



Utah Division of Water Quality

Recommendations for Changes to the Standards for Quality for
Waters of the State

Triennial Review – 2008

[Excluding GSL Se Criteria]

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Water Quality Standards

The Foundation of Protection

- **Beneficial Use**
 - 3A Cold Water Fishery
- **Numeric Criteria**
 - 4.6 ug/l Selenium Chronic
- **Narrative Criteria**
 - “become offensive”
 - “undesirable physiological responses”
- **Antidegradation Policy**
 - Maintaining assimilative capacity

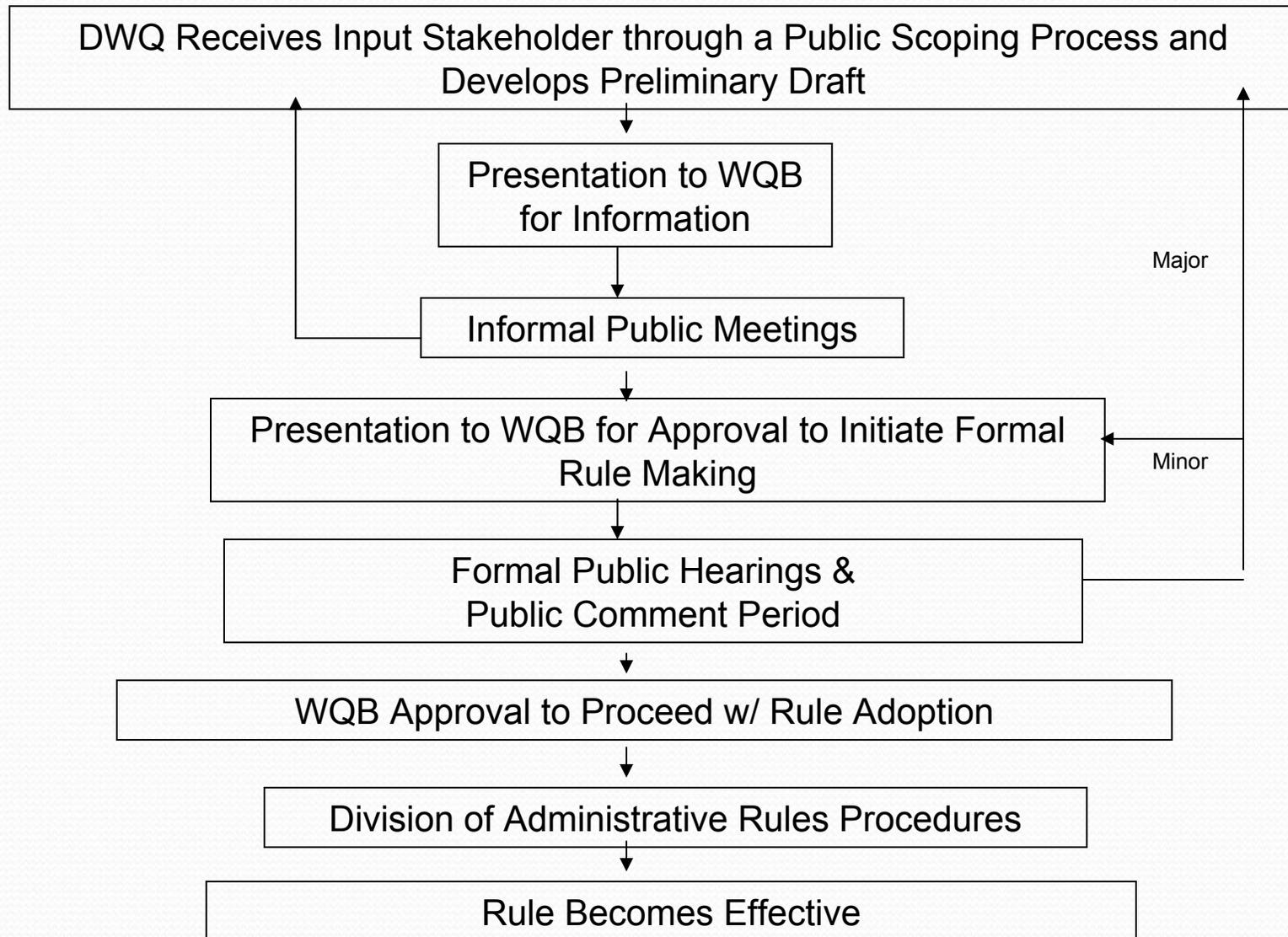


Codify the Triennial Review Rule Making Language (p. 1)

- **Putting the procedure into rule.**
- **The water quality standards shall be reviewed and updated at least once every three years.**
- **The Executive Secretary shall seek input through a cooperative process from stakeholders representing state and federal agencies and various interest groups and develop a preliminary draft of changes.**
 - **Water Quality Standards Workgroup**

[More]

Putting the Triennial Review Process into Rule



Rule Making Language, cont'd

- **Proposed changes shall be solicited from EPA, DWQ Staff, and the public.**
-
- **Informal public meetings may be held to present preliminary proposed changes to the public for comments and suggestions.**

[More]

Rule Making Language, cont'd

- **Final proposed changes shall be presented to the Water Quality Board for their approval and authorization to initiate the formal rule-making.**
- **Public hearings will be held to solicit formal comments from the public.**

[More]

Rule Making Language, cont'd

- **The Executive Secretary shall incorporate appropriate changes and return to the Water Quality Board to petition for formal adoption of the proposed changes following the Division of Administrative Rules rule making procedures.**

[More]

Antidegradation (p. 2-3)

- **3.2 High Quality Waters – Category 1**
 - **No UPDES permits granted**
 - Forests
 - Designated Segments
- **3.3 High Quality Waters – Category 2**
 - **UPDES permitted but limits set at background**
 - Electric Lake: Mine discharge
- **3.4 Category 3**
 - For all other waters of the state, **UPDES permitted and degradation may occur** pursuant to the conditions and review procedures outlined below in Section 3.5.

Antidegradation, cont'd (p. 3)

- **Section 3.5**
 - **Combines antidegradation review into an introductory statement on **Level I and Level II reviews**. (p. 3)**
 - **Discusses where antidegradation Level I off-ramps not required. (p. 4)**
 - **Allows “end of pipe” concentrations for NPDES permits in “TMDL waters”**
 - **Changes the mathematical algorithm for a Level I off-ramp to define a *de minimus* effect. (p.5/6)**

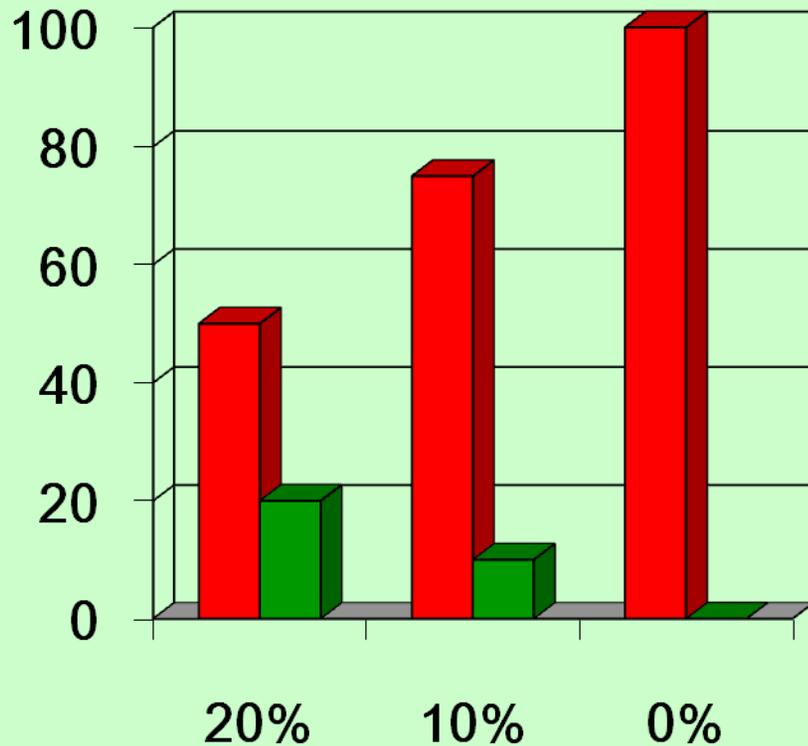
Antidegradation, cont'd

Level I Mathematical Off-ramps – Wasteload Analysis for Permits

- 6. The proposed concentration after mix:
- (a) Would be equal to or less than 50% of the criterion, and the project would consume less than 20% of remaining assimilative capacity; or,
- (b) Is greater than 50% and less than 75% of the criterion, and the project would consume less than 10% of the remaining assimilative capacity.
- (c) Exception: Level II reviews are required if the proposed concentration after mix is equal to or greater than 75% of the criterion.

[More]

Level I Mathematical Off-Ramps (p. 5)



■ Mix Conc. ■ Allowed

- **If No Changes in Permit: No Level II Required**
- **If Conc. After Mix is < 50% then 20% of assimilative capacity can be used.**
- **If between 50% and 75% then 10% can be used.**
- **0% if > 75% then none.**

• [More]

Antidegradation Level II Review

(Information only)

- Less Degrading Alternatives (p. 7)
 - Innovative or alternative treatment options
 - More effective or higher treatment levels
 - Connections to existing facilities
 - Process changes or product material substitution
 - Seasonal discharges
 - Pollutant trading

[More]

Antidegradation Level II Review

(Information only)

- Less Degrading Alternatives (cont'd)
 - Other discharge locations
 - Land application
 - Total containment
 - Improved operation/maintenance
 - Other appropriate alternatives

Antidegradation, cont'd (p. 5)

- ~~6. The affected waters are classified as 3C, 3D (and not 3A or 3B), or 3E waters, or are classified only as Class 4.~~
 - [Antidegradation Level I Review off-ramp for use classification is eliminated.
 - DWR classifications are eliminated.

Changes to Use Classifications for various Waters of the State (p.11)

- 2A – Protected for frequent primary contact recreation such as swimming where there is a **high likelihood of ingestion of water or a high degree of bodily contact with the water**. Examples include, but are not limited to swimming, rafting, kayaking, driving, and water skiing.
- Class 2B – Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a **low likelihood of ingestion of water or low degree of bodily contact with the water**. Examples include, but are not limited to wading, hunting, and fishing.

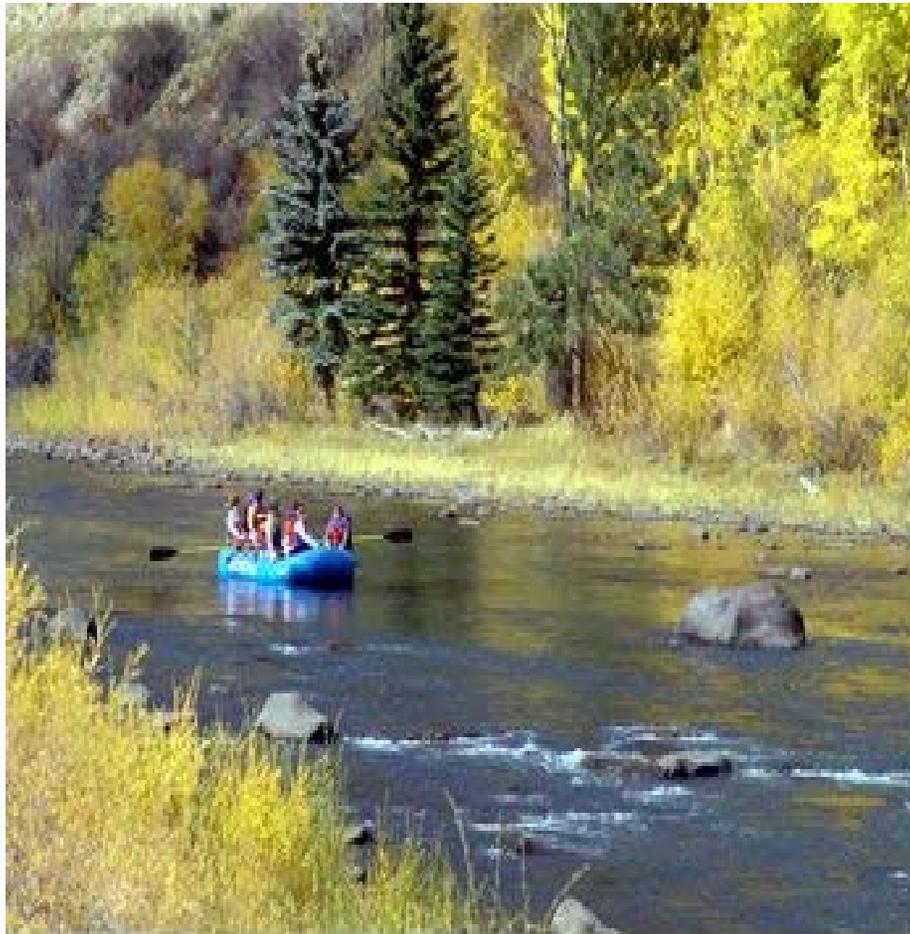
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[More]

Primary Recreation Examples: Class 2A



Secondary Recreation Examples: Class 2B

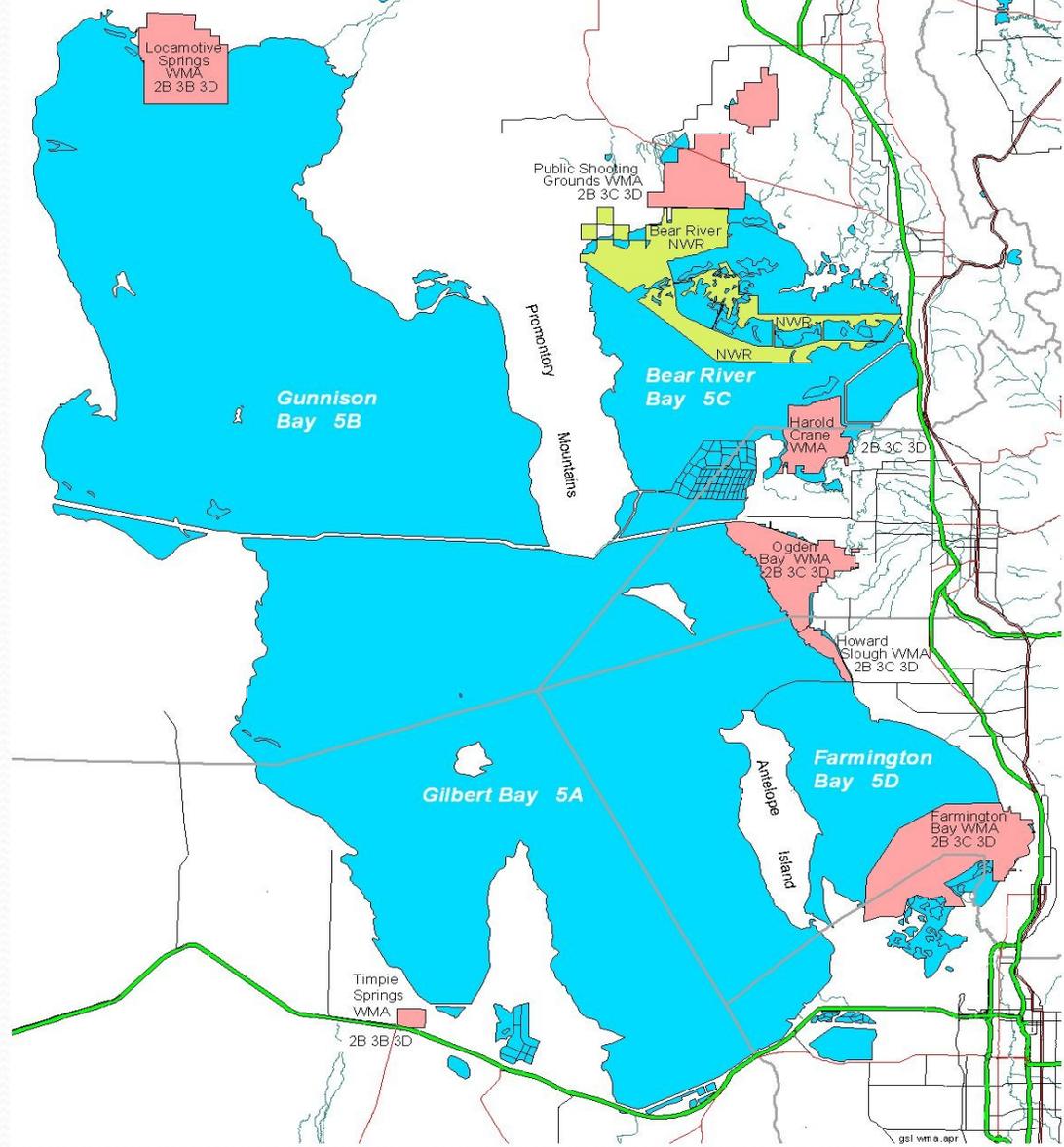


Segmentation of Great Salt Lake

(p. 12-13; p. 44-46, 71)

- Dividing Great Salt Lake into 5 different areas as a function of ecosystem.
 - Sets high water mark at 4,208 ft.
 - Gilbert Bay (5A)
 - Primary Recreation
 - Gunnison Bay (5B), Bear River Bay (5C), Farmington Bay (5D)
 - Secondary Recreation
 - Transitional (mud-flat) wetlands (5E)
 - From 4,208 to open water of Great Salt Lake

Great Salt Lake Waterfowl Management Areas





Great Salt Lake Mud Flats [Antelope Island]

April 2008

Utah Division of Water Quality

Application of Standards (p. 13)

- Assessment of the beneficial uses will be conducted biannually.
- Assessment procedures will allow 10% of representative samples to exceed standards.
 - EPA approved so standards and assessment procedures are in conformity.

Changes to Use Classifications for various Waters of the State (p.19-30)

- Green River from confluence with Colorado River to state line changed from 2B to 2A (Secondary to Primary)
- Colorado River from Lake Powell to state line changed from 2B to 2A
 - This also picks up the San Juan River which discharges into “San Juan Arm” of Lake Powell



Changes to Use Classifications for various Waters of the State (p.19-30)

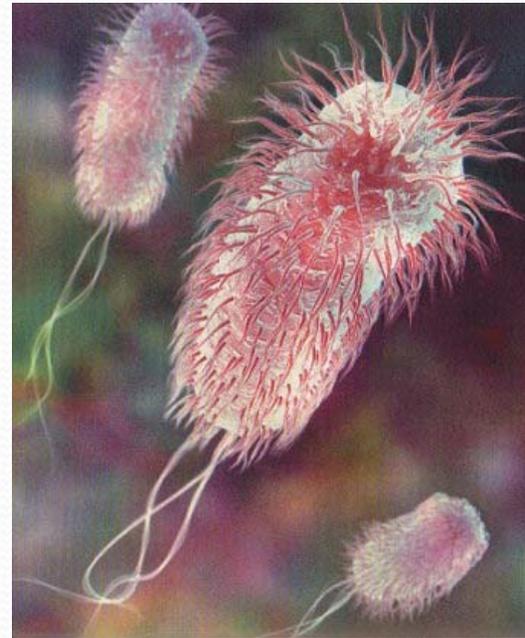
- **Escalante River:** Change from 3C (non-game fishery) to 3B (warm water fishery).
 - Seven (7) tributaries to the Escalante River: Change from 3B to 3A Classification (cold water fishery).
- **Saleratus Creek:** Add 3C to lower section and 3A to upper section [Bear River Drainage]
- **State Canal:** Given same criteria as Jordan River and the Surplus Canal (3B)
- **Salt Creek (Crystal Hot Springs):** Given same criteria as Malad River [Bear River Drainage]
 - TDS Concentration of ~20,450 mg/l

Changes to Classifications of the Waters of the State, cont'd (p.46)

- Clarify that lakes and reservoirs greater than 10 acres are assigned by default to the classification of the stream with which they are associated unless otherwise designated (instead of 20 acres).

Numeric Criteria: E. Coli (p.60, 64)

- **Change maximum criteria from 940 to 668 (1C, 2B) and from 576 to 409 (2A)**
- (7) For water quality assessment purposes, up to **10% of representative samples** may exceed the 668 per 100 ml criterion (for 1C and 2B waters) and 409 per 100 ml (for 2A waters).
- (7) Measurement of E. coli using the Quanti-Tray/2000 procedure is approved as a **field analysis**. Other EPA approved methods may also be used.



Numeric Criteria – TDS (p.60)

- Total Dissolved Solids [TDS]
 - Remove Stockwatering @ 2000 mg/l
 - Set state-wide Agriculture [Class 4] @ 1200 mg/l
 - Restores criterion to pre-2003 value



Numeric Criteria TDS, (p. 61)

(Footnote)

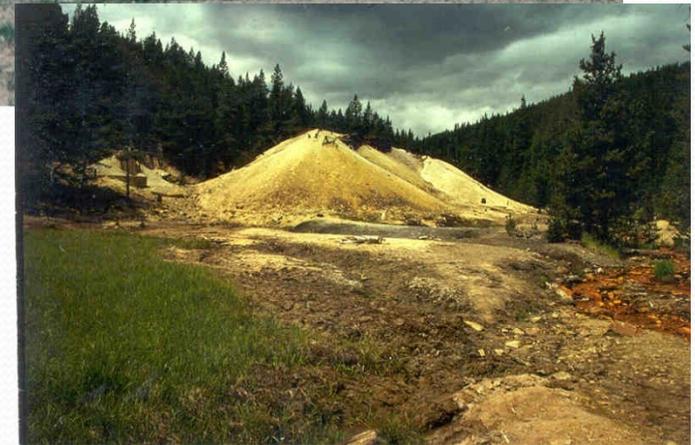
~~Total dissolved solids (TDS) limits may be adjusted if such adjustment does not impair the designated beneficial use of the receiving water. The total dissolved solids (TDS) standards shall be at background where it can be shown that natural or unalterable conditions prevent its attainment. In such cases rule making will be undertaken to modify the~~



Numeric Criteria TDS (p. 61/62)^(Footnote)

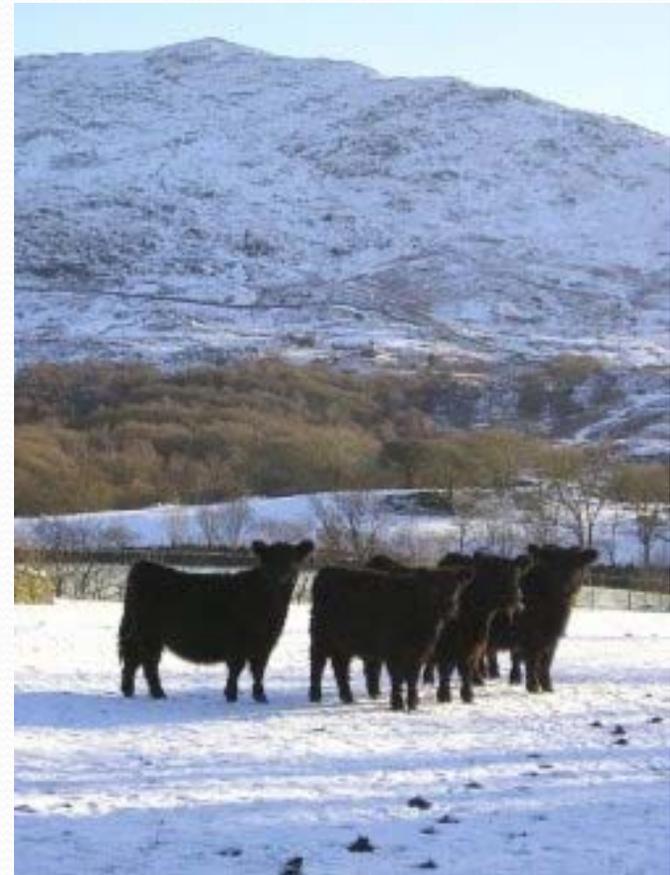
(4) Site-specific criteria for total dissolved solids may be adopted by rulemaking where it is demonstrated that:

(a) a less stringent criterion is appropriate because of **natural or un-alterable conditions**, or



Numeric Criteria (Footnote)

(4)(b) a less stringent, site-specific criterion and/or date specified criterion is protective of existing and attainable agricultural uses, or



Numeric Criteria (Footnote)

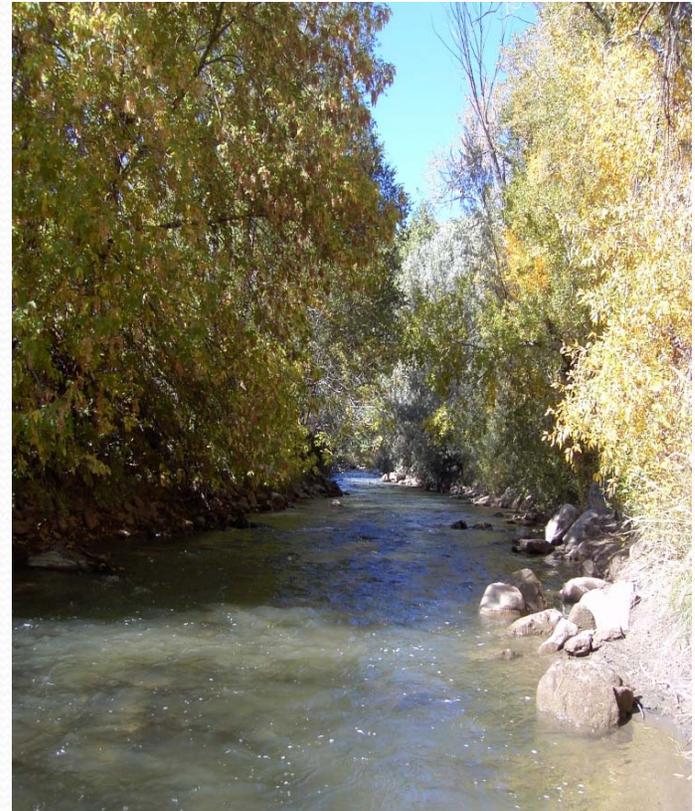
(4) (c) a more stringent criterion is attainable and necessary for the protection of sensitive crops.

(4) For water quality assessment purposes, up to 10% of representative samples may exceed the standard.



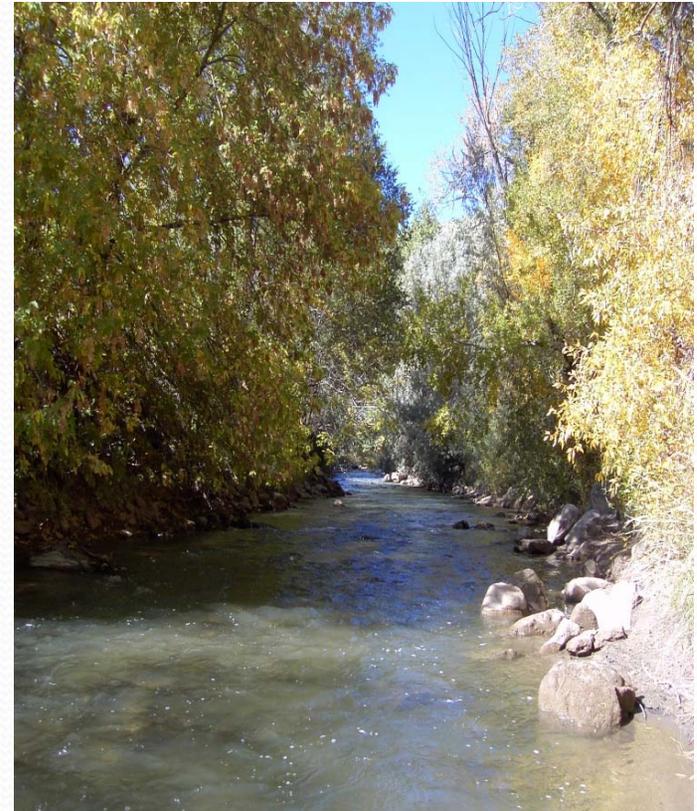
Numeric Criteria, TDS (p. 62-63)

- Add/Change Site Specific TDS Criteria for several areas where background is $> 1,200$ mg/l
 - Paria River,
 - Price River, tributaries.
 - Below 7,500 ft. elevation

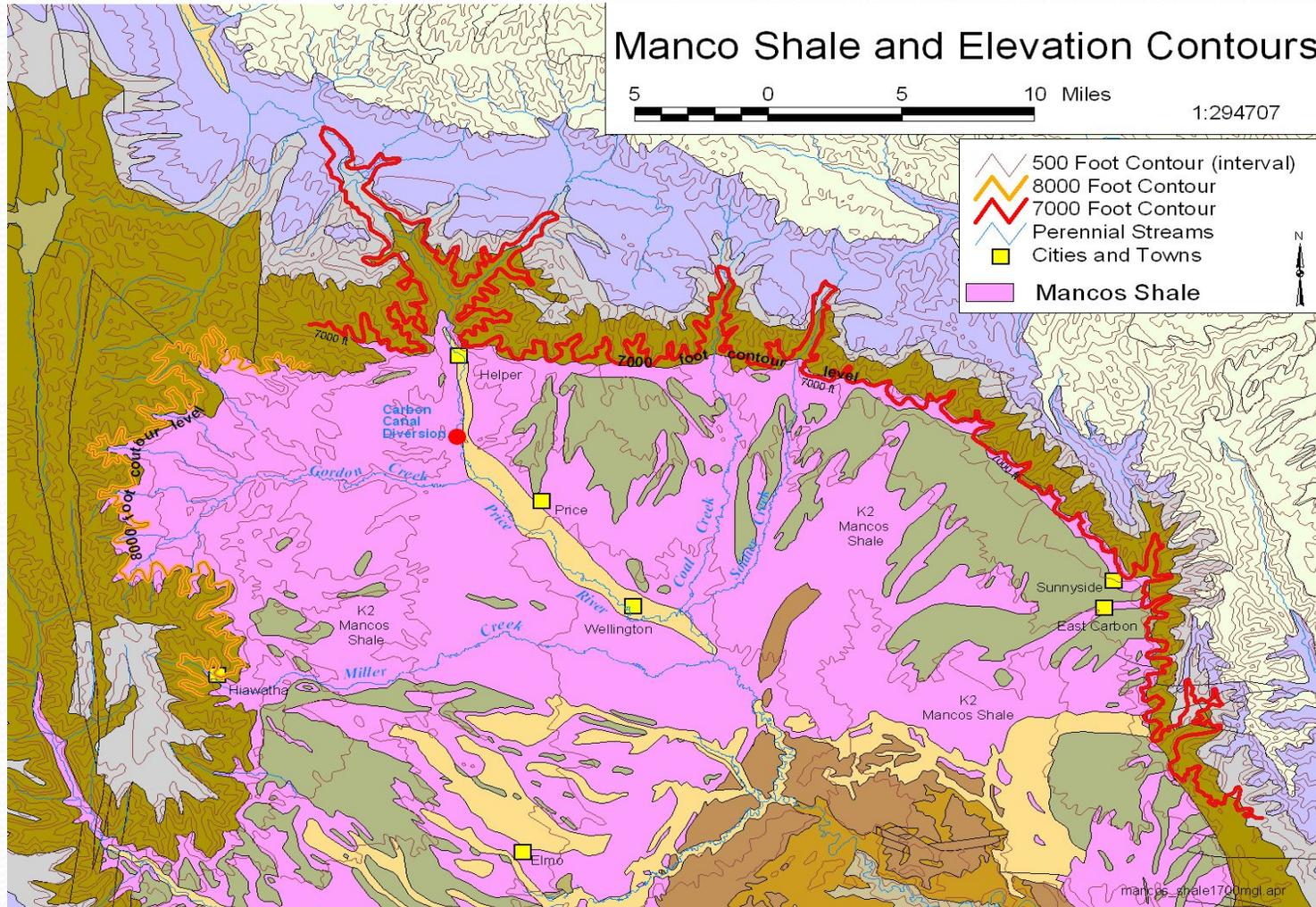


Numeric Criteria, TDS (p. 62-63)

- Reassessment
 - Quitchupah Creek
 - 2,600 mg/l to 1,700 mg/l
- Site Specific Criteria Request
 - South Fork of Spring Creek from confluence with Spring Creek to US 89
 - Irrigation Season
 - 1,200 mg/l to 1,600 mg/l
 - Non-Irrigation Season
 - 2,000 mg/l to 2,400 mg/l

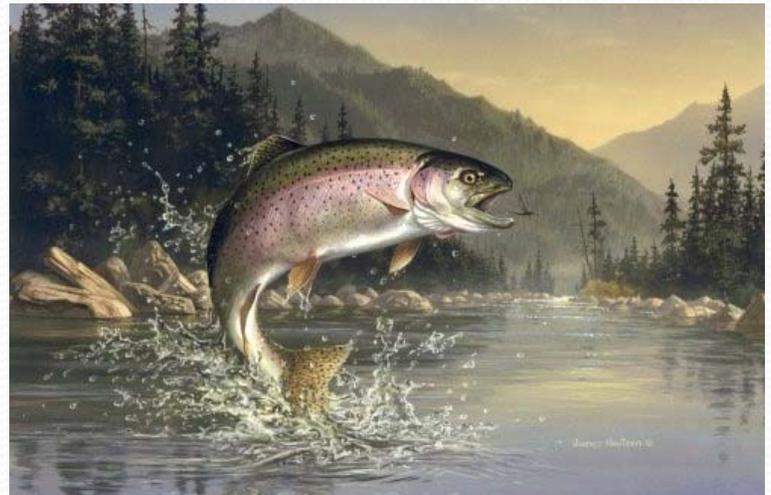


Remove site specific TDS criteria at elevations above 7,000-7500 feet. Returns value to 1,200 mg/l



Dissolved Oxygen (p. 65)

- Change Averaging Period
 - 1 Day Average changed to Minimum
 - Diurnal Swings
 - Low DO @ 4:00 am
 - Better conforms to EPA guidance and rules of other states



Other Numeric Criteria, etc.

- Ammonia
 - **Apply chronic criteria to all waters of the state** (p. 66)
- Toxics (p.67-68)
 - Add Diazinon and Nonylphenol to the water quality standards.
- Laboratory Methods (p. 69)
 - Laboratories to use **approved methods**, rather than specifically described methods or instruments.
- Total Phosphorus (p.70)
 - Clarify that total phosphorus in rivers, lakes and reservoirs is a pollution indicator.





Questions on
this section of
Water Quality Standards?

Request of Board: Authorization to
proceed with Rule Making