

Overview of STEPP Program

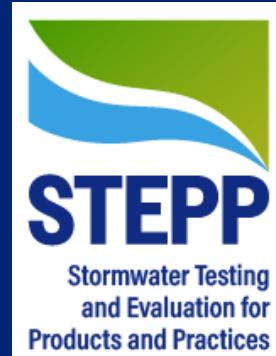
Texas Regional Stormwater Conference

Seth Brown, PhD, PE | Executive Director

National Municipal Stormwater Alliance (NMSA)

— January 22, 2026 —

Scan the QR code or go to
join NMSA and STEPP:
<https://ms4nmsa.org/our-memberships/>





Agenda

- **NMSA Background and Initiatives/Programs**
- **Overview of the STEPP Program**
- **STEPP Status and Updates**
- **Value of STEPP to Texas Communities**
- **Q&A**



NMSA Background

Overview of National Municipal Stormwater Alliance (NMSA)



- Who/What is NMSA?
 - *A national coalition focusing solely on MS4s*
 - *Members are organizations, not individuals*
- Motivation for Formation
 - To represent MS4 permittees at the national level by providing a **unified voice**
 - To lead changes in regulation both **proactively and reactively**
 - To **connect and unite** MS4 programs
 - To promote stormwater as a **resource**
 - To improve the **public image of stormwater**
 - To create opportunities for **multi-benefit and multi-use** stormwater projects
- Vision for Organization

Our Action Areas



- **Sector Support and Information**
 - Support MS4-oriented organizations
- **Messaging & Communication**
 - Raise awareness on stormwater issues
- **Education**
 - Disseminate technical information
- **Policy/Advocacy**
 - Federal legislative/regulatory engagement



NMSA State of Membership



- **26 state groups currently members of NMSA**
 - Represents approximately 4,400 of the total 7,500 MS4s in the U.S.
 - Represents over half of the urban population in the U.S. subject to MS4 regulations
- **MS4, Affiliate, and Emeritus Members can join**



Water Environment Association of Texas

- **To join NMSA online use this QR code or go to:**

- <https://ms4nmsa.org/our-memberships/>



- **To receive more information about NMSA membership**



NMSA Membership

All membership types can join online



- MS4 members

- Phase II and non-traditional MS4s = \$200-\$275 annual fee
 - Join either as an individual MS4 or a group of MS4
- Phase I and State DOTs = \$500-\$550 annual fee (individual only)

- Affiliate members = \$500 or \$1,500 annual fee

- \$500 for NGOs and \$1,500 for private entities

- State organization = \$250 or \$500 annual fee

- For MS4 organizations representing five or more within a region, territory or state
- Fees depends upon organization gross receipts

- Emeritus members

- For recently retired/semi-retired to remain active in the stormwater sector and leverage institutional and technical knowledge
- No annual fee – simply provide required info for review

To join NMSA online use this QR code or go to:

<https://ms4nmsa.org/our-memberships/>

The screenshot shows the NMSA website's membership page. At the top, there's a navigation bar with links for Member Log In, Become a Member, and STEPP. Below that, a section titled 'Become a NMSA Member' explains NMSA's mission to represent all organizations in the stormwater sector. A large section titled 'Select your Membership Type' lists several options:

- Individual MS4 NMSA Membership (Group MS4 NMSA Membership, Individual MS4 NMSA & STEPP Combined Membership, Group MS4 NMSA & STEPP Combined Membership, State Organization NMSA Membership, Affiliate NMSA Membership, Free Individual MS4 NMSA Membership, Emeritus NMSA Membership)
- Individual MS4 NMSA Membership (Starting from: \$250, Individual MS4 Membership allows for two representatives of a community or entity holding an MS4 to establish an account with NMSA's online membership portal at an annual fee based upon membership type. It provides a discounted rate for those MS4s located within a state that is part of the NMSA State Organization Membership. States in the NMSA State Organization Membership include: AZ, HI, CA, WA, UT, TX, MT, NE, OK, IA, MN, WI, MI, IN, KY, TN, AL, GA, ME, NH, VA, MA, CO, LA, PA, and CT. By becoming an Individual MS4 Member, you will be connected to a network of other MS4s around the country and will help to enable NMSA to engage with the MS4 sector in ways that will create meaningful and significant pathways for information dissemination to and from the local level to the national level on topics critical to the stormwater sector. As a paying MS4 member, you will provide the financial support needed for NMSA to sustain and grow our presence in our efforts to raise awareness on stormwater issues, develop tools, products, services and programs that support local MS4 and stormwater departments and staff, and promote an overall increase in funding and investment into stormwater programs and projects needed to technically and cost-effectively address the challenges of managing stormwater runoff.)
- Annual fee is \$550 (for Phase I/DOEs OUT OF NMSA state network, 2 participants per MS4 member, [Subscribe](#))
- Annual fee is \$500 (for Phase I/DOEs IN NMSA state network, 2 participants per MS4 member, [Subscribe](#))
- Annual fee is \$275 (for Phase II/Non-Traditionals OUT OF NMSA state network, 2 participants per MS4 member, [Subscribe](#))

MS4 Membership

Current MS4 NMSA Members

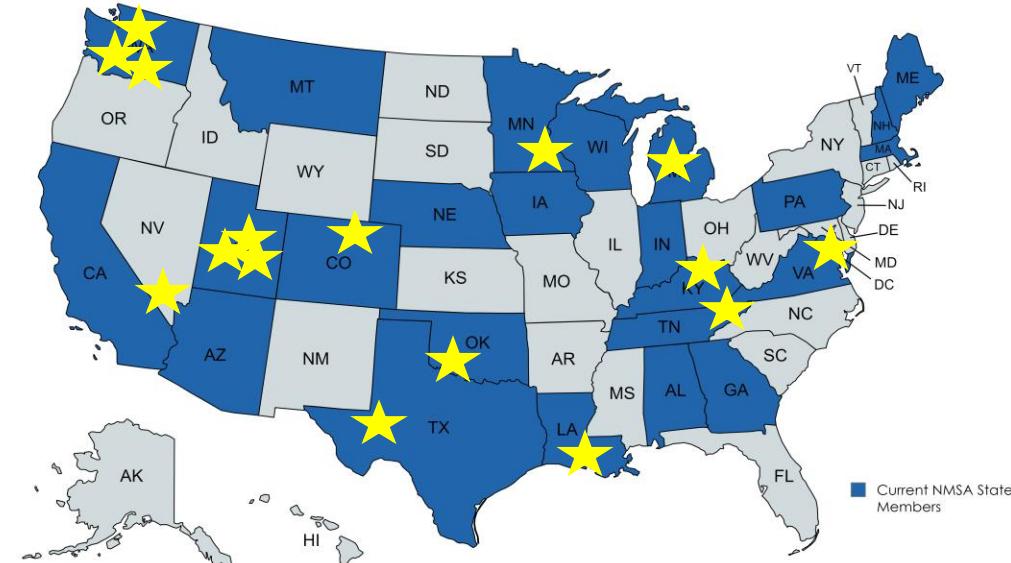
1. Utah County, UT
2. Clinton, UT
3. Scottsbluff, NE
4. Cedar Hills, UT
5. Salem, UT
6. Battle Ground, WA
7. Centralia, WA
8. Payson City, UT
9. Lindon City, UT
10. Mapleton City, UT
11. Provo City, UT
12. Farr West, UT
13. Springville City, UT
14. Logan City, UT
15. Katysville City, UT
16. Odessa, TX
17. Washington, D.C.
18. Baton Rouge, LA
19. King County, WA
20. Capitol Region Watershed District (St. Paul, MN)
21. Kingsport, TN
22. Kitsap County, WA
23. Altus, OK
24. Greely, CO
25. Thurston County, WA
26. Regional Flood Control District (Clark County, NV)
27. Tri-County Regional Planning Commission (Clinton, Eaton, and Ingham Counties, MI)
28. Sanitation District No. 1



BR

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

★ ★ ★ DEPARTMENT
OF ENERGY &
ENVIRONMENT



★ = Current NMSA MS4 Members

Current State, Affiliate, & STEPP NMSA Members

State Org Members



INAFSM
INDIANA ASSOCIATION FOR
FLOODPLAIN AND STORMWATER
MANAGEMENT



Alabama Stormwater
Association



Georgia
Association of
Water
Professionals

STEPP Members



oldcastle®



Affiliate Members



NMSA MS4 Membership

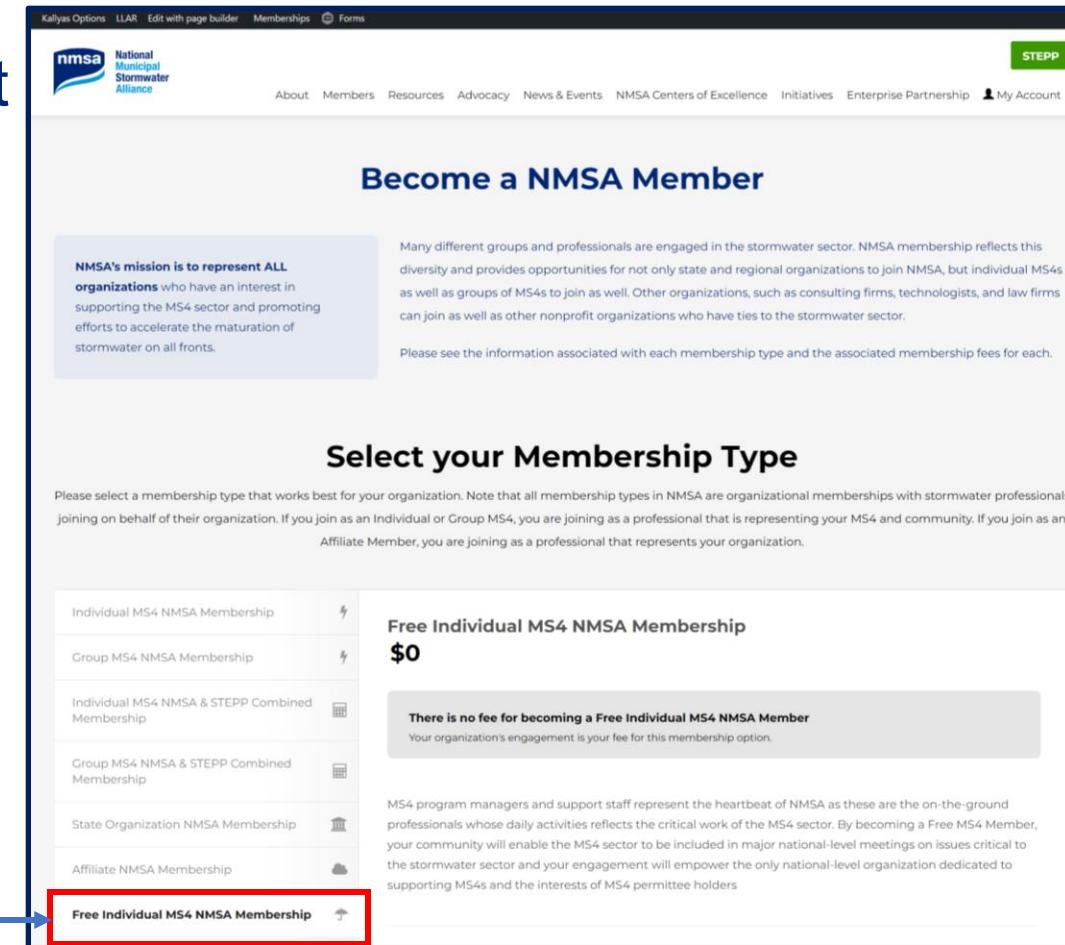


MS4s Can Also Join for Free!

- If you work as staff with or otherwise represent an MS4, you can register your MS4 for a free membership by going to:

<https://ms4nmsa.org/our-memberships/>

- Free MS4 Members benefits:
 - NMSA monthly newsletter
 - Attend quarterly member meetings
 - Join an MS4 committee
 - Receive discounts to select products and events
 - Receive access to select NMSA documents and other products
 - Your community will be listed on the NMSA website with other Free MS4 NMSA members



The screenshot shows the 'Become a NMSA Member' page. The 'Select your Membership Type' section lists several options, with 'Free Individual MS4 NMSA Membership' highlighted by a red box and an arrow pointing to it from the left margin. The page includes a sidebar with information about NMSA's mission and a note that there is no fee for this membership type.



NMSA Services, Products, and Initiatives

MS4 Online Bulk Training Courses



Learning Management System (LMS) Content for Basic-Level Training

- IDDE for Municipal Employees, Responders, Investigators, Industrial Facilities 0.5 PDH
- Rights of Way training 1.0 PDH
- Street Sweeping 0.5 PDH
- Fueling and Maintenance 0.5 PDH
- Long Term Stormwater Controls 0.5 PDH
- Landscaping for MS4 Employees 0.5 PDH
- Stormwater Training for Construction Professionals 2.0 PDH
- Stormwater Training for Vertical Construction 0.5 PDH
- General Industrial Training Course 1.0 PDH
- SPCC training 0.5 PDH
- Construction Stormwater Inspector Training 2.0 PDH
- Erosion and Sediment Control Training 2.0 PDH



MS4 Online Bulk Training



Communities Currently Receiving MS4 Bulk Training

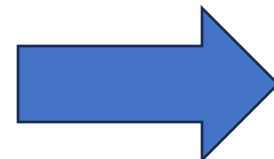
1. Utah County, UT
2. Clinton, UT
3. Scottsbluff, NE
4. Cedar Hills, UT
5. Salem, UT
6. Battle Ground, WA
7. Centralia, WA
8. Payson City, UT
9. Lindon City, UT
10. Mapleton City, UT
11. Provo City, UT
12. Farr West, UT
13. Springville City, UT
14. Logan City, UT
15. Katysville City, UT
- 16. Odessa, TX**

MS4 Online Bulk Training



MS4 Online Bulk Training Packages

- For more information or to sign up, go to:
- <https://ms4nmsa.org/nmsa-online-bulk-training-courses/>

A screenshot of the NMSA website's 'Online Bulk Training Courses' page. The page features a dark blue header with the nmsa logo and a navigation menu. The main content area has a dark blue background with white text. It includes a 'Did you know?' section with two bulleted items, a 'Includes' section with four bullet points, and a green call-to-action box at the bottom right with the text '\$1.00 per person or \$50 bulk rate discount for professionals and entities located within the NMSA state member organization network' and two buttons: 'GET STARTED' and 'GET INFO'.

NMSA Initiatives



- **National Stormwater Policy Forum**
 - 10th annual event on April 13, 2026 virtual or in person (Washington, DC)
 - <https://ms4nmsa.org/stormwaterday/policy-forum-2026/>
- **National Stormwater Day**
 - 4th annual - November 16, 2026 to increase stormwater awareness
 - <https://stormwater.day/>
- **MS4 Permit Improvements**
 - Nine specific ways to improve MS4 permits - provide your input below!
 - <https://ms4nmsa.org/ms4-permit-improvement-feedback/>
- **National Stormwater Leadership Coalition**
 - Actions to improve funding, programs, policies/regs, and data/information
- **Clean Streets = Clean Waters Initiative**
 - National street sweeping stormwater treatment potential and regulatory crediting

NMSA Products



- **Webinars and web-based events**
 - Free to the public
 - <https://www.youtube.com/@nationalstormwateralliance>
- **National MS4 Online Resource**
 - EPA-funded guide for MS4 basics and info
 - <https://ms4resource.nationalstormwateralliance.org/>
- **NMSA Stormwater Update - Monthly Newsletters**
 - To join - <http://eepurl.com/hbCOXL>
- **Various Reports on Stormwater Topics**
 - Aquatic trash, economic value of green infrastructure and other topics

EPA STORMWATER CENTERS OF EXCELLENCE



Four (4) SCE and one (1) national electronic clearinghouse

Conduct research and provide technical assistance to state, tribal, and local governments

Support stormwater infrastructure to:



Protect public health

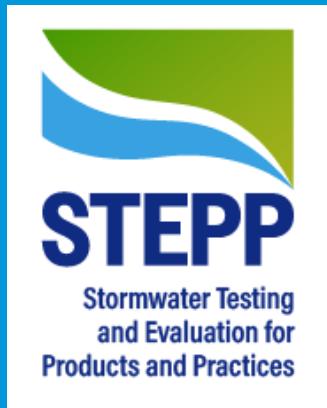


Safeguard environment



Increase resilience to extreme events

Stormwater Testing and Evaluation for Products and Practices (STEPP)





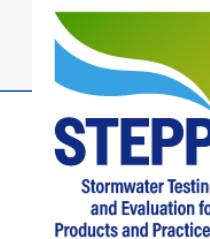
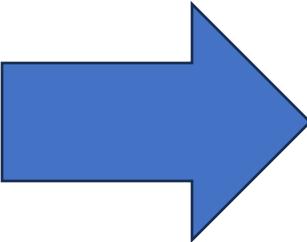
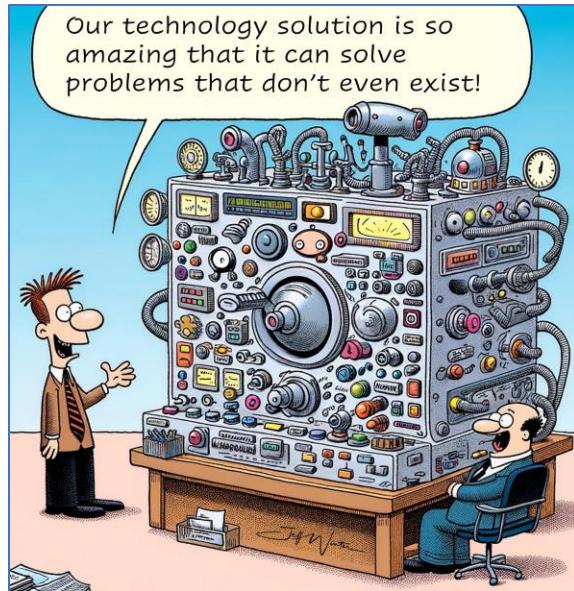
A Simple Question...

**How well do stormwater
products and practices work?**

Problem Statement

**There is no national organization that provides
consistent, technical/credible and objective testing
and verification of stormwater practices and
products.**

Performance Evaluations



"Extraordinary claims require extraordinary evidence" – C. Sagan

How is “performance” defined?

How is performance evaluated?

Who is evaluating performance?

Who benefits from the evaluation?

Who is paying for the evaluation?

How often is performance to be evaluated?

Stormwater Testing and Evaluation of Products and Practices (STEPP)



Goal: Develop a national testing/evaluation and verification program for stormwater products **and** practices

- Increase overall performance and create level/higher playing field
- Leverage respected existing state verification programs
- Provide greater confidence in performance of stormwater systems
- Enhance the value proposition for stormwater investments
- Improve water quality



STEPP FAQ



What does STEPP do?

- Promotes the generation of **performance testing standards** for stormwater infrastructure.
- **Oversees evaluation process** of stormwater products and practices following testing standards.
- **Verifies** that testing standards were followed.
- Provides **technical support** to users to enable understanding context of **verified data**.

What does STEPP NOT do?

- Perform testing

How is STEPP funded?

- **Seed funding** currently through industry and communities (“STEPP Leadership Group”).
- Ongoing **operational budget** to be funded primarily through public sector (MS4s, etc.) through a pooled funding approach (compared with each MS4/state having their own verification program).
- **Verification services** paid by the technology proponent (i.e., the manufacturer).

Verification Process



4. Approval for use decision provided

Product or Practice Representative(s)*

1. Submit application for verification

*This party pays for verification services

STEPP Program Services

- Review verification application
- Review Quality Assurance Project Plans (QAPPs)
 - STEPP External Group Review (SERG)
- Review verification reports
 - SERG Review
 - Public Stakeholder Review
- Store/handle testing and verification data
- Develop guidance and other technical/programmatic resources
- Additional services/activities

State, Locality or Other Interested Party

3. Request for approval for use based upon STEPP results

Product or Practice Representative(s)

2. Proof of verification to product or practice representative(s)

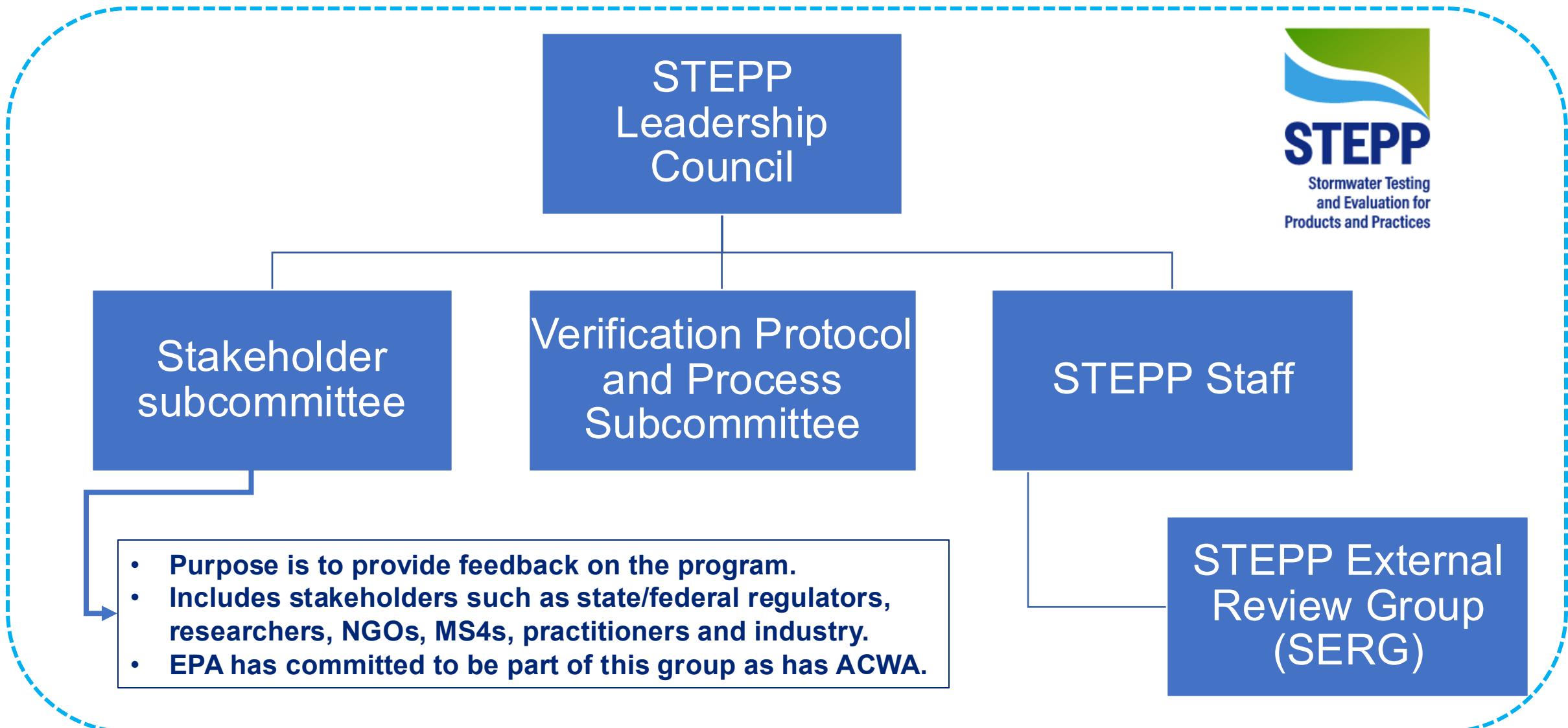
STEPP External Review Group (SERG)



SERG Members

1. Jim Lenhart, Stormwater Northwest
2. Andy Erickson, PhD, PE (Univ of Minnesota)
3. Celso Ferreira, PhD, PE (George Mason Univ)
4. **Dipen Patel, PhD (Sacramento State Univ)**
5. Jon Hathaway, PhD (Univ of Tennessee)
6. Bruce Thomson, PhD (Univ of New Mexico)
7. **Elizabeth Fassman-Beck, PhD (SCWWRP)**
8. Ryan Winston, PhD (Ohio State Univ)
9. Allen Davis, PhD (Univ of Maryland)
10. David Sample, PhD (Virginia Tech Univ)
11. Jason Vogel, PhD (Univ of Oklahoma)
12. Dwane Jones, PhD (Univ of DC)
13. David Spelman, PhD (Bradley Univ)
14. Sybil Sharvelle, PhD (Colorado State Univ)

STEPP Governance Framework



Provide Technical Support

- How to interpret verified performance test data?
- How to integrate this information into my program?
- How does sizing of the product/practice tie in with the verified performance data provided?
- How does performance testing collected in one context translate to my local area/conditions?

STEPP Stands on the Shoulders of Giants



Washington TAPE and NJCAT are the basis for the STEPP program

- STEPP program is working with the Washington State TAPE program and other state verification programs to pull these state programs into a national program for the testing and verification of stormwater products and practices.
- Until STEPP is at the point where the program is providing a full suite of lab-based and field-based testing verification services, the TAPE program and other state verification programs will continue to operate.



ASTM E64 Committee on Stormwater Control Measures



- ASTM E64 Committee on Stormwater Control Measures
 - <https://www.astm.org/get-involved/technical-committees/committee-e64>
- Lab Testing
 - Trash capture standard finalized
 - NJCAT lab-based protocols being standardized
 - Hydrodynamic separators standards finalized
 - Filter systems completion anticipated in next 3-6 months
- Field Testing
 - WA TAPE protocol field-based test methods standards completed



Status of the STEPP Program

STEPP Status



Current verification services include:

- Trash capture technologies
- Hydrodynamic separators
- Concurrence reviews/approval
 - STEPP recognizes the verifications produced by other entities if those verifications used performance testing standards consistent with ASTM standards.
- Current concurrences are based upon NJCAT/NJDEP technologies

STEPP Updates

- Three **trash technologies** currently being verified by STEPP at this time
- Lab-based testing aspect nearly completed
- Field-based testing aspect is currently developing
- Technical guidance in development
- Support now being provided through EPA Stormwater Center of Excellence
- STEPP website has all updated info - <http://stormwatertesting.org>
- **MS4s can now become STEPP Members**



STEPPing into the Future

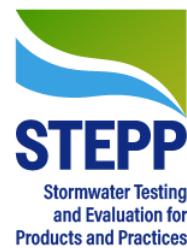


What's Next?

- Development of technical guidance on how to implement STEPP locally
- Better understanding of performance in different climates/contexts
- Public domain practices testing and verification (ponds, bioretention facilities, green roofs, permeable pavements, swales, etc.)
- More technologies (ex: street sweeping), ASTM testing standards, and pollutants (including emerging contaminants)
- Long-term performance (i.e., performance decay) to enhance understanding of O&M efforts/best practices
- Maybe use “synthetic stormwater” in lab and/or field testing?
- Make STEPP international?

Value of the STEPP Program

STEPP in Texas



- Pathway to gain recognition from Federal and state regulators on compliance.
- Provides trusted data on stormwater products and practices to facilitate informed decisions for MS4s.
- Can increase the toolkit of approved products and practices for stormwater management.
- Receive full access to verification reports and data, technical guidance and white papers, and technical support services.
- Receive NMSA member online account for a minimum of 2 professionals per MS4.

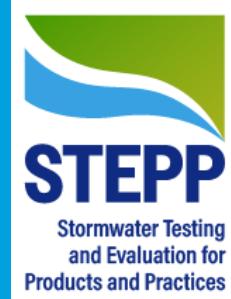
Conclusion

Conclusion



- NMSA is national program focused on MS4s
- STEPP is operational and growing
- MS4s can join NMSA and STEPP
- STEPP provides trusted performance data
- STEPP can aid MS4s clarify compliance
- Join us to help move the sector forward!

Questions?



Visit the NMSA website at ms4nmsa.org

Visit the STEPP website at stormwatertesting.org

Scan the **QR code** to join NMSA and STEPP program or go directly to <https://ms4nmsa.org/our-memberships/>

Seth Brown, PE, PhD – NMSA, Executive Director; STEPP Center of Excellence, Director
seth.brown@nationalstormwateralliance.org