

# Case Studies of Safe Drinking Water Act Compliance

## Executive Summary

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### Objectives

The goal of this project was to understand how point-of-use (POU) and point-of-entry (POE) devices are being used by municipal water systems to reach or maintain compliance under the Safe Drinking Water Act (SDWA). Specifically, the research team from the University of Arizona, Georgia Southern University, and the Southern California Coastal Water Research Project sought to identify state-level factors (*i.e.*, policy, finances, outreach) surrounding the use of POU/POE for compliance.

### Methods

To achieve the project goals, the research team developed a survey for state primacy agency contacts in each of the fifty states to determine 1) rules defining the use of POU/POE and 2) experiences implementing POU/POE for SDWA compliance programs. The survey was designed to be conducted asynchronously online or synchronously via ZOOM/phone. Participants were identified utilizing online directories from state primacy agencies, personal networks, and professional referrals.

### Results

In total, responses were gathered from 38 of 50 states. POU or POE is authorized and implemented in 23 of these 38 states (61%). POU/POE is authorized but not implemented in five of the 38 states (13%). The use of POU/POE for SDWA compliance is not authorized in ten of the 38 states (26%).

Of the 23 states that allow and implement POU or POE for SDWA compliance, 16 allow both POU and POE devices. The primary reasons provided for allowing POU and POE at the state level were cost-effectiveness (n=16) and technical specifications of devices (n=14). When asked about the number of current, active POU or POE programs, 13 states indicated they have less than ten programs at the time of completing the survey (between February and October 2022).

The five states that allow but do not implement POU/POE commonly reported the major barriers to implementation were access to homes or devices in homes (n=3) and device maintenance (n=3). The respondents did not report any planned POU or POE programs.

The ten states that do not allow POU or POE for SDWA compliance were diverse in their reasoning. The primary barriers to allowing POU and POE were operations and maintenance (O&M) and reliability of the device use by the consumer to maintain compliance. One state previously allowed POU and POE but disallowed them due to staffing requirements associated with O&M and device use compliance.

## Conclusion

This study aims to highlight the successes and challenges when implementing POU and POE for SDWA compliance at the state level. Access, personnel, and operational cost and maintenance were the common themes limiting POU and POE uses. The states that do not authorize POU/POE devices and the states that did not complete the survey suggest lack of expertise and personnel are a major barrier to implementation. Future efforts should use this information to target specific systems with appropriate POU and POE devices (*e.g.*, longer lasting, lower costing 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.

