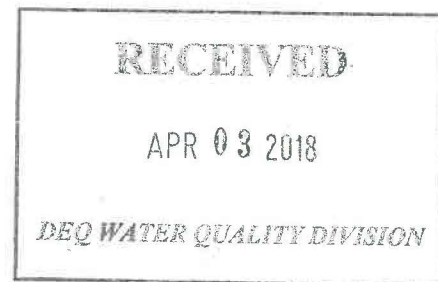


Final

Region 8 NPDES Permit Quality Review

Montana



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U.S. Environmental Protection Agency, Region 8
Wastewater Unit (8WP-CWW)
1595 Wynkoop Street
Denver, CO 80202-1129

Contents

I.	PQR BACKGROUND	4
II.	STATE PROGRAM BACKGROUND	5
	A. Program Structure	5
	B. Universe and Permit Issuance	6
	C. State-Specific Challenges	12
	D. Current State Initiatives	13
III.	CORE REVIEW FINDINGS	14
	A. Basic Facility Information and Permit Application	14
	1. Facility Information	14
	2. Permit Application Requirements	14
	B. Technology-based Effluent Limitations	15
	1. TBELs for POTWs	16
	2. TBELs for Non-POTW Dischargers	16
	C. Water Quality-Based Effluent Limitations	17
	D. Monitoring and Reporting	18
	E. Standard and Special Conditions	20
	F. Administrative Process	22
	G. Administrative Record	23
	1. Documentation of Effluent Limitations	24
	H. National Topic Areas	26
	1. Nutrients	26
	2. Pesticides	27
	3. Pretreatment	30
	4. Stormwater	34
IV.	REGIONAL TOPIC AREA FINDINGS	38
	A. Reasonable Potential Analysis	38
	B. Mixing Zones	39
V.	ACTION ITEMS	41
	A. Basic Facility Information and Permit Application	41
	B. Technology-based Effluent Limitations	42
	C. Water Quality-Based Effluent Limitations	42
	D. Monitoring and Reporting	42
	E. Standard and Special Conditions	43
	F. Administrative Process (including public notice)	43
	G. Documentation (including fact sheet)	44
	H. National Topic Areas	44
	1. Nutrients	44
	2. Pesticides	45
	3. Pretreatment	45
	4. Stormwater	46

- I. Regional Topic Areas 46
 - 1. Reasonable Potential Analysis 46
 - 2. Mixing Zones 47
- Appendix A - Permits Reviewed for the 2016 Montana PQR.....48

I. PQR BACKGROUND

National Pollutant Discharge Elimination System (NPDES) Permit Quality Reviews (PQRs) are an evaluation of a select set of NPDES permits to determine whether permits are developed in a manner consistent with applicable requirements established in the Clean Water Act (CWA) and NPDES regulations. The Environmental Protection Agency's (EPA) goal is to conduct a PQR for each state approximately once every five years. Through this review mechanism, EPA promotes national consistency, and identifies successes in implementation of the NPDES program and identifies opportunities for improvement in the development of NPDES permits.

EPA's review team, consisting of three EPA Region 8 staff conducted a review of the Montana NPDES permitting program, which included an on-site visit to the Montana Department of Environmental Quality (DEQ) in Helena on October 17 through October 19, 2016. The EPA reviewers were Lisa Kusnierz (lead) and David Rise. Amy Clark, also with EPA Region 8, conducted the stormwater-focused part of the review. Because the Pretreatment Program is directly implemented by EPA Region 8 in Montana, staff from EPA Headquarters conducted a desktop evaluation of EPA's implementation of the Pretreatment requirements.

The Montana PQR consisted of two components: permit reviews and special focus area reviews. The permit reviews focused on core permit quality and included a review of the permit application, permit, fact sheet, and any correspondence, reports or documents that provide the basis for the development of the permit conditions.

The core permit review involved the evaluation of selected permits and supporting materials using basic NPDES program criteria. Reviewers completed the core review by examining selected permits and supporting documentation, assessing these materials using standard PQR tools, and talking with permit writers regarding the permit development process. The core review focused on the Central Tenets of the NPDES Permitting program to evaluate the Montana NPDES program. In addition, discussions between EPA and state staff addressed a range of topics including program status, the permitting process, responsibilities, organization, and staffing. Core topic area permit reviews are conducted to evaluate similar issues or types of permits in all states. The national core topics reviewed in the Montana NPDES program were nutrients, pesticide general permit, pretreatment, and stormwater.

Regional topic area reviews target regionally-specific permit types or particular aspects of permits. The regional topic areas selected by EPA Region 8 were reasonable potential and mixing zones. These reviews provide important information on specific program areas to Montana, EPA Region 8, EPA Headquarters, and the public.

A total of 15 permits were reviewed as part of the PQR (see Appendix A). Of these, four were general permits reviewed against a programmatic checklist (i.e., Pesticide, Industrial Stormwater, Construction Stormwater, and Municipal Separate Sewer System (MS4)) and 11 were individual permits that were reviewed against a core topic checklist and for regional topic areas. Permits were selected based on issuance within the previous two years, the review categories that they fulfilled, and Montana's permit universe (i.e. percentage of Publically-owned Treatment Works (POTWs) vs. non-POTWs).

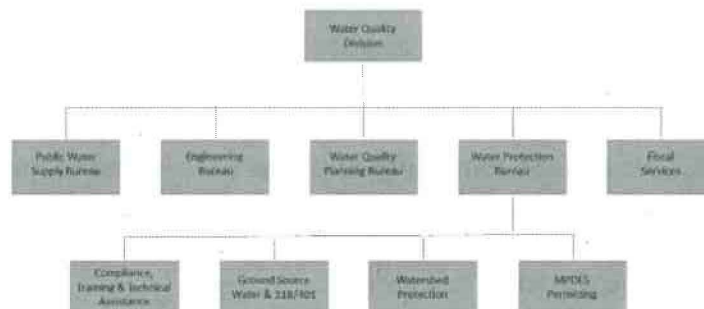
II. STATE PROGRAM BACKGROUND

A. Program Structure

DEQ administers the Montana Pollutant Discharge Elimination System (MPDES) program. The EPA authorized Montana to administer the MPDES program in 1974 with subsequent authorization to issue federal facilities permits and general permits in 1981 and 1983, respectively. DEQ did not seek the authority to implement the biosolids and pretreatment programs.

The MPDES program is housed at DEQ's main office in Helena where it has a section supervisor, 7 full-time permit writers, and 1 part-time permit writer in the Permitting Section. One additional permit writer, who writes all MPDES permits for coal mines, is located in another building in Helena and works in the Coal and Open Cut Mining Bureau or the Air, Energy and Mining Division. Five MPDES compliance inspectors are dispersed regionally, two are in Helena, and Bozeman, Billings and Missoula each have one inspector. Data and support services are provided by three data technicians in the Information Management and Technical Services Section and two administrative assistants.

In 2016, DEQ reorganized its water program staff, moving them into the newly created Water Quality Division. This change brought together the MPDES permitting program with other water programs that were previously in a separate division. The Water Protection Bureau within the Water Quality Division contains the MPDES Permitting, Watershed Protection, Ground Source Water & 318/401 and Compliance, Training & Technical Assistance Sections as shown in the below DEQ organizational chart.



DEQ maintains hard copy files for current permits on-site and retains older documentation and the original permits and applications at an offsite archive. DEQ's primary data tool associated with permitting is the EPA's Integrated Compliance Information System (ICIS), which provides electronic tracking of permit and compliance monitoring data. Information in ICIS is available to the public through the web-based tool Enforcement and Compliance History Online (ECHO). Permit writers can access water quality data from EQUS Water Quality Exchange database (MT-

eWQX), an in-house data management system for storing water quality monitoring data and exporting it to STORET. DEQ permit writers typically obtain 303(d) listings from the Clean Water Act Information Center (CWAIC), a DEQ website which contains Montana's Water Quality Integrated Reports (305b and 303d) and beneficial use determinations and supporting information. Montana adopts standards for different water quality parameters into circulars; permit writers refer to Circular DEQ-12 for numeric nutrient criteria and Circular DEQ-7 for all other numeric criteria. DEQ also maintains an online Geographic Information System (GIS) tool for mapping monitoring locations and gauging stations.

Since the 2010 PQR, the MPDES permit program has had a high rate of staff turnover. However, the section is currently fully staffed. Training for new staff is a combination of mentoring by a senior permit writer, group topic discussions, and the EPA Permit Writer Course as needed and available. The MPDES program has fact sheet and permit templates for POTWs and industrial facilities, and letter templates for permitting actions. DEQ says their current templates are outdated and in the process of being updated to reflect regulatory changes. Once a permit is drafted, the fact sheet or statement of basis is peer reviewed by one or two staff. Then, the entire permit package is reviewed by the section supervisor, who flags any items of concern or special emphasis for the bureau chief review.

DEQ maintains a paper file with copies of the effective permit and its supporting documentation in a file room at the Metcalf Building that is accessible to the public. Historical permit records and the original administrative record documents for the effective permit are archived at a separate location offsite. DEQ also stores a completeness review, the public notice, and final determination files electronically on an internal network drive. Final permits but not fact sheets/statement of bases are posted on the DEQ website.

B. Universe and Permit Issuance

Based on an ICIS query conducted in November 2016, Montana has approximately 1,137 effective MPDES permits. Only 142 of those are individual permits, with 33 issued to major facilities and 109 issued to minor facilities. As shown in Figure 1, of all individual permits, 58 percent are issued to POTWs and the remaining 42 percent are issued to non-POTWs. Those same percentages are true when only major facilities are considered. The breakdown of the permit universe is summarized in Table 1. Significant permitted industries are coal and hard rock mining, oil and gas, and sugar beet processing.

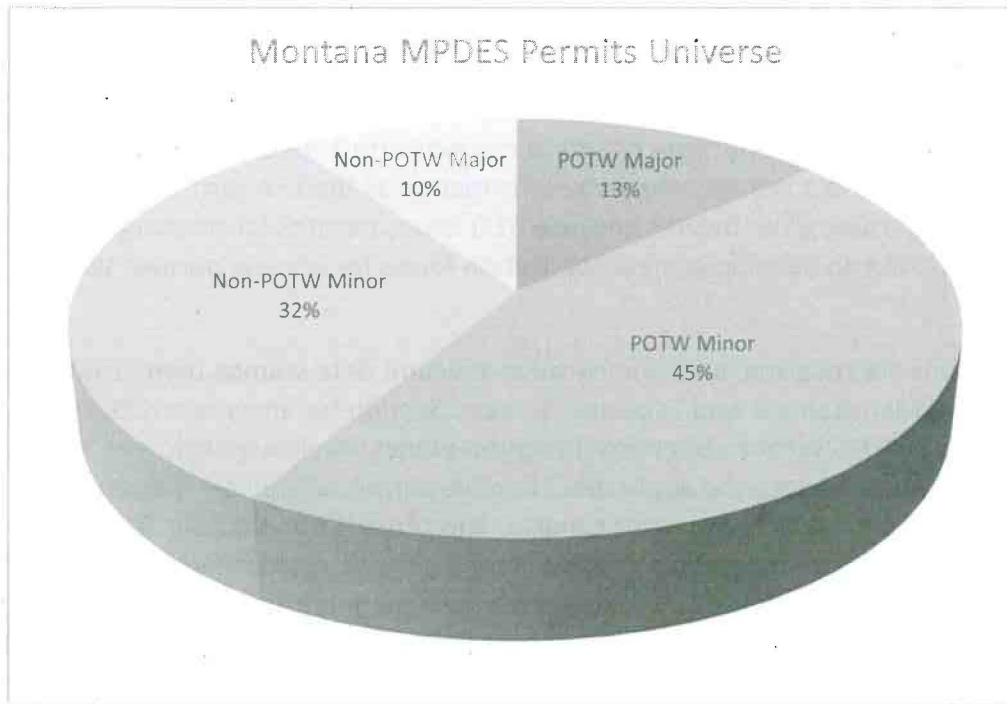


Figure 1. Summary of effective individual MPDES permits.

Table 1. Breakdown of universe of all effective MPDES permits.

POTWs	Non-POTWs	Stormwater	Non-Stormwater General Permits
Major: 19	Major: 14	Municipal: 12	277, including CAFO; 60 Pesticide authorizations are currently being processed
Minor: 64	Minor: 45	Industrial: 208	
Combined Sewer Overflow: 0		Construction: 498	

There are 13 types of general permits: domestic sewage lagoons, concentrated aquatic animal production, concentrated animal feeding operations (CAFO), pesticide application, small municipal separate storm sewer system (MS4), sand and gravel, stormwater construction, stormwater industrial, construction dewatering, portable suction dredging, petroleum cleanup, produced water, and disinfected water and hydrostatic testing.

DEQ had a backlog of administratively extended MPDES permits in 2013, resulting in a lawsuit by two Montana-based conservation groups. On April 24, 2014 DEQ entered a settlement agreement with the Montana River Action and Cottonwood Environmental Law Center that allowed until the end of September 2015 to re-issue 38 backlogged permits and until two years after permit expiration to re-issue six additional permits. Based on a program questionnaire completed by DEQ in February 2016, only one minor permit is currently backlogged, and it is close to finalization.

Application Processing

The MPDES permit program typically sends renewal reminder notification letters to individual MPDES permittees approximately 12 to 18 months prior to the expiration date of the current permit. The renewal letter informs the permittee where the applicable forms are available. DEQ uses EPA forms for individual permits but uses a state-modified Form 1 for all applicants other than POTWs. The modified Form 1 requires the same information as the EPA form but requests additional information regarding groundwater because DEQ issues permits for discharges to groundwater. DEQ is working on developing new application forms for general permits tailored to each permit type.

When permit applications are received, an administrative assistant date stamps them, routes them to the Information Management and Technical Services Section for entry into ICIS, and then routes them to the MPDES section supervisor for completeness review assignment. When possible, the permit writer who wrote the applicable effective permit will review the renewal application for completeness; due to recent staff turnover this often is not possible. After reviewing the renewal application, the permit writer will send either a notice of deficiency or a completeness letter. If applicable, DEQ will also send out a nutrient general variance request form because dischargers must request a variance in order to be granted one. Montana's rules require a completeness review within 30 days for new applications and 60 days for renewals, but DEQ strives to have all reviewed within 30 days.

Individual permits are assigned by the section supervisor based on difficulty, agency priorities, time until or since expiration, permit writer expertise and experience, and workload. New applications to discharge are given priority over renewals. For general permits, there is a primary permit writer who coordinates and facilitates the renewal of all master general MPDES permits.

Permit Development

Once a permit application is deemed complete, it is assigned to a permit writer by the section supervisor. The person conducting the completeness review is not necessarily the permit writer. Upon initiation of permit development, the permit writer does a variety of information checks to evaluate changes since the last permit issuance, or to check for data in the case of a new discharger: compliance issues or enforcement actions; process changes or differences in sources to do a high level screening for pollutants of concern (POC); change in waterbody impairment status; a total maximum daily load (TMDL) completed; applicable water quality standards; discharge monitoring report (DMR) data, ambient data, and what was provided on the application. The data tools discussed in Section II.A of this report are the primary tools used for this data collection process.

Next, the permit writer works on the fact sheet or statement of basis. The fact sheet from the previous permit is typically used as a starting point, and then the permit writer describes the facility and its treatment processes, researches applicable technology-based effluent limits (TBELs), identifies the POCs, and examines if a mixing zone is needed or the appropriateness of the existing mixing zone. For TBELs at POTWs, the permit writer evaluates the achievability of meeting the national secondary standards, or if they are eligible for treatment equivalent to

secondary (TES) or alternative state requirements (ASR) under 40 Code of Federal Regulations (CFR) Part 133. For non-POTWs, the permit writer looks at the effluent limit guideline (ELG) portion of the permit application, and then references the regulations. Particularly for new sources, the ELG development documentation and facility processes are also reviewed to assist with TBEL development. For TBELs based on best professional judgement (BPJ), there is no defined process; if it is a permit for a private wastewater treatment facility, the national secondary standards are evaluated for applicability and for other dischargers, DEQ tries to find comparable existing TBELs.

Prior to development of water quality based effluent limits (WQBELs), DEQ documents applicable water quality standards, 303(d) listings, TMDLs completed for the receiving water, an antidegradation analysis, and the mixing zone determination in the fact sheet. Typically, when analyzing reasonable potential for WQBELs, the permit writer proceeds with whatever data were submitted with the permit application and does not request more information from the permittee because the completeness review is over and the permittee has been notified the application was complete. However, DEQ administrative rules do allow them to request supplemental information from a permittee and such a request does not render the permit application incomplete.

Montana's antidegradation policy is referred to as nondegradation. The nondegradation policy is defined in Montana Code Annotated (§ 75-5-303, MCA) and the procedures are at Administrative Rules of Montana (ARM) § 17.30.7. The permit writer first evaluates whether the discharge is a new or increased source, which is defined in ARM § 17.30.702(17) as an activity resulting in a change of existing water quality occurring on or after April 29, 1993. If the determination is "no," the permit writer concludes nondegradation is inapplicable. The level of protection for the receiving water that drives the specifics of the analysis is consistent with 40 CFR § 131.12: protection of existing uses for waters that are not high quality (Tier 1), maintenance and protection of high quality waters (Tier 2), and protection of Outstanding Resource Waters (Tier 3). Montana evaluates the receiving water quality on a parameter by parameter basis, which means if a specific parameter is not on the 303(d) list, the receiving water is high quality for that parameter. Montana's rules contain criteria to determine if changes in existing water quality are significant. There are criteria associated with changes in the flow of the receiving water, discharges containing carcinogenic or bioconcentrating parameters, changes in toxic parameters, and changes in harmful parameters. In general, the changes are associated with an allowable change as a percentage of the water quality standard and are dependent on the ambient concentration in relation to the water quality standard. If a discharger was determined in a previous permit cycle to be a new source, DEQ continues to apply nondegradation requirements for all POCs in future permit cycles.

Montana statute (75-5-301(4), MCA) requires that mixing zones have the smallest practicable size, minimum practicable effect on water uses, and definable boundaries. DEQ authorizes three types of mixing zones: standard, alternative, and source-specific. Montana requires that a mixing zone and the type be requested with a permit application; it is not automatically given and mixing zones are granted on a parameter by parameter basis. Montana's mixing zone rules, located in ARM § 17.30.5, contain many of the implementation procedures but DEQ does not

have a mixing zone policy. The rules do not explain how mixing zone width is determined but specify the length based on the stream width at critical low flow, which the permit writer typically determines based on aerial imagery. Montana prohibits the exceedance of acute water quality standards in the mixing zone unless DEQ concludes minimal initial dilution will not threaten or impair existing uses. Mixing is only allowed to meet acute aquatic life criteria if an alternative mixing zone or source-specific mixing zone is granted. Montana's rules do not define alternative mixing zones but specify DEQ has the authority to define them. During the program overview portion of the site-visit and also based on fact sheets, DEQ does not allow more than ten percent of the chronic mixing zone for acute mixing, and alternative mixing zones are authorized for ammonia and total residual chlorine based on 10 percent of the seven-day, ten-year low flow (7Q10) for chronic and 1 percent of the 7Q10 for acute.

The standard mixing zone is used when nearly instantaneous mixing is presumed. This is used for major dischargers (mean annual flow greater than 1 million gallons per day) if their mean daily flow exceeds the 7Q10 of the receiving stream or if there is a diffuser that extends across the stream channel at low flow. If standard mixing is not applicable for a major discharger, they are typically required to collect data to justify and model a source-specific mixing zone. For minor dischargers (mean annual flow less than 1 million gallons per day) the standard chronic mixing zone is either 100 percent of the 7Q10 or 25 percent of the 7Q10, depending on the dilution ratio between the 7Q10 of the receiving stream and the mean annual discharger flow. Montana's rules specify that effluent limits for nutrients (total nitrogen and total phosphorus) must be based on the entire seasonal 14-day, five-year (14Q5) low flow of the receiving water. Mixing zones granted in a permit issued prior to April 29, 1993, are retained from one permit cycle to the next if there is no demonstration the mixing zone is impairing existing or anticipated beneficial uses.

The applicable water quality standards, TMDL wasteload allocations (WLAs), findings of the nondegradation analysis, and the mixing zone determination set the framework for the reasonable potential analysis (RPA) and development of WQBELs. Prior to conducting the RPA, DEQ looks at the POCs and if any of the proposed TBELs or existing WQBELs are not adequate based on DMR data. DEQ conducts a RPA for all POCs where the permit writer determines the TBELs are not adequate to achieve water quality standards. DEQ generally conducts its RPA and WQBEL development following the EPA's *Technical Support Document for Water Quality-Based Toxics Control* (1991) and uses a steady state mass balance approach. An RPA is typically not conducted and the conclusion is "undetermined" if there are not at least 10 effluent samples and 10 ambient samples from the receiving water collected within the previous five years. There are no formal procedures for this data acceptance criteria; it is up to the discretion of the permit writer. For ambient data, there is no default percentage or value used in situations where there is little to no data. Where sufficient data are available, the 25th percentile is used for ambient hardness and the 75th percentile is typically used to represent the ambient condition for all other parameters. The usage of ambient data does not differ between the RPA and WQBEL development. Periodically, DEQ conducts a qualitative RPA for narrative criteria or other situations where the permit writer determines it is necessary. Mixing is used for the RPA and WQBEL development if the permittee requests a mixing zone and DEQ determines one is

appropriate. For pollutants where the permit writer finds the pollutant will cause, have reasonable potential to cause, or contribute to an exceedance of the water quality standard for human health or chronic/acute aquatic life, DEQ develops effluent limits. WQBELs are typically expressed as maximum daily and average monthly limits in either mass and/or concentration consistent with the regulations. For parameters with a WLA the WQBEL is checked to ensure consistency with the WLA.

After WQBELs are calculated, the permit writer conducts a stringency analysis to ensure that the final effluent limitations are the most stringent of the TBELs and WQBELs and an anti-backsliding analysis to ensure the final effluent limitations are at least as stringent as the previous permit.

For monitoring requirements, the MPDES section has templates for each permit type that are used as a general basis for the sample type. DEQ is currently updating the templates. Permit writers also use the previous permit as a guide for the sample type and monitoring frequency. Major POTWs are typically required to collect composite samples except where grab samples are required by the regulations. DEQ typically requires quarterly monitoring and uses its water quality standards circulars, DEQ-7 and DEQ-12 to specify the required reporting value. Recently, DEQ has started specifying how the data are reported (i.e., average, maximum, etc.).

DEQ includes the standard conditions required in 40 CFR § 122.41. The conditions are boilerplate language based on Montana's administrative rules, which are based on the federal regulations. At times, DEQ has included its general prohibitions from its narrative water quality standards. DEQ frequently includes requirements in the special conditions section of the permit. They are used for a variety of requirements including if there are interim and then final effluent limits, annual reports to outline progress towards meeting WQBELs, optimization studies for the nutrient variance, Stormwater Pollution Prevention Plans (SWPPP), and source assessment and mixing zone studies. Narrative pretreatment language provided by the EPA is included in permits for approved pretreatment programs, and a modified version of the language provided by the EPA is included for POTWs with non-approved programs. For biosolids, DEQ permits previously referred to the EPA General Permit, but the language has been updated to reflect the regulation and annual reporting requirements since the EPA discontinued use of the General Permit in 2015 in favor of direct implementation of 40 CFR Part 503.

DEQ has one staff person who handles CWA 401 certifications and Montana 318 authorizations. The position is located within the same bureau as the MPDES Permitting Section but in the Ground Source Water and 318/401 Section. The MPDES Permitting Section does not see any of the 401 certifications and is not involved in the certification process.

After completion of the fact sheet or statement of basis, the permit writer develops the permit conditions using either a template or the existing permit as a starting point and filling in the details with the information from the draft fact sheet. Prior to public notice, the fact sheet and permit are reviewed within DEQ as described in Section A.

Montana's rules for public notice, public comments, response to comments and public hearings for MPDES permits are at ARM §§ 17.30.1372 - 1377. DEQ maintains a distribution list of interested parties based on county and watershed that receive public notice announcements. Unless the permit writer requests a partial or full review of the fact sheet and permit by the EPA during development, the public notice period is when the permit documentation is provided to the EPA. Public notices are posted on DEQ's website and published in the newspaper closest to the permittee's facility. Montana's rules specify 30 days as the minimum length of the public comment period, but sometimes the length is extended if there is significant interest in the permit or if it is complicated. DEQ accepts written comments only on draft permits via its website, by mail or at public hearings. Hearings on draft permits are conducted based on public request during the comment period. The permit writer is responsible for responding to public comments. If comments are limited they may be answered verbatim but if there are lots of comments or they are duplicative, they are trimmed down and paraphrased. There is no statutory deadline for DEQ to complete the response to comments but the MPDES program aims for 60 days. Once the permit writer completes the responses, they undergo supervisor and legal review. The response to comments is a separate document that supersedes the applicable portion of the fact sheet/statement of basis if DEQ makes changes in response to comments. Permit objections and appeals are infrequent. If the EPA issues an interim objection or objection to a permit, DEQ MPDES staff work with DEQ management and the EPA to discuss the EPA's concerns and work towards an amenable solution.

Only the permittee may appeal a final permit through the BER; other interested parties must file suit in Montana District Court. If a permittee appeals the final permit, the MPDES Permitting Section coordinates their actions with the data and legal staff. The portions of the permit that are appealed are stayed through the data section. Typically, the permitting section then works with legal staff and the permittee to resolve the appeal without it needing to go before the BER. If DEQ and the permittee cannot negotiate a resolution to the appeal, the portion of the permit being appealed goes to the Board of Environmental Review (BER) for a final determination. When an appeal gets to the BER it may either have a hearing or just make a decision on behalf of DEQ.

C. State-Specific Challenges

The biggest challenge DEQ's MPDES Permitting Section has had over the five years since the last PQR is staff turnover. Although DEQ has had the resources to fill vacancies, the rate of staff turnover and decreasing number of senior staff in the MPDES program have caused workload challenges. Based on interviews from this and the previous PQR, DEQ has been aware that updating templates and finalizing procedures are long overdue, but permitting workloads and the push to eliminate the backlog caused those updates to move down on Montana's priority list.

When the MPDES Permitting Section was in a separate division from other water programs, cross-programmatic communication was often limited. However, permitting staff reported

during the site visit that communication has already improved since the reorganization put them in with the other water programs.

Other challenges facing DEQ's MPDES Permitting Section are associated with water quality standards. The Montana Board of Environmental Review (BER) promulgated numeric nutrient criteria for Wadeable Streams on July 25, 2014, and the EPA approved the criteria February 26, 2015. Because the criteria are lower than current limits of technology economically achievable, Montana (and the EPA) also approved a general variance to incrementally ratchet down effluent limits. The variance is implemented in MPDES permits, and the MPDES Permitting Section worked with the Water Quality Standards Section and the Nutrient Work Group to develop an implementation process. This included determining how variances applied to new sources and nondegradation, application of variances to impaired waters with approved TMDLs, creating a nutrient variance request procedure, and use of long-term compliance schedules in permits. Additionally, the EPA has worked with DEQ for years on water quality standards issues associated with Montana's waterbody classifications (i.e., beneficial uses are grouped into categories), treatment to purer than natural conditions, and antidegradation. Although these issues are still outstanding, site-specific conditions occasionally force the permit writer to navigate through grey areas associated with these issues. Resolving these issues within the Water Quality Standards Program will improve implementation consistency and reduce the burden on the MPDES Permitting Section.

D. Current State Initiatives

Montana's MPDES program currently has five initiatives:

- 1) Nutrients: This is a focus because of the adoption of numeric nutrient criteria and the general variance from those criteria available to permittees.
- 2) Ammonia: This is a focus because DEQ has realized many facilities, particularly wastewater lagoons, cannot meet the current water quality standard and ammonia is driving a lot of facility upgrades. Additionally, the EPA has recently revised its CWA § 304(a) water quality criteria to values that are more stringent. DEQ is evaluating available data for MPDES permitted facilities and how those data are used to derive the applicable standard and WQBEL.
- 3 and 4) Nondegradation and Mixing zones: there is not much formal guidance on implementation of either of these procedures and they can be complicated. This results in nondegradation and mixing zone decisions being carried over from previous permits, often without accompanying documentation. DEQ has formed a Policy Team within the Water Quality Division to decide if new policy or rule updates are needed for these two issues.
- 5) FACTS: This is an online tool that DEQ is developing to improve consistency within the permitting program. After full build out, it will be a formalized permit tracking system that will allow for online application submission and fee

payment, assist with fact sheet development (including RPA and WQBEL development) and quality assurance/quality control in the permitting program.

III. CORE REVIEW FINDINGS

The findings are organized by the major components of the permitting process that were evaluated as part of the core review. Each component contains a summary of the program strengths, critical findings that have been identified as being inconsistent with regulatory requirements, recommended actions to address findings that are inconsistent with existing policy or guidance, and suggested practices that may help improve the MPDES program.

A. Basic Facility Information and Permit Application

1. Facility Information

Basic facility information is necessary to properly establish permit conditions. For example, information regarding facility type, location, processes and other factors is required by NPDES permit application regulations (40 CFR § 122.21). This information is essential for developing technically sound, complete, clear and enforceable permits. Similarly, fact sheets must include a description of the type of facility or activity subject to a draft permit.

Program Strengths

The fact sheets for all 11 individual permits reviewed clearly described the facility and processes, identified outfalls and described the associated waste streams, and described the location of the outfall(s) relative to the receiving water.

Critical Findings

There are no critical findings or recommended actions to improve the program's implementation of this component.

2. Permit Application Requirements

Federal regulations at 40 CFR §§ 122.21 and 122.22 specify application requirements for permittees seeking NPDES permits. Although federal forms are available, authorized states are also permitted to use their own forms provided they include all information required by the federal regulations. This portion of the review assesses whether appropriate, complete, and timely application information was received by the state and used in permit development.

Program Strengths

All application forms required by DEQ were correct for the 11 individual permits reviewed, and the modified Form 1 developed by DEQ requests all of the information required by 40 CFR §§ 122.21 and 122.22. Generally, the record contained the complete application for all permits

reviewed. DEQ did a thorough job evaluating applications for completeness and responding in a timely manner.

Critical Findings

Out of the 11 permits reviewed, eight permit applications were not complete at least 180 days before permit expiration. Particularly because several of the permits reviewed were for rapidly changing sites, there were multiple submissions of information prior to permit renewal, and the permit records made it difficult to determine what additional information was provided and when the permit application was complete. The Stillwater East Boulder Mine, which continually changes facility characteristics as mining progresses, submitted new information six times between 2005 and when the permit was renewed in 2015. The permit fact sheet indicated complete applications were received in 2005 and 2006, but only the 2006 application was in the file. The Bonner Property Development permit also had multiple applications submitted and new information requested by DEQ several times during site repurposing with multiple determinations of application completeness being made by DEQ. For two different permits, Billings and Philipsburg, DEQ issued letters of substantial completeness though it is not clear what this term means. For Philipsburg, the date of the letter matches the completeness date in ICIS but for Billings the completeness date in ICIS is two years later, and the dates cited in the fact sheets are not consistent with ICIS. One permit, Helena Water Treatment Plant, had an application containing metals analytical data that did not meet the required analytical reporting levels and, which were not sufficiently sensitive to use for the RPA.

Suggested Actions

Three of the eight applications which were not complete 180 days before permit expiration were not initially submitted until less than 180 days before permit expiration. In these three cases, the permits were administratively continued even though DEQ's rules (ARM § 17.30.1313(1) and ARM § 17.30.1322(4)) require timely and complete applications unless permission for a later date is granted by the DEQ. The permit records did not contain any indication such permission was sought or granted. Though 40 CFR § 122.26 is not applicable to state programs, the EPA suggests Montana review their administrative continuation practices vis-a-vis the administrative rule requirements to strengthen the defensibility of the NPDES program.

B. Technology-based Effluent Limitations

NPDES regulations at 40 CFR § 125.3(a) require that permitting authorities develop technology-based effluent limitation (TBEL) requirements where applicable. Permits, fact sheets and other supporting documentation for POTWs and non-POTWs were reviewed to assess whether TBELs represent the minimum level of control that must be imposed in a permit.

1. *TBELs for POTWs*

POTWs must meet secondary treatment or treatment equivalent to secondary (TES) standards with numeric effluent limits (or authorized alternatives) for BOD, TSS, pH, and percent BOD and TSS pollutant removal in accordance with the secondary treatment regulations at 40 CFR Part 133. A total of six POTW permits were reviewed as part of the PQR.

Program Strengths

All POTW permits reviewed consistently applied the required TBELs. All limits were expressed in appropriate units of measure and on an average weekly and monthly basis. If limits were adjusted to TES or Alternative State Requirements (ASR), the rationale was well justified in the fact sheet. For instance, the Philipsburg POTW has had compliance issues and DEQ did not grant them ASR because one of the requirements for ASR is proper operation and maintenance and the permit writer concluded the facility did not satisfy this requirement.

Critical Findings/Recommended Actions/Suggested Practices

There are no critical findings or recommended actions to improve the program's implementation of this component.

2. *TBELs for Non-POTW Dischargers*

Permits issued to non-POTWs must require compliance with a level of treatment performance equivalent to Best Available Technology Economically Achievable (BAT) or Best Conventional Pollutant Control Technology (BCT) for existing sources, and consistent with New Source Performance Standards (NSPS) for new sources. Where federal ELGs have been developed for a category of dischargers, the TBELs in a permit must be based on the application of these guidelines. If ELGs are not available, a permit must include requirements at least as stringent as BAT/BCT developed on a case-by-case using BPJ in accordance with the criteria outlined at 40 CFR § 125.3(d). A total of five non-POTW permits were reviewed as part of the PQR.

Program Strengths

Overall, the description of treatment processes and applicable standards, determination of each facility as a new or existing source, and calculations for ELG-based effluent limits were well-documented in the permit fact sheets. Four of the five permits reviewed had TBELs based on BPJ; the rationale for the TBELs was justified based on ELGs applicable to similar facilities (i.e., other mining categories and secondary treatment standards). The ELGs were correctly applied in the two permits that had applicable ELGs. TBELs were provided in the appropriate units and as both maximum daily and average monthly limits.

Critical Findings

The permit for Bonner Property Development, MT0000205, had TBELs based on BPJ. The Bonner fact sheet correctly referenced 40 CFR § 125.3(d) and said the limits were

demonstrated to be consistently achievable in the water treatment industry but did not provide any additional information regarding the basis for the BPJ limits.

Recommended Actions

The permit for Barretts Minerals, MT0029891, referenced a BPJ-based TBEL for total suspended solids developed in a previous permit cycle (2000), but did not include the justification or calculation for the effluent limit. EPA recommends providing the rationale and calculations for such TBELs in the current fact sheet so they are transparent for the permittee and the public.

C. Water Quality-Based Effluent Limitations

The NPDES regulations at 40 CFR § 122.44(d) require permits to include any requirements in addition to or more stringent than technology-based requirements where necessary to achieve state water quality standards, including narrative criteria for water quality. To establish such WQBELs the permitting authority must evaluate the proposed discharge and determine whether technology-based requirements are sufficiently stringent, and whether any pollutants or pollutant parameters will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard.

The PQR for Montana DEQ assessed the processes employed by permit writers and water quality modelers to implement these requirements. Specifically, the PQR reviewed permits, fact sheets, and other documents in the administrative record to evaluate how permit writers and water quality modelers:

- determined the appropriate water quality standards applicable to receiving waters,
- evaluated and characterized the effluent and receiving water including identifying pollutants of concern,
- determined critical conditions,
- incorporated information on ambient pollutant concentrations,
- assessed any dilution considerations,
- determined whether limits were necessary for pollutants of concern, and where necessary,
- calculated such limits or other permit conditions.

For impaired waters, the PQR also assessed whether and how permit writers consulted and developed limits consistent with the assumptions of applicable EPA-approved TMDLs.

Program Strengths

All permits reviewed clearly identified the receiving stream, applicable water quality standards, and impairment status. Six of the 11 permits reviewed had applicable TMDL WLAs that were correctly referenced. EPA noted the draft permit for Missoula, MT0022594, did not account for

metals TMDLs, but after EPA comments this was corrected for the final permit. This was discussed during the opening conference for the site visit and was attributed to the CWAIC not being up-to-date when that permit was drafted; DEQ indicated the CWAIC is now kept up-to-date. The CWAIC is a good tool both for permit writers and the public as a comprehensive location for waterbody classifications (which standards are associated with), impairment status, and TMDL status, as long as it is actively maintained.

Critical Findings

There are no critical findings or recommended actions to improve the program's implementation of this component.

Suggested Practices

The fact sheets reviewed addressed some POCs but they were inconsistent in identifying all POCs at facilities and explaining the basis for selecting the POCs. Most fact sheets appeared to have template language of the general factors considered for POCs but the rationale for how the final list or individual parameters in the final list were selected was often missing from the discussion. For example: Philipsburg, MT0031500, did not mention TMDLs although they were clearly considered; toxics were not mentioned for Whitefish, MT0020184, although they were evaluated and temperature was mentioned despite being an atypical pollutant of concern for a wastewater treatment facility; ExxonMobil, MT0000477, did not include all of the parameters that had TBELs; and Kalispell, MT0021938, listed parameters typically present in municipal wastewater but did not explicitly discuss pollutants of concern or mention the TMDL in the discussion. EPA suggests refining the POC template language, developing a consistent base list for POTWs, and ensuring the rationale and complete list of POCs is provided in the fact sheet.

D. Monitoring and Reporting

NPDES regulations at 40 CFR § 122.41(j) require permittees to periodically evaluate compliance with the effluent limitations established in their permits and provide the results to the permitting authority. Monitoring and reporting conditions require the permittee to conduct routine or episodic self-monitoring of permitted discharges and where applicable, internal processes, and report the analytical results to the permitting authority with information necessary to evaluate discharge characteristics and compliance status.

Specifically, 40 CFR § 122.44(i) requires NPDES permits to establish, at minimum, annual monitoring for all limited parameters sufficient to assure compliance with permit limitations, including specific requirements for the types of information to be provided and the methods for the collection and analysis of such samples. In addition, 40 CFR § 122.48 requires that permits specify the type, intervals, and frequency of monitoring sufficient to yield data which are representative of the monitored activity. The regulations at 40 CFR § 122.44(i) also require reporting of monitoring results with a frequency dependent on the nature and effect of the discharge.

Previous permits often did not require monitoring for CWA § 303(d) listed parameters that may be POCs. This resulted in insufficient data being available for permit writers to conduct RPAs. The sampling data available commonly did not meet the required analytical reporting levels and so was discarded by permit writers and no additional monitoring was required to develop data for permit effluent limit development. Acute whole effluent toxicity (WET) monitoring is often required when the EPA would recommend chronic WET monitoring because the effluent dilution ratio with the receiving water is so high.

Program Strengths

The permits renewed included a good explanation of monitoring location, requirements, the need to meet 40 CFR Part 136 methods and identification of required analytical reporting levels as well as including appropriate monitoring frequency for the discharge type. Permits contain the minimum reporting and record-keeping requirements of the CFR.

Critical Findings

Because DEQ does not routinely get adequate quality monitoring data submitted with permit applications, the DEQ often is not able to determine reasonable potential for pollutants to cause, have the reasonable potential to cause, or contribute to an exceedance of a water quality standard. 40 CFR § 122.48 requires permits to contain monitoring requirements sufficient to yield data which are representative of the monitoring activity. Section 122.44(d) requires effluent limitations for all pollutants or pollutant parameters “which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.” Not conducting an RPA on pollutants places DEQ in violation of 40 CFR 122.44(d).

As the RRVs are adopted as part of the WQS through the administrative rule process, permittees submitting monitoring results not meeting the RRV requirement are also in violation of their permit requirements. Additionally, as the monitoring results commonly did not meet DEQ’s RRVs it puts the validity of the results in to question when comparing them to the permit effluent limitations to determine permit compliance.

Recommended Actions

DEQ should develop a procedure to ensure permittees are supplying enough monitoring information for RPA and WQBEL determination. This could be a request for supplemental information as allowed by ARM § 17.30.1364, or requiring more frequent monitoring or requiring monitoring of TMDL listed parameters causing impairment. Another possibility would be to delay declaring the permit application complete until adequate data, meeting the quality requirements to conduct an RPA, has been submitted by the permittee. If analytical laboratories, due to technology limitations, cannot consistently analyze effluent samples to the level required by DEQ’s RRVs, then DEQ should consider revising the RRVs to levels which are attainable by analytical laboratories.

E. Standard and Special Conditions

Federal regulations at 40 CFR § 122.41 require that all NPDES permits, including NPDES general permits, contain an enumerated list of standard permit conditions. Further, the regulations at 40 CFR § 122.42 require that NPDES permits for certain categories of dischargers must contain additional standard conditions. Permitting authorities must include these conditions in NPDES permits and may not alter or omit any standard condition, unless such alteration or omission results in a requirement more stringent than required by the federal regulations.

In addition to standard permit conditions, permits may also contain additional requirements that are unique to a particular permittee or discharger. These case-specific requirements are generally referred to as special conditions. Special conditions might include requirements such as: additional monitoring or special studies such as pollutant management plan or a mercury minimization plan; best management practices [40 CFR § 122.44(k)], or permit compliance schedules [40 CFR § 122.47]. Where a permit contains special conditions, such conditions must be consistent with applicable regulations.

The DEQ permits contain all the standard conditions required by the CFR. Montana has adopted the standard conditions in the ARM, generally with language identical to the corresponding CFR. Those standard conditions not identical have minor changes, such as substituting the word Director in place of Administrator, to make them more applicable to the state issued permits. None of those differences from the CFR change the intent or enforceability of the standard conditions.

Montana puts their nutrient variance language, nutrient optimization plans, special monitoring requirements, toxicity identification evaluation/toxicity reduction evaluation and special study requirements in the special conditions section of the permit and sometimes as a compliance schedule item in the same permit. The permits reviewed by the EPA had these sort of special conditions addressed differently. The Red Lodge permit (MT0020478) has WET requirements addressed in § C, monitoring requirements, of Part I but has the Toxicity Identification Evaluation/Toxicity Reduction Evaluation in § F, special conditions, of Part I separated from the WET section by the compliance schedule and pretreatment sections. The special conditions section also contains a copper and zinc source investigation and control report and copper and zinc instream monitoring requirements. The source investigation and control report is also in the compliance schedule section, which refers forward to the special conditions section and also contains copper and zinc concentrations with which Red Lodge must achieve compliance.

Part of Montana's nutrient variance procedure requires permittees with variances to conduct a facility optimization study and nutrient reduction analysis, which requirement is put in the special conditions section of the permit. The Bonner (MT0000205), Whitefish (MT0020184), Kalispell (MT0021938) and Philipsburg (MT0031500) have this requirement as a special condition and also as a compliance schedule item with 2 milestones, complete a facility optimization study and submit notification that the facility optimization study is complete, neither of which is an effluent limit. The Kalispell, Billings and Philipsburg permits also have

studies with required completion dates in the special conditions section of their permits but unlike the nutrient variance requirements, they are not also put into compliance schedules.

The Whitefish permit also contains effluent limit compliance in the special conditions section to meet dissolved aluminum effluent limits but does not have this effluent limit condition in a compliance plan. Similarly, the Missoula permit has a special conditions section with a requirement to achieve effluent limits for copper, lead and iron but does not contain a compliance schedule for those effluent limits. Both of these permit special condition requirements are vague in milestones, requiring “annual reports of progress” but without description of what progress should be made toward compliance. The final compliance date in the Missoula special condition is one month before the permit expires with no indication of how that meets the “as soon as reasonably possible” requirement.

Regulatory factors relevant to whether a compliance schedule in a specific permit is appropriate under 40 CFR § 122.47(a) include: how much time the discharger has already had to meet the WQBELs under prior permits; the extent to which the discharger has made good faith efforts to comply with the WQBELs and other requirements in its prior permit(s); whether there is any need for modifications to treatment facility’s operations or measures to meet the WQBELs and if so, how long would it take to implement the modifications to treatment, operations or other measures; or whether the discharger would be expected to use the same treatment facilities, operations or other measures to meet the WQBEL as it would have used to meet the WQBEL in its prior permit. The effluent compliance schedules described above do not address any of these factors and some of the effluent compliance requirements are listed as special conditions rather than compliance schedules, while non-effluent requirements are placed in either or both special conditions and compliance schedules without any explanation.

Program Strengths

Permits commonly require mixing zone and source assessment studies that will be beneficial in future permit development. The need for these studies is typically well explained. Standard conditions are appropriate for the facility type.

Critical Findings

Measurable milestones are typically lacking from compliance schedules, and compliance schedules intended to meet effluent limits commonly contain conditions not associated with meeting the effluent limits.

Suggested Practices

The DEQ should develop a procedure to help guide permit writers in making consistent determinations to whether a permit requirement, which will not be met until some point in the future, should be placed in special conditions or a compliance schedule. The procedure should also assist permit writers in determining appropriate milestones for compliance schedules. In developing a procedure, a useful reference would be the May 2007 guidance memorandum from the Director of EPA’s Office of Wastewater Management on the use and content of

compliance schedules in NPDES permits, consistent with the CWA and its implementing regulations. This memorandum is available on the EPA's web site at https://www3.epa.gov/npdes/pubs/memo_complianceschedules_may07.pdf.

F. Administrative Process

The administrative process includes documenting the basis of all permit decisions (40 CFR §§ 124.5 and 124.6); coordinating EPA and state review of the draft (or proposed) permit (40 CFR § 123.44); providing public notice (40 CFR § 124.10); conducting hearings if appropriate (40 CFR §§ 124.11 and 124.12); responding to public comments (40 CFR § 124.17); and, modifying a permit (if necessary) after issuance (40 CFR § 124.5). EPA discussed each element of the administrative process with Montana, and reviewed materials from the administrative process as they related to the core permit review.

DEQ has administrative rules for public notice of draft permits and lists of all interested parties based on county and watershed. Public notices are published in the nearest daily circular newspaper, Helena's daily circular newspaper, and posted on the DEQ website, allowing a minimum of 30 days for comment based on the ARM. However, a longer public notice period, generally 45 days, is sometimes given if the permit is one that DEQ feels will generate significant public interest or controversy or if the permit is particularly complicated. Determinations as to whether a hearing will be held is based on public request during the public notice comment period or if DEQ has significant public interest prior to public notice. All comments on a permit action must be written and DEQ accepts them by mail and email and also at public hearings if they are held. Responses to public comments are typically done by the permit writer. If comments are few and distinct, DEQ prepares a written response to each comment. When comments are numerous or duplicative, DEQ summarizes the comments by removing extraneous language or paraphrasing and grouping comments into categories, which each get a written response. Comment responses are all reviewed by the permitting section supervisor and also by the DEQ legal staff prior to releasing them to the public. The response to comments document becomes part of the administrative record and supersedes applicable portions of the fact sheet. The response to comments also identifies changes made to the permit based on comments. DEQ does not have a statutory or regulatory time frame in which to respond to comments on permits but strives to have the comment responses complete within 60 days. The EPA is notified by DEQ of the public comment period and conducts its permit review during the public notice time period.

If a permittee appeals a permit, the permitting section coordinates the DEQ response with the data section and legal unit. The portions of the permit, which are appealed, are stayed by the data section so the ICIS database does not show permit violations during the appeal process. Any sections of the permit that are not severable from the sections being appealed are also stayed. The legal unit may negotiate with the permittee to see what flexibility they have in their appeal and try to resolve the appeal without BER involvement. Permit appeals, which cannot be resolved between the parties, are ultimately addressed by the BER on behalf of the DEQ. The BER has discretion on whether or not to hold a hearing on the permit appeal prior to making

their decision. The BER decision is the final administrative decision on the appealed portions of the permit and DEQ abides by the BER decision in implementing the permit requirements.

If the EPA objects to a permit, the initial objection correspondence to DEQ is sent to the bureau and section managers, who discuss the issues with the EPA to try and resolve the differences at the staff level for submission to management. If the two agency's staff members cannot resolve the permit issues causing the objection, the conversation level is elevated within each agency with discussion continuing until the permit objection is resolved and the EPA concurs with revised permit language and requirements. In the event that the agencies could not resolve the permit objection, the authority to issue that specific permit would return to EPA.

Program Strengths

The DEQ has good documentation of permit public notices, any public comments they get, their reply to comments, and adherence to the regulatory procedures applicable to public notice. The administrative records are well organized and the use of the permit development process checklist is a good organizational tool. Permit modifications are adequately explained and documented, including any public notice for major permit modifications.

Critical Findings

The file folders in the public access file room have inconsistent complete copies of permit applications, public comments and responses to comments. As the originals of these documents are in the archive files, which are not immediately accessible, the EPA recommends complete copies of those documents be included in the file room folder.

G. Administrative Record

The administrative record is the foundation that supports the NPDES permit. If EPA issues the permit, 40 CFR § 124.9 identifies the required content of the administrative record for a draft permit and 40 CFR § 124.18 identifies the requirements for a final permit. Authorized state programs should have equivalent documentation. The record should contain the necessary documentation to justify permit conditions. At a minimum, the administrative record for a permit should contain the permit application and supporting data; draft permit; fact sheet or statement of basis; all items cited in the statement of basis or fact sheet including calculations used to derive the permit limitations; meeting reports; correspondence between the applicant and regulatory personnel; all other items supporting the file; final response to comments; and, for new sources where EPA issues the permit, any environmental assessment, environmental impact statement, or finding of no significant impact.

Current regulations require that fact sheets include information regarding the type of facility or activity permitted, the type and quantity of pollutants discharged, the technical, statutory, and regulatory basis for permit conditions, the basis and calculations for effluent limits and conditions, the reasons for application of certain specific limits, rationales for variances or alternatives, contact information, and procedures for issuing the final permit. Generally, the administrative record includes the permit application, the draft permit, any fact sheet or

statement of basis, documents cited in the fact sheet or statement of basis, and other documents contained in the supporting file for the permit.

1. Documentation of Effluent Limitations

Permit records for POTWs and industrial facilities should contain comprehensive documentation of the development of all effluent limitations. Technology-based effluent limits should include assessment of applicable standards, data used in developing effluent limitations, and actual calculations used to develop effluent limitations. The procedures implemented for determining the need for water quality-based effluent limitations as well as the procedures explaining the basis for establishing, or for not establishing, water quality-based effluent limitations should be clear and straight forward. The permit writer should adequately document changes from the previous permit, ensure draft and final limitations match, unless the basis for a change is justified and documented, and include all supporting documentation in the permit file.

When developing TBELs DEQ is very good at justifying and documenting why national secondary standards apply to facilities. The permit writers use the national secondary standards language from 40 CFR § 133 to show how facilities meet the criteria for either national secondary standards or treatment equivalent to secondary standards. One permit's effluent limit was affected and modified because of nutrient trading in the receiving water. The nutrient trading was very well documented and justified with a clear, easily understandable explanation of why it allowed an increase in the effluent limit and the increase was not backsliding. When documenting TBELs, the documentation varied between permits. There was one very good best professional judgement TBEL for a mining facility, which based the permit TBEL on other mining category effluent limit guidelines. Another example of good explanation and documentation is in the ExxonMobil permit, which explained why the regulations allowed a TBEL increase from the previous permit based on a production increase at the refinery, resulting in a different factor being used in the TBEL calculation.

Deficiencies the review team noted in the Bonner Property Development permit (MT0000205) include a total residual chlorine limit in the previous permit being removed from the new permit without any anti-backsliding discussion or justification as to why the limit could be removed. The fact sheet said there was no reasonable potential for the total residual chlorine to exceed numeric water quality standards so there would be no limit in the permit but there was no further discussion of anti-backsliding. The Whitefish permit (MT0020184) had the same lack of anti-backsliding discussion. The oil and grease limit was removed for no reasonable potential without any discussion of why it is not anti-backsliding. The same anti-backsliding issue is in the Kalispell permit (MT0021938). The loading for TN is higher than the previous permit loading limit, again without any anti-backsliding discussion or justification. This TN loading limit in the Kalispell permit was also higher than the TN listed in the fact sheet. The Barretts Minerals Permit (MT0029891) had a total suspended solids TBEL carried over from the 2008 permits without any discussion or documentation of how it was determined or if it was still a valid limit for the facility. The fact sheet said the 2008 TBEL value had originally been determined in a permit written in 2000.

Overall documentation, justification and explanation of WQBELs was lacking in some permits. The WQBEL sections may discuss facility monitoring, receiving water impairment, TMDLs and effluent characteristics but don't explain how those were used to select pollutants of concern for RPA and pollutant parameters that have TBELs listed in the fact sheet are not considered as pollutants of concern for RPA with no explanation why not in the fact sheet or file. Permit fact sheets will cite limited effluent data as reasons for not calculating WQBELs, though the EPA's *Technical Support Document For Water Quality-based Toxics Control* (March 1991) provides guidance on developing WQBELs with limited effluent data. There are references to new procedures for WQBEL development but nothing is explained on what is different and the reference page does not have any documents listed for new procedures.

The Stillwater East Boulder Mine (MT0026808) permit had effluent limits changed between the draft permit and final permit because of public comments. The fact sheet did not have enough information on how the changes were made. It is not clear how the new limit was derived and there is no documentation in the file, fact sheet, or response to comment document explaining how or why the effluent limits were changed. The permit reviewer talked with the permit writer, who was able to give an explanation and reproduce the calculation used but it was not in the response to comments, fact sheet or official file.

The fact sheets for ExxonMobil (MT0000477) and the Stillwater East Boulder Mine (MT0026808), both of which have multiple outfalls, do not always have clear explanations of the WQBELs for each outfall, the WQBEL for one outfall may be well explained while the other outfalls have minimal or no explanation of WQBEL development. In general, the record documentation of RPA and WQBEL development is inconsistent among the permits and does not always tell how the permit writer did this task.

Program Strengths

Most of the administrative record is complete and there are some very well written justifications and explanations on how effluent limits were determined or modified.

Critical Findings

The quality of documentation and justification for effluent limits varies widely between permits and permit writers with some of the write ups being non-existent. Much of the inconsistency in development occurs when changes are made between the draft and final permits. As detailed in the *Monitoring and Reporting* section on page 19 above, 40 CFR § 122.48 requires permits to contain monitoring requirements sufficient to yield data which are representative of the monitoring activity and 40 CFR § 122.44(d) of the code requires effluent limitations for all pollutants or pollutant parameters "which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard." Limited effluent data should not be a reason for not calculating WQBELs.

Recommended Actions

Organization of the administrative record could be improved to make it easier to find documentation of permit decisions and correspondence.

H. National Topic Areas

National topic areas are aspects of the NPDES permit program that warrant review based on the specific requirements applicable to the selected topic areas. These topic areas have been determined to be important on a national scale. National topic areas are reviewed for all state PQRs. The national topics areas are: nutrients, pesticides, pretreatment and stormwater.

1. Nutrients

For more than a decade, both nitrogen and phosphorus pollution has consistently ranked as one of the top causes of degradation of surface waters in the U.S. Since 1998, EPA has emphasized as a priority, reducing the levels and impacts of nutrient pollution. A key part in this effort has been the support EPA has provided to States to encourage the development, adoption and implementation of numeric nutrient criteria as part of their water quality standards (see the EPA's *National Strategy for the Development of Regional Nutrient Criteria*). In a 2011 memo to the EPA regions titled *Working in Partnerships with States to Address Nitrogen and Phosphorus Pollution through use of a Framework for State Nutrient Reductions*, the Agency announced a framework for managing nitrogen and phosphorus pollution that, in part, relies on the use of NPDES permits to reduce nutrient loading in targeted or priority watersheds. To assess how nutrients are addressed in the NPDES permitting program in Montana and implementation of this framework, EPA Region 8 reviewed six permits, the: City of Red Lodge WWTF, MT0020478; ExxonMobil Billings Refinery, MT0000477; City of Whitefish WWTF, MT0020184; City of Kalispell WWTF, MT0021938; Town of Philipsburg WWTF, MT0031500; and, Stillwater East Boulder Mine, MT0026808.

Background

Montana DEQ has long recognized the importance of controlling nutrient pollution and began work on developing numeric nutrient criteria around 2006. Those efforts culminated in the Montana BER's approval of numeric nutrient criteria for wadeable streams on July 25, 2014, and the EPA's approval of the criteria February 26, 2015. The numeric nutrient criteria are for total nitrogen (TN) and total phosphorus (TP), differing across Montana by Level 3 Ecoregion, with some areas broken out by Level 4 Ecoregion. Because the criteria are lower than current limits of economically achievable technology, Montana (and the EPA) also approved a general variance to incrementally ratchet down effluent limits. The criteria adoption was associated with the adoption of a multiple discharger variance of up to 20 years. The variance stratifies dischargers into three levels: lagoons not designed for nutrient removal; dischargers with a design flow of less than 1 million gallons per day; and, dischargers with a design flow of 1 million gallons per day or greater. Each discharger category has different variance limits that are applicable to their category. In permits the WQBEL is expressed as an average monthly limit in pounds of pollutant and full mixing is allowed at the seasonal 14Q5 flow. Montana plans to evaluate the variance limits every 3 years during the 20-year period the variances are allowed.

The nutrient variance and the EPA's approval of it have since been challenged in U.S. District Court by environmental groups alleging the criteria are too lenient.

Montana has also been studying nutrient removal optimization at treatment plants and piloting optimization studies at different POTWs. They are also requiring an optimization study be conducted by facilities getting a nutrient variance within the first two years of the permit period with the variance. Additionally, the Montana Legislature passed a statewide phosphorus detergent ban with Senate Bill 200 during the 2009 legislative session.

The permit review shows DEQ is conducting RP analyses for all surface water outfalls. The Stillwater East Boulder Mine permit did not have an RP analysis done on two outfalls to groundwater hydrologically connected to surface water. There was no clear explanation of why no RP was not done in the Fact Sheet/Statement of Basis. Permit effluent limits are a mix of TBELs and WQBELs with TMDL WLAs being considered for those waters with a TMDL in place.

Program Strengths

Facilities must apply for a nutrient variance, DEQ does not automatically give one during the permit process. Facilities that are granted a nutrient variance are required to conduct a nutrient reduction optimization study to determine the best operating mode to have the lowest nutrient levels without requiring structural changes to the treatment process.

Critical Findings

There are no critical findings or recommended actions to improve the program's implementation of this component.

2. Pesticides

On October 31, 2011, the EPA issued a final NPDES *Pesticide General Permit (PGP) for Discharges from the Application of Pesticides*. This action was in response to a 2009 decision by the U.S. Sixth Circuit Court of Appeals (*National Cotton Council of America v. EPA*, 553 F.3d 927 (6th Circuit 2009)) in which the court vacated EPA's 2006 Final Rule on Aquatic Pesticides (71 Fed. Reg. 68483, November 27, 2006) and found that point source discharges of biological pesticides and chemical pesticides that leave a residue, into waters of the U.S. were pollutants under the CWA. The federal PGP applies where the EPA is the permitting authority. Approximately 40 authorized state NPDES authorities had issued state PGPs as of November 2011.

Background

On January 7, 2009, the Sixth Circuit vacated the EPA's 2006 NPDES Pesticides Rule under a plain language reading of the CWA. *National Cotton Council of America v. EPA*, 553 F.3d 927 (6th Circuit 2009). The Court held that the CWA unambiguously includes "biological pesticides" and "chemical pesticides" with residuals within its definition of "pollutant." In response to this decision, on April 9, 2009, EPA requested a two-year stay of the mandate to provide the Agency

time to develop general permits, to assist NPDES-authorized states to develop their NPDES permits, and to provide outreach and education to the regulated community. On June 8, 2009, the Sixth Circuit granted EPA the two-year stay of the mandate. On March 28, 2011, the U.S. Court of Appeals for the Sixth Circuit granted EPA's request for an extension to allow more time for pesticide operators to obtain permits for pesticide discharges into U.S. waters. The court's decision extended the deadline for when permits would be required from April 9, 2011 to October 31, 2011.

As a result of the Court's decision to vacate the 2006 NPDES Pesticides Rule, NPDES permits are required for discharges of biological pesticides and of chemical pesticides that leave a residue, to waters of the United States. EPA proposed a draft PGP on June 4, 2010 to cover certain discharges resulting from pesticide applications. EPA Regional offices and state NPDES authorities may issue additional general permits or individual permits if needed.

Background

Montana developed their PGP concurrent to the development of the EPA PGP. The initial Montana PGP was effective November 1, 2011 and was reissued, effective November 1, 2016, extending through October 31, 2021. Prior to the PGP, DEQ authorized pesticide application to state waters through their 308 Authorization, which was a temporary authorization to exceed water quality standards allowed by § 75-5-308, MCA. Since issuing the PGP, DEQ requires PGP authorization to apply pesticides to state waters and the 308 Authorization is no longer allowed for pesticide application to state waters. Montana's definition of waters of the state is found in § 75-5-103, MCA, and covers all waters in Montana other than waste treatment ponds or lagoons and irrigation waters used up within the system and not returned to state waters. The definition also includes ephemeral, intermittent and seasonal waters and drainage ways, natural and man-made.

During their initial permit development in 2011, DEQ did PGP outreach by partnering with the Montana Department of Agriculture to give presentations at pesticide applicator licensing and certification training sessions. During the 2016 PGP renewal development DEQ permitting staff met with state resource agency representatives about the permit requirements and also did outreach with the Montana Wetlands Council, which has federal resource agencies represented as part of its membership. The DEQ also has a pesticide permit section on their web site, which has the permit posted available to the public.

For this PQR, the EPA reviewed Montana's pesticide general permit number MTG870000 with a focus on verifying its consistency with NPDES program requirements. The Montana PGP is more stringent than the EPA PGP in that it requires submission of a Notice of Intent (NOI) by anyone wishing to apply any amount of pesticides directly to any waters of the state or over or adjacent to those waters where a portion of the pesticide unavoidably enters the water. The Montana PGP also contains additional pesticide use categories beyond those listed in the EPA PGP. The Montana PGP has six (6) pesticide use categories: piscicides; weed and algae control; aerial application; mosquito control; research and development; and other, for pesticide uses which do not fit under the other five (5) categories. With these pesticide use categories DEQ feels they

can capture all incidences of pesticide application to waters of the state under their general permit coverage and has not and does not plan to issue any individual pesticide permits.

Under their 2011 PGP, DEQ had 72 NOIs submitted and authorized for coverage. At the time of the PQR site visit, 60 NOIs had been submitted under the 2016 PGP. Montana does not have an electronic NOI submission option for any of their general permits and does not post general permit information online other than the general permits themselves. NOI submission by applicants is done by mail or potentially hand delivery. NOIs are reviewed for completeness by the DEQ permitting staff and authorization letters are mailed to the applicants. DEQ feels their NOI review and authorization is quick enough that a pesticide applicator could get an NOI submitted and an authorization letter from DEQ soon enough that it would not delay any pesticide applications for pest emergencies. This is probably borne out by the fact that DEQ has not had any complaints about lack of timeliness in issuing permit authorization letters to PGP applicants.

The entire PGP program is fee-based, as are the rest of DEQ's permit programs, with both application fees and annual fees required of PGP applicants to get and maintain authorization of coverage under the PGP. The fees are highly variable in amount, dependent on the pesticide application threshold area size and whether the authorization covers a single county or multiple county area.

Program Strengths

Montana's *GENERAL PERMIT For PESTICIDE APPLICATION TO OR OVER SURFACE WATER*, Permit No.: MTG870000, was issued on September 15, 2016, becoming effective November 1, 2016 and expiring October 31, 2021. This permit is the renewal and replacement for their 2011 PGP, which was developed and put into effect concurrently with the first EPA PGP. Part I of the permit contains permit coverage eligibility criteria in § B followed by activities ineligible for permit coverage in § C. Coverage area of the permit and instructions on renewing coverage, obtaining new coverage, and terminating or transferring coverage are also in Part I, §§ A and D through G.

Having regulated pesticide applications to state waters previous to the PGP requirement, Montana easily transitioned their regulatory program to a formal permitting process. During this and the initial PGP period they timely developed and put in place a general permit and application procedure. Their permit meets and exceeds the stringency requirement of the EPA's PGP.

Critical Findings

There are no critical findings or recommended actions to improve the program's implementation of this component.

3. Pretreatment

The general pretreatment regulations (40 CFR § 403) establish responsibilities of federal, state, and local government, industry, and the public to implement pretreatment standards to control pollutants from industrial users which may cause pass through or interfere with POTW treatment processes or which may contaminate sewage sludge.

Background

The goal of this pretreatment program review was to assess the status of the pretreatment program in Montana as well as assess specific language in DEQ's POTW NPDES permits. With respect to NPDES permits, focus was placed on the following regulatory requirements for pretreatment activities and pretreatment programs:

- 40 CFR § 122.42(b) (POTW requirements to notify Director of new pollutants or change in discharge);
- 40 CFR § 122.44(j) (Pretreatment Programs for POTWs);
- 40 CFR § 403.8 (Pretreatment Program Requirements: Development and Implementation by POTW);
- 40 CFR § 403.9 (POTW Pretreatment Program and/or Authorization to revise Pretreatment Standards: Submission for Approval);
- 40 CFR § 403.12(i) (Annual POTW Reports); and
- 40 CFR § 403.18 (Modification of POTW Pretreatment Program).

The PQR also summarizes the following: program oversight, which includes the number of audits and inspections conducted; number of significant industrial users (SIUs) in approved pretreatment programs; number of categorical industrial users (CIUs) discharging to municipalities that do not have approved pretreatment programs; and the status of implementation of changes to the general pretreatment regulations at 40 CFR part 403 adopted on October 14, 2005 (known as the streamlining rule).

DEQ issues NPDES permits directly to POTWs in Montana, and EPA Region 8 implements the pretreatment program. For PQRs related to pretreatment, the information in the table below is typically pulled from ICIS. Data in the table are summarized for 2015 because at the time of this PQR (January 2017) it could not be determined whether all of the data was in ICIS for 2016. According to ICIS there are six POTWs in Montana that have approved pretreatment programs. During the five years from 2011 through 2015, Region 8 conducted a maximum of two visits per POTW at four of the POTWs (either a pretreatment compliance inspection (PCI) and a pretreatment compliance audit (PCA), or two PCIs). Region 8 only conducted one visit (a PCI or PCA) at each of the remaining two POTWs during the five-year timeframe.

State of Montana Pretreatment Program at a Glance 2015

Number of Approved POTW Pretreatment Programs	6
Number of SIUs in POTWs with Approved Pretreatment Programs	28*
Number of SIUs in POTWs without Approved Pretreatment Programs	0 reported**
Percent of SIUs with expired Permits	3%***
Number of CIUs in POTWs with Approved Pretreatment Programs	6
Number of CIUs in POTWs without Approved Pretreatment Programs	0 reported**
Number of Pretreatment Compliance Inspections in 2015	2 (one was for a nonapproved program)
Number of Pretreatment Compliance Audits in 2015	2 (one was for a nonapproved program)
Percentage of POTWs for which Compliance Monitoring Strategy (CMS) Goals were met	0%
Date State Program updated for Streamlining Regulations	Not applicable****

NA = Not Available.

* Actual number of SIUs is 22. This data has not been properly entered into ICIS. The Region is aware of this data discrepancy and is working to fix it.

** Actual number of SIUs and CIUs is 3. This data has not been properly entered into ICIS. The Region is aware of this data discrepancy and is working to fix it.

*** One SIU of the 28 SIUs reported was identified as without a control mechanism. One compliance monitoring record entered did not report the number of SIUs without control mechanisms.

**** EPA directly implements the Montana pretreatment program, therefore, the streamlining rule provisions were not required to be adopted by the state.

As part of the PQR, two permits were reviewed for POTWs that are known to have approved pretreatment programs and three for POTWs that are not required to have a pretreatment program (nonapproved). Also, one industrial user control mechanism (draft Consent Order, from Region 8) was reviewed from a nonapproved program. From available data, the design flows for the five Montana POTW permits reviewed range from 1.2 million gallons per day (MGD) to 34 MGD.

Permittee	Permit No.	Pretreatment Program Required?	Design Flow Average	Permit Expires
Glendive Water Resource and Recovery Facility	MT0021628	No	1.9 mgd	10/31/2019

Permittee	Permit No.	Pretreatment Program Required?	Design Flow Average	Permit Expires
Whitefish Wastewater Treatment Facility	MT0020184	No	1.25 mgd	7/31/2020
Red Lodge Domestic Wastewater Plant	MT0020478	No	1.2 mgd	4/30/2021
Billings Wastewater Treatment Plant	MT0022586	Yes	34 mgd	3/31/2020
Missoula Wastewater Treatment Facility	MT0022595	Yes	12 mgd	4/30/2020
GSK Biologicals	Consent Order	NA	Unknown	Not determined – Consent Order was a draft

Region 8 Permit Issuance Practices

The Region 8 Pretreatment Coordinator is staffed within the NPDES permit group and works with all NPDES authorized states within Region 8 to ensure the appropriate pretreatment program implementation boilerplate language for POTWs with or without pretreatment programs are included in the State-issued NPDES permits. The Region 8 Pretreatment Coordinator provides the pretreatment boilerplate language to the NPDES authorized states and reviews permits at public notice or in draft (depending on the State) to ensure the language is appropriate. The Region 8 Pretreatment Coordinator strives to review as many municipal NPDES permit for all states to ensure the pretreatment language is appropriate and provide comment if corrections are needed. The NPDES permit applications are not reviewed by the Pretreatment Coordinator but the justifications in the fact sheets are evaluated to determine if the State appropriately evaluated industrial contribution information, required to be in the permit application for reasonable potential or justification if a pretreatment program is required or not. In addition, the Region 8 Pretreatment Coordinator evaluates the NPDES permits during the State PQR and provides PQR action items for missing or incorrect language in the report.

For Montana, because this state is not authorized for pretreatment, the annual reports reviews, local limits reviews, and enforcement actions are performed by the EPA Region 8 permits and enforcement team. The Region 8 Pretreatment Coordinator and the NPDES Enforcement Pretreatment contact also evaluate control of CIUs/SIUs in non-approved programs in these States. EPA Region 8 notifies CIUs discharging to unapproved POTWs of Pretreatment requirements via letter, and also conduct compliance evaluation and data entry for Montana.

Program Strengths

Based on this PQR, both permits reviewed for POTWs with pretreatment programs incorporate all General Pretreatment Regulations by reference. The permits state that permittees must operate a POTW pretreatment program in accordance with the federal Clean Water Act, the federal General Pretreatment Regulations at 40 CFR Part 403, and the approved pretreatment program and any approved modifications. These permits also give the date when the pretreatment programs were approved. The fact sheets for POTWs with approved pretreatment programs specify that a pretreatment program is required and describes the industries.

Critical Findings

Region 8 is not meeting Compliance Monitoring Strategy (CMS) goals in Montana¹. Region 8 did not meet the CMS goal of at least one audit and two inspections within 5 years (2011-2015) at any of its six POTWs with approved pretreatment programs (zero percent).

Approved Pretreatment Programs

Neither of the NPDES permits for POTWs with approved pretreatment programs contain the notification requirements for 40 CFR 122.42(b)(1) for any new introduction of pollutants to the POTW.

The Billings permit does not include the requirement at 40 CFR 122.44(j)(1) to “Identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging into the POTW subject to Pretreatment Standards under section 307(b) of CWA and 40 CFR Part 403.”

The Billings and Missoula permits were somewhat inconsistent and the most notable difference was that Missoula contained the updated language consistent with the 2005 streamlining rule.² Although the permit for Billings incorporates 40 CFR part 403 by reference, and therefore can be considered to include the updated streamlining rule language, it does not specifically include the following requirements, which are included in the Missoula permit:

- Reference to the updated 2004 Limits Development Guidance (it references the 1987 version)
- Updated language for slug discharge control plan evaluations at 40 CFR 403.8(f)(2)(vi)
- Best management practices language in industrial user permits at 40 CFR 403.8(f)(1)(iii)(B)(3)
- Requirements to control slug discharges at 40 CFR 403.8(f)(1)(iii)(B)(6)
- Public notification requirements at 40 CFR 403.8(F)(2)(viii)

¹ CMS goals are one PCA and two PCIs conducted per 5-year NPDES permit term. This PQR does not look at each POTW's NPDES permit term, but it looks at compliance for the period of 2011 through 2015.

² The Billings permit was originally issued Feb 26, 2015, then modified June 9, 2015. The Missoula permit was issued March 31, 2015.

The Missoula permit was not clear as to whether a RPA was conducted for development of Missoula's water quality-based limits that considered all pollutants common for the types of industries discharging to the POTW.

Non-Pretreatment Program POTWs (Nonapproved)

All three permits for POTWs without pretreatment programs (Glendive, Whitefish, Red Lodge) do not contain notification requirements for requirements at 40 CFR 122.44(j)(1) to identify SIUs.

None of the permits for non-pretreatment program POTWs contain a reopener clause that specifies that the permit can be reopened to require development of a pretreatment program, if deemed necessary.

Industrial User Permit

The control mechanism for the industrial user reviewed for this PQR is the draft Administrative Order on Consent (Consent Order) for GlaxoSmithKline Biologicals (GSK). GSK discharges wastewater to the City of Hamilton, Montana POTW. The Consent Order was reviewed to determine whether it met control mechanism content requirements at 40 CFR 403.8(f)(1)(iii)(B). The Consent Order contained, or incorporated by reference, most of the required contents. However, the Consent Order does not prohibit dilution as a substitute for treatment, as required at 40 CFR 403.6(d).

Also, there appears to be a typographical error in the GSK Consent Order. It states "The Respondent shall comply with the prohibitions listed in 40 CFR Part 402." Part 402 is Reserved and it is likely that this should be 40 CFR Part 403.

4. Stormwater

The NPDES program requires stormwater discharges from certain MS4s, industrial activities, and construction sites to be permitted. Generally, EPA and NPDES-authorized states issue individual permits for medium and large MS4s and general permits for smaller MS4s, industrial activities, and construction activities. Montana uses general permits for their stormwater regulation, having general permits for industrial, construction and MS4 stormwater facilities.

Background

The Montana stormwater permits at the time of the DEQ PQR was as follows: the *GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) (MS4GP)*, Permit No.: MTR040000; the *MULTI-SECTOR GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY (MSGP)*, Permit No.: MTR000000; and, the *GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (CGP)*, Permit No.: MTR100000. The MS4 GP is the newest iteration of DEQ's MS4 regulatory tool and was developed over the past year. This permit was in draft format when reviewed as part of the PQR and not finalized and issued until after the PQR site visit. The MSGP is the primary regulatory mechanism DEQ applies to industrial sites though some industrial facility types, such as sand and gravel mining, have other

DEQ permits applicable to their operations. The MSGP was issued December 6, 2012 and is effective February 1, 2013 through January 31, 2018. Montana's CGP covers all types of construction activities within Montana's jurisdiction. Issued October 25, 2012 and in effect from January 1, 2013 through December 31, 2017, the CGP is the permit with the largest number of covered sites, though the individual sites covered are ever changing as construction activities begin, end and site stabilization occurs.

Stormwater Discharges from Municipal Separate Storm Sewer Systems (MTR040000)

For Montana, EPA Region 8 reviewed the MS4GP, which was in draft form with the public notice comment period having ended just at the time of the PQR. This permit was issued on November 30, 2016 and becomes effective January 1, 2017, expiring December 31, 2021. Permittees submitting NOIs to DEQ will have coverage under the MS4GP beginning January 1, 2017 and will have authorization letters sent to them by DEQ. Those facilities that have stormwater discharge associated with industrial or construction activity are required to obtain a separate MPDES permit, either MSGP or CGP for their activities.

The MS4GP follows the standard format of general permits, containing all of the required eligibility, authorization and application information in Part 1 of the permit. Part 1 of the MS4GP also contains the coverage area of the permit, which is traditional MS4s (cities, counties) and non-traditional MS4s (military bases, universities) in Montana. As with all of Montana's general permits, the MS4GP itself is posted on the DEQ website, however no NOI or reporting information is available online.

The primary requirements of the MS4GP are in part II, Stormwater Management Program, of the permit. The six (6) minimum measures are in this section in tabular format with sub-measures for each and bulleted best management practices (BMPs) and specific compliance timelines. The remainder of the MS4GP meets the CFR requirements addressing the stormwater management plan (SWMP), monitoring, record-keeping and reporting as well as the standard conditions language. This new MS4GP also requires electronic submission of the required reports and attachments through NetDMR. Since the PQR review of the MS4 GP, a Montana-based conservation group has challenged it by filing suit in Montana District Court.

Program Strengths

DEQ has developed a well written, enforceable permit.

Critical Findings

There are no critical findings or recommended actions to improve the program's implementation of this component.

Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MTR000000)

EPA Region 8 reviewed the MSGP, which has been in effect since February 1, 2013 and is the only general permit DEQ has for industrial stormwater within Montana. The MSGP includes all the Standard Industrial Classification codes listed in the EPA's MSGP but specifically excludes

from coverage “industrial facilities or activities...whose storm water discharges are subject to federal Effluent Limitations Guidelines.” Those facilities are required to obtain a separate NPDES permit for their industrial activities.

The MSGP follows the standard format of general permits, containing all of the required eligibility, authorization and application information in Part 1 of the permit. Part 1 of the MSGP also contains the transfer, termination and conditional exclusion for no exposure requirements for permittees. As with all of Montana’s general permits, the MSGP itself is posted on the DEQ website, however no NOI or reporting information is available online. Montana requires permittees submitting first-time NOIs for new industrial facilities or for activities that do not yet exist and will be constructed, to formally consult with the Montana Natural Heritage Program and Natural Resource Information System and the State Historic Preservation Office and submit the response from those agencies with their NOI and storm water pollution prevention plan (SWPPP). If those agencies determine a potential adverse effect from the activities the permittee is required to work with the applicable and appropriate regulatory agencies to mitigate any adverse effects.

The TBEL and WQBEL limitations are detailed and complete. Some language in the TBEL section could be improved. Maintenance of control measures in the non-numeric TBEL section of the MSGP simply says the permittee “must regularly inspect, test, maintain and repair” all the systems but there is no explanation or definition of the term “regularly,” which makes it an unenforceable requirement. The maintenance section would be better written if it was similar to the corrective action deadlines requirements in the WQBEL section of the permit. That section gives deadlines for documenting conditions such as unauthorized discharges or changes in the nature of pollutants, which could require changes to the control measures. It has a separate deadline for correcting or modifying the control measures and documenting the action. Having that sort of language in the maintenance of control measures of the TBEL section would make it an enforceable requirement.

The special conditions portion of the permit contains the SWPPP requirements in detail and specific requirements for each industry sector. The SWPPP section also addresses SWPPP requirements if the facility has the potential to discharge pollutants to a water impaired for those pollutants and how to address TMDL WLAs if an approved TMDL is in place for the water to which the permittee may discharge. The permit requires SWPPP modification whenever any of the conditions triggering corrective actions occur and the SWPPP modification must be completed within the same time requirements as the corrective actions deadlines listed in the permit. The MSGP does not require permittees submit the SWPPP to DEQ as a standard practice but does have the requirement that permittees do so on request of DEQ. The SWPPP is kept at the permitted facility for DEQ review during compliance inspections and the MSGP is silent on whether any of the SWPPP information is accessible to the public.

The remainder of the MSGP meets the CFR requirements addressing monitoring, record-keeping and reporting as well as the standard conditions language. There is nothing in the MSGP addressing electronic reporting, however the permit went into effect in early 2013, before DEQ was collecting electronic reporting data. The DEQ is requiring electronic reporting

from all permittees as of December 21, 2016, and stopped sending blank DMR forms to permittees in September 2016 to encourage them to begin electronic reporting. The next iteration of the MSGP will contain electronic reporting requirement language.

Program Strengths

The MSGP has a robust SWPPP section, which, if followed, will ensure that adequate SWPPPs are developed, followed and modified as needed at permitted facilities.

Critical Findings

There are no critical findings for component. However, the EPA does recommend DEQ change the language for inspecting and maintaining stormwater control structures from “regularly” to something that is enforceable.

General Permit for Stormwater Discharges from Construction Activity (MTR100000)

EPA Region 8 reviewed the CGP, which has been in effect since January 1, 2013 and expires **December 31, 2017**. This is the only general permit DEQ has for construction stormwater regulation within Montana. DEQ is in the process of developing the next CGP, to be issued and effective prior to the expiration of this permit and is conducting stakeholder meetings in various locations of Montana to obtain comment on the construction stormwater program and how it could be improved.

The Montana CGP contains all information a permittee needs to successfully comply with the permit requirements and all the standard requirements of the CFR. As of January 1, 2014, Montana has an additional requirement of SWPPP Administrator training prior to assuming SWPPP Administrator duties.

Program Strengths

Montana has requirement that a primary SWPPP Administrator plus any other SWPPP Administrators must be designated in the SWPPP and must have documentation of specific training on storm water controls and BMPs, pollution prevention procedures, inspections and reporting. This helps ensure that adequate SWPPPs are developed, followed and modified as needed at permitted facilities.

Critical Findings

There are no critical findings or recommended actions to improve the program’s implementation of this component.

IV. REGIONAL TOPIC AREA FINDINGS

A. Reasonable Potential Analysis

Section 122.44(d) of the Title 40, Code of Federal Regulations requires permits to contain any requirements in addition to or more stringent than promulgated effluent limits or guidelines necessary to achieve water quality standards, including narrative criteria for water quality. This is done by determining whether a pollutant is being discharged at a level that will cause, has a reasonable potential to cause, or to contribute to an excursion above any water quality standard including narrative criteria for water quality (reasonable potential). The EPA reviewed all eleven (11) individual permits selected for the PQR to evaluate Montana's effectiveness in determining reasonable potential for pollutants of concern being discharged from the permitted facilities. The RPA is for pollutants of concern and is the first step toward developing WQBELs for particular pollutants to allow the permit writer to compare the technology and water quality effluent limits and select the more stringent of the two for the permit.

Several of the permits need the rationale for selecting pollutants of concern better summarized up front. The fact sheet boilerplate language mentions that any parameter with an ELG and thus a TBEL, is considered as a POC but sometimes none of the facility's effluent parameters with a TBEL were identified as pollutants of concern and no reason was given why. Those effluent parameters with a TBEL still need to be reviewed to determine if the TBEL is protective or if a WQBEL is needed to protect the receiving water quality. That review is generally done by developing a WQBEL, comparing the WQBEL to the TBEL and selecting the most stringent of them as the permit effluent limit.

RPA results for the Helena water treatment plant (MT0027820), which discharges to a water with an approved TMDL, had confusing language discussing the TMDL and the RPA while explanations for pollutants not addressed in the TMDL were very clear.

For the ExxonMobil (MT0000477) oil refinery, DEQ concluded the arsenic in the facility's effluent would not cause, have a reasonable potential to cause, or contribute to a water quality excursion because the refinery withdraws cooling water containing an arsenic load from the receiving water and does not add to that arsenic load before the cooling water is discharged into the same water body. It is not clear that the RPA for temperature is conservatively accounting for seasonal temperature changes in the receiving water. The RPA description says 25th percentile will be used where the water quality standard is relative to the background. This appears to be the case for temperature but the permit writer used the 75th percentile in the RPA. This was commented on by the Montana Fish Wildlife and Parks during the public comment period.

The RPA for the City of Red Lodge (MT0020478) was called preliminary because there was only one sample from the receiving stream. The *Technical Support Document For Water Quality-based Toxics Control* (March 1991) provides methods to develop WQBELs with limited data and

based on the effluent data for that facility there is reasonable potential and since there is reasonable potential WQBELs are required. The analytical results for toxic pollutants at this facility were listed as less than detection limit but no detection limit was provided for the analyses so the permit writer used the RRV from DEQ Circular 7, *Montana Numeric Water Quality Standards* to conduct the RPA.

The RPA for the Stillwater East Boulder Mine (MT0026808) was not clearly explained. For outfall 001, the fact sheet said no RPA was conducted for temperature because there was no new data, however, the fact sheet did not explain the reason there was no new data is that outfall was never constructed. For outfall 002, an RPA was not performed for temperature, nutrients or ammonia; at outfall 003, no RPA was done for nutrients. For temperature and total nitrogen, where the reasonable potential and effluent limits were changed in response to public comments, the fact sheets are not modified. Instead Montana DEQ addresses changes in the response to comments, which then becomes part of the fact sheet. The analysis and reasoning for the changes to the reasonable potential calculations and effluent limits were not clearly summarized in the response to comments document.

Program Strengths

Montana DEQ does have procedures in place for conducting RPAs and developing WQBELs.

Critical Findings

DEQ is inconsistent in following the RPA and WQBEL procedures and documenting the process used to do RPAs. One of the reasons commonly given for not doing an RPA or developing WQBELs is limited effluent data. As detailed in the *Monitoring and Reporting* section on page 19 and the *Documentation of Effluent Limitations* section on page 25 of this report, 40 CFR § 122.48 requires permits to contain monitoring requirements sufficient to yield data which are representative of the monitoring activity. 40 CFR § 122.44(d) requires effluent limitations for all pollutants or pollutant parameters “which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.” Not developing WQBELs where an RPA shows a pollutant will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard does not meet the requirements of 40 CFR 122.44(d).

B. Mixing Zones

Section 122.44(d)(1)(ii) of Title 40 Code of Federal Regulations requires that when determining if a discharge will cause, has the reasonable potential to cause, or contribute to an excursion above a water quality standard, the permit writer, where appropriate account for “the dilution of the effluent in the receiving water.” In ARM § 17.30.1344(2)(b), DEQ’s BER adopted and incorporated by reference 40 CFR § 122.44. Montana also has specific mixing zone requirements promulgated in ARM § 17.30.501 *et seq.* The purpose of the mixing zone requirements is to protect existing beneficial uses of waters to which pollutants discharge. The focus of EPA Region 8’s mixing zone review is to verify that DEQ’s permits and fact sheets

properly determine the need for mixing zones for particular effluent streams and correctly set the size of mixing zones on an individual parameter basis, as required by Montana administrative rules. The EPA reviewed all eleven (11) individual permits on the PQR list to determine how Montana is following its mixing zone (MZ) requirements.

Generally, it is unclear if DEQ's MZ procedure meets their promulgated requirements. Many of the MZs listed in the permits are carried over from previous permits but no documentation of how the MZ was originally determined is carried over from the previous permit. The ARM allows MZs in permits issued prior to April 29, 1993 to be designated in a renewed permit unless there is evidence the mixing zone will impair any existing or anticipated uses. However, carrying over a previous mixing zone designation without also including the description of how the mixing zone was originally determined does not provide adequate information for the public to review and use in formulating any comments on the draft permit.

A specific example is the Red Lodge (MT0020478) fact sheet which references the 2009 permit as the basis for the MZ, but the 2009 fact sheet references a 2001 study, which was not found in the file. This MZ narrative describes a MZ for the permit discharge but does not specify for what parameters the mixing zone was established. Red Lodge discharges more than 1 million gallons per day of effluent so the ARM require an evaluation to be done to see if it qualifies for a standard MZ but no evaluation language was in the fact sheet. Overall the Red Lodge MZ narrative lacks enough information to determine if the MZ determination meets state or federal requirements.

The Bonner Property Development (MT0000205) and City of Kalispell (MT0021938) MZ narratives describe the mixing zone and list effluent parameters of nitrate/nitrite, ammonia and total residual chlorine for Bonner and ammonia, copper and nitrate for Kalispell, however those same parameters were previously determined by the permit writer to have no reasonable potential and no effluent limits were in either permit for those parameters so it is unclear why those mixing zone were even developed. That lack of clarity is compounded in the Bonner fact sheet narrative by language indicating the mixing zone was developed according to the ARM guidelines or requirements. Then there is no description of why the size of the MZ was selected or if mixing is complete within the boundary or the relation to the critical stream flow (7Q10 or 14Q5) though they are mentioned in the MZ narrative. Montana's MZ ARM also requires an applicant for a MZ to indicate the type of MZ they applied for and to supply sufficient detail for DEQ to make a determination regarding the authorization of the MZ. That type of language was generally not in the files. The fact sheets for ExxonMobil (MT0000477), Whitefish (MT0020184), Kalispell (MT0021938), Billings (MT0022586) and the Stillwater East Boulder Mine (MT0026808) contain no description of why a MZ size was selected, other than it was not greater than a certain number of stream widths downstream (Kalispell) or did not affect existing uses (ExxonMobil).

The Town of Philipsburg (MT0031500) had a 280-foot long MZ for ammonia carried over from the 2007 MPDES permit though this permit's RPA showed no reasonable potential and there is no effluent limit for ammonia in the permit. During the last permit period the facility at times

discharged up to 3 times its design flow, resulting in decreased effluent dilution. Because of that DEQ is requiring an MZ study for ammonia as a special condition of the permit.

There is one excellent MZ narrative among the permits reviewed by the EPA. The City of Missoula permit has a MZ based on a mixing zone study, which was required by the previous permit; the mixing zone size is based on the complete mixing determined in that mixing zone study.

Critical Findings

DEQ's permit writers are not always following the ARM requirements pertaining to MZs, and not documenting how the MZ was determined, including calculations and/or reasoning behind MZ decisions and whether mixing is complete within the MZ.

V. ACTION ITEMS

This section provides a summary of the main findings of the review and provides proposed action items to improve Montana NPDES permit program. This list of proposed action items will serve as the basis for ongoing discussions between Region 8 and Montana as well as between Region 8 and EPA HQ. These discussions should focus on eliminating program deficiencies to improve performance by enabling good quality, defensible permits issued in a timely fashion.

The proposed action items are divided into three categories to identify the priority that should be placed on each item and facilitate discussions between Regions and states.

- **Critical Findings** (Category One) - Most Significant: Proposed action items will address a current deficiency or noncompliance with respect to a federal regulation.
- **Recommended Actions** (Category Two) - Recommended: Proposed action items will address a current deficiency with respect to EPA guidance or policy.
- **Suggested Practices** (Category Three) - Suggested: Proposed action items are listed as recommendations to increase the effectiveness of the state's or Region's NPDES permit program.

The critical findings and recommended actions proposed should be used to augment the existing list of "follow up actions" currently established as an indicator performance measure and tracked under EPA's Strategic Plan Water Quality Goals or may serve as a roadmap for modifications to the Region's program management.

A. Basic Facility Information and Permit Application

The fact sheets for all the permits clearly describe the facilities, processes, outfalls, waste streams and outfall locations relative to the receiving waters. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 3 – The DEQ should consider reviewing its rules and policies related to administrative extension of permits to ensure current practices are in agreement with its rules.

Category 3 – The DEQ should develop and use consistent standards, procedures, and terminology concerning permit application and completeness requirements in order to be transparent and consistent about when a permit application is complete and when a permit is allowed to be administratively extended.

B. Technology-based Effluent Limitations

Montana DEQ does an overall good job in developing TBELs. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 1 – As required by 40 CFR § 124.56, when developing BPJ limits Montana DEQ needs to provide a basis for those limits beyond general statements of achievability.

Category 1 – As required by 40 CFR § 124.56, Montana DEQ needs to ensure that limits carried over from previous permits include the justification and/or documentation and calculations for the original effluent limits to show that the limit is still adequate and applicable.

Category 3 – Montana DEQ should consider including review of ELG-base effluent limit calculations as part of their peer review process if that is not currently being done.

C. Water Quality-Based Effluent Limitations

Montana DEQ does a very good job of clearly identifying the receiving waters, water quality standards, impairment status and referencing TMDLs. The fact sheets address all identified POCs but are inconsistent in identifying POCs. Most fact sheets appeared to have template language of general factors considered for POC selection but no rationale for how the individual POCs were selected and parameters in the final POC list were not in the discussion on POC selection. Required content of NPDES fact sheets is promulgated in 40 CFR §§ 124.8 and 124.56, which are both applicable to state programs. These regulatory sections require summaries and explanations of the basis for permit conditions and why they are applicable. Proposed action items to help Montana strengthen its NPDES permit program by improving fact sheet development include the following:

Category 2 – Montana DEQ needs to refine the POC template language to indicate that permit writers need to explain the rationale of how they selected POCs, develop a consistent base list of POCs for POTWs and ensure a complete list of POCs is provided in the fact sheet.

D. Monitoring and Reporting

Montana DEQ provided good explanations of monitoring locations, monitoring requirements and the need to meet 40 CFR Part 136 methods of analysis and required reporting values. For various reasons, such as failing to monitor by the permittee, Montana does not always get adequate, quality monitoring data submitted with permit applications. This prevents Montana

DEQ from having adequate data to conduct an RPA to see if pollutants will cause, have reasonable potential to cause, or contribute to an excursion above a water quality standard, which then requires development of a WQBEL. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 1 – Montana DEQ should develop a procedure to determine if monitoring information submitted with permit applications meets their requirements for conducting RPA and WQBEL development prior to determining that a permit application is complete. The procedure should include processes to request or require supplemental monitoring information from permittees necessary to conduct an RPA and develop WQBELs as needed, in accordance with 40 CFR § 122.44(d).

Suggested Action – Montana DEQ has permit language meeting the requirements of 40 CFR § 122.48, requiring permittees to conduct enough, quality monitoring to meet their permit requirements and to supply representative monitoring information with permit applications for DEQ to conduct an RPA and develop WQBELs as needed. As Montana DEQ says the reason for not always getting enough, quality data is often permittees not conducting the required monitoring, the permitting group should coordinate with the enforcement group to address this discrepancy.

E. Standard and Special Conditions

Montana NPDES permits generally contain all standard conditions. They commonly require mixing zone and source assessment studies that will be beneficial in future permit development and the need for the studies is typically well explained. Compliance schedules do not contain measurable milestones and commonly contain conditions not associated with meeting effluent limitations or are for activities which do not lead to compliance with an effluent limitation by the end of the compliance schedule [33 U.S.C §§ 1311(b)(1)(C) and 1362(17) also 40 CFR §§ 122.2 and 122.47(a)]. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 1 – Montana DEQ needs to develop a procedure to guide permit writers in making consistent determinations as to whether permit requirements should be placed in special conditions or into a compliance schedule to ensure compliance schedules meet the definition in Part 502 of the CWA [33 U.S.C. § 1362(17)].

Category 1 – Montana DEQ needs to ensure permits with compliance schedules contain appropriate and defensible interim milestones for those compliance schedules as required by 40 CFR § 122.47(a).

F. Administrative Process (including public notice)

Montana DEQ has good documentation of permit public notices. All public comments they get and their reply to the comments adhere to regulatory requirements. Permit modifications are

adequately explained and documented including any public notices for major permit modifications. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 3 – The public access file room folders vary in completeness with regard to containing permit applications, public comments and response to comments. The EPA suggests complete copies of all documents be included in those folders as originals are archived in a separate building and not immediately available when requested.

Category 3 – Montana could improve the organization of the administrative record to make it easier to locate documentation of permit decisions and permit correspondence.

G. Documentation (including fact sheet)

Most of Montana's permit administrative records are complete and there are some very well written justifications and explanations of how effluent limits were determined or modified. However, the quality of documentation and justification varies widely between permits with some permits justifications and explanations being non-existent. Much of the inconsistency seems to occur when there are changes made between the draft and final permits due to comments on the draft permit. Montana DEQ does not modify fact sheets in response to comments. Instead they address any changes in the response to comments document, which then becomes part of the fact sheet. The analysis and reasoning for the changes to permits are not always clearly summarized and explained in response to comments documents. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 1 – As required by 40 CFR § 124.56, Montana DEQ needs to ensure justification and explanation for permit decisions is contained in the Fact Sheets, which are part of the administrative record when changes to permits are made from the draft to the final versions.

H. National Topic Areas

Proposed actions items for core topic areas are provided below.

1. *Nutrients*

Montana has developed numeric nutrient criteria for wadeable streams. The criteria are for TN and TP and are vary down to Level 3 Ecoregion with some area broken out by Level 4 Ecoregion. Montana develops permit limits for nutrients and has a nutrient variance procedure for facilities which cannot meet the nutrient effluent limits at this time. Permittees must apply for a nutrient variance and must conduct a nutrient reduction optimization study as part of the variance. Montana reviews issued variances every 3 years to evaluate whether the permittee still needs the variance, whether the variance level can be made more stringent and how the permittee is proceeding toward meeting the final effluent limit. Proposed action items to help Montana strengthen its NPDES permit program include the following:

There are no recommended action items to improve the program's implementation of this component.

2. Pesticides

Montana DEQ developed a PGP concurrently with the first EPA PGP and reissued their section iteration PGP in autumn 2016. The Montana PGP is more stringent than the EPA PGP, containing more pesticide use categories and requiring all pesticide applicators to submit an NOI for permit coverage for any amount of pesticide application to state waters. Proposed action items to help Montana strengthen its NPDES permit program include the following:

There are no recommended action items to improve the program's implementation of this component.

3. Pretreatment

Montana NPDES permits reviewed for both approved and nonapproved pretreatment programs did not contain all the required pretreatment language. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 1 – Region 8 must ensure that all the permits for POTWs with approved pretreatment programs contain the notification requirements for 40 CFR 122.42(b)(1) for any new introduction of pollutants and will do so by closely reviewing permits for POTW with pretreatment programs as they are drafted for renewal.

Category 1 – Region 8 must ensure that all permits contain requirements at 40 CFR § 122.44(j)(1) to identify SIUs.

Category 1 – Region 8 must ensure that the 40 CFR Part 403 language that is specified in the permits for POTWs with approved pretreatment programs is the most current language at 40 CFR Part 403.

Category 1 – Region 8 must ensure that industrial user control mechanisms prohibit dilution as a substitute for treatment as required by 40 CFR § 403.6(d).

Category 2 – Region 8 should ensure that it meets CMS goals for conducting inspections and audits at POTWs in Montana.

Category 2 – DEQ should revise the permit reopener clause for nonapproved POTW program NPDES permits to ensure that the permits could be reopened to require a pretreatment program if deemed necessary.

Category 3 – DEQ should discuss in fact sheets for all POTWs with approved pretreatment programs whether the RPA conducted to develop water quality-based limits included analysis of all pollutants common for the types of industries discharging to the POTW.

Category 3 – Region 8 should fix the typographical error in the GSK Consent order from reference to 40 CFR Part 402 to 40 CFR part 403.

4. *Stormwater*

Montana has a strong stormwater program across the three stormwater components of MS4, Industrial and Construction. The Montana MS4GP and CGP are well written and follow EPA guidelines and requirements. EPA notes that the MS4GP permit was not evaluated for compliance with the MS4 General Permit Remand Rule, published on December 9, 2016 (81 Fed. Reg. 89320), due to the timing of the state's small MS4GP issuance. When Montana begins the process of issuing its next small MS4GP, EPA is available to offer its assistance on ways the general permit can be modified to ensure that it is consistent with the requirements of the MS4 General Permit Remand Rule. The MSGP is also well written but contains some ambiguous language in the stormwater control section, requiring stormwater controls to be inspected "regularly." That is an unmeasurable and unenforceable term used in a permit section that requires a measurable metric. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 2 – Montana DEQ needs to ensure permits requiring specific actions at specific times, such as stormwater control measure inspections, by the permittee contain specific language describing the times or time intervals required.

I. *Regional Topic Areas*

Proposed action items for special focus areas are provided below.

1. *Reasonable Potential Analysis*

Montana does have procedures in place for conducting RPAs and developing WQBELs. However, RPAs are not consistently done on all facility effluent parameters with the reasons given being lack of data or sometimes no reasons being given. The EPA's TSD does provide procedures for RPA with limited data, which Montana could use when they have limited data. Documentation of the RPA procedure, development of WQBELs and subsequent changes to the WQBELs is sometimes inconsistent among permits. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 1 – Montana DEQ needs to develop a procedure to ensure their permits contain monitoring requirements sufficient to yield data which are representative of the monitoring activity [40 CFR § 122.48] so that permittees meet the monitoring requirements of the permit and permit writers have representative, defensible data to conduct RPAs and develop WQBELs when writing permits.

Category 1 – Montana DEQ needs to develop required effluent limitations for all pollutants or pollutant parameters "which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard." [40 CFR § 122.44(d)].

Category 1 – Montana DEQ needs to develop a procedure to ensure permit writers adequately document the RPA and any subsequent WQBEL development in the permit fact sheet. Montana needs to ensure the procedure requires any subsequent changes to the RPA or WQBELs also be explained and justified in the fact sheet [40 CFR §§ 122.44(d) and 124.8].

Category 3 – If the analytical laboratory services available to permittees cannot consistently analyze effluent samples to the level required by DEQ's RRVs due to technology limitations, then DEQ should consider revising the RRVs to levels which are reasonably attainable by the analytical laboratories available to permittees.

2. Mixing Zones

Generally, it is unclear if DEQ's MZ procedure meets their promulgated requirements. Many of the MZs listed in the permits are carried over from previous permits but no documentation of how the MZ was originally determined is included. The MZ narratives in Montana's permits usually cite that the MZ was developed in accordance with the ARM. However that statement is often not followed up with any explanation of why a mixing zone was set for a particular parameter, why the mixing zone was needed for that parameter, how the mixing zone size was determined or if mixing is complete within the mixing zone. Proposed action items to help Montana strengthen its NPDES permit program include the following:

Category 2 – Montana DEQ needs to ensure MZ development is adequately documented in the permit fact sheet to include calculations and/or reasoning for the MZ decisions, past, or present, and if a specific MZ size is set, whether the mixing is complete within the MZ boundary.

Category 3 – Montana DEQ should consider procedures or guidance to assist permit writers in following Montana's promulgated requirements.

Appendix A - Permits Reviewed for the 2016 Montana PQR

PQR ID NO.	NPDES No.	Permit Name	Draft, Modification, Reissue or Final, Reviewed real-time	Core Review				National Topics		Regional Topics	
				POTW (issue date)	Non-POTW (issue date)	Major	Minor	Nutrients	Pre-treatment	RPA	Mixing Zones
1	MT0020478	CITY OF RED LODGE	F	3/4/2016		X		X		X	X
2	MT0000205	BONNER PROPERTY DEVELOPMENT	F		7/13/2015	X				X	X
3	MT0000477	EXXONMOBIL REFINING AND SUPPLY CO	F		6/18/2015	X		X		X	X
4	MT0020184	CITY OF WHITEFISH	F	6/9/2015		X		X		X	X
5	MT0021938	CITY OF KALISPELL	F	6/30/2015		X		X		X	X
6	MT0022594	CITY OF MISSOULA	F	3/31/2015		X				X	X
7	MT0022586	CITY OF BILLINGS	F	2/26/2015		X				X	X
8	MT0030287	ROCK CREEK MINE	F		12/31/2015		X			X	X
9	MT0031500	TOWN OF PHILIPSBURG	F	8/26/2015			X	X		X	X
10	MT0026808	STILLWATER E BOULDER MINE	F		9/28/2015		X	X		X	X
11	MT0028720	CITY OF HELENA WTP	F	10/11/2016			X			X	X
General Permits											
12	MTR040000	MS4 GP	D	PN 9/19/2016							
13	MTR100000	Construction SW GP	F	10/25/2012							
14	MTG870000	Pesticide GP	F	9/15/2016							
15	MTR000000	Industrial SW GP	F	12/6/2012							