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Research
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WORKGROUP INSTRUCTIONS

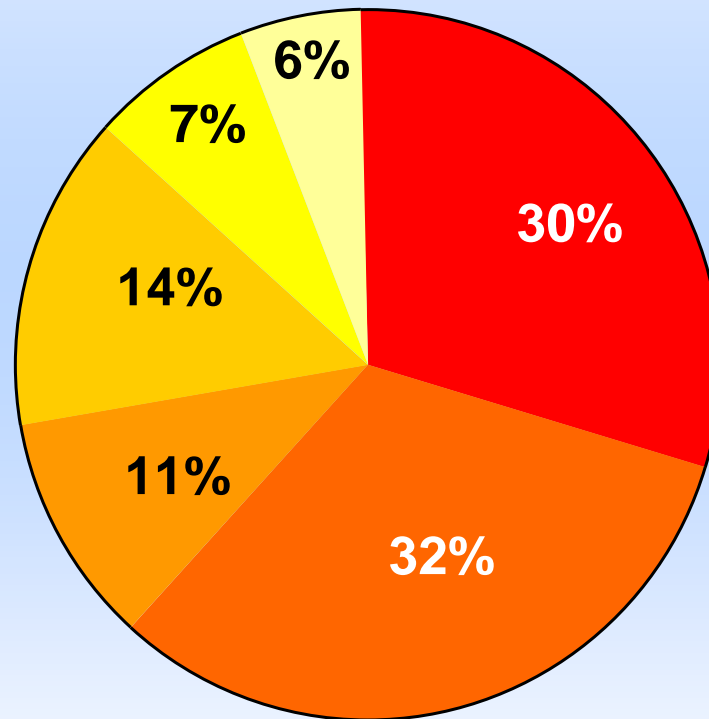
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Groups

- Small utilities
 - Little or no infrastructure
 - Minimal resources available
 - Medium/large utilities
- } Focus: meeting regulatory timeline
- Any size, longer term challenges

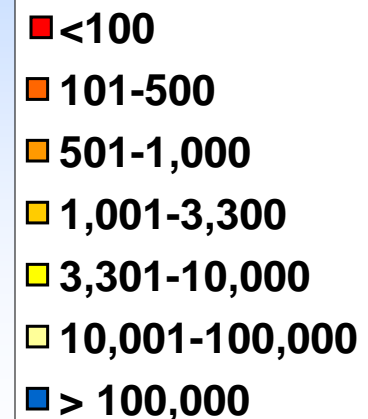
SCOPE

Most Of The ~3000 CWSs Affected by the Arsenic Rule Are Very Small

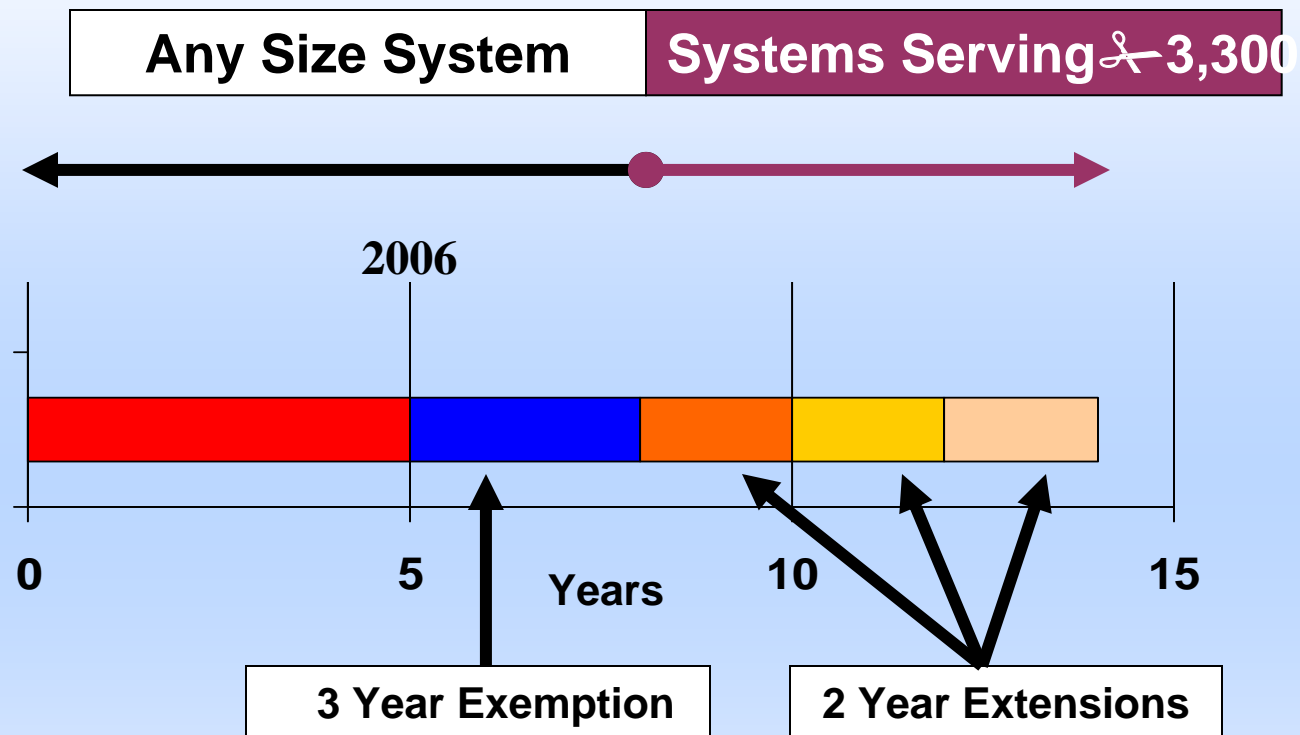


From: EPA,
Arsenic Rule
Training, Jan
29, 2003

**Percentage of systems
serving different size
populations**



Exemption Time Frames



From:
EPA,
Arsenic
Rule
Training,
Jan 29,
2003

- States can presumptively grant extensions up-front to simplify the process and to allow for realistic compliance schedules

Process

- Key Challenges/ Gaps
 - Focus on technologies
 - Other options (management, training, ...) can be discussed
- Appropriate technologies
- Gaps in technologies and opportunities for improvement

Outcome

- List key challenges, gaps
- Appropriate technologies and gaps
- Research opportunities

Schedule

- 1:15 – 4:00 Discussions
- 4:00 Reconvene Full Group
- 5:00 (5:30) Break
- 6:30 Dinner (meet in lobby)



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WORKGROUP INSTRUCTIONS

Day 2

Groups

- Group 1 – Improved sorptive media
 - Higher capacity, faster kinetics, lower cost
 - Innovative media (elements other than Fe, Al)
 - Co-contaminants
- Group 2 – Engineering/ operations/ automation
 - Process specific control, surrogates
 - Analytical methods
- Group 3 – Residuals
 - Non-treatment alternatives
 - In-situ

Approach

- Research goals – What's the question?
- Define/ scope – What answers do we need?
 - Short-term/long-term impact
- Strategy – How do we get there?

Scope

Looking for 4 projects per group

- Bench-scale – 7-8 projects per year (Ave. \$250K)
- Demo – 3 demonstration sites, per year
- Tech transfer (\$350 K year one, to increase in out years)