



COLORADO



Colorado Department
of Public Health
and Environment

NONPOINT SOURCE MANAGEMENT AREA

FY 2009 ANNUAL REPORT

WATER QUALITY CONTROL DIVISION
COLORADO DEPARTMENT OF
PUBLIC HEALTH AND ENVIRONMENT



Photo: Coyote Gulch Restoration Project, Alan Searcy, City of Lakewood, Colorado
2009 NPS Environmental Excellence Award

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I -- Introduction

This report fulfills the requirements of Section 319(m)(1) of the federal Clean Water Act of 1987. The Colorado Department of Public Health and Environment's Water Quality Control Division annually prepares this report to inform the public, the U.S. Congress and the U.S. Environmental Protection Agency (EPA) on the state's progress in the area of nonpoint source water pollution abatement. Although this report should not be considered a complete enumeration of all nonpoint source activities, it describes the most important features of Colorado's nonpoint source program.

The two-fold goal of Colorado's nonpoint source program is to *restore* to full designated beneficial use those waters impaired by nonpoint sources of pollution and to *protect* existing water quality from future impairments by using an open process that fully involves the public.

Through Fiscal Year 2009, the division continued to administer the *Colorado Nonpoint Source Management Program*, which EPA approved in January 2000. The Colorado Water Quality Control Commission adopted the Supplement to the Colorado Nonpoint Source Management Program in January 2005. The document is available upon request or online at: <http://www.npscolorado.com/2005MgtProgFinal.pdf>. In addition, Regulation № 93 – Section 303(d) List of Water Quality Limited Segments Requiring TMDLs and the *2008 Status of Water Quality in Colorado* 305(b) report were also used for program implementation activities. Nonpoint source assessment is integrated in the Water Quality Status 305(b) report and is periodically updated.

Any comments or questions on this report or on Colorado's nonpoint source program may be directed via e-mail to nps@state.co.us.

II -- Grant Management and Program Administration

During FFY2009, Colorado NPS program received \$1,754,218.00 in federal section 319(h) grant funds, under US EPA Grant # C9-99818609. Colorado continues to award the federal funds to local sponsors, which can be local government entities, watershed groups and others. Federal funds are used at the local level to implement projects that address water quality impairments, to develop watershed-based plans and for education and dissemination of information related to nonpoint sources of pollution.

In addition to the 2009 funds, Colorado continues to manage five other annual grant awards, which have been expended to a varied degree. The following table summarizes grant awards per year and the approximate percentage that has already been expended in each grant.

Current Section 319(h) Nonpoint Source Funding		
Federal Fiscal Year	Grant Award	Percent Expended
FFY05	\$1,962,700	76.33%
FFY06	\$1,916,132	30.21%
FFY07	\$2,182,827	26.28%
FFY08	\$1,868,100	8.31%
FFY09	\$1,754,218	0%

1) Staffing and Support

Funding for staffing and support is administered through the annual Performance Partnership Agreement and Grant. The 2009 staffing and support grant is \$688,882.00, which funds 4.5 full-time equivalents (FTEs). These FTEs include one Unit Manager (40%), one NPS coordinator (100%) and four FTE NPS project coordinators (70%). The remaining 0.3 FTE represents additional support from other units, such as contracting and fiscal.

2) Milestones: Colorado continues to improve and enhance grant management processes

- Colorado continues to close out older “legacy” grants: FFY00 and FFY01 are fiscally and administratively closed; FFY02 and FFY03 are fiscally closed and all the associated grant administration information has been entered in GRTS.
- Colorado has updated all the information for the active projects in the federal Grants Reporting and Tracking database. Colorado continues to develop a process and protocols to better gather sediment and nutrient load reduction information and report those data in GRTS. Colorado anticipates having that resolved for the next reporting cycle.
- Colorado has started managing the federal grants in five year-increments, closing out one older grant and starting a new one every year, following EPA Nonpoint Source Program guidance.
- Colorado continues to track and manage grants that are currently active. Information is kept current for all project expenditure totals, accumulating match amounts, progress reports, and other project management detail. This process also allows for federal grant expenditure and match accrual totals to be updated frequently.
- Colorado submitted the draft Success Story Report: Box Canyon Creek Watershed Restoration Project, in September of 2008. Colorado anticipates submitting another draft Success Story: Lower Blanco River Restoration.
- The NPS program team held a half-day workshop to disseminate information regarding NPS funding application process. The workshop agenda focused on the project solicitation process and “business-ready” considerations for potential applicants.
- Colorado revised the Request for Proposals (Project Solicitation) process for FFY09 to improve the quality of information received and to make the process available electronically. The project solicitation process for 2009 generated 13 proposals which totaled more than \$2.8 million requested. Individual proposals ranged in value from \$30,000 to \$600,000. Six new projects were approved for funding.
- Colorado continues to engage other state and federal agencies and the general public on nonpoint source pollution issues through the Nonpoint Source Alliance (Alliance). The Alliance is a diverse group of stakeholders that provide volunteer support to the NPS program by assisting with education and outreach, mentoring prospective project proponents, and providing technical expertise from their respective fields.
- Colorado continues to improve NPS contract close-out practices. During FFY09, the NPS team closed out 17 projects from the FFY02 through FFY06 grants. In addition, project closing instructions and expectations, such as final invoice, match reconciliation and final reports, are being communicated more clearly and systematically to project sponsors. The following table contains the information about projects closed-out during FFY09:

Project Title	Project Sponsor	Total NPS Award	Total NPS Expenditures	% Spent	Date Closed
Big Thompson Watershed Management Plan (FFY04)	Big Thompson Watershed Forum	\$25,000	\$25,000	100	12/31/06
Palmetto Gulch TMDL Development (FFY02 and 03)	Division of Reclamation, Mining and Safety	\$39,776	\$39,733	99.9	02/29/09
Roaring Fork Watershed Plan (FFY06)	Roaring Fork Conservancy Roaring Fork Watershed Collaborative	\$25,000	\$25,000	100	12/31/08
Snake River Watershed Plan (FFY06)	Blue River Watershed Group	\$25,000	\$23,641	94.6	04/31/09
Lake Fork Mitigation and Monitoring (FFY03)	Colorado Mountain College	\$15,385	\$15,385	100	07/30/08
CCA Best Management Practices Implementation Program (FFY06)	Colorado Cattlemen's Association	\$150,000	\$150,000	100	12/31/08
CLA Animal Feeding Operation Project (FFY04 and 06)	Colorado Livestock Association	\$239,488	\$239,488	100	12/31/08
Anglo-Saxon Porcupine Assessment (FFY05)	Anglo-Saxon Properties Ltd	\$14,023	\$14,023	100	12/31/08
Priority Mine Site Waste Removal (FFY03)	San Juan Resource Conservation and Development Council	\$163,500	\$134,473	82.3	12/31/08
Post Remediation Assessment (FFY03 and 04)	San Juan Resource Conservation and Development Council	\$74,308	\$40,322	54.3	12/31/08
Coyote Gulch (FFY06)	City of Lakewood	\$200,000	\$200,000	100	12/31/07
Lefthand OHV Area Restoration I (FFY03 and 05)	James Creek Watershed Initiative	\$156,000	\$155,903	99.9	12/31/08
Rio Grande Stream Stabilization II	San Luis Valley WCD	\$150,000	\$117,864	78.6	05/31/06

Project Title	Project Sponsor	Total NPS Award	Total NPS Expenditures	% Spent	Date Closed
(FFY02)					
Town of Alma (FFY03)	Town of Alma	\$175,000	\$175,000	100	12/31/08

3) Summary of Colorado NPS projects active during FFY09:

Project Title	Project Sponsor	Watershed	Project Type	NPS Award
Lower Animas Watershed Plan (FFY04 and 07)	San Juan Resource Conservation and Development Council	Animas River Basin	Watershed Plan	\$25,000
Barr-Milton Watershed Plan (FFY05)	Barr Lake and Milton Reservoir Watershed Association	South Platte River Basin	Watershed Plan	\$301,900
Coal Creek Watershed Plan Implementation (FFY 06 and 07)	Town of Crested Butte	Gunnison River Basin	Watershed Plan	\$141,296
Dolores River Watershed Plan (FFY07)	Dolores Water Conservancy District	Colorado River Basin	Watershed Plan	\$26,750
Lower Gunnison River Watershed Plan (FFY03 and 06)	Colorado River Water Conservation District	Gunnison River Basin	Watershed Plan	\$32,479
Lake Fork Watershed Plan (FFY06)	Colorado Mountain College	Upper Arkansas River Basin	Watershed Plan	\$25,000
Mancos River Watershed Plan (FFY06)	Mancos Conservation District	San Juan River Basin	Watershed Plan	\$35,000
Uncompahgre Basin Watershed Plan (FFY08)	Shavano Conservation District	Gunnison River Basin	Watershed Plan	\$49,500
Willow Creek Watershed Plan (FFY04)	SLV RC&D (fiscal agent)	Rio Grande Basin	Watershed Plan	\$25,000
Lower South Platte Watershed Plan (FFY05 and 06)	CO Dept of Agriculture	South Platte River Basin	Watershed Plan	\$100,000
AWARE Colorado (FFY06)	League of Women Voters of Colorado	Statewide	Information Dissemination	\$182,250
Colorado Silviculture BMPs Evaluation (FFY07)	Colorado State University	Statewide	Information Dissemination	\$33,605

Project Title	Project Sponsor	Watershed	Project Type	NPS Award
Data Sharing Network (FFY07)	South Platte CURE	Statewide	Information Dissemination	\$72,354
NPS Connection Newsletter (FFY08)	League of Women Voters of Colorado	Statewide	Information Dissemination	\$32,000
Outreach Coordinator (FFY06)	Colorado State University	Statewide	Information Dissemination	\$168,148
Understanding Polluted Runoff (FFY06)	Colorado Foundation for Agriculture	Statewide	Information Dissemination	\$83,500
West Creek Water Quality Improvement (FFY06)	Douglas County	South Platte River	Stream Restoration BMPs	\$74,757
Kerber Creek Restoration (FFY07)	Trout Unlimited	Rio Grande Basin	Stream Restoration BMPs	\$413,000
Lefthand Canyon OHV Area Rest. II (FFY08)	James Creek Watershed Initiative	South Platte River Basin	Stream Restoration BMPs	\$150,000
Rio Grande Riparian Stabilization III (FFY08)	CO Rio Grande Restoration Foundation	Rio Grande Basin	Stream Restoration BMPs	\$250,000
Hecla Wash Restoration and Sedimentation (FFY08)	CO Dept of Natural Resources	Upper Arkansas River Basin	Stream Restoration BMPs	\$425,000
Selenium Control: Loutzenhizer Lateral Piping (FFY02,03,04 and 07)	Uncompahgre Valley Water Users Association	Gunnison River Basin	Agriculture BMPs	\$800,000
Data and Models for Planning Nonpoint Source SE Mgmt in Lower Arkansas (FFY07 and 06)	Colorado State University	Lower Arkansas River Basin	Agriculture BMPs	\$501,735
Little Frying Pan WQ Improvement (FFY08)	Colorado Mountain College Natural Resource Mgmt	Lower Arkansas River Basin	Abandoned Mine Reclamation BMPs	\$172,500
Upper Animas Mine Drainage Control (FFY06)	San Juan Resource Conservation & Development Council	San Juan River Basin	Abandoned Mine Reclamation BMPs	\$187,440
Upper Animas Mine Waste Control (FFY04)	San Juan Resource Conservation & Development Council	San Juan River Basin	Abandoned Mine Reclamation BMPs	\$142,650

Project Title	Project Sponsor	Watershed	Project Type	NPS Award
Dinero Tunnel Bulkhead (FFY07)	Division of Reclamation, Mining and Safety	Upper Arkansas River Basin	Abandoned Mine Reclamation BMPs	\$96,000
Gilson Gulch Orphan Mine Remediation (FFY06)	Division of Reclamation, Mining & Safety	Clear Creek	Abandoned Mine Reclamation BMPs	\$255,000
Technical Assistance (FFY04)	Division of Reclamation, Mining and Safety	Statewide	Abandoned Mine Reclamation BMPs	\$150,000
Willow Creek 5 Mines (FFY03)	SLV RC&D	Rio Grande Basin	Abandoned Mine Reclamation BMPs	\$61,074
Willow Creek Nelson Tunnel (FFY05)	SLV RC&D	Rio Grande Basin	Abandoned Mine Reclamation BMPs	\$197,723
City of Aspen Stormwater Treatment System (FFY05)	City of Aspen	Colorado River Basin	Urban / Stormwater BMPs	\$150,000
I-70 High-Priority Structural BMPs above Straight Creek (FFY 06)	Town of Silverthorne	Colorado River Basin	Urban / Stormwater BMPs	\$277,590
Fountain Creek Water Quality Improvement (FFY08)	City of Pueblo	Arkansas River Basin	Urban / Stormwater BMPs	\$250,000

4) Watershed-based Plans Summary:

Watershed Plans Being Developed or Already Developed	Watershed Plans Being Implemented
Lower South Platte	Animas River above Silverton
<i>New for 2009 below:</i>	Barr-Milton Watershed Plan
Lower Gunnison (Selenium)	Black Gore Creek, Upper Colorado River Basin
Uncompahgre	Straight Creek, Upper Colorado River Basin
Mancos	Clear Creek, above the mouth of the canyon
Dolores	Coal Creek and tributaries
Lower Animas	Eagle River, Upper Colorado River Basin
	Fountain Creek
	Lake Fork of the Gunnison
	North Fork of the Gunnison

Watershed Plans Being Developed or Already Developed	Watershed Plans Being Implemented
	Cherry Creek, South Platte River Basin
	Upper Rio Grande to Alamosa County line
	San Miguel
	Upper Yampa River Basin
	East Fork of the Dolores (Rico)
	Upper Pine, Upper San Juan
	Big Dry Creek, South Platte River Basin
	Big Thompson
	Upper South Platte River
	Alamosa River
	Willow Creek
	<i>New for 2009 below:</i>
	Roaring Fork
	Snake River, Upper Colorado River Basin
	Lefthand Creek, including James Creek and Little James Creek
	North Fork of the Republican River
	Lower Arkansas River

5) The following table summarizes the project proposals approved for funding during the FFY09 Project Solicitation process:

The process for 2009 Nonpoint Source project funding officially started on September 8th 2008 with the release of the project solicitation announcement letter describing proposal priorities and guidance. Deadline for proposals submittal was December 1st, 2008 at which time the Division received 13 proposals and a total request for \$2,803,875.00. After reviewing and ranking all proposals, WQCD Nonpoint Source staff developed a draft funding recommendation list which was presented to the Colorado Water Quality Control Commission (WQCC) in March of 2009. The WQCC approved the NPS program's recommendation without amendments.

Watershed	Project Title
Colorado Basin	<i>Edwards – Eagle River Restoration</i>
Colorado Basin	<i>Peru Creek Water Quality Improvement</i>
Arkansas Basin	<i>Sugarloaf Mountain Mining District BMP Performance Monitoring</i>
Colorado Basin	<i>Watershed Restoration Planning – Lake Fork Gunnison River</i>
Rio Grande Basin	<i>Rio Grande Riparian Stabilization – Phase IV</i>
Statewide	<i>Colorado Clean Marinas (conditional)</i>

III - - NPS Program Strategic Approach

Colorado continues to implement the revised strategies for the NPS program. CWA Section 319(h) funding sources are allocated under two categories: 1) incremental allocation: for

projects that address impaired waters requiring TMDL development, including watershed-based plans; and 2) base allocation: all other activities, including education and information dissemination. The first category, nonpoint source activities addressing impaired waters requiring a TMDL, is now being implemented in tandem with the Triennial Review Regulatory Basin rotation, as adopted by the Water Quality Control Commission.

The Water Quality Control Commission has adopted a revised schedule for the Triennial Review, affecting only SFY2010 and 2011: both years will have Rule Making Hearings addressing Regulation № 31 – Basin Standards. The regular Triennial Review Regulatory Basin rotation schedule will resume after 2011. This will require an adjustment in the NPS Target Basin rotation as well: 2011 and 2012 will address statewide projects, watershed plans and there will not be a Target Basin for those years. See Appendix A for the updated Colorado Target Basin Rotation Schedule.

For the 2009 funding cycle, the Colorado Basin was the *Target Basin* for project funding, to include development of watershed-based plans. The second category addresses the development of watershed plans, implementation projects in non-impaired water bodies, and other statewide water quality preservation and/or restoration activities. Additionally, approximately 60% of the funds are applied to the incremental allocation and fund projects in impaired segments anywhere in the state; the remaining 40% are applied to the base allocation and funds all other projects.

a) 2009 Targeted Priorities

The following priority project categories were identified for 2009 funding, within the context of the 2005 Supplement to the Colorado Nonpoint Source Management Program:

1. Nonpoint source activities in impaired watersheds identified by the Clean Water Act Section 303(d)-listed waters.

Project Title	Watershed	General Project Description	Funding Amount
Edwards – Eagle River Restoration	Colorado Basin	Stream Restoration	\$600,000.00
Peru Creek Water Quality Improvement	Colorado Basin	Mining	\$170,250.00
Sugarloaf Mt. BMP Performance Monitoring	Arkansas Basin	Mining	\$196,514.00
Total			\$966,764.00

2. Nonpoint source activities anywhere else in the state.

Project Title	Watershed	General Project Description	Funding Amount
Rio Grande Riparian Stabilization – Phase IV	Rio Grande Basin	Stream Restoration	\$250,000.00
Colorado Clean Marinas (conditional approval)	Statewide	Education and Outreach	\$189,600.00
Watershed Restoration Planning – Lake Fork Gunnison River	Colorado	Watershed Plan	\$237,164.00
Total			\$676,764.00

- 3. Other proposals.** Projects that address *specific action items* in any of the NPS Action Plan items of the *Supplement to the Colorado Nonpoint Source Management Program (January 2005)* also were eligible. These proposals could include prevention projects or other watershed efforts where the target water body is not identified on the “303(d) List of Waters Still Requiring TMDLs;” they could address information/education needs of the program, as related to the action items; and they could be for the development of watershed plans in any area of the state.

Project Title	Watershed	General Project Description	Funding Amount
Rio Grande Riparian Stabilization – Phase IV	Rio Grande Basin	Stream Restoration	\$250,000.00
Colorado Clean Marinas (conditional approval)	Statewide	Education and Outreach	\$189,600.00
Total			\$439,600.00

b) Integrating TMDLs and NPS Activities: Priority Watersheds

The NPS program prioritized watersheds in the state using the water quality standards segmentation of waterbodies as approved by the Water Quality Control Commission. The criteria for selecting *Priority Watersheds* were: 1) identify segments listed in Regulation № 93 – Section 303(d) List of Water Quality Limited Segments Requiring TMDLs and 2) identify watersheds containing those segments that are or have in the past used 319 funds for nonpoint source activities. Priority Watersheds are defined at the 8 or 10-digit Hydrologic Unit Code. In the future Colorado anticipates revising the List of Priority Watersheds using the 12-digit Hydrologic Unit Code basin map. See Appendix B for a Map of Colorado’s List of Priority Watersheds.

The following is the list of priority watersheds, which are grouped using the waterbody segmentation adopted by the WQCC and defined in the water quality regulations for Colorado’s river basins. Each impaired segment has been identified according to Regulation #93. There is also a short description of the NPS program potential or current contribution to the restoration of the impairment.

Arkansas River Basin

Upper Arkansas R.: NPS program contribution: there is a watershed restoration plan being developed for this area, with an anticipated outcome being a prioritization of potential restoration projects. The following segments will be incorporated as priorities in the watershed plan. This could potentially result in incremental money supporting future restoration work. These segments are the California Gulch to Lake Fork (excluding the area designated under Superfund), Lake Fork to Lake Creek and Lake Creek to Pueblo Reservoir.

303(d) listed segments: COARUA02b (Cd and Zn), COARUA02c (Zn), COARUA03 (Zn)

Lower Arkansas R.: NPS program contribution: there are several projects being implemented in this area – a watershed plan, a large source identification and quantification study and model development with the collaboration of Colorado State University and projects in conjunction with the Southeast Conservation District. This segment extends from John Martin Reservoir to the Kansas state line.

303(d) listed segment: COARLA01c (Se)

Purgatoire River: NPS program contribution: this is an area with potential for restoration projects, but there is a need to develop a watershed restoration plan. This segment is from I-25 near Trinidad to the confluence with the Arkansas River.

303(d) listed segment: COARLA07 (Se)

Gunnison River Basin

Uncompahgre River: NPS program contribution: currently, there is a 319 restoration project that is starting to address some of the Selenium loading into the Gunnison River. Selenium loading in surface waters is of concern throughout this area of the state and the solution will require coordinated efforts and a statewide strategy. These segments include the Uncompahgre Valley below Montrose. Existing Watershed Plan for the reach below Montrose to the confluence; Watershed Plan being developed for the reach above Montrose to headwaters.

303(d) listed segments: COGUUN04b, COGUUN04c (Se)

Upper Gunnison River: NPS program contribution: there is a watershed restoration plan being developed for this area, with a potential to prioritize restoration projects. The following segment will be incorporated as a priority in the watershed plan. This could potentially result in incremental money supporting restoration work. This segment is Palmetto Gulch.

303(d) listed segment: COGUUG31 (Cd, Zn)

Rio Grande Basin

Kerber Creek: NPS program contribution: there is a watershed restoration plan for this watershed, but it needs updating. The Kerber Creek watershed plan has a high potential to identify and implement appropriate reclamation activities. These segments include Kerber Creek and almost all tributaries.

303(d) listed segments: CORGCB09a (Ag, Cd, Pb, pH), CORGCB09b (Cd, Cu, Zn)

San Juan River Basin

Dolores River: NPS program contribution: this is an area with potential for restoration projects. This segment includes Silver Creek below the town of Rico.

303(d) listed segment: COSJDO09 (Zn)

Mancos River: NPS program contribution: there is a watershed restoration plan being developed for this area, with a potential to prioritize restoration projects. The following segment will be incorporated as a priority in the watershed plan. This could potentially result in incremental money supporting implementation and restoration work. This segment includes the Mancos River and tributaries above Hwy 160.

303(d) listed segment: COSJLP04 (Cu)

South Platte River Basin

Boulder Creek: NPS program contribution: this is an area with potential for restoration projects, with a need to first develop a watershed restoration plan. These segments are Coal Creek and Gamble Gulch.

303(d) listed segments: COSPBO07b (E. coli), COSPBO04a ((Cu, Zn, pH)

Clear Creek: NPS program contribution: the watershed restoration plan has been developed. The watershed plan has a high potential for identifying priorities that would support restoration work throughout this part of this watershed.

303(d) listed segments: COSPCL02, COSPCL03a, COSPCL03b, COSPCL06, COSPCL09a, COSPCL09b, COSPCL11 (metals)

Saint Vrain River: NPS program contribution: past work with a local entity; existing watershed restoration plan for the Lefthand Creek. This segment is the Lefthand Creek.

303(d) listed segment: COSPSV04a (metals and pH)

Upper South Platte: NPS program contribution: this is an area with potential for restoration projects; existing watershed restoration plan.

303(d) listed segments: COSPUS02a (sediment)

Upper Colorado River

Peru Creek: NPs program contribution: this is an area with potential for restoration projects; existing watershed restoration plan. This segment is the Peru Creek to the Snake River.

303(d) listed segment: COUCBL07 (metals)

Eagle River: NPS program contribution: this is an area with potential for restoration projects, but there is a need to update the watershed restoration plan. This segment is from Belden to Lake Creek and some tributaries.

303(d) listed segment: COUCEA06 (sediment)

c) Colorado Nonpoint Source Alliance

The Colorado NPS Alliance (Alliance) continues in its role of providing advice and support to Nonpoint Source Management Area staff in the technical aspects of implementing the NPS program. The Alliance also supports the NPS program staff in preparing and maintaining the state's Nonpoint Management Area program documents and in encouraging the public to become involved in nonpoint source activities. Members of the Alliance, in coordination with the NPS program staff, also work with interested project sponsors to help prepare projects for funding consideration under Section 319(h) of the Clean Water Act. The goal of the NPS Alliance is to provide support and technical advice in nonpoint source activities designed to preserve and restore water quality in Colorado. Each Alliance representative's primary duties and responsibilities include the following:

1. provide technical and area-of-expertise advice on nonpoint source issues and activities
2. serve as a liaison from member organization/agency to the Alliance;
3. serve as a liaison from the Alliance to member organization/agency;
4. actively represent nonpoint source water quality issues and provide input from member organization/agency for the benefit of Colorado water quality;
5. promote the nonpoint source program within the member organization/agency;
6. participate in the technical evaluation of nonpoint source project proposals submitted each year;
7. participate in NPS Alliance policy development;
8. work with a multitude of agencies and organizations to build cooperation and collaboration;
9. approach resolution of challenges through teamwork;
10. stay informed and inform others about nonpoint issues and water quality concerns; and
11. participate in statewide meetings and seminars on nonpoint source pollution.

2009 Organizational Membership of the Colorado NPS Alliance

U.S. Bureau of Land Management

Colorado Association Stormwater and Flood Plain Managers

Colorado Department of Transportation

Chatfield Watershed Authority

Colorado Cattlemen's Association

Colorado Livestock Association

Colorado Farm Bureau

Colorado Lake & Reservoir Management Association

Colorado Mining Association
Colorado River Water Conservation District
Colorado Division of Wildlife
Colorado Division of Reclamation, Mining and Safety
Colorado State Conservation Board/Colorado Department of Agriculture
Colorado State University Cooperative Extension
Colorado Water Quality Control Division
U.S. Department of Agriculture (USDA) Natural Resources Conservation Service
U.S. Geological Survey
Northern Colorado Water Conservancy District
North Front Range Water Quality Planning Association
Pikes Peak Area Council of Governments
Denver Regional Council of Governments
Sierra Club
League of Women Voters
USDA Forest Service
Lefthand Watershed Oversight Group
Colorado Water Quality Control Commission
U.S. Environmental Protection Agency, Region VIII
Colorado Watershed Assembly

d) Load Reduction Reporting

Colorado regularly reports on load reductions associated with the regulations that govern loading of nutrients (total phosphorus and total nitrogen) into lakes and reservoirs. Colorado also reports on sediment loads into rivers and streams that are reduced or minimized based on BMPs implemented by the Colorado Department of Transportation (CDOT).

In order to enhance and expand on current load reduction reporting, the NPS program has established a new task force to develop protocols to capture load reduction data and meet the required GRTS reporting minimum elements in a more comprehensive manner. This task force is made up of NPS program staff and members of the Alliance. The objectives of the task force are 1) to develop protocols to capture sediment and nutrients load reduction data associated with NPS BMPs implemented with Section 319(h) funds; and 2) to develop a simple system that allows project sponsors and other users to capture and submit those data to the NPS program. These data will be used to fulfill the minimum reporting requirements in GRTS and to help the NPS program evaluate success, through measurable results. Colorado anticipates having this reporting in place for the 2010 Annual Report, PPA reporting and GRTS update.

IV. Water Quality Information

a) Sampling and Assessment Activities

One element of the update to the NPS Management Program was to reaffirm Colorado's guidance on funding monitoring and assessment projects. U.S. EPA limits the amount of grant funds that may be used for monitoring and assessment, which includes the development of total maximum daily loads (TMDLs) and watershed plans. Use of NPS funds in these instances is limited to:

- collect data in direct support of the development and implementation of a total maximum daily load;
- determine measurable results from on-the-ground NPS projects;

- develop watershed plans identified as priorities in the annual proposal guidance.

NPS funds may not be used to determine “baseline” conditions. For example, they cannot be used to capture current conditions outside the development of a TMDL. Collecting data to evaluate current water quality classifications and standards or to conduct a use attainability analysis are also not eligible for NPS funding.

Any proposal to fund assessment in watersheds where water bodies are identified as impaired must be coordinated through the TMDL program at the Water Quality Control Division prior to submittal of the proposal.

b) Groundwater Protection Program

The Agricultural Chemicals and Groundwater Protection Program is administered as a joint effort between the Colorado Department of Agriculture (CDA), the Colorado Department of Public Health and Environment (CDPHE), and Colorado State University Cooperative Extension (CSUCE).

The following overview is from the 2008 report:

Groundwater Monitoring – Reporting Year 2008

Overview

The Groundwater Protection Program accomplished several tasks in its 18th year of monitoring responsibilities. The Weld County long-term monitoring, irrigation, and domestic well networks were all sampled and analyzed for the full suite of pesticides, nitrate- and nitrite-nitrogen. Sixteen monitoring wells were sampled as part of a sampling method study comparing the new low-flow minimum drawdown technology to the previously used conventional method of 3-5 casing volume evacuation with an electric submersible pump. Outside of comparable inorganic values for each well, very few wells had useful pesticide detections that could be statistically compared for difference between sampling methods.

The Front Range Urban monitoring network, recently sampled partially in 2007, was re-sampled in its entirety in 2008 with the exception of three wells in Denver-metro, two in Pueblo, and one in Castle Rock. A total of 67 of the 73 monitoring wells in the network were sampled in 2008. Laboratory complications in 2007 prevented the samples from being analyzed for pesticides and therefore required a re-sampling in order to achieve an adequate baseline sampling for this network. Where appropriate, nitrate results for samples collected in both sampling years were compared. Results from sampling of the Front Range Urban network were presented at the 2008 South Platte Forum.

The Lower South Platte and Arkansas Valley monitoring well networks were sampled as according to the Program’s long-term sampling plan initiated in 2007. Also on the schedule was the High Plains region which was last sampled in 1997-1998. The previous sampling event for this area utilized domestic and irrigation well types while this year’s sampling utilized a newly installed network of 20 monitoring wells. The Program contracted the United States Geologic Survey to utilize their expertise and tools for determining appropriate locations for monitoring wells in the Ogallala formation of eastern Colorado and then contracted a drilling outfit from Fort Collins to install the well network.

The entire 2008 report is available at:

<http://www.colorado.gov/cs/Satellite?c=Page&cid=1176829180745&pagename=Agriculture-Main%2FCDAGLayout>

V. Outreach Activities

Keep It Clean Neighborhood Stewardship Program

The Keep it Clean Partnership (formerly know as the Watershed Approach to Stream Health or WASH Project) is comprised of the following: Boulder County; the cities of Boulder, Longmont, and Louisville; and the towns of Erie and Superior. Individually, they are referred to as “Partners.” These Partners have contracted with the City of Boulder’s Stormwater Education Program to support and expand delivery of stormwater education to the public and school-aged children in Keep it Clean Partnership communities. The Keep it Clean Partnership Education Program provides school-based education and community based outreach programs that meet state requirements for Minimum Control Measures (MCM) 1 and 2. The Keep it Clean Partnership contract was signed in May 2003, at which time services began.

Colorado Foundation for Agriculture

The Colorado Foundation for Agriculture continues its outreach efforts to reach Colorado school children through a multifaceted approach. Key to the program is the Colorado Reader that reaches over 1,500 schools in the state. An electronic newsletter exists and an online watershed game. More information can be found at <http://www.growingyourfuture.com>.

AWARE Colorado

The League of Women Voters of Colorado Education Fund was an outreach effort based on the University of Connecticut’s Nonpoint Education for Municipal Officials program. Addressing **Water And natural Resource Education (AWARE)** was a statewide program designed to educate local decision makers about the impacts of land use choices on water quality. AWARE will provide research-based, non-advocacy material so decision makers could better consider water quality impacts when making land use decisions. The program was guided by an advisory group of more than 30 stakeholders. Although ended, all project materials can be found at <http://npscolorado.com/AWARE.html>.

Colorado NPS Connection

The nonpoint source newsletter, *Colorado NPS Connection*, now publishes as an electronic-only newsletter. Past issues of the newsletter are available on the Colorado Water Protection Project Web site at <http://www.ourwater.org>.

Information and Education Outreach Grant Program

For several years, the nonpoint source program has set aside a small percentage of funds from the regular Section 319(h) allocation for small, highly focused educational efforts. These small-scale projects typically leverage the modest amounts of money into major community-outreach efforts with statewide applications. Fund availability is marketed to schools, nonprofit organizations and local watershed groups. Application information is at <http://npscolorado.com/outreachgrant.htm>.

Watershed Conference: *Sustaining Colorado’s Watersheds*

About 250 people from all parts of Colorado, representing many different interests attended this conference in October, 2009. Attendance included individuals representing local watershed

groups, scientists from many disciplines, federal, state and local agencies, several water conservation districts, water user associations, private industry, and environment groups.

Data Sharing Network

The Colorado Data Sharing Network provides a mechanism to integrate data from many different sources, in a geo-spatial manner, and either share those data directly or provide information on how to access selected data. It can be used by watershed groups or any entity that is collecting water quality data. DSN conducts basin outreach activities for the dissemination of data, monitoring and assessment information and training. DSN also provides the ability to share data with other monitoring entities. This state-wide data sharing network allows all interested parties to manage their data for a minimal cost and with the ability to share the data with other monitoring entities, state agencies and the USEPA. Information can be found at <http://cdsn.awqms.com/>.

VI -- Federal Consistency Activities

Federal agencies manage or otherwise influence a significant portion of Colorado's land area. In fact, nearly 37 percent of the land and water in the state is federally owned, largely in headwaters areas. Consequently, federal consistency with state water quality standards and programs is critical to achieving water quality goals in all river basins in the state.

The division periodically conducts federal lands management reviews to determine the following:

1. Is water quality addressed in the planning stage?
2. What best management practices were to be implemented?
3. Were they implemented properly?
4. Were the best management practices effective in reducing erosion or protecting the stream from nonpoint source pollution?
5. If not, what changes can be made to protect water quality?

A Federal Consistency Review was conducted in the North Park region of Colorado on September 14. North Park includes the headwaters to the North Platte River. North Park covers the same area as Jackson County. Walden is the county seat.

Best management practices (BMP) reviews were conducted with the US Forest Service (USFS) and Bureau of Land Management (BLM), whose offices are Walden. The Owl Mountain Partnership is a partner with these two agencies and a past recipient of grant funds for BMP implementation. The Partnership also offices with these agencies and made the arrangements for this review.

Camp Creek area was visited with the USFS to see successful BMP implementation in vegetation and forest management including control burns to protect slope vegetation minimizing sediment loss and improving plant diversity.

Bureau of Land Management examples of successful BMP implementation included riparian protection/management, fencing, grazing management, vegetation control, and monitoring. A key example was the accomplishments in the Hebron Slough area, south of Walden. A sustaining effort for over a decade of partnering to implementation of measurable improvements have resulted in restored and protected habitat, as acknowledged by the receipt of BLM's highest award.

VII -- Federal Agency Contributions to NPS Management in Colorado

In FFY09, the following activities were conducted to review and coordinate land management practices and water quality:

1 -- U.S. Bureau of Land Management (contributed by Ed Rumbold, Colorado Office):

BLM is contracting with USGS to monitor streamflow and water quality in the Piceance Basin. Data can be accessed at <http://co.water.usgs.gov>. BLM continues to work with Shell and the USGS to collect groundwater data in the Piceance basin. Continuous pH, conductivity, dissolved oxygen, and temperature data are also being collected on the Roan Plateau. This is part of an overall regional monitoring strategy to assess potential effects of oil and gas development on water resources. BLM continues to work with the USGS in Utah to assess potential grazing impacts on salinity, biological soil crusts and sediment delivery in Badger Wash near Mack, CO. Moreover, this project is also documenting potential windblown effects on the area.

BLM has completed a comprehensive hydrologic analysis and instream flow recommendations for the newly designated Dominguez – Escalante wilderness area. Data and analysis will be provided to the CWCB in order for them to determine an instream flow in FY 2010.

Another 1,000 feet of the San Miguel River near Placerville, CO was stabilized by installing Rosgen “J-hooks”, armoring stream banks with a combination of rock, mulch and willow plugs. The river was eroding a portion of the scenic highway. Cross sections, HEC RAS modeling and survey-grade GPS were used to map and design purposes. Stream restoration continues to progress on Kerber Creek near Villa Grove, CO on a 17 mile reach. BLM has been a significant cooperator in providing funding, in-kind expertise, and acquiring stormwater/404 permits. Trout Unlimited and local stakeholders have also contributed large amounts of time and effort.

BLM is continuing watershed land health based assessments, as well as associated water quality and proper functioning condition (PFC) surveys on approximately 200,000 acres. BLM worked with the Colorado Water Conservation Board (CWCB) to acquire in-stream flow water rights on six streams to maintain aquatic habitat. Invasive species, primarily tamarisk, were treated within riparian areas in order to restore native vegetation, and approximately 110 miles of riparian areas were completed. 320 miles of PFC surveys were completed.

BLM continues its long relationship with the Division of Reclamation, Mining and Safety (DRMS) and EPA to remediate abandoned mine land sites in Colorado. The table shows projects that are currently being implemented:

Project Name	Amount
Ute-Ulay Mine/Mill	\$145,300
Wyoming Mine	\$66,000
Dinero Tunnel	\$30,800
Querida	\$17,600
Milsap Gulch	\$13,200
Tiger Tunnel	\$132,425
Lark/Joe & John	\$17,600
Upper Joe & John	\$176,100

Eveline	\$4,400
Mogul Dump	\$8,800
Gladstone	\$220,100
North California Mt.	\$44,000
Animas O & M	\$88,000
Bats	\$8,800
AML Project Leader (Term) for Mine Safety Closure Projects	\$68,000
Anvil Points Mine Safety Closure Project	\$87,300
Browns Pass/Park County	\$39,000
Houghton Mt Mine Safety Closure Project	\$39,000
California-Burrows Park Mine Safety Closure Project	\$39,000
Placer Gulch/Animas Forks Mine Safety Closure Project	\$50,200
Wedding Bell Mine Safety Closure Project	\$47,500
Cochetopa Mine Safety Closure Project	\$67,000
Soda Springs Mine Safety Closure Project	\$19,400
Uravan Mineral Belt Mine Safety Closure Project	\$78,100
Cultural Clearances for Mine Safety Closure Projects	\$48,500

2 -- U.S. Department of Agriculture Forest Service (contributed by Joan Carlson, Colorado Office):

The general approach to nonpoint source pollutant management for the Rocky Mountain Region of the USDA Forest Service, which includes all National Forest System (NFS) lands in Colorado, is found in Chapter 20 of the Watershed Conservation Practices Handbook (FSH 2509.25-2006-3). This chapter outlines a nonpoint source management strategy to apply Watershed Conservation Practices (i.e. Best Management Practices) when implementing all land management projects, monitor implementation and effectiveness of those practices, and adjust those practices where monitoring shows concerns about the effectiveness of the practice. National Forests in Colorado use these Watershed Conservation Practices and Forest Plan standards and guidelines to ensure that State water quality standards are met and classified uses of water are protected when projects are designed and implemented on the ground. National Forest staff conduct formal and informal monitoring of these practices and adjust them as necessary, per the nonpoint source management strategy.

USDA Forest Service also has direction in a number of program areas to restore watersheds to reduce or prevent additional nonpoint source pollution.

Burned Area Emergency Rehabilitation

The purpose of this program is to alleviate emergency conditions following wildfire to help stabilize soil; to control water, sediment and debris movement; to prevent permanent impairment of ecosystem structure and function; and to mitigate significant threats to health, safety, life, property or downstream values. In 2009, there were three fires on NFS lands in Colorado that qualified for BAER treatments. All total, approximately 1,950 acres of treatments were completed on NFS lands.

Healthy Forests and Rangelands – Hazardous Fuels Reduction and Landscape Restoration

The purpose of this program is to treat the excessive accumulation of hazardous or unusually flammable fuels in the forests and rangelands that are the root cause of an unprecedented fire risk on national forest lands. Fuels treatments occur both inside and outside the wildland urban interface (WUI). Treatments inside the WUI are designed to reduce fuels around homes,

communities and other resources, such as municipal water supplies and infrastructure, to slow or stop wildland fires from threatening these high-value areas. Treatments outside the WUI help protect communities by creating conditions that enable firefighters to more successfully suppress fires before they enter the WUI and reduce fire severity and impacts on valued landscapes and natural resources. In 2009, the Forest Service completed fuel treatment projects on 47,252 acres inside the WUI and another 27,204 acres outside the WUI for a total of 74,456 acres.

Watershed Restoration

The purpose of this program is to improve watershed conditions using upland and instream treatments. Possible projects include road improvements such as correction of cut or fill slope failures, scarification of compaction on upland areas (old skid trails, for example), reclamation of old gravel quarries, etc. National Forests in Colorado reported accomplishments of about 1,450 acres of soil and water improvements in 2008.

Road Maintenance

The regular road maintenance program includes inventory for maintenance needs, actual maintenance of roads to improve travel-ability and reduce resource damage, and road decommissioning. Road decommissioning activity encompasses a range from posting a sign or installing a gate to close a road to public use to “storm-proofing” a road by pulling drainage structures to road obliteration including scarification and seeding of the road surface or actually re-contouring the slope to eliminate the road prism. National Forests in Colorado reported accomplishments of about 6,740 miles of road maintenance in 2009.

Legacy Road and Trail Program

This was a continuation of a funding program initiated in FY 2008 and developed through a transfer of purchaser election funds and from the Ten Percent Road and Trail Fund. These funds combined with partnerships were to be used for road decommissioning, road and trail repair in environmentally sensitive areas with water quality issues. In stream and water bodies which support TES and community water systems. In 2009 in Colorado, 37 stream crossings were reconstructed, 47 miles of stream habitat was restored, 62 miles of roads and 470 miles of trails were maintained or improved, 105 miles of roads were decommissioned and 140 acres of watershed were improved.

Abandoned Mine Program

In 2009, National Forests in Colorado closed 81 abandoned mines features (adits, and shafts etc.) for physical safety and remediated 19 features related to environmental problems such as mine dumps, tailings piles, etc, that were affecting water quality.

3 -- U.S. Department of Agriculture NRCS (contributed by Frank Riggle and Jason Peel, Colorado Office):

Typically the resource issues the NRCS help landowners address have a positive impact on water quality, either directly or indirectly. For example, the grazing land improvements promote better rangeland health which reduce excess surface runoff and provide a potential improvement to water quality due to the reduced sediment and organics carried into surface waters. Improvements to wildlife habitat, riparian management, and forest management will often have a similar effect. Soil erosion control practices on cropland reduce water and wind borne sediment which carry nutrients, organics, and other pollutants to surface waters. In addition to incentives for these types of conservation treatments, the NRCS Environmental

Quality Incentives Program also offers incentive payments to irrigators that focus on reducing water application and use, which have a direct positive impact to water quality.

4 -- U.S. Geological Survey (contributed by Colorado Office, Tracy Yager):

The U.S. Geological Survey (USGS) provides data and information that can help others protect water quality. The USGS provides reliable scientific information to describe and understand the earth, which helps others manage water, energy, mineral and biological resources. Some of the scientific information from the USGS could be used to identify impaired streams or groundwater resources. Some of the scientific information from the USGS could be used to evaluate the success of nonpoint source projects or even parts of the Colorado Nonpoint Source Program. The following are three examples of USGS work that can be used to evaluate the success of nonpoint source projects or the Colorado Nonpoint Source Program:

- 1) USGS long-term data-collection sites downstream from on-the-ground nonpoint source projects. Site locations and site data are available online from the Directory of Project Information and Data Collection Sites at <http://co.water.usgs.gov/>.
- 2) USGS projects designed specifically to monitor and evaluate on-the-ground nonpoint source projects, such as the USGS Grand Valley projects (described in USGS Fact Sheet FS-159-97 by Butler and USGS WRIR 01-4204 by Butler). Project areas, site locations and site data are available online from the Directory of Project Information and Data Collection Sites at <http://co.water.usgs.gov>
- 3) National or regional USGS projects that include water quality trend analyses, such as the USGS National Water Quality Assessment Program, South Platte Study Unit (e.g., USGS Fact Sheet FS-153-95 by Heiny).

USGS Activities Relevant to Nonpoint Source Pollution:

1. Design water quality studies
2. Develop methods for water-resources investigations
3. Develop and refine analytical methods and sampling procedures
4. Develop and update water quality models
5. Model hydrologic and water quality responses of flow systems
6. Monitor water quality and changes in water quality
7. Compile and evaluate retrospective water quality data sets
8. Provide water quality and hydrologic data to interested parties
9. Provide water quality expertise to organizations and groups
10. Characterize water quality of streams, lakes and groundwater
11. Characterize hydrologic conditions, including local or statewide trends
12. Determine water quantity in order to calculate constituent loads in streams
13. Evaluate stream morphology and sediment transport
14. Identify pollution sources
15. Study fate and transport of compounds and pollutants
16. Evaluate effects from events (such as wildfire) or change (such as urbanization) on water quality
17. Perform research related to water quality issues

Appendix A:

Target Basin Rotation Schedule

Nonpoint Source Program - Target Basin Rotation Schedule

Years

Legend:

Arkansas/Rio Grande Basins =

Upper/Lower Colorado Basins =

San Juan/Gunnison Basins =

S. Platte/Republican Basins =

Statewide/Flexible =



2019	So PI / Rep	Up / Lo CO	So PI / Rep	Ark / RG
2018	Up / Lo CO	Ark / RG	Up / Lo CO	SJ / Gunni
2017	Ark / RG	SJ / Gunni	Ark / RG	STW
2016	SJ / Gunni	STW	SJ / Gunni	So PI / Rep
2015	STW	So PI / Rep	STW	Up / Lo CO
2014	So PI / Rep	Up / Lo CO	So PI / Rep	Ark / RG
2013	Up / Lo CO	Ark / RG	Up / Lo CO	SJ / Gunni
2012	Ark / RG	SJ / Gunni	STW	STW
2011	Ark / RG	STW	Ark / RG	STW
2010	SJ / Gunni	STW	SJ / Gunni	So PI / Rep
2009	STW	So PI / Rep	STW	Up / Lo CO
2008	So PI / Rep	Up / Lo CO	So PI / Rep	Ark / RG

Monitoring

Rule Making

NPS Base Grant

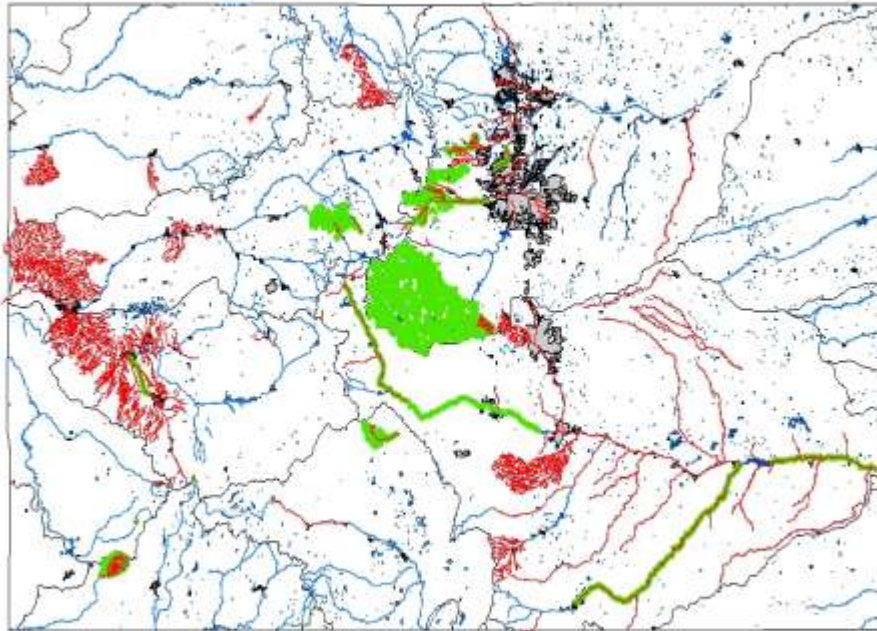
NPS Incremental Grant

Activities

Appendix B

Priority Watersheds: Integrating TMDLs and NPS Activities

Priority Watersheds: Integrating TMDL and NPS efforts



Red indicates water quality impaired segments requiring TMDLs
Green indicates priority watersheds