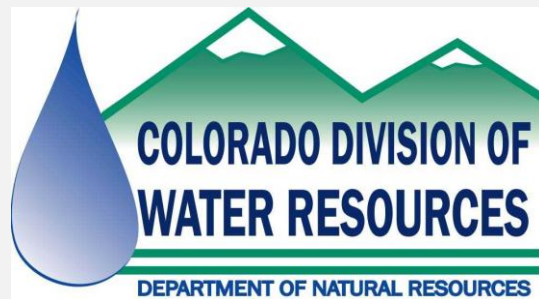


**ANNUAL REPORT OF
ACTIVITIES PERFORMED
BY THE
STATE ENGINEER'S OFFICE
IN 2009**



**To Satisfy Requirements
of Senate Bill 89-181
Regarding Water Quality**

INTRODUCTION

According to the provisions of Senate Bill 89-181 (SB-181), the Colorado Division of Water Resources, the State Engineer's Office (SEO), has been assigned as one of the agencies responsible for implementing the water quality standards and classifications adopted by the Colorado Water Quality Control Commission (WQCC). The SEO will implement water quality standards and classifications only where water quality statutes other than the Water Quality Act require the SEO's involvement. This report provides an update on the activities undertaken by the SEO and its Division offices to accomplish its responsibilities pursuant to the provisions of SB-181 in calendar year 2009.

According to our past experience, few major water quality related problems actually fall within the jurisdiction of the SEO. However, the SEO takes a proactive stance in this matter by cooperating with other agencies and organizations in the development of comprehensive and practical solutions for managing the quantity and quality of the state's waters.

There are three major areas where the SEO exercises its authority on implementing water quality standards and classifications. These are:

- Adoption of points of compliance for discharges to ground water
- Approval of substitute water supply plans and non-decreed water exchanges
- Adjudication process of plans for augmentation including water exchanges

A. Points of compliance for discharges

The SEO ensures that well construction activities do not result in a pollution discharge to state waters through well permitting activities. All wells must be constructed in accordance with the rules and regulations established by the State Board of Examiners of Water Well Construction and Pump Installation contractors (BOE). Domestic and commercial water wells are constructed by licensed well drillers. Monitoring and recovery wells can be constructed either by licensed drillers or under the supervision of professional engineers and geologists. The BOE will take corrective actions against the drillers who violate the rules for proper well construction including suspension or revocation of their licenses. The well owners have the ultimate responsibility to bring the improperly constructed well into compliance. Otherwise, the State Engineer may order the well plugged and abandoned to prevent contamination of ground water.

In 2009, the BOE investigated 22 new complaints and resolved 25 complaints, 12 of which were complaints from 2007/2008. The Board did not suspend or revoke any licenses, however, one letter of admonition, reprimand or fines was imposed. In addition, the staff reviewed and processed 166 requests for variance from the Water Well Construction Rules and plans for the construction of gallery-type wells. The staff also reviewed and entered data into the Well Database more than 6,400 work reports (well

construction, pump installation and well abandonment). The Board licensed 248 contractors in 2009, including 9 new contractors. License renewal for 2009 marks the fifth year that each contractor is required to obtain a minimum of eight hours of continuing education for license renewal.

The *Well Observation Program* reported in years past was replaced with a *Well Inspection Program*, authorized by the legislature in Senate Bill 03-45 and funded by a \$40 increase in well permit application fees. Presently, the program consists of a Chief Well Inspector headquartered in Denver and three well inspectors distributed throughout the state. The Chief Well Inspector coordinates the activities of the program and provides additional support to the Board. The primary objective of the program is to assist the Board with the enforcement of its rules and regulations for well construction and pump installation. A key focus of the well inspectors and the inspection program is to locate and initiate action against unlicensed contractors working illegally in the state. The well inspectors conducted more than 1,488 inspections in 2009. As in previous years, nearly half of the inspections were conducted in Water Division 3. As was anticipated, as the well inspection program developed, the staff experienced a decrease in the proportion of violations discovered as a result of inspections. Since inception of the inspection program, it is evident that many licensed contractors are refining their well location and construction practices to ensure full compliance with the Board's Rules.

The SEO well permitting staff received and acted upon 4,923 new well permit applications in 2009. Of this total, 603 were applications for replacement wells. The majority of the wells were to be used for domestic purposes. In addition, the staff processed 523 notices to drill monitoring holes¹ and 3,154 well construction and test reports. Many of the monitoring wells are used for monitoring ground water quality. The SEO can request water quality data from the applicants when necessary.

B. Substitute Water Supply Plans and Non-Decreed Water Exchanges

Substitute water supply plans provide water users the flexibility of exchanging and replacing out-of-priority depletions on an interim basis or, if the applicant was to continue such operation permanently, until a court approved plan for augmentation is obtained. For approval of substitute water supply plans, the State Engineer requires that the quality of the substituted water meet the requirements of use to which the senior appropriators have normally put. The SEO reviewed and acted upon 205 general substitute supply plans (including emergencies) and 90 substitute water supply plans related to gravel pits. The majority of these substitute supply plans used river water as the source of substituted water.

¹ Applicants are required to notify the SEO before constructing monitoring holes. These wells should be plugged and abandoned within one year unless a specific use permit for each well is obtained.

The non-decreed exchanges generally do not involve written approval. They are limited to daily or seasonal basis and require the local water commissioner's approval prior to exchange occurring. The water commissioners keep records of these exchanges in the diversion records for the structures involved. The exchanged water usually comes from reservoirs or from bypassing stream diversions. Seldom has an applicant used treated wastewater or other supplies in a non-decreed exchange. Therefore, the water used in these exchanges generally does not create any water quality problems. In 2009, there were three undecreed exchanges using wastewater treatment plant effluent, but two of the three were done pursuant to approved gravel pit SWSPs; there were 11 undecreed exchanges that could have *potentially* used wastewater.

C. Decreed Exchanges and Plans for Augmentation

The SEO may oppose applications to Water Court for augmentation plans and exchanges in which the substituted water does not meet the requirements of use to which the senior appropriators have normally put. The SEO generally does not participate in Water Court cases where the parties who are directly impacted can be expected to raise concerns with respect to water quality issues. However, the SEO will become involved in two instances. First, where there are exchanges involving treated wastewater, the SEO requires the exchanged water be of a quality that meets the requirements of use to which other vested water rights have normally been put or meet the existing water quality standards for discharges to the receiving stream. Second, the SEO, in administering water decrees, will become involved with issues of water quality where water quality monitoring is made a part of the decree by the water judge. The water judge has the ultimate responsibility to determine the adequacy of water quality when approving new water right applications, plans for augmentation, or exchange plans. In 2009, there were only three decreed wastewater exchanges.

D. Other Activities

The staff at the SEO and its Division offices cooperated with several public and private agencies and participated in various forums where water quality and quantity issues were considered. Staff at the SEO play an important role by providing input and advice on the impacts of proposed water policies and regulations on the water using community.

The State Engineer and his staff continued to meet quarterly with other DNR agencies, WQCD managers, representatives of the Department of Agriculture, and various board members from WQCC and CWCB to discuss improved coordination on water quality and quantity issues. The SEO received no new consultation requests from WQCC during 2009.