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BASELINE WATER QUALITY (BWQ) PROTOCOL

As the agency continues in our activities to comply with the requirements of Title 60, Series 5, Anti-degradation Implementation Procedures, we are discovering that portions of the baseline water quality data generated may not be in accordance with the appropriate sampling and analytical protocol to produce the required “recent and reliable” data required by the rule. This complicates the process for all and can exponentially add to the time element required for permitting decisions.

The Department has prepared a Baseline Water Quality (BWQ) Assessment Procedures anti-degradation guidance document, issued November 30, 2001. This document is available on our WVDEP web site. It is important to become familiar with the entire procedures enumerated in this guidance document. However, this notice will just address the issue we have been experiencing with recent submittals.

- At least 12 samples should be collected over a minimum six (6) month period.
- Two(2) samples should be obtained every month, at least seven (7) days apart, for the entire sampling period. Generators may sample more frequently than specified, but are expected to provide the results of all monitoring.
- The generator should note any monitoring that does not conform to the specifications of this guidance. Only qualified monitoring results will be used in the establishment of BWQ.
- Sampling should be limited to when there has been less than 0.3 inches of rain in the three (3) days prior to sampling and less than 0.1 inches of rain in the 24 and 48 hours prior to sampling. The purpose of the sampling is to represent low flow (7Q10 – minimum seven consecutive day drought flow with a 10-year return frequency) conditions of the receiving streams.
- The generator of BWQ data should install and maintain a rain gauge within a three (3) mile radius of the BWQ sampling location to ensure that all samples taken are representative of the described conditions.

- If environmental conditions prevent achieving the minimum collection requirements, the sampling period should be extended until at least 12 samples are obtained. In the event that environmental conditions allow the collection of only one (1) qualified sample in a particular month, the data associated with that sample should not be rejected.
- The Baseline Water Quality analytical data along with the supporting rain gauge data the three preceding days (24-hour period) shall be submitted with the NPDES application. Be, aware that this information is required for issuance of a SMA number.
- Last but not least contact your local NPDES Permit Writer to establish the BWQ station location and if you should have any questions.

BWQ sampling data that does not meet the protocol shall be rejected. Additional data will have to be generated. This could result in some unintended delays. It is in the best interest of all that the proper protocols are followed early in the process.

This document is just a mere summarization and reformatting of the procedures outlined in the Baseline Water Quality Assessment Procedures anti-degradation guidance. It is only intended to provide assistance in the understanding of sampling and analytical protocol in an effort to afford clarification on an item that appears to have caused some implications to the permitting procedures. Familiarity and understanding of the entire guidance document is recommended.

SUBJECT: Baseline Water Quality (BWQ) Guidance

DATE: December 19, 2008

60 CSR 5, 3.4 Baseline water quality. Where baseline water quality has not been established for the water segment the regulated entity proposes to impact or has not been established for a parameter of concern that is reasonably expected to be discharged into the water segment as a result of the proposed regulated activity, the Secretary must determine the baseline water quality for the receiving water body. The Secretary may consider data for establishing the baseline water quality from a federal or state agency, the regulated entity, the public, or any other source, as long as the data are **recent** and reliable. If adequate data are not available, the agency may, in conjunction with the regulated entity or on its own initiative, establish a plan for obtaining the necessary data. The regulated entity may be required to provide baseline water quality for those parameters of concern that are reasonably expected to be discharged as a result of the regulated activity into the affected water segment to help the permitting agency determine the baseline water quality, the existing uses, and the applicable tier. The regulated entity should contact the Secretary prior to initiating a baseline water quality evaluation to seek concurrence with its determination of the parameters of concern for its proposed activity and its proposed sampling protocol.

This guidance addresses how recent collected BWQ data needs to be to satisfy the above legislative rule as it relates to “recent”. BWQ data collected for this purpose shall be no older than 2 years when submitted to the agency for finalization. BWQ collected data older than 2 years will not be accepted unless the applicant recollects recent BWQ data as validation samples and demonstrates to the permit writer that the chemistry of the stream has not changed. Upon BWQ being finalized by the agency it will be established and used for all future anti-degradation reviews. However, BWQ reassessments may be appropriate if the data used in the original determination is shown to have been negligently or fraudulently generated, or if the water quality of the segment is believed to be significantly improved or degraded than what existed at the time of the original BWQ determination. New applicants may petition the agency to authorize BWQ reassessment under those circumstances.

This guidance also addresses that at least 12 samples shall be collected over a minimum six (6) month period. Two samples should be obtained every month, at least seven days apart for the entire sampling period. The data collection shall not take more than 12 months to complete.

If the established BWQ does not contain all the parameters of concern for the applicant, then the applicant must collect and establish BWQ for the new parameters of concern.

Older established BWQ locations were assigned using larger drainage areas. The new, 16 digit reachsheds are smaller and could possibly require additional BWQ locations to cover each stream segment that will receive discharges.