

I. Executive Summary

Section 305(b) of the Clean Water Act (CWA) requires States to assess and report on the quality of the State's waters. This report, Status of Water Quality in Colorado 2002, fulfills this requirement for the two-year period of years 2000 and 2001.

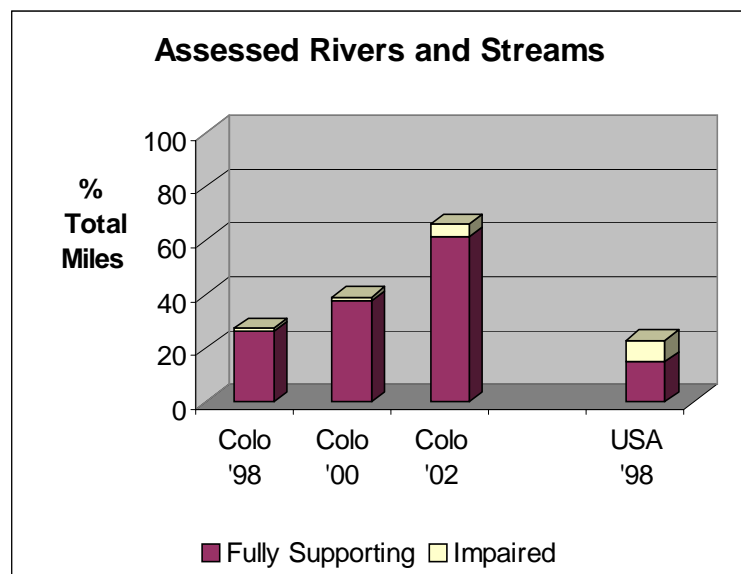
Colorado is a headwaters state with four major river systems originating within its boundaries: Arkansas River, Colorado River, Platte River, and the Rio Grande. These four major river systems begin as a network of high mountain streams that coalesce at lower elevations into major rivers that traverse large portions of the state, and leave the state across high plains, plateaus, or valleys. In general, the status of water quality in the four river systems is good. This report details the status of water quality within the watersheds that make up the four major river systems.

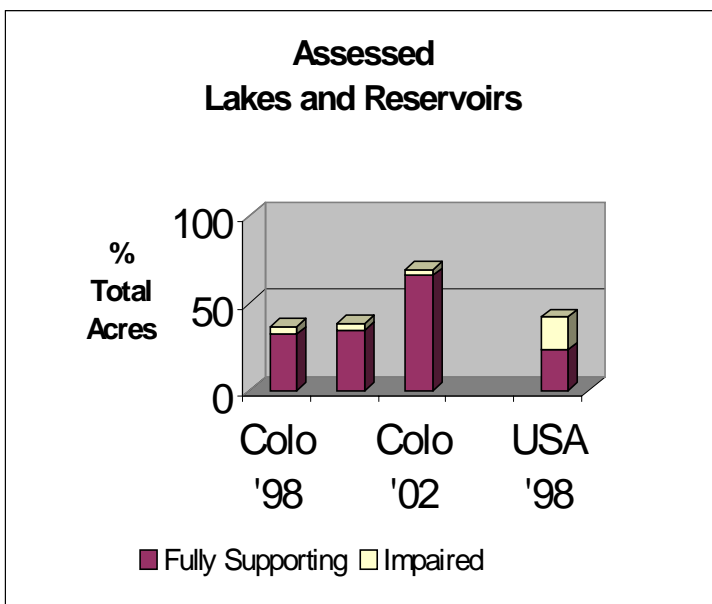
Since 1990, Colorado has gained more than one million new residents, making it the third fastest growing state in the country. At the time of publication of the 2000 305(b) Report, Colorado was home to approximately 3,892,650 people. The population of Colorado, as reported in the April 1, 2000 U. S. Census, was 4,301,261, an increase of almost a half a million people. Population growth can influence water quality in several different ways, which makes it a strong concern in evaluating the water quality of the state.

The Water Quality Control Division (WQCD) is responsible for monitoring and assessing the water quality in Colorado and managing the discharge of pollutants into waters of the state from various facilities. The Water Quality Control Commission (WQCC) is the rulemaking body responsible for adopting specific state water quality standards. The WQCC's nine members are appointed by the Governor for three-year terms and confirmed by the Colorado Senate.

Surface Water Quality and Use Support

The State of Colorado, through the WQCD, is working towards achieving the goal of comprehensive assessment and reporting of its waters. Over the past four years, Colorado has moved from having assessed 27 percent of its river and stream miles to 66 percent. Similarly, for lakes and reservoirs, Colorado has assessed 69 percent of lake and reservoir acres in comparison to 36 percent in 1998. The following two graphs display Colorado's assessment history of the last few years. The "USA '98" values are taken from the Environmental Protection Agency's (EPA's) 1998 National Water Quality Inventory. The increase in assessed miles and acres is attributed to monitoring and assessment efforts that coincide with





Basin Standards Reviews that rotate with the four administrative watersheds in the state: South Platte River Basin, Lower Colorado River Basin, Upper Colorado River Basin, and the Arkansas River/Rio Grande Basin. The basins that were assessed and revised in the last biennium were the South Platte River and the Lower Colorado River Basins. These basins cover more than half the state's land area. In the next biennium, the Arkansas River/Rio Grande Basin and the Upper Colorado River Basin will be assessed and reviewed, adding to the river miles and lake and reservoir acres assessed in the state.

The State reports on waters that are not fully supporting the uses that have been designated for each water body. For this reporting cycle, 93 percent of the assessed rivers and stream miles are fully supporting their designated uses. 95 percent of assessed lakes and reservoir acres are fully supporting their designated uses. It follows that seven and five percent of assessed miles and acres are impaired for at least one use.

For rivers and streams, the graph indicates a large increase in identified impairment. This is the result of the major increase in assessed miles, particularly in areas of the state that have not received focused attention for several years.

Surface water quality standards are established to be protective of classified uses. In Colorado, waterbodies may be assigned any of four categories of use classifications: aquatic life, water supply, recreation, and agriculture. In this biennium, Colorado made changes in the use classifications of many streams. The recreation use classification changed the most since the last 305(b) Report. In the 2000 305(b) Report, 25,492 stream miles were reported as Recreation Class 1 (Primary Contact) waters, and 75,781 miles were reported as Recreation Class 2 (Secondary Contact) waters. One goal of the CWA is that all waters of the State be "swimmable", or have the primary contact recreation classification. This year, Colorado is reporting 50,050 streams miles to be meeting the primary contact Recreation Class 1 Use. An estimated 53,080 stream miles are reported as Recreation Class 2. Other use classifications have also changed, but not to the same degree as the recreation use classifications.

The causes (pollutant/stressor) and sources (activities/conditions that contribute pollutants) of impairment are also investigated to determine ways to improve water quality of these impaired streams. The single most important pollutant or stressor (cause) category for Colorado's rivers and lakes is metals and pH. Other major pollutants include nitrate and sulfate. The major sources or contributors of pollutants to Colorado's rivers and streams have not been pinpointed in most cases. The "unknown" source category continues to be the largest followed by "resource

extraction” and “urban and road runoff.”

Water Quality Control Programs

The WQCD has programs that focus on maintaining high quality waters in Colorado and improving any waters that are not fully supporting their classified uses. These programs include the Colorado Discharge Permit System (CDPS), the Nonpoint Source (NPS) Program, Colorado's Wastewater and Drinking Water Financial Assistance Program (FAP), and the Total Maximum Daily Load (TMDL) Program.

The CDPS Program issues discharge permits designed to limit the amount of pollutants entering streams, lakes, and groundwater to protect the beneficial uses of the water. There were a total of 1,070 active industrial and domestic permits and general certifications as of the end of this biennium. In FY 2001, a total of 340 permits were issued compared to 414 in 2000 and 357 in 1999.

The goal of Colorado's NPS Program is to restore all waters to fully supporting designated uses that are currently impaired by nonpoint source pollution, and to prevent future impairments. The NPS Management Program was updated in 2000, adopted by the WQCC, and approved by EPA that same year. The management program provides information on the best management practices (BMPs) available to address nonpoint sources in all categories as well as administering programs for restoration and prevention activities.

Since 1990 when Congress began appropriating funds specifically for CWA Section 319 NPS activities, Colorado has received approximately \$15 million dollars (through May 15, 2001). Section 319 funds support a wide variety of activities to prevent or reduce the impact of nonpoint source pollution to Colorado's waters.

The FAP Program provides low interest loans and grants to communities, for planning and construction of public works projects that address critical wastewater or drinking water needs in Colorado's communities. Approximately \$37 million dollars is currently being utilized in the revolving loan program.

The WQCC approved the FY 2000 Intended Use Plan (IUP) with projects totaling over \$68,000,000. Six loans were executed in 2000 totaling \$36,880,234; three direct loans totaling \$819,000; and three leveraged loans totaling \$36,061,234 were awarded. Four of the six projects were in Category I high priority watersheds. The 2001 IUP includes projects from the 2001 Eligibility List that may submit loan applications. The first bond issue for eight projects totaled over \$70,000,000. Beginning January 1, 2001, \$50,000 was made available for planning and/or design grants for communities under a population of 10,000 persons identified in the 2001 Eligibility List.

The TMDL Program provides for the identification and listing of water quality limited segments of water bodies on the 303(d) List. This list is prepared in fulfillment of section 303(d) of the CWA, which requires that states submit to EPA a list of those waters for which technology-based effluent limitations and other required controls are not stringent enough to result in attainment of water quality standards. The WQCD submitted 12 TMDLs to EPA prior to June 30, 2000. An

additional 21 written determinations that TMDLs are not necessary for specific pollutant/segment combinations were also submitted. Many additional TMDLs are in progress. The Division is on schedule to meet the milestone of 50 additional TMDLs or determinations by June 30, 2002.

Trend Analysis

A trend analysis was completed in all basins of the state to review possible changes in water quality in past years. Each basin discussion has the details of this trend analysis, but in general water quality across Colorado has been improving for many pollutants.

Overview of the 2002 305(b) Report

The report is divided into five parts: this executive summary, background information on Colorado and water quality control programs, surface water assessment of streams and lakes, ground water assessment, and drinking water.