

# Drinking Water Nutrient Impact

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# Utah Drinking Water

**Majority of systems use ground water**

- Well water serves majority of State area

**Wasatch Front, 75% of state's population**

- Largest surface water systems
- High watershed reservoirs
- Protected source waters
- Long history of watershed protection
- State rules protect Class A waterways



# Future of Water

- Growing population
- Increased demand
- Regulations increase
- Treatment needs become more elaborate
- Water availability tightens
- Reuse becomes a reality
- Costs increase



# Nutrients

- Currently surface water usage is not impeded by excess nutrients
- Regulatory climate needs to remain strict on discharges to drinking water source water
- Potential for impacts are real and severe



# Nutrient Impacts

Drinking Water Storage Reservoirs impacted by excess nutrients cause severe treatment challenges that the WTPs rarely get ahead of , leading to a cascade of technical problems.

- Nutrient loads and resulting algal blooms are sporadic and seldom proactively monitored .



# Non-Regulatory Impacts

- Clogging intakes
- Filter clogging
- Taste and odor
- Oxygen depletion
- pH fluctuations



# Regulatory Impacts

- Disinfection Byproduct production increase
- Potential impacts of Cyanobacteria toxins



# WTP Impacts

- Add new equipment
- Change processes
- Treat reservoirs
- Treat to address compounds released from reservoir treatments

All options mean higher costs, and potentially lower water quality.



# SO.....Let's not go there!

- Maintain and support the current regulations that protect our drinking water supplies.
- Monitor and regulate nutrient loading in areas that may be future water sources.
- Apply different regulations to recreational waters than to protected raw water sources.