Water Quality Standards

Water quality standards are the basis for protection and regulating the quality of surface waters. The standards implement portions of the federal Clean Water Act by specifying the designated and potential used of a water body in Colorado. They set water quality criteria to protect those uses and acknowledge limitations. The standards also contain policies to protect high quality waters and in many cases specify how criteria are to be implemented, for example in permits.

The water quality standards are established to sustain public health and public enjoyment of the waters and the propagation and protection of fish, shellfish and wildlife. This three-part approach was designed to set limits on pollution in our lakes and rivers in order to protect beneficial uses such as aquatic life, public water supply, and swimming and fishing.

I. History

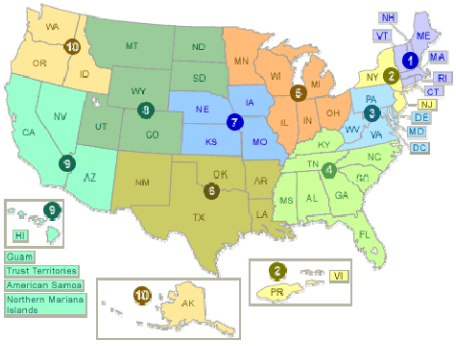
The Clean Water Act (CWA) was passed in 1965 with requirements for US waters but enforcement was hampered by lack of standards, burden of proof with enforcing agency and lack of criminal or civil penalties. In 1968 the Cuyahoga River in Cleveland, Ohio caught on fire and spurred the country to take action. Amendments were made to the CWA in1972 to establish NPDES permits, pretreatment requirements, compliance dates, authorized state permitting programs and added penalties. In 1977 additional changes were made adding more pretreatment requirements, storm water permitting, sludge management, increased penalties for non-compliance and renewed emphasis of surface water toxics control. Under this revision all point sources must obtain a permit to discharge.

Subsequent amendments modified some of the earlier CWA provisions. Revisions in 1981 streamlined the municipal construction grants process, improving the capabilities of treatment plants built under the program. Changes in 1987 phased out the construction grants program, replacing it with the State Water Pollution Control Revolving Fund. This new funding strategy provides low cost loans that must be paid back rather than the grant funds that offset the cost for the community.

The waters of the U.S have improved in many ways since the adoption of the Clean Water Act but as scientific knowledge has evolved the impact of other types of pollution on the biological and physical integrity has become better understood. The early requirements for treatment were relatively inexpensive but today the treatments to remove additional pollutants are very complex and expensive. Each additional requirement adds significant costs for wastewater treatment.

II. Why Are Standards Created

Section 304(a)(1) of the Clean Water Act requires EPA to develop criteria for water quality that accurately reflects the latest scientific knowledge. These criteria are based on data and scientific judgments on pollutant concentrations and environmental or human health effects. Section 304(a) also provides guidance to states in adopting water quality standards. Criteria are developed for the protection of aquatic life as well as for human health.
http://www.epa.gov/waters/ir



Colorado has state delegation to implement the National Permit Discharge Elimination System. After EPA publishes criteria, Colorado must consider adoption of the criteria. States can have standards that are more stringent than EPA, but must be at least as stringent. Colorado does not have the state delegation for the pretreatment program for industry and the Municipal Sewage Sludge (Biosolids) programs, they are enforced by EPA.

III. Colorado Process for Standard Adoption.

Each Colorado regulation and Commission guidance is evaluated every five years to determine if there are new or controversial issues that need to be considered during a hearing. After the Commission has identified an issue to consider in rulemaking it may proceed in a variety of ways that are discussed in the Water Quality Control Commission's Procedural Rules found in Regulation 21 – Procedural Rules found at http://www.colorado.gov\cdphe\wqcc. Each hearing allows a process for individuals to obtain party status and to provide proposals, prehearing statements, and rebuttals prior to the hearing and to make formal comments during the hearing. Hearings for some controversial or complex issues can become very long and difficult. To help resolve some of the issues the Colorado Water Quality Control Forum was created with the following mission:

> To achieve solutions to Colorado water quality issues through communications and understanding, balancing use and protection of the resource.

As such, part of their work plan includes creation of work groups http://www.colowqforum.org that comprise of Water Quality Control Division staff and interested stakeholders to attempt to develop compromise positions that can be taken to the Water Quality Control Commission for adoption. Issues that remain unresolved are decided by the Water Quality Control Commission after hearing testimony from all parties and the Division.

In Colorado, Regulation 31 (5CCR 1002-31) "provides basic standards, an antidegradation rule and implementation process, and a system: for classifying state surface waters; for assigning water quality standards; for granting temporary modifications and for periodic review of the classifications and standards."

The purpose of this regulation is listed as:

> "This regulation establishing basic standards and an antidegradation rule and implementation process and establishing a system for classifying state surface waters, for assigning standards, and for granting temporary modifications (hereinafter referred to as "Regulation") is the foundation for the classification of the state surface waters of Colorado, as prescribed by the Colorado Water Quality Control Act.
> It is intended to implement the state Act by maintaining and improving the quality of the state surface waters. This regulation is based on the best available knowledge to insure the suitability of Colorado's waters for beneficial uses including public water supplies, domestic, agricultural, industrial and recreational uses, and the protection and propagation of terrestrial and aquatic life."

Once standards are adopted in Regulation 31 (5CCR 1002-31), they are considered and adopted at each basin hearing to the appropriate river and lake segments. Each basin hearing occurs every five years on a rotating basis. The next Arkansas River Basin Rulemaking Hearing is scheduled in June 2018 to update Regulation No. 32 (5CCR 1002-32) - Classifications and Numeric Standards for Arkansas River Basin.

The standards adopted for the specific segment that the City of Pueblo Water Reclamation Facility discharges into has a set of standards listed in Regulation 32 (5CCR 1002-32). These standards are used by the Colorado Water Quality Control Division while writing the City of Pueblo Water Reclamation Facility Colorado Discharge Permit to determine the maximum allowable concentrations that the facility is allowed to discharge that will not cause harm to the river. These limits must be established in permits to control all pollutants or pollutant parameters that are or may be discharged at a level which will cause, have reasonable potential to cause or contribute to an excursion above and state water quality standard. Any discharge above the permitted concentration constitutes a violation of the permit and will trigger enforcement action that could results in fines greater than $30,000 per day.