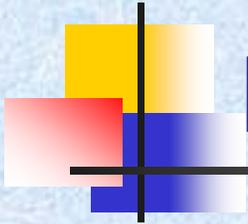


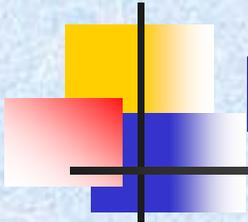
Arsenic Rule

State of New Mexico
Implementation Strategy



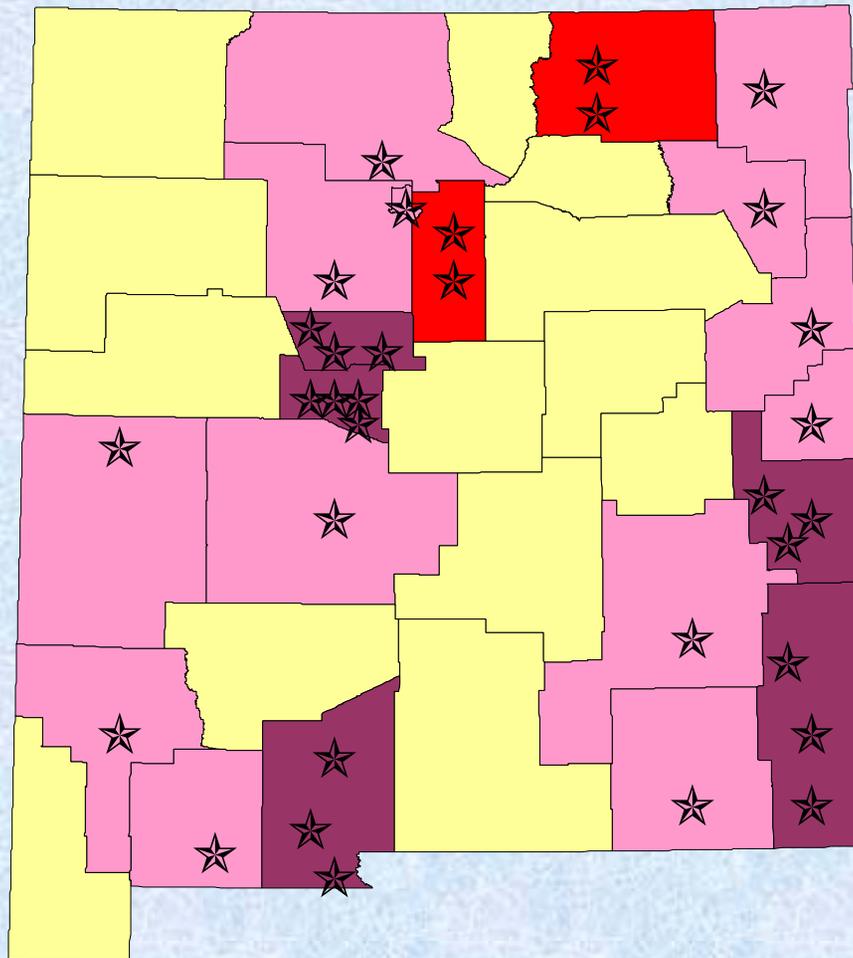
Regulatory Background

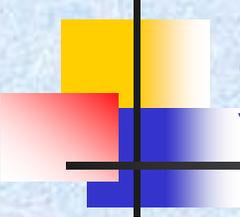
- Arsenic one of the original contaminants regulated as part of the 1974 Safe Drinking Water Act @ 50 parts per billion (ppb).
- New Arsenic Rule Promulgated in January 2001.
- Standard Implementation Date is January 23, 2006.
- The new Arsenic Rule lowers the Arsenic MCL from 50 ppb to 10 ppb.



Distribution of Affected Systems

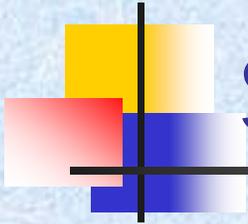
Locations of
NM Municipalities
with
Arsenic ≥ 10 ppb





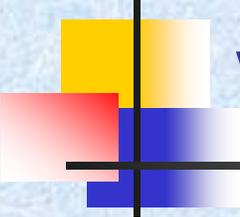
System Compliance Issues

- To avoid receiving a violation of the NMDWR, Public Water Systems must either:
 - Comply with the 10 ppb arsenic standard by the 2005–2007 compliance period or;
 - Apply for and receive either a variance or exemption from the Arsenic Rule.



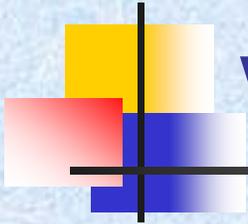
System Compliance Strategies

- Blend existing high arsenic waters with low arsenic waters before providing water to the public.
- Develop/Obtain a new water source with low arsenic.
- Install treatment on existing water sources to lower arsenic levels.



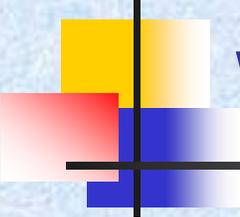
Variances and Exemptions

- A Primacy State can Issue Variances or Exemptions to Public Water Systems
- A Variance or Exemption requires:
 - Substantial Documentation of Need
 - Public Hearing
- Only Provides Extension of Time.
- Must be Completed Prior to Implementation Date.
- Any Variance or Exemption can be Reviewed and Overturned by EPA.



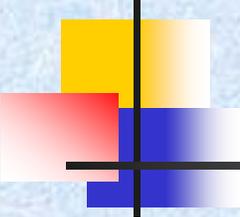
Variance/Exemption Submittals

- General V/E Submittal Requirements
 - Documentation of Inability to Comply by Mandated Implementation Date
 - Proposed Strategy for Compliance
 - Supporting Documentation
 - Proposed Timeframe for Compliance
 - Supporting Documentation



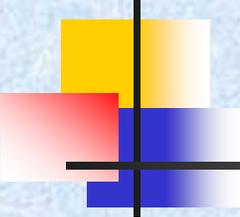
What is an Exemption?

- An Exemption allows a public water system additional time to comply with the national primary drinking water standard. A system must have compelling circumstances, such as financial hardship, to qualify for an exemption. Timeframe limited to 3 years for most systems.



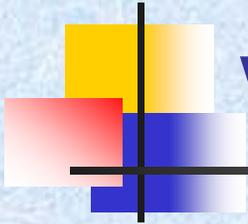
Example of an Exemption

- The Albuquerque Water System is planning to install a Surface Water Treatment Plant to comply with the standard, but construction will not be complete until May of 2008. If approved, Albuquerque can comply with existing standard (50 ppb) until May of 2008.



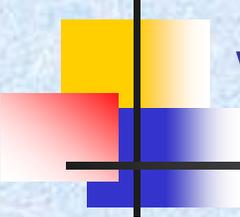
Requirements of an Exemption

- The system must be in operation at time standard goes into effect.
- Must show that management or restructuring changes cannot reasonably be made to achieve compliance.
- Must show that compelling factors (economic, other) prevent the water system from developing a new water source or complying with the MCL by implementation date.
- Must show that the extension requested will not pose unreasonable risk to health.



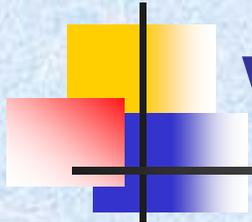
Variance/Exemption Submittals

- Exemption Submittal Requirements
 - Documentation of “Compelling Factors”
 - Financial Hardship
 - Project Timeframes
 - Funding
 - Design
 - Construction
 - Other (Water Rights Acquisition)



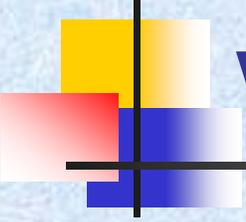
Variance/Exemption Submittals

- Exemption Submittal Requirements
 - Current Financial & Management Structure
 - Current Water Rates
 - Current Median Household Income
 - Certified Operator Documentation
 - Funding Considerations
 - Available internal funding (existing/future)
 - Available external funding (existing/future)
 - Feasibility of rate increases



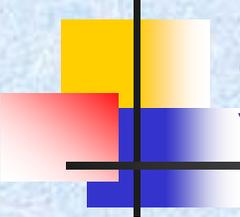
Variance/Exemption Submittals

- Exemption Submittal Requirements
- Document Availability of Alternative Source of Water
 - New Water Source
 - Modified or Re-structured Water Source
 - Consolidation with Another System



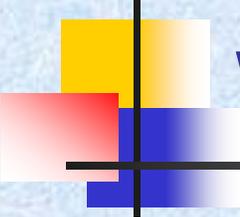
Variance/Exemption Submittals

- Exemption Submittal Requirements
 - Documentation of Risk to Human Health
 - During Time until compliance with 10 ppb is achieved.
 - Basic Health Risk Formula
 - Epidemiology Studies or Other Information
 - May include alternate water supplies or other strategies



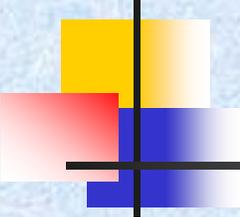
Strategy Development Issues

- Risk to Human Health Strategy \leq 3 Years
 - Based Upon EPA Cumulative Dosage Formula.
 - At 50 ppb from 2001 – 5 and 10 ppb from 2006 – 8, a person would be exposed to 280 ppb-years.
 - Evaluate system to see if existing arsenic level would result in a dosage $<$ 280 ppb-years I.e., At 35 ppb from 2001 – 2008, dosage = 280.
- Risk to Human Health Strategy $>$ 3 Years
 - Based Upon EPA Cumulative Dosage Formula.
 - Based Upon Other Information/Concepts:
 - NMDOH Epidemiology Studies



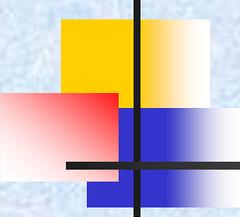
What is a Variance?

- A Variance allows a public water system to comply with an alternate drinking water standard. Variances are granted to systems which have installed a Best Available Technology, but, due to source water quality, will still be unable to comply with the national primary drinking water standard. Compliance timeframe is variable.



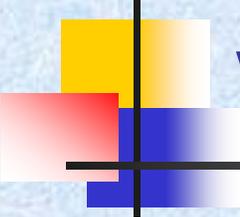
Example of a Variance

- A system may install Reverse Osmosis, but due to source water quality issues, can only treat the water to 15 ppb. If approved, a variance would be granted to allow the system to use 15 ppb as the MCL instead of 10 ppb.



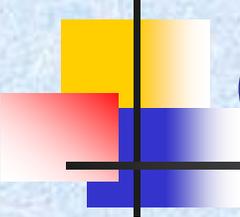
Requirements of a Variance

- Must show that an alternate water source is not reasonably available.
- Must install an EPA approved Best Available Technology (BAT).
- System must demonstrate inability to achieve compliance with MCL using the BAT.
 - Engineering Assessments
 - Pilot Plant Studies
- Must show that alternate MCL does not pose an unreasonable risk to health.



Variance/Exemption Submittals

- Variance Submittal Requirements
 - Documentation of Installation of BAT
 - Document Limitations or Restrictions for use of BAT
 - Identify why this is the most effective available choice
 - Documentation of Effectiveness of BAT
 - Identify Best MCL Standard Achievable
 - Supporting Engineering Assessments and Pilot Studies



Critical Dates

- September 1, 2004 Earliest date that a PWS can submit a request for an exemption or variance.
- November 1, 2004 Date by which a PWS needs to document attempts to obtain funding for compliance with the new arsenic standard.
- July 1, 2005 Date by which a PWS needs to submit an exemption or variance request to the Department to guarantee a complete review by January 23, 2006.
- January 23, 2006 Date by which a PWS needs to have an approved exemption or variance if requesting one.