

Safe Drinking Water Act Compliance with or without POU/POE Devices

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Introduction

- PWS are protected under the SDWA and regulated by the USEPA¹
- Primacy Agencies enforce regulations at the state-level
- In 2021 - 53,869 PWS² assessed & 38% determined out of compliance (n=20,326)
- Point-of-use (POU)/Point-of-entry (POE) devices offer last line of defense option
- Congress authorized the use of POU/POE by PWS³⁻⁵

Rules governing procurement, implementation, monitoring, and other aspects of using the POU/POE vary by State⁵

Objectives

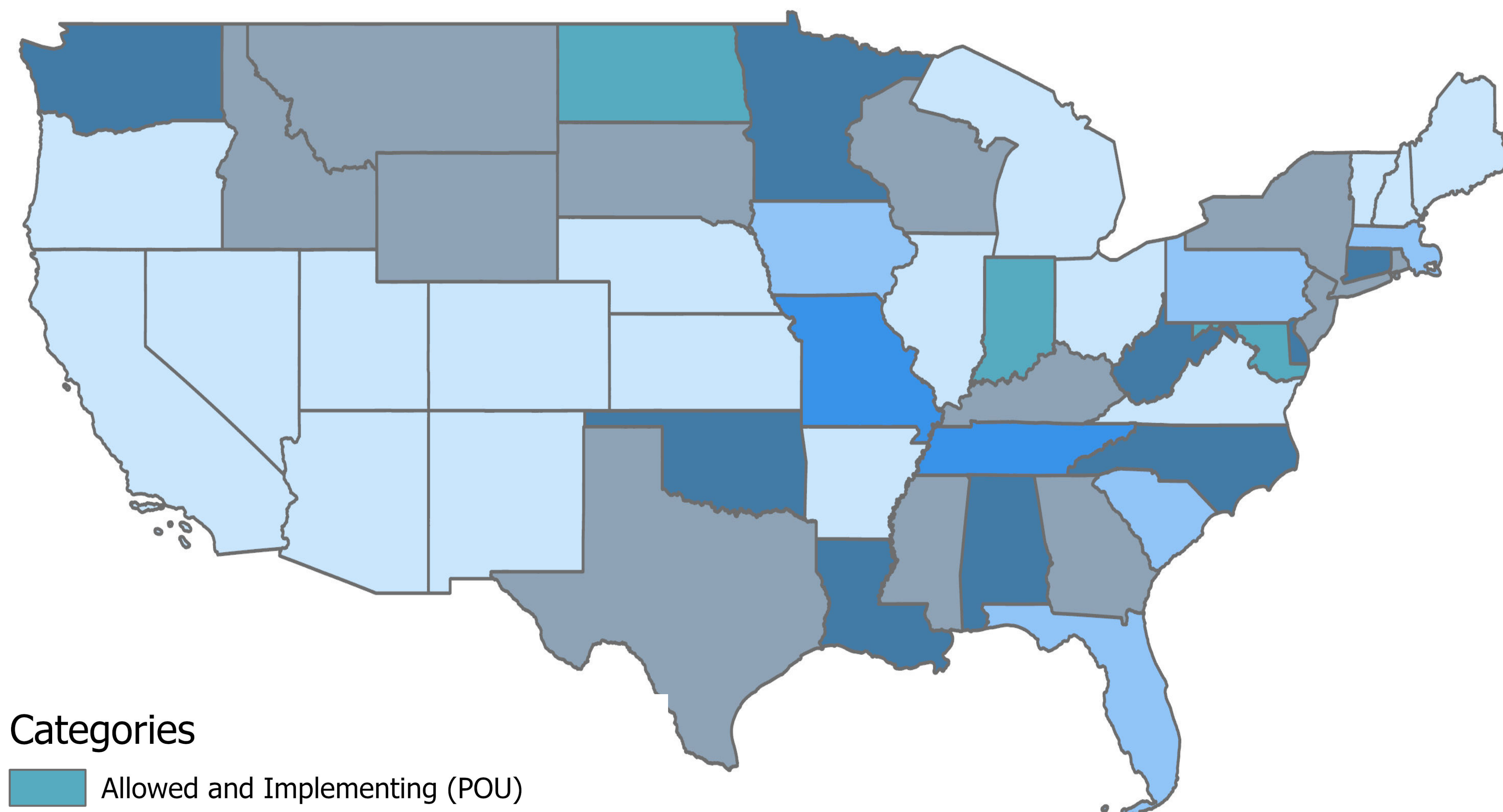
- **Phase 1:** Understand state level factors influencing POU/POE treatment
- **Phase 2:** Develop key PWS experiences report

Methods

- Phase 1: Survey state primacy agency employees governing drinking water and PWS
 - Using Qualtrics, phone, Zoom
 - Cleaned and coded into 3 categories
1. Allowed and Implementing
 2. Not Allowed and Not Implementing
 3. Allowed and Not Implementing
- Subcategories: sizes and system types eligible, rationale, buy-in, finances, infrastructure, barriers, and training

The inability of treatment plants to remove all contaminants *all of the time* requires the use of a secondary or final treatment barrier at the tap to minimize exposure risks.³⁻⁴

This study highlights the successes and challenges of state level factors when implementing POU and POE programs, which can be useful when determining solutions for water quality impairments.



Categories

- Allowed and Implementing (POU)
- Allowed and Implementing (POE)
- Allowed and Implementing (POU and POE)
- Allowed and not Implementing
- Not Allowed or Implementing
- No Response

Not pictured: Alaska (Allowed and implementing (POU and POE) and Hawaii (Not allowed or implementing)

Results

- 316 potential participants identified
- Responses gathered from 76% of states (n=38)

Allowed/Implementing

- 61% of states (n=23)
- 39% of devices met their objectives (n=15)
- 39% of states will consider POU/POE for future problems (n=15)
- Barriers: finding funding (n=4), guidance documents, manager resistance (n=3), and 3 states reported no barriers

Not Allowed/Not Implementing

- 26% states (n=10)
- Barriers: compliance (n=4) and device maintenance (n=9)

Allowed/Not Implementing

- 13% of states (n=5)
- Barriers: access to homes and maintenance (n=3)

Conclusion

Future studies should use this information to target specific systems with appropriate POU and POE devices coupled with a cost-benefit analysis demonstrating the strengths of specific devices for their system and water relative to disease outcomes or upgrading the centralized treatment plants.

References

