

# Overview of Stormwater Testing and Evaluation for Products and Practices (STEPP)

2019 OHIO STORMWATER CONFERENCE

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# SWI Programs – Innovation and Best Practices

## Stormwater Testing and Evaluation of Products and Practices (STEPP)

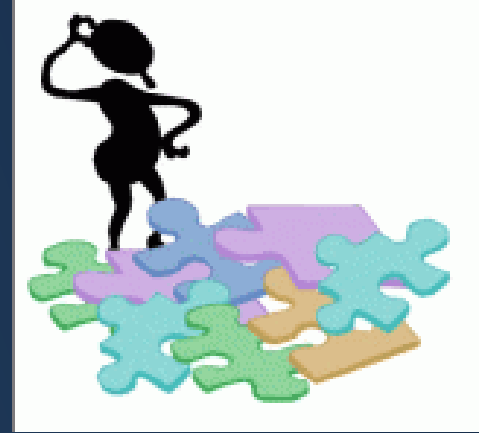


# Nature of the Problem

- Problem: The current practice of stormwater BMP practice and product approval is a barrier to innovation and competition
  - Piecemeal
  - Costly
  - Time intensive
  - Results:
    - Limited market entry for new technologies (public domain & proprietary)
    - Regional/local monopolies
    - Protects status quo
    - Non-dynamic market



# Nature of the Problem



Depends upon point of view...

- **Manufacturer:** Product/practice approval process is a barrier
  - Can be challenging and a barrier to innovation and competition
- **Consumer:** Lack of independent testing
  - Reduces confidence in product/practice performance/efficacy
- **Regulator:** Uninformed product/practice consumers
  - May lead to under-performing stormwater programs

Ultimately impacts water quality.....



# WEF STEPP Initiative



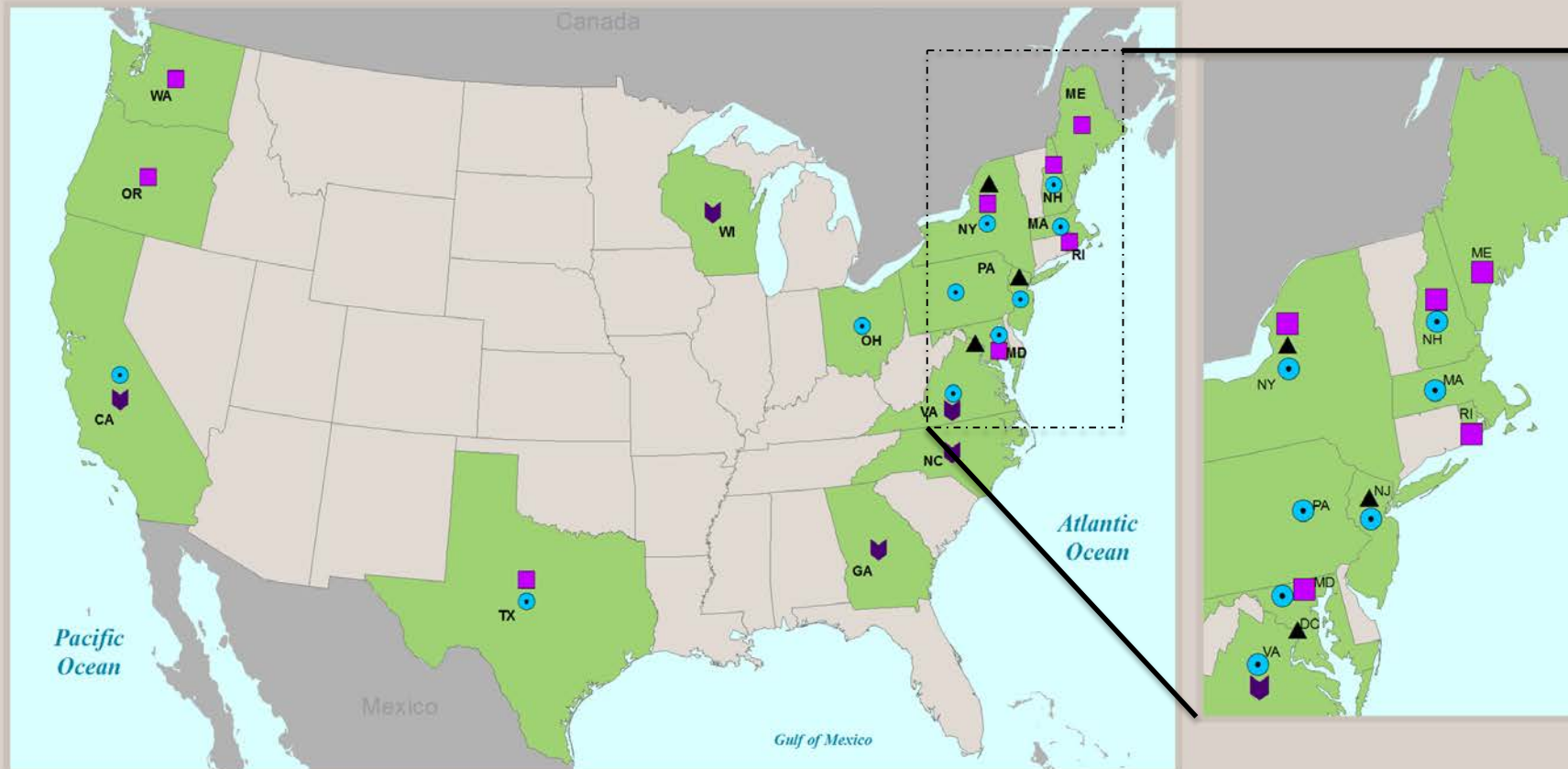
- Background:
  - Initial investigation in 2012
  - Variety of stakeholders engaged
  - Evolved since 2012
- Mission:
  - STEPP seeks to establish a common performance testing protocol, evaluation, and verification process for stormwater BMPs



# Past/Existing Programs

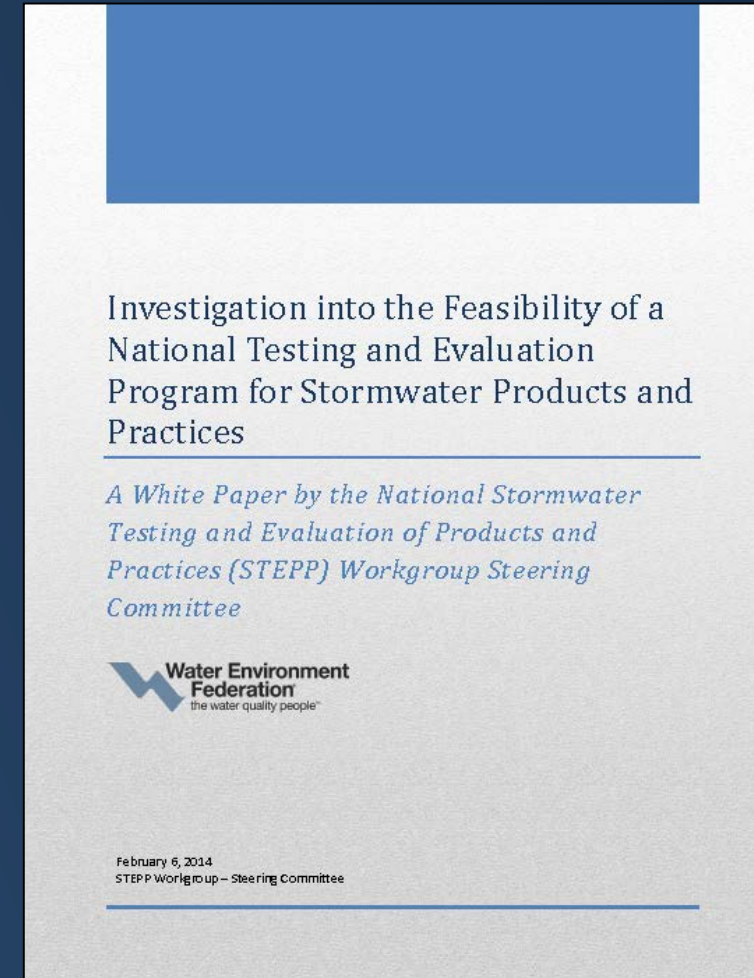
## Distribution of state/regional stormwater testing/evaluation programs

- ▲ NJCAT 2013; Recognizes NJCAT
- Recognizes TAPE; WA TAPE
- 2003 TARP Tier II; Recognize TARP Tier II
- ▼ CALTRANS; GTAP; WI Stormwater Post-Construction Technical Standard 1006; PEP (Preliminary Evaluation Period Program); VTAP (Withdrawn)



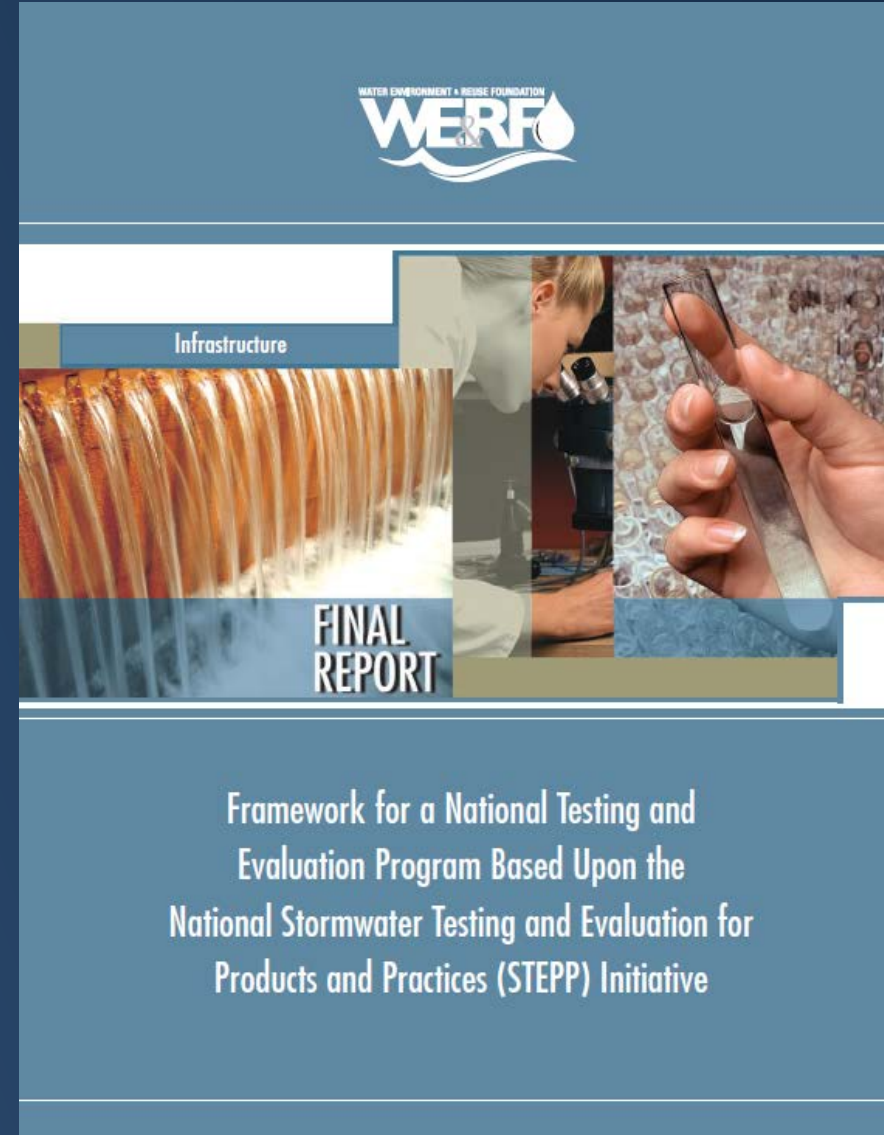
# STEPP White Paper

- Published February 6, 2014
- 24-page document, well-referenced
  - Held webcast on STEPP on March 5, 2014
    - Over 750 registrants
  - Paper and webcast are available for free



# WEF STEPP Initiative

- July 2016 Report
- STEPP recommendation builds on 2 widely recognized state verification programs
  - Field Testing - Washington Dept. of Ecology TAPE Program
  - Laboratory Testing – New Jersey Corporation for Advanced Technology





# National Program Conceptual Design Document

- General Programmatic Area Findings
  - Built upon Washington TAPE and NJCAT
  - Focus on verification
  - Recruitment
    - Need to get states and others on board
  - Equity
    - Public domain & Manufactured Treatment Devices
  - Café Plan Approach
    - Lab and Field options
  - Continual Improvement
    - Program will evolve over time
    - Incorporate new scientific techniques & evaluation tools

# National Program Conceptual Design Document

- General Programmatic Area Findings
  - Potential pathway forward
    - Develop business plan
    - Launch period
    - Transition period
    - Sustainable period
  - Consortium approach
    - Bring together groups focused on stormwater testing/evaluation/verification

# Current

- A STEPP SWI Work Team has been established to guide progress
  - Subgroups formed
    - Business Plan/Funding
    - Outreach/Engagement
    - Technical/Programmatic
- A consortium group has been established to spread the burden/risk and leverage respective strengths

# STEPP Consortium and Affiliates



# STEPP Consortium and Affiliates

GROUP TYPE	GROUP NAME
OTHER TESTING AND EVALUATION PROGRAMS	Great Lakes Stormwater Collaborative (GLSC)
	City of Indianapolis
	Sustainable Technologies Evaluation Program (STEP) – Canada
	Chesapeake Bay Testing Protocol Development
TESTING AND EVALUATION FACILITIES	Oregon Stormwater Technology Testing Center (STTC)
	University of New Hampshire Stormwater Center
INDUSTRY AND NGO GROUPS	American Society of Civil Engineers – Environment and Water Resources Institute (ASCE-EWRI)
	Stormwater Equipment Manufacturers Association (SWEMA)
	National Association of Home Builders (NAHB)
	American Rivers
REGULATORY SECTOR	U.S. Environmental Protection Agency (EPA)
	Association of Clean Water Administrators (ACWA)



# STEPP Consortium Partners/Roles

- WEF
  - Governance and administrative leadership
  - Regulatory engagement
  - Sector and promotional support
- Water Research Foundation (formerly WERF)
  - Data management/platform (BMP Database)
  - Project Management
  - Catalyzing of innovation through Leaders  
Innovation Forum for Technology (LIFT) Facilities  
Accelerating the Science and Technology (FAST)  
in water sector

# STEPP Consortium Partners/Roles

- American Society for Testing Material, Intl. (ASTM)
  - Preliminary standards development
    - Addressing existing stormwater testing standards (TAPE, NJCAT)
  - Ongoing standards development
    - Development of new standards, as needed
- Interstate Technology and Regulatory Council (ITRC)
  - Guidance development
  - Training development & support
  - State regulatory outreach and engagement

# STEPP Consortium Partners/Roles

- Existing State Stormwater Testing Programs
  - Washington State Department of Ecology; Technology Assessment Protocol – Ecology (TAPE)
  - New Jersey Corporation for Advanced Technology / Department of Environmental Protection
- Advantages of TAPE/NJCAT-DEP for STEPP
  - Leveraging of programs through familiarity of programs
  - Utilization of existing testing protocols
  - Capitalize on regulatory support for programs
  - Technical assistance on program/process development

# STEPP Program Consortium Partners

WEF	WRF	ASTM	ITRC	WA-TAPE	NJ-CAT/DEP
<ul style="list-style-type: none"><li>• Governance</li><li>• Administrative Support</li><li>• Leadership</li><li>• Regulatory and Sector Engagement</li><li>• Promotional Support</li></ul>	<ul style="list-style-type: none"><li>• Database Support / Management</li><li>• Innovation Support</li><li>• Project Management</li></ul>	<ul style="list-style-type: none"><li>• Preliminary and Ongoing Technical Standards Development</li></ul>	<ul style="list-style-type: none"><li>• Guidance Development</li><li>• Training Support</li><li>• State Regulatory Outreach and Engagement</li></ul>	<ul style="list-style-type: none"><li>• Provides Basis for Field Testing Protocol</li><li>• Technical Assistance</li><li>• Country-wide Recognition and Acceptance</li></ul>	<ul style="list-style-type: none"><li>• Provides Basis for Lab Testing Protocol</li><li>• Technical Assistance</li><li>• Country-wide Recognition and Acceptance</li></ul>

# Recent Updates

- May 7, 2019 Meeting at WEF SW/GI Symposium
  - Half-day meeting
  - Work Team will be meeting
  - Hope to announce new stormwater committee formation from ASTM by this point
- WEFTEC 2019
  - Work Team meeting to continue work
  - Public meeting to update will be provided



# Next Steps...



- Consortium Group
  - Work closely with each partner to develop MOUs
- Work Team
  - Subgroups working concurrently to address the following priorities:
    - Get state regulatory support from critical mass of states
    - Refine standards development for lab and field testing
    - Develop initial business plan
    - Seek funding for launch/transition phase

# Recent Survey in the Region

- Survey of Communities at Southern Ohio / Northern Kentucky Event
- Used for “temperature-taking”
- Results are interesting, but not at the level of statistical significance

# Questions Posed

1. What is your professional background/affiliation?
2. Is your community/company involved in the testing of stormwater products and practices to measure performance?
3. How important do you think the standardized testing of stormwater products and practices is?

# Questions Posed

4. Should proprietary stormwater products and public domain practices be tested using the same level of scrutiny?
5. Who should pay for this type of program, if set up nationally?
6. How much should communities pay on an annual basis (if at all) to participate in a national testing program for stormwater products/practices?

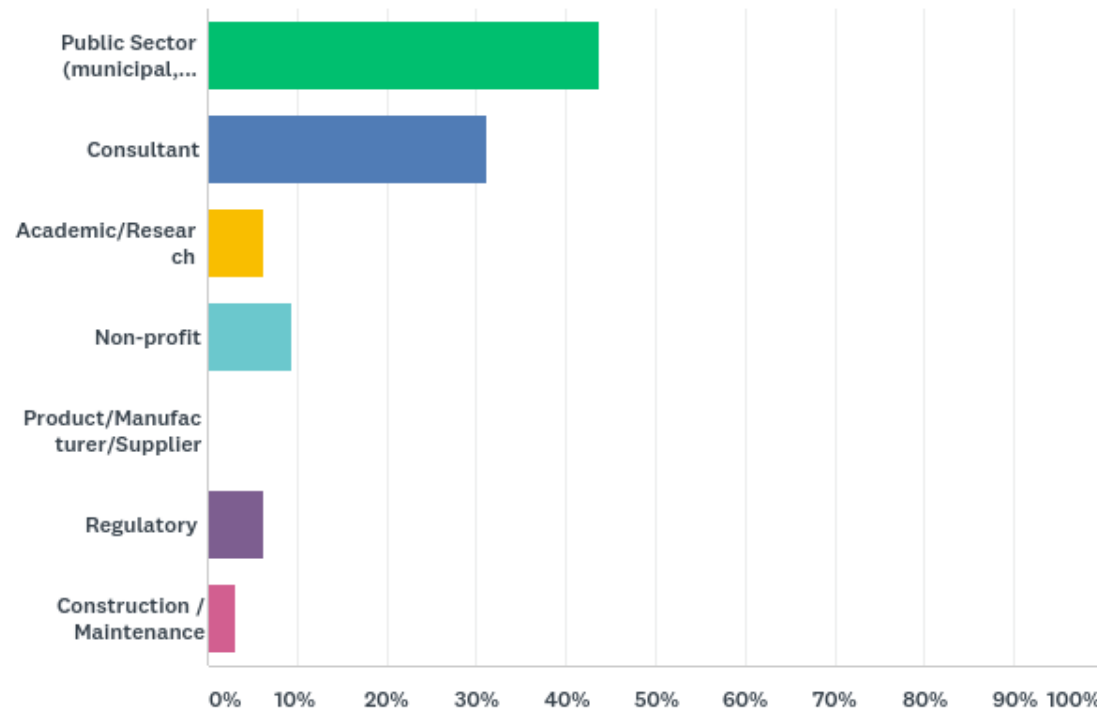
# Survey Results

- Majority of survey respondents were public sector
- Most see stormwater product/practice testing as a high priority issue
- Most communities do not have their own testing/verification program
- Most think that products and practices should be tested at the same level of scrutiny
- Most think that manufacturers and federal/state government should fund a national testing/verification program.
- Most think that municipalities/utilities should not pay for a national testing/verification program at all, but approximately 1/3 thought it would be reasonable for localities should consider paying between \$1,000 - \$5,000.



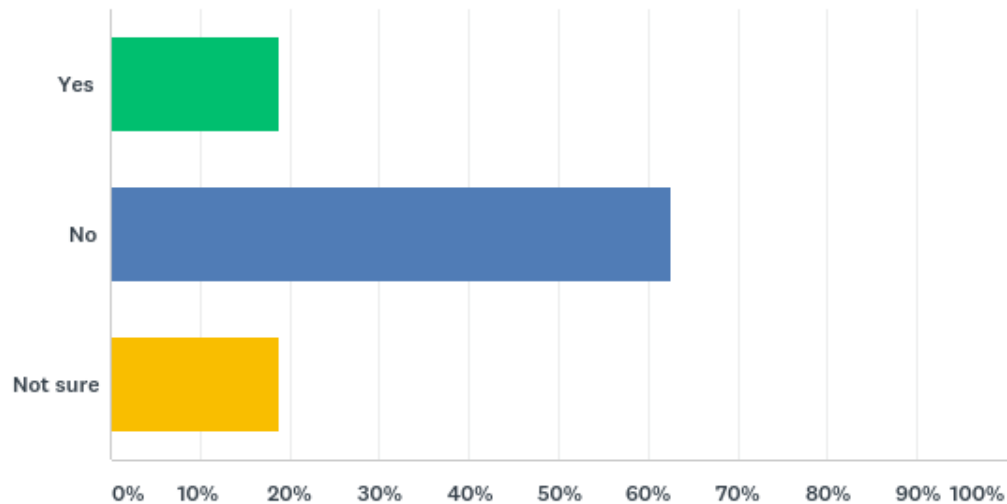
# And now the results...

Q1 What is your professional background/affiliation?



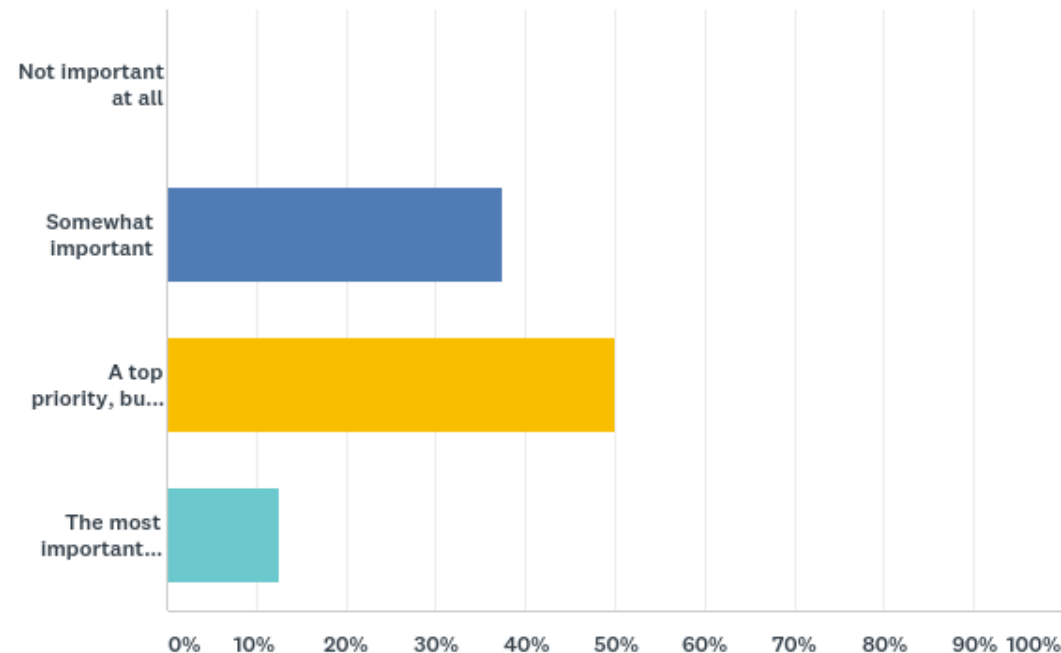
# And now the results...

Q2 Is your community/company involved in the testing of stormwater products and practices to measure performance?



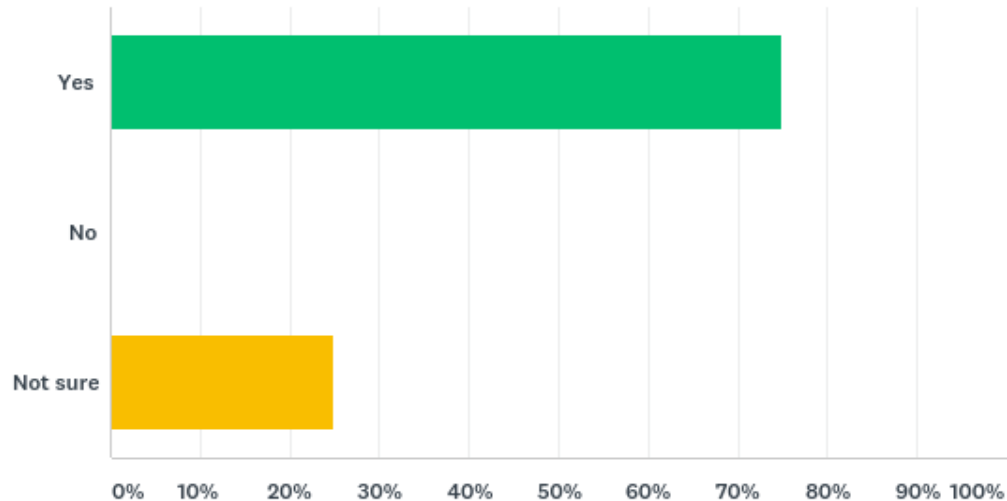
# And now the results...

Q3 How important do you think the standardized testing of stormwater products and practices is?



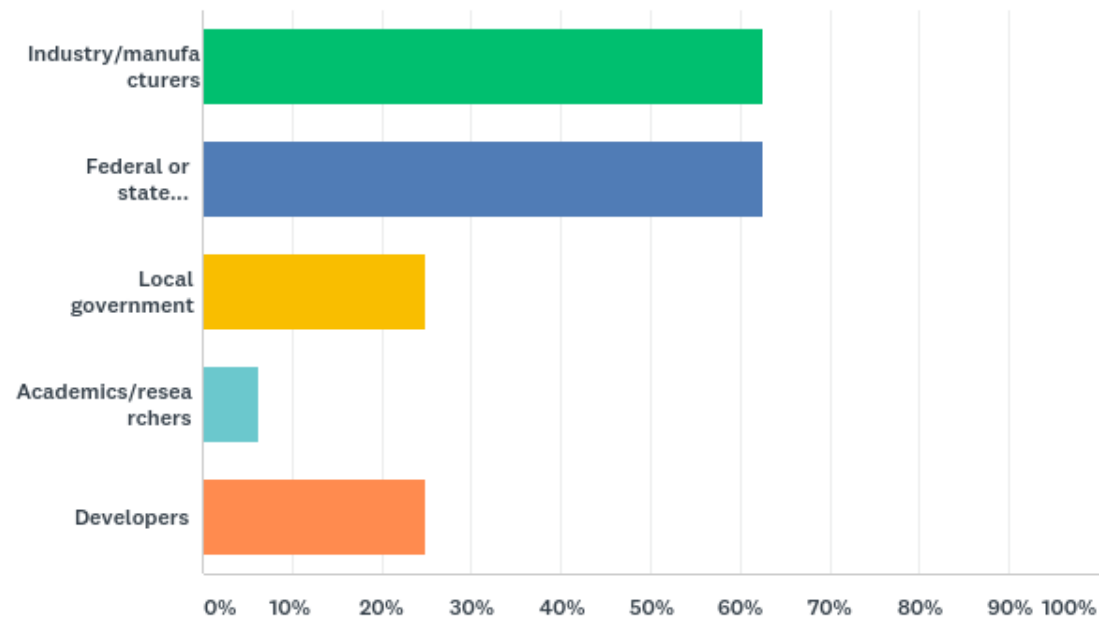
# And now the results...

Q4 Should proprietary stormwater products and public domain practices be tested using the same level of scrutiny?



# And now the results...

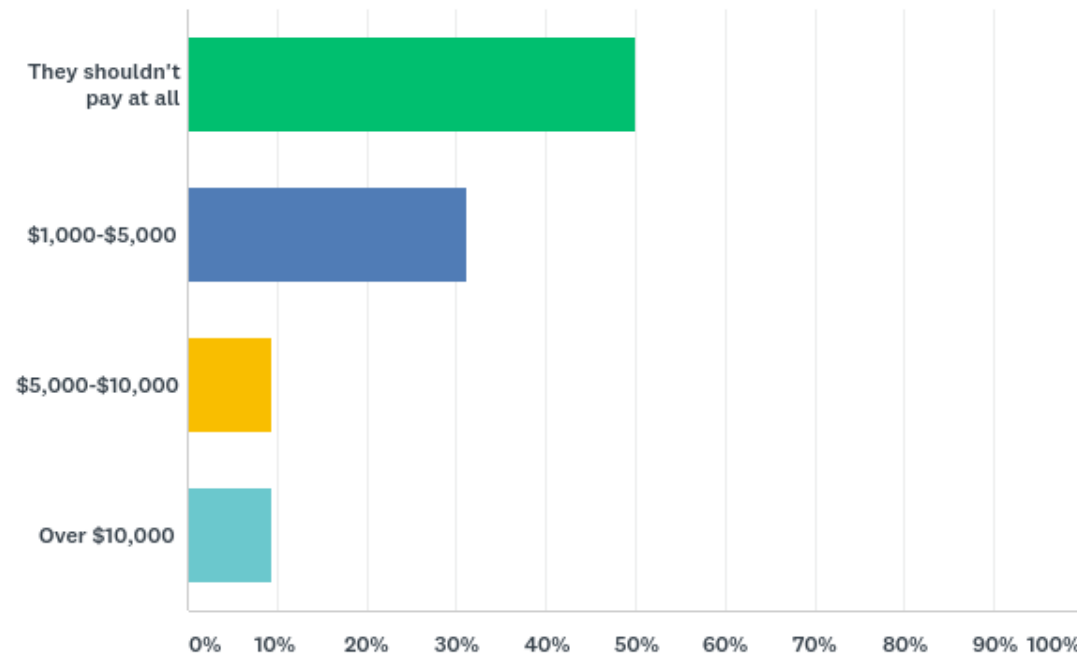
Q5 Sustainable and secure funding is a major concern for stormwater testing programs. In your view, who should pay for this type of program, if set up nationally? (check all that apply)





# And now the results...

Q6 How much should communities pay on an annual basis to participate in national testing program for stormwater products/practices?





## Discussion & Questions?



<http://wefstormwaterinstitute.org/programs/stepp/>

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