

**SUBJECT: Monitoring and Review of Discharge Monitoring  
Reports (DMR's for NPDES Permits)**

1. Purpose: Procedure for monitoring and review of discharge monitoring reports (DMRs) for NPDES Permits.
2. Definitions:
3. Legal Authority: 22-1-16
4. Policy/Procedures: The following procedures are in addition to any other monitoring required by the Article 3 permit.

1. In preparation for your compliance review of DMR's you should have a copy of the NPDES permit with all attachments and subsequent modifications. This may require some search time on your part to assure that your files are complete. (An inspector's copy is generated for every NPDES action - permitting and enforcement.) When you perform your complete inspection, you will review the permittee's file copies of their DMR's. The NPDES regulations at 47-30-5.11.3 require that records relating to NPDES permits be maintained for a period of not less than three years.
2. The first step in the review procedure is to check to see if DMR reports are provided for each outfall indicated in the permit file. In instances where this is not the case, it will be necessary to ascertain the reason for the omission and where appropriate, take action.

A DMR is still required to be submitted when an outlet has no discharge for the reporting period. In lieu of a DMR the permittee may submit a letter which specifies the outlets and the months that no discharge occurred.

Not started permits and outlets not yet constructed, still must submit DMRs in accordance with the reporting requirements in the NPDES Permit. In lieu of a DMR, a letter informing the agency which NPDES Permits are not started and which outlets are not yet constructed will suffice. The letter needs to include the NPDES

Permit No. and is to be signed by an employee of the company who is authorized to sign DMRs. This information needs to be submitted at least quarterly and more frequently if the permit requires it.

3. Compare the values reported for each water quality parameter on the DMR with the water quality standard or effluent limit established in the permit for the specific outfall in question. (The outfall numbers should be clearly noted on both the permit and the DMR.) Where the values of the reported parameters violate the standards or limits of the permit, the extent and frequency of such occurrences should be noted. This is where you should concentrate your inspection efforts.
4. Compare the sampling frequency reported on the DMR with that required under the NPDES permit. Inconsistencies must be noted and a determination made as to the reasons for their occurrence.
5. Verify that the DMR's are being signed by the appropriate person. NPDES regulations at 47-30-4.7.2 require that a responsible corporate officer or his duly authorized agent sign the DMR's. Signature of agents of the analytical laboratory are not acceptable.
6. Verify that the permittee is forwarding the DMR reports to the NPDES Office in Nitro.
7. Be watchful for evidence of false reporting, but exercise common sense and good judgement in handling such cases. Consistent reporting of "no discharge," and identical analytical values for the same outfall over a period of several months, are key indicators that the reports may not be accurate. In these cases, your inspection must include field verification.

Where false reporting is suspected but not provable, the permittee should be warned. If such problems continue, or if the false reporting is in fact confirmed, enforcement must be initiated. Confirmation of false reporting is best achieved through analysis of grab samples taken by the inspector at approximately the same time and date as the permittee's DMR sampling date. *In any case of suspected or confirmed false reporting, the inspector shall advise his/her supervisor, the Manager of Inspection and Enforcement, and the Manager of NPDES.*

**SUBJECT: NPDES Enforcement**

1. Purpose: Policy concerning NPDES/5A Administrative Orders.
2. Definitions: N/A
3. Legal Authority: N/A
4. Policy/Procedures: Upon receiving notification of an Administrative Order concerning a significant noncompliance (SNC) the inspector shall begin within two weeks securing grab samples from the referenced outlets. A copy of the analysis shall be sent to Ken Politan at the Nitro Headquarters.

If a violation of effluent limits is shown, a Notice of Violation (NOV) shall be written and assessed under Article 3.

For ``Notices to Comply`` and ``NPDES Compliance Schedules``, check the measures taken by the company to correct the identified problem(s) and document in the comment section of the MR-6.

**SUBJECT: Inspection Strategy for mining related facilities  
with NPDES permits but no Article 3 Permit**

1. **Purpose:** To provide direction to the field staff concerning the subject situations.
2. **Definitions:** N/A
3. **Legal Authority:** 22-11-4(a)12, 47-30-1
4. **Policy/Procedures:** Inspect the site(s) at least one time per quarter using the existing MR-6. Include at a minimum, the Permittee Name, NPDES Permit Number, field analyses of all discharges, inspection date, and inspection time. In the space for inspection type, indicate a "C" for **Compliance Evaluation Inspections**.

Send or give a copy of the Inspection Report to the Permittee, put a copy in the regional NPDES file and send a copy to HPU in Nitro, **ATTN: Angela Dorsey**, for data entry and filing.

If violations exist during the inspection, document on the MR-6. If the violation is one of effluent limits, water samples must be taken and sent to the lab for analysis. When the analyses are received, send a copy to H.P.U. with all of the identifiers (Permittee Name, NPDES Number, Outfall, etc...) to the attention of **Ken Politan**.

***SUBJECT:***      **Permitting Guidance for Bioreactors**

***DATE:***            **December 30, 2013**

***APPROVAL:***    **Harold Ward – Acting Director**

## **Permitting Guidance for Bioreactors**

### Authority

The West Virginia Department of Environmental Protection has authority for the Guidance document as per 38 C.S.R.2.

### Introduction

With recent advances in research, the construction and use of bioreactors for treatment of selenium and other parameters has increased. The West Virginia Department of Environmental Protection (DEP) finds that these structures can be successful in reducing the concentrations of the pollutants for which they are designed. The DEP also finds that a procedure is required in the permitting of these bioreactors to ensure compliance with the requirements of 38 C.S.R.2.

### Background

A bioreactor is a structure that is designed to mimic the conditions found in a naturally occurring wetland area. Research has shown that naturally occurring microbes that digest selenium, and other parameters, currently exists within a majority of the mining operations; however, the naturally occurring conditions are not conducive to stimulate increased activity. Within a bioreactor, organic medium is installed along with a water distribution method that creates an anaerobic environment along with a readily available carbon source used by the microbes as a source of energy.

### Permitting

Prior to construction of a bioreactor, the permittee shall submit an application to the DEP for review and approval. The Regional Permit Supervisor will determine if the proposed activity requires submittal as a revision, modification or Incidental Boundary Revision. The application will include design drawings that accurately reflect the design flow, volume and type of organic material, and flow distribution system.

If the structure is proposed as a “Permanent Impoundment”, the permittee must address the requirements of 38 C.S.R.2.5.5. Temporary structures shall include an abandonment plan in accordance with 38 C.S.R.2.5.4.h.

### Certification

Upon completion of construction, the structure shall be certified in accordance with 38 C.S.R.2.5.4.d.

**This Guidance is also found in  
Series 23 of the I&E Handbook and Series 5 of the Permitting Handbook**

**SUBJECT: Policy for NPDES Permitting of Bioreactors for Coal/Quarry  
NPDES Permits**

**DATE: Revised-April 8, 2016**

**APPROVAL: Harold Ward – Acting Director**

**Policy for NPDES Permitting of Bioreactors  
for Coal/Quarry NPDES Permits**

**Authority**

The West Virginia Department of Environmental Protection has authority for this guidance pursuant to 47CSR30 Section 8.2.c.2.A.

**Background**

A bioreactor is a structure that is designed to mimic the conditions found in naturally occurring wetlands. Research has shown that naturally occurring microbes that digest selenium, and other parameters, currently exist within most mining operations; however, conditions in active water treatment systems are not conducive to stimulate increased activity. Within a bioreactor, organic media are installed along with a water distribution method to create an anaerobic environment and to provide readily available carbon for the microbes to use as a source of energy.

**NPDES Permitting**

Prior to construction of a bioreactor, the permittee shall submit an application for modification of the NPDES permit for each outlet where a bioreactor is to be installed. The application shall include, at a minimum, design drawings that accurately reflect the design flow, volume of organic material, and flow distribution system. The permit application shall include specific information which identifying measures to be used to ensure adequate function of the bioreactor for DEP for review and approval. In addition, the permit application shall include a description of the organic materials to be used in the bioreactor, the construction procedures and schedule, the construction and design features of the “polishing pond” prior to discharge from the bioreactor, and the proposed method to remove any suspended solids or particulate matter that may be discharged from the bioreactor into the “polishing pond.” The permit application shall set forth in detail the methods employed to ensure that the bioreactor does not cause or contribute to a violation of water quality standards in the receiving stream.

**Monitoring**

A bioreactor is a treatment system that will reduce the concentration of certain parameters in mine discharges. However, monitoring is necessary and prudent to ensure that a newly constructed

bioreactor is operating properly. Upon issuance of a permit modification for installation of a bioreactor, the following language shall be added to Section D of the WV/NPDES permit:

The following bioreactor monitoring requirements apply to monitoring station(s) \_\_\_\_ associated with outlet(s) \_\_\_\_:

a. Samples shall be collected from the receiving stream monitoring station(s) located immediately below the Outlet(s) discharge at the regular sampling interval for the Outlet(s).

b. Each outlet shall be monitored separately.

<u>Pollutant</u>	<u>Benchmark Value:</u>
Dissolved Oxygen	•6 mg/l
Chemical Oxygen Demand	120 mg/l
Biochemical Oxygen Demand	30 mg/l
Total Suspended Solids	100 mg/l
Ammonia Nitrogen	4 mg/l
Nitrate (as Nitrate -N)	10 mg/l
Nitrite (as Nitrite-N)	1.0 mg/l (warm water / non-trout)
Nitrite (as Nitrite-N)	0.06 mg/l (cold water / trout)
pH	6.0 to 9.0 S.U.

When the concentration results from a minimum of twelve consecutive samples of a pollutant are all less than the corresponding benchmark value for the pollutant, a revision requesting reduced monitoring may be submitted (all pH values of the samples must be within the range 6.0 to 9.0 S.U.). Each treatment facility shall submit annual certification that there has not been a significant change in the bioreactor operation or design or the corresponding pollution prevention measures.

When a benchmark value is exceeded; upon discovery the permittee shall within 24 hours notify the local inspector and implement appropriate corrective action to achieve the established benchmark values. Within thirty (30) days of exceeding a benchmark value, the permittee shall submit a letter identifying the revised and implemented procedures for the bioreactor to address the exceedance of the benchmark concentration to the local inspector.

If there is evidence indicating potential or realized impacts on water quality due to any bioreactor covered by this permit, the permit may be promptly modified and/or reissued to include effluent limitations and/or other requirements to control such discharges.

**This Guidance is also found in  
Series 23 of the I&E Handbook and Series 5 of the Permitting Handbook**

***SUBJECT:* Selenium Implementation Guidance**

***DATE:* November 13, 2007**

***REVISED:* December 30, 2013**

***APPROVAL:* Harold Ward – Acting Director**

## **INTRODUCTION**

The West Virginia Department of Environmental Protection (DEP) has statewide effluent data and in-stream water-quality data indicating selenium concentrations in certain locations exceed the current water quality criteria (WQC) for aquatic life. This memorandum documents permitting procedures that will be implemented to reduce the potential for new mining activities to cause or contribute to selenium WQC violations.

This document reflects the current state of knowledge in selenium regulation and prevention. As more facilities permitted under this guidance are constructed, the DEP will review the effectiveness of the controls set forth herein. Limited situations may arise that are not addressed by this guidance. In those situations, discretion may be exercised by the permit review staff after consultation with DEP headquarters.

As such, if selenium is initially identified as a “Parameter of Concern” (POC), the Probable Hydrologic Consequences (PHC) Statement in application for new Surface Coal Mining and Reclamation Act (SMRCA) permits or permit amendments, submitted after January 1, 2008, shall address whether or not selenium is a POC by providing information as described herein.

Mining activities where selenium has initially been identified as a “POC” as outlined in Section 1 of this document will be required to perform overburden sampling for selenium as set forth in Section 2.

Applicants not wishing to implement the described procedures must provide additional testing of materials, alternative handling procedures, historical water quality or other data that demonstrates selenium is not a “POC” or does not have a reasonable potential to violate the selenium WQC.

A proposed activity will initially be deemed to have selenium as a “POC” if:

- The proposed mining is in the Winifrede to Upper No.5 Block coal seam interval. (Seam nomenclature as defined by the West Virginia Geologic and Economic Survey) or;
- Site-specific or adjacent water quality data (associated with mining in the same geologic strata) shows concentrations equal to or more than 5 µg/l. This water data may include, but is not limited to, application water quality data (e.g. PHC, anti-degradation BWQ sampling), effluent data from adjacent mining operations (e.g. NPDES Table 2 IV C analysis) and in-stream monitoring data from DEP Trend Stations, DMRs, and DEP Stream Assessments or;
- If the immediate receiving stream for a proposed discharge is listed on the operable Section 303(d) List for use impairment related to selenium, or;
- There is an approved selenium Total Maximum Daily Load for the receiving stream or downstream waters that mandates regulation of selenium in the discharges from the activity.

## **SECTION 2**

Surface and deep mining operations initially deemed to have selenium as a POC shall be required to perform overburden sampling, as follows:

### **Overburden Sampling Plan**

The recommended spacing of sample sites will be on approximately 2000 foot spacing<sup>2</sup>, or other spacing approved by the geologist reviewing the surface mining application. The holes will be located on the uppermost part of the strata to be mined and drilled down to 10 feet below the lowest seam to be mined for surface mines and strata a minimum of 50 feet above and 10 feet below the seam to be mined for deep mines. This will help ensure that all the overburden to be disturbed is sampled. The reviewing geologist may require supplemental sampling locations, if deemed necessary. Detailed geologic logs of the drill holes, to include chroma as per Munsell’s chart, are required<sup>3</sup>.

<sup>2</sup> Geologic Handbook, pages 29 to 33, published by the DEP in September 2005 for further guidance.

<sup>3</sup> Geologic Handbook, pages 23 to 25, published by the DEP in September 2005 for further guidance).

All strata, including the coal seam(s) will be sampled for selenium according to U.S. EPA- 600/2-78-054 *Field and Laboratory Methods Applicable to Overburdens and Minesoils*, Chapter 2. This method generally requires sampling every 5 feet for sandstones, 3 feet for shale or other soft rock including coal seams, or each time the strata or chroma changes. The core should be split longitudinally along its length, and a composite analysis shall be done for each stratum. (Stratum sub-sampling is not acceptable.)

Each sample will be analyzed for total selenium by the 3050B (for Acid Digestion of Solids) method. The laboratory performing the test must have a valid DEP Laboratory Certification Program approval to perform metals analysis.

If the total selenium concentration of any strata is equal to or greater than 1 mg/kg, the applicant shall implement a selenium isolation plan or alternatives, as described in Section 3. If all of the tested materials exhibit selenium concentrations less than 1 mg/kg, then the activity will be deemed not to have reasonable potential to cause or contribute to selenium water quality criteria violations.

### **SECTION 3**

#### **Surface Mine and Deep Mine Face-up Operations**

##### **Selenium Isolation Plan**

Surface mine and deep mine face-up operations with the total selenium concentration of any strata is equal to or greater than 1 mg/kg, shall isolate the following materials:

1. All black/dark grey coal pit materials (Munsell Soil Color Chart of 2.5 or less) that are visibly differentiated in the field. Mining companies typically term this material "pit cleanings."
2. Any overburden stratum greater than 12 inches in thickness with selenium concentrations greater than 1 mg/kg or Munsell Soil Color Chart of 2.5 or less. The reviewing geologist shall also require isolation of strata that are individually less than 12 inches in thickness, if they meet the selenium or Munsell conditions and are proximate to strata of similar characteristics. Provided that where the permit specifically demonstrates that this material has a selenium concentration less than 1mg/kg, isolation of the material will not be required.
3. The pavement floor shall be removed and isolated if the selenium concentration is equal to or greater than 1 mg/kg to avoid contact with the water/rock interface. Pavement is defined as the pit floor associated with the lowest seam to be mined within any a specific area of the operation and as identified in Item 6 below.

Isolation shall be accomplished as follows:

1. The material shall be isolated promptly to minimize weathering and leaching of selenium.

2. The material shall be isolated in an area of the operation that is high and dry, away from watercourse, and under no circumstance shall any of this material be put in a valley fill.
3. The material shall be put on a free draining pad of at least 10 feet of coarse non-toxic material and the selenium laden material shall be covered with at least 4 feet of the most impervious material available on the surface mining operation.
4. Provided that DEP shall require revision to this plan, where it is demonstrated as necessary to meet performance standards.
5. The isolation cells are to be certified by a registered professional engineer or licensed land surveyor that they were constructed as per permit specifications and located geographically (GPS) on the progress maps.
6. For applications proposing excavated in-stream sediment control structures; any coal seam or dark carbonaceous shale encountered during the excavation of the structure shall be removed, handled, and disposed of in accordance with the procedures specified herein or other appropriate method approved by the Director.

### **Deep Mining / Augering**

Deep mining and augering operations with total selenium concentration of the coal seam being mined, immediate roof, or pavement equal to or greater than 1 mg/kg, will be required to provide the following requirements or meet the following conditions.

The location of openings in coal seams, with total selenium concentration of the coal seam being mined, immediate roof, or pavement equal to or greater than 1 mg/kg, will be situated in such a manner to prevent a gravity discharge, unless the applicant can demonstrate by other methods that the anticipated discharge will not cause or contribute to a violation of the WQS for selenium. During active mining operations with pumped discharges, the applicant shall demonstrate, in their Hydrologic Reclamation Plan (Section J-11) and NPDES application (Modules 7 and 8), the methodologies that will be utilized to ensure compliance with applicable water quality based effluent limitations.

## **SECTION 4**

### **WV/NPDES Permit Considerations**

The WV/NPDES Permit for all operations located in the Kanawha formation, Winifrede to Upper No.5 Block coal seam, shall contain selenium report only requirements. The WV/NPDES Permit for any activity determined to have reasonable potential to cause or contribute to selenium exceeding the current WQC will include selenium effluent limitations and self-monitoring requirements.

For Tier 1 anti-degradation implementation, effluent limitations will require the achievement of selenium water quality criteria end-of-pipe for outlets associated with in-stream treatment

structures and all other outlets where no dilution is available in the immediate receiving stream. For outlets with available receiving stream dilution, effluent limitation development will incorporate dilution, but only to the extent that assures compliance with applicable water quality standards. For Tier 2 and higher waters, anti-degradation implementation may result in selenium effluent limitations more stringent than those described herein.

WV/NPDES permits for activities that are determined to not have reasonable potential to cause or contribute to selenium water quality criteria violations shall not contain selenium effluent limitations. Operations that demonstrate the ability to achieve compliance with the WQC for selenium through implementation of procedures described in Section 3 may be determined to not have the potential to cause or contribute to a violation of the WQC for selenium. However, those permits shall contain selenium report only requirements to confirm that the activity is not adversely impacting water quality.

**This Guidance is also found in  
Series 23 of the I&E Handbook and Series 32 of the Permitting Handbook**

**SUBJECT: Post Mining Limits under 47 CSR 30**

**DATE: January 3, 2014**

**APPROVAL: Harold Ward – Acting Director**

## **INTRODUCTION**

This memorandum supersedes the previous guidance concerning post-mining limits issued by the agency on February 28, 1995. In the eighteen years since the last guidance was issued, significant changes have occurred to the procedures for preparing effluent limitation for mining permits. The purpose of this guidance is to ensure that evaluations of effluent limits for Post-Mining Areas are processed in a consistent manner with full consideration of the type of outlet, the applicable effluent limitations, and the protection of the receiving stream. This guidance provides a uniform method for the review and assignment of both technology-based effluent limitations (TBELs) and water quality-based effluent limits (WQBELs) for post-mining areas.

## **DISCUSSION**

Effluent limits are separated into two categories – technology-based effluent limits (TBELs) and water quality-based effluent limits (WQBELs)... TBELs are established to require “a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through WQBELs.” *NPDES Permit Writers’ Manual*, p. 5-1.

TBELs for coal mining facilities are set forth in the effluent limitation guidelines (“ELGs”) in 40 CFR 434. This regulation sets forth categories applicable to different types and stages of mining activities. WQBELs are based on the water quality standards set forth in 47 CSR 2. Whereas TBELs are specified by regulation, WQBELs are calculated, when appropriate to protect receiving water quality, based upon the procedures set forth in EPA’s *Technical Support Document for Water-Quality-Based Toxics Control* (the “TSD”).

This document sets for the procedure for assigning effluent limitations for facilities that are classified as a “Post Mining Area” under 40 CFR § 434.11(k). This document also explains the requirements for water quality data for applications to revise effluent limitations for Post Mining Areas.

## PROCEDURE

### *TBELs*

Under 40 CFR § 434.11(k), the following operations are classified as a Post Mining Areas:

- (1) A reclamation area, which is the surface area of a coal mine which has been returned to required contour and on which revegetation (specifically, seeding or planting) work has commenced, or
- (2) The underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

Neither of these are based upon a requirement for raw water quality, unlike the requirement for classification as “alkaline mine drainage.” This is logical, because TBELs are not related to receiving water quality. Instead, this role is served by WQBELs set to protect West Virginia’s water quality standards.

The determination for classification as a Post Mining Area is based on three factors: (1) mining in the area is completed; (2) the surface area has been returned to contour; and (3) revegetation has commenced. This determination is made on an outlet-by-outlet basis. The drainage area associated with each outlet will be assessed individually to determine whether each of the three factors is satisfied. It is possible for one or more outlet to be classified as a Post-Mining Area, while other outlets do not qualify for reclassification.

Once an outlet qualifies as a Post Mining Area, manganese effluent limitations may be re-evaluated immediately. If the permit contains WQBELs for manganese that is necessary to protect a public water supply intake, then the manganese effluent limitations must remain. If the permit does not contain WQBELs for manganese for an outlet, then the manganese effluent limitations may be removed for any outlet that discharges from an area classified as a “reclamation area” under 40 CFR § 434.11(k).

Past versions of DEP guidance precluded deep mine discharges, pump discharge, and instream ponds located in intermittent or perennial streams from classification as Post-Mining Areas. This contradicts Federal regulations set forth in 40 CFR 434. **However, as a practical matter, classification as a Post Mining Area does not change the effluent limitations for a discharge from the underground workings of an underground mine, since the applicable TBELs for underground workings of underground mines are the same for active mining areas and post-mining areas.** See 40 CFR § 434.55(b) and 40 CFR § 434.35. As with active mining areas, manganese can be removed if the discharge from an underground working of an underground mine at a Post-Mining Area can meet the criteria for classification as “alkaline mine drainage.”

## ***WQBELs***

While TBELs apply to all outlets, the majority of outlets have also been assigned WQBELs. Therefore, both types of effluent limitations must be evaluated when reviewing an application for post mining limits. Likewise, the review process for on-bench outlets is different than the process for instream outlets or deep mine discharges. Importantly, the classification of an outlet as a Post Mining Area **does not affect any WQBELs** assigned to the outlet. Because WQBELs are assigned based on reasonable potential to cause or contribute to a violation of water quality criteria in the receiving stream, WQBELs can only be removed from an outlet by following the procedure set forth in the following paragraphs.<sup>1</sup>

**On-bench outlets.** Prior to applying for post-mining limits, the permittee must provide one of the following data sets for each outlet:

- Twelve (12) months DMR data plus 1 raw sample, if the outlet is not chemically treated;
- Six (6) months of raw sample data collected prior to any chemical treatment;
- If the outlet does not flow consistently, 12 months DMR data plus 1 raw sample with confirmation from the DEP inspector; OR
- If the outlet does not discharge, 12 months of DMR demonstrating no flow with confirmation from the DEP inspector.

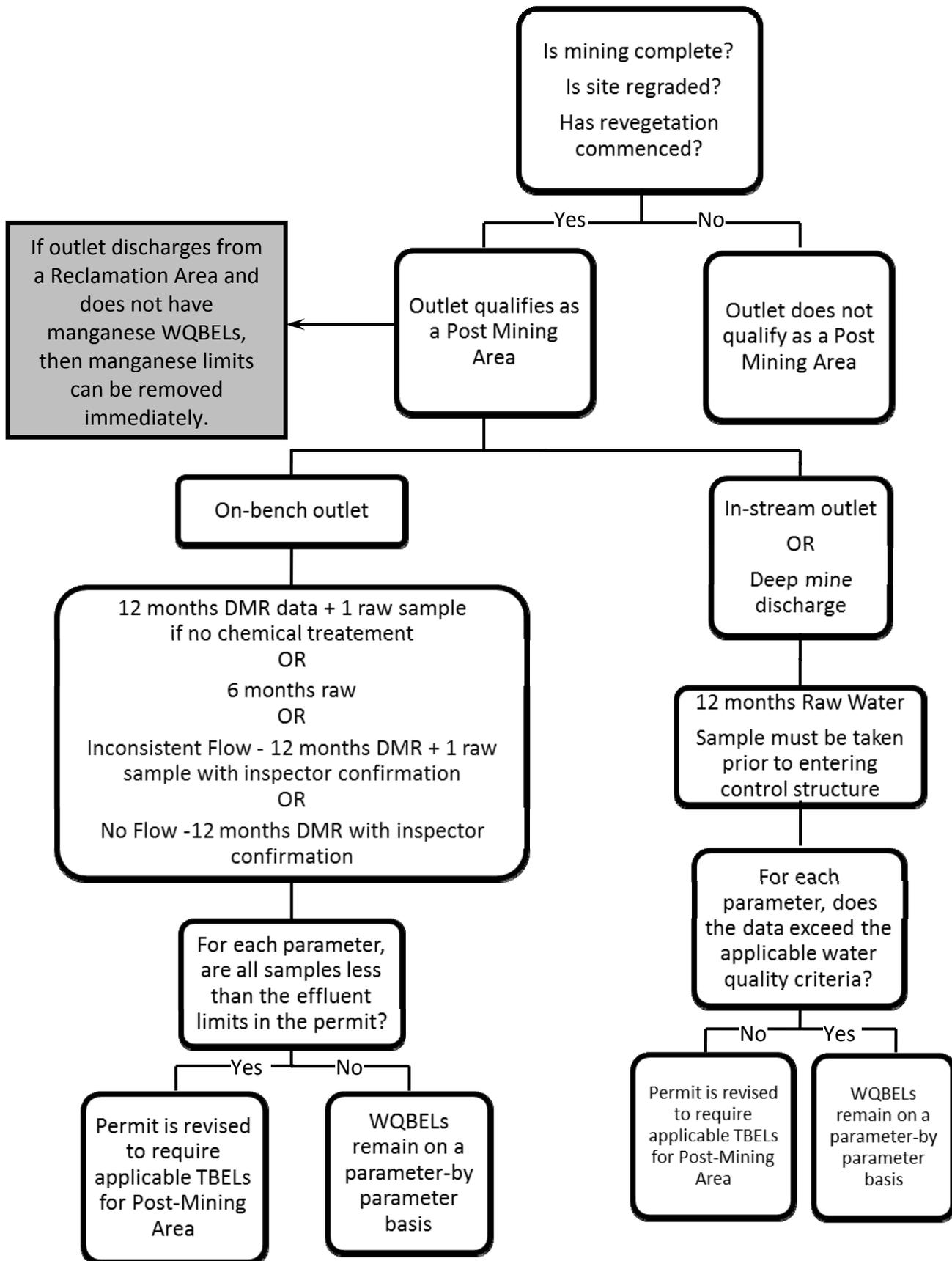
The data will be compared to the corresponding outlet's effluent limitations. If the data meets all WQBELs in the permit, then the outlet will be assigned the appropriate TBELs for a Post-Mining Area specified in 40 CFR 434. WQBELs will remain in the permit for any parameter that does not meet the effluent limitations set forth in the NPDES permit.

**Instream or deep mine outlets.** Prior to applying for post-mining limits, the permittee must provide 12 months raw water data for each outlet, prior to chemical treatment. This sample needs to be taken prior to the water entering the associated control structure. The agency will compare the data to the applicable water quality criteria. If the data does not exceed the corresponding water quality criteria, then the outlet will be assigned the appropriate TBELs for a Post-Mining Area specified in 40 CFR 434. WQBELs will remain in the permit for any parameter that exceeds the applicable water quality criteria in the receiving stream.

The agency has developed the following flow diagram to represent the procedure for revising both WQBELs and TBELs for Post-Mining Areas:

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<sup>11</sup> Limited situations may arise that are not addressed by this guidance. In those situations, discretion may be exercised by the permit writer, after consultant with DEP headquarters. In addition, this policy does not affect the requirements for pond removal under SMCRA.



## **CONCLUSION**

Most outlets have both TBELs and WQBELs assigned to them. TBELs are based solely on regulation and are independent of water quality of the outlet and receiving stream. WQBELs, on the other hand, are designed specifically to protect water quality in the receiving stream. The evaluation for post mining limits must evaluate both the relevant TBELs for that category as well as the need for WQBELs to assure protection of instream water quality.

**This Guidance is also found in  
Series 23 of the I&E Handbook and Series 5 of the Permitting Handbook**