STATE OF COLORADO

Colorado Department
of Public Health
and Environment

Annual Report to the Colorado Legislature and Water Quality Control Commission Fiscal Year 2012-2013

Submitted to the Colorado Legislature and Water Quality Control Commission
by the Water Quality Control Division
Colorado Department of Public Health and Environment
October 2013

FOREWORD

I am pleased to submit the Water Quality Control Division's (Division's) Annual Report to the Water Quality Control Commission (Commission) for the period of July 1, 2012 through June 30, 2013 (FY 2013). Pursuant to CRS Section 25-8-305, the Division is to file with the Commission, on an annual basis, a report on the effectiveness of its efforts under the state Water Quality Control Act. In particular, the Division is to:

> Include in such report such recommendations as it may have with respect to any regulatory or legislative changes that may be needed or desired. Such report shall include the then current information that has been obtained pursuant to Section 25-8-303 [monitoring] and information concerning the status of the Division's implementation of the discharge permit program established in part 5 of this article.

Further, in accordance with the requirements of section 25-8-305 of the Colorado Water Quality Control Act, this report is also filed with the House Agriculture, Livestock, and Natural Resources Committee and the Senate Agriculture, Natural Resources, and Energy Committee.

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Colorado Department of Public Health and Environment
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TABLE OF CONTENTS

I. EXECUTIVE SUMMARY

The Mission of the Water Quality Control Division (Division) is to protect and restore water quality for public health and the environment in Colorado. The Vision of the Division is to be a top performing organization that implements its programs in such a way that Colorado's drinking water and natural waters are of the highest attainable quality. The Division will achieve its Mission by pursuing the following Clean Water program goals:

- Protect all designated uses by fully attaining water quality standards through improved implementation of the federal Clean Water Act and Colorado Water Quality Control Act and their associated regulations;
- Restore impaired water quality to attainable standards through improved implementation of the federal Clean Water Act and Colorado Water Quality Control Act and their associated regulations; and
- Deploy resources to achieve the greatest benefit for public health and the environment while pursuing a strategy of organizational improvement that includes increasing efficiency.

II. LEGISLATIVE AND REGULATORY UPDATE

A. Budget Update

For many years, there has been a significant gap in the demand placed on the Division and the resources available to address that demand. Since 2006 the Division has been required to submit an annual report to the Joint Budget Committee (JBC). The report summarizes the Division's current and anticipated workload levels, including the impact of existing and proposed federal and state program requirements, as well as the associated funding and staffing needs based on those workload levels. During the 2012-2013 legislative session, the JBC acknowledged the Division's resources gap and appropriated an additional 16.0 General Funded FTE. Fifteen (15.0) FTE were appropriated to the Clean Water Program to assist with permitting, compliance and enforcement, water quality assessment and protection, pesticide compliance, data management, and communications.

The federal funds provided to the Division continue to be in jeopardy. The Division experienced a 5% cut in federal funds in 2013 due to sequestration. Although yet unknown, additional cuts in FY 2014 are likely and could be substantial. If additional federal funds are cut the Division will evaluate its program activities to set new priorities and will deploy resources to meet the most pressing water quality problems/needs. Water quality issues that are not deemed to be priorities will likely not be addressed.

B. Legislative Changes

During the 2013 session of the General Assembly, three bills were passed that impact the Division: HB 13-1191 providing for nutrient grants, SB 13-73 requiring the Division to consider public comment and cost benefit analysis on general permits, and HB13-1044 authorizing the use of graywater.

HB13-1191 was signed into law on May 10, 2013, and created a Nutrient Grant Fund in the State Treasury. A total of fifteen million dollars was allocated to this fund to assist Phase I domestic wastewater treatment facilities with the costs associated with planning, design, construction, and/or improvements to comply with Control Regulation #85, Nutrients Management Control Regulation. The Division conducted multiple stakeholder meetings to seek input and feedback for an equitable and transparent way to distribute the funds. On May 13, 2013, the Commission promulgated revisions to Regulation No. 55, Water Quality Improvement Fund, in order to administer the program. On June 1, 2013, the Division submitted a Request for Application to seek eligible applications for funding. The Division received $19.3 million in requests and funded a total of 21 projects for $14.7 million. The Division was authorized through the legislation to retain $300K and 1.0 FTE for administering the fund over a three-year period. Nutrient Grant applicants and awards are shown on pages 24 - 25.

When proposing new or amended general permits, Senate Bill 13-73 requires the Division to consider public comment and upon request consider cost-benefit analysis submitted by an approved third party. These tasks are consistent with the Division's current process for issuing and renewing general permits and, as such, the bill simply clarifies and affirms that process.

On May 15, 2013, Governor Hickenlooper signed House Bill 13-1044 regarding the authorization of the use of graywater in Colorado. House Bill 13-1044 grants the Commission the regulatory authority to promulgate control regulations "to describe requirements, prohibitions, and standards for the use of graywater for nondrinking purposes, to encourage the use of graywater, and to protect public health and water quality." In June 2013, the Division initiated an outreach process to groups that may have interest in participating in the graywater regulation stakeholder process. The first round of stakeholder meetings took place in mid-July 2013 at locations throughout Colorado. Following the July 2013 stakeholder meetings, the Division created two topical stakeholder work groups to develop content, an Implementation Group and a Treatment Group. This content will then be compiled into a single draft regulation for review by all stakeholders. A final draft will be developed by Division staff in summer of 2014 and presented to the Commission. The Division will request a hearing for January 2015 for consideration of Regulation 86.

C. Regulatory Changes

With reference to regulatory changes that are required or desired, the Commission is fully aware of the ongoing efforts of the Division to address a variety of issues through collaborative work group processes, including those formed under the auspices of the Water Quality Forum. The stakeholder community is advancing many work group proposals. A current list of new and ongoing work groups is provided in Appendix A.

The Commission held several rulemaking and administrative action hearings in FY 2013. Those regulations discussed were as follows:

<u>August 2012</u>

- Administrative Action Hearing to repeal the Design Criteria Considered in the Review of

Wastewater Treatment Facilities, Commission Policy #96-1. (The policy is now a Water Quality Control Division policy.)

- Rulemaking Hearing that approved revisions to the Basic Standards for Ground Water, Regulation #41 and the organic chemical standards in the Basic Standards and Methodologies for Surface Water, Regulation #31.
- Rulemaking Hearing that approved the permanent adoption of a temporary modification to the chronic arsenic standard for Upper South Platte Segment 14, Regulation #38. (The temporary modification had been adopted on an emergency basis on December 13, 2011.)

September 2012

- Rulemaking Hearing to adopt revised water quality classifications, standards, and designations for multiple segments in the San Juan and Dolores River Basins, Regulation #34 and Gunnison and Lower Dolores River Basins, Regulation #35.

October 2012

- Administrative Action Hearing to approve revisions to the Human Health-Based Water Quality Criteria and Standards, Commission Policy #96-2.
- Administrative Action Hearing that approved the 2013 Water Pollution Control and Drinking Water Revolving Loan Funds Intended Use Plans.
- Rulemaking Hearing to adopt a temporary modification to the chronic arsenic standard for Boulder Creek Segment 9, Regulation #38.
- Rulemaking Hearing that adopted revisions to Cherry Creek Reservoir Control Regulation, Regulation #72, proposed by the Cherry Creek Basin Water Quality Authority.

December 2012

- Rulemaking Hearing that adopted revisions to temporary modifications set to expire on or before December 31, 2014 in multiple segments in basins throughout the state (Regulations #33, 35-38).

March 2013

- Administrative Action Hearing regarding the Section 319 Nonpoint Source Project list.
- Administrative Action Hearing to approve revisions to the water quality management plan (Section 208 Plan) for the Pueblo Area Council of Governments.
- Rulemaking Hearing to (1) repeal the Guidelines on Individual Sewage Disposal Systems (5 CCR 1003-6); and (2) adopt the On-site Wastewater Treatment Systems Regulation, Regulation #43.

April 2013

- Rulemaking Hearing to adopt revisions to the selenium and mercury standards for Upper South Platte Segment 16a (Sand Creek) in Regulation #38.
- Rulemaking Hearing to adopt temporary modifications of the arsenic standard in stream segments that have both water + fish standards and a permitted discharger with a water quality-based effluent limit compliance problem in basins throughout the state (Regulations #32-28).

May 2013

- Rulemaking Hearing to adopt revisions to the Procedural Rules, Regulation #21.
- Rulemaking Proceeding to adopt revisions to the zinc equations in Regulation #34 and the temperature table value standards in Regulation #35.

- Emergency Rulemaking Hearing that adopted revisions to the use classifications for Upper South Platte Segment 22, Regulation #38.
- Rulemaking Hearing that adopted revisions to the Water Quality Improvement Fund Rules, Regulation #55, establishing project prioritization criteria for the award of grants that may be available for nutrients management efforts.
- Rulemaking Hearing that adopted revisions to the Reclaimed Water Control Regulation, Regulation #84.

June 2013

- Rulemaking Hearing to adopt revised water quality classifications, standards, and designations for multiple segments in the Arkansas and Rio Grande River Basins, Regulation #32 and #36.

D. New Drinking Water Contaminant Standards

According to CRS section 25-1.5-202(3), the Division is required annually to establish and revise a priority list of contaminants or substances for which new standards may be considered and shall submit the list to the Water Quality Control Commission for review and approval. This topic was discussed at the June 2011 Safe Drinking Water Program workshop with the Commission, and it was agreed that this requirement would be covered via inclusion in the annual report. As has been the case for at least the past thirteen years, the Division is not considering developing new standards for any contaminants or substances independent of the process established in the Safe Drinking Water Act whereby EPA develops and establishes national standards. Promulgating new standards is a time consuming, resources intensive, and very expensive process. The Colorado Department of Public Health and Environment (CDPHE) does not have the resources either in number or type of personnel to undertake such activities at this time. EPA is in the process of evaluating numerous contaminants for drinking water standards development.

E. Cross-Connection Control Technician Certification Process Evaluation

Article 12.2(c) of the Colorado Primary Drinking Water Regulations requires the Division to conduct an evaluation of the cross-connection control technician certification process of the American Society of Sanitary Engineering (ASSE), the American Backflow Prevention Association (ABPA), and the Association of Boards of Certification (ABC) and report the results to the Water Quality Control Commission. The evaluation is to be conducted no less often than once every two years. If the Division were to find that the certification process employed by one or more of these organizations is deficient in some way, then the Division may request that the Water Quality Control Commission hold a rulemaking hearing to remove that organization from the list of approved certification bodies. To the best of the Division's knowledge, no such formal evaluations or reporting have taken place in at least the last ten years. Through informal means and ongoing interactions with stakeholders, the Division believes that the certification processes utilized by ASSE and ABPA remain satisfactory. It appears that ABC has not had such a certification program in at least the last several years, and to correct this error the Division is planning to remove ABC from the regulations in November 2013 in conjunction with the Increased Readability Rulemaking. When the Division does tackle updating the section of the regulations that addresses this issue, the

Division will work with stakeholders to determine the best way to evaluate these certification bodies going forward.

F. Regulation 85

Regulation 85 (Nutrients Management Control Regulation) became effective September 30, 2012. This control regulation establishes numerical effluent limitations for many domestic wastewater treatment plants and industrial wastewater dischargers that are likely to have significant levels of nutrients in their discharges. It also describes requirements for other point source dischargers and voluntary steps for nonpoint sources to address nutrients. The control regulation also establishes monitoring requirements for point source dischargers and a program aimed at monitoring of surface waters for nutrients and related parameters. This effort is geared toward better characterizing nutrient sources, and current nutrient conditions, to help inform future regulatory decisions regarding nutrients. The sampling and analysis certifications for the monitoring of surface waters and related parameters were due to the Division on March 31, 2013. To date, approximately 300 sampling and analysis plan certifications have been received. Since May 31, 2012, the Division has developed Preliminary Effluent Limitations based on Regulation 85. Since that time four Domestic Wastewater Treatment Works have been provided Preliminary Effluent Limits according to Regulation 85.

III. MONITORING ACTIVITIES

The Division's surface water monitoring activities for FY 2013 were grouped into four general types: (1) routine sampling; (2) special studies; (3) lake and reservoir monitoring; and (4) aquatic life and habitat studies.

A. Routine Sampling

The Division uses a rotating basin approach for primary stream monitoring. The entire state is sampled on a five-year cycle that matches the Commission's schedule for triennial reviews of basin standards and classifications. For the purposes of conducting the triennial reviews, the state has been divided into four major river basins. Each of the four major river basins is sampled intensively once every five years. This allows the Division to concentrate its limited resources on one basin in order to provide data for the triennial review scheduled for that basin and for other data objectives such as impairment determination and source control investment targeting and evaluation. In every fifth year of the cycle, Regulation No. 31 (Basic Standards and Methodologies for Surface Water) is reviewed by the Commission, and there is no need to intensively sample one of the major basins. Sampling is more evenly allocated among the long-term trend sites in the four basins, special studies are conducted, and specific data gaps may be filled.

The number of sites and the number of times a specific site is sampled each year is controlled by the Division's monitoring budget for laboratory analyses, which in FY 2013 was $375,000. The samples collected are analyzed by the Department's Laboratory Services Division. Depending upon the amount of data sought for a particular site and the accessibility of the

site, sites are visited on a regular schedule, such as monthly or bimonthly, or when weather and road conditions allow access. In State FY 2013, the specific river basin focus targeted the South Platte River Basin, and routine water chemistry samples were collected from a network of 148 sampling sites located across the state. Of the 148 total sites, 29 sites are classified as "Trend Sites", sites to be maintained annually, and independent of the sites selected for the focus basin in a particular fiscal year. Of the Trend Sites, 7 are within the South Platte River Basin, 10 are within the Colorado River Basin, 6 within the Arkansas/Rio Grande River Basins, and 6 within the San Juan/Gunnison River Basins. Of the total number of sites, 64% are within the Platte River Basins, 15% within the Colorado River Basin, 16% within the Arkansas/Rio Grande River Basins, and 5% within the San Juan/Gunnison River Basins. This sampling resulted in the collection of 748 sample sets. Samples were analyzed for a suite of constituents including metals, inorganics, and nutrients. Field parameters such as dissolved oxygen, pH, conductance, and temperature were also collected.

Sampling needs of other parts of the Division as well as citizen and performance partner demands for water quality sampling services exceed the fiscal and staff resources currently available to the Division. Increasing analytical costs and a relatively fixed monitoring budget have caused fewer water body locations to be sampled on an annual basis in past years which results in less information for future water quality management decisions. The small increases in sampling sites are currently supported by additional funding from EPA and may not be permanent.

B. Special Studies

Special studies monitoring includes synoptic sampling events for total maximum daily load determinations, fish tissue sampling, and other water quality investigations. One study focused on the variability of macroinvertebrate data collected via kick net sampling to be used in future revisions to the WQCC Policy 10-1 and/or biennial 303(d) listing methodologies. The goal of this precision and accuracy study is to identify the variability in MMI scores of semi-quantitative kick-net samples collected within the same day and across three consecutive months within each of three different MMI biotypes. In 2012, the Division visited three sites in MMI biotype 1. The Division visited each site once per month from July to September to collect three replicate samples each day within the same habitat type, typically a riffle. This resulted in 9 samples per site (3 samples per day x 3 months). Streams sampled were Little James Creek, North Fork St. Vrain, and South Boulder Creek.

An additional study was conducted to study reservoir tailwater water quality characteristics and aquatic life response. The goal of the tailwaters study is to identify a distance downstream from the reservoir where the benthic macroinvertebrate community is not impacted. Recovery is measured collectively by the attainment/impairment status of Policy 10-1 biological thresholds and a suite of applicable aquatic community metrics. The tailwaters study is to determine whether or not a water quality standards attainment Category 4c designation may be more appropriate for observed impacts below reservoirs. In 2012, the Division studied water bodies below reservoirs that utilize bottom release structures in order to eliminate exceedances of the temperature standard as a possible stressor. These water bodies were Taylor River below Taylor Reservoir and Fryingpan River below Ruedi

Reservoir. The results of these studies will be used to develop or inform guidance in the 2016 303(d) Listing Methodology Work Group in the Spring/Summer of 2014. The Division may also summarize the results in the 2016 Integrated Report to EPA.

Twenty-three reservoir and river sites across the state were sampled for fish tissue mercury from July 1, 2012 through June 30, 2013. No new Fish Consumption Advisories were issued on the basis of results from these 23 water bodies. The Division completed the process of issuing Fish Consumption Advisories for two sites where data from 2011 indicated elevated levels of mercury (Big Creek Lakes and Cheesman Reservoir). Fish Consumption Advisories were also lifted from Boyd, Granby and Juniata Reservoirs due to most recent fish tissue data indicating mercury levels below the 0.3 ppm threshold. As of July 1, 2013, there are 23 fish consumption advisories for lakes and reservoirs in Colorado. This is one less than the previous year when there were 24 fish consumption advisories.

A study to investigate levels of arsenic in Colorado fish was conducted in FY 2013. Fourteen samples from 5 water bodies in Colorado were sent to the Brooks Rand Laboratory in Seattle, Washington for analysis of arsenic species. The inorganic fraction is known to be toxic to humans so understanding the ratio of organic to inorganic arsenic in Colorado fish is critical for risk assessment. The completed analyses showed all samples had very low total arsenic and the inorganic portion was below the detection limit for their lab (0.004 mg/kg). While this acted as an informative screen, additional testing is needed to make conclusions about arsenic species ratios in Colorado. The Division will continue to work with the Brooks Rand Laboratory in the future to analyze additional samples using a lower detection limit. Samples from water bodies with the highest arsenic levels in Colorado will be targeted in the future.

A focused study by Colorado State University researchers continued in 2012 and 2013 on two mercury impaired reservoirs on Colorado's 303(d) list (Horsetooth and Elkhead Reservoirs). Extensive biological and water quality data are being collected in a collaborative effort with the Colorado Division of Parks and Wildlife, the City of Fort Collins, and the Northern Colorado Water Conservancy District. This project is to support TMDL development and evaluate ways to reduce mercury bioaccumulation through food web manipulation. It is being coordinated and funded with NPS funds.

C. Lake and Reservoir Monitoring

The Division continued its lake and reservoir sampling in FY 2013. The Division focused sampling efforts on the South Platte River Basin in order to provide data for the upcoming triennial review. Ten lakes from the South Platte Basin were sampled three times each during the growing season. At each lake, depth profiles of dissolved oxygen, pH, conductivity, and temperature were collected at one-meter intervals. Water quality samples were taken from near the surface and near the bottom. Samples were analyzed for a suite of chemical parameters including nutrients, metals, and inorganics. In addition, the surface sample was analyzed for the chlorophyll a content as a measure of trophic status and for the phytoplankton population to determine the algal species composition.

As part of an effort to expand the lake monitoring program in Colorado, a two-year study was initiated to sample high alpine lakes. Eight lakes from the Flattops Wilderness Area in the Colorado River Basin were sampled one time each in July of 2012. One lake and approximately ten streams were also sampled in the James Peak Wilderness Area in the South Platte River Basin as a part of this effort. Equipment, field crews, and water samples were transported by horses, and the lakes were sampled using inflatable rafts. The typical lake monitoring parameters listed above were tested from each lake along with additional parameters such as low level nutrients, zooplankton, and physical habitat data. Nutrient data was collected in order to examine the influence of nitrogen and sulfate deposition on the high alpine lake environment. Zooplankton and habitat data was collected to provide insight into the possibility of the lakes supporting a fish population. By collecting data from high alpine lakes, Colorado can increase the percentage of assessed acres in Colorado for the Integrated Report. The Division will also be examining these results and developing a strategy for sampling these types of water bodies in the future. The Division plans on summarizing results from the high alpine study in the 2016 Integrated Report.

The Division also participated in the EPA sponsored National Lake Assessment (NLA) in 2012. The Division worked in cooperation with the US Geologic Survey (USGS) to collect water quality samples from 25 randomly selected lakes throughout the state as part of a statistically-valid survey of the nation's waters. Parameters such as physical habitat characteristics, water chemistry, macroinvertebrates, and phytoplankton were collected at each lake using consistent field methods across the country. Nationwide results are currently being analyzed to estimate the percentage of lakes that are in good, fair, or poor condition in a scientific report card of America's lakes.

D. Aquatic Life and Habitat Studies

The Division collected macroinvertebrate and habitat samples at multiple locations in the state. At each of the habitat sites, water quality samples were taken and analyzed for a specific suite of chemical constituents. These data, plus habitat scores, periphyton samples, and occasional substrate measurements, will be used in assessment of aquatic life use and 303(d) or Monitoring and Evaluation (M&E) listing decisions.

The aquatic life studies included targeted sampling of 303(d) and M&E listed stream segments (South Platte River headwaters and multiple locations in the Colorado River Basin, including Elkhead Creek and the Piceance Basin, revisiting a few reference sites where MMI scores were low, visiting trend sites in the Colorado River Basin, and revisiting stations with high MMI scores) to test the High Quality Water portion of Aquatic Life Policy 10-1. Also, staff conducted a special study to investigate the expected aquatic community above lagoon treatment facilities in the San Juan River Basin as part of an ammonia recalculation project. The Division also entered year two of a continuing pilot project whereby macroinvertebrate samples were simultaneously collected with water chemistry samples.

The Division worked collaboratively with and provided the necessary sampling equipment and training for the Bear Creek Watershed Association, the Grand County Watershed Information Network and the Roaring Fork Conservancy in order to collect

macroinvertebrates samples at monitoring stations of particular importance to these watershed groups.

E. Nonpoint Source Monitoring Requirements

Grant requirements under the Clean Water Act Section 319(h) prescribe that measurable results be reported for nonpoint source projects that pertain to on-the-ground restoration and remediation. EPA defines measurable results as "restoring waters to partial or full uses and standards, or as a minimum, reducing pollutant loads such as nutrients and sediment." To accomplish this, existing nonpoint source impacts need to be more accurately quantified in order to provide a water quality baseline from which to measure improvements. Surrogate measures, such as a record of the best management practices (BMPs) installed, can be used to evaluate the total project effort but do not provide data that equate to water quality improvements.

Few nonpoint source project sponsors have the expertise needed to prepare an adequate sampling and analysis plan that can be used to assess changes in water quality. As a result, the Division modified its approach to monitoring and evaluating nonpoint source projects. Starting with the 2004-2005 Nonpoint Source Section 319 project cycle, sponsors are required to provide more definitive water quality data to substantiate project outcomes during the terms of the project contract. Improvements such as a sampling and analysis plan template have been developed to assist project sponsors in complying with the increased emphasis on measurable water quality outcomes. This additional monitoring requirement has increased staff workload. Staff is required to assess the data collection methods and to determine the effectiveness of nonpoint source management activities. Additional staff data evaluation capacity is needed to meet this increasing federal grant requirement.

A Measurable Results Project (MRP) continues to increase the Division's capacity regarding baseline and post-project monitoring of Nonpoint Source projects. The MRP assists the Division and project sponsors through the development of policies and practices that enable NPS projects to be monitored on multiple scales. The MRP identifies the effectiveness and efficiency of implemented BMPs to reduce targeted pollutants at the project level and is also able to monitor the success of the BMP(s) to address impairment issues at the segment level. The MRP has developed a toolbox of methods and analytical tools and approaches consistent with other WQCD data collection efforts so that NPS projects are evaluated with consistency across the program and are integrated in the WQCD regulatory process. Macroinvertebrates, water chemistry, sediment/nutrient loading, geomorphological features (stability survey, pebble counts, etc.) are all components frequently employed by MRP. The MRP works with project sponsors in Sampling and Analysis Project Plan (SAPP) development, characterization of pre-project conditions, post-project follow-up (beyond the timeline of the NPS five-year contract with sponsors), and in data analysis to provide a comprehensive strategy to determine project effectiveness.

Nonpoint source management activities are implemented by using a focused watershed-based approach. This approach was initiated by synchronizing nonpoint source monitoring needs with the five-year, basin-monitoring schedule used to collect water quality data in support of

the triennial review of basin classifications and standards. For FY 2013, the MRP assisted 2 new mine reclamation projects with SAPP development (Bullion King Mine in the upper Animas Watershed and Upper Uncompahgre Mines) and 4 projects with pre-project implementation baseline water quality sampling (Clear Creek Sediment Control, Lower Willow Creek, Kerber Creek and Florida River). The MRP continued supporting 1 project with technical guidance, SAPP development assistance and biological sampling (lower Bear Creek watershed plan). Five historical projects (Alamosa River, Eagle River, Rio Grande, Upper Trail Creek, and Gilson Gulch) continue to utilize MRP to collect post-project water quality data. In addition, multiple sites in the Upper Arkansas Basin were assessed to evaluate potential watershed restoration success story, which is an ongoing EPA PPA commitment.

F. Cooperative Monitoring Activities

To ensure that the maximum amount of relevant data are assessed each year, the Division issues a "call for data" to numerous cooperators, including federal and state entities, basin authorities, dischargers, and watershed groups, as well as River Watch and nonpoint source management project sponsors. Through this mechanism, the Division accumulates a considerable amount of data beyond what it can directly sample and analyze. In return, the Division assists other groups whenever possible as in 2012 when Division staff assisted in the sampling efforts and analyses for mercury in fish tissue in the Southwestern part of the state in conjunction with the Southwestern Water Conservation District.

As a member of the Colorado Water Quality Monitoring Council (Council), the Division has discussed cooperative monitoring efforts with other stakeholders. To facilitate data sharing, the Council works with the Data Sharing Network. The Data Sharing Network is a statewide, web-based water quality database and interactive map. The water quality database and interactive map are housed on the Council's website (www.coloradowaterquality.org). Version 1.0 of the new water quality data map utility, powered by Google Earth technology, allows users to find and download data. A Clean Water Act Section 319 grant from the Division supported this project.

G. Augmented Monitoring Funds

In order to upgrade state monitoring efforts and encourage implementation of the Monitoring and Assessment Strategies for States, the EPA placed an additional $17 million in the Clean Water Act Section 106 state grants in Federal FY 2007. Colorado received $374,000 of these "Monitoring Initiative" funds for a two-year period to facilitate the implementation of EPA's 10 Elements document and to conduct a statewide Probabilistic Survey of water quality as part of a national project. The Division has continued to designate these funds for additional monitoring of rivers and lakes, a high alpine lake monitoring study, a new standards database, and cooperative monitoring efforts with the Colorado Division of Parks and Wildlife. This program continues to fund Colorado's effort to expand its monitoring and assessment capabilities.

In 2010, a position was created to: 1) monitor surface water quality above and below point and nonpoint source control projects, and 2) monitor surface water quality prior to and after

the construction of wastewater infrastructure projects that are funded using state revolving funds. The resulting data assessments will be used to evaluate the effectiveness of new and existing point and nonpoint source control projects. The information will also be used to prioritize areas for future point and nonpoint source control infrastructure investment.

In SFY 2012, data were collected for four projects to measure the water quality changes in receiving streams as a result of completion of wastewater infrastructure projects funded through the Water Pollution Control Revolving Fund. These studies included Boxelder Sanitation District's Wastewater Treatment Facility, City of Pueblo's DiIorio Water Reclamation Facility, Glenwood Springs' Regional Wastewater Treatment Facility, and the Town of Red Cliff's Wastewater Treatment Facility. Also in SFY 2012, five studies were conducted to evaluate water quality impacts and source identification in abandoned hard rock mines that contribute to impaired rivers and streams. These studies are done in coordination with the Division of Reclamation Mining and Safety (DRMS). DRMS contributes significantly through sampling, report generation, and restoration expertise. Projects include the Champion Mill, Daisy Mine, Illinois Gulch, multiple sites in the Uncompahgre drainage and the Waldorf Mine. Each of these assessments is at different points of completion.

IV. PERMIT PROGRAM

A. Permitting

Permitting Performance Measures: Permit Backlog and High Priority Permits

A backlog is defined as a permit that has not been renewed prior to its expiration date or a new permit that is not issued within 180 days of receipt of the permit application. In May of 2000 as part of a national backlog reduction initiative, the EPA required a permit backlog reduction plan for the Division due to its inability to keep up with permit renewals and requests. EPA first approved the Division's backlog reduction plan shortly thereafter, and backlog maintenance expectations have been included in the annual state EPA agreement ever since.

Approximately 1,500 permits are included in the backlog measure. Since 2000, EPA's backlog reduction program has expanded to include individual process water and stormwater permits and general process water permits. Of these, approximately 350 are for facilities covered by individual permits and approximately 1,150 are general permit covered facilities. The Performance Partnership Agreement between the Colorado Department of Public Health and Environment (Department) and EPA for Federal FY 2012 (October 2011 – September 2012) included a goal that 80 percent of the permits included in EPA's backlog reduction program would be current (20 percent backlogged). The Division's best estimate of backlog as of October 1, 2012 was 55 percent current (45 percent backlogged) which was short of the 80 percent target. The PPA commitment for Federal FY 2013 (October 2012 – September 2013) is 80 percent current (20 percent backlogged), and the Division anticipates that by the end of September 2013, 64% percent of permits will be current (36 percent backlogged). Looking at these areas independently, individual permits are expected to be approximately 75 percent current (25 percent backlogged) at the end of September 2013. The backlog in general

permits fluctuates greatly since the number of facilities under a single general permit varies from 13 to 280. The Division estimates that approximately 60 percent of general permits will be current (40 percent backlogged) at the end of September 2013.

Another important element of EPA's backlog reduction efforts is priority permits. Priority permit issuance has been used as a performance measure in the Performance Partnership Agreement between the Department and EPA since FFY 2005. The measure and procedures have changed over time; however, EPA has always considered any expired permit for which a renewal application has been submitted and which has been administratively extended for two years or more, or any application for a new permit that has not been acted upon for two years or more, to be a priority permit. For federal FY 2012, the Division committed to issuing 22 of 34 high priority permits and was able to issue 22 by September 30, 2012. For Federal FY 2013, EPA revised the measure, and states are required to select 20% of candidate permits. Candidate permits includes renewal permits that have been expired for two years or more and new permits that have not been acted upon for two years or more, plus permits eligible for environmental significance or state/national program priority reasons. Of the selected candidate permits, the states must commit to issue approximately 80% of these selected priorities. For FY 2013, the Division had 17 candidate permits that were expired two years or more and selected all 17 of those permits, resulting in an issuance target of 14 permits. The Division expects to issue 12 of those permits by September 30, 2013.

Program Areas Not Included in the Permitting Performance Measures

Stormwater. The major elements of stormwater permitting include industrial stormwater, municipal stormwater or MS4, and construction stormwater. These programs continue to evolve primarily as permit requirements are refined.

Groundwater. The Colorado Discharge Permit System Regulations require any domestic sewage system that discharges to groundwater to obtain a permit. This is a state-only permit program. The Division estimates that there are approximately 200 facilities that should be permitted; however, many of these facilities do not have current permits. The Division has been implementing a process to ensure that the owners of these facilities do obtain the appropriate permits. This process is resource intensive because many facilities without appropriate permit coverage need to upgrade their level of treatment. To assist these owners, the Division is working with them to upgrade their systems prior to issuing new permits. Progress has been slow due to the lack of adequate compliance assistance resources to spend working with these small businesses (e.g., campgrounds, lodges) and towns. In addition, the engineering work to review and approve the required facility treatment upgrades was not anticipated and will exceed the Division's capacity to complete reviews within a reasonable time. The Division continues to make incremental progress in permitting these facilities.

Pesticides. A 2009 federal appeals court decision resulted in a requirement for entities applying pesticides in or near waterways to obtain discharge permit coverage for their discharges by an October 31, 2011 court-ordered deadline. Since the Division has exclusive authority to issue National Pollutant Discharge Elimination System (NPDES) permits for non-federal activities in Colorado, the EPA permit does not apply to the vast majority of

applications in Colorado, and the Division is required to issue a permit for the use of pesticides in the state.

In November 2011, the Division issued a short-term (two-year) general permit based on the final EPA permit. This allowed the Department time to seek permitting and compliance oversight resources to issue permits that require more robust applicant information for larger applicators and to conduct a reasonable level of compliance oversight. Those resources were secured, and the permit was extended in 2013. The general permit provides automatic authorization of pesticide applications statewide without the need to submit a permit application. Submittal of a Compliance Certification to the Division identifying the entity and the location (county) where pesticides are intended to be applied will be required. The Division continues to work with the Department of Agriculture to coordinate activities since that department is responsible for licensing many of the larger applicators under the Federal Insecticide, Fungicide, and Rodenticide Act. A stakeholder process is currently underway to renew the pesticide general permit for a full five-year term.

Biosolids. The Division implements a state biosolids program consistent with the direction provided in Regulation 64. Both the federal and the Colorado regulations governing beneficial use of biosolids identify allowable levels of heavy metals and pathogens in the biosolids, siting restrictions, and management requirements. The regulations require that application rates be based upon the nutrient requirements of the crops under cultivation. In 2012, approximately 93 percent of the biosolids generated by municipal wastewater treatment facilities in Colorado was beneficially reused and is regulated under the program. Because Colorado has not been formally delegated authority to implement the federal biosolids program, EPA retains ultimate authority over the program.

Pretreatment. The Division implements a state pretreatment program consistent with the direction provided in Regulation 63. In permitting, the Division’s administration of the program focuses on issuing permits or control mechanisms to "categorical" industries that are located in areas where no approved local pretreatment program exists. This tool is a strong complement to the federal pretreatment framework. Because Colorado has not been formally delegated authority to implement the federal pretreatment program, EPA retains ultimate authority over the program.

Reclaimed Water. The Division implements a state reclaimed water program consistent with the direction provided in Regulation 84. Regulation No. 84 requires permitting by the entity that treats the domestic wastewater (treaters) as well as each entity that uses the reclaimed water (users) for landscaped irrigation and other approved uses.

B. Addressing Single Event Violations

The Division completed the evaluation of its existing and needed processes and associated electronic tools to measure, track, and appropriately escalate unresolved field-discovered single event violations (SEVs) in accordance with its grant agreement with EPA. The project has the following objectives:

1. Establishment of standard data collection methods for all work units collecting violation data in the field.
2. Automate work flows in the Division's SharePoint (Aquifer) tracking and work flow management system.
3. Decision points in the work flows that reflect Division-adopted policies for resolving violations.
4. Transmittal of violation data to the EPA ICIS database.
5. Make available reports from ICIS or Aquifer to Division programs in order to facilitate compliance activities.
6. Training of managers and staff to implement the new processes and work flows and making documentation available for future training.

The work flows have been developed and are currently functional within the Microsoft SharePoint system (Aquifer). While the grant ended in March 2013, the Division still must test and implement the SEV tracking and reporting system in accordance with the US EPA Performance Partnership Agreement. The Division has already initiated the testing and implementation through the input of sanitary sewer overflows into the system. The Division will use this data repository to evaluate the next steps to manage these violations in a way that produces the best measurable outcomes.

C. Environmental Agricultural Program

The Environmental Agriculture Program administers regulatory, permitting, compliance assistance and compliance assurance activities for animal feeding operations (AFOs), concentrated animal feeding operations (CAFOs - i.e., large dairies, feedlots, poultry facilities) and housed commercial swine feeding operations (HCSFOs). The Ag Program utilizes a sector-based approach that takes into account the interaction and environmental impact of air, water and soil resources when making regulatory and policy decisions.

The program oversees 12 individual HCSFO permits, 72 CAFO permits, 114 registered CAFOs and hundreds of AFOs. The program administers the Water Quality Control Commission Regulation No. 61, the Colorado Discharge Permit System Regulations; Regulation No. 81, the Animal Feeding Operations Control Regulation; Regulation No. 66, the Financial Assurance Criteria Regulation for Colorado Housed Commercial Swine Feeding Operations; and Air Quality Control Commission Regulation No. 2, Part B, Odor Emissions regulation for HCSFOs.

During FY 2013, the Ag Program completed a total of 480 inspections at animal feeding operations. Of these inspections, 55 were conducted at CAFOs and 425 at HCSFOs. CAFO inspections covered 20 permitted CAFOs, 20 non-permitted CAFOs, two medium AFOs and 13 other permitted and non-permitted CAFOs to verify compliance with corrective actions identified during the previous inspection year. The Ag Program conducted 188 water quality protection inspections and 237 odor inspections at HCSFOs. Overall compliance rates at CAFO facilities were noted to be generally better in FY 2013 than in previous years. Approximately 83% of inspected non-permitted CAFOs and approximately 85% of inspected permitted CAFOs were in compliance with applicable regulatory requirements. In addition,

approximately 96% of HCSFO facilities were in full compliance with applicable air and water regulatory requirements.

The Ag Program completed the renewal of 51 certifications under the CAFO general permit and issued six new certifications under the CAFO general permit in FY 2013. An additional 13 CAFO permit renewal applications have been reviewed and are pending approval upon receipt of additional information from the facilities. The renewal of the remaining CAFO permits will continue through FY 2014.

The Ag Program revised Air Quality Control Commission Regulation No. 2, Part B in May 2013 to remove sections that are no longer applicable, including compliance dates that have already passed, and to reduce the required reporting frequency from twice per year to once per year.

Additional program goals in FY 2014 include a rulemaking for Regulation No. 81 during October 2013; development of a new HCSFO NPDES permit application; renewal of the 12 individual HCSFO discharge permits; and continued implementation of program improvements to maintain an efficient and effective program that meets stakeholder expectations and supports the department's strategic plan.

D. Water Quality Information Systems

The Division currently utilizes a Microsoft 2010 SharePoint (Aquifer) platform to share information and track workflows.

The Division has successfully implemented a pilot program for electronic submittal of discharge permit monitoring data. This information is submitted through EPA's NetDMR system. The current permitted universe requiring a DMR is 1,863. There are currently 101 permits in production participating in NetDMRs.

The EPA has released for comment a proposal requiring electronic reporting for current paper based NPDES reports. This action will save time and resources for permittees, the State of Colorado, and EPA while improving compliance and providing better protection of the nation's waters. The proposed Clean Water Act regulation would require permittees and regulators to use information technology to electronically report information and data related to the NPDES permit program in lieu of filing written reports.

CDPHE environmental programs will be embarking on a new five-year project called CIMPLE (Customer Interface Modernization Project for a Lean Environment). This initiative is designed to create an umbrella system for customers to interface with all of CDPHE's environmental programs. This umbrella system will provide a single point of entry for customers to provide and obtain electronic information related to the Department's environmental programs.

For the fiscal year 2014, the Division will implement a new Standards Database for the Water Quality Control Commission that will manage and organize all of the water quality standards,

designations, classified uses, and temporary modifications. This database will include over 30,000 data records across 900 plus water body segments.

V. WATER QUALITY IMPROVEMENT FUND

During the 2006 legislative session, the General Assembly created the Water Quality Improvement Fund (WQIF) (CRS 25-8-608[1.5], and the Commission adopted Regulation #55. The WQIF was created to provide grants to local communities/entities to improve water quality, health, and safety. The source of revenue to the fund is penalties assessed on polluters who have committed water quality violations.

During the 2012 legislative session, the General Assembly authorized an additional $600,000 for capital construction funding. Historically, $167,000 was appropriated annually with a requirement that the funds be expended within the fiscal year. The 2012 changes provided additional funding, required grants be issued for stormwater management training, and provided the flexibility to expend the funds over multiple years.

During the 2013 legislative session, the General Assembly created a new Nutrients Management Grant Fund (HB-13-1191) within the WQIF. The General Assembly authorized $15 million in general funds to provide grants to domestic wastewater treatment works owned and operated by local governments and subject to the first phase implementation of Regulation #85. State general funds were provided for projects to plan, design, construct, or improve a wastewater treatment works in order to comply with the effluent limits of Regulation #85.

The following tables illustrate the WQIF grants awarded to date from the base program as well as the new Nutrient Management Grant fund.

Water Quality Improvement Fund (Base Program) Grants

Entity	Project Description	Total Project Cost	WQIF Grant Award
2007			
Pueblo City - County Health Department	The project provided educational outreach to community members and stakeholders on best management practices to minimize the potential water quality impacts of leaking or failing septic systems and agricultural runoff.	$39,730	$28,885
Palmer Lake Sanitation District	Wastewater collection line expansion to eliminate health hazards from failed septic systems. Failure to repair these systems would likely result in pollution of Monument Creek/Fountain Creek.	$325,000	$21,664
Colorado Foundation for Agriculture	This project encourages middle school students to become watershed defenders and protect Colorado's waters from runoff pollution. It provides them with information on sources of water pollution and encourages personal action to prevent nonpoint source pollution.	$75,000	$21,655.
2008			
City of Commerce City	Commerce City stormwater staff coordinated with permitted industrial dischargers to develop a spatial database. This database will allow Commerce City staff to begin identifying pollutants within their jurisdiction. This will allow the city to focus water quality mitigation activities on specific pollutant issues and at specific stormwater outfalls.	$38,000	$36,072
Idalia Sanitation District	Construction of wastewater treatment plant improvements that will minimize the increasing levels of nitrates in the Ogallala groundwater. Without these improvements contamination of drinking water wells would have been likely.	$396,869	$27,054
League of Women Voters of Colorado Education Fund	The project will print the "Understanding Water Quality Activities Book" which will be used in many elementary and middle school classrooms as the textbook on water. This book will also complement many of the science kits being used in elementary schools. The objective of the book is to educate on pollution runoff and its prevention.	$60,000	$30,335
2009			
Department of Natural Resources	The goal of this project is to reduce the amount of pollution, in the form of excess sediments and chemicals, reaching the Arkansas River. The WQIF helped implement the public education component of this project by producing professional grade signs that will be posted along the river. The signs will inform the public about the pollution concerns and measures that have been taken to prevent the pollution from harming the water quality in the river.	$796,500	$24,980

Colorado Foundation for Agriculture	This project will incorporate all the pollution prevention educational materials that have been produced over the years into the Colorado Content Standards. The educational materials have been partially paid for by CDPHE NPS funds and WQIF and have been incorporated in and enriched the science curricula of middle and high schools in Colorado.	$286,000	$8,421
2010			
City of Delta	This project is the first phase of a $6.9 million project at the City of Delta's wastewater treatment facility that has a capacity of 2.45 million gallons per day.	$999,000	$33,400
Woodmen Hills Metro District	This project addresses the Paint Brush Hills Wastewater Treatment Facility which is not currently able to consistently meet BOD removal requirements.	$400,000	$44,500
2011			
Mountain Water & Sanitation District	The project includes the development of a preliminary engineering report and other engineering design activities for meeting future discharge permit limits of BOD, TSS, ammonia, and nitrogen, which will improve the overall condition of the watershed. The existing RBC plant is nearing the end of its design life and will not be able to meet future discharge permit limits.	$2,300,000	$44,534
Hot Sulphur Springs, Town of	This project consists of improvements or replacement of the aeration system and improvements to the existing wastewater lagoon treatment system, resulting in benefits of reduction of BODs and solid loading into the Colorado River.	$550,000	$33,401
2012			
AGC Colorado	Develop training for “Compliance Starts at the Top Executive Buy-In Program”. Develop Website Resources for USMS Advanced Stormwater Manager Students. Conduct USMS Construction Site Compliance Basic Training. Conduct USMS Construction Site Compliance Manager Training.	$83,750	$50,000
Coal Creek Watershed Coalition	The project consists of a stormwater and roadway Best Management Practices (BMPs) training, which includes proper selection, Installation, and maintenance of stormwater BMPs.	$3,540	$2,260
Red Rocks Community College	The project consists of a two-day training program focused on the Stormwater Program legal requirements including: erosion and sedimentation on constructions sites, permitting, Stormwater Management Plans, a wide range of BMPs for specific drainage and site conditions to control erosion and sedimentation, permitting, the duties of the SWMP Administrator, the installation of stormwater controls, and the inspection and maintenance of those controls.	$17,568	$14,868

Steamboat Springs, City of	In partnership with Yampatika the project will include providing public education, training, and outreach on BMPs in Stormwater Management to youth, adults, property managers through their HOA, architects, builders, and the general public. Activities will provide both targeted and broad education about best BMPs and the human dimensions of stormwater pollution programs.	$10,652	$7,652
Cherry Creek Stewardship Partners	Develop a project referred to as "The Low Impact Development Water Quality Demonstration Garden". The goal of the project is to display a suite of green infrastructure practices that will target the removal of key pollutants including two rain gardens with different infiltration media, a bioswale, a hydrodynamic separator, several underground tree filter boxes, permeable pavement, native seeding and landscaping with an emphasis on xeriscaping. Upon completion of the demonstration garden, the project team plans to offer training on the proper selection, installation, and maintenance of low impact development BMPs in Colorado's arid climate. The training would be no cost to the participants.	$170,000	$15,000
Urban Drainage and Flood Control District	The Urban Drainage and Flood Control District, Colorado Stormwater Council, Colorado Association of Stormwater and Floodplain Managers, Colorado Department of Transportation, Colorado Water Institute, and Colorado State University (CSU) jointly propose and endorse a project to develop a statewide stormwater management / best management practices (BMP) education and training program to reduce the pollution of state waters and to assist Municipal Separate Storm Sewer System (MS4) programs with fulfillment of their permit requirement for education and outreach.	$117,500	$60,220
Forest View Acres Water District	Rehabilitation of severely degraded discharge pond including full clean-out of erosion and mud, debris and plant material, inspection and relining. The pond should be used for discharge of backwash water from the Surface Water Treatment Plant (SWTP) and the pump that allows reuse of the backwash water needs to be rehabilitated so that the water recycling system can be brought back on line. Additionally, a structural assessment will need to be performed due to the pond's proximity to a dramatic sloping hillside, along with a repair assessment. Pond and retaining walls potentially will need to be either reshaped or rebuilt.	$120,000	$60,000
Mountain Water & Sanitation District	Developing engineering design and bid documents for new wastewater treatment facility that will be designed to meet or exceed the effluent limits stated in the PEL discharge permit. The current WWTP utilizes a rotating biological contactor for the treatment process. The WWTP is nearing the end of its design life and is in need of considerable improvements to maintain long-term treatment capabilities. The most current permit contains a compliance schedule that requires specific ammonia limits to be met by 12/31/16.	$2,000,000	$90,000

Cokedale, Town of	The Drainage Improvements Project consists of reestablishing the functionality and capacity of the hillside ditches by cleaning, grubbing, reshaping, and grading the ditch sections; eliminating an existing, non-functional graywater channel that poses a liability to the town; improvements along Elm Street from the intersection of Spruce Street to its re-intersection with Spruce Street, which includes the installation of stormwater piping, cleaning out existing culverts, installing new culverts, regrading ditch sections, installing concrete pans, riprap and outlet structures; improvements along Maple Street including a sediment detention pond, stormwater piping, riprap, inlet and outlet structures, installation of ditches and regrading existing ditches.	$685,086	$90,000
Steamboat Springs, City of	The project consists of installing a mechanized stormwater treatment device at one of the identified outfalls to the Yampa River. The device can be employed where retrofitting storm sewer systems in previously developed areas is the only option to achieve treatment of stormwater runoff.	$94,000	$47,000
City and County of Denver	Construction of a regional water pond to capture urban runoff. The pond will consist of small shallow retention ponds surrounded by wetland plants such as rushes, willows, and cattails.	$2,375,000	$53,000
Department of Natural Resources, Division of Reclamation, Mining and Safety	Under this NPS project, several impaired water bodies have been identified as being negatively impacted by legacy mining activities. The Hough Mine is one of the priorities for reclamation activities and is slated for construction of Best Management Practices (BMPs) to mitigate those impacts. The WQI funds will help leverage the funding that DRMS has received for construction of BMPs and allow DRMS to complete additional project work on impaired stream segments.	$2,182,334	$60,500
Trout Unlimited	The Kerber Creek Restoration Project is a joint partnership between Trout Unlimited, Bureau of Land Management, Colorado Nonpoint Source Program, Colorado Division of Reclamation, Mining and Safety, Natural Resources Conservation Service, the Bonanza Stakeholders Group, U.S. Fish and Wildlife Service, U.S. Forest Service, local landowners, and other partners. Historic mine tailings have washed down through Kerber Creek and are contributing metals and acidic pH to the waterway. The project involves in-situ treatment of mine tailings by demobilizing metals and re-vegetating mine tailing piles, and installation of fish habitat and stream bank stabilization structures.	$700,000	$60,038
Colorado State University	The project funds collection and analysis of field data to better describe in-stream processes of Se and N, necessary for evaluating alternative BMPs and hence assisting in reducing nonpoint source Se and N pollutant loads. Also, the project provides matching funds for implementing a groundwater-surface water transport model.	$427,700	$59,462

2013			
Urban Drainage and Flood Control District	Development of training module content in partnership with steering committee members and partners which ultimately reduces the cost of training to the participants. Provide training resources free of charge from the Colorado Stormwater Center's website. Conduct two training workshops of 25 participants each with additional workshops added if needed. Conduct a four-hour workshop for 30 participants at the CASFM annual conference in September 2013. Develop training video.	$85,000	$28,333
AGC	AGC Colorado's project will improve stormwater management in Colorado by educating the stormwater management community on best management practices (BMPs) to meet stormwater management regulations. The training participants will learn how to implement an Emergency Management System at construction sites that will reduce discharge into Colorado water bodies resulting in storm water compliance. AGC Colorado will provide Unified Stormwater Management System Basic and Advanced Stormwater trainings which include content of online resources. AGC will provide participants access to online resources post- training and will ensure updates and maintenance to the website. Training promotion will include email notifications to the Colorado stormwater community. Training participants will be tested after completing the training to assess acquired knowledge and skills and complete a training evaluation. AGC will compile and summarize training evaluation results and training test results.	$93,845	$21,667
Central, City of	The project will consist of developing a stormwater master plan for the city, improve existing infrastructure to maintain current stormwater capacity, reduce stormwater velocity to mitigate erosion and sediment transport, reduce flooding through redirection and collection of stormwater, design appropriate drainages and ditches to convey to customer.	$196,000	$67,884 (Cat 2) $32,116 (Cat 3)
Cedaredge, Town of	The project will consist of engineering services related to wastewater treatment system planning. The town owns and operates a wastewater treatment facility (WWTF) that was constructed in 1975. The existing WWTF consists of two aeration ponds, one polishing pond and a chlorine contact chamber prior to discharging to surface water. The existing facility has exceeded 80 percent of the hydraulic and organic loading capacity and requires expansion. Additionally, the town received a May 2011 Draft Total Maximum Daily Load (TMDL), requiring extremely stringent future effluent limitations in the receiving stream which will need to be addressed.	$300,000	$100,000

Florissant Water & Sanitation District	Florissant Water and Sanitation District (WSD) will achieve and maintain discharge permit system requirements by identifying a solution that resolves discharge permit system compliance issues. The project will improve the water quality in the South Platte Basin which has been impacted by a water quality violation. The district will complete a Preliminary Engineering Report (PER) that will evaluate and analyze the existing Florissant discharge permit system for deficiencies and assess environmental impacts.	$111,100	$100,000
Merino, Town of	The town received a compliance inspection letter from CDPHE on May 16, 2012, citing numerous alleged permit violations and other problems associated with the wastewater collection and treatment systems. The project will consist of performing an engineering evaluation and design of the existing wastewater treatment facilities to document facility shortcomings, identify needs and alternatives, and select the alternative that will best result in a fully compliant wastewater system.	$120,000	$100,000
Mesa Water & Sanitation District	The project consists of removal and disposal of biosolids from the polishing pond and rock filter unit treatment processes of the aerated lagoon WWTF. Effluent water quality is anticipated to be improved upon completion of the project to the extent of meeting future effluent ammonia limits as well as continuing to meet current secondary effluent CBOD and TSS limits.	$55,000	$45,000
Mansfield Heights Water & Sanitation District	The project consists of the renovation of an aging lift station including replacement of pumps and controls and renovation of the interior of the lift station chamber.	$200,000	$30,185
Uncompahgre Watershed Partnership	This project will expand and enhance tasks proposed in the NPS project: "Upper Uncompahgre Watershed Mine Remediation." The project comprises design and implementation of Best Management Practices (BMPs) at three legacy sites in the Upper Uncompahgre Watershed: Michael Breen Mine, Vernon Mine, and Atlas Mill; water quality monitoring at remediated sites; and water quality and impairments assessment at other legacy mine sites in the watershed to identify future remediation sites. The WQIF funds will be used as follows: 1) at the Michael Breen Mine to conduct removal of additional waste rock around the unstable load-out structure, enhanced stabilization and preservation of the historic structure, and additional improvements to enhance road drainage from runoff from the upslope mine site; 2) at the Vernon Mine to construct an additional diversion at an additional draining adit which had been identified recently during WQCD/DRMS sampling in spring 2013; 3) at the Atlas Mill to remove additional mine tailings and enhance phyto-stabilization along additional length of streambanks and hillslopes; and 4) to expand water quality sampling and site assessments to additional sites in the upper watershed for future prioritization of remediation projects.	$498,745	$78,836

Animas River Stakeholders Group	Nearly all streams in the upper Animas River Basin above Silverton, San Juan County, were listed "high priority" on the State's 303(d) list of impaired waters in 2000 due to heavy metal contamination. Numerous miles of streams were devoid or severely reduced of aquatic life and habitat. WQIF funding will help finance remediation of the last identified mine waste site in Mineral Creek, an impaired stream segment with completed TMDLs. The Bullion King remediation project is anticipated to bring Mineral Creek into attainment of the Water Quality Control Commission adopted numerical standards for WQCD segments COSJAF08 and 09. Reductions of all TMDL metals and acidity in Mineral Creek including Al, Cd, Cu, Mn and Zn are now in compliance with numeric standards or nearly so. Only iron and pH will possibly remain out of compliance after this project's completion.	$501,465	$78,836

2013 Water Quality Improvement Fund Nutrient Grants Summary

County	Facility	Owner	Project	Applicants	Funded	Not Funded
Boulder	75 St WWTF	City of Boulder	Planning and Design/Construction	$ 1,080,000.00	$ 1,080,000.00	
Eagle	Avon WWTF	Eagle River Water & Sanitation District	Planning and Design/Construction	$ 319,067.00	$ 319,067.00	
Summit	Blue River WWTP	Silverthorne-Dillon Joint Authority	Design/Construction	$ 1,000,000.00	$ 1,000,000.00	
Broomfield	City and County of Broomfield WWTF	City and County of Broomfield	Design/Construction	$ 1,000,000.00	$ 1,000,000.00	
Boulder	City of Louisville WWTP	City of Louisville	Design/Construction	$ 1,000,000.00		$ 1,000,000.00
Larimer	Drake Water Reclamation Facility	City of Fort Collins	Planning and Design/Construction	$ 1,080,000.00	$ 1,080,000.00	
La Plata	Durango WWTF	City of Durango	Planning and Design/Construction	$ 1,080,000.00	$ 1,080,000.00	
Eagle	Edwards WWTF	Eagle River Water & Sanitation District	Design/Construction	$ 1,026,667.00	$ 1,026,667.00	
Greeley	Greeley WPCF	City of Greeley	Planning and Design/Construction	$ 1,080,000.00	$ 1,080,000.00	
El Paso	Las Vegas Wastewater Treatment Facility	Colorado Springs Utilities	Design/Construction	$ 1,000,000.00	$ 1,000,000.00	
Larimer	City of Loveland	City of Loveland	Planning and Design/Construction	$ 1,080,000.00	$ 1,080,000.00	
El Paso	Lower Fountain Metro Sewage District	Fountain Sanitation District (75%) Colorado Centre MD (25%)	Planning and Design/Construction	$ 1,080,000.00	$ 1,080,000.00	
Mesa	Persigo WWTF	City of Grand Junction	Planning	$ 80,000.00	$ 80,000.00	
Pueblo	City of Pueblo	City of Pueblo	Planning and Design/Construction	$ 1,080,000.00	$ 1,080,000.00	

Fremont	Rainbow Park WWTP	Fremont Sanitation District	Planning	$ 80,000.00	$ 80,000.00	
El Paso	Security Sanitation District	Security Sanitation District	Planning and Design/Construction	$ 1,080,000.00	$ 80,000.00	$ 1,000,000.00
Pitkin	Snowmass Water & Sanitation District WWTF	Snowmass Water and Sanitation District	Planning	$ 80,000.00	$ 80,000.00	
Boulder	Superior WWTF	Superior Metro District #1	Design/Construction	$ 1,000,000.00		$ 1,000,000.00
El Paso	Tri-Lakes WWT	Monument SD (33%), Palmer Lake SD (33%), Woodmoor WSD (33%)	Planning and Design/Construction	$ 1,080,000.00	$ 1,080,000.00	
Eagle	Vail WWTF	Eagle River Water & Sanitation District	Planning	$ 26,666.00	$ 26,666.00	
El Paso	Widefield Water and Sanitation District WWTP	Widefield Water and Sanitation District WWTP	Planning	$ 80,000.00	$ 80,000.00	
Adams	Williams Monaco Wastewater Treatment Plant	South Adams County Water and Sanitation District	Planning and Design/Construction	$ 1,080,000.00	$ 1,000,000.00	$ 80,000.00
Weld	Windsor WWTF	Town of Windsor	Planning and Design/Construction	$ 894,600.00	$ 287,600.00	$ 607,000.00
				$18,387,000.00	**$14,700,000.00**	**$ 3,687,000.00**

VI. CONCLUSION

The Division continues to plan and implement improvements to its monitoring and permitting programs in the effort to maximize efficiencies and focus on those areas where there is the greatest potential for substantive water quality improvement. The Division will continue these efforts by identifying work processes (e.g., permitting and facility design) to be evaluated through the Lean process, a process designed to make systems more efficient by reducing or eliminating waste. This may be done with the involvement of stakeholders where appropriate.

APPENDIX A

Water Quality Forum Work Groups

(Last Updated September 26, 2013)

Work Group Name	Commission Contact(s)
• Drinking Water Regulations	Mary Fabisiak, Jon Slutsky, Jim Rada
• Graywater - Local Implementation	Jim Rada, Jon Slutsky, Mary Fabisiak
- Technical	Lauren Evans, Jim Rada, Jon Slutsky, Mary Fabisiak
• MS4 Issues Forum	Mark Pifher
• Permit Issues Forum	Jill McConaughy, Mary Fabisiak
• Practical Quantitation Limits	Andrew Todd, Lauren Evans
• SDWA and CWA Nexus	Mary Fabisiak, Barbara Biggs, Mark Pifher
• Section 303(d) Listing Methodology/ Aquatic Life/Sediment	Andrew Todd, Barbara Biggs, Mary Fabisiak, Jon Slutsky, Mark Pifher
• State Water Plan Ad Hoc Committee	To Be Determined

Note: For the latest work group status, please visit the WQCD website at http://www.colorado.gov/cs/Satellite/CDPHE-WQ/CBON/1251645521268.