

# Wyoming Nutrient Work Group

## March 11, 2014 Meeting Summary

**Attendees:** Adrienne Nunn (City of Torrington), Nephi Cole (WY Governor's Office), Bobbi Frank (WACD), John Robitaille (Petroleum Assoc. of WY), Cheryl Miller (USGS), Melanie Clark (USGS), Mark Pepper (WARWS), Bruce Martin (City of Casper), Doug Rideout (City of Sheridan), Mike Verley (City of Sheridan), Rick Huber (WGFD), Keith Guille (WDEQ), Mark Willis (WBC), Scott Zimmerman (Rocky Mtn. Farmers Union), Jean Stramel (NRCS, WACD), Jason Crowder (OSLI), David Waterstreet (WDEQ), Lindsay Patterson (WDEQ), Eric Hargett (WDEQ), Seth Tourney (WDEQ), Marcia Porter (WDEQ), Jennifer Zygmunt (WDEQ), Cathy Norris (WDEQ), Bill DiRienzo (WDEQ).

**Introduction** (David Waterstreet)

### **Presentations:**

Nutrient Pollution: Background, Litigation, Nutrient Reduction Strategy (Lindsay Patterson)

- Background on Nutrient Pollution – Nutrients and Aquatic Ecosystems, Nutrients and Designated Uses
- History and Litigation – Nutrient Pollution History, Nutrient Criteria Development Plan, National Status of Nutrient Criteria, Nutrient Litigation, Nutrient Pollution History, 2011 EPA Framework Memo
- Nutrient Reduction Strategy – EPA's Recommended Elements, What is EPA Asking Us to Do?
- State Performance Measures – FY14 PPA Commitments
- Stakeholder Group – Nutrient Work Group

Development of Nutrient Criteria for Wyoming Streams and Lakes (Eric Hargett)

- Adverse impacts of nutrient pollution – phosphorus, nitrogen, nitrates, ammonia
- Approaches for developing nutrient criteria – Distributional / Reference, Stressor-Response (effects based), Scientific literature, Models, Dose-response experiments
- Advantages / Disadvantages of Approaches
- Multiple lines of evidence
- Wyoming data
- Current efforts – WDEQ Nutrient data collection, Wyoming Basin Lakes & Reservoirs Nutrient Monitoring
- Beyond the number...

Nutrients and Wastewater Facilities (Lindsay Patterson, Seth Tourney)

- Background on Nutrients Treatment Technologies – Nutrient Criteria and Treatment, Nutrient Pollution and Treatment, Variances
- Region 8 State's Approaches
- Montana
- Colorado
- Utah
- Treatment Technologies
- Work Group Input for Wyoming

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