Existing Capacity and Training Needs of the NPDES Program

Summary of State Responses

November 1, 2017

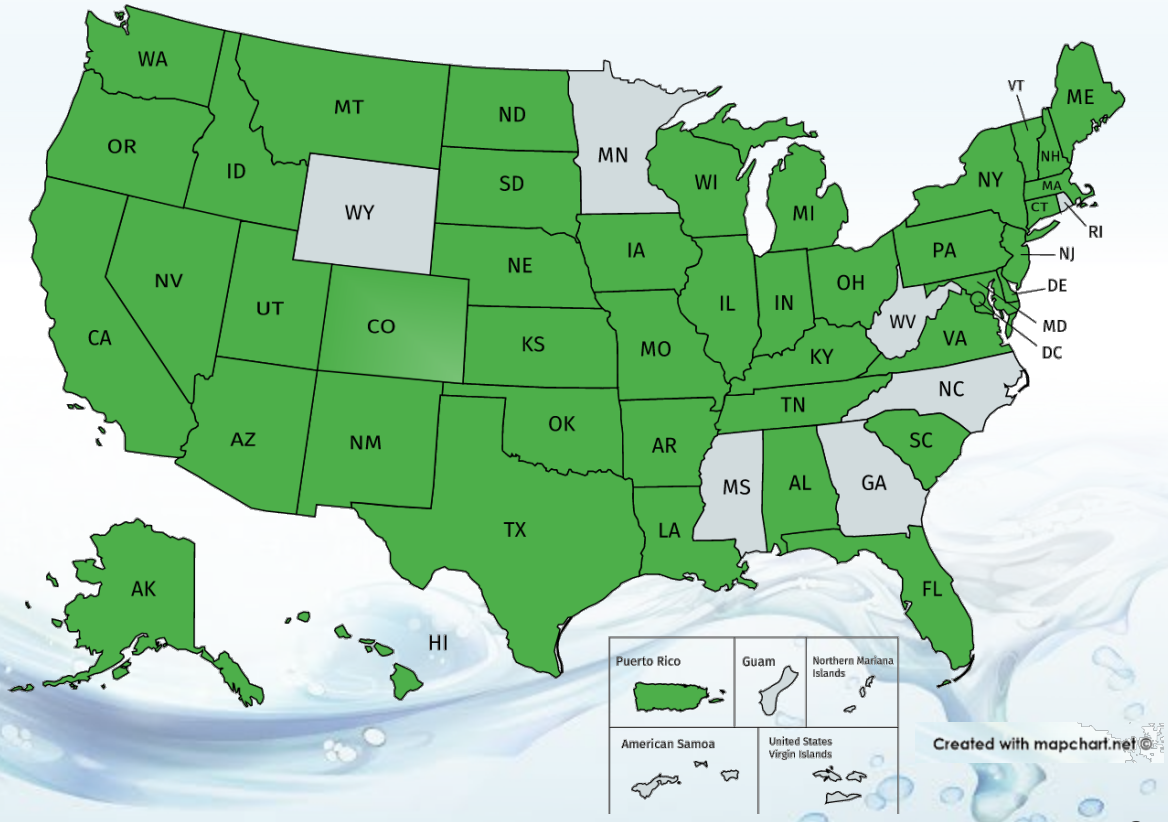
Background

- April 2017 NPDES Branch Chiefs meeting in Chicago
- Objective: maintain NPDES permit program integrity & enhance capacity building with state programs
- Conducted State questionnaire (in coordination with ACWA) in summer 2017

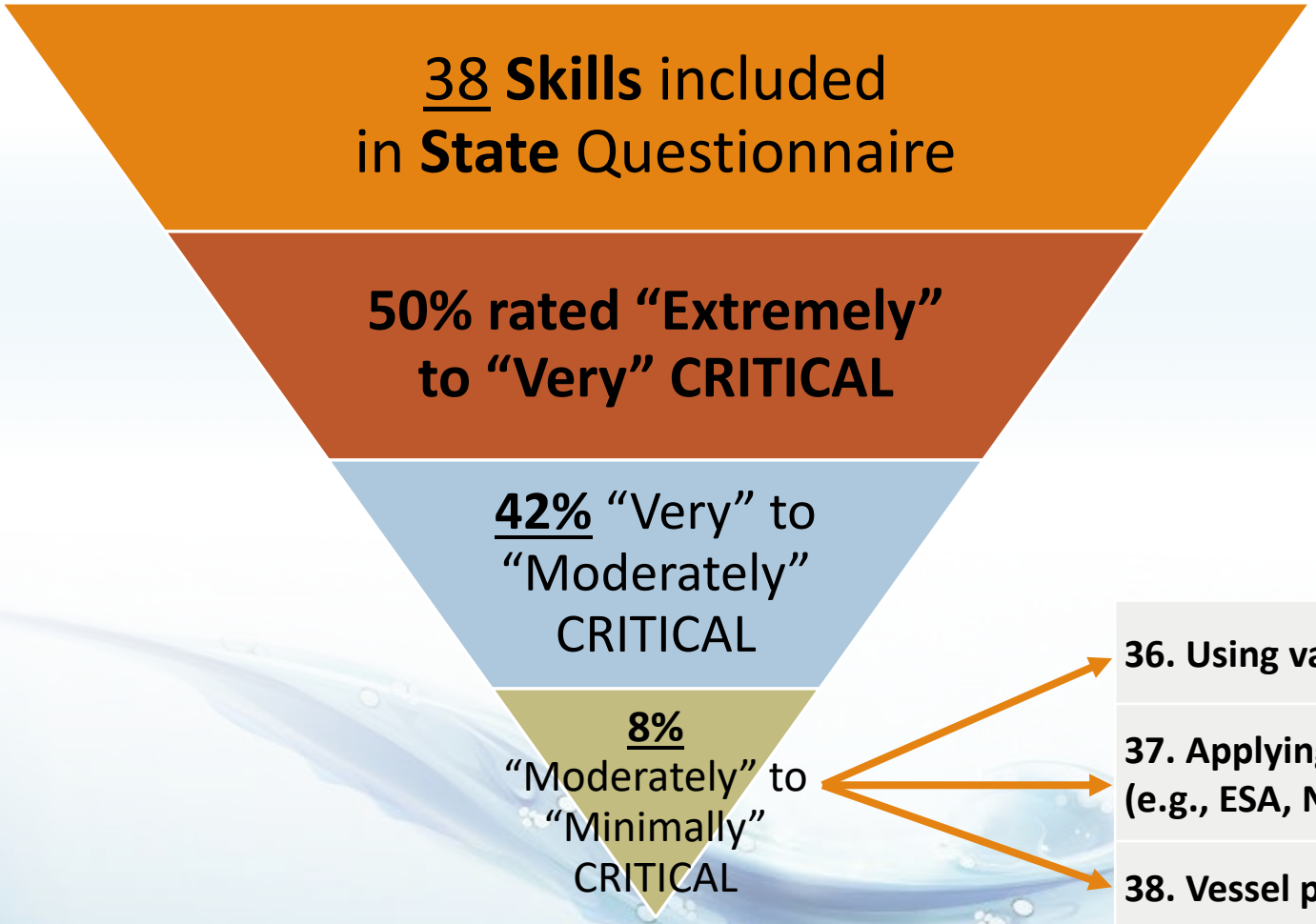
State Questionnaire

- ACWA distributed the State questionnaire to its membership.
- 61 total responses from 44 states, Puerto Rico and D.C.

  - *How CRITICAL is the skill to your NPDES program?*
  - *How BENEFICIAL would additional training in this skill be?*



Critical Skills Validation



36. Using variances

37. Applying federal requirements (e.g., ESA, NEPA, NHPA, CZMA)

38. Vessel permitting

Most Critical Skills

(average across all States)

1. Developing WQBELs (including TSD, WQS, anti-deg., TMDLs, etc.) (4.6 out of 5)
2. Executing the overall permit development process (including understanding flexibilities within permitting) (4.5)
3. POTW permitting (4.5)
4. Industrial wastewater permitting (4.4)
5. Developing and reviewing RPAs to determine need for WQBELs (4.4)
6. Reviewing permit applications (4.3)
7. Establishing proper monitoring and reporting requirements (4.2)
8. Managing data for permit development (4.2)
9. Developing TBELs (including ELGs and BPJ analyses) (4.1)
10. MS4 permitting (4.1)
11. Industrial stormwater permitting (4.1)
12. Understanding the relationship between State and Fed. Regs. (4.1)

"Competency in all of these elements is critical in regulating pollutant discharges to protect water quality."
– Oswald Inglese Jr., Connecticut Department of Energy and Conservation

Least Critical Skills

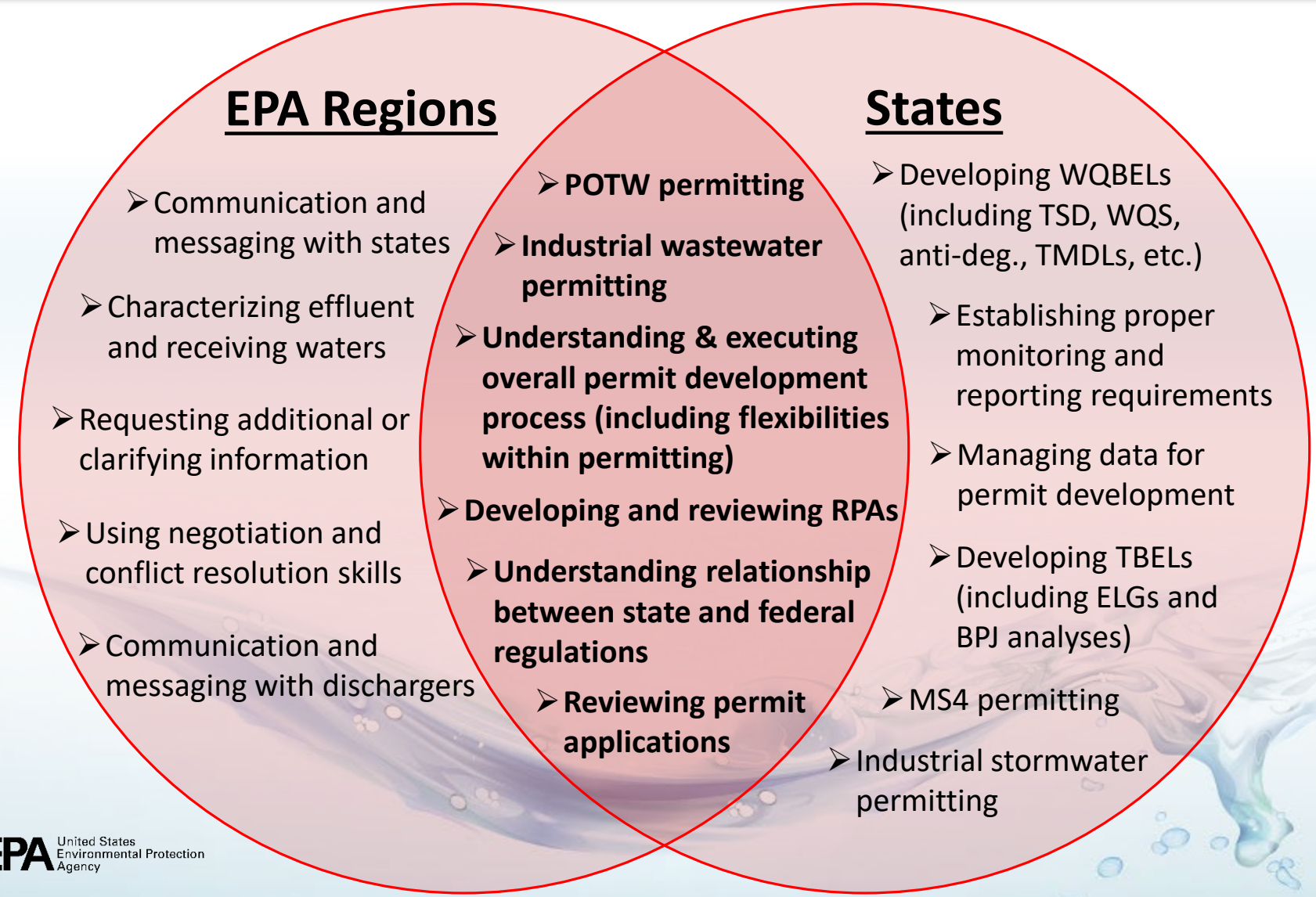
(average across all States)

29. Managing state program grants (including work plan development) (3.3)
30. EPA's permit quality reviews (PQRs) (3.3)
31. Long-term financial planning for wastewater and stormwater programs (3.3)
32. Hydraulic modeling (3.1)
33. Asset management for wastewater and stormwater programs (3.1)
34. Reasonable assurance modeling for stormwater management (3.1)
35. CAFO Permitting (3.0)
36. Using variances (2.9)
37. Applying other federal requirements (e.g. ESA, NEPA, NHPA, CZMA) (2.8)
38. Vessel Permitting (2.0)

"Moderately" Critical

"Minimally" Critical

Most Critical Skills



Skills with Top Training Needs for States

(average across all States)

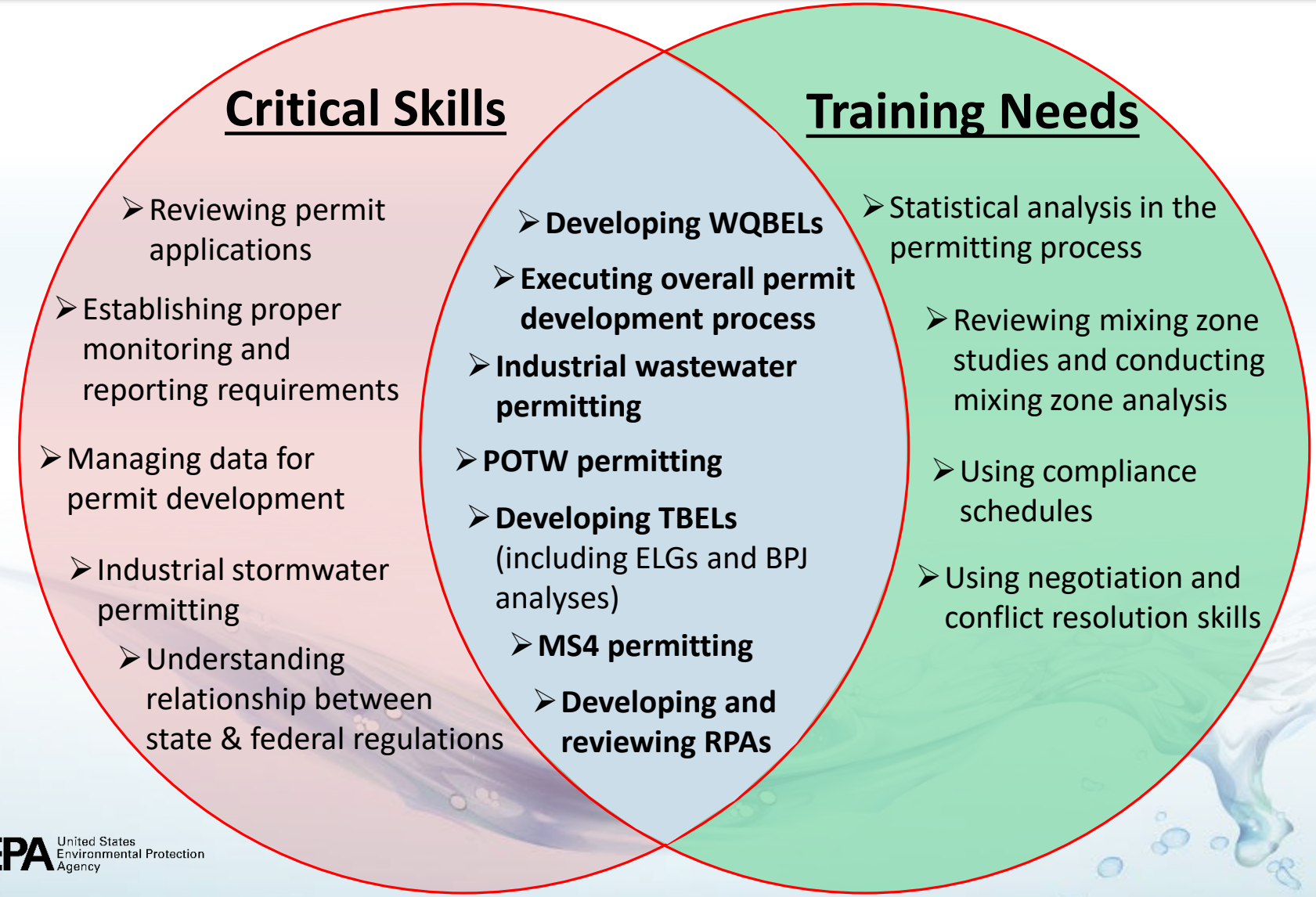
1. Developing WQBELs (including TSD, WQS, anti-deg., TMDLs, etc.) (4.1 out of 5)
2. Executing the overall permit development process (including understanding flexibilities within permitting) (4.0)
3. Statistical analysis in the permitting process (3.9)
4. Industrial wastewater permitting (3.9)
5. POTW permitting (3.9)
6. Developing TBELs (including ELGs and BPJ analyses) (3.8)
7. Reviewing mixing zone studies and conducting mixing zone analysis (3.7)
8. Using compliance schedules (3.7)
9. Using negotiation and conflict resolution skills (3.7)
10. MS4 permitting (3.7)
11. Developing and reviewing RPAs for WQBELs (3.7)

"Very" Critical

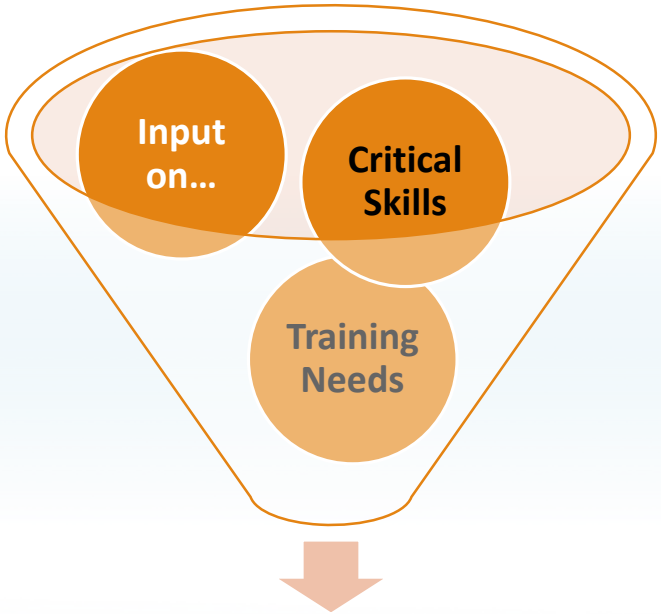
"Moderately" Critical

"Most Critical" Training Needs

(average across all States)

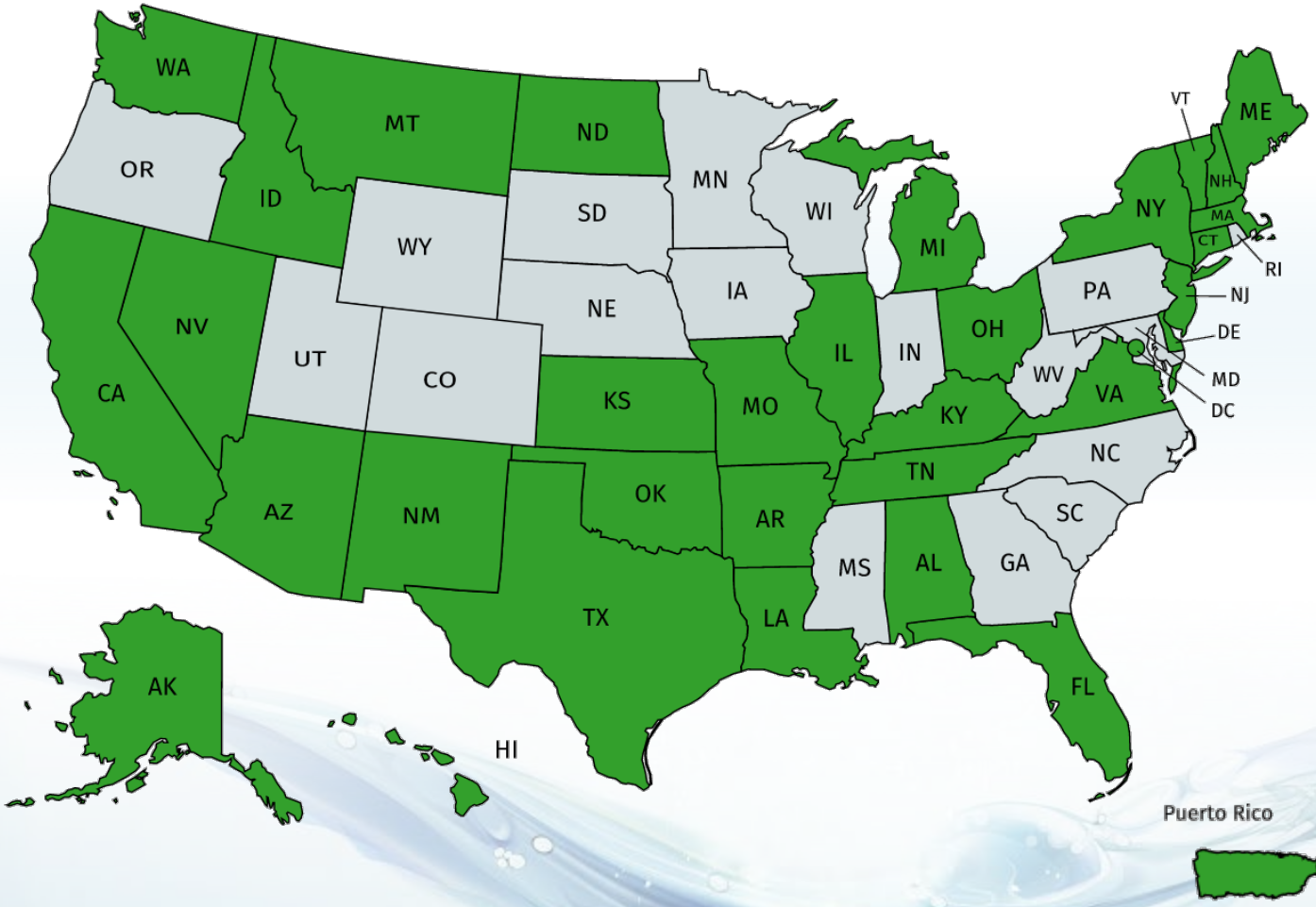


"Most Critical" Training Needs
(average across all States)



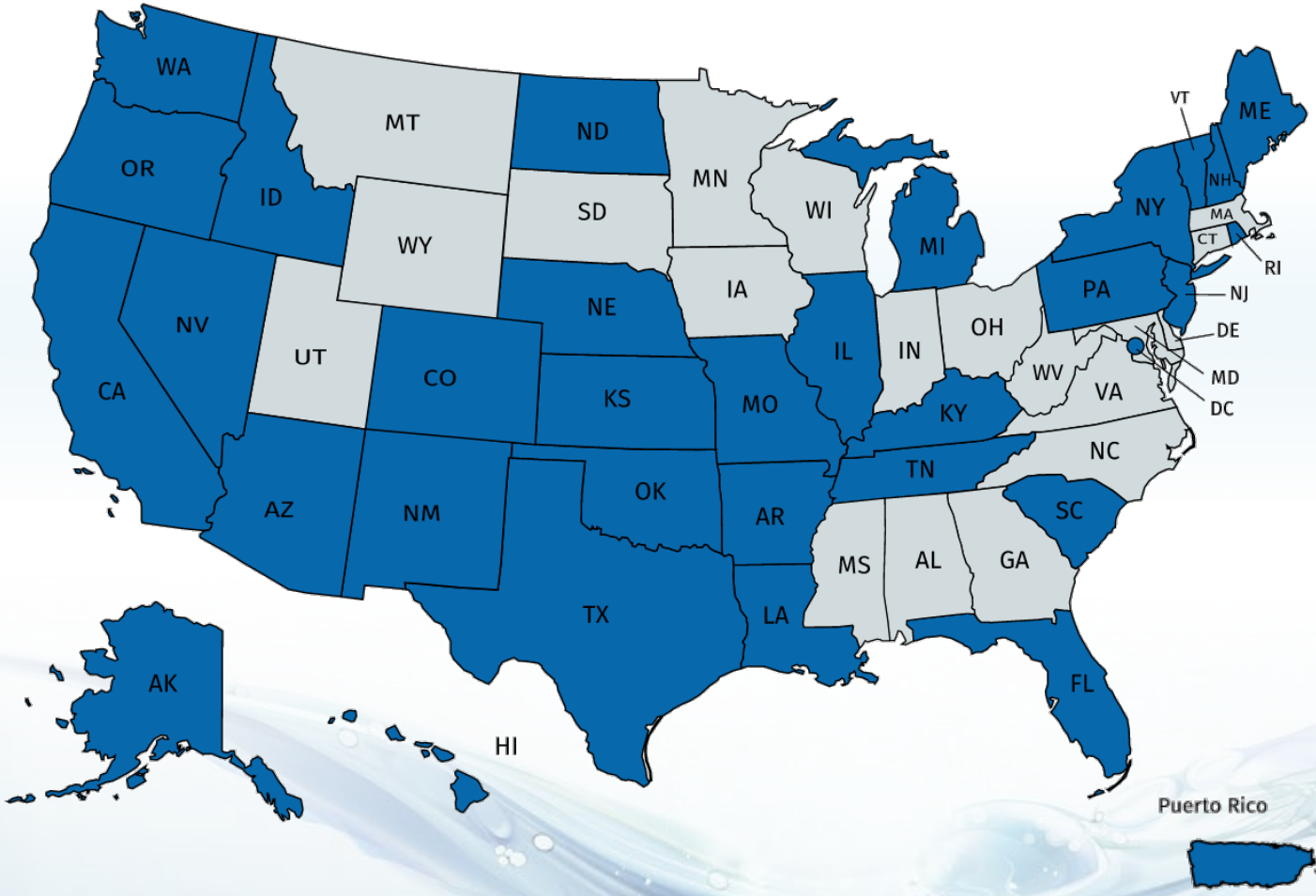
- **Developing WQBELs** (including TSD, WQS, anti-deg., TMDLs, etc.)
- **Executing the overall permit development process** (including understanding flexibilities within permitting)
- **Industrial wastewater permitting**
- **POTW permitting**
- **Developing TBELs** (including ELGs and BPJ analyses)
- **MS4 permitting**
- **Developing and reviewing RPAs for WQBELs**

Skill 1: Developing water quality based effluent limits (WQBELs)



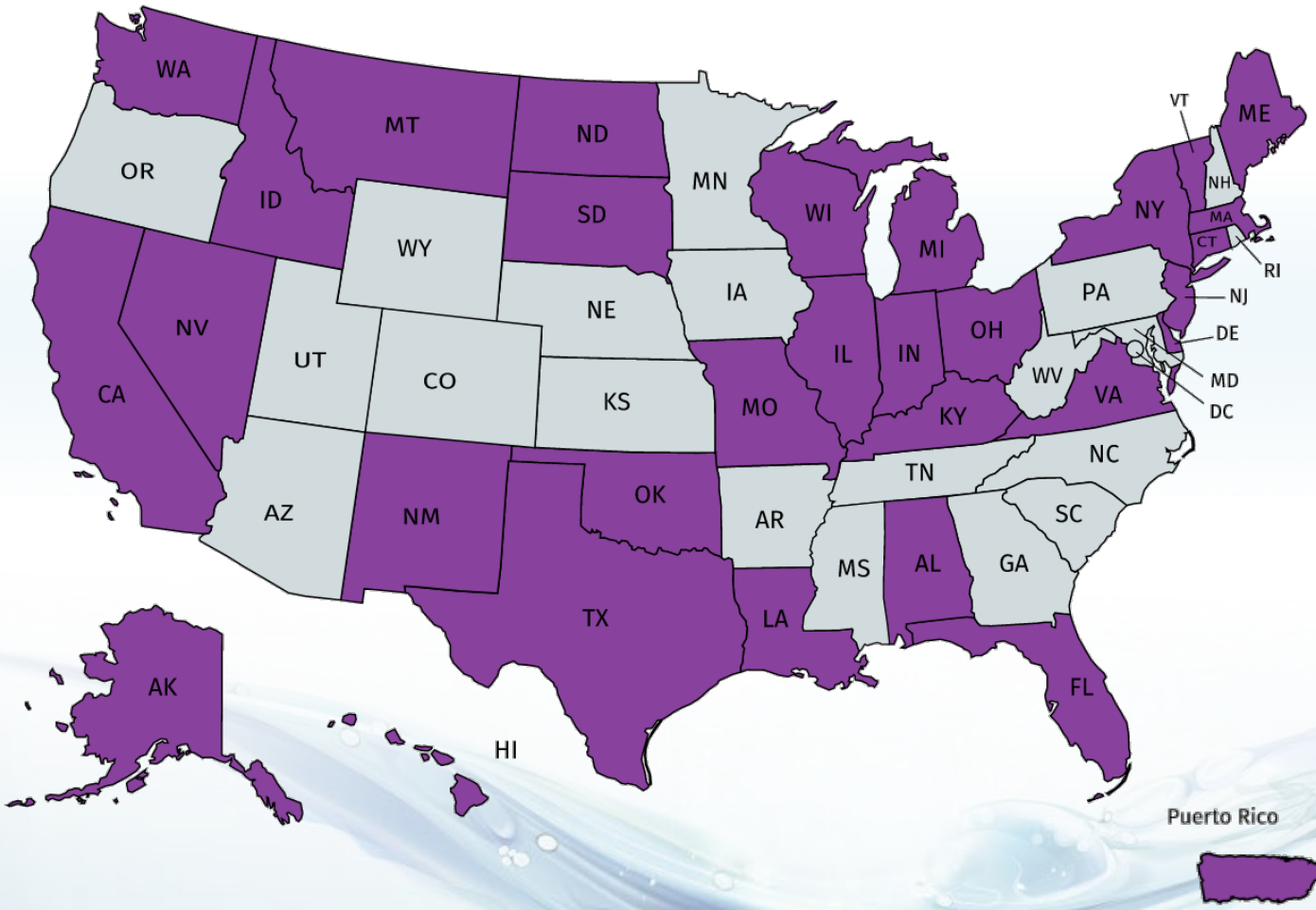
32 states, plus Puerto Rico and D.C., indicated that training for this skill would be **"Very" to "Extremely" beneficial.**

Skill 2: Executing the overall permit development process (including understanding flexibilities within permitting)



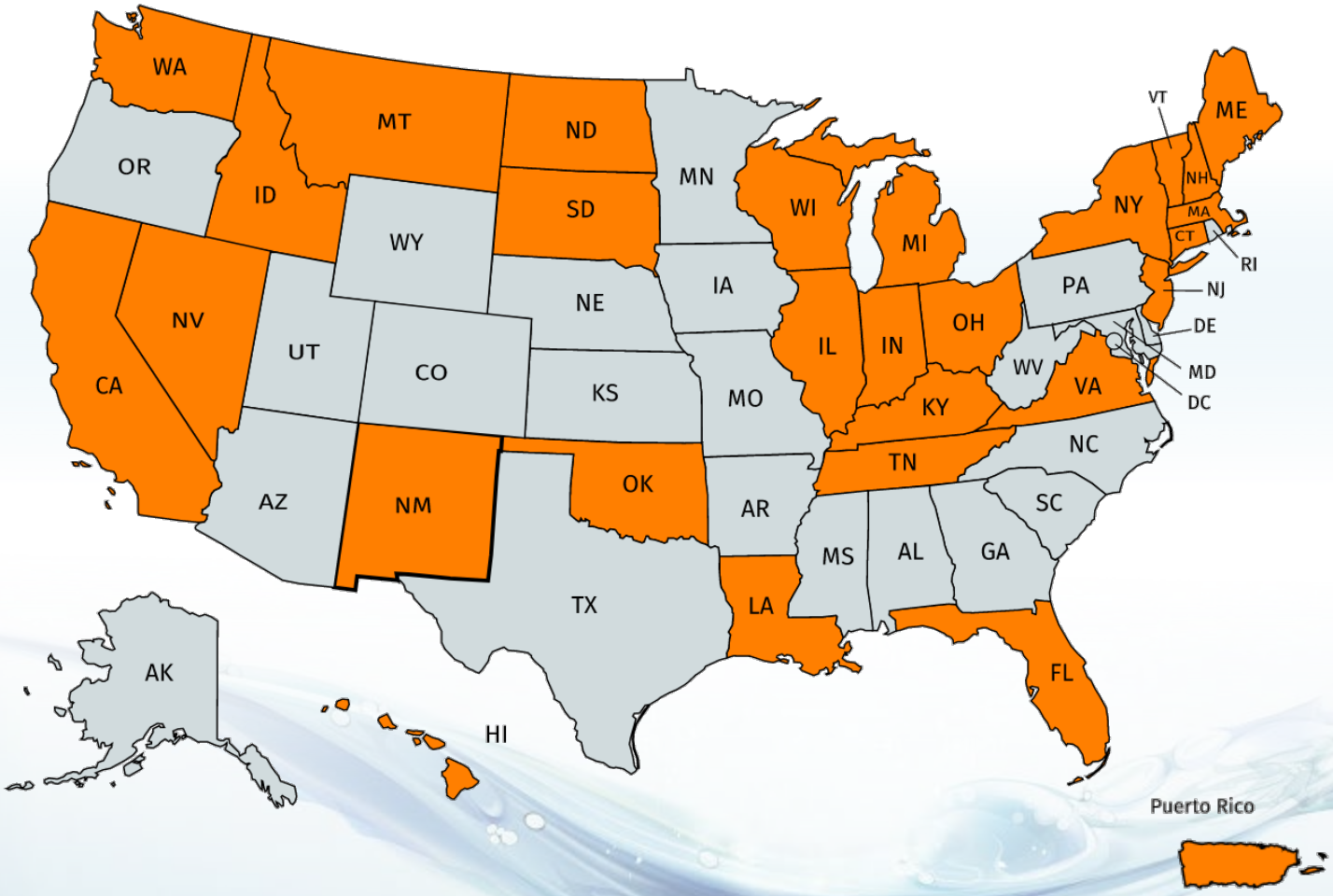
31 states, plus Puerto Rico and D.C., indicated that training for this skill would be **"Very" to "Extremely" beneficial**.

Skill 3: Industrial wastewater permitting



30 states, plus Puerto Rico, indicated that training for this skill would be **"Very" to "Extremely" beneficial**.

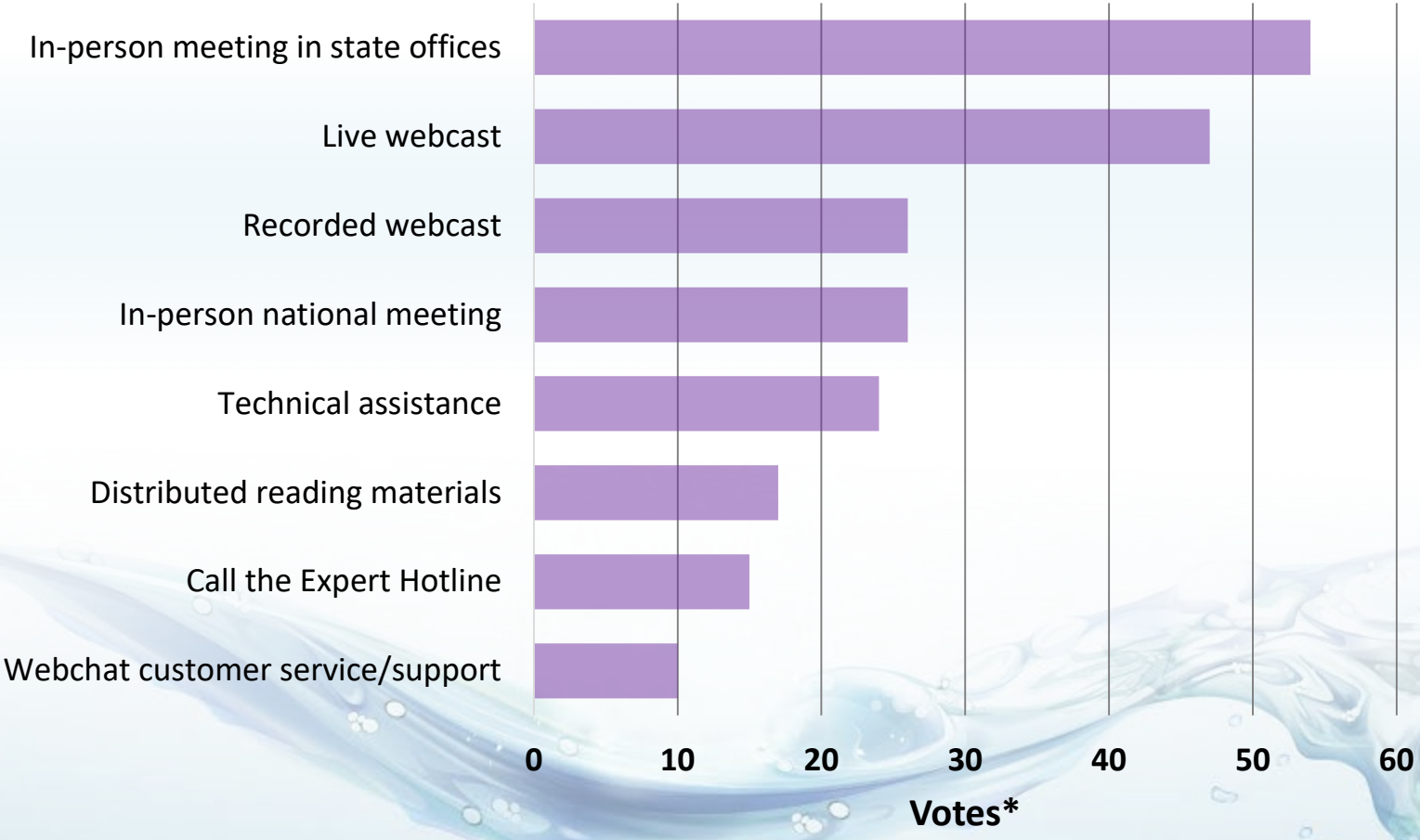
Skill 4: POTW permitting



27 states, plus Puerto Rico, indicated that training for this skill would be **"Very" to "Extremely" beneficial**.

Feedback from States

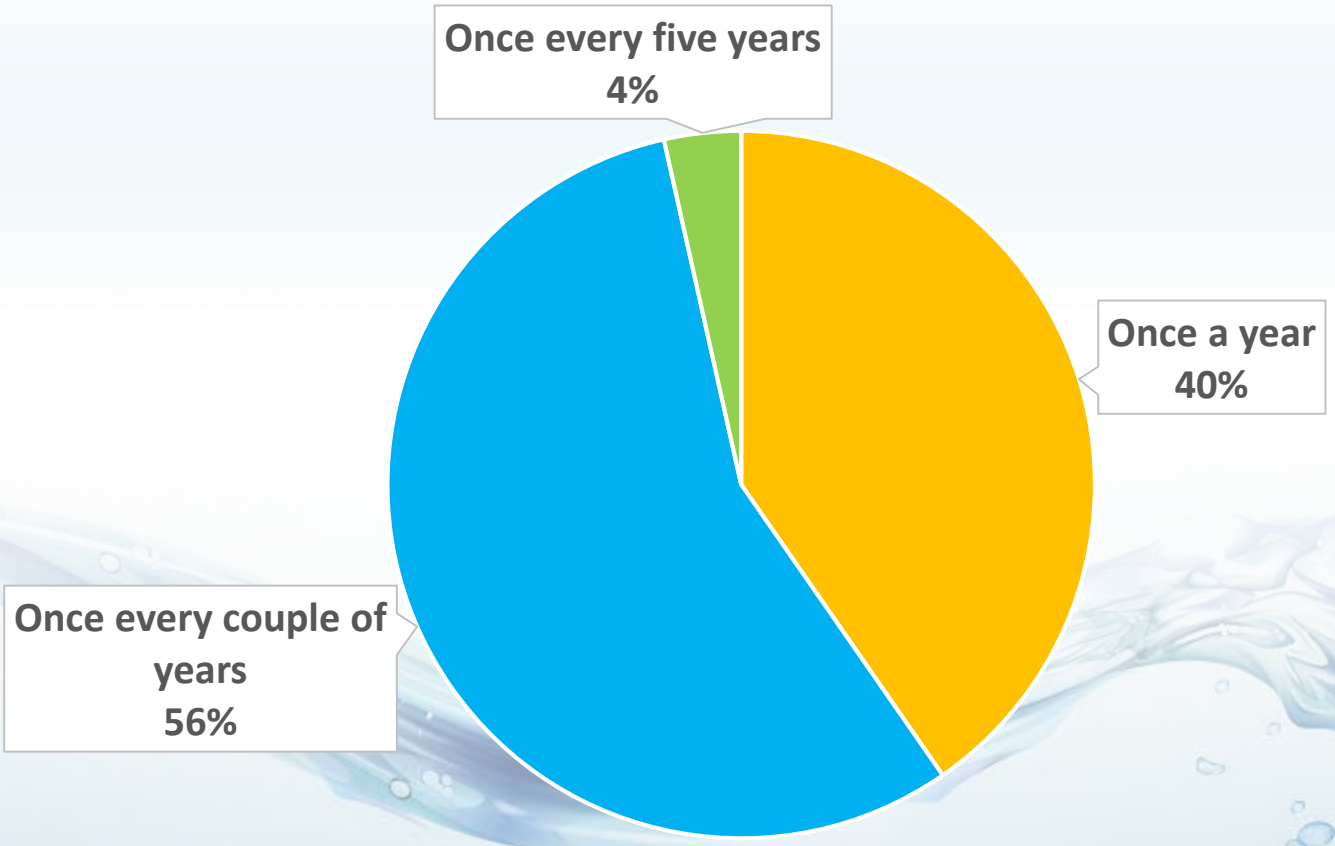
What are your preferred methods of training?



*State representatives were able to vote for more than one method

Feedback from States

How often do you think EPA should query states on their training needs?



NEIWPCC

Training Needs of the NPDES Program: a Region 1 Perspective

Ben Smith

Environmental Analyst

New England Interstate Water Pollution Control Commission

Who is NEIWPCC?

- Developed by an act of congress in 1947
- One of six interstate agencies
- NEIWPCC serves our member states individually and collectively by providing coordination, public education, research, training, and leadership in environmental management and protection.
- NEIWPCC has several workgroups that are organized around many environmental topics

NEIWPCC Workgroups

- Currently have 15 workgroups

Groundwater and Source Water Protection	Harmful Algal Blooms (HABs)
Long Island TMDL	MA Wastewater Training Advisory Committee
New England Biological Assessment of Wetlands	Nonpoint Source Pollution
NPDES	Nutrient Criteria
Onsite Wastewater	Stormwater
TMDLs (Pollution Budgets)	Underground Storage Tanks
Wastewater Residuals	Wetlands
Water Quality Standards	

- Meet regularly throughout the year
- Address emerging issues and challenges based on the various workgroup initiatives

NEIWPCC NPDES Workgroup

- Annual meeting brings together state environmental agency employees, EPA, and NEI staff.
- Additional meetings may be held on an as needed basis
- Last workgroup meeting was held May 10, 2017
- Topics of discussion included:
  - Site-specific aluminum criteria
  - Reasonable Potential Determinations
  - NPDES Update Rule

Recent Trainings: Most Critical Skills

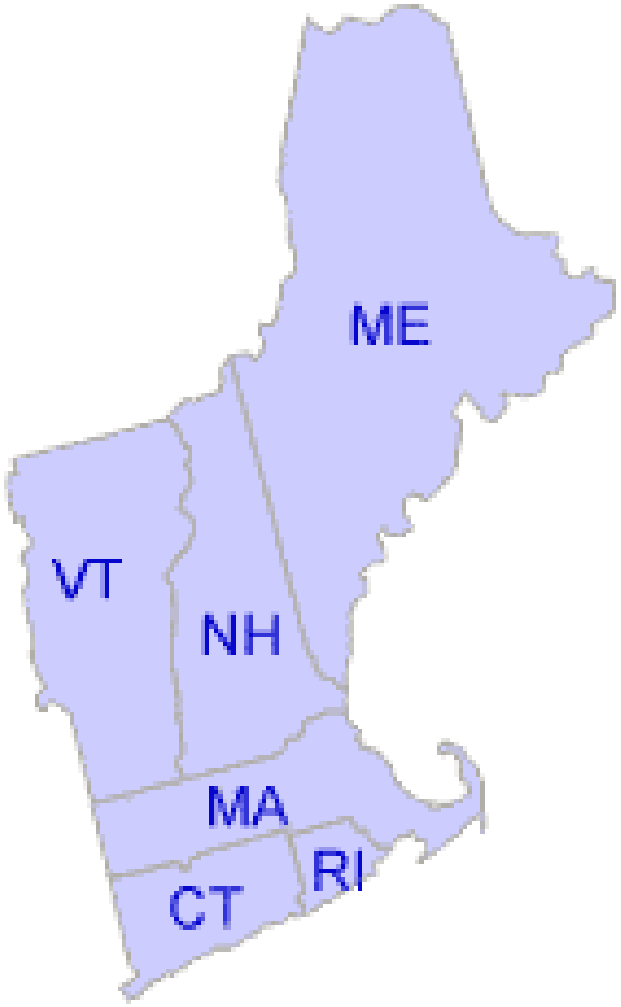
- Reviewing Dilution Studies and Granting Mixing Zones in NPDES Permits
  - September 6th & 7th, 2017
- 2-day training covering dilution studies (i.e. mixing zone studies) and appropriate NPDES permit requirements
  - Regulatory fundamentals of mixing zones
  - Implementation of dilution factors in NPDES permits
  - Discussed important model inputs as well as how to read model output files

Recent Trainings: Least Critical Skills

- NEIWPCC Variance Workshop
  - October 3rd, 2017
  - NPDES & WQS Workgroups
- Training highlighted variance basics, requirements, and practical implementation
- MassDEP provided a case study on the only variance in New England
- Consensus from the group was that variances would be difficult to implement in New England

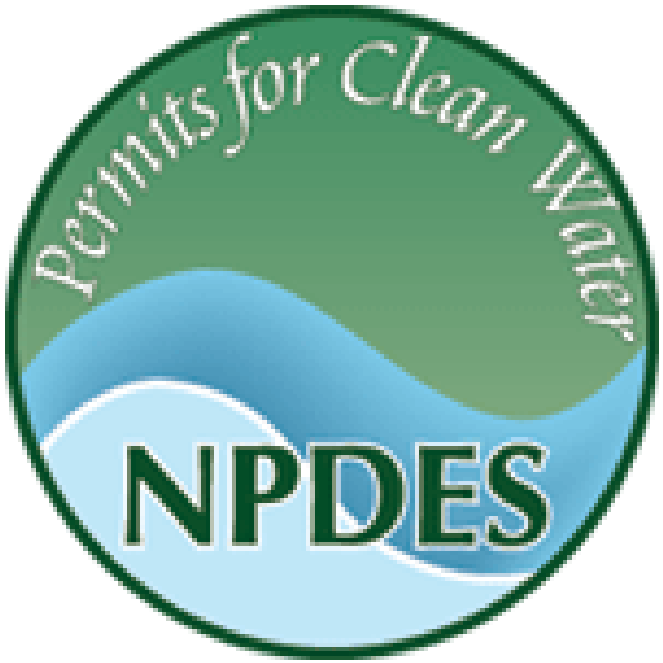
Training Needs in Region 1

- Consistent with the results of the national survey
- Development of water quality based effluent limits (WQBELs)
  - Training would be "very" to "extremely" beneficial
  - States feel capable of completing this skill yet additional training would help
- Overall permit development
- Communicate with states regularly to address the needs of the region



Future Plans

- NEIWPCC aims to hold the NPDES Permit Writers' Course in late Spring 2018
- Objectives
  - Provide basic regulatory framework & technical considerations that support the development of NPDES Permits.
- 5-day training for new to experienced permit writers
- Training will be put on in coordination with EPA and PG Environmental



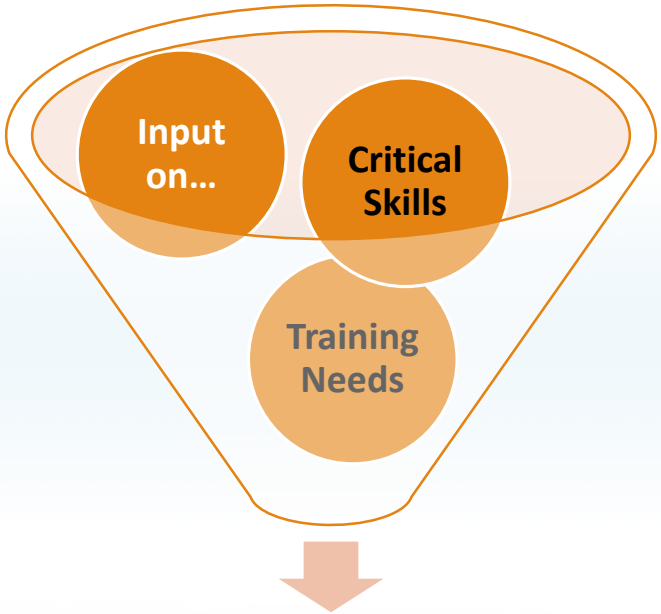
State Capacity Building

- Training is not the only means to improve state programs
- Regional communication is key to
  - Overcoming challenges
  - Fostering new ideas
  - Staying up-to-date with emerging issues in the field
- Regional workgroups offer an effective alternative to trainings
- Leveraging resources at a regional level allows for a cost effective benefit for multiple states

Is there any work similar to this being done in other regions?

What else would help improve your state's program?

"Most Critical" Training Needs
(average across all States)



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- **Executing the overall permit development process** (including understanding flexibilities within permitting)
- **Industrial wastewater permitting**
- **POTW permitting**
- **Developing TBELs** (including ELGs and BPJ analyses)
- **MS4 permitting**
- **Developing and reviewing RPAs for WQBELs**

For consideration…

How do we collaboratively build and maintain capacity over time?

How do we match up specific training needs with effective delivery methods?