Region 8 NPDES Permit Quality Review

Wyoming

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United States Environmental Protection Agency
Region 8
1595 Wynkoop Street
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Contents

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. 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, consisted of four EPA Region 8 staff, two staff conducted a review of the Wyoming NPDES permitting program, which included an on-site visit to the Wyoming Department of Environment Quality (WDEQ) in Cheyenne on August 19 – August 21, 2013. The other two staff conducted a review of the State Review Framework (SRF) for the enforcement program from August 19 – August 22, 2013. This report only addresses Wyoming NPDES permitting program review findings. A separate report will address the SRF findings for the enforcement program.

The Wyoming 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 or statement of basis, 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 Wyoming 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 topics reviewed in the Wyoming 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 permit application review and WET were selected for the regional topic area. This review provides important information to Wyoming, EPA Region 8, EPA Headquarters (HQs) and the public on specific program areas.

A total of seventeen permits were reviewed as part of the PQR. Ten permits were reviewed for the core review, of these, seven permits were also reviewed for national topic areas. Permits were selected based on issue date and the review categories that they fulfilled.

II. STATE PROGRAM BACKGROUND

A. Program Structure

The WDEQ, Water Quality Division (Division) administers the Wyoming Pollution Discharge Elimination System (WYPDES) Program. EPA approved the WYPDES program for Wyoming on January 30, 1975. On May 18, 1981, WYDEQ's approval was expanded to include Federal Facilities. Approval to issue general permits was granted on September 24, 1991. The Division manages the WYPDES program, Ground Water Protection/Underground Injection Control program, Water and Wastewater Program, and Watershed Protection. EPA Region 8 administers the Biosolids and Pretreatment programs in Wyoming.

The main WDEQ office is located in Cheyenne, WY. The major responsibilities conducted in the main office are drafting permits, inspecting facilities, developing enforcement actions, review compliance, updating the database, and maintaining necessary hard copy files. WDEQ also has field offices in Casper, Rock Springs, Sheridan, and Lander. The primary difference between the main office and the field offices is that permit writers are only located in the Cheyenne office. In addition, the WYPDES permit files are maintained in the Cheyenne office.

The WYPDES program has 8 full-time permit writers (2 storm water and 6 non-storm water). Permit writers develop permits and receive training as well as internal mentoring to support their development. All new permit writers complete the 5-day U.S. EPA NPDES Permit Writers' Course, WET training, and Mixing Zone training when possible. The permit writers also receive training from other industrial and collegiate sources. In addition, the Division has developed protocol documents, addressing both administrative and technical issues, to assist new permit writers with the permit development process.

There are three additional support staff who help the permit writers with tasks such as updating the database, reviewing the applications for completeness, mailing correspondence and public notices, and updating the WYPDES web pages.

All permit writers develop the waste load allocations (WLAs) for the permits they write; regardless if total maximum daily loads (TMDLs) have been developed. A majority of the WLAs that are calculated are for streams that do not have an approved TMDL but rather requires a water quality based limit. There is separate group within the Division who develops the TMDLs.

The state maintains an in-house data management system called the WYPDES database. Data from the WYPDES database is extracted and flows through CDX then uploads to EPA's Integrated Compliance Information System (ICIS).

The WYPDES Permitting Program maintains many permit templates for individual permits and general permit authorizations. The templates can be modified to meet the specific requirements for facilities. All draft and final permits are also saved on the server.

The state has not developed spreadsheets to calculate reasonable potential. All raw data and calculations are saved in the Permit Quality Review spreadsheet. This spreadsheet is part of the

permit record in the permit file. The WYPDES Permitting Program utilizes Stream Mix to calculate mixing zones requirements.

The Permit Quality Review Spreadsheet contains many of the guidelines associated with permitting. The purpose of the spreadsheet is to have one place that contains all the information (raw data, calculations, maps, and DMR data) that was used as the basis for permit development. This will allow future permit writers to understand the rationale associated with the limits and other permit requirements. In addition, there are several implementation policies and standard operating procedures (SOPs) to assist the permit writers.

The permit writers for non-Coal Bed Methane (CBM) permits will conduct peer reviews of the draft permits. In addition, on a monthly basis, prior to the monthly public notice, all permit writers gather to peer review all permits that will be in the public notice. The permit Supervisor reviews as many draft permits as possible prior to advertisement in the public notice. After the public notice and prior to routing for signature, the permit Supervisor reviews all non-CBM permits. The permit Supervisor then routes all non-CBM permits to the Program Manager who may review the permits as well. The CBM Program Principal routes the CBM permits to the Program Manager. The Program Manager then routes all permits for final signature.

There is a checklist for the permit application that helps to track the routing of the application during the permit development process. There is another checklist that permit writers use during peer review to assist the QA/QC process.

B. Universe and Permit Issuance

The WYPDES Program (Program) administers individual permits for 24 major facilities (18 POTWs and 6 non-municipal) and 1029 minor non-stormwater facilities (60 POTWs and 969 non-municipal), based on information obtained from WYPDES database in August, 2013. In addition to these individual permits, the Program administers 2 municipal, 980 industrial, and 865 construction storm water permits. The Program also has 100 permits from the non-stormwater NPDES general permits. The Program has a total of 3000 permits.

Based on the information obtained from the WYPDES database in August 2013, 4 major and 143 minor permits are backlogged.

Significant industries in Wyoming are mainly coal bed methane (510) and oil facilities (263). The EPA decided not to review any oil and gas permits because they are all non-majors and non-POTWs which are not a focus of the PQR. The EPA was reviewing the oil and gas permits on a real time basis before and during the PQR review period.

As of July 1, 2013, permit applications are given to the application reviewer who determines if the appropriate permit fee was submitted with the application. If the correct fee was not included, the application is returned.

The following are basic requirements associated with the fee program:

1. The permit fee must be submitted along with an individual permit application or general permit Notice of Intent (NOI);
2. Permit fees are $100 per permit per year of the permit term. Portions of a year are charged the full $100 yearly fee. For example, a 6-month authorization costs $100, the same as a 12 month authorization. Likewise, a 13-month authorization costs $200, the same as 24 months;
3. The permit term begins when the permit authorization is approved, not when the application/NOI is submitted;
4. The permit fee will cover the full term of the permit. Additional fees will not be assessed to a new permittee upon permit transfer;
5. Permit fees are required only for new permits and renewals of existing permits;
6. Permit fees are not required for permit modifications or transfers;
7. Reimbursements will not be made for unused portions of a permit term in the event of early termination

Below is a summary of the fee structure:

INDIVIDUAL WYPDES PERMITS: **Fee - $500**

Individual permits are issued for a period of 5 years. A check for $500 per permit must be included with all applications for new permits and renewals for individual WYPDES permits.

GENERAL PERMITS FOR TEMPORARY DISCHARGES: **Fee - $100**

Authorizations under the following general permits are only issued for a maximum term of one year. Therefore, each authorization under one of these permits carries a flat fee of $100.

WYG310000 – CBM Drought Relief and CBM Temporary Discharge: **Fee - $100**

WYG720000 – Groundwater Well Pump Tests and Development: **Fee - $100**

WYG740000 – Construction Dewatering, Water Line Disinfection and Hydrostatic Testing: Fee - **$100**

GENERAL PERMITS FOR STORMWATER, PESTICIDES, GROUNDWATER REMEDIATION AND WETLAND MITIGATION

Except for authorizations under the general permits for temporary discharges listed above, the length of the authorization under any other WYPDES general permit varies depending upon the NOI date and the expiration of the master general permit. An authorization cannot be issued

that extends coverage beyond the expiration date of the master general permit. However, authorizations can be issued for shorter periods. The fee calculator below can be used to determine the applicable fee for any of the listed general permit authorizations based upon the NOI date and the requested expiration date.

1. The application is given to the Data Entry Clerk who reviews the application for completeness and enters basic permit and facility data into the WYPDES Database.
2. The application is then placed in baskets until it is selected by an available permit writer.

The permit writer reviews the application to ensure it is technically adequate. The permittee is then notified, in writing, if the application is technically adequate or inadequate. In the case of technically inadequate applications, the notification includes a list of information/requirements that must be submitted in order for the application to be considered technically adequate and a draft permit developed. The permittee is typically given a few weeks to gather the required information (the technically inadequate notification will define this date). For applications that are adequate, a proposed date in which the permit is scheduled for public notice is included in the notification.

The WYPDES Program provides written notification to the permittee that they need to submit a renewal application at least 180 days prior to the permit expiration date. The letter also directs the permittee to the WDEQ webpage where they can download a copy of the application (http://deq.wyoming.gov/wqd/wypdes/). This process is considered to be a courtesy and the burden of submitting a renewal application is the permittee's.

The WYPDES Program utilizes its own application forms. The applications were last updated in July 2013. There are some differences between the WYPDES permit applications to the federal requirements. EPA will be working with the WYPDES Program to resolve these differences (See Part III A. 2. for details).

Once the applications have been reviewed for completeness and information entered into the database, the application is placed into baskets based upon the type of application. The permit writer then selects the application from the basket. Applications are processed based upon date of receipt with the oldest applications being processed first (first in line – first in time). The permit writers have areas of focus: some permit writers draft mostly municipal permits while others draft mostly coal-bed methane permits. However, the WYPDES Permitting Program is being intentional about cross training all permit writers so the permit writer can draft a permit for any type of application.

The permit writer completes the Permit Quality Review Document which considers pollutants to be discharged, receiving stream, compliance history, data for WLA, mixing zones, reasonable potential, and consideration of ELGs. This document ensures that all information related to the draft permit is contained in one document.

The permit writer gathers the key information including WQS, TMDLs, and WQ modeling. The source of this information comes from WDEQ and other state/federal programs.

After the permit is drafted, for non-CBM permits, the permits are given to other non-CBM permit writers for peer review. The Permit Proofreading Checklist is used as a tool to help with peer review. All permits are peer reviewed just prior to advertisement in public notice.

The time required for draft permit development varies and depends on the issues involved with each permit. A draft permit may take a day to develop or a couple of weeks. Regardless of complexity of the permit, the WYPDES manager makes every effort to resolve issues involved with a permit and finalize a draft in time for the following public notice after accepting an application for permit drafting. Ultimately, the timeline results in a less than a month for draft permit development.

TBELs are based upon federal and state requirements. Most often this information can be found in EPA's ELGs and/or Wyoming Water Quality Rules and Regulations. When EPA effluent guidelines do not exist or secondary treatment limits do not apply to a discharge, the permit writer, if needed, they will utilize best professional judge (BPJ) to develop limits.

The permit writer determines the stream classification, water quality criteria associated with the stream classification, and uses of the receiving stream. They also determine the following items for the permit:

- The potential pollutants to be discharged by the facility are evaluated.
- List of any ELG requirements.
- A reasonable potential analysis is conducted.
- WQBEL are developed

The following Information is used in establishing WQBELs:

- Water Quality Data from permittee, USGS, DMR data, or other sources (other agencies in DEQ)
- Models
- DFlow
- Basic Mass Balance Water Quality Equation
- Intake and effluent characterization documentation;
- Facility flow diagrams that summarize all operations contributing wastewater;
- Treatment flow diagrams that identify chemicals contributing to the treatment process;
- Permit application;
- Material safety data sheets;
- Pollutants known to commonly occur in similar effluents;
- Effluent guideline development documents;
- Permit compliance history;

- Pollutants that have been detected in the effluent (through compliance monitoring, or other monitoring) in the last 5 years; and
- Pollutants which, in the permit writer's professional judgment, may be found in the effluent.

Ambient data are used when available such as:

- USGS
- Information gathered by the permittee
- Water quality data collected by other program in DEQ (Watershed or Standards Programs)

The WYPDES Program typically uses the data above if it is up to date and available. However, if the data are old, the WYPDES Program tries to identify ways to gather more recent data such as putting a monitoring requirement in the WYPDES permit.

Multiple factors are considered when evaluating background concentrations such as whether there is another facility discharging the same constituents of concern and the potential for the constituent to decay. If there is no data, they typically use default values, such as 0 mg/l for total residual chlorine and 50 colonies/100 mL for e-Coli.

WYPDES program uses the reasonable potential (RP) policy document titled "Wyoming Pollutant Discharge Elimination System Program Process for Conducting a Reasonable Potential Analysis" to determine RP. This document is available upon request with the WYPDES program.

The receiving stream and applicable uses are determined and federal/state requirements are considered. Limits are usually based upon technology based limits and water quality standards (acute and chronic). Typically, if there is a TMDL, the WQBEL is based on a WLA calculation for acute and chronic limits. The requirements (TBEL and WQBEL) are then compared and typically the most stringent is then incorporated into the permit. There are instances, in the case of ammonia, where the most stringent WQBEL limit (usually the chronic) is used as the monthly average and the WQBEL limit based upon the acute standard is used for the daily max.

Mixing zones Implementation are based upon the WDEQ Implementation Policy for Mixing Zones. The decision tree below is used to determine whether complete mixing can be assumed.

Does the permit establish a WQB limit? (Yes/No)
Is the WQB limit based upon a 7Q10 that is greater than 0 (If No, then the discharge is considered to be effluent dominated and complete mix is assumed) (Yes/No)

Is the permit a minor permit and is there a greater than 50:1 dilution? (If Yes, to both conditions, then the facility has demonstrated complete mix.) (Yes/No) Majors do not qualify for the 50:1 dilution criteria.
If the permittee has not demonstrated complete mix or is a major, can they meet the WQB limits based upon 10% of the 7Q10?
If the permit establishes WQB limit upon 10% of the 7Q10, then the facility has demonstrated complete mix.
If the permittee has not demonstrated complete mix (see above), then the permit must require instream sampling to determine the size of the mixing zone and/or demonstrate complete mix. Describe the sampling requirements contained in the permit.

The mixing zone policy imposes size constraints. The implementation policy states:

> *"Except for the zone of initial dilution, which is the initial 10% of the mixing zone, the mixing zone shall not contain pollutant concentrations that exceed the acute aquatic life values (see Appendix B). In addition, there shall be a zone of passage around the mixing zone which shall not contain pollutant concentrations that exceed the chronic aquatic life values (see Appendix B). Under no circumstance may a mixing zone be established which would allow human health criteria (see Appendix B) to be exceeded within 500 yards of a drinking water supply intake or result in acute lethality to aquatic life".*

In addition, the maximum size of a mixing zone is:

1. mixing zones for streams and rivers shall not exceed one-half of the cross sectional area or a length 10 times the stream width at critical low flow, whichever is more limiting.

2. mixing zones in lakes shall not exceed 5% of the lake surface area or 200 feet in radius, whichever is more limiting.

The mixing zones explanation is documented in the WYPDES Permit Quality Review Spreadsheet and in the Statement of Basis.

The specific tool used in the development of WQBELs is 7Q10 calculator, with either DFlow or Excel spreadsheet performing same DFlow calculations as outlined in EPA's Technical Guidance Manual for Performing Wasteload Allocations. WLA Calculator also incorporates anti-degradation requirements in the final limit.

The hardness dependent metals calculator is being used in all permits on an as needed basis depending upon stream classification. A stream-mix model may be used to determine the

available dilution for Mass-Balance calculations. There is a spread-sheet document that includes a 'fill in the blank' Mass-Balance calculation that is used on a regular basis. There is also a 'fill in the blank' spreadsheet for constituents that are hardness based when the hardness is known. The Excel spreadsheet capabilities are used to derive 7Q10 values.

The development of WQBELS is documented in the statement of basis (SOB) under section heading Water Quality Based Effluent Limits. Tables are included in the SOB when a calculator has been used to arrive at the limit. These tables display the final calculator results, the 7Q10 used in the calculation, and background concentration. Also, there is a narrative included in the SOB to explain the rationale for method used in WQBEL development.

The permit quality review excel spreadsheet also contains all of the documentation and the demonstration of any calculations used to arrive at limits. This spreadsheet also contains sample results used to do a reasonable potential, or daily flow readings listed that were downloaded from USGS websites for stream flow.

If the permit established an effluent limit, then there must be associated monitoring requirements for that limit. In addition, monitoring may be incorporated into the permit as a way of gathering additional information for future permit renewals.

There are many factors that are considered when determining the monitoring frequency for a permit. Below is a list of potential considerations.

- Typically, each category of discharge (major, industrial, CBM, Oil Treaters) has a defined monitoring frequency as prescribed in the permit boiler plates. The permit writer can alter the frequency of monitoring provided the rationale is defined in the SOB.
- If the permittee exhibits a pattern of non-compliance or inconsistency with water quality from the plant, the permit writer may increase the frequency of monitoring.
- Federal or state requirements may dictate the frequency of monitoring.

Permit boiler plates define the "typical" monitoring requirements for the specific category of discharge. However, the permit writer can modify the monitoring requirement provided the rational is defined in the SOB. Permit boiler plates also define the typical reporting requirements for a specific category of discharge. The permit writer can deviate from the typical requirements provided a rationale is provided in the SOB.

There are many factors that are considered when determining the monitoring and reporting frequency for a permit. Below is a list of potential considerations.

- Frequency of monitoring and reporting. As an example, if permittee has to monitoring daily, the submittal will most likely be monthly whereas if monitoring is semi-annual, then there will be semi-annual reporting.
- Compliance history is also evaluated. If there is a history of non-compliance, then the reporting frequency may be increased.

Permits include narrative conditions to implement narrative water quality standards (e.g. "There shall be no discharge of floating solids or visible foam in other than trace amount, nor shall the discharge cause formation of a visible sheen or visible hydrocarbon deposits on the bottom or shoreline of the receiving water…)

The WYPDES Program uses boilerplate templates to generate the special conditions and standard conditions for the permit. The source of standard conditions is from the Chapter 2 of the Wyoming Water Quality Rules and Regulations and the federal requirements (40 CFR). The permit writers draft Statement of Basis for all permits.

The WYPDES Program does not conduct the 401 certification for permits. The Watershed Protection Program within the Water Quality Division performs this task.

The WYPDES Program uses their standard operating procedure for the administrative process for permit publication and responding to public notice comments. The WYPDES Program rarely has hearings but if a hearing is proposed, Chapter 2 defines the process for hearing.

The WYPDES Program is responsible for providing the public notice (PN) of the proposed permit. The public comment period lasts at least 30 days and comments received during the period are included in the administrative record. The PNs are posted on the website (http://deq.wyoming.gov/).

The EPA is the only entity who can object to WY permits. Any permit objection received by the WYPDES Program will be reviewed. Many times an objection requests additional information from the WYPDES Program. If this is the case, this information is sent to the objector. Many times, the WYPDES Program also works with the objector to come to a resolution. This can be accomplished through meetings or phone calls. In some cases, the permit may be modified as a result of the objection. A response to the objection would be provided to the individual who objected to the permit at the time the permit is issued.

The administrative record is kept in the permit file or electronically on the database. The record should contain the final permit and SOB, permit quality spreadsheet, permit application, PN comments if any, and responses to PN comments.

Wyoming has a formal antidegradation implementation policy. An antidegradation review is conducted for every permit. A default value of 20% of assimilative capacity is usually given but other options are available through implementation policy. The antidegradation process is documented in the SOB and permit quality spreadsheet.

Anti-backsliding is considered for all permits but triggered when an effluent limit is less stringent. Many times the less stringent limit is allowed if it is based on new information or new regulations and on occasion if it is beyond the permittee's control. A paragraph referencing how anti-backsliding is allowed (usually they define the specific 40 CFR citation) is included in the SOB if a less stringent limit is incorporated into the permit.

Wyoming has the following four documents to conduct reasonable potential evaluation:

- Wyoming's RP Document entitled:
  Wyoming Pollutant Discharge Elimination System Program Process for Conducting a Rea sonable Potential Analysis (August 2012)
- Wyoming's memo entitled: Revisions to the May 5, 2004 Coal Bed Methane Discharge WET Testing Implementation Approach (Todd Parfitt, September 27, 2004)
- Wyoming's document entitled: *Coal Bed Methane Discharge WET Testing Implementation Approach* (Todd Parfitt, Revised September 27, 2004)
- Wyoming's Coal Bed Methane (CBM) Whole Effluent Toxicity (WET) Test Area document.

Wyoming's 2012 RP implementation document applies to all types of discharges, not just to CBM discharges, and includes WET as well as other types of pollutants.

Wyoming's RP analysis is done according to the "Wyoming Pollutant Discharge Elimination System Program Process for Conducting a Reasonable Potential Analysis." Wyoming's RP requires an effluent sample size of at least 10 data points after consideration of outliers. The reasonable maximum value is then calculated as the maximum observed sample (data point) value plus one standard deviation.

The permit writers will determine if a TMDL has been developed, then incorporate the TMDL in the permit as defined in the TMDL implementation policy. If there is no TMDL for the 303 (d) listed waters, then the limit for the impaired constituent is equal to the water quality standard and incorporated into the permit. Wyoming has several TMDLs approved by EPA. Wyoming needs to incorporate a limit as defined in the TMDLs. Since Wyoming has some finalized TMDLs, they should develop a process that is consistent with their TMDL implementation policy to utilize the TMDLs. Perhaps, they would add a tab to the Permit Quality Review Spreadsheet.

The permit requires the permittee to comply with 40 CFR 136. Wyoming also works with their lab personnel, who refer to the CFRs, to define an appropriate detection limit. As an example, a detection limit may actually be below the water quality standard. In this case, they work with the lab personnel to establish an appropriate detection limit. Then they update all the applications to make sure the detection limit is consistent on all the applications.

Wyoming water quality standards establish criteria for E. coli for all their permits. The E. coli concentration requirements can be found in WDEQ water quality rules and regulations in Chapter 1, section 27.

C. State-Specific Challenges

The WYPDES Permitting Program has been working to implement various programs within the agency. The staff has been implementing the permitting criteria as defined in the WDEQ, CBM Permitting Guideline for Discharges to Irrigated Drainages in the Powder River. The staff also evaluates CBM permit monitoring data to ensure protection of downstream irrigation activities

and compliance with the requirements of the guideline. Staff has been providing technical assistance during the TMDL development process. Once a TMDL is approved, the permitting staff will then incorporate the appropriate conditions into WYPDES permits upon renewal of the permit.

D. Current State Initiatives

The WYPDES Permitting Program has been working diligently to document data and assumptions used to derive permit effluent limits and conditions. This has been accomplished through the use of the WYPDES Draft Permit Quality Review Spreadsheet which summarizes basic permitting principles and ensures that each permit complies with federal and state regulations. The use of the spreadsheet helps the permit writers maintain consistency regardless of the type of permit (industrial or POTW) being developed and documents the data and assumption that will be used for future permits.

The WYPDES Permitting program also continues to work closely with the regulated community. Permitting staff provides training to sanitary sewer operators and pesticide applicators on permit conditions and requirements. Permitting staff also routinely conduct site visits in order to develop a complete understanding of the operation of the plant or permitted facility.

III. CORE REVIEW FINDINGS

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/statement of basis (SOB) must include a description of the type of facility or activity subject to a draft permit.

The ten WYDPDES permits and SOBs reviewed during the core review included permit issuance, effective and expiration dates, authorized signatures, and specific authorization-to-discharge information. The SOBs reviewed included a basic description of the facility including location, and the treatment process; the level of detail varied among the SOBs reviewed. Permits and SOBs identify the receiving water body by name and surface water classification. The specific location of the outfall is included in all of the permits.

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.

For the municipal permit renewals reviewed, the WYPDES Program used a short state permit application for municipal facilities which is actually a letter. In addition, Wyoming has six different application forms non-municipal facilities. The letter for municipals asked six questions about the facility. The questions are:

1. Description of the type of operation being permitted.
2. Description of the treatment system.
3. Types of pollutants that can be expected in the surface discharge.
4. Predicted flow rate from the treatment facilities in million gallons per day.
5. Please provide outfall information on the following table.
6. Please check the paragraph below which pertains to this facility.

This letter application does not contain all information required by EPA Form 2A and does not contain three sets of priority pollutant scans or WET data as required by 40 CFR 122.21. Most of the POTW permit application letters are not submitted 180 days before expiration of the permits. However, Wyoming developed a municipal permit application form in June 2013 that was intended to meet the federal permit application requirements. Upon permit renewal, the permits that reviewed during the audit will be required to utilize the new permit application form.

The Form G for non-municipal facilities is a combination of the EPA Form 1 and 2C. Three non-municipal facilities were reviewed. Two non-municipal facilities used Form G revised in May 21, 2008 (Kennecott Uranium Company-WY0026689 and Western Sugar Company-WY0000418) and one used Form G that was revised in May 1, 2011 (Red Desert Reclamation-WY0094463). The EPA chose to review the latest Form G (revised May 1, 2011) for Red Desert Reclamation with EPA Form 1 and 2C. The review indicated that Form G does not contain the following items:

1. Appendix B, Table IV: Does not have the “c. Color”.
2. Appendix B, Table IIC: Does not have “45B-Pyrene and 46B-1,2,4-Trichlorobenzene.

B. Technology-based Effluent Limitations

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

1. TBELs for POTWs

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

WYPDES permits establish effluent limitations for BOD_5 and TSS in appropriate units and forms. Wyoming applies effluent limitations based on secondary treatment standards for TSS and BOD_5 (average weekly) in municipal permits. However, for lagoon systems that demonstrate the inability to meet the National Secondary Treatment Standard of 30 mg/L average for TSS, the permits allow for the alternate limit of 100 mg/L. These lagoon systems also qualify for the alternate percent reduction of 65% removal of BOD_5 and CBOD.

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 effluent limitations guidelines (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 best professional judgment (BPJ) in accordance with the criteria outlined at 40 CFR 125.3(d).

Three non-POTW permits were reviewed during the core review (Western Sugar Company, WY0000418, Kennecott Uranium Company, WY0026689, and Red Desert Reclamation LLC. WY0094463). The TBELs for the Western Sugar Company and Kennecott Uranium were based on the ELGs, and they reflect the correct units and form. The Red Desert Reclamation LLC's effluent limits were based on Chapter 1 and 2 of the Wyoming Water Quality Rules and Regulations, 40 CFR Part 435 Subpart E, and other evaluations conducted by WDEQ related to the CBM industry.

SOBs for these facilities include a general description of waste streams produced and wastewater treatment processes. SOBs provided a brief discussion of facility categorization and specific reference to whether effluent limitations are based on BCT, BPT, or BAT.

Red Dessert Reclamation LLC. (WY0094463) – This facility accepts off-site oilfield wastewater (produced water, fracking flowback, etc.) for treatment and discharge. The State applied the Oil and Gas Extraction Category (40 CFR Part 435) in the permit which is not appropriate since the facility is not involved in the oil and gas extraction industry. Instead, the facility meets the definition of a Centralized Waste Treatment (CWT) facility (40 CFR Part 437) which is any facility that treats (for disposal, recycling or recovery of material) any hazardous or non-hazardous industrial wastes, However, there are currently no effluent guidelines available for this facility subcategory (oil and gas extraction wastewater) in the existing CWT effluent guideline. Therefore, EPA recommends that the State conduct a BPJ analysis using the factors in 40 CFR Part 125.3 to determine the appropriate technology-based effluent limitations. EPA no longer recommends using the equivalent or comparable effluent guideline (e.g. in this case 40 CFR Part 435) for facilities that do not have an applicable effluent guideline.

In the 2011 permit, the COD limit was based on BPJ. In the 2012 permit, the COD limit was removed from the permit and replaced with a methanol limit. The SOB referenced a separate

Administrative Order on Consent (AOC) which explains for the 2012 permit on what changed in the BPJ determination that warranted a replacement of the COD limit with a methanol limit.

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 "water quality-based effluent limits" (WQBEL), the permitting authority must evaluate the proposed discharge and determine whether technology-based requirements are sufficiently stringent, and whether any pollutants or pollutant parameters could cause or contribute to an excursion above any applicable water quality standard.

The PQR for WDEQ 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 total maximum daily loads (TMDLs).

The cover page of the permits and the SOBs reviewed identify the receiving stream and applicable classification. The SOBs identify applicable numeric and narrative water quality standards through reference to their location in the Chapter 1, Wyoming Water Quality Rules and Regulations. The SOBs reviewed discuss the impairment status of a stream appropriately.

For all the permit files reviewed, the reasonable potential analysis was not documented in the permit file which is part of the administrative record. A record of the reasonable potential analysis must be kept as part of the permit file and a summary of the reasonable potential analysis should be included in the Statement of Basis. However, these permits were issued prior to the adoption of Wyoming's RP policy in August, 2012.

Permit files provide good explanation of effluent limitation development. WYPDES Program SOBs contain a general statement that the SOB demonstrates the existing and designated uses of the receiving water will be protected under the conditions of the proposed permit. All SOBs reviewed provide a brief description for antidegradation analysis.

For the City of Rock Springs (WY0022357) permit, EPA reviewed and provided comments in August 9, 2011 with concerns about the removal of the chloride limit from the permit. This facility is discharging into an impaired water body for chloride, however, no TMDL has been developed. The facility was unable to consistently comply with its chloride permit limit of 230 mg/L (which is also the water quality standard) and the chloride limit was removed from the permit. Section 402(o)(1) of the Clean Water Act states that in the case of effluent limitations established based on state water quality standards, a permit may not be modified to contain effluent limitations which are less stringent than the limitations in the previous permit. Also, Section 402(o)(3) states that in no event shall a permit modification contain a less stringent effluent limitation if the implementation of such limitation will result in a violation of a water quality standard. This limitation applies to all the exceptions listed in Section 402(o)(2) and prohibits states from putting in place permit limitations Given that the applicable numeric water quality criterion is 230 mg/L, and given that the State modified the chloride permit limit from 230 mg/L to 0 mg/L means that it is violating the water quality standard in violation of Section 402(o)(3) of the CWA.

In addition, The NPDES Permit Writers' Manual, Chapter7: Final Effluent Limitations and Anti-backsliding, page 7-3 states that "although the statute also identifies six exceptions in section 402(o)(2) where effluent limitations otherwise subject to the prohibition in section 402(o)(1) maybe relaxed, the exception for technical mistake or mistaken interpretations and permit modification, which are described above, **would not apply to WQBELs.**"

The natural condition for chloride in Bitter Creek is appeared to be significantly higher than the applicable water quality criterion of 230 mg/L. The proper solution to this problem is not to violate the Clean Water Act by taking the chloride limit out of the permit, but to use the authorities contained within the CWA to ensure that the applicable water quality standard reflects the true nature of the stream. Section 303(c) of the CWA authorizes states to revise water quality standards, including the removal of designated uses. Under 40 CFR 131.10(j), a State must conduct a use attainability analysis whenever it wishes to remove a designated use or adopt a sub-category of use that requires a less stringent criterion. Reasons for taking such action, as outlined in 40 CFR 131.10(g)(1), include instances in which "Naturally occurring pollutant concentrations prevent the attainment of the use." Thus, the CWA and EPA's regulations provide a mechanism for addressing the problem faced by the City of Rock Springs in meeting its chloride limits, and the State does not need to violate the Act in order to provide relief to the City.

Wyoming did not address EPA's concern and finalized the major modification with the removal of chloride limit to this permit in November 14, 2011.

D. Monitoring and Reporting

NPDES regulations at 40 CFR 122.41(j) requires 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.

The core permits reviewed establish at least annual monitoring for all limited parameters and at frequencies appropriate to determine compliance with effluent limitations. Eight out of ten core permits reviewed require WET monitoring; five of the eight permits reviewed require acute WET monitoring. Two permits require both acute and chronic WET monitoring. One permit requires only chronic WET monitoring.

POTW permits included appropriate monitoring for influent, effluent, and minimum permit removal of BOD_5 and TSS that are compliance with the technology-based standard. For lagoon system permits, the limits for TSS and percent removal of BOD_5 are qualified for the alternate limit and permit removal. A good explanation of the alternate limit and permit removal is well documented in the SOBs.

All core permits indicate sample collection and analysis shall be in compliance with procedures pursuant to 40 CFR Part 136. All permits reviewed have appropriate minimum reporting requirements.

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 [see 40 CFR 122.44(k)], or permit compliance schedules [see 40 CFR 122.47]. Where a permit contains special conditions, such conditions must be consistent with applicable regulations.

Based on the review of the permits, the conditions provided in 40 CFR 122.41 were included in all permits. There were no compliance schedules established for the permits reviewed.

F. Administrative Process

The administrative process includes documenting the basis of all permit decisions (40 CFR 124.5 and 40 CFR 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 40 CFR 124.12); responding to public comments (40 CFR 124.17); and, modifying a permit (if necessary) after issuance (40 124.5). EPA discussed each element of the administrative process with WDEQ, and reviewed materials from the administrative process as they related to the core permit review.

During the onsite PQR review, EPA did not find comments and responses to the following permits reviewed in the permit files:

- City of Rock Springs – major modification for the removal of chloride limit from the permit.
- Town of Thermopolis – reduction the percent removal of BOD_5 to 65%.
- City of Rawlins – WET comments

After EPA shared the above specific findings in the draft PQR report with Wyoming, Wyoming responded they were able to find a signed copy of the response to comments for Rawlins and an unsigned copy of the response for Rock Springs. They were not able to find a response for Thermopolis.

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.

SOBs for the core permits reviewed are of good quality and include a general discussion explaining the basis for the requirements in permits. SOBs address each parameter for which effluent limitations (TBEL or WQBEL) or monitoring requirements are established; in general, SOBs provide sufficient information to fully understand the basis of specific effluent limitations. However, neither the SOBs nor the permit files contain documentation regarding RP evaluation. The permits reviewed during the audit were issued prior to the adoption of Wyoming's RP policy in August, 2012.

Permit files reviewed include applications, correspondence between the applicant and WYPDES Program, draft permit, SOB, and final permit. The WYPDES database website for permits public notice and issued permits is well organized and with easy access. Permit proof reading checklist is a good tool to enable permit writers to write good quality permits. The WYPDES Draft Permit Quality Review spreadsheet contains all of the permit components. This tool allows permit writers to keep track of what needs to be included in 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 documented), and include all supporting documentation in the permit file.

For the core permits reviewed, documentation of the basis for TBELs generally has sufficient detail. The SOBs for both municipal and non-municipal permits reviewed include a description of facility operations, expected waste streams, and wastewater treatment processes.

With regard to the documentation of WQBELs, the core permit fact sheets reviewed identify the receiving stream and characterize the impairment status of the water body. SOBs consistently include discussion of all limited parameters. For all the files reviewed, the reasonable potential analysis was not documented in the permit file. However, these permits were issued prior to the adoption of the RP policy. A record of the reasonable potential

analysis must be kept as part of the permit file and a summary of the reasonable potential analysis should be included in the Statement of Basis/Fact Sheet.

The SOBs generally address antidegradation requirements. Antidegradation reviews have been conducted and verified that the permit conditions, including the effluent limitations established, provide a level of protection to the receiving water consistent with the antidegradation provisions of the Wyoming surface water quality standards.

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 worked at 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.

EPA Region 8 did not review any permits to evaluate nutrient permitting requirements. Currently, Wyoming only incorporates ammonia limits into permits. They have numeric and narrative criteria related to ammonia.

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 have issued state pesticide general permits 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 pesticide general permit 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.

On March 14, 2012, WY issued a General Permit for Major Pesticide Discharges (WYG480000) and a General Permit for Minor Pesticide Discharges (WYG260000). Both WYG480000 and WYG260000 expire on December 31, 2015. The General Permit for Major Pesticide Discharges (WYG480000) is for discharges that exceed any of the thresholds established in the permit. Discharges under the thresholds outlined in the General Permit for Major Pesticide Discharges may apply for coverage under the General Permit for Minor Pesticide Discharges (WYG260000) unless other conditions prohibit coverage under the Minor Pesticide General Permit. Eligibility criteria for both General Permits are contained in Part I, Section 1.1.

For this PQR, Region 8 reviewed WY's pesticide general permits for Major Pesticide Discharges (WYG480000) and for Minor Pesticide Discharges (WYG260000) with a focus on verifying its consistency with NPDES program requirements.

WY has a General Permit for Major Pesticide Discharges (WYG480000) and a General Permit for Minor Pesticide Discharges (WYG260000). A NOI is only required for coverage under the General Permit for Major Pesticide Discharges (WYG480000) and is not required for the General Permit for Minor Pesticide Discharges (WYG260000). WY has approximately 50 NOIs that have been received for coverage under the General Permit for Major Pesticide Discharges. An annual report is required to be submitted if covered under the General Permit for Major Pesticide Discharges.

1) Background: On March 14, 2012, WY issued a General Permit for Major Pesticide Discharges (WYG480000) and a General Permit for Minor Pesticide Discharges (WYG260000). Both General Permits expire on December 31, 2015.

2) Program Strengths: Both Wyoming General Permits cover the four pesticide use patterns (Mosquito and Other Flying Insect Pest Control, Weed and Algae Control, Nuisance Animal Control, and Forest Canopy Pest Control). The General Permit for Major Pesticide Discharges requires an NOI for permit coverage, an annual report to be submitted, and a Pesticide Pollution Prevention Plan (P4) to be developed.

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 Wyoming, as well as assess specific language in 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).

The state of Wyoming does not have an approved pretreatment program and is therefore overseen by EPA Region 8. The State of Wyoming issues NPDES permits directly to POTWs and the EPA Region implements the pretreatment program. According to the Integrated Compliance Information System (ICIS) there are six POTWs in Wyoming that have approved pretreatment programs.

For PQRs related to pretreatment, the information in the table below is typically pulled from ICIS. ICIS did not have Pretreatment Compliance Inspection (PCI) or Pretreatment Compliance

Audit (PCA) data available for Wyoming's approved programs for 2008 through 2012. One PCA and two PCIs were conducted in 2013. Regarding information about numbers of PCIs and PCAs conducted, it is not known whether Region 8 has simply not input the data into ICIS for years 2008-2012, or whether the PCIs and PCAs were not conducted.

In addition to lack of data regarding PCIs and PCAs, it appears that Region 8 is not inputting complete information about numbers of SIUs and CIUs, or numbers of SIUs and CIUs with expired permits.

State of Wyoming Pretreatment Program at a Glance 2013	
Number of Approved POTW Pretreatment Programs	6
Number of SIUs in POTWs with Approved Pretreatment Programs	8
Number of SIUs in POTWs without Approved PPs	0
Percent of SIUs with expired Permits	*
Number of CIUs in POTWs with Approved Pretreatment Programs	3
Percent of CIUs with expired Permits	**
Number of CIUs that are discharging to POTWs without Pretreatment Programs that have control mechanisms in place that implement applicable pretreatment standards and requirements.	**
Number of Pretreatment Compliance Inspections in 2013	2
Number of Pretreatment Compliance Audits in 2013	1
Percentage of POTWs for which CMS Goals were met	0
Date State Program updated for Streamlining Regulations	NA***

*Of the 3 PCI/PCA records available in ICIS for WY in 2013, only 1 of those records reported the number of SIUs with expired control mechanisms (City of Worland PCA--0 [zero] SIUs with expired control mechanisms). Therefore, information for this item is incomplete.

** Not available in ICIS, or 2013 GPRA results.

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

As part of the PQR analysis for pretreatment implementation requirements, five permits were reviewed, three for POTWs with approved pretreatment programs, and two for POTWs without approved programs. The link for permits and fact sheets were provided for review by Region 8 staff. All permits had accompanying fact sheets (Statement of Basis). Most recent permits and

subsequent permit modifications were reviewed, when applicable. One of the permits reviewed expired October 31, 2013 (Casper).

From available data, the design flows for the five Wyoming POTW with permits reviewed range from 0.8 million gallons per day (MGD) to 10 MGD. However, as shown in the table below, specific flow data are not available for two of the POTWs.

Permittee and Permits Reviewed	Permit No.	Approved Pretreatment Program?	Design Flow (MGD)
City of Casper 3/6/2009 Renewal (expired)	WY0021920	Y	10
Rock Springs 3/11/2011 Renewal 11/14/2011 Modification	WY0022357	Y	"Major"
The Cheyenne Board of Public Utilities – Crow Creek 7/1/10 Renewal 3/8/2011 Modification	WY0022381	Y	3.5
Rawlins 6/6/2011 Renewal 2/21/2012 Modification	WY0020427	N	"Major"
Thermopolis 1/29/2009 Renewal 6/28/2011 Modification	WY0020192	N	0.8

Program Strengths

The Region 8 Pretreatment Coordinator is staffed within the NDPES 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 review 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 justification 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 Wyoming, 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 NDPES Enforcement Pretreatment contact also evaluate control of CIUs/SIUs in non-approved programs in these States. EPA Region 8 plans to notify CIUs discharging to unapproved POTWs of Pretreatment requirements via letter, and also conduct compliance evaluation and data entry for Wyoming. The data entry for audits, PCIs, IU inspections, enforcement actions and DMR data may be entered into ICIS by either the Region 8 Pretreatment Coordinator or the Region 8 data team.

Based on this PQR, all three 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.

Critical Findings

Region 8 is meeting Compliance Monitoring Strategy (CMS) goals in Wyoming, with the exception of the City of Laramie[1]. Region 8 did not meet the CMS goal of at least one audit and two inspections within 5 years (2009-2013) at the City of Laramie, an approved pretreatment program. However, Region 8 scheduled a Pretreatment Audit in the City of Laramie in 2014. According to available ICIS data, for the past five years, Region 8 has conducted at least one PCIs and one PCA, with the exception of 2009 where Region 8 did not perform a PCA.

Non-Pretreatment Program POTWs

Section III.B.5.d of the Thermopolis renewal and modification defines industrial user the same as an SIU at 40 CFR 403.3(v). In Section III.B.5.a-c, the permit includes notification requirements at 40 CFR 122.42(b)(2) for new pollutants and substantial changes to pollutants discharged to the POTW by *industrial users*. The permit thereby limits the notification requirements to SIUs, instead of any industrial users, which is not the intent of the regulations at 40 CFR 122.42(b)(2). The Rawlins permit renewal also had this deficiency, however, the modification fixed this issue and defines a *significant* industrial user, and appropriately applies requirements at 40 CFR 122.42(b)(2) to industrial users. The Rawlins permit was issued after the Thermopolis permit, therefore, this issue may be corrected going forward, as long as this revision is made to all subsequent permits.

[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 2008 through 2013.

Neither permit contains the POTW requirement at 40 CFR 122.44(j)(1) to identify, in terms of character and volume of pollutants, any SIUs discharging into the POTW subject to Pretreatment Standards under section 307(b) of CWA and 40 CFR Part 403.

The permit modification for Rawlins adds some parameters to be monitored in the Industrial Waste Management section (Part III.B). Part I.D lists parameters that must be sampled for the Initial Monitoring Report. The added requirements in Part III.B list some of the same parameters listed in Part I.D. However, there are different submittal time frames. Part I.D says: "Submit results for the following constituents within 90 days of the permit effective date of this modified permit." Part III.B says "The sampling shall commence within thirty (30) days of the effective date of this permit and continue annually." The sampling requirements are confusing, since both sections require monitoring of the same parameters but with different submittal time frames. The permit also does not clarify whether one set of sampling results can satisfy both sampling requirements.

The Thermopolis permit renewal and modification also require monitoring in the Industrial Waste Management section but do not have requirements for the Initial Monitoring Report, so there are no conflicting requirements like the Rawlins permit. However, both permits reviewed for POTWs without pretreatment programs are not clear on what the sampling in the Industrial Waste Management section is for. If it is to assess industrial user contributions, the permits should make this clear.

The Thermopolis permit renewal and modification, and the Rawlins permit renewal do not specify that the permit can be reopened to require development of a pretreatment program, if deemed necessary. The permit modification for Rawlins rectifies this in Section III.B.1.g.i., however, there is a typographical error in this subsection (there are two sections labeled ii).

The fact sheet for Thermopolis does not specifically state that a pretreatment program is not required at this time, or state the reason why.

Approved Pretreatment Programs

The most recent permits issued to Cheyenne (July 2010 renewal and March 2011 modification) do not mention that the POTW is required to have a pretreatment program and do not include pretreatment program requirements. Therefore, the Cheyenne permit is missing all required pretreatment program components. [2] The following specific comments, therefore, refer to Rock Springs and Casper, which do contain pretreatment program requirements.

Neither of the permits contained notification requirements at 40 CFR 122.42(b)(1) for any new introduction of pollutants to the POTW.

Neither the Rock Springs or Casper permit fully meet requirements at 40 CFR 122.42(b)(2). These permits specifically state that the notification requirements are for SIUs. The

[2] According to ICIS, the POTW is required to have a program and the former permits/modifications (December 2008 renewal and 2009 modification) do contain pretreatment program requirements.

requirements at 40 CFR 122.42(b)(2) are applicable to any indirect discharger or any source introducing pollutants, not just SIUs.

The permits for Rock Springs and Casper do not fully meet requirements at 40 CFR 122.44(j)(2)(ii) because they do not include due dates for submitting re-evaluation results of local limits, they simply state "when necessary". The regulations at 40 CFR 122.44(j)(2)(ii) require that POTWs "provide a written technical evaluation of the need to revise local limits under 40 CFR 403.5(c)(1), *following permit issuance or reissuance*."

The permits for Rock Springs and Casper require the POTWs to *develop*, implement, and maintain an ERP. As approved pretreatment programs, the POTWs are required to already have developed an ERP. The permit is unclear as to whether an ERP existed at the time of program approval.

The permits for Rock Springs and Casper require POTWs to "prepare annually a list of industrial users, which during the preceding twelve (12) months have *significantly violated* Pretreatment Standards or requirements." The term significantly violated is not defined. The permits also further refer to significant noncompliance, which is the term used in 40 CFR Part 403.

The fact sheet for Rock Springs does not mention that a pretreatment program is required and neither the fact sheet nor permit specifies design flow for the POTW. The fact sheet for Rock Springs only states that it is classified as a "major" discharger" because it discharges more than 1.0 MGD.

Region 8 should discuss in the fact sheets for POTWs with approved pretreatment programs whether the reasonable potential analysis conducted to develop water quality-based limits included analysis of pollutants common for the types of industries discharging to the POTW.

4. Stormwater

The NPDES program requires stormwater discharges from certain municipal separate storm sewer systems (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.

Background

The Wyoming stormwater permits at the time of the August, 2013 PQR were as follows:

- 2 municipalities, 980 industrial sites, and 865 construction sites are authorized under stormwater general permits.
- Most activities requiring stormwater permits are authorized under general permits. There are five general stormwater permits, each of which were reviewed as part of this assessment:
    1. WYR10-0000 – Large construction general permit
    2. WYR10-A000 – Small construction general permit

3. WYR04-0000 – Small MS4 general permit
4. WYR00-0000 – Industrial general permit/MSGP
5. WYR32-0000 – Mineral Mining General Permit

a. WYR10-0000 – Large Construction General Permit

1. Background: The Wyoming large construction general permit covers construction activities which disturb five acres or greater. The Wyoming large construction general permit was issued on May 9, 2011 and expires on March 15, 2016. EPA promulgated effluent guidelines for the Construction and Development Point Source Category in 2013.

2. Program Strengths: The Wyoming permit is more prescriptive than EPA's in terms of defining specifications for Best Management Practices (BMPs) and use of specific BMP designs. Compliance assistance tools are available for operators such as a fillable "Storm Water Pollution Plan (SWPPP) template." In addition, Wyoming prescribes a storm event size (the 2-year, 24-hour rain event) for which operators should design controls. This provides a benchmark by which construction site operators can design, operate, and maintain controls and allows for SWPPP developers to incorporate specifics into designs based on scientific formulae.

3. Critical findings: This permit does not include methods to assure that the permittee "Provide and maintain natural buffers around surface waters." Part 7.3.6 contains a statement that permittees should "provide and maintain natural buffers around surface waters" without supporting guidance as to the proximity of streams where buffer zones should apply and how large they should be. Appendix C, Part 1.9, details requirements for how vegetative buffers can be used as a primary sediment control mechanism, but this is not a requirement for permittees to maintain buffers in their natural state, as is required in the Construction and Development Effluent Guidelines. Note: this permit was issued prior to adoption of the Effluent Guidelines, but this should be addressed when the permit is renewed.

4. Recommendations:

    a. Three areas which could be further addressed in the reissued permit but are not directly required by the effluent guideline include: Corrective action reporting could be improved in terms of what is required and when. This term is usually applied to industrial stormwater permitting but could make a good nexus between the two programs. EPA's Construction General Permit and Multi Sector General Permit include requirements to maintain a corrective actions report which defines timeframes and steps taken to correct deficiencies with BMPs.

    b. Wyoming's stormwater program has specific requirements for Class 1 Discharges, but these are not specified in the Large Construction General Permit. Additional BMPs could be specified directly in the permit as they apply to Class 1 Discharges

and could include specifics such as additional stream buffer zones, seed re-vegetation specifications, and phasing of construction disturbances to reduce exposure in critical habitats.

c. Topsoil management is critical in Wyoming's dry climate, where the time required for topsoil regeneration is greatly increased as a result of less available decomposition of organic matter. Wyoming provides guidance on the web site for topsoil management which is a positive, but a more specific requirement in the permit which links to that guidance would be helpful in topsoil retention and reducing the timeframe for vegetative stabilization of construction sites.

d. It is also recommended in the next issuance that Wyoming translate the effluent guidelines from the Construction and Development (C&D) rule in ways that make them clear and enforceable, instead of incorporating them verbatim from the C&D rule.

b. WYR10-A000 – Small Construction General Permit

1) Background: The Wyoming Small Construction General Permit was issued on July 8, 2013 and expires March 15, 2016. The Small Construction General Permit covers stormwater discharges from construction activities which disturb between one and five acres. This permit, unlike the large construction permit in Wyoming, operates via a permit-by-rule system. In other words, small construction site operators are required to meet the terms of the permit but are not required to submit an application to Wyoming DEQ certifying that they will comply with the terms of the permit.

2) Program Strengths: The Wyoming Small Construction General Permit utilizes the same language and compliance assistance resources as the Large Construction Stormwater General Permit. (See the Large Construction Stormwater General Permit Program Strengths).

3) Critical findings:

a. This permit does not include methods to assure that the permittee "Provide and maintain natural buffers around surface waters." Part 7.3.6 contains a statement that permittees should "provide and maintain natural buffers around surface waters" without supporting guidance as to the proximity of streams where buffer zones should apply and how large they should be. Appendix C, Part 1.9, details requirements for how vegetative buffers can be used as a primary sediment control mechanism, but this is not a requirement for permittees to maintain buffers in their natural state, as is required in the Construction and Development Effluent Guidelines. Note: this permit was issued prior to adoption of the Effluent Guidelines, but this should be addressed when the permit is renewed.

4) Recommendations:

   a. Not requiring a Notice of Intent (i.e., application) for small construction sites is allowable under federal and state regulations but is not preferred. Without notification, it is not possible for Wyoming inspectors to inspect these sites or track the regulated universe in order to meet inspection targets. DEQ notification or incorporating municipal entities into this process would greatly improve compliance with the terms of this permit.

   b. Discharges to Class 1 Waters are allowed in this permit. Depending on location and site conditions, a small construction site can have the same or greater impact on Class 1 Waters as a large construction site, so it would be beneficial to include guidance (e.g., enhanced BMPs) for small sites that discharge to Class 1 waters.

   c. It is also recommended in the next issuance that Wyoming translate the effluent guidelines from the Construction and Development (C&D) rule in ways that make them clear and enforceable, instead of incorporating them verbatim from the C&D rule.

c. WYR04-0000 – Small Municipal Separate Storm Sewer (MS4) General Permit

1) Background: This permit regulates discharges from six small municipal separate storm sewer systems in the state of Wyoming. The general permit was issued in December 1, 2008, and expired on September 30, 2013.

2) Program Strengths: None.

3) Critical findings:

   a. The State of Wyoming's Small Municipal Separate Storm Sewer System (MS4) general permit lacks the specificity expected in MS4 stormwater permits. The MS4 permit, when it is reissued, should contain permit conditions more specifically tailored to water quality concerns and should contain a higher degree of clarity consistent with the iterative process for achieving the MEP standard.

4) Recommendations:

   a. Incorporate green infrastructure and/or land use planning in this permit. We recommend "scoring" MS4s using EPA's municipal scorecard. This would provide a good baseline where MS4s could determine if they have specific barriers (e.g., zoning) which prevent sustainable planning for drainage infrastructure.

   b. More non-standard programs could be designated for this permit to address class 1 discharges and intermittent population areas (e.g., Teton County). Gillette, Rock Springs, Green River, Evanston, Riverton, and Jackson should all be designated as MS4s as they all have over 10,000 people.

c. The permit could be more prescriptive in how impaired water discharges are addressed. For example, the permit could identify which MS4s discharge to impaired waters and for what pollutant, and identify if there is an approved TMDL for that addresses MS4 discharges. Where discharges are affected by a TMDL, the permit should include specific permit requirements that ensure MS4 discharges are making reasonable further progress towards meeting applicable wasteload allocations.

d. Given that NOIs are not required for small construction, the MS4s could play a larger role in identifying these projects to the Division.

e. Wyoming could become a leader for its MS4s in developing maintenance specifications, training, and use of a "scorecard" to determine barriers and efficiencies in land use planning and Low Impact Development.

f. Discharges to Class 1 waters are excluded in the permit. This doesn't seem to make sense because an MS4 can't (at least not easily) restrict discharges that follow the natural elevation changes. Perhaps this is a relic from other stormwater general permits. If not, the Division should be evaluating these "Class 1" discharges and determining additional BMPs or alternative requirements.

d. WYR00-0000 – Industrial Stormwater Permit

1) Background: The Wyoming Industrial Stormwater permit covers a wide variety of industrial activities similar to EPA's Multi-Sector-General-Permit. This permit was issued on October 19, 2012, and expires on August 31, 2017.

2) Program Strengths: The Wyoming industrial permit addresses stormwater discharges in accordance with state and federal regulations. Numeric effluent limits for certain categories of stormwater discharges with effluent guidelines are included in the permit which is helpful.

3) Critical findings: None

4) Recommendations:

   a. Language related to mining discharges is a little confusing in this permit since there is a separate Stormwater (SW) mining general permit.

   b. The permit does not address all categories of stormwater ELGs. Specifically, the phosphate manufacturing ELG (40 CFR Part 422) and the fertilizer manufacturing ELG (40 CFR Part 418) are not included in this permit. Therefore, Wyoming should cover facilities subject to these ELG under an individual permit.

   c. Corrective actions reporting could be improved (i.e., corrective actions report/log).

   d. It would be nice to have a near 1:1 correlation between technology based effluent requirements and SWPPP requirements. Some BMP and maintenance requirements

are listed in only the SWPPP section and some are only listed in the TBEL section. This could be confusing as there is not a 1:1 overlap in terms of what is required of the permitttee. This could be compounded by the fact that many industrial operators may not do environmental compliance as their day-to-day business (e.g., an auto salvage facility).

e. WYR32-0000 – Mineral Mining Stormwater General Permit

1) Background: The mineral mining stormwater general permit covers the portion of stormwater discharges which are not subject to effluent guidelines. This permit was issued on April 1, 2012, and expires on March 31, 2017.

2) Program Strengths. It is helpful to have a general permit for mineral mining as this is a type of activity which is very different from other industrial sources which are stationary. Including mineral mining activities in a separate general permit allows the state to incorporate specifics for sites which are transient and/or evolving in nature.

3) Critical findings: None

4) Recommendation:

    a. The permit should include enhanced requirements which address buffer zones. This is especially true where gravel mines are in an alluvial floodplain or maintain a close connection to the river corridor.

    b. The permit should be more specific to mining, discussing: BMPs specific to clearing and grubbing areas, topsoil preservation areas; when/where/how it is appropriate to maintain temporary cover for exposed mining areas, and/or strategies for using small depressions in a series in lieu of temporary stabilization for active mining areas. A lot of the requirements in the permit are largely based on the construction stormwater permit, which is not really applicable to a mine site which maintains large areas of active mining (i.e., exposed) areas where interim cover strategies are not appropriate and where the need for alternative management strategies such as maintaining seed/vegetative stock and clearing/grubbing areas is more important in the long-term for re-vegetation. Alternatively, mining BMP requirements could reference other permit (e.g., land quality permits) already required for mining excavation and reclamation.

    c. Corrective actions documentation and reporting could be addressed/improved in the permit.

    d. It's a little confusing as to what is and what isn't covered under this permit since it separates non-ELG limited discharges and stormwater discharges which aren't covered under effluent guidelines (ELGs) into two separate permits. Perhaps stormwater discharges not covered by effluent guidelines could be incorporated into other mining permits to streamline the requirements for facility operators, or perhaps other guidance (if it does not already exist) could be provided to mining

operators to clarify how all the permit requirements (stormwater discharges with ELGs, process water discharges, stormwater discharges without ELGs, and temporary dewatering) interconnect.

IV. REGIONAL TOPIC AREA FINDINGS

A. Permit Application

WYPDES permit applications are not consistent with the NPDES regulations at 40 CFR 122.21. For example, it appears that at times the State is attempting to relieve some of the regulatory burden from the applicant. For example, the list of pollutants in Appendix D to Part 122 cannot be overlooked because the State believes that these pollutants are not present in a given industry's waste stream. For POTWs, the EPA Form 2 A requires the effluent testing data must be based on at least three samples and must be no more than four and one-half years apart. Instead, Wyoming only requires POTWs to provide the results of a water analysis for a sample collected from a location representative of the quality of water being proposed for discharge.

WYPDES POTWs permit application is not consistent with the following NPDES regulations at 40 CFR 122.21:

- 122.21(j)(2)(iv) State does not include scheduled improvements. Those are handled by the Water and Wastewater Program.
- 122.21(j)(3)(i) State requires latitude and longitude to the nearest 5 seconds. EPA requires to the nearest second. What about seasonal or periodic discharges?
- 122.21(j)(3)(ii) Description of receiving water. Applicant is only required to supply the name of the receiving water. The permit writer will gather the remaining data when developing the permit.
- 122.21(j)(4)(iv) No requirement to test for hardness and TKN but have all other parameters.
- 122.21(j)(4)(vi) State does not require 3 samples in 4.5 years.
- 122.21(j)(4)(vii) State does not require all existing data for pollutants specified in paragraphs 122.21(j)(4)(ii) through (v) that is collected within four and one-half years of the application.
- 122.21(j)(4)(viii) State requires grab samples for all—no composites.
- 122.21(j)(4)(ix) State does not require that results be reported as a daily maximum discharge, mass or concentration or average daily discharge. State does not require analytical method used only that applicant must follow Part 136.
- 122.21(j)(5) No WET.
- 122.21(j)(6) No Pretreatment questions.
- 122.21(j)(7) See (j)(1)(iii) State will ask for additional information if the applicant says yes.

- 122.21(j)(8) State only asks if CSO – no other information.

The EPA reviewed the latest Form G (revised May 1, 2011). The review indicated that Form G does not contain the following items:

1. Is the facility located on Indian Lands (40 CFR 122.21(f)(5)).
2. Appendix B, Table IV: Does not have the "c. Color".
3. Appendix B, Table IIC: Does not have "45B-Pyrene and 46B-1,2,4-Trichlorobenzene.

B. Whole Effluent Toxicity

Whole Effluent Toxicity (WET) is a term used to describe the aggregate toxic effect of an aqueous sample (i.e., whole effluent wastewater discharge) as measured by an organism's response (e.g., lethality, impaired growth or reproduction) upon exposure to the effluent sample. WET tests replicate the effect of an effluent without requiring the identification of the specific pollutants. WET testing is a vital component of the water quality standards implementation through the NPDES permitting process and supports meeting the goals of the Clean Water Act (Sections 301(b)(1) and402), "...maintain the chemical, physical and biological integrity of the nation's waters."

WET tests are designed to predict the impact and toxicity of effluents discharges from point sources. WET limits developed by permitting authorities are included in NPDES permits to ensure that the state or tribal water quality criteria for aquatic life protection (WET) are met. Discharge monitoring requirements (40 CFR 122.44(d)(1)(ii)) are included in NPDES permits to generate WET data used to determine whether reasonable potential for WET has been demonstrated, including for both acute and chronic effects. If reasonable potential has been demonstrated then a WET limit must be included in the permit (122.44(d)(1)(iv) and (v)). Test results are also used in determining compliance with NPDES WET permit limits.

To determine the need for WET limits, WYPDES developed the 'WYPDES Process for Conducting a Reasonable Potential Analysis'. This document instructs the permit writer to evaluate; effluent toxicity, major/minor status, existence of a pretreatment program, WET data and provide a RP assessment for WET on a case-by-case basis. All determinations are to be documented in the permit statement of basis.

Critical Findings

Eight core permits were reviewed for WET monitoring or limitations based on the WYPDES RP requirements and 40 CFR 122.44(d) regulations. Four of the eight permits reviewed required acute WET testing only, two required acute and chronic WET testing and two permits had no requirement for WET testing.

Fact sheets and other permit records did not provide adequate descriptions about the permit writer's decision making process for WET determinations. For example, calculations of instream waste concentrations (IWCs) were not evident. It is unclear how acute and chronic WET testing decisions are made by the state for WET permitting decisions. WET reasonable potential decisions were not provided and it is unclear if any WET historical data was reviewed

by the state for making final WET permit determinations. No information was provided in statement of basis on how species modifications were approved, and how testing reductions were determined and approved.

As required by regulations 40 CRF § 124.56. "Fact sheets shall contain… any calculations or other necessary explanation of the derivation of specific effluent limitations and conditions or standards… as required by §122.44 [sic]. In several WYPDES permits, permit writers carried forward previous permit WET language, monitoring or limitations but did not supply information on if new data was reviewed or if the previous permitting decisions were accurate based on current information.

WET permit language varied in the permits reviewed. Boiler plate language for WET sections of the permits is not standardized. Incorrect references to acute and chronic WET test manuals and older versions of WET test manuals were found in WYPDES permits.

Where chronic WET was required in permits, sampling requirements were incorrect and did not meet the required number of samples be collected on days 1, 3, & 5, as specified by the WET test manual. Additionally, chronic verbiage in the permits stated that chronic toxicity was based on the "survival and growth or survival and reproduction of the organisms". This verbiage is incorrect and needs to be amended to indicate that "survival, growth or reproduction" are the endpoints and are independent measures.

Statement of basis did not provide clarity in acute and chronic WET test acceptability criteria. Permits lacked clarity on test endpoint percentages, sampling requirements, and in several permits WET language contradicted itself between Effluent Limitation tables and narrative language. Two examples of this type of contradiction were; the requirements to take a grab and a composite sample for WET, and the requirement to perform a static replacement and a static test.

Records did not indicate what WET data and factors were used and it was unclear how decisions were made to reduce testing frequencies. Reduction of monitoring for permittees appeared to be based on DMR data alone and permit records lacked reference to lab reports and summaries of WET analysis data for adequate review of data before reduction decisions were made.

Program Strengths

The WYPDES program has had a noted increase in WET implementation in their permits. Common special conditions in the core permits reviewed included Toxicity Identification Evaluation/Toxicity Reduction Evaluation requirements and reopener provisions. Additional clarity, description, and justification will benefit the program.

V. ACTION ITEMS

This section provides a summary of the main findings of the review and provides proposed action items to improve Wyoming NPDES permit programs. This list of proposed action items

will serve as the basis for ongoing discussions between EPA Region 8 and Wyoming as well as between EPA 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

WYPDES Program used a state letter application for POTWs. However, Wyoming developed a municipal permit application form in June 2013 that was intended to meet the federal permit application requirements. The core permits reviewed were issued prior to development of the municipal form. This letter and the latest Sewage Treatment Facilities application are still not consistent with federal application requirements at 40 CFR 122.21 since it allows permittees to submit abbreviated application information during permit renewal. As a result, applications reviewed were often incomplete with lack of hardness and WET data or required amount of sampling data (e.g. three pollutants scans).

The following is an action item to help Wyoming strengthen its NPDES permit program:

- Wyoming must revise their permit applications where appropriate to be consistent with the NPDES regulations at 40 CFR 122.21. The Sewage Treatment Facilities application shall be consistent with the EPA Form 2A requirements. The Form G shall be consistent with EPA Form 1 and 2C. (Category 1)

B. Technology-based Effluent Limitations

WYPDES POTWs permits establish effluent limitations for BOD_5 and TSS in appropriate units and forms. Wyoming applies effluent limitations based on secondary treatment standards for TSS and BOD_5 (average weekly) in municipal permits.

Three non-POTW permits were reviewed during the core review. SOBs for these facilities include a general description of waste streams produced and wastewater treatment processes.

SOBs provided a brief discussion of facility categorization and specific reference to whether effluent limitations are based on BCT, BPT, or BAT.

The State applied the Oil and Gas Extraction Category (40 CFR Part 435) in the permit which is not appropriate since the facility is not involved in the oil and gas extraction industry. Instead, the facility meets the definition of a Centralized Waste Treatment (CWT) facility (40 CFR Part 437) which is any facility that treats (for disposal, recycling or recovery of material) any hazardous or non-hazardous industrial wastes, However, there are currently no effluent guidelines available for this facility subcategory (oil and gas extraction wastewater) in the existing CWT effluent guideline.

The following is an action item to help Wyoming strengthen its NPDES permit program:

- For facilities accepts off-site oilfield wastewater (produced water, fracking flowback, etc.) for treatment and discharge, the State shall apply the appropriate category for oil and gas extraction wastewater. For example, The Red Desert Reclamation LLC. meets the definition of a Centralized Waste Treatment (CWT) facility (40 CFR Part 437) which is any facility that treats (for disposal, recycling or recovery of material) any hazardous or non-hazardous industrial wastes, However, there are currently no effluent guidelines available for this facility subcategory (oil and gas extraction wastewater) in the existing CWT effluent guideline. Therefore, EPA recommends that the State conduct a BPJ analysis using the factors in 40 CFR Part 125.3 to determine the appropriate technology-based effluent limitations. EPA no longer recommends using the equivalent or comparable effluent guideline (e.g. in this case 40 CFR Part 435) for facilities that do not have an applicable effluent guideline. (Category 1)

C. Water Quality-Based Effluent Limitations

The cover page of the permits and the SOBs reviewed identify the receiving stream and applicable classification. The SOBs identify applicable numeric and narrative water quality standards through reference to their location in the Chapter 1, Wyoming Water Quality Rules and Regulations. Permit files provide good explanation of effluent limitation development. WYPDES Program SOBs contain a general statement that the SOB demonstrates the existing and designated uses of the receiving water will be protected under the conditions of the proposed permit.

The following are action items to help Wyoming strengthen its NPDES permit program:

- WY permits need to meet Section 402(o)(1) of the Clean Water Act requirements that in the case of effluent limitations established based on state water quality standards, a permit may not be modified to contain effluent limitations which are less stringent than the limitations in the previous permit. Also, Section 402(o)(3) states that in no event shall a permit modification contain a less stringent effluent limitation if the implementation of such limitation will result in a violation of a water quality standard. Wyoming did not address EPA's concern and finalized the major modification with the removal of chloride limit to this permit (City of Rock Springs, WY0022357). (Category 1)

- For all the permit files reviewed, the reasonable potential analysis was not documented in the permit file. However, the permits were issue prior to finalization of Wyoming RP policy. A record of the reasonable potential analysis must be kept as part of the permit file and a summary of the reasonable potential analysis should be included in the Statement of Basis. (Category 2)
- Wyoming has several TMDLs approved by EPA. Wyoming will incorporate limits where appropriate as defined in the TMDL. Since Wyoming has some finalized TMDLs, they need to develop a process to utilize the TMDLs. Perhaps they could add a tab to the Permit Quality Review Spreadsheet (Category 3).

D. Monitoring and Reporting

The monitoring and reporting provisions reviewed in the core permits appear to be consistent with federal requirements.

E. Standard and Special Conditions

The standard and special conditions provisions reviewed in the core permits appear to be consistent with federal requirements.

F. Administrative Process (including public notice)

The permit records for the core permits do not contain appropriate public notice documents that indicate public notice procedures were implemented. Wyoming's administrative record does not contain the documentation to verify public notices have been published in the local newspaper. Public notices need to have the verification (such as affidavit from the newspaper agency) in the file. Wyoming's administrative record does not consistently contain a record of the all the comments received during the public notice period. Wyoming does not consistently provide a response to the comments received during the public comment period in the final permit.

The following are action items to help Wyoming strengthen its NPDES permit program:

- Wyoming's administrative record must consistently contain a record of the all the comments received during the public notice period. Wyoming must consistently provide a response to the comments received during the public comment period in the final permit. (Category 1)

G. Documentation (including fact sheet)

The following are action items to help Wyoming strengthen its NPDES permit program include the following:

- WYPDES Program should ensure permit files include complete documentation of RP analyses. (Category 2).
- WYPDES Program could improve the quality of the SOB through a clearer discussion of the application of BPJ on a case-by-case basis to municipal facilities, where the permit

lacks effluent limitations for minimum percent removal based on secondary treatment standards. A discussion of BPJ could also improve the quality of fact sheets in cases where secondary treatment standards are applied to discharges from non-municipal facilities. (Category 3).

H. National Topic Areas

Proposed actions items for core topic areas are provided below.

1. Nutrients

EPA Region 8 did not review any permits to evaluate nutrient permitting requirements. Currently, Wyoming only incorporates ammonia limits into permits. They have numeric and narrative criteria related to ammonia.

2. Pesticides

WY has a General Permit for Major Pesticide Discharges (WYG480000) and a General Permit for Minor Pesticide Discharges (WYG260000). A NOI is only required for coverage under the General Permit for Major Pesticide Discharges (WYG480000) and is not required for the General Permit for Minor Pesticide Discharges (WYG260000). WY has approximately 50 NOIs that have been received for coverage under the General Permit for Major Pesticide Discharges. An annual report is required to be submitted if covered under the General Permit for Major Pesticide Discharges. At the time of the PQR, four permittees had failed to submit their annual report for the 2012 calendar year by the due date of February 28, 2013. The State had not taken action for these four non-submittals at the time of the PQR, but stated they would be referring them to the WY's enforcement unit in the future.

Proposed action items to help Wyoming strengthen its NPDES permit program include the following:

None.

3. Pretreatment

- Region 8 needs to ensure that all of the state of Wyoming's POTWs NPDES permits are current (Casper is expired) (Category 1).
- Region 8 needs to ensure that permits for POTWs that are required to have pretreatment programs (e.g.., Cheyenne) contain all pretreatment program requirements (Category 1).
- Region 8 needs to ensure that its permits for all POTWs include standard condition requirements of 40 CFR 122.42(b) (Category 1).
- Region 8 needs to ensure that all of its non-program POTW permits include requirements at 40 CFR 122.44(j)(1) (Category 1).

- Region 8 needs to ensure that permits for all POTWs with approved pretreatment programs contain requirements for conducting local limits reevaluations as required at 40 CFR 122.44(j)(2)(ii) (Category 1).
- Region 8 needs to ensure the POTWs with approved programs have existing ERPs. The permits require the POTWs to develop, implement and maintain ERPs. If the programs do not have existing ERPs this is an enforcement action. If they do, the wording in the permits should be changed to focus on implementing and maintaining the ERP (Category 1).
- Region 8 should ensure that all required information be input into ICIS on a regular basis (Category 2).
- Region 8 should revise the permit reopener clause for non-program permits to specifically mention that they could be reopened to require a pretreatment program if deemed necessary (Category 2).
- Region 8 should eliminate the term *significantly violated* in its permits for POTWs with approved pretreatment programs. Rather, the permits should consistently refer to significant noncompliance (Category 2).
- Region 8 should coordinate the sampling requirements for Industrial Waste Management and for the Initial Monitoring Report for POTWs without pretreatment programs. The submittal time frames should be coordinated (if appropriate) and the permit should clarify whether one set of sampling results can satisfy both sampling requirements (Category 3).
- Region 8 should ensure that permits for POTWs without pretreatment programs are clear on the purpose for the sampling required under Industrial Waste. If it is to assess industrial user contributions, the permits should make this clear (Category 3).
- Region 8 should ensure that the fact sheet for Rock Springs mentions that a pretreatment program is required and its basis [40 CFR 403.8(a)] (Category 3).
- Region 8 should discuss in the fact sheets for POTWs with approved pretreatment programs whether the reasonable potential analysis conducted to develop water quality-based limits included analysis of pollutants common for the types of industries discharging to the POTW (Category 3).
- Region 8 should revise the fact sheet for Thermopolis to specifically state that a pretreatment program is not required at this time and state the reason why. (Category 3)

4. Stormwater

Stormwater program findings are summarized in Attachment K, Part 4 (Stormwater Program). Two action items are proposed herein to help Wyoming strengthen its NPDES permit program:

- The State of Wyoming's Small Municipal Separate Storm Sewer System (MS4) general permit lacks the specificity consistent with the Maximum Extent Practicable (MEP) standard. The MS4 permit, when it is reissued, should contain permit conditions more

specifically tailored to water quality concerns and should contain a higher degree of clarity consistent with the iterative process for achieving the MEP standard. The minimum control measures for Small MS4s are described in a general fashion in 40 CFR §122.34(b); however, it is up to the permitting authority to issue permits with effluent limitations that specify the performance obligations of permittees. The expectation for increased specificity in MS4 permits developed through iterative processes spanning multiple permit issuance cycles consistent with MEP standard is described in the preamble to the Phase II regulations.

EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness and should strive to attain water quality standards. Successive iterations of the mix of BMPs and measurable goals will be driven by the objective of assuring maintenance of water quality standards. If, after implementing the six minimum control measures there is still water quality impairment associated with discharges from the MS4, after successive permit terms the permittee will need to expand or better tailor its BMPs within the scope of the six minimum measures for each subsequent permit. EPA envisions that this process may take two to three permit terms. (Category 1)

- Both the large construction and small construction stormwater general permits for the state of Wyoming are set to expire in 2016. Since these permits were originally drafted, EPA proposed and finalized effluent guidelines for the Construction and Development Point Source Category (see 40 CFR Part 450). Both of these permits do not include methods to assure that the permittee "Provide and maintain natural buffers around surface waters" consistent with the effluent guidelines. Both permits (See Appendix C, Part 1.9) detail requirements for how vegetative buffers can be used as a primary sediment control mechanism, but this is not a requirement for permittees to maintain buffers in their natural state, as is required in the Construction and Development Effluent Guidelines. These will need to be included in the large and small construction general permits when they are reissued. EPA's *Development Document for Final Effluent Guidelines and Standards for the Construction & Development Category (November 2009)* defines several design and installation criteria for establishing an effective vegetative buffer. Specifically, "buffer widths should be determined after careful consideration of slope, vegetation, soils, depth to impermeable layers, runoff sediment characteristics, type and quantity of stormwater pollutants, and annual rainfall." As an example, EPA's 2012 Construction General Permit (Appendix G) provides a buffer zone guidance which provides specific design and installation criteria for maintaining vegetative buffers for earth-disturbing activities which occur within 50 feet of a surface water that receives stormwater discharges. This is considered as a Category 2 finding as the permits were issued prior to the final promulgation of the Construction and Development Effluent Guideline. (Category 2)

I. Regional Topic Areas

Proposed action item for special focus area is provided below.

1. Permit Application

See Section IV.A. above for a brief overview of findings. Proposed action items to help Wyoming strengthen its NPDES permit program include the following:

- WYPDES permit applications need to be revised where appropriate to be consistent with the NPDES regulations at 40 CFR 122.21. (Category 1)

2. Whole Effluent Toxicity

Proposed action items for WET to help Wyoming strengthen its NPDES permit program include the following:

- Clearly describe and document permitting decisions in fact sheets and administrative records of permits. Provide more information in fact sheets on how; WET RP is determined, acute or chronic requirements are selected, species modifications are approved, and how testing reductions are calculated and approved. (Category 1)
- WYPDES needs to clarify WET endpoint verbiage in chronic permits correctly reflects that the test endpoints are independent measures of "survival, growth or reproduction". (Category 1)
- Ensure proper WET implementation where dilution factors indicate chronic conditions. (Category 2)
- Strongly recommend the state to include specifics on WET test acceptability criteria (TAC) selections to ensure consistent and accurate testing procedures are provided in the permit for permittee and laboratory use. (Category 3)
- Strongly recommend WYPDES to standardize WET permit language and WET policy decisions so that WYPDES permits are consistently implemented. (Category 3)
- Recommend that when permittees are placed on reduced monitoring, permit writers include reference to lab report and summary of WET analysis data, not DMR data alone, in permit records. (Category 3)

J. Appendix A – State Comments

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

Todd Parfitt, Director

August 29, 2014

Colleen Rathbone
EPA, Region 8
1595 Wynkoop St.
Denver, CO 80202

Re: Draft 2013 Permit Quality Review (PQR) Report

Dear: Colleen,

We have reviewed the Draft PQR report for Wyoming and respectfully submit these comments on the process and its findings, conclusions and recommendations from our program's point of view. The report claims to provide "important information to Wyoming, EPA Region 8, EPA Headquarters and the public" however, we find a significant amount of information to be inaccurate and/or misleading. As such, we believe the report needs to be amended to portray a more realistic evaluation of the state program priorities and performance.

The introductory paragraphs indicate that the purpose of the review is to determine whether permits are developed in a manner consistent with applicable requirements established in the Clean Water Act (CWA) and NPDES regulations. The review should be confined to just that, an assessment of conformance with the statute and regulations and not conformance with EPA guidance, current thinking or opinions on how EPA would prefer to see the program run.

It seems from the tone and substance of the report that Region 8 and Wyoming have different understandings of program delegation. In areas where the regulations allow for the exercise of judgment or are simply ambiguous, it is the state's decision making process that holds sway. This report is often critical of Wyoming's processes and actions, not because they are in conflict with the regulations or that they do not appropriately protect water quality but rather because they are not the way that EPA would prefer. Wyoming assumed administration of the program precisely because discretionary decisions are best made in-state with a greater familiarity of the local environmental, economic and social circumstances. EPA's focus on creating a centralized federal water quality program is actually detrimental to the resource and contrary to the intent of the Clean Water Act.

Specific issues and recommendations

1. The report does not provide a realistic assessment of overall program performance because the permits selected for review are not a representative sample of the Wyoming NPDES universe. We understand that Region 8 followed a national SOP for selecting permits for the review but believe that the result is a skewed picture of the state program. At the time the audit was conducted, there were 1011 active individual discharge permits. Seventy-six percent (76%) of those permits were for discharges of oil and gas produced water as were eighty-seven percent (87%) of the total outfalls in the state. No oil and gas permits made EPA's review list.

   The PQR SOP recommended selecting 1 non-major industrial permit for review. Of the 51 available industrial permits, Region 8 selected the Red Desert Reclamation facility which is the least representative facility out of the suite. This was not done randomly or by accident. It was selected because of a pre-conceived issue with the permit that the Region wished to highlight in this audit. In doing so, the region took a national permit selection SOP design that was not particularly well suited to Wyoming's situation and skewed it further.

   Wyoming has 24 major dischargers (2% of individual permits and 23% of POTWs). The table below shows a breakdown of Wyoming permits by category alongside a breakdown of the permits reviewed in this audit.

	Active Permits	% of Total	% of Audit
CAFO	39	4%	0
CBM	510	50%	0
Coal mine	23	2%	0
Fish hatchery	8	1%	0
Industrial	57	6%	30%
Oil Treaters	263	26%	0
Sanitary Wastewater	97	10%	70%
Water Treatment	14	1%	0

   The national and regional focus areas (nutrients, pesticide general permit, pretreatment and WET) led to a selection of individual permits from categories that collectively make up only 16% of the Wyoming program and ignored the oil & gas categories that make up 76% of the program. As such, the results are only marginally useful in understanding overall program performance.

2. One of the "Core Review Findings" for TBELs for Non-POTW Dischargers indicates that the SOB for the 2012 renewal of the Red Desert Reclamation facility (WY0094463) did not contain an explanation of the decision to replace the previous COD limit with a methanol limit. This is not totally correct. The SOB did reference a separate Administrative Order on Consent (AOC) which contains the rationale for the limit change. The AOC is in the permit file.

3. The audit is critical of Wyoming for modifying the Rock Springs permit (WY0022357) by removing a limit for chloride in spite of EPA comments that the change is prohibited under the CWA. The report contains this criticism:

"For the City of Rock Springs (WY0022357) permit, EPA reviewed and provided comments in August 9, 2011 with concerns about the removal of the chloride limit from the permit. This facility is discharging into an impaired water body for chloride, however, no TMDL has been developed. The facility was unable to consistently comply with its chloride permit limit of 230 mg/L (which is also the water quality standard) and the chloride limit was removed from the permit. Section 402(o)(1) of the Clean Water Act states that in the case of effluent limitations established based on state water quality standards, a permit may not be modified to contain effluent limitations which are less stringent than the limitations in the previous permit. Also, Section 402(o)(3) states that in no event shall a permit modification contain a less stringent effluent limitation if the implementation of such limitation will result in a violation of a water quality standard. Wyoming did not address EPA's concern and finalized the major modification with the removal of chloride limit to this permit in November 14, 2011."

The removal of the chloride limit from the Rock Springs permit was an appropriate action and is supported by the Clean Water Act. Section 402(o)(2)(B) and Section 402(o)(2)(C) of the Clean Water Act provide exceptions to the requirements of 402(o)(1), both of which apply in this circumstance:

> *(2) EXCEPTIONS—A permit with respect to which paragraph (1) applies may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant if—*
>
> > *(A) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;*
> >
> > *(B) (i) information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance; or*
> >
> > *(ii) the Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under subsection (a)(1)(B) of this section;*
> >
> > *(C) a less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy;*

A chloride limit was added to the Rock Springs permit in March, 2011 due to the listing of Bitter Creek (receiving water) as impaired for chloride on the state's 303(d) list. After several months of monitoring by the city it became apparent that the DEQ made a technical error when imposing the 230 mg/L limit by not adequately considering the background concentration of chloride in Bitter Creek or the actual effect of the POTW discharge on that background. Essentially, high chloride concentrations in the POTW discharge result from shallow groundwater inflow to the collection system. This water is simply intercepted groundwater that would flow in the creek with or without the existence of the treatment facility. The permit modification to remove the chloride limit in November, 2011 was an appropriate action to correct the technical error and is supported by 402(o)(2)(B)(i) and (ii).

Though the POTW discharge often exceeds the 230 mg/L surface water standard, chloride concentrations downstream of the plant are lower than upstream. The city's municipal water supply is diverted from the Green River which is naturally low in salts and the treated wastewater from this source serves to dilute chloride concentrations in the inflow. If the POTW discharge was removed from Bitter

Creek, the chloride impairment would likely get worse. As such, the POTW is neither a cause nor contributor to the chloride impairment and serves as a mitigating factor. This is a circumstance beyond the city's control and there is no reasonably available action that they could take to lessen the impairment. Section 402(o)(B)(2)(C) also allows the permit modification taken by the state.

EPA claims that the permit modification was also in violation of Section 402(o)(3) of the Clean Water Act. Section 402(o)(3) applies if a modification to a less stringent standard would result in a violation of a water quality standard. As explained above the Rock Springs POTW is neither a cause nor a contributor to the Bitter Creek impairment nor is there any reasonable action they could take to lessen the impairment. Section 402(o)(3) does not apply in this circumstance.

This was explained to the EPA reviewer at the PQR audit who rejected that logic and insisted that the 230 mg/L limit must be included in the permit. Doing so would simply put the city in continual violation for a circumstance that they are not responsible for and have no control over. Though this may be preferred by EPA, it is not required by the law and is an indefensible regulatory action. EPA should remove the criticism of the state's action from the audit report.

4. The audit report contends that *"Wyoming does not consistently provide a response to the comments received during the public comment period in the final permit."* We don't know what this finding means, particularly the phrase "***in the final permit***?. Wyoming does consistently provide a written response to all comments received during the comment period. Does EPA expect that comment responses be contained in the permit itself or that every comment received should result in a change to the draft permit? EPA needs to identify which comments were not responded to in the permits they reviewed.

5. **Stormwater** – The "critical findings" section under each stormwater general permit should identify only areas of noncompliance with a federal regulation. Only one "critical finding" under the Large Construction General Permit regarding the timeframe for final stabilization has any basis in regulation. All other stormwater "critical findings" relate to matters that are not required in the regulations and are actually just expressions of EPA preferences and opinions. They should not be listed as critical findings or category 1 action items.

   It is unfortunate that EPA finds no value in the state's MS4 permit which leads us to question the credibility and effectiveness of the other staff opinions and recommendations.

   The stormwater, category 1 action item is incorrect. The referenced language regarding natural buffer areas and dewatering from the top of ponds is included in both the large and small construction permits.

6. **REGIONAL TOPIC AREA FINDINGS - Permit Application**

   WQD is frustrated to see this exaggerated list of alleged noncompliance with 40 CFR 122.21 reappear in the audit report. We understand that it was Region 8's position in August, 2013 when the review was conducted but a considerable amount of work has been done in the past year to resolve the EPA/WQD differences on this issue. This finding should either be removed in its entirety or substantially updated to disclose the current status.

7. **Action items - WQBELs**

Bullet 1 - Wyoming is in full compliance with Section 402(o) of the CWA in relation to the November 2011 modification of the Rock Springs POTW permit. No further action in regard to the chloride limit is required.

Bullet 2 - Unless it is an emergency situation requiring immediate action, completed TMDLs will be incorporated into affected discharge permits during the first renewal or major modification following a TMDL approval.

Bullet 4 - EPA recommends that a permit SOB should contain a "well documented explanation" of the reasons for replacing an existing limit with a different one. This action item stems from a core finding that this was not done in the case of the renewal of the Red Desert Reclamation permit. We don't understand what EPA means by "well documented explanation". WQD has sufficient documentation on file to defend that action. The SOB referenced the administrative order underlying the decision. EPA's concept of "well documented" is subjective and depends upon the mood of the staff reviewer.

This illustrates clearly a basic flaw in the PQR process. The Red Desert circumstance is a rare situation under a very unique permit that is unlike any of the other 57 industrial permits that EPA could have chosen for the review. It is not representative of the industrial category. It seems likely that EPA chose this permit because of a pre-conceived notion that there is some problem with documentation. The result is that you select an oddity in a rare permit and magnify its importance as though it is a representative practice. On top of that, the contention that the basis for WQD's action is not well documented is subjective and wrong.

8. **Action Items - Administrative Process (including public notice)**

This section contains the following category 1 action items:

- *The permit records must contain appropriate public notice documents that indicate public notice procedures were implemented accordingly (40 CFR 124.10). (Category 1)*
- *Wyoming's administrative record must contain the documentation to verify public notices have been published in the local newspaper. Public notices need to have the verification (such as affidavit from the newspaper agency) in the file. (Category 1)*
- *Wyoming's administrative record must consistently contain a record of the all the comments received during the public notice period. Wyoming must consistently provide a response to the com*ments received during the public comment period in the final permit. (Category 1)

Bullet 1 is nebulous and we do not know what action it is recommending we take.

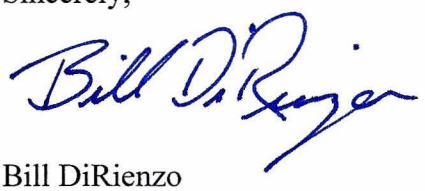
WQD does keep documentation/confirmation of all notices published in newspapers. These are not kept in the permit file but are filed in the Divisions Information Processing Section. Apparently, the reviewer did not ask to see them and assumes that they don't exist. We do comply with 40 CFR 124.10 which specifies the procedures to be followed but does not specify how or where records are to be filed. If you want to recommend that we change our filing procedures you may do so, however, we will likely decline to change. Our procedures

are fine. In 40 years of program administration the lack of proof of newspaper publication has never occurred in the WYPDES program.

The 3rd bullet implies that WQD does not consistently contain a record of comments received and does not consistently respond to comments received. What is meant by "consistently"? Is 99 out of 100 consistent? WQD does retain a record of comments received and responds in writing to all commenters. EPA routinely comments on permits and is provided a written response. To which comments are you referring? How often does EPA not receive responses to comments? Certainly, over time there is a likelihood of an occasional paper handling error but we are certain this is not common. This report implies that comments are not appropriately handled at a substantial frequency. That implication is grossly incorrect.

In general, because of the items discussed in this letter, WQD believes this report unfairly exaggerates program deficiencies and should be amended before finalizing. In addition to this letter, I will send by email an electronic version of the draft PQR report with additional WYPDES staff comments and markup.

Sincerely,



Bill DiRienzo
WYPDES Program Manager
Water Quality Division

WJD/rm/14-0801

cc: Sadie Hoskie, EPA
Kevin Frederick, DEQ/WQD
Leah Coleman, DEQ/WQD
Barb Sahl, DEQ/WQD

K. Appendix B – EPA's Responses to State Comments

The EPA provides the following responses to the comment letter from Bill DiRienzo, WYPDES Program Manager dated August 29, 2014:

The 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. 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. The EPA followed the above review mechanism through the PQR reviewing process and identified factual findings from the Wyoming NPDES program that are not consistent with the CWA requirements.

The responses below correspond to the numbering system in the comment letter for the specific issues and recommendations section. The EPA incorporated the appropriate changes in the final report.

1. The EPA selected 7 POTW permits (6 major, 1 minor) and 3 non-POTW (2 major, 1 minor). The EPA selected these permit files based on the PQR file selection criteria in the SOP. The EPA believed these permits were representative for assessment for the overall program performance.

   The EPA decided not to review any oil and gas permits because they are all non-majors and non-POTWs which are not a focus of the PQR. The EPA was reviewing the oil and gas permits on a real time basis before and during the PQR review period. The EPA added the number of permits for CBM and Oil Treaters to the report.

2. Wyoming provided a copy of the AOC to EPA. The EPA removed this finding in the "Core Review Findings" in the final report.

3. The EPA disagrees with Wyoming's interpretation. See page 19 in the final report for details.

4. The EPA did not find comments to the following permits reviewed:
   - City of Rock Springs – major modification for the removal of chloride limit from the permit.
   - Town of Thermopolis – reduction the percent removal of BOD_5 to 65%.
   - City of Rawlins – WET comments

   After EPA shared the above specific findings in the draft PQR report with Wyoming, Wyoming responded they were able to find a signed copy of the response to comments for Rawlins and an unsigned copy of the response for Rock Springs. They were not able to find a response for Thermopolis. These changes were noted in the final report.

5. The action item regarding dewatering of ponds has been removed in the final report as that is included as a requirement in both construction permits.

The action item related to maintaining natural buffers has been maintained. While the specific language in the code of federal regulations to "provide and maintain natural buffers" is included in the permits, there are no design and installation criteria which define what a buffer area is, how large buffers need to be, and at what proximity to surface waters, buffer zone criteria apply. EPA's *Development Document for Final Effluent Guidelines and Standards for the Construction & Development Category (November 2009)* define these design criteria as being necessary to achieve compliance with the buffer zone criteria.

6. The EPA kept the outstanding permit application items that were not yet addressed during the PQR review in the final report.

7. Bullet 1. See response 3 above.
   Bullet 2. Ok. Change made in the final report.
   Bullet 4. Ok. See response 2 above.

8. Bullet 1. Ok. Removed in the final report.
   Bullet 2. Ok. Removed in the final report.
   Bullet 3. See response 4 above.