

Public Health and Public Confidence Issues in Point of Use/Point of Entry Treatment

Ron Bergman
Office of Ground Water and Drinking
Water
US EPA

Two SDWA Treatment Paths



Centralized Treatment



Point of Use

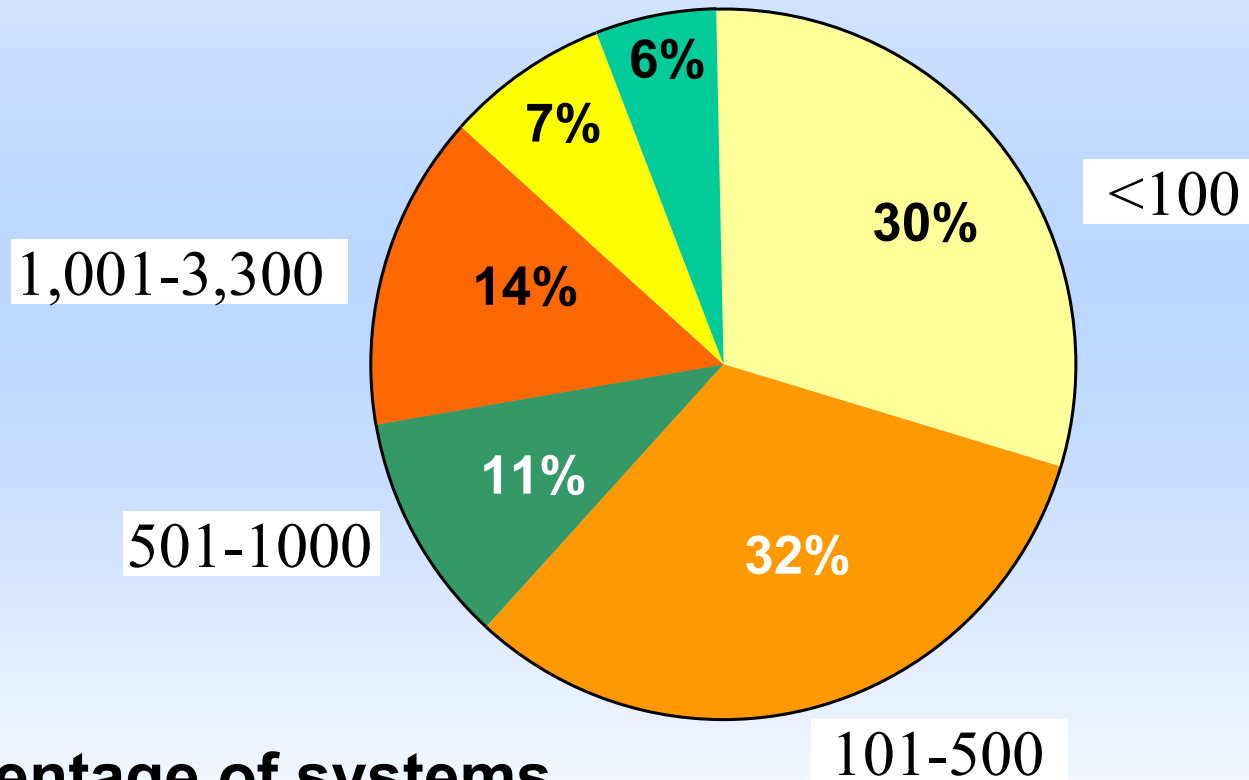
A Regulatory Strategy for POU: The Facts

- System compliance with public health standards is mandatory
- EPA must look for affordable technologies
- SDWA directs EPA to consider POU/POE technologies for small systems
- POU capital costs can be less than centralized treatment
- POU does not treat all water in home to public health standards
- All consumers must receive water that meets standards

Small System Compliance Challenges

- 21,000 community water systems serve < 200
- 12,000 Non Transient, Non Community Water Systems serve < 200
- Of the systems expected to need treatment for the arsenic rule:
 - 25% are NTNCWSs
 - 30% of the CWSs serve fewer than 100 persons
- Many are not primarily drinking water systems

Most of the CWSs Affected by the Arsenic Rule Are Very Small



Percentage of systems serving different size populations

POU approach will work only if consumers have confidence

- Consumers have ability to prevent POU strategy from working
 - Can use other taps
 - Can refuse to install
 - Can refuse maintenance
 - Can dismantle

POU and Consumer Confidence

- Advantages of POU
 - Consumers can see treatment
 - Often solves taste and odor issues
 - Consumers familiar with technology
- Disadvantages
 - Treatment facility in home
 - Risk communication

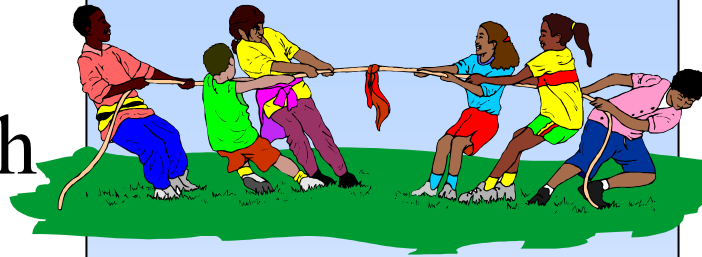
How do we give confidence?



Establish a program that is cost-effective, protective, and credible

Balancing Priorities in Regulatory Oversight

Universal
Public Health
Protection



Cost
Effectiveness

Implementation of POU Option for Public Health and Confidence

- Protection of public health through POU treatment will involve:
 - Rigorous maintenance program
 - Consumer participation and education
 - Monitoring strategy
 - Pilot testing

What is Cost-Effective?

- Minimum of one tap per home
- Monitoring at fewer than 100% of homes



What is Protective?

- SDWA Safeguards to Protect Public Health [1412(b)(4)(E)]
 - POU prohibited for microbial contaminants
 - Acute effects from drinking at unprotected tap
 - Units owned, maintained, and operated by PWS
 - Compliance rests with PWS, not homeowner
 - POUs must be equipped with mechanical warnings
 - Devices must be independently certified, if product standards exist

What is Credible?



- All consumers protected
- Monitoring strategy that gives confidence that all units are working
- Limited burden on consumer



Consumer Confidence

Public Health
Protection

