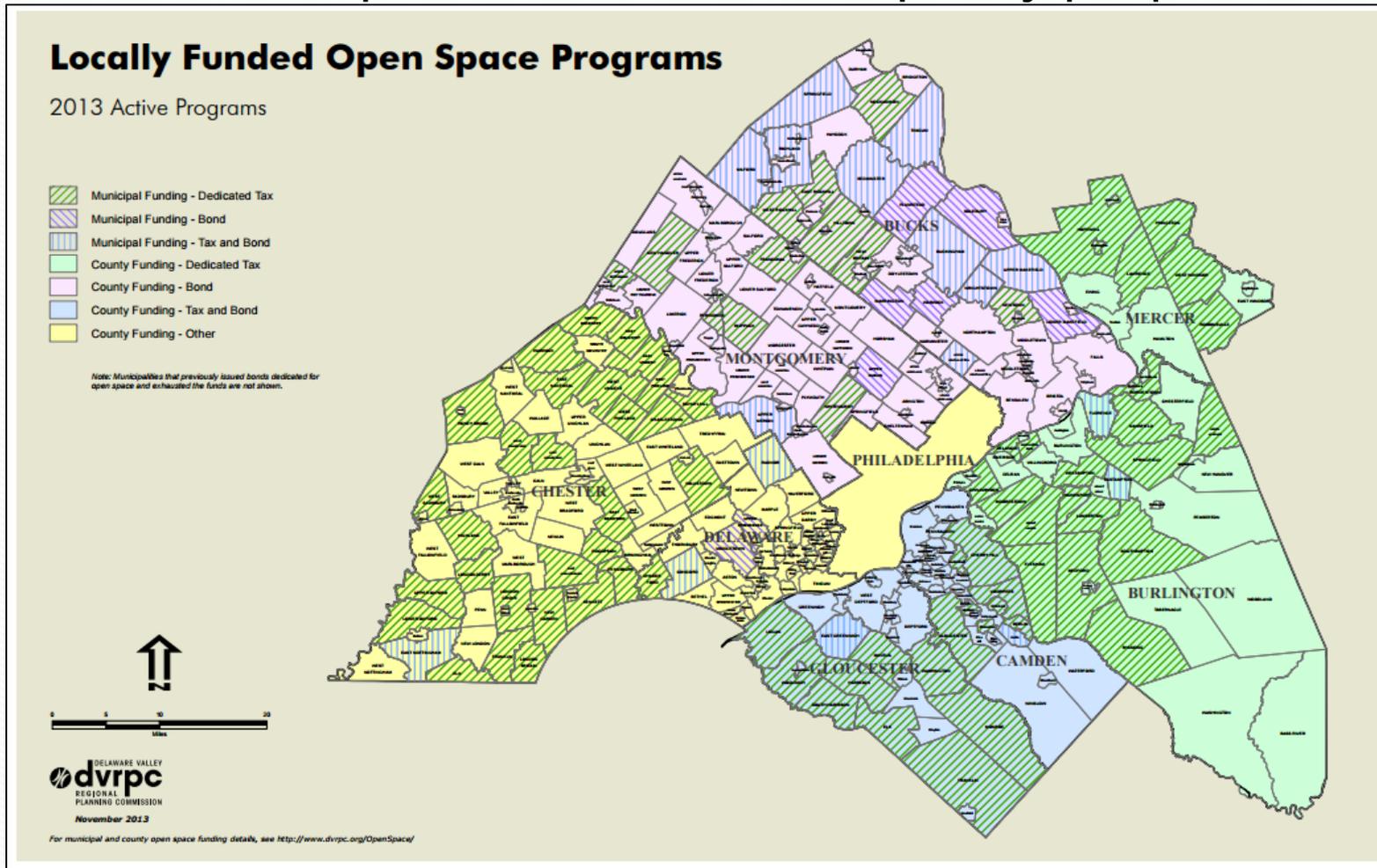


Municipal Stormwater Fees

- Enact **municipal stormwater fees** (without creating a new stormwater authority) to pay for water quality BMP projects.
 - DVRPC

Create LOSP (Ballot Initiatives)

- Create locally-funded open space programs that prioritize land protection for water quality purposes.



Citizen Science

- Expand nonprofit environmental organizations work with municipalities and the general public to undertake citizen science projects, such as riparian buffer plantings and water quality monitoring, thus fostering engagement around water quality issues.
 - Julie Slavet, TTF



Source: Tookany Tacony Frankford Watershed Partnership

Educate Landowners

- Increase programs that **educate landowners**, particularly those who live along waterways, about the value of riparian buffer restoration projects, proper land care, natural turf management, native species, etc.
 - Jeanne Ortiz,
Audubon
Pennsylvania



Strike Force



- Create a Strike Force consisting of numerous nonprofit organizations with expertise in land use planning and ordinance writing that monitors which municipalities are updating plans and ordinances and proactively reaches out to offer free technical assistance on water quality issues.
 - Build out: Watershed Academy
 - Jen Adkins, Partnership for Delaware Estuary & Subcommittee

Legal Defense Team

- Create, operate, and continually fund a legal defense team to assist municipalities who face legal challenges as the result of zoning changes or other ordinances or policies intended to protect water quality.
 - Alice Baker, PennFuture



Questions?



DRWI GIS Work Group

Next Steps and DRWI Affinity Groups

History of GIS Work Group

- Started by Natural Lands Trust
- Met at least twice in person
 - May 2016
 - September 2016
- Group wanted to continue meeting
 - Quarterly meetings
 - Virtual meetings

Future of the GIS Work Group

- DVRPC proposes an 18-month project to regularly convene and manage a GIS Work Group that will:
 - Prioritize data needs
 - Share knowledge
 - And collaborate to provide technical assistance related to GIS and the DRWI.

Next Steps

Developing Recommendations

- DVRPC will work with 10-12 MTAAP members/groups to develop in-depth recommendations (“mini-proposals”)
 - Ex. Strike Force/Watershed Academy
- DVRPC will develop 10-20 additional recommendations (shorter in length, but equally important)
 - Ex. Create LOSP (Ballot Initiatives)

Next MTAAP Meeting

- Meeting #5
- March 1, 2017
- DVRPC's Offices
- Presentations on “mini-proposals” from MTAAP Members
 - Early feedback before putting “pen to paper.”
- 1-2 more MTAAP meetings before end of project (Summer 2017)

Evaluations

- Very helpful!

Municipal Technical Assistance Advisory Panel (MTAAP) February 15, 2017 Meeting Survey

Help us find out what worked and what didn't work about today's meeting

1. Please rate the overall quality of the MTAAP meeting.

1 2 3 4 5

Low quality High quality

2. Was the MTAAP meeting a good use of your time?

1 2 3 4 5

Not a valuable use of my time Excellent use of my time

3. What did you like *best* about the MTAAP meeting?

4. What *could have been improved* about the MTAAP meeting?

5. Do you have suggestions for this project and/or the MTAAP?

THANK YOU!

Make sure to sign in!