

Idaho Antidegradation Implementation Discussion Paper Point and Nonpoint Source Controls

Introduction

Before DEQ authorizes a point source to degrade water quality in a high quality water, Federal rules (40 CFR 131.12(a)(2)) and the Idaho water quality standards (WQS, IAC 58-0102 §051.02) require DEQ to assure that the “highest statutory and regulatory requirements for all new and existing point sources and cost-effective and reasonable best management practices (BMPs) for nonpoint source (NPS) control” will be achieved. This assurance is necessary because it would be inconsistent with the antidegradation philosophy to allow further degradation in a water body where there are compliance problems with point and nonpoint source activities.

Assuring that such controls are or will be achieved is not an easy undertaking. The objectives of this paper are to: 1) discuss the appropriate spatial extent of this assurance, 2) discuss what characterizes statutory and regulatory requirements for point sources as well as cost-effective and reasonable BMPs for NPS, 3) summarize how surrounding states are approaching these issues, and 4) provide recommendations on how DEQ should address these issues.

Spatial Applicability

When evaluating whether all point and nonpoint source activities are implementing their appropriate level of controls, DEQ must determine the appropriate spatial extent for such a review. Meaning, how far upstream and downstream should DEQ look? If a new point source proposes to discharge to the Snake River at Weiser, should DEQ require an evaluation of all point and nonpoint source activities affecting the Snake River from headwaters to mouth, including all of its tributaries? This vast of a spatial extent is not reasonable, just as only looking at the single point of discharge is not reasonable.

If it is desirable to establish a predetermined spatial extent for this review, DEQ can consider equating the area of review to an assessment unit (AU), water body identification (WBID) unit, or a hydrological unit. The AU option could be considered because DEQ conducts its support status determinations at the AU level. However, the AU level is not ideal because a 3rd order assessment unit ignores the first and second order tributaries which may be contributing the pollutant of concern. It would be reasonable to require the point source and NPS activity review on a WBID unit basis because beneficial uses are designated on the WBID unit scale. The 4th field hydrologic unit scale is likely not reasonable, as it would encompass a large geographic area, but smaller hydrologic units may make sense, especially if they are entire watersheds.

Alternative, DEQ may decide that it isn't necessary to establish a predetermined spatial extent for this review. Rather, DEQ will evaluate an appropriate spatial extent for this review on a case-by-case basis. The advantage to this approach is that it allows for consideration of the types of pollutants, discharges, and site conditions. The disadvantage to this approach is the possibility of inconsistent implementation throughout the state.

Proposed approach for rule

DEQ recommends reviewing point source and nonpoint source activities on a WBID unit basis (including those areas upstream and downstream of the discharge) unless it is determined that a larger spatial extent is necessary for a particular pollutant. For example, if a point source discharges nutrients into the Snake River near Idaho Falls, DEQ may determine that the review should include the American Falls Reservoir, even though the reservoir is considered a different WBID. DEQ recommends this be presented in antidegradation implementation guidance.

Highest Statutory and Regulatory Requirements for Point Sources

Before a point source is authorized to degrade water quality, DEQ must have assurance that other point source discharges to the water body are achieving the highest statutory and regulatory requirements. DEQ does not have NPDES primacy and Idaho has not established specific treatment requirements for point sources that exceed federal regulations. In fact, Idaho wastewater rules (IDAPA 58.01.16) state the “required degree of wastewater treatment shall be based on the effluent requirements and water quality standards established by the responsible state agency and appropriate federal regulations including discharge permit requirements.”

DEQ could consider adopting a requirement that dischargers apply all known, available, and reasonable treatment (AKART) methods. AKART may be interpreted to be equivalent to the federal regulations (effluent limitation guidelines) or it could be something more rigorous, depending on the situation. However, if anything more stringent than the federal regulations were put into rule, DEQ would have to justify the rule language according to Idaho Statute 39-107D. Furthermore, given that Idaho does not have NPDES permitting authority, it is uncertain as to whether EPA would incorporate AKART into their NPDES permits. In the past DEQ tried to adopt methods for developing water quality based effluent limits (WQBELs) in its WQS. These methods were less stringent than the federal methodology for developing WQBELs. In response to this effort, EPA stated, “EPA currently is responsible for developing, issuing and enforcing NPDES permits in Idaho. Therefore, we are not required to follow any implementation procedures that may be added to the State’s WQS....Until the State is authorized to run the [NPDES] program, EPA Region 10 will continue to follow the reasonable potential procedures it applies in all permits it issues in the region.”

Lacking any rules specifying the expected level of treatment technologies to be used, DEQ must rely upon federal regulations. At a minimum, the treatment technologies must comply with the effluent limitation guidelines in federal regulations and achieve applicable technology based effluent limits (TBELs). Where the TBELs are insufficient to meet water quality standards, then EPA must develop water quality based effluent limits (WQBELs), which may drive a discharger to install more advanced levels of treatment.

DEQ could assume the highest statutory and regulatory requirements for point sources are reflected in the terms and conditions of NPDES permits, which include TBELs and/or WQBELs. Some permits incorporate additional requirements that are associated with state-authorized compliance schedules. DEQ may conclude that an existing point source is

achieving the highest statutory and regulatory requirements if it is in compliance with its NPDES permit, including any compliance schedules.

In implementing this approach, DEQ must determine what constitutes “in compliance.” There are a variety of reasons why a facility can be deemed in violation of its permit, including such things as: failure to report, failure to have an operation and maintenance plan or quality assurance plan, exceeding effluent limitations, or failure to conduct instream water quality monitoring if it is required in the permit. In deciding what is considered “in compliance” from an antidegradation review perspective, DEQ must decide if it is desirable to implement a one-strike and you’re out approach, or to give consideration to the type of permit violation coupled with the frequency of violations. Should a facility be deemed in compliance for antidegradation purposes if it meets its effluent limitations at least 95% of the time? Should DEQ select a frequency that is based on how many years of data the facility has? Should DEQ limit the review of existing discharges to just the pollutant(s) of concern in the new or increased discharge or should DEQ review all of the pollutants of concern in existing discharges, regardless of what the new or increased discharge proposes? These are just a few of the issues that DEQ will need to address when establishing a process for evaluating whether existing point sources are achieving the highest statutory and regulatory requirements.

Proposed approach for rule

The current draft rule language does not provide any details regarding how DEQ will ensure existing point sources are achieving the highest statutory and regulatory requirements. Rather, we recommend these details be provided in antidegradation implementation guidance.

We recommend that DEQ conclude point sources are achieving the highest statutory and regulatory requirements when point sources are complying with the effluent limitations in their permits. We recommend that assessment of whether other point source discharges are complying with their permits only be conducted for pollutants of concern that a new or increased discharge is proposing. As an example, when reviewing a new discharge that would like to discharge phosphorus to a water body DEQ needs to evaluate whether other existing discharges to the WBID unit are complying with their phosphorus limitations, if any, and not other pollutant effluent limitations.

DEQ will consider a facility as not achieving the highest statutory and regulatory requirements if it is shown that the facility is not meeting its effluent limits for the pollutant(s) of concern. DEQ does not believe the application of a “one-strike, you’re out” approach is appropriate, rather, DEQ recommends there be some consideration of the frequency and nature of effluent limit violations. What frequency of effluent limitation violation is chosen should be discussed with the negotiated rulemaking committee and/or writers of the guidance document.

The applicant will be responsible for conducting this research for all permitted point source discharges within their area of review and providing a summary of this information to DEQ.

Most Cost-Effective and Reasonable Best Management Practices for NPS

The federal antidegradation regulations do not require states to establish BMPs for NPS activities where such BMPs do not already exist. However, for NPS activities with required BMPs, the federal antidegradation regulations require states to assure those BMPs are being implemented prior to authorizing degradation of high quality water by a point source (*Ohio Valley Environmental Coalition v. Horinko*, 279 F. Supp.2d 732, Southern District of West Virginia 2003).

There are a variety of nonpoint source activities that are currently regulated by either local, state or federal agencies in Idaho, such as the following:

- Grazing – Soil Conservation Commission (SCC), U.S. Forest Service (USFS), Bureau of Land Management (BLM);
- Agriculture – SCC, Idaho State Department of Agriculture (ISDA);
- Mining – Idaho Department of Lands (IDL), DEQ, USFS, BLM;
- Oil and gas exploration – IDL;
- Logging – IDL, USFS;
- Road development and maintenance – Idaho Transportation Department (ITD), USFS, BLM, county highway districts;
- Land development – local governmental entities;
- Land application of wastewater – DEQ;
- Subsurface sewage disposal – DEQ.

Both Idaho Statutes and Idaho WQS identify designated agencies for specific NPS activities. Designated agencies are supposed to develop or identify the cost effective and practical best management practices for preventing or reducing the amount of pollution generated by nonpoint source activities to a level compatible with water quality goals. Designated agencies in Idaho include:

- Department of Lands (IDL) for timber harvest activities, oil and gas exploration and development, and mining activities;
- Soil Conservation Commission (SCC) for grazing and agricultural activities;
- Transportation Department (ITD) for public road construction;
- Department of Agriculture (ISDA) for aquaculture; and
- DEQ for all other activities.

Although not specifically designated in Idaho statute or rule, the USFS and BLM are responsible for ensuring NPS activities on federal lands are conducted in a manner that is consistent with the Clean Water Act (CWA). DEQ has entered into memorandums of understanding (MOUs) with many of these agencies to establish roles and responsibilities for ensuring NPS activities meet Idaho WQS.

The State of Idaho has also adopted voluntary and mandatory best management practices for NPS activities (Table 1). It is the responsibility of the designated agencies (or federal agencies) to ensure that the mandatory BMPs are implemented for activities under their purview. In the absence of voluntary or mandatory BMPs, NPS activities are supposed to

be conducted in a manner that demonstrates a knowledgeable and reasonable effort to minimize resulting adverse water quality impacts.

Table 1. Approved Best Management Practices.

| Best Management Practices | IDAPA | Designated Management Agency | Voluntary/Mandatory |
|---|--------------|-------------------------------------|----------------------------|
| Rules Pertaining to the Idaho Forest Practices Act | 20.02.01 | IDL | Mandatory |
| Solid Waste Management Rules | 58.01.06 | DEQ | Mandatory |
| Individual/Subsurface Sewage Disposal Rules | 58.01.03 | DEQ | Mandatory |
| Stream Channel Alteration Rules | 37.03.07 | IDWR | Mandatory |
| Rules Governing Exploration and Surface Mining in Idaho | 20.03.02 | IDL | Mandatory |
| Dredge and Placer Mining Operations in Idaho | 20.03.01 | IDL | Mandatory |
| Rules Governing Dairy Waste | 02.04.14 | ISDA | Mandatory |
| Idaho Agriculture Pollution Abatement Plan | 58.01.02 | SCC | Voluntary |

IDL – Idaho Department of Lands; DEQ – Idaho Department of Environmental Quality; IDWR – Idaho Department of Water Resources; ISDA – Idaho Department of Agriculture; SCC – Idaho Soil Conservation Commission

In addition to State agencies, local governmental entities (e.g. cities, counties, highway districts) have required nonpoint source activities within their jurisdiction to implement BMPs. For example, the City of Boise adopted a stormwater management and discharge control ordinance that requires, among other things, implementation of stormwater BMPs. It may be prudent (or required) for DEQ to have assurance that all of these local, mandatory BMPs are being implemented within the review area prior to authorizing a lowering of water quality.

It is clear that Idaho regulates a variety of NPS activities through application of mandatory BMPs. Thus, if mandatory BMPs for NPS activities are not or will not be implemented within the area being reviewed, then DEQ could not authorize degradation from a new or increased discharge.

It is also clear that Idaho has voluntary BMPs and strongly encourages landowners to implement them (e.g. the agricultural pollution abatement plan). Whether DEQ could authorize degradation from a point source when voluntary BMPs are not being implemented is unclear, although the likely answer is “yes, DEQ could authorize degradation.”

Proposed approach for rule

The preliminary draft rule language does not provide any details regarding how DEQ will ensure all reasonable and cost-effective BMPs are being achieved by NPS in the area of concern. Rather, we recommend these details be provided in antidegradation implementation guidance. DEQ needs to establish procedures or criteria for determining whether BMPs are being implemented satisfactorily.

It is the responsibility of the discharger to work with the federal, state and local agencies to assess whether NPS activities within the review area are implementing the mandatory BMPs for those parameters of concern. The applicant should prepare a summary of their findings for DEQ to review.

Summary of Other States

Washington

- Their rules state that one of the purposes of antidegradation is to, “Ensure that all human activities that are likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART).”
- They don’t mention this in the Tier II guidance, so it is unclear how it is implemented during a Tier II review process.
- There is no mention of assessing whether existing point sources are complying with their discharge permits.
- There is no mention of reviewing BMP implementation for NPS activities.

Oregon

- Their rules do not specifically mention achieving appropriate controls for point and nonpoint source activities.
- Oregon does require that a new discharger employ the best available technology economically achievable; however, Oregon rules don’t appear to require existing discharges to employ this technology prior to allowing a new/increased discharge to lower water quality.
- Oregon antideg rules are currently under legal challenge

Nevada

- Nevada requires that the new or increased source of pollution implement the highest and best degree of waste treatment available under existing technology, consistent with the best practice in the particular field under the conditions applicable, and reasonably consistent with the economic capability of the project or development.
- Although not in rule, their Continuing Planning Process document indicates that Nevada will assure that highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable BMPs for nonpoint source controls are implemented. We did not find any additional details about how this is done.

Utah

- Rules state that all new and existing point sources achieve all statutory and regulatory requirements for all new and existing point sources and all required cost-effective and reasonable best management practices for NPS control in the areas of the discharge.
- Rules further state: “If point sources exist in the area that have not achieved all statutory and regulatory requirements, the Executive Secretary will consider whether schedules of compliance or other plans have been established when evaluating whether compliance has been assured. Generally, the “areas of the discharge” will be

determined based on the parameters of concern associated with the proposed activity and the portion of the receiving water that would be affected.”

Wyoming

- Rules have the basic concept of ensuring existing PS and NPS achieve all appropriate controls.
- Guidance introduces a concept of the “zone of influence” which is determined on a case-by-case basis and will depend on the parameter of concern, the characteristics of the receiving water body, and other factors.
- Guidance indicates that if a point source is not complying with their WYPDES permit, then Wyoming may conclude that the point source has not achieved its statutory and regulatory requirements. Schedules of compliance may be taken into consideration meaning that as long as there is reasonable assurance of future compliance, then the lowering of water quality due to a new or increased discharge may be allowed.

Montana

- Rules state that if degradation of high quality waters is allowed, the department will assure that within the USGS hydrologic unit upstream of the proposed activity, there shall be achieved the highest statutory and regulatory requirements for all point and nonpoint sources. This assurance will be achieved through ongoing administration by the department of mandatory programs for control of point and nonpoint discharges.