



Permitting for Environmental Results (PER)

NPDES Profile: Colorado and Indian Country

PROGRAM RESPONSIBILITY

State of Colorado: NPDES authority for base program, general permitting

EPA Region 8: NPDES authority for pretreatment, biosolids, federal facilities

EPA Region 8: NPDES authority for all facilities in Indian Country

Program Integrity Profile

This profile characterizes key components of the National Pollutant Discharge Elimination System (NPDES) program, including program administration and implementation, environmental outcomes, enforcement, and compliance. EPA considers profiles to be an initial screen of NPDES permitting, water quality, enforcement, and compliance programs based on self-evaluations by the States and a review of national data. EPA will use the profiles to identify program strengths and opportunities for enhancements. For more information, please contact Susan Nachtrieb, Colorado Water Quality Control Division, at 303-692-3510 or Bruce Kent, EPA Region 8, at 303-312-6133.

Section I. Program Administration

1. Resources and Overall Program Management

The State of Colorado:

The Colorado National Pollutant Discharge Elimination System (NPDES) program was authorized on March 27, 1975. Approval to regulate the general permits program was approved on March 4, 1982. Colorado does not have authorization for the federal facilities, pretreatment, or biosolids programs. According to the July 9, 2004 NPDES Management Report, Colorado has 106 major individual permits, 270 minor individual permits and 894 non-stormwater general permit coverages.

The Colorado Water Quality Control Division (Colorado, the Division, or the State) is organized under its Director into two major sections: the Water Quality Protection Section and the Watershed Section. The NPDES Permitting and Compliance Program is primarily implemented within the Water Quality Protection Section. There are three organizational units within this section: Permits; Compliance Assurance and Data Management; and Technical Services.

The Permits Unit contains the core permitting program for process wastewater and stormwater discharges as well as permitting of concentrated animal feeding operations (CAFOs), biosolids and pretreatment programs. There are a total of 20 full-time equivalents (FTEs) in this unit. The Compliance Assurance and Data Management Unit deals with the compliance monitoring data management and enforcement functions associated with the NPDES program as well as Colorado's Drinking Water program. There are a total of 20 FTEs in this unit of which 7.7 work in the NPDES programs. The Technical Services Unit is responsible for engineering design reviews and compliance evaluation

inspections for both drinking water and wastewater treatment facilities. There are a total of 25 FTEs in the Technical Services Unit of which 10.6 work in the NPDES programs.

Staffing and funding levels for each of the major elements of Colorado’s NPDES Permitting and Compliance Program are shown in Table 1.

Table 1: Staffing and Funding Levels for Colorado’s NPDES Permitting and Compliance Program.¹

	FTE	Funds
Permits	31.25	\$2,403,508*
Stormwater	7.75	\$452,999
Biosolids**	1.42	\$98,239
Pretreatment**	1.78	\$144,945
TOTAL	42.20	\$3,099,690

*Permits program moneys support permit writers, compliance monitors, data management staff, engineering technical services for design reviews and compliance inspections, enforcement staff, administrative staff (reports, fee billing, payment processing, public notice, records management, etc.) and water quality assessment staff.

**These programs have not been delegated to the State of Colorado by EPA.

All permit writers attend EPA’s Permit Writers’ Training Course. The Division takes advantage of other EPA offerings as well (e.g., Water Quality Standards Academy and many different types of topical training programs). The pretreatment staff attends Regional and national coordinators meetings, as do the stormwater, biosolids and CAFO staff. The Division is now in a position to offer whole effluent toxicity (WET) training informally because a recently hired employee has in-depth expertise pertaining to WET testing protocols and the proper conduct of toxic release inventories and toxic reduction evaluations.

The Division relies extensively on peer tutoring and on-the-job training to bring new staff along toward the journeyman level of performance. A small number of training courses for permit writers are available; additional courses and new, more efficient training tools are needed. EPA and the State will work toward identifying and providing additional training.

The Division continues its efforts to build its geographical information system (GIS) coverage. A new FTE has been hired and is located in the Assessment Unit. This FTE will be a resource for the Division’s overall GIS efforts.

In 1997 a withdrawal petition was filed by Earthlaw claiming that Colorado did not have adequate enforcement authority to enforce federal requirements because of the 1994 Colorado audit law. In May

¹ The text preceeding Table 1 describes 38.3 (20+7.7+10.6) FTE in specific NPDES program areas. Table 1 includes the program specific FTE and other ancillary support FTE such as administrative staff.

2000 EPA and Colorado reached an agreement regarding necessary revisions to the audit law and the creation of a joint pilot program implementing the law. In accordance with the Memorandum of Agreement (MOA), EPA and the State conducted reviews of the pilot program in 2002 and 2003. The reviews concluded that the State was handling self-disclosures of violations consistent with the audit law and MOA. EPA Region 8 settled the petition on February 9, 2005.

EPA Region 8:

EPA Region 8 directly implements the NPDES program in Indian Country in Region 8. NPDES implementation in Indian Country includes individual permits, general permitting, federal facilities, pretreatment, and biosolids. EPA Region 8 also directly implements certain programs in Region 8 States, as shown in the table below.

Table 2: EPA Region 8 Direct Implementation Responsibilities

	Individual Permits	General Permits	Federal Facilities	Pretreatment	Biosolids
Colorado			X	X	X
Montana				X	X
North Dakota				(Authorization in Process)	X
South Dakota					
Utah					
Wyoming				X	X
27 Tribal Governments	X	X	X	X	X

EPA Region 8 is organized into 4 primary offices: Office of Partnerships and Regulatory Assistance (OPRA); Office of Enforcement, Compliance and Environmental Justice (ECEJ); Office of Ecosystems Protection and Remediation (EPR); Office of Technical and Management Services; and the Office of Regional Counsel (RC). See the organization chart at the end of this document.

There are 9 full-time equivalents (FTEs), including a supervisor, in the Water Permits Unit (located in OPRA) that are responsible for implementing the overall NPDES program in Indian Country, implementing the programs for which States have not been authorized (Table 1), and State oversight.

There is 1 FTE in the Water Quality Unit (located in ECEJ) that is responsible for direct implementation and State oversight of the stormwater program.

There are 7 FTEs, including a supervisor, in the NPDES Enforcement Unit (located in ECEJ) that are responsible for enforcement and compliance of the overall NPDES program in Indian Country, enforcement and compliance for programs for which States have not been authorized (Table 1), and State oversight.

There is also 1 FTE in the EPA Montana Operations Office that is responsible for all NPDES program activities (permitting and enforcement) associated with 7 Tribal governments, programs for which the State of Montana is not authorized, and State oversight.

As of September 2004 the total universe of permits issued by EPA Region 8 in all Region 8 States and Indian Country was as follows:

- 5 major individual permits
- 104 minor individual permits
- 184 biosolids general permit coverages
- 96 Indian Country lagoon general permit coverages

In Colorado, EPA has issued 4 permits to major federal facilities, 8 permits to minor federal facilities, and 3 permits to minor facilities in Indian Country located in Colorado². There are no Indian Country facilities covered by EPA-issued general permits in Colorado.

EPA Region 8 permit writers attend the week long National NPDES Permit Writers' Training Course, usually, within their first year in the NPDES permits program. EPA Region 8 has one of the course instructors in the Permits Unit who can give guidance and instruction on an individual basis. This is done as part of on-the-job training for new permit writers. All permit writers are also encouraged to attend the National Water Quality Standards Academy to receive training on water quality standard implementation.

The Water Permits Unit places a high priority on meeting training requests from the States. For example, when States indicate that they have several new permit writers the Region has been successful in getting the National NPDES Permit Writer's Course offered in Region 8. Recent requests for whole effluent toxicity (WET) training have resulted in Region 8 making arrangements with Region 6, a Region that has exceptional WET expertise, to develop and deliver WET training tailored to the Region 8 States. EPA Region 8 provides specialized training on an annual basis for pretreatment and biosolids. The specialized training is discussed in the pretreatment and biosolids sections of this profile. Additionally, Region 8 conducted a stormwater inspector training in 2002, hosted the NPDES inspector training in 2001, and a "train the trainer" program for NPDES inspectors in 2004.

It has been difficult to establish and maintain strong expertise in the various NPDES program areas with the limited resources available. EPA Region 8 encourages Headquarters to facilitate the establishment of different work models that can more efficiently meet the technical needs of the NPDES program (e.g. technical advisory groups and national experts to serve multiple Regions, advanced NPDES training, problem solving meetings where State and EPA experts are brought together to address complex issues etc.)

² The National Data Sources column of the Management Report, measure #2, shows 13 minor facilities covered by EPA-issued permits, based on data as of June 30, 2004. Since that time, two facilities have become inactive.

2. State Program Assistance

EPA Region 8 provides ongoing coordination and assistance to the State of Colorado. Coordination and assistance activities are discussed throughout the profile.

3. EPA Activities in Indian Country

Region 8 permitting and coordination activities with Tribes are discussed throughout this profile in various program areas.

4. Legal Authorities

EPA is conducting a comprehensive review of the State's legal authorities. This review has not yet been completed. As a result, EPA is reserving this section of the profile; when the legal reviews are complete, EPA will update profiles to include the results of the reviews.

In 1997 a withdrawal petition was filed by Earthlaw, Sierra Club, and International Union regarding audit privilege. EPA Region 8 settled the petition on February 9, 2005.³

5. Public Participation

An evaluation of the State's legal authorities regarding public participation will be included in the legal authority review. As noted above, the legal authority review section of this profile is reserved pending completion of the legal authority review.

The State of Colorado:

Colorado's public participation policy is reflected in Section 25-8-302 of the Colorado Water Quality Control Act, and described in greater detail in the Colorado Code of Regulations (CCR). Public comment opportunities exist in the rulemaking, permitting, and enforcement processes. For more information about Colorado's public participation policy, see title 5 CCR section 1002-61.5(2)-(5). The Division has also developed a specific policy titled "Public Notification of Administrative Enforcement Actions." This policy provides for the notice of enforcement actions, consent agreements, and civil penalties for public comment. Colorado encourages full public involvement in the issuance of permits and during the course of enforcement actions. Generally, the public is considered to be any interested, affected or aggrieved party. Public notice of proposed permits is published in the Denver Post (which is sold throughout the State); in local newspapers where a high level of public interest is demonstrated; and in the Division's monthly information bulletin that is distributed to over 340 interested parties. Public notice of formal notices of violation (NOVs), cease and desist orders, and clean-up orders is given in the Division's monthly newsletter. Public notice of the Division's intent to impose civil penalties, whether in a unilateral capacity or through negotiated settlement, is given in a newspaper of statewide circulation (Denver Post). Interested parties may submit comments within 30 days of issuance of the public notice. Comments and concerns of interested parties are considered and may be factored

³ The National Data Sources column of the Management Report, measure #16, shows this petition as active because it is based on information as of April 12, 2004.

into final resolutions. The Division responds to comments received during the notice period in writing and provides a copy of the response to each commenter.

Permit applications, general permits and key program guidance can be accessed through Colorado's Web page (<http://www.cdphe.state.co.us/wq/PermitsUnit>). A database of applications received within the last four weeks for coverage under the construction stormwater general permit is online and updated weekly. The Web site also includes a Permits Unit customer service feedback survey to encourage the public to provide feedback on how the State could better serve them. Colorado is currently evaluating options to enhance access to information through the Web site (e.g. public notices, draft permits, final permits, requests for general permit coverage, enforcement actions). Major individual permits and fact sheets issued after November 2001 are available through EPA's Web site. Instructions for accessing these documents are available at <http://www.epa.gov/npdes/permitdocuments>. As of September 2004, 16 major permits issued by Colorado were on EPA's Web site.

The Division's records are open to the public unless specifically protected by law (e.g., deliberative process, pre-decisional, attorney-client privileged, confidential business information and trade secrets). Colorado has an open records act. Copies of permits are provided to the county clerk in the county in which the discharge will take place. Copies of permits at the time of public notice are also available upon request. Most information in enforcement files is also open to public inspection and available upon request. The Division maintains a secure public file review area.

The Division convenes public meetings to discuss controversial permits and it promotes the use of balanced stakeholder workgroups for the development of programs, policies and guidance. For over a decade, the Division has been an active participant in the Colorado Water Quality Forum; a broad-based stakeholder organization with industry, local, State and federal government and environmental community participants. The forum holds bi-monthly meetings between September and May and an annual retreat, which are well attended.

Once a permit is issued, there is a 30-day period before the permit becomes effective. During this 30-day period, a person may object to the permit and request a hearing to adjudicated issues. A hearing officer is assigned by the State Division of Administrative Hearings and the hearing officer determines the outcome of the permit dispute which can then be appealed by any party to District Court.

EPA Region 8:

For permit issuance EPA Region 8 follows the federal public participation requirements in 40 Code of Federal Regulations (CFR) part 124. Region 8 provides for public notice of proposed permit actions by publishing public notice in a local newspaper near the geographic location of the permit action. Also, the public notice is sent to all persons who have identified themselves as an "interested person" and to the agencies identified in 40 CFR part 124.10. The Region maintains a NPDES permit Web site where the draft permit and statement of basis are available for downloading.

The notice period is typically 30 days. If there is significant interest, EPA may hold a public meeting or a hearing. For any hearing, EPA will provide at least 30 days notice and will leave the comment period open for at least 15 days after the close of the hearing or meeting to receive all comments. Where there are federally-approved water quality standards affecting the permitting action, EPA will solicit certification under section 401 of the Clean Water Act (CWA) from the appropriate Tribe or State. Otherwise, the Region will provide 401 certification for the proposed permit.

All significant comments are addressed before issuing a final permit. Copies of the response to comments, statement of basis and final permit will be provided to all who commented on the permit and also made available on the NPDES permit Web site. If there have been comments or changes made to the permit during the comment period, the permit will not go into effect for at least 30 days after issuance. Parties that have commented on the draft permit may appeal the issuance of the permit to the Environmental Appeals Board within 30 days of issuance of the permit.

EPA Region 8 provides notice of and opportunity to comment on proposed administrative penalty assessments for alleged NPDES violations. The “Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Issuance of Compliance or Corrective Action Orders, and the Revocation, Termination or Suspension of Permits outline how administrative actions and hearings are conducted, including how any person may comment on and participate in the action (40 CFR part 22.44). To comment on or participate in an administrative penalty assessment, the interested party must notify the Regional Hearing Clerk in writing within 30 days of the public notice. The interested party can then present written comments for the record while it is open, and will be notified at least 20 days prior to a hearing if one is scheduled, in order to present evidence.

Formal enforcement actions are filed with the Regional Hearing Clerk and posted on the internet at <http://www.epa.gov/Region8/compliance/rhc.html>.

All administrative records are maintained in the NPDES Records Center. Public records are available for public review during normal business hours and can be obtained via the Freedom of Information Act (FOIA).

6. Permit Issuance Management Strategy

The State of Colorado:

Colorado has a recently enacted statutory authorization to perform risk based permitting. Revisions to the implementing rules for this new program are being considered.

An automated permit tracking system and associated list are used to closely monitor the permit issuance and reissuance process in accordance with Colorado’s EPA-approved permit backlog reduction plan. Appropriateness of the permit limits placed in the permit is addressed through the availability of specific guidance (assessment procedures for water quality based effluent limits (WQBELs), reasonable potential determinations, WET guidance to determine whether limits and/or monitoring is required, mixing zone and antidegradation guidance). Guidance for applying technology-based limits is provided in the Permit Writers’ Training Course by EPA.

Colorado has been a national leader in adopting effluent trading programs. Phosphorus trading programs have long been established to protect Cherry Creek, Dillon, Chatfield and Bear Creek Reservoirs. Trading programs for ammonia and selenium have been developed for segment 15 of the South Platte River (which is the segment running through Denver). The Division recently finalized the Colorado Pollutant Trading Policy after a hearing before the Water Quality Control Commission on October 12, 2004 to receive public comment.

The Division undertakes an integrated permitting effort for an entire water body when multiple dischargers are present with the potential for cumulative effects upon the assimilative capacity for one

or more pollutants. This water body permitting may be segment-specific or address several segments as appropriate. This type of permitting often employs water body-specific modeling to assess impacts and to determine appropriate wasteload allocations for dischargers.

A backlog of 47% for major permits existed in 2000. At that time, Colorado developed a backlog reduction plan with substantial involvement of the regulated community and in close collaboration with EPA. The plan called for the Division to achieve a 10% backlog of major permits by December 31, 2002. This goal was achieved. The backlog reduction plan also calls for the minor permit backlog to be reduced to 10% by December 31, 2005. As of January 2004, the minor permit backlog for individual permits was at 36%. (When facilities covered by general permits are included, 90.6% of minor facilities are covered by current individual or general permits.) Colorado will need to maintain an aggressive permit issuance rate to achieve 90% individual permits current for minors by December 31, 2005. Colorado is addressing the permit backlog by implementing a Permits Backlog Reduction Plan. This plan utilizes a watershed approach to prioritize permit actions and assign all permitting actions. The criteria used to rank permit actions ranges from new or expanded facilities, compliance with regulations, total maximum daily loads (TMDLs) for high priority and multiple discharges, to permits with few complicating factors. Utilizing this backlog reduction plan, the Division is on track to meet this goal.

Table 3: Percentage of Facilities Covered by Current Permits in State

	2000	Nat'l Avg.	2001	Nat'l Avg.	2002	Nat'l Avg.	2003	Nat'l Avg.
Major Facilities	63%	74%	63%	76%	78%*	83%	89%*	84%
Minor Facilities Covered by Individual Permits	50%	69%	50%	73%	63%	79%	63%	81%
Minor Facilities Covered by Individual or Non-Stormwater General Permits	N/A	N/A	N/A	N/A	61%	85%	91%	86%

Source: PCS, 12/31/00; 12/31/01; 12/31/02; 12/31/03. (Values in the National Data Sources column of the Management Report, measures #19 and #20, are PCS data as of 6/30/04.)

* Due to the timing of data queries and inaccurate data in PCS, the fact that the State has maintained at least 90% current permits since 12/31/02 is not reflected. For example, for 2002, the state issued 16 major permits during the last half of December which were entered into PCS after the 12/31/02 PCS data pull.

As of September 2004, there were 3 major facilities permits that were expired more than 2 years and none that were expired more than 10 years. There were 12 minor facilities covered by individual permits that were expired more than 2 years. All permits expired more than 2 years will be issued in 2005 and 2006.

EPA Region 8:

EPA Region 8 does not have a specific permit issuance strategy other than a goal to keep all permits current. To maximize the Region's resources, Region 8 issued general permits to cover lagoons in Indian Country in five of its six States. Approximately 96 facilities in the Region are currently covered by these 5 general permits, saving significant permit unit resources. Also, where there are similar

industries in the same location, the Region groups permitting actions together, saving on administrative costs and resources while taking cumulative impacts into consideration during permit issuance.

In Colorado, all 4 permits for major federal facilities and 7 of the 8 permits for minor federal facilities are current. The one expired federal facility permit was administratively extended after a fire destroyed the facility and resulted in no discharge for an extended period to time. EPA Region 8 will be reissuing the permit during the second calendar quarter of 2005.

Two of the three individual permits EPA Region 8 has issued in Indian Country located in Colorado are current.⁴

All 129 biosolids permit coverages for non-federal facilities in Colorado are current.

EPA Region 8 has not issued general permits for surface water discharges in Indian Country located in Colorado.

7. Data Management

The State of Colorado:

The Division uses the national Permit Compliance System (PCS) exclusively to manage the compliance monitoring program for publicly owned treatment works (POTWs) and industrial wastewater permits. Facility inventory information for these permits as well as monitoring requirements, monitoring schedules and compliance schedules are also housed in PCS. PCS is used to enter and store all of Colorado's surface water permit data and for maintenance of enforcement data.

Stormwater, pretreatment, biosolids, sanitary sewer overflow (SSO), and CAFO inventory data are currently not entered into PCS; separate databases are maintained for each of these programs. Data are not exchanged between these systems and PCS, but the Division provides electronic copies of the databases to EPA on a regular basis. As of Federal Fiscal Year (FFY) 2004, CAFO permit data, CAFO inspection data, and SSO inspection data are being entered into PCS to the extent EPA's existing system allows.

The Division's Permit Tracking System (PTS) was developed to accurately manage the permit backlog. Additionally, the State uses PTS for program management functions that are not part of PCS. The PTS data are not always the same as data in PCS, particularly with respect to the number of minor permits. The State recently discovered significant discrepancies between PTS and PCS and plans to submit data from PTS to the EPA Headquarters PCS clean-up contractor so that PCS can be updated.

The State uses PCS to track non-NPDES permits issued for groundwater discharges. Data pulls for permit issuance rates, performed by entities other than knowledgeable State staff, are inaccurate because groundwater permits are not sorted out from the NPDES permit universe. The State is currently identifying non-NPDES groundwater permits in PCS with a code, "COX." The COX identifier will

⁴ The National Data Sources column of the Management Report, measure #20, shows 69.2% (9 of 13) of minor facilities covered by EPA-issued permits as having current permits, based on data as of June 30, 2004. Since that time, two facilities, one of which was under an expired permit, have been inactivated and one permit has been reissued, bringing the numbers to 9 of 11 minor facilities covered by current permits.

allow for easy sorting of non-NPDES groundwater permits from the NPDES universe. This will continue to be addressed through the PCS clean-up effort.

According to the April 2004 PCS data clean-up report, Colorado's PCS data entry percentage rate is nearly 92% for basic facility and permitting data (addresses, facility latitude and longitude and metadata, permit dates, and facility characteristics) for major facilities. The report also indicates a 69% data entry rate for basic facility and permitting data for minor facilities. Latitude and longitude data at the facility level is 84% complete for major facilities.

The Division enters Water Enforcement National Database (WENDB) data elements, except where the information is not provided by regulated entities. The following types of data are therefore incomplete: facility and pipe latitude and longitude, facility locations (addresses), and average design flow. The Compliance Assurance and Data Management (CADM) Unit is willing to enter a facility's latitude and longitude into PCS as long as it is collected and logged on a Technical Service Unit (TSU) inspection form, and if PCS will accept it. Facility latitude and longitude locations of pipe outfalls are collected using high precision global positioning systems (GPS) during State inspections. Due to problems with defining a facility latitude and longitude at the front door or gate, TSU recommends using the facility office location once the inspector is inside the facility and while being escorted by the entity.

Discharge monitoring report (DMR) data are entered within 10 days of receipt and are verified against the system generated audit reports for typographical errors. Once a month (for minor facilities) or after every reportable noncompliance (RNC) run (for major facilities) a set of standard retrievals are pulled and given to the enforcement staff who review the data for incorrect or missing information.

The Division received an EPA multi-media grant to implement electronic DMR reporting, along with funding under the Environmental Information Exchange Network Grants to build the infrastructure to support electronic transfers of environmental data, and upgrade existing data systems. Implementation of electronic DMR reporting must include a resolution of the acceptance of electronic signatures and chain of custody issues along with internal data system upgrades consistent with the Integrated Compliance Information System/National Pollutant Discharge Elimination System (ICIS/NPDES) design. Initial scoping of the projects has been completed. The next phase of the modernization project will apply the gap analysis and proposed data scheme completed in phase I, for each program area, to design a central datastore that will facilitate data exchange with ICIS/NPDES when that application is available in May 2006.

Modernization and integration of internal databases, as well as migration to ICIS/NPDES, will require the Division to address the data quality improvements in PCS and the internal databases. Phase I scoping results indicate that the Division will likely develop one central datastore that integrates the Division's existing applications, from permittees. The Division intends to batch-upload required data into ICIS/NPDES, and utilize that application for compliance determinations and reporting.

EPA Region 8:

The EPA Region 8 NPDES program has a records management system which dictates the content and organization of all files including permitting and compliance information, and enforcement actions. Some information regarding enforcement actions, such as penalty calculations, are maintained in enforcement sensitive files.

The Region uses PCS as well as other databases for pretreatment, biosolids, and Indian Country permitting to manage data.

The PCS responsibilities for enforcement, inspections, and DMR data entry are in the Planning and Targeting Program located in the Office of Enforcement, ECEJ. The PCS responsibilities for permit actions are in the Water Permits Unit located in OPRA.

The pretreatment program relies on a pretreatment database that tracks annual report information, including headworks loadings and significant industrial users (SIUs). This is not an official EPA supported database and cannot be guaranteed as an on-going management tool. This was developed and is used by the pretreatment coordinator as a management tool. There are no upload capabilities to transfer data to PCS.

EPA Region 8 relies on the Biosolids Data Management System (BDMS). BDMS was developed to improve biosolids compliance monitoring, improve the management of biosolids and to provide a standardized reporting format for biosolids. BDMS is a user-friendly program developed to aid utilities in the central storage and retrieval of biosolids data. The program is designed so that a utility can electronically transmit data to the EPA/States and/or prepare paper reports. The current version of BDMS is BDMS version M or BDMS for Municipalities. Region 8 has used various versions of BDMS for the last 10 years. Limited capabilities have been developed to upload data from BDMS to PCS. The Region uses PCS for the Biosolids General Permit.

EPA Region 8 can provide accurate and timely data on permit actions, enforcement, and inspections. The program inputs all inspection and enforcement information into PCS and ICIS-NPDES. The Region reviews and reconciles the two databases quarterly to ensure that the data are complete and accurate. Data entered into PCS are updated twice a week. The Integrated Data for Enforcement Analysis (IDEA) database is refreshed monthly.

PCS Data Quality Targets: The following information is entered into PCS within 5 working days of receipt of report, application, or action: 1) Permit Facility Data; 2) Compliance Schedule Data; 3) Enforcement Action Data; 4) Single Event Violation Data; 5) Permit Events Data; and 6) Evidentiary Hearing Data.

The following information is entered into PCS within 10 working days of receipt of report, application or action: 1) Pipe-Schedule Data; 2) Parameter-Limits Data; 3) Inspection Data; 4) Pretreatment Compliance Inspection (PCI) Audit Data; and 5) Measurement/Violation Data.

PCS Quality Assurance: PCS Data Quality Standards are evaluated based on an objective assessment of each of the following four measures:

- 1) Timeliness – the extent to which the data covering a specific interval of NPDES program activity are promptly entered into PCS;
- 2) Accuracy – the extent to which the data recorded in PCS reflect the correct, true, or reported values;
- 3) Completeness – the extent to which the required data are reported and recorded in the system;

- 4) Consistency – the extent to which the values of the data elements use the standard definitions or codes and the extent to which these definitions and codes are used in the same way by all users.

All WENDB elements are entered, however, latitude and longitude are not always entered because the information is not always available. Regardless of whether latitude and longitude are provided with the permit application inspectors routinely collect facility latitude and longitude data using GPS when conducting inspections.

To assure DMR data are accurately entered into PCS an audit report is pulled after data entry and verified against the DMRs.

The EPA Region 8 Laboratory performs laboratory audits as resources allow. NPDES inspectors often perform a brief inspection of the laboratory at facilities that perform some or all of their own testing. Region 8 uses the DMR Quality Assurance results to target laboratory audits.

EPA Region 8 maintains its inventory of regulated sources in PCS. For the facilities directly regulated by Region 8, the Region relies heavily on the receipt of permit applications for development of an inventory. The Region is also inventorying CAFOs in Indian Country (refer to CAFO section of this profile). EPA has inventoried all Indian Country wastewater facilities through inspection efforts. The Region will soon begin updating its inventory of SIUs which are not in approved pretreatment programs.

PCS tracks the compliance and enforcement activities conducted under the NPDES program through the quarterly noncompliance report (QNCR). The QNCR is a pre-programmed report that is generated quarterly and lists the NPDES permits that are in non-compliance according to federal guidelines. Permits that are in significant non-compliance are flagged and tracked with the QNCR; Pretreatment violations also appear in the QNCR. The PCS Data Administrator works with individual States on technical and data entry problems and how to use the different data entry screens. The Region offered PCS training this past summer after the PCS National Meeting.

All six Region 8 States have one or more Environmental Information Exchange Network Grant Program grants. These grants fund State environmental agencies' development of integrated data management systems, performance of data quality analyses of existing databases, electronic reporting, and/or enhanced public access to data. These grants tend to cut across individual environmental programs and do not single out NPDES activities.

Section II. Program Implementation

1. Permit Quality

The State of Colorado:

Data are entered as soon as possible into Colorado's data management systems. Currently, permit quality is assured through a multiple step review process that, for major permits and sensitive minor permits, includes review by the section manager who has twenty years experience in NPDES permitting. Colorado employs a tiered supervisory review process to assure high permit quality. Colorado's fact sheets (rationales) are very detailed and complete. The basis for all requirements and limitations are well documented.

With help from an EPA contractor, the Division has developed a Permit Writer Tool. This tool utilizes a series of linked spreadsheets which process entered ambient water quality and flow data, in conjunction with applicable water quality standards and identified discharge flow information, to produce a water quality assessment. The tool is also linked to the permit rationale and permit and populates various information into these documents including tables for WQBELs and effluent monitoring. This automated process has had the dual benefit of streamlining the permitting process with respect to WQBELs and significantly improving permit quality.

The Division's improvements in developing water quality assessments for permitting are also particularly noteworthy. The assessments are included as a separate attachment to the permit. The assessments stand on their own and can support other types of water quality decision-making as well. The assessments provide a clear line-of-sight from the applicable hydrologic data, ambient water quality data, appropriate standards and effluent characteristics to the derivation of water quality-based and antidegradation-based effluent limits.

Colorado has developed and implemented innovative policies and regulations addressing complex water quality management issues such as assessment procedures for WQBELs and antidegradation-based effluent limits, the determination of reasonable potential, and the identification of appropriate mixing zones. These policies were developed based upon debates with the stakeholder community. This process has streamlined the permitting process and improved permit quality by increasing consistency and technical rigor.

The Division has developed detailed reasonable potential guidance. It employs statistical principles similar to those found in the technical support document (TSD). WQBELs are included in Colorado Discharge Permit System (CDPS) permits as enforceable permit conditions where technology-based effluent limits (TBELs) are not sufficient to assure attainment of water quality standards. In the cases where antidegradation-based effluent limits are more restrictive, the antidegradation-based limits become the enforceable permit conditions. WQBELs and their derivation are explained in an appendix to the permit rationale called the water quality assessment. WQBELs for new discharges to impaired waters that have not yet had total maximum daily loads (TMDLs) developed are set at the water quality standard. For existing discharges that are expanded there can be no increase in the loading of pollutants that would contribute to the impairment of the water body. The permits for such existing discharges

include a compliance schedule, if necessary, to meet the applicable waste load allocation (WLA) when the TMDL is finalized.

The categorical waste streams are identified as part of the application review. The associated effluent limitations guidelines (ELG) are reviewed to determine the relevant technology-based limits. Those limits are imposed unless a WQBEL is as, or more, restrictive.

The Permit Writer Tool is also used as a permit quality review tool instead of using a standardized permit quality review tool. High priority permits are identified and reviewed if: 1) stream standards have changed since the last renewal, 2) the current permit related flow regime has changed, 3) new permits are required, 4) very large environmentally significant point sources are present, 5) wasteload allocations have been developed that would implement TMDLs, and 6) new permits or permit modifications are required pursuant to enforcement orders. The State has reviewed the standardized national permit quality review tools (i.e., permit quality checklists and central tenets) and has begun incorporating aspects of the tools into the State program. For example, additional permit quality reviews include the development of a permit application review checklist, which is used by the permit writers.

The Permits Unit has also initiated a peer review process for group review and critique of selected permits by the permit writing staff. Due to the addition of several new permit writers within the Permits Unit, the Unit has initiated a mentoring process where senior permit writers serve as mentors to those more junior.

An additional enhancement to the permit quality and permit consistency has been the relocation of two water quality assessors to the Permits Unit. This has resulted in more efficient communication of water quality issues during the permit writing process with permit writers and the Permit Unit's contractor.

Documentation of permit quality reviews is maintained in revisions to draft and final permits. Recently, identified issues during permit quality reviews include the absence of effective WET limits in permits and lack of documentation of public comments in the administrative record. Colorado has responded promptly to the concerns and taken adequate steps to ensure that they don't recur.

Colorado has adopted detailed WET regulations and guidance that are utilized in all permitting actions. The requirements that are incorporated into permits are based upon federal WET regulations. Typically, the State conforms to the Region 8 guidance document related to WET testing to determine how to incorporate WET limits into permits. However, Colorado's permit limits for chronic WET include limits for chronic lethality only; sub-lethal effects on growth and reproduction are reported but not limited. The State is working closely with EPA Region 8 to resolve issues with regard to application of WET limits.

EPA Region 8:

For permits in Region 8 where EPA is the NPDES authority, WQBELs are included where the discharge may cause or contribute to an exceedance of the water quality standard. The WQBELs are calculated using a mass balance or derived from modeling. For Indian Country, in cases where no EPA-approved water quality standards (WQS) are present, designated uses, appropriate CWA section 304(a) criteria, adjacent State WQS, and/or Tribal standards are evaluated when developing WQBELs. WQBELs for discharges to impaired waters are established as the criteria and applied at the end of pipe. EPA Region 8 interprets this as not causing or contributing to the impairment.

None of the discharges permitted by EPA Region 8 are on the list of impaired water bodies under CWA section 303 (d) and have TMDLs in place. In the event this situation presents itself in the future the Water Permits Unit would work closely with the TMDL program to ensure the WLA is appropriately reflected in the permit.

EPA Region 8 relies on EPA's National TMDL Tracking System (NTTS) to track permits that are implementing TMDLs.

Under CWA section 303(c)(2), States and authorized Tribes submit new or revised water quality standards to EPA for review and approval. This review process provides the mechanism by which EPA Region 8 ensures the numeric standards are protective of designated uses. Where EPA Region 8 finds that the State or Tribal water quality standards are not protective, the Region has authority to disapprove those water quality standards. And, if the State or Tribe fails to correct disapproved water quality standards, EPA has authority, under CWA section 303(c)(4), to promulgate protective federal water quality standards. EPA Region 8 works extensively with the States and Tribes before they adopt new or revised water quality standards to ensure the water quality standards are scientifically defensible and protective.

EPA Region 8 does not have a formal process in place to ensure that permits are issued in a timely and appropriate manner. The Water Permits Unit is evaluating: (1) management tools to ensure timely issuance of permits; and (2) national permit quality tools (permit review checklists and the central tenets) to verify that appropriate conditions are included in all permits.

For narrative criteria "no toxics in toxic amounts" appropriate acute and chronic WET limits are applied. Other narrative criteria may be placed as a narrative limit in a permit, where appropriate. Reasonable potential for WET is determined using the Technical Support Document (TSD) procedure. With other toxics, this procedure is not used, usually because of the lack of sufficient data points (small facilities with infrequent discharges). The reasonable potential to cause or contribute to a violation of water quality standards for these pollutants are determined on a case by case basis. EPA Region 8 developed a Region 8 WET guidance and boilerplate language to ensure the program complies with the federal WET regulations.

Technology limits are imposed for facilities which fall under Effluent Limitation Guidelines (ELGs), and secondary treatment technology requirements are imposed for municipal facilities as appropriate. When a permit application is received the permit writer evaluates whether any ELGs apply. If there is uncertainty other permit writers and the appropriate EPA headquarters ELG contact are consulted.

2. Pretreatment

The State of Colorado:

The State does not have authorization for the pretreatment program. However, the State of Colorado is currently preparing the necessary documents to request authorization and is expected to request authorization within the next eighteen months.

Colorado does maintain a State pretreatment program that does not overlap with the federal program. For example, Colorado has permitted 10 categorical facilities (based from the State's self-assessment),

which equates to 100% of identified categorical facilities in jurisdictions that do not have an approved pretreatment program. EPA does not have the authority to issue these types of permits.

EPA Region 8:

There are 26 POTWs in Colorado with approved pretreatment programs, one more that will become approved, and four others that are being evaluated.⁵

To help implement the pretreatment program, EPA Region 8 has developed and held a three-day annual pretreatment workshop for the past thirteen years. The pretreatment workshop also includes an in-depth 2 day training session on biosolids issues.

The pretreatment program also relies on a pretreatment database that tracks annual report information, including headworks loadings and SIUs. This is not an official EPA supported database and cannot be guaranteed as an on-going management tool. This was developed and is used by the pretreatment coordinator as a management tool.

To identify potential SIUs, the Region follows up each audit by reviewing phone books, water and wastewater billing records, and drives through likely industrial areas. In addition, electronic copies of newspapers are reviewed and have assisted in identifying new and expanding businesses. The on-site work is critical to ensuring POTWs are effectively identifying users.

Region 8 approves new pretreatment programs as needed. Pretreatment program audits are completed on approximately 20% of the POTWs in the Region per year (i.e., the goal is to audit each program once every 5 years). Program audits typically have a number of required actions which are tracked and verified by the program and during PCIs by the enforcement staff. These audits are very effective at keeping programs updated and implementation consistent with federal requirements. An exit interview is held at the end of each audit to summarize the major findings.

After an audit is conducted, reports are mailed out within two weeks. A POTW must respond back to the EPA within 30 days of receipt of the report. In some cases, EPA specifies the time frame that the POTW must comply with to address the deficiencies. In other cases, EPA requests the POTW to provide the date of completion for the required action. All audit reports and significant noncompliance/reportable noncompliance (SNC/RNC) determinations are provided to EPA's enforcement program for formal follow up if the deficiencies are of a serious nature.

All municipalities with approved pretreatment programs are required to submit annual reports. The annual report review for Colorado facilities is targeted for completion within 60 days of receipt of the reports. Follow-up is included in the 60 days except where local limits revisions and grease control programs are found to be necessary. These activities require varying amounts of time to complete.

SIUs are located in both approved and non-approved programs. Over 98% of the identified SIUs in approved programs in Colorado have control mechanisms in place. EPA does not issue permits or

⁵ The National Data Sources column of the Management Report, measure #8, shows 23 pretreatment programs. There are three additional approved programs for which the approval code had not been updated in PCS at the time of the data pull for the national data on June 14, 2004.

control mechanisms in non-approved programs, since there is no federal authority to do so. Industrial users in non-approved programs, if violating, may be issued a formal enforcement action.

3. Concentrated Animal Feeding Operations

The State of Colorado:

The Division estimates that there are 191 CAFOs in the State⁶. Eighteen (18) of these hold a certification under the State's CAFO general permit. Eleven (11) others hold an individual permit for swine feeding operations that is required under a State statute and that, with regulatory changes enacted in April of 2004, now will meet or exceed the provisions of the current NPDES CAFO rule⁷. With assistance from Region 8, certain activities will be implemented to help ensure that all CAFOs will apply for an NPDES permit by April 2006. The activities include establishing targets; using performance partnership agreements to solidify implementation plan commitments; providing outreach and technical assistance, and assessing the resources of the State's CAFO programs.

Twelve (12) CAFOs have nutrient management plans (NMPs) that meet the requirements of their permits. These NMPs address land application of manure and wastewater. When NMPs are being developed, the State is proposing to review and comment on the plan but only limited site inspections on the effectiveness of the plan will occur because of staff limitations.

The State does not require that NMPs be held by animal feeding operations (AFOs); it does require under title 5 Colorado Code of Regulations (CCR) section 81 that AFOs follow certain best management practices, including application of manure and wastewater at agronomic rates for the purpose of protecting surface and groundwaters of the State.

CAFOs are inspected upon the State receiving a complaint about an operation or at the time of permit application. In FY2004, the State began to perform scheduled inspections. CAFOs will be inspected every five years starting in FY2005. Colorado is also planning a new CAFO initiative whereby a contractor will perform a site visit at 80 CAFOs and assist the operations to comply with regulatory requirements, including meeting permit application deadlines. Colorado should develop a comprehensive inspection and permit coverage plan for the remaining CAFOs requiring NPDES permits.

Colorado's State regulations were revised in April 2004 and became effective in June 2004 to meet the requirements of the new CAFO rule⁸. The State's existing general permit expires on June 30th, 2006. The State intends to issue a new general permit in March 2006. EPA Region 8 has reviewed the revised regulations and determined that they are consistent with the new federal regulations.

⁶ The National Data Sources column of the Management Report, measure #11, shows an estimated 194 CAFOs, based on information as of March 2004. The 191 estimate is based on information as of September 2004.

⁷ The National Data Sources column of the Management Report, measure #26, shows 6% of the estimated CAFOs are covered by NPDES permits, based on information as of March 2004. The Additional Data column shows 9%, reflecting the 18 CAFOs covered under the NPDES general permit as of September 2004.

⁸ The National Data Sources column of the Management Report, measure #15, shows that legal authority was expected in February 2004, based on information from around that time when it appeared the revisions were nearing completion.

Colorado's permit issuance rate for CAFOs is exceptionally low. Colorado's adoption of CAFO rules in 2004 and recent increases in staff for the CAFO program (1 FTE to 3 FTEs) should result in significant improvements in the permit issuance rate. In the State and federal CAFO rules, the date upon which a CAFO must apply for a permit varies depending on when the AFO became or becomes a CAFO. With few exceptions, all CAFOs are required to apply for a permit between June 2004 and April 2006. In June 2003 the State released a notice of intent (NOI) process for CAFOs to formally commit to submitting a complete permit application. The NOI was intended to be an interim risk management tool for large CAFOs in operation as of April 14, 2003 and provide incentive for CAFOs to initiate the permit application process. CAFOs that submitted the NOI were considered a low enforcement priority if they operate in a proper manner relative to appropriate practices identified in current CAFO regulations (i.e. prior to adoption of 2004 rules). The State accepted 69 NOIs in October 2003. Extensive outreach has been done in Colorado to inform producers of the new CAFO requirements and associated deadlines, including five outreach meetings across the State in the fall of 2004.

Issuance of timely coverages under the general permit will be a challenge due to limited resources and the level of technical review that is required prior to granting coverage under the State's general permit. A CAFO must meet a number of requirements before a permit can be issued, including any necessary wastewater storage requirements. Additional resources may be needed to issue timely coverages under the general permit.

EPA Region 8:

Permitted CAFOs are inspected, at a minimum, once during the life of the permit or once every five (5) years. Region 8 has used ground surveys, aerial flyovers, and surveys of United States Geological Survey (USGS) aerial photographs to inventory AFOs and CAFOs in Indian Country. Region 8 has surveyed and/or inspected 13 of the 26 Tribes in the Region for high priority CAFOs and 12 CAFOs have been identified. FY2005 funding has been acquired to inventory/inspect 4 more reservations.

Four CAFOs in Region 8 have submitted applications for EPA-issued permits. The Region issued permits to two facilities in Region 8 (one in South Dakota and one in Wyoming) prior to the effective date of the February 12, 2003, revisions to the federal CAFO rules. Two applications were submitted after February 12, 2003 and EPA Region 8 is currently drafting permits. The permits will include all requirements of the February 12, 2003 CAFO rules. The quality and effectiveness of nutrient management plans will be evaluated during site inspections.

CAFOs that have not submitted permit applications will be addressed in a manner guided by the Region 8 Guidance for Compliance Monitoring, Compliance Assistance and Enforcement Procedures in Indian Country.

4. Stormwater

The State of Colorado:

Colorado has current Phase I and Phase II stormwater general permits for industrial activities; large construction and small construction; and small municipal separate storm sewer systems (MS4s). Colorado also has five current Phase I MS4 individual permits and two industrial individual permits.

The NOI information for all stormwater permittees is entered into an Access database. The database is used to track certification expirations and annual report submittals and is linked to the permit fee-billing

database. Annual stormwater reporting is required for all permittees except those covered under the construction general permit. Annual stormwater sampling and reporting are required for specific categories under the heavy industry general permit (SIC codes 2011, 2015, 2077, 2491, 28, 29 (except asphalt batch plants), 30, 3241, 3274, 33, 5015, 5093, 45 (large airports only), landfills, and power plants) and for recyclers. DMR data are not tracked electronically. However, when resources allow, the program does respond to auto recyclers (which typically have a high pollution potential) with a summary of their industry's monitoring data, and an assessment of each permittee's rank within the group.

The stormwater program is planning to employ a geographic targeting strategy in the coming year. Given the program's limited resources and the rapid growth occurring in the State, it was decided to focus on construction in a defined geographic area. The area chosen was the Highway 287 and I-25 corridor spanning from Broomfield to Loveland, Colorado. This area was selected because of its rapidly increasing level of development. There are numerous construction sites in this area, both permitted and un-permitted, with a high potential for surface water pollution. Also, much of the area where the growth is occurring is not under a Phase I or Phase II MS4 permit.

The Division is also looking into the development of a program to encourage compliance at construction sites through implementation of environmental management systems relying on internal site audits. Such a program could assist the Division by further educating the industry and ensuring compliance through better targeting of field oversight.

The FY2005 performance partnership agreements commitment is for 278 stormwater inspections during the inspection year. The number 278 is somewhat short of the 10% requested by EPA Region 8. The Division is working with local health agencies to do stormwater construction inspections, beginning in November 2004. It is estimated that the local agencies (possibly in conjunction with a private contractor) will be able to complete at least 180 of the 278 inspections. In the event that it is not possible to meet this goal, the Division will use funds not used by local agencies to provide additional education/outreach targeted at construction activities. Stormwater inspection training was provided to several local health departments in October 2004.

EPA Region 8:

EPA Region 8 is the NPDES permitting authority for stormwater discharges associated with industrial and construction activity for federal facilities in Colorado and for facilities located in Indian Country in Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming.

In Region 8, EPA-permitted discharges associated with industrial activity are covered by EPA's October 30, 2000, Multi-Sector General Permit (MSGP), except for facilities in Indian Country in Montana, which are covered by the April 16, 2001 MSGP. (See <http://www.epa.gov/region08/water/stormwater/industrial.html> and <http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>) EPA-permitted discharges associated with construction activity are covered by EPA's July 1, 2003 Construction General Permit (see <http://www.epa.gov/region08/water/stormwater/construction.html>). There are no EPA-permitted MS4s in Indian Country within Region 8.

EPA Headquarters maintains a database of all MS4 permits throughout the country (both EPA and State). For Region 8, a list of all applicants who have submitted a Notice of Intent (NOI) for MS4

permits (State and EPA) is maintained on the EPA Region 8 Web site. NOI data for construction and industrial permits for EPA permits are maintained electronically via the NOI Processing Center NOI database.

DMR data are not tracked electronically for EPA-issued stormwater permits. The construction general permit does not require monitoring in the traditional sense. The small MS4 permit does not require effluent monitoring. The following industrial sectors require effluent monitoring:

1. Cement manufacturing
2. Feedlots
3. Fertilizer manufacturing
4. Petroleum refining
5. Phosphate manufacturing
6. Steam electric
7. Coal mining
8. Mineral mining and processing
9. Ore mining and dressing
10. Asphalt emulsion

Colorado federal facility small MS4s are permitted through a Region 8 general permit which was issued June 23, 2003.

5. Combined Sewer Overflows/Sanitary Sewer Overflows

The State of Colorado:

There are no combined sewer systems in Colorado.

The operation of satellite community collection systems is not specifically regulated by the State of Colorado. However, the design of all lift stations, even those for satellite collection systems, is subject to regulatory review. If a satellite system experiences an Sanitary Sewer Overflow (SSO) they are required by State law to report the incident. Such an incident is considered to be a discharge without a permit and the responsible entity is potentially subject to enforcement action. Colorado has recently begun work to develop a statewide inventory of satellite collection systems.

When an SSO occurs that presents a water quality and/or human health threat, the State notifies local health departments and downstream water users. Also, cleanup operations are conducted at the site and warning signs may be posted along the impacted waterway. If the impacted water body is a swimming

area, the swimming area is closed until samples demonstrate that water quality is acceptable. Additionally, in serious cases, press releases have been issued to notify the public.

Colorado's SSO response plan consists of a background on SSOs, problems that cause SSOs, a method of how SSOs will be identified and regulatory compliance actions. The quantitative goal of the response measures is to address 20% of the SSOs in the inventory.

Colorado performed six (6) NPDES inspections targeted at identifying SSOs. Two of the inspections were in priority watersheds. One formal enforcement action was negotiated in FY2003 and will be executed in FY2004. The enforcement action was not in a priority watershed. At the end of FY2002 there were 163 SSOs in the State's inventory.

EPA Region 8:

There are no combined sewer systems in Indian Country in Region 8.

Sanitary sewer overflows are reported under the bypass provisions included in EPA issued permits. For permits issued in Indian Country the permittee must notify EPA's enforcement program and the respective Tribal government, if so required by the terms of the permit. EPA relies on the Tribe to notify the public and public health authorities. For bypasses that may endanger public health or the environment the permittee must also notify the EPA Region 8 Preparedness, Assessment and Response Program.

6. Biosolids

The State of Colorado:

Colorado does not have authority to administer the sludge program. However, the State of Colorado is currently preparing the necessary documents to request authorization and is expected to request authorization within the next eighteen months.

EPA Region 8:

There are 114 facilities in Colorado granted coverage under the Regional general permit COG650000. This number is expected to increase to approximately 220. The general biosolids permit became effective in Aug. 2002 and does not cover facilities or operations that incinerate sewage sludge. The general permit covers the generation, treatment/monitoring, and/or the use/disposal, along with the amount and location of biosolids. Use/disposal of biosolids includes land application, landfill, and surface disposal. To provide flexibility to address different situations, coverage under the general permit falls into one of three categories.

In addition to facilities covered under COG650000, general permit COG652000 covers federal facilities located in Colorado (except those in Indian Country), and general permit COG651000, which covers facilities located in Indian Country in Colorado.

In addition to EPA's general permits, the State maintains its own program. That program includes enforcement, facility inspection and land application site inspection and individual land application site approval. Colorado conducts inspections of both facilities and land application sites. The State receives and reviews the annual reports and enters data into the BDMS. The data are transferred electronically to

EPA. The State has also partnered with several counties to complete additional land application site inspections.

Region 8 uses PCS to track biosolid general permit issuance. In addition, the BDMS is used to help improve compliance monitoring and biosolids management. BDMS also provides a standardized reporting format and aids utilities in the central storage and retrieval of biosolids data. This system allows utilities to electronically transmit data to the EPA and to prepare reports. The current version of BDMS is BDMS version M or BDMS for Municipalities.

The Region 8 coordinator is relied on extensively at the national level. Region 8 is involved, through membership, on the pathogen equivalency committee and is designated as a Biosolids Center for Excellence.

In Colorado, about 95% of the facilities are land applying or re-using biosolids, accounting for 85% of the biosolids produced. New York City also land applies approximately 25,000 dry metric tons/yr of biosolids in Colorado.

Section III. NPDES Compliance Monitoring and Enforcement Response

In a separate initiative, EPA's Office of Enforcement and Compliance Assurance, EPA Regions, and the Environmental Council of the States have developed a tool for assessing State performance in enforcement and compliance assurance to ensure that States meet agreed-upon minimum performance levels and provide a consistent level of environmental and public health protection nationwide. OECA will use the State profiles to focus these efforts and identify areas needing further discussion and evaluation.

1. Enforcement Program

The State of Colorado:

The State of Colorado has an inventory of entities that are subject to federal and State water quality laws and regulations. The State has three mechanisms to identify, prioritize and ensure corrective measures are taken to address noncompliance problems. First, the Division develops an annual inspection plan to inspect all major facilities, 20% of its minors, 20% of problematic SSOs based on reporting data, and beginning in FY2005, 20% of the CAFOs. Second, the Division conducts bimonthly meetings that could assess the most serious issues that could result in changes to its inspection targets. Third, the Division has in place an Enforcement Management System (EMS) which includes a communication process, action description, and record keeping requirements to address DMRs, WET, citizen complaints, spills and bypasses, and inspections. The EMS includes an Enforcement Response Guide to address violations at major and minor municipal and industrial wastewater treatment facilities (not including stormwater or CAFOs). The EMS has a time control goal, procedures for case development, and a methodology for calculating penalties. Timely and appropriate enforcement responses for major facilities are largely determined and identified through the quarterly non-compliance report (QNCR). The Division's EMS is generally consistent with that of EPA's.

The Division has a policy for calculating penalties for NPDES effluent violations. The methodology components include potential damage, fault, and history. With \$10,000 per day of violation being the maximum penalty allowed by statute, the guidelines establish a maximum amount that can be assessed within each category. Separate criteria are established by the policy for determining penalties for administrative violations such as delinquent or deficient reports and compliance schedule violations.

The EMS addresses repeat violations of the DMR requirements, and considers how to handle violations that might be expected to continue after issuance of an Notice of Violation (NOV). Violations that continue after issuance of an action are addressed by either amending the order, and in the penalty phase of the action by the Penalty Policy.

EPA evaluates the Division's performance for timely and appropriate enforcement and other elements (i.e., escalation policy, etc.) through its Regional Uniform Enforcement Oversight System (UEOS). EPA will continue to monitor the Division's progress in these areas. The Division is participating in EPA's national pilot in furtherance of developing a State review framework.

The Division has a stormwater database and committed in FY2004 to developing a response guide and a methodology for calculating penalties for stormwater. The response guide and methodology is being

reviewed by EPA. Also in FY2004, the EPA/Colorado performance partnership agreements contained quarterly stormwater inspection goals and the Division added a stormwater inspector and a stormwater enforcement specialist. The paralegal hired in FY2004 will also be utilized to help with consistency and to ensure that compliance and enforcement orders have a sound legal foundation.

The Division inspects 20% of CAFOs and targets inspections to facilities that have not been inspected within five years as well as based on complaints and inquiries conveyed by the public. compliance assistance is often provided when the State receives a complaint. Informal and formal enforcement actions are taken depending upon the magnitude of violations found, the compliance history of the facility, and the level of cooperation and responsiveness by the facility.

The Division has increased its focus on all aspects of compliance assurance over the past several years. The Division now has a Compliance Assurance Unit that is responsible for compliance monitoring and enforcement as well as facility-related data management. Historically, these functions had been ancillary to the permitting functions conducted by the Division. In 2001, the Division added an FTE at the workgroup leader level. This position, experienced in compliance and enforcement across media, has been instrumental in developing the efficient work processes that are necessary to complete the compliance and enforcement workload.

At 14%, the percentage of SNC addressed by enforcement actions in FY2003 is equal to the national average. During FY2003, 7% of Colorado's major facilities appeared in SNC. This is below the national average of 20% and represents a positive trend where the number major facilities in SNC status over the past four years continues to decrease. Reduction in SNC status may be due to the DMR review program the State has instituted over the past couple of years to evaluate reports within a given period of time to identify violations, problems in reports, or late reports.

Enforcement actions for major and minor facilities are tracked in PCS. PCS tracks all compliance schedule deadlines, compliance with effluent limits, and penalty payments. In October 2001, the Department developed an agency-wide supplemental environmental project (SEP) policy. The policy establishes categories for approved SEPs, specifies the extent to which a SEP can offset a penalty, establishes legal guidelines for negotiating SEPs and specifies criteria for drafting enforceable SEPs.

EPA Region 8:

EPA Region 8 has an Enforcement Response Guide (ERG) that directs the Region's enforcement process. The ERG indicates that an enforcement action should be initiated prior to a facility appearing on the QNCR for the second quarter for the same parameter. For enforcement actions filed with the Regional Hearing Clerk, the facility may appeal and/or request a meeting/hearing. The rules and procedures of the courts are followed. EPA Region 8 is guided by its Regional Tribal Policy when dealing with facilities in Indian Country. EPA Region 8 has created a Case Development Guide, which gives further guidance on penalty calculations, and case development.

The escalation process is described in the Enforcement Response Guide and the Region 8 Guidance for Compliance Monitoring, Compliance Assistance and Enforcement Procedures in Indian Country.

EPA Region 8 uses PCS to track the non-compliance of the regulated community. The Regional Enforcement Response Guide and Regional Tribal Policy provide guidance for the proper enforcement

response and the timeline for issuing the enforcement. Formal enforcement is taken for SNC at a major facility.

The administrative orders issued in Region 8 are not open for appeal. Respondents are generally given 30 days to file an answer to administrative penalty orders. If settlement cannot be reached during settlement negotiations or alternative dispute resolution, cases are heard in front of an administrative law judge. Generally the administrative law judge would determine the timeline for the hearing process.

The Region routinely conducts inspections at the over 180 wastewater treatment facilities in Indian Country, the vast majority of which are non-major facilities. The appropriate enforcement response is then guided by the Region 8 Guidance for Compliance Assistance and Enforcement Procedures in Indian Country.

The Regional Enforcement Response Guide is applied to pretreatment and the wet-weather programs for which the Region has authority. Significant violations are determined during inspections and/or review of discharge monitoring reports that are entered into PCS. Region 8 has also recently drafted a stormwater enforcement response guide. For SIUs, SNC is defined by regulation. The Region uses a checklist to determine SNC for approved pretreatment programs.

EPA Region 8 uses the national Clean Water Act Penalty Policy. The penalties are calculated in accordance with the policy and take into consideration the economic benefit of non-compliance and the gravity. Region 8 uses the national SEP policy. Region 8 also utilizes the Supplemental Guidance to the Interim Clean Water Act Settlement Policy (March 1, 1995) for Violations of the Construction Stormwater Regulations.

The following table summarizes enforcement actions taken by EPA Region 8 in all Region 8 States and Indian Country.

Administrative Orders			Administrative
Penalty Orders			Penalties Collected
FY 2001	18	7	\$40,000
FY 2002	8	6	\$295,952
FY 2003	34	9	\$163,776

All of the penalties recovered economic benefit at a minimum.

Region 8 NPDES encourages SEPs and uses EPA’s SEP guidance. The Region’s Environmental Justice program has taken an active role in negotiating SEPs which benefit the impacted community.

Injunctive relief for civil enforcement actions taken by Region 8 in all Region 8 States and Indian Country for each of the last three years is: FY2001 \$372,968; FY2002 \$323,335; FY2003 \$154,200. In FY2001 there were 2 referrals to the Department of Justice. There were also 2 referrals in FY2002 and 6 in FY2003.

2. Record Keeping and Reporting

The State of Colorado:

Copies of letters regarding issues of noncompliance such as deficiencies and delinquencies are kept in the Colorado records center, as well as any correspondence sent in by NPDES facilities regarding performance/issues or concerns. Generally, DMRs are entered into the PCS within 10 days of receipt and the data is verified after system updates are completed. Compliance schedule items are also entered into the system for items listed as a requirement in the permit as well as compliance items occurring as a result of an enforcement action. The Division's proactive efforts to evaluate and enter DMRs into PCS has greatly improved the compliance oversight of these reports and has resulted in fewer facilities reported in the QNCR for data problems or late reporting.

Documented rationales for penalties are kept in enforcement files that support their defensibility in court in case the Division is challenged. The rationale document provides a complete explanation as to how the Division's penalty policy was applied, and to a certain degree includes the justification(s) for any penalty reductions. Formalized procedures to track, review, and follow up on stormwater annual reports, CAFO annual reports and non-enforcement related compliance schedules should be developed and tracked in PCS.

EPA conducted a program audit in February 2004 and found that most information relating to source performance and agency responses is maintained in the source files. However, EPA found that DMRs for the recent six or more months were missing in the source files. DMR and the miscellaneous source (MS3) files were unorganized. Unorganized files hinder the ability to accurately determine the compliance status of a facility and determine the appropriate follow up actions.

The Division recently hired a new records manager to oversee the operations of the records center. The new manager is currently developing internal policies to: 1) improve the accessibility of documents in the records center; 2) implement the records retention procedure; 3) implement the file check-out procedure; 4) improve file organization and management and; 5) improve security during public file reviews.

EPA Region 8:

Administrative orders generally require sources to submit to EPA periodic reports, monitoring results, or other data. These data are used by the enforcement unit to determine the source's compliance with the enforcement action and the CWA, and determine if escalation is necessary. Generally, the response to violations of administrative orders is determined by the Region's enforcement response guide.

3. Inspections

The State of Colorado:

The Division holds internal bimonthly meetings to discuss inspection targeting. These meetings involve staff and managers working in different areas of responsibility for the overall NPDES Permitting and Compliance Program (e.g., inspectors, compliance monitors, permitting supervisors, enforcement staff, etc.). The kinds of issues that shape the Division's inspection targeting on an ongoing basis (i.e., modify the inspection plan) include: facilities that have gone into SNC; other noteworthy compliance issues that have just surfaced; complaints that have been received; and self-reported data.

The Division prepares an Annual Inspection Plan that establishes the Division's overall approach and sets forth specific goals and targets for conducting inspections throughout the year. Specific strategies for inspection targeting and sampling are included for 100% of major wastewater treatment facilities and 20% of its minor wastewater treatment facilities as well as for stormwater dischargers, CAFOs, biosolids, and pretreatment inspections. Additionally, the Division targets facilities that have experienced SSOs and facilities that may not have resolved deficiencies identified in previous inspections.

In inspection year 2003 (7/1/02-6/30/03), the Division inspected 97% of its major facilities. Colorado has inspected about 28% of its minors each year from FY2002 to FY2004, which is above the target 20%. The total number of State inspections at majors and minors has been steady over the past three years at over 270 inspections. During inspection year 2003, 59% of all inspections were at minor facilities. Minor facilities that are targeted and prioritized for inspection are identified in the Division's annual inspection plan. Discrepancies or variances from the numbers reported in the Management Report are attributed to the timing of data queries.

TSU does keep separate lists in an Excel spreadsheet to organize and implement the inspection plan. It is not a database, but these lists are routinely cross-referenced and reconciled with PCS to make sure that PCS is accurate.

The Division estimates there are 191 CAFOs in the State. The Division is now inspecting 20% of CAFOs each year which includes inspections for which complaints are received and facilities where permit approval is pending. A format (checklist) should also be developed to help increase CAFO inspection percentage. In FY2005 the Division will launch a new CAFO initiative whereby a contractor will audit 80 CAFOs and provide compliance assistance towards having the operations meet the permit application deadlines.

The Division has an inventory of approximately 4,200 active stormwater permits (construction and other industrial sectors). However, only 1.3% of the inventory has been inspected. In FY2003, the Division hired a stormwater inspector to help increase stormwater inspections. During the 2004 inspection year the Division conducted 59 inspections.

The Division is in the process of implementing a program to contract with local health departments to conduct stormwater inspections. Any allocated funds not used during the inspection year by the local health departments will be spent on inspections by a private contractor. Training has been provided to 29 inspectors, and it is anticipated that a minimum of 180 inspections will be performed by the local agencies during the 2005 inspection year. The Division also hopes to ensure that additional stormwater inspections occur under a voluntary stormwater initiative that is currently under development.

EPA Region 8:

EPA Region 8 has direct implementation authority for the pretreatment program in Colorado, Montana, North Dakota, and Wyoming. The approved programs and SIUs not in approved programs are inspected, at a minimum, once per the life of the permit, or once every five (5) years. The Region has developed a schedule to perform the inspections on a rotating basis so that complete coverage of the regulated community is obtained. For 2005, Region 8 committed to inspect 75% of the approved programs for which it is the approval authority through PCIs or audits and all SIUs in non-approved programs with significant violations.

Indian Country in Region 8 is also under the direct authority of EPA. EPA conducts inspections and provides compliance assistance in the field on a regularly scheduled basis. As with pretreatment, Region 8 has developed a schedule to inspect the Indian Country facilities at least once during the life of the permit. There is only one major facility in Indian Country in Region 8.

Along with the municipal lagoons, EPA Region 8 has direct implementation authority for the CAFOs located in Indian Country. The Region has developed a system to inventory/inspect the reservations for CAFOs. The Region has inventoried 13 of 26 reservations in Region 8, and will inventory four more in 2005. During the inspections, inspectors provide compliance assistance to the facilities.

Region 8 has 4 major federal facilities under its authority in Colorado. The Region inspects these facilities every other year and monitors compliance using PCS. This year Region 8 will inspect all of the federal facilities in Colorado. The Region is also conducting stormwater inspections at the federal facilities in Colorado and in Indian Country.

Along with its direct implementation areas, the Region conducts two oversight inspections per year with each State.

Facilities are inspected in accordance with established schedules. If monitoring data entered into PCS indicate that violations are occurring, then that facility will be moved up on the inspection list. Proper enforcement is initiated in accordance to the Regional Enforcement Response Guide.

File reviews are an integral part of field inspections and Region 8 typically reviews at least part of a facility's files during any inspection. NPDES permit conditions often drive file reviews by defining the frequency and scope of file contents.

EPA Region 8 conducts inspections for the base program (major and minor facilities) on a schedule to ensure minimum coverage. The Region has also targeted priority sectors, primarily stormwater and CAFOs, to maximize field presence and enforcement in these sectors.

4. Compliance Assistance

The State of Colorado:

The compliance and enforcement staff participates in various training/workshops for stormwater and CAFOs. The staff also assists the regulated community by providing education and information to facilitate compliance with permit limits. Clarification is explained/discussed with permittees upon request.

Retrievals are also pulled from PCS for the regulated community so they can review past/current limits as well as self-monitoring data that were reported during the life of the permit, or for a specific period of time (e.g., the last two years). As previously referenced, the Division is actively engaged with the regulated community in numerous outreach/education and work group efforts.

Where compliance assistance fails and enforcement is deemed necessary, SEPs are oftentimes used to offset penalties. Examples of SEPs would be a cash donation to a restoration fund or projects to restore and improve impacted waters of the State.

The Division spends a significant amount of time and resources assisting regulated entities. This ranges from seminars to provide information on recent regulatory changes to advice provided during an inspection. The Division has not historically quantitatively measured the outcome of this assistance but, qualitatively, the Division sees improvements in compliance rates through:

- Evidence of compliance improvement upon follow up visits/inspections
- Improvement in the quality of reports/documents submitted after the assistance
- A reduction in complaints about the facility
- Customer survey results
- An increase in the number of applications
- An increase in rate of annual report submit

EPA Region 8:

The Region relies mainly on compliance assistance in Indian Country. In the event a long term compliance problem is identified, the Region develops a Compliance Assistance Plan as outlined in the Region 8 Guidance for Compliance, Monitoring, Compliance Assistance and Enforcement Procedures in Indian Country.

Compliance assistance activities are entered into the Regional Compliance Assistance Tracking System (RCATS) database. However, outcomes are not currently measured.

Section IV. Related Water Programs and Environmental Outcomes

1. Monitoring

The State of Colorado:

At this time, Colorado does not use ambient water quality monitoring as a tool to routinely assess the effectiveness of its NPDES program. However, in the situation where a stream segment is listed on the list of impaired waters prepared under CWA section 303(d), the influence of point sources is assessed to determine if a point source is contributing to the cause of the non-attainment of the standards or non-attainment of the use classification.

Colorado's monitoring program is driven primarily by a rotating basin approach that is focused on updating existing water quality standards and supporting site-specific standards, developing TMDLs, and supporting modeling efforts for permitting. The State also samples approximately 40-80 fixed station trend-monitoring locations each year. Some monitoring is done to develop new program elements such as biocriteria, sediment criteria, nutrient standards, etc. The State is currently re-examining its monitoring priorities in conjunction with members of the State monitoring council and exploring new partnership opportunities that would include a more integrated monitoring strategy.

Colorado assesses a high percentage of river/stream miles using a suite of indicators designed to primarily assess the attainment of numeric water quality standards adopted by the Water Quality Control Commission (WQCC). EPA's Elements of a State Water Monitoring and Assessment Program Guidance recommends that States use EPA's suggested full suite of core indicators. To the extent that resources allow, Colorado will incorporate more of the EPA suggested core indicators into its routine monitoring strategy as that strategy is developed over the next ten years. Colorado does collect data for some of the EPA core indicators on a limited basis in those situations where a particular type of assessment is required. The current program collects instream data for permit background calculations and for calibration of wasteload allocation models (WLAs).

Many of Colorado's lakes and reservoir assessments are based on old data from the program under CWA section 314 to identify all public lakes and reservoirs. EPA Region 8 is concerned about age of data and need for a plan to expand the lakes program. EPA has not articulated its concerns directly to the Colorado lakes monitoring and assessment program. Although the State is required to report on lake trends under section 314 of the CWA, EPA (nationally) has not provided federal funding to States to operate a section 314 program since 1994. Lakes programs are now required to work within the constraints and priorities of the CWA section 319 program which identifies waters impacted by nonpoint source pollution, and as a result, Statewide lake assessments are not a priority. Colorado has undertaken several key CWA section 319 projects for specific lakes including the Three Lakes, and the Barr Reservoir and Milton Reservoir projects. These are large scale watershed projects that have been patterned after the original clean lakes diagnostic and feasibility studies. Funding for general lakes assessment comes from the States overall monitoring efforts. Currently, the Division plans to monitor and assess 5 to 8 lakes and reservoirs in each basin on the rotating basin schedule.

Colorado submitted a draft monitoring and assessment strategy to EPA in September 2004 which provides a picture of the Colorado program. Overall, Colorado needs to incorporate a more complete set of CWA monitoring objectives into its Monitoring and Assessment Program. Specifically, the Region currently is working with Colorado on various aspects of the monitoring program to strengthen efficiency and effectiveness including: 1) electronic transfer of field data to data bases; 2) improved management and use of biological data; and 3) development of improved indicators of sedimentation.

Colorado is currently in the process of developing a final monitoring and assessment strategy. Region 8 plans to work with Colorado in FY2005 to revise the strategy to consider all ten elements and begin implementation. According to the performance partnership agreements, this will be submitted to EPA by September 2005. The purpose of EPA's Ten Elements guidance is to encourage a long-term process of incremental improvement in States monitoring and assessment programs, over the next nine years. However, as possible improvements are identified, resources will have to be secured before they can be implemented. As mentioned above, Colorado submitted a draft monitoring and assessment strategy to EPA Region 8 in September 2004. Region 8 will be reviewing this strategy using the elements guidance and national evaluation criteria. Some of the program elements/areas that need to be considered in developing the strategy include:

- 1) expanding the ongoing lakes monitoring program;
- 2) addressing wetlands monitoring;
- 3) evaluating the use of probability designs;
- 4) ability to conduct special studies as needed (e.g., evaluating fire impacts);
- 5) adequate sampling for assessing attainment of narrative standards (e.g., biological, sedimentation/habitat, nutrients) as well as for toxics (e.g., pesticides, fish tissue contaminants);
- 6) improved field quality assurance (QA);
- 7) improved data management;
- 8) improved data analysis for bioassessment, reference condition characterization, and trend analysis;
- 9) increase use of third party data;
- 10) program evaluation in partnership with EPA.

2. Environmental Outcomes

The State of Colorado:

Refer to the current Colorado water quality inventory prepared under CWA section 305(b) for assessment percentages. See comments from Section IV.1 and Monitoring regarding interpretation of the percentages assessed.

Colorado has a network of fixed station sites and does report on trends in water quality in its Water quality inventory prepared under CWA section 305(b).

Even though the Colorado Department of Public Health and Environment (CDPHE) did not participate in field data collection efforts during the Environmental Monitoring and Assessment Program (EMAP) Western Pilot field sampling effort from 2000-2004, Colorado did request that it be notified about the process and be allowed to comment or provide other feedback during the sampling efforts. EMAP uses a probability design. Probability designs can be used to report out a statistically representative assessment of water quality conditions, which may help develop lake assessments as described by the State in its draft Monitoring and Assessment Strategy. Colorado has agreed to participate in the next phase of Western EMAP with EPA Region 8, but is awaiting notification from EPA about the next steps in the assessment effort.

EPA Region 8:

EPA Region 8 tracks the environmental effects and results of enforcement actions with the case conclusion data sheets that are a part of the ICIS tracking system. Pollutant loading reductions are calculated for all enforcement actions and tracked in ICIS as well.

3. Water Quality Standards

The State of Colorado:

The State ensures the protection of designated uses of waterways by relying on EPA's national criteria developed under section 304(a) of the CWA for the protection of aquatic life and human health, unless it has other independent and scientific information to base different criteria. All proposed water quality standards go through a rigorous public hearing process before adoption as State standards by the Colorado Water Quality Control Commission. After adoption, EPA reviews the Water quality standards and approves or disapproves them according to their view about whether the Water quality standards are adequate to protect designated uses.

Presently Colorado has adopted nutrient criteria standards for five of the major public lakes/reservoirs in the State. Two of these have total phosphorus standards with chlorophyll-a targets, two have narrative standards that limit overall eutrophication, and one reservoir has a chlorophyll-a standard with a total phosphorus target. These standards have been incorporated into reservoir specific control regulations and TMDLs. Colorado has not adopted nutrient criteria for any other water bodies (including rivers and streams) in the State. The State has developed a nutrient criteria development plan for the State. The plan is currently under review by EPA Headquarters. This plan calls for the adoption of criteria by 2010. EPA awarded a contract to Colorado State University (CSU) for \$120K to begin collecting data to assist the State in implementation of their nutrient plan for lakes and streams.

Currently, EPA has disapproved the zinc and selenium criteria for one stream segment on the Lower Dolores River, and the zinc criteria for one stream segment in the Upper Arkansas. (For perspective, Colorado has over 600 segments; each with three or four classified uses and 29 numeric criteria, and statewide standards for 138 organic chemicals). The State is currently working with EPA to resolve these outstanding disapprovals. EPA had also disapproved statewide human health criteria for six Group C organic chemicals. The State has adopted revised criteria, but EPA approval of the revised criteria is still pending.

Colorado has a robust triennial review process that results in a complete review of standards through out the State and the basic standards every five years. The following table displays the schedule for the next cycle.

Table 4: Schedule of Water Quality Standards Review

River Basin and Regulation Number	Issues Scoping Informational Hearing	Issues Formulation Informational Hearing	Rulemaking Hearing
Basic Standards (#31)	–	November 2004	June 2005
San Juan, Dolores, and Gunnison (#34 and #35)	October 2004	November 2005	June 2006
Arkansas and Rio Grande (#32 and #36)	October 2005	November 2006	June 2007
Colorado (#33 and #37)	October 2006	November 2007	June 2008
S. Platt (#38)	October 2007	November 2008	June 2009

When permits are developed, the State may hold a permit back from renewal until regulatory hearings are complete and new standards are approved by EPA. This ensures the permit, when issued, reflects the most recent water quality standards.

New Criteria: Colorado is in the final phases of transition from fecal coliform to E. coli as an indicator of bacteriological contamination.

4. Total Maximum Daily Loads

The State of Colorado:

As of December 17, 2003, 12% of backlogged permits (12 total) are for direct discharges to waters on the list of impaired water bodies prepared under CWA section 303(d).

Every two years the State develops its list of impaired waters (water where standards or uses are not being attained) pursuant to section 303(d) of the CWA. For each of these waters a TMDL is required which identifies the pollutant load that a water body can accept and still be in attainment of standards or uses. Colorado is meeting its commitments regarding the pace of TMDL development.

TMDLs that involve pollutants contributed by point source discharges identify each permitted discharge included in the analysis. The Division’s Assessment Unit maintains a Web site that contains all approved TMDLs, affected water body segments and the parameters of concern. When a permit is developed, relevant information (i.e., TMDLs with applicable WLA) is obtained from the Division’s Assessment Unit and incorporated in the permit. The State uses a permit tracking list spreadsheet to track permits that are implementing TMDLs.

The WLA translation into permit limits depends on the TMDL and the constituent involved. In most cases, the TMDL document also presents the WLA in a form that can be directly incorporated into the permit, namely in terms of concentration. In some cases, after the TMDL is completed, the WLA needs to be translated into a concentration-based permit limit. Where the TMDL takes the form of a total maximum annual load (TMAL), (e.g., for reservoir nutrient TMDLs) the TMAL is translated into a concentration cap and a requirement is included to monitor and report both concentration and flow.

WQBELS for new discharges to impaired waters that have not yet had TMDLs developed are set at the water quality standard. For existing discharges that are expanded, there can be no increase in the loading of pollutants that would contribute to the impairment of the water body. The permits for such existing discharges include a compliance schedule, if necessary, to meet the applicable waste load allocation when the TMDL is finalized.

The State calculates WQBELS for all permits that include parameters with water quality based standards. The limits are calculated using a background concentration, cumulative load from nearby discharges with similar parameters in their effluent, and water quality standards at a point(s) of compliance. The ambient background is based on existing water quality data (85th percentile) or estimated if no water quality data for that site exists.

WQBELS are included in Colorado Discharge Permit System (CDPS) permits as enforceable permit conditions where technology-based effluent limits are not sufficient to ensure attainment of water quality standards. In the cases where antidegradation-based effluent limits are more restrictive, the antidegradation-based limits are also included in the enforceable permit conditions.

Since 1998 there has been no revised TMDL schedule. Based on that schedule, Colorado is meeting their 1998 commitments.

EPA Region 8:

None of the discharges permitted by EPA Region 8 are to listed waters with TMDLs in place. In the event this situation presents itself in the future the Water Permits Unit would work closely with the TMDL program to ensure the WLA is appropriately reflected in the permit.

5. Safe Drinking Water Act

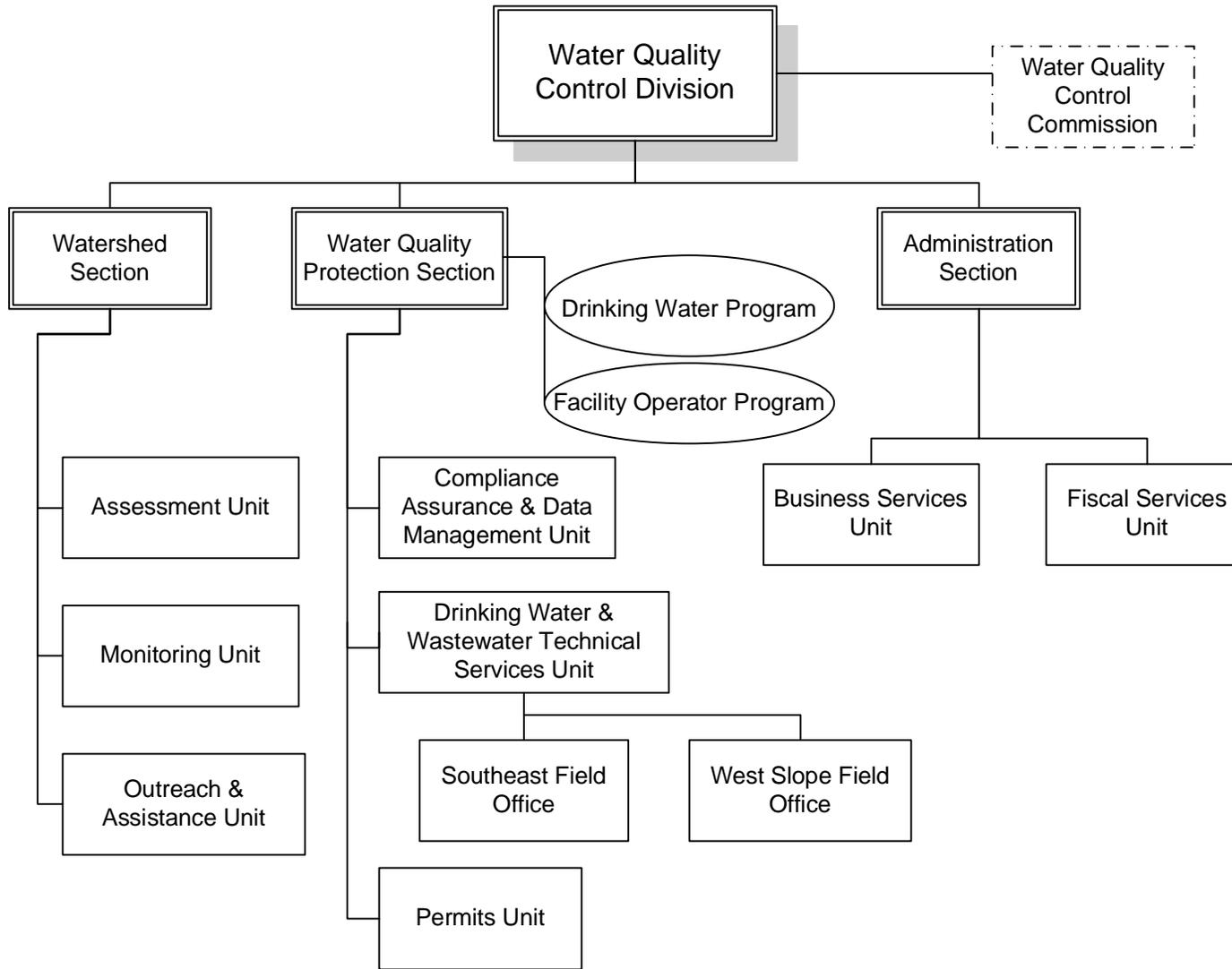
The State of Colorado:

Colorado formed an Impacted Water Supply (IWS) work group in the Spring of 2001 to address issues raised before the WQCC of whether organic carbon, nutrients, and pathogens in wastewater discharges, urban stormwater runoff, and/or non-point sources that dominate the receiving stream flow pose and inordinate risk to downstream domestic raw water supplies. The Division is considering formulation of a Source Water Assessment and Protection (SWAP) implementation work group, which, if convened, would include members of the IWS work group.

Colorado ensures that surface water supply intakes are identified to the Assessment Unit so that the stream segment or water body is assigned a drinking water use classification and associated numeric standards by the WQCC. Also, when spills occur, the Division notifies the owners of downstream water supply intakes.

Where a drinking water use classification and standards have been assigned to a water body, the Division determines allowable assimilative capacities based on those standards and assigns limits, as appropriate, using the State's reasonable potential policy. The State also has a mixing zone regulation and guidance that provides for adjustment of the size of the mixing zone to ensure that the drinking water use is protected.

Colorado Department of Public Health and Environment
Water Quality Control Division
Organizational Chart 2003



NPDES Management Report, Winter 2005

Colorado

			National Data Sources				Additional Data		
			Profile Section	GPRA Goal	Nat. Avg.	State Activities	EPA Activities	State Activities	EPA Activities
NPDES Progress									
Universe	1	# major facilities (6,690 total)	I.1		n/a	106	4		
	2	# minor facilities covered by individual permits (42,057 total)	I.1		n/a	270	13		11
	3	# minor facilities covered by non-storm water general permits (39,183 total)	I.1		n/a	894	0		
	4	# priority permits (TBD)	I.6			--	--		
	5	# pipes at facilities covered by individual permits (142,761 total)	I.7		n/a	1,569	--		
	6	# industrial facilities covered by individual permits (32,505 total)	I.1		n/a	161	16		
	7	# POTWs covered by individual permits (15,197 total)	I.1		n/a	204	1		
	8	# pretreatment programs (1,482 total)	II.2		n/a	n/a	23		26
	9	# Significant Industrial Users (SIUs) discharging to pretreatment programs (22,158 total)	II.2		n/a	n/a	257		
	10	# Combined Sewer Overflow (CSO) permittees (831 total)	II.5		n/a	0	--		
	11	# CAFOs (current and est. future) (17,672 total)	II.3		n/a	194	--	191	
	12	# biosolids facilities (TBD '05)	II.6			--	--		
NPDES Program Administration	13	State or Region assessment of State NPDES program (none (N)/assessment (A)/profile (P))	I.1	50 states 2004	n/a	A, P	P		
	14	% pipes at facilities covered by individual permits w/ lat/long in PCS	I.7		46.3%	37.0%	--		
	15	State CAFO legal authority expected (mo/yr)	II.3	2005	n/a	2/04	n/a	6/04	
	16	# Withdrawal petitions/legal challenges (22 total)	I.4		n/a	1	n/a	0	
	17	DMR data entry rate	I.7		95%	100%	--		
	18	# permit applications pending (1,011 total)	I.6		n/a	15	--		
NPDES Program Implementation	19	% major facilities covered by current permits	I.6	90%	83.7%	86.8%	100.0%		
	20	% minor facilities covered by current individual or non-storm water general permits	I.6	90% 12/04	87.0%	90.6%	69.2%	81.8%	
	21	# major facilities w/permits expired >10 yrs. (56 total)	I.6		n/a	0	0		
	22	% priority permits issued as scheduled (TBD '05)	I.6	95% 2005		--	--		
	23	% pretreatment programs inspected/audited during 5 yr. inspection period	II.2		85.3%	n/a	100.0%		
	24	% SIUs w/control mechanisms	II.2		99.2%	n/a	98.4%		
	25	% of CSO permittees with long-term control plans developed or required	II.5	75% 2008	82.2%	n/a	--		
	26	% CAFOs covered by NPDES permits	II.3		35%	6%	--	9%	
	27	% biosolids facilities that have satisfied part 503 requirements (TBD '05)	II.6			--	--		
	28	# Phase I storm water permits issued but not current (76 total)	II.4		n/a	0	0		
	29	# Phase I storm water permits not yet issued (5 total)	II.4		n/a	0	0		
	30	Phase II storm water small MS4 permits current (Y/N/D (draft)) (35 States)	II.4	100% states 2008	n/a	Y	Y		
	31	Phase II storm water construction permit current (Y/N/D (draft)) (49 States)	II.4	100% states 2008	n/a	Y	Y		
NPDES Compliance Monitoring and Enforcement Response	32	% major facilities inspected	III.3		71%	97%	4%		
	33	(inspections at minors) / (total inspections at majors and minors)	III.3		76%	59%	88%		
	34	% major facilities in significant non-compliance (SNC)	III.1		20%	7%	--		
	35	% SNCs addressed by formal enforcement action (FEA)	III.1		14%	14%	--		
	36	% SNCs returned to compliance w/o FEA	III.1		70%	57%	--		
	37	# FEAs at major facilities (666 total)	III.1		n/a	7	3		
	38	# FEAs at minor facilities (1,660 total)	III.1		n/a	16	31		

Explanation of Column Headers:

Profile Section: For each measure, this column lists the section of the profile where the program area (including any additional data for the measure) is discussed.

National Data Sources: The information in these two columns is drawn from two types of sources:

(1) EPA-managed databases of record for the national water program, such as PCS, the National Assessment Database, and the National TMDL Tracking System. NPDES authorities are responsible for populating PCS with required data elements and for assuring the quality of the data. EPA is working to phase in full use of NAD and NNTS as national databases.

(2) Other tracking information maintained by EPA Headquarters for program areas such as CAFOs, CSOs, and storm water.

The [definitions document](#) accompanying this Management Report provides a detailed definition of each data element in the National Data Sources columns.

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NPDES Management Report, Winter 2005

Colorado

		Profile Section	GPRA Goal	Nat. Avg.	National Data Sources		Additional Data		
					State Activities	EPA Activities	State Activities	EPA Activities	
Water Quality Progress									
Universe	39	River/stream miles (3,419,857 total)	IV.2		n/a	103,250	n/a		
	40	Lake acres (27,775,301 total)	IV.2		n/a	238,293	n/a		
	41	Total # TMDLs in docket at end of FY 2003 (52,795 total)	IV.4		n/a	197	--		
	42	# TMDLs committed to in FY 2003 management agreement (2,435 total)	IV.4		n/a	20	0		
	43	# Watersheds (2,341 total)	IV.2		n/a	--	--		
Water Quality Administration	44	On-time Water Quality Standards (WQS) triennial review completed (42 States)	IV.3		n/a	Y	n/a		
	45	# WQS submissions that have not been fully acted on after 90 days (32 total)	IV.3	<25% submissions	n/a	n/a	0		
Water Quality Implementation	46	State is implementing a comprehensive monitoring strategy (Y/N) (TBD)	IV.1	all states 2005	--	--	--		
	47	% river/stream miles assessed for recreation	IV.2		13.8%	68.7%	n/a		
	48	% river/stream miles assessed for aquatic life	IV.2		22.0%	68.7%	n/a		
	49	% lake acres assessed for recreation	IV.2		49.4%	31.3%	n/a		
	50	% lake acres assessed for aquatic life	IV.2		48.5%	31.3%	n/a		
	51	# outstanding WQS disapprovals (23 total)	IV.3		n/a	4	n/a		
	52	WQS for E. coli or enterococci for coastal recreational waters (12 States)	IV.3	35 states 2008	n/a	n/a	n/a		
	53	WQS for nutrients or Nutrient Criteria Plan in place (13 States)	IV.3	25 states 2008	n/a	N	n/a		
	54	Cumulative # TMDLs completed through FY 2003 (10,807 total)	IV.4		n/a	560	--		
	55	# TMDLs completed in FY 2003 (2,929 total)	IV.4		n/a	78	0		
Environmental Outcomes	56	# TMDLs completed through FY 2003 that include at least one point source WLA (5,036 total)	IV.4		n/a	294	--		
	57	% Assessed river/stream miles impaired for swimming in 2000	IV.2		--	0.2%	n/a		
	58	% Assessed lake acres impaired for swimming in 2000	IV.2		--	0.0%	n/a		
	59	# Watersheds in which at least 20% of the water segments have been assessed and, of those assessed, 80% or more are meeting WQS (440 total)	IV.2	600 2008	n/a	--	--		

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