River Protection Workgroup



Involving the public in protecting the natural values of selected streams while allowing water development to continue

Water Quality in Colorado An Information Sheet for the River Protection Workgroup (San Juan)

Overview

Water quality standards in Colorado are set by the Water Quality Control Commission which is comprised of citizens around the state appointed by the governor. The Water Quality Control Division is a state agency that acts as staff to the Commission and is responsible for issuing and enforcing drinking water and surface discharge permits and implementing a number of other water quality control regulations. Several other state agencies such as the Oil and Gas Commission, the Division of Reclamation, Mining, and Safety, and the Department of Agriculture also regulate specific activities to insure the Commission's water quality standards are met.

The Commission divides all surface waters in the state into segments and assigns "use classifications" with accompanying water quality standards to protect those uses. The use classifications are based upon current or anticipated uses within each segment and include water supply, agriculture, wetlands, various levels of recreation, and various levels of aquatic life. Most segments have multiple use classifications and standards are set stringently enough to protect all the assigned uses to that segment. The Commission also sets use classifications and standards for groundwater.

The Commission encourages the broadest possible public involvement. You can learn more by visiting their site at: http://www.cdphe.state.co.us/op/wqcc/index.html

Water Quality Standards

Commission regulations include both narrative and numeric water quality standards. An example of a narrative standard is there will be no discharges, unless authorized by permit, of anything that would "form floating debris, scum, or other surface materials sufficient to harm existing beneficial uses." Currently there are narrative standards for temperature in Commission Regulation 34 which establishes use classifications and numeric standards for the San Juan and the Dolores River Basins. Temperature standards will be changed to numeric standards in these river basins in 2012.

Numeric standards are applied either statewide or on a site specific basis depending on the use classifications applied to a segment. For example, numeric standards for radionuclides (e.g. uranium) and organic chemicals (e.g. chemicals in oil or pesticides) are generally applied statewide. Various physical (e.g. Dissolved oxygen), biological (e.g. E. coli), inorganic (e.g. Chlorine (Cl)), and metal (e.g. Iron (Fe)) standards are applied depending on what is necessary to protect existing or potential uses for a segment.

The attached table from Regulation 34 displays the site specific, numeric standards applied to the Upper San JuanRiver and its tributaries. Generally, the Upper San Juan has good quality water and stringent water quality standards.

Anti-Degradation Designations

The Commission can also designate some segments as "Outstanding Waters". This designation specifies that there can be no degradation of water quality below what currently exists. Generally, Outstanding Waters has only been applied to wilderness areas and national parks, although it has been applied in a few other segments in the state.

Permits

Surface water permits are issued by the Water Quality Control Division for industrial, and private or public wastewater discharges. These permits have strict numeric limits which are designed to meet water quality standards in the segments where the discharge is located and in downstream segments. The Division (and sometimes municipalities) also issues stormwater permits which include Best Management Practices for many activities that disturb surface soils above a certain acreage. As noted above, other state agencies also issue permits for certain activities that are designed to protect water quality.

Tribal Reservations

Some of the water bodies in the San Juan/Dolores River Basin cross boundaries of the reservations of the Southern Ute and Ute Mountain Ute Tribes. The Commission has included water quality classifications and standards on lands within the boundaries of these reservations in agreement with the Southern Ute and Ute Mountain Ute Indian Tribes in order to avoid a gap in the classifications and standards adopted for the river basins in question. The Southern Ute Indian Tribe has not yet been granted authority by U.S. EPA to conduct its own water quality program because of the patchwork nature of the reservation. U.S. EPA has granted the Ute Mountain Ute Indian Tribe's application for treatment as a state with respect to adoption of water quality standards. If tribes adopt standards stricter than what currently exists under the Commission standards, then upstream discharges outside of the reservation boundaries could face stricter permit limits to insure those downstream standards are met.