

# **July 2008 – POTW Perspective on Water Quality Issues**



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# CO Water Quality Control Act

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§ 25-8-101(5) states that ...the general assembly intends that this article shall be construed to require the development of a water quality program [where] consideration is given to the economic reasonableness of final [Commission/Division] action. Such consideration shall include evaluation of the benefits derived from achieving the goals of this article and the economic, environmental, public health, and energy impacts to the public and affected persons.

# CO WQCA, continued

- § 25-8-503(8) states: Where a permit requires treatment to levels necessary to protect water quality standards and beyond levels required by technology-based effluent limitation requirements, the division must determine whether or not any or all of the water-quality-standard-based effluent limitations are reasonably related to the economic, environmental, public health, and energy impact to the public and affected persons...

# Economic Impacts

- Funding Issues
  - State Revolving Fund shortfall (see handout)
  - It is difficult for smaller communities to address capital improvements and O&M needs
  - Rates will increase at double-digit levels for the foreseeable future to implement current water quality standards, making this a political as well as a policy issue
  - Permit fees/biosolids & pretreatment delegation

# Environmental Impacts

- POTW community generally apprehensive of expanded use of antidegradation-based permit limits, e.g., through changes in low flow – real environmental benefits?
- Nutrient removal
- More advanced treatment (nitrification/denitrification, BNR, R.O., etc.) all have significant environmental impacts, e.g., air quality, carbon footprint, solids waste streams

# Public Health Impacts

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- If water quality standards are determined by “science” and CDPS permits merely “implement” the standards – where does the discussion of making sense from a public policy perspective take place?
  - Nonylphenol
- Expected SSO enforcement actions for “medium-sized” facilities

# Energy (& Resource) Impacts

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- Escalating energy costs make it much more expensive to construct and operate advanced treatment technologies
- Increasing fuel costs are affecting all operational aspects at POTWs, especially related to land application of biosolids
- Costs and availability of construction materials and operational chemicals have risen dramatically

# Conclusion

- Need consensus on what priority water quality needs are around the State – with stakeholder involvement – and address those first
- Better utilize WQCD staff, in coordination with stakeholders, to solve real water quality problems
- Need better integration of WQCD Standards and Permitting functions
- Realize that POTW infrastructure must be sustainable over time – permits should consider current investments in treatment processes (as well as incremental water quality improvements) before requiring changes
- Water quality improvements through POTW infrastructure are not “zero sum,” i.e., there may be unintended environmental (& other) consequences

# Recommendations

- Develop more “holistic” connection between standards and permitting functions
  - No enforceable standards until all “pieces” are in place for permits (nonylphenol example)
  - Need a more formalized and quantitative approach for regulatory analyses, e.g., Commission could set “go/no-go” threshold for standards adoption to balance incremental environmental benefits with additional treatment capital and O&M costs