

## **Natural Resources Interim Committee**

**Treasure Valley Aquifer Working Group  
Majority Caucus Room, Capitol - Boise, Idaho  
August 24, 2004 - 9:30 am**

### **Committee Members in attendance:**

Representative Mike Moyle, Chairman  
Senator Brad Little  
Representative Darrell Bolz

### **Committee Members absent:**

Senator John Andreason  
Representative Lawrence Denney

### **Others in attendance:**

See attached attendance sheet.

The meeting was called to order by Chairman Representative Moyle at 9:30 am.

Barry Burnell, Water Quality Administrator, Department of Environmental Quality, presented information on water quality in the Treasure Valley.

Ground water quality was discussed in relation to four factors:

- 1) Bacteria
  - Total & Fecal Coliform
  - E. Coli
- 2) Nitrate Nitrogen (NO<sub>3</sub>-N)
- 3) Arsenic
- 4) Managed Recharge

95% of the drinking water in Idaho comes from ground water sources.

Coliform is the indicator test for well testing. Wells are not generally tested for Protozoans or Viruses.

Surface water quality varies by months due to the amount of water in the system.

Major threats to water quality:

- Bacteria - E. Coli, Shigella sp
- Pathogenic protozoa - Giardia, Cryptosporidium
- Enteroviruses - Polyvirrus, hepatitis A, Cocksackievirus A & B, Rotovirus, Norwalk

Water quality standards include the following: Nutrients, Sediment, Dissolved Oxygen, Temperature, Turbidity, Fecal Coliforms

The state has listed nitrate priority areas.

Ground water management plans have been completed in Weiser, Twin Falls, & Burley.

Canyon County & Rupert areas are currently underway. The top 10 in the state are scheduled to be completed in 2005.

Arsenic water quality standard:

Drinking water = 10 ug/l

Ground water = 50 ug/l

Arsenic is both natural and man made.

Public water systems have until 2006 to meet the standards.

Managed recharge - main concern is pathogens (E. Coli, Protozoans, & Viruses)

Michael McIntyre, Surface Water Programs Manager, Department of Environmental Quality, presented information on TMDLs in the Treasure Valley.

Mr. McIntyre said that a Subbasin Assessment is also called a Problem Assessment.

Subbasin Assessment - An assessment of water quality conditions as it pertains to the 303(d) listed pollutants of concern

- Watershed Characterization
- Water Quality Concerns
- Beneficial Use Status / Action Recommendations (Allocations)
- Pollution Source Inventory
- Cursory Implementation Measures

TMDL - A calculation of the maximum amount of a pollutant a water body can receive from all contributing point and non-point sources and still meet state water quality standards.

- considers background conditions
- includes a margin of safety to account for uncertainty

Lower Boise River TMDL (Sediment):

Approved January 2000

Applies from Star to the Snake River

37% reductions necessary from all tributaries to meet TMDL requirements

No additional reductions required from point sources

Lower Boise River TMDL (Bacteria):

Approved January 2000

Applies from Glenwood Bridge to Snake River

Tributaries must meet bacteria criteria where they enter the river (92-99% reductions)

No additional reductions from point sources

Lower Boise River TMDL (Nutrient):

Has not been developed

Lower Boise River TMDL component of SR-HC TMDL:

Submitted to EPS in July 2003 and revised in July 2004 (approval is pending)

Tributary Subbasin Assessments:

SBA's developed in 2001

UAAs have not been approved by EPA

If not approved, TMDLs for the tributaries will be necessary

Stormwater:

1987 Clean Water Act amendments required stormwater permitting in a phased approach.

Phase I covered large MSAs like Boise

Phase II covers all sources of stormwater

Robin Finch, Water Quality Manager, City of Boise, discussed Waste Water Treatment and Boise River Water Quality.

Irrigation water return to the Boise River has a temperature equal to or less than that of the Boise River water temperature.

USBR Boise River Project:

350,000 acres under agricultural irrigation

1/3 of state's population

becoming urbanized rapidly

92-96% reduction of bacteria is unattainable - most is not human

City of Boise Waste Water Treatment

Discharges 26 million gallons per day.

Solids are applied on lands at farm site south of Boise (3950 acres)

Direct service to 42,435 customers

4,322 customers are outside of city limits

Kenneth Neely, Technical Hydrologist, Idaho Department of Water Resources, presented information on Statewide Ground Water Monitoring Program - Results for the Treasure Valley.

Idaho Department of Water Resources Statewide Water Quality Program Objectives:

- 1) Determine ground water quality in the state's major aquifers.
- 2) Detect changes and trends in ground water quality.
- 3) Identify areas where ground water quality problems exist or may be emerging.

There are 1,600 monitoring sites throughout the state of Idaho.

400 sites are monitored each year

Each site is sampled every five years

1991-1994 - first round of data

1995-1998 - second round of data

1999-2003 - third round of data

The Treasure Valley has 330 sites (one area)

There are 19 other areas in the state.

3 major aquifer systems in Treasure Valley:

1) Idavada Group (geothermal group)

2) Idaho Group

3) Snake River Group

Ground water quality concerns in the Treasure Valley:

Nitrate, Arsenic, Uranium, Bacteria, Volatile organic compounds, & Pesticides

Twenty-two of the 172 Snake River Group wells had over the 10 mg/L level of nitrate.

Arsenic concentrations greater than the 10 mg/L occurred throughout the Treasure Valley

Respectfully submitted,

Representative Darrell Bolz  
Acting Secretary