

# 2006 NARUC ANNUAL CONVENTION

Meeting of the Water Committee

November 13, 2006

## Potential Cost Impacts New Regulations Will Have on Small Water Companies

Remarks by David R. Monie, P.E.  
President, G.P.M. Associates Inc.

# Small Vs. Troubled Systems

- Existing Troubled System will Still be Troubled with New Treatment Required

# Small Vs. Troubled Systems

- Existing Troubled System will Still be Troubled with New Treatment Required
- Not All Small Systems Are Troubled

# Small Vs. Troubled Systems

- Existing Troubled System will Still be Troubled with New Treatment Required
- Not All Small Systems Are Troubled
- Small Systems Can Provide Technology to Meet New Treatment Requirements

# Small Vs. Troubled Systems

- Existing Troubled System will Still be Troubled with New Treatment Required
- Not All Small Systems Are Troubled
- Small Systems Can Provide Technology to Meet New Treatment Requirements
- New Treatment Generally Just as Simple as Previous Treatment Requirements

# Technology Options for Small Systems

- Treatment Technology Constantly Improves for Small Systems
  - Provide a Market and Someone Will Provide the Equipment at an Affordable Cost – The Capitalist System

# Technology Options for Small Systems

- Treatment Technology Constantly Improves for Small Systems
  - Provide a Market and Someone Will Provide the Equipment at an Affordable Cost – The Capitalist System
- Small Commercial Packages

# Technology Options for Small Systems

- Treatment Technology Constantly Improves for Small Systems
  - Provide a Market and Someone Will Provide the Equipment at an Affordable Cost – The Capitalist System
- Small Commercial Packages
- Household Treatment Technology
  - Use Several Small Units
  - Possible Point of Use Applications

# Typical Small System Treatment Requirements

- Usually Ground Water Systems
- Iron Removal
- VOC Removal
- Radium Removal
- Arsenic Removal
- Disinfection
- Corrosion Control

# Example 1 – Arsenic No Iron

- Southwest – Adsorption Media Technology
  - Golden State Water Co. Hypothetical –
    - 150 Units Arsenic Removal Required
    - 2 100 GPM Wells
    - Capital Costs – \$366,000
    - Cost per 1,000 Gal. – \$2.04
    - Cost per Year - \$360

# Example 2 – Arsenic With Existing Iron

- MTAC Research March, 2006 Report
  - Most Mid-West Systems with Arsenic Also Have Iron Being Removed
  - Iron Oxidation and Filtration Plants Remove Some Arsenic
  - Adding Arsenic Oxidation Enhancing Chemicals (e.g. Hydrogen Peroxide) Greatly Improves Arsenic Removal
  - Total Additional Cost for Arsenic Removal in Plants MTAC Piloted were <\$0.50 per KGal.

# Conclusions for Small Systems

- Poorly Run Troubled Systems Need Separate Solution

# Conclusions for Small Systems

- Poorly Run Troubled Systems Need Separate Solution
- Costs of Treatment Technology for Well Run Small Systems should not be prohibitive in most instances

# Conclusions for Small Systems

- Poorly Run Troubled Systems Need Separate Solution
- Costs of Treatment Technology for Well Run Small Systems should not be prohibitive in most instances
- SRF Loan Funding, and other Cost Cutting Measures, Can Help Keep Rates at Reasonable Levels