

[Topic #1- Is the current Antidegradation Rule consistent with Federal Clean Water Act. If not, what changes should be made to correct the inconsistencies?](#)

Background

In 2011 EPA Region 9 personnel reviewed ADEQ's antidegradation policies, implementation methods, and permits to assess ADEQ's interpretation and application of the Federal antidegradation requirements. EPA found that ADEQ's policy and implementation methods generally met federal requirements. The only significant change in Federal requirements since EPA R9's review in terms of requirements for state antidegradation programs was the modification of 40 CFR 131.12 in 2015.

Recommendation

The workgroup consensus is that Arizona Administrative Code Title 18, Chapter 11, Sections 107 and 107.01 are consistent with the Federal Clean Water Act and no changes are necessary. The workgroup also encouraged ADEQ to provide public comment on its draft Antidegradation Implementation Policy and move towards finalizing the policy.

[Topic #2- ADEQ is proposing that Baseline Characterization section \(R18-11-107.01 \(B\)\(3\)\(c\)\) be renumbered to R18-11-107.01 \(B\)\(2\) with the subsequent sections of 107.01 being renumbered. Do work group members anticipate any adverse impacts or risks associated with this change?](#)

Background

Currently the Baseline Characterization requirement is located under 107.01(B)(3) Antidegradation Review, which discusses what occurs when significant degradation may occur. However, Baseline Characterization must be established before any potential level of degradation can be determined. The proposed change is meant to align the rule and the process that would be followed in a Tier 2 antidegradation review where baseline water quality must be known in order to determine the degree to which degradation may occur.

Recommendation

The workgroup consensus is that renumbering current Baseline Characterization language to 3(a) from 3(c) would be appropriate rather than renumbering it to (B)(2). Renumbering the section will allow for the rule to follow the process steps required under a Tier 2 Antidegradation Review. See proposed revisions in Appendix A of this document.

[Topic #3- ADEQ is proposing that the temporary impacts to OAWs language found in R18-11-107.01 C\(4\) be moved to its own section C\(5\) and clarify that](#)

the temporary impacts cannot be “regularly occurring”. Do work group members anticipate any adverse impacts or risks associated with this change?

Background

Placing temporary impacts in its own section would allow ADEQ flexibility to allow for temporary impacts to OAWs for non 404/401 activities should they be deemed necessary.

Discussion

Positon A (Pima County)

Pima County disagrees with this proposed change to remove the “temporary impacts” language from subsection 4 and to create an independent subsection with the “temporary impacts” language. The proposed change broadens the allowance of temporary impacts to Tier 3 protected OAWs so that it would include discharges beyond those regulated under §404 which require §401 approval. During our workgroup discussions, ADEQ failed to identify the need for this broadening for temporary impacts and could not describe the types of activities that were intended to be covered in this manner. For this reason, it is not possible to offer any alternative rule language to accommodate ADEQ’s intent. Therefore, we believe that the rule language should remain as is.

Recommendations

- 1) There was no consensus reached on moving temporary impacts to its own section as described in the workgroup charter.
- 2) The workgroup consensus is that “not regularly occurring” should be added to clarify how temporary impacts are defined. See proposed revisions in Appendix A below.

Topic #4- How can the definition of an “effluent dependent water” (EDW) (R18-11-101 (17)) be changed to provide greater clarity to its applicability?

Background

Stakeholders questioned if an ephemeral water should be reclassified as effluent dependent waters once a discharge to it is authorized under an AZPDES permit or if additional criteria should be incorporated into the definition to clarify under what circumstances the water would be reclassified. Discussions centered upon the frequency and duration of a discharge necessary to clarify when an ephemeral waterbody becomes effluent dependent.

Discussion

Lee Decker provided the following revised definition of an Effluent Dependent Water for discussion:

“Effluent-dependent water (EDW)” means a surface water, classified under R18-11-113, that consists of a point source discharge of wastewater that occurs or is permitted to occur and continues for longer than 14 days more than two (2) times per year and the Director determines that the discharge will create an aquatic ecosystem sufficient to support the types of species, including fish, used to develop the aquatic and wildlife (edw) standards. An effluent-dependent water is a surface water that, without the described point source discharge of wastewater, would be an ephemeral water.

Position A (Pima County)

Pima County generally supports the proposed changes described for EDW definition. However, we strongly recommend that the phrase “including fish” be stricken from both places it occurs in the draft language. We believe that this phrase does not add anything to the proposal and that it may add confusion by falsely implying that EDWs must only be ecosystems that support fish.

Position B (City of Phoenix)

Before we can make any detailed comments, we request further explanation/rationale for selecting 14 days, two times per year, for a discharge to necessitate classification of the waterbody as an effluent-dependent water. We would also like more information on the meaning of “an aquatic ecosystem sufficient to support the types of species...” and how that would be determined by the Director.

Position C (City of Peoria)

This definition is helpful, but only accounts for limited discharge scenarios. For example, some WRFs may discharge for much shorter periods of time (1-2 days at a time), but more frequently, during certain times of year (winter months). Also, to evaluate the second part of the definition, after the “...and...”, may require analysis by an aquatic biologist to determine if “...the discharge will create or is creating an aquatic ecosystem sufficient to support the types of species, including fish, used to develop the aquatic and wildlife (edw) standards”.

Recommendation

The workgroup consensus is that the EDW definition should be revised to account for infrequent, short duration discharges that may not establish an effluent dependent water. However, there was no agreement on the exact frequency or duration required to create an effluent dependent water.

[Topic #5- Does the definition of “wastewater” \(R18-11-101 \(48\)\) clearly limit the applicability of an effluent dependent water? If not, how should the definition be changed?](#)

Background

The effluent dependent water definition found at R18-11-101(17) states that it “consists of a point source discharge of wastewater”. However, wastewater is defined at R18-11-101(48) by exclusion; the definition states what wastewater does not include but does not mention what it does include. Defining

what wastewater includes may provide additional clarification on applicability of effluent dependent water.

Discussion

Lee Decker provided the following revised definition of Wastewater:

48. "Wastewater" means effluent from a sewage or industrial wastewater treatment facility and does not include ~~mean~~:

- a. Stormwater,
- b. Discharges authorized under the De Minimus General Permit,
- c. Other allowable non-stormwater discharges permitted under the Construction General Permit or the Multi-sector General Permit, or
- d. Stormwater discharges from a municipal storm sewer system (MS4) containing incidental amounts of non-stormwater that the MS4 is not required to prohibit.

Position A (Pima County)

Pima County generally supports the proposed changes described for the Wastewater definition.

Position B (City of Peoria)

When I think of wastewater, I think of the untreated water that flows in a sanitary sewer line. Treated wastewater becomes wastewater effluent. So, with this logic, it would appear the definition of "wastewater" should be abandoned and replaced with a definition of "wastewater effluent". The definition of "wastewater effluent" could then be "a discharge from a domestic or industrial wastewater treatment plant". Just a thought. Also, this might allow elimination of the list of what "wastewater" does not include.

Position C (City of Phoenix)

Peoria made an excellent point that "wastewater" is typically used to refer to the WWTP influent. It's also worth noting that the following definition was just adopted into the new Recycled Water Rules to describe WWTP effluent. Could this definition be considered, to provide consistency?

R18-9-A701(11) - "Reclaimed water" means water that has been treated or processed by a wastewater treatment plant or an on-site wastewater treatment facility. A.R.S. § 49-201(32).

Recommendation

The workgroup consensus was that the definition of wastewater should be revised to clarify what wastewater is rather than what it is not. The workgroup also suggested that ADEQ should consider a term other than "wastewater" to describe water discharged from a water treatment facility.

Discussion Topics Outside of Charter Scope

Although the charter limited the EDW discussion to the definition found at R18-11-101 (17) the workgroup reviewed and discussed R18-11-113 Effluent Dependent Waters and how ADEQ applies the EDW designated use to ephemeral waters receiving infrequent AZPDES authorized discharges. The discussions centered upon the frequency or volume of discharge needed for an ephemeral water to be considered an EDW and the language contained in sections 113(D) and (E). The following proposed changes to R18-11-113 were submitted for ADEQ's consideration:

R18-11-113. Effluent-Dependent Waters

- A.** The Director shall classify a surface water as an effluent dependent water by rule.
- B.** The Director may adopt, under R18-11-115, a site-specific water quality standard for an effluent-dependent water.
- C.** Any person may submit a petition for rule adoption requesting that the Director classify a surface water as an effluent-dependent water. The petition shall include:
 - 1. A map and a description of the surface water;
 - 2. Information that demonstrates that the surface water consists of a point source discharge of wastewater that occurs or is permitted to occur and continues for longer than 14 days more than two (2) times per year and the Director determines that the discharge will create an aquatic ecosystem sufficient to support the types of species, including fish, used to develop the aquatic and wildlife (edw) standards; and
 - 3. Information that demonstrates that, without a point source discharge of a wastewater, the receiving water is an ephemeral water.
- D.** The Director ~~may shall~~ use the water quality standards that apply to an effluent-dependent water to derive water quality-based effluent limits for a point source discharge of wastewater ~~to an ephemeral water~~ to a water not yet classified as an effluent dependent water by rule if the Director determines that the water would otherwise meet the definition of an effluent dependent water under R-18-11-101.
- E.** The Director may use aquatic and wildlife (edw) acute standards only to derive water quality based effluent limits for a sporadic, infrequent, or emergency point source discharge to ~~an ephemeral water~~ an effluent-dependent water. The Director shall consider the following factors when deciding whether to apply A&Wedw (acute) standards:
 - 1. The amount, frequency, and duration of the discharge;
 - 2. The length of time water may be present in the receiving water;
 - 3. The distance to a downstream water with aquatic and wildlife chronic standards; and
 - 4. The likelihood of chronic exposure to pollutants.
- F.** The Director may establish alternative water quality-based effluent limits in an AZPDES permit based on seasonal differences in the discharge.

ADEQ will review the recommendations of in-scope and out of scope discussions as the agency drafts the Notice of Proposed Rule Making for the current triennial review of surface water quality standards.

Appendix A
Proposed changes to R18-11 107.01

R18-11-107.01. Antidegradation Criteria

A. Tier 1 antidegradation protection.

1. Tier 1 antidegradation protection applies to the following surface waters:
 - a. A surface water listed on the 303(d) list for the pollutant that resulted in the listing,
 - b. An effluent dependent water,
 - c. An ephemeral water,
 - d. An intermittent water, and
 - e. A canal listed in Appendix B.
2. A regulated discharge shall not cause a violation of a surface water quality standard or a wasteload allocation in a total maximum daily load approved by EPA.
3. Except as provided in subsections (E) and (F), Tier 1 antidegradation review requirements are satisfied for a point-source discharge regulated under an individual AZPDES permit to an ephemeral water, effluent dependent water, intermittent water, or a canal listed in Appendix B, if water quality-based effluent limitations designed to achieve compliance with applicable surface water quality standards are established in the permit and technology-based requirements of the Clean Water Act for the point source discharge are met.

B. Tier 2 antidegradation protection.

1. Tier 2 antidegradation protection applies to a perennial water with existing water quality that is better than applicable water quality standards. A perennial water that is not listed in subsection (A)(1) nor classified as an OAW under R18-9-112(G) has Tier 2 antidegradation protection for all pollutants of concern.
2. A regulated discharge that meets the following criteria, at critical flow conditions, does not cause significant degradation:
 - a. The regulated discharge consumes less than 20 percent of the available assimilative capacity for each pollutant of concern, and
 - b. At least 50 percent of the assimilative capacity for each pollutant of concern remains available in the surface water for each pollutant of concern.

3. Antidegradation review. Any person proposing a new or expanded regulated discharge under an individual AZPDES permit that may cause significant degradation shall provide the Department with the following information:
 - a. **Baseline characterization.** A person seeking authorization to discharge under an individual AZPDES permit to a perennial water shall provide baseline water quality data on pollutants of concern where no data exist or there are insufficient data to characterize baseline water quality and to determine available assimilative capacity. A discharger shall characterize baseline water quality at a location upstream of the proposed discharge location.
 - ~~a.~~b. **Alternative analysis.**
 - i. The person seeking authorization for the discharge shall prepare and submit a written analysis of alternatives to the discharge. The analysis shall provide information on all reasonable, cost-effective, less-degrading or non-degrading discharge alternatives. Alternatives may include wastewater treatment process changes or upgrades, pollution prevention measures, source reduction, water reclamation, alternative discharge locations, groundwater recharge, land application or treatment, local pretreatment programs, improved operation and maintenance of existing systems, seasonal or controlled discharge to avoid critical flow conditions, and zero discharge;
 - ii. The alternatives analysis shall include cost information on base pollution control measures associated with the regulated discharge and cost information for each alternative;
 - iii. The person shall implement the alternative that is cost-effective and reasonable, results in the least degradation, and is approved by the Director. An alternative is cost-effective and reasonable if treatment costs associated with the alternative are less than a 10 percent increase above the cost of base pollution control measures;
 - iv. For purposes of this subsection, “base pollution control measures” are water pollution control measures required to meet technology-based requirements of the Clean Water Act and water quality-based effluent limits designed to achieve compliance with applicable water quality standards;
 - ~~b.~~c. **Social and economic justification.** The person shall demonstrate to the Director that significant degradation is necessary to accommodate important economic or social development in the local area. The person seeking authorization for the discharge shall prepare a written social and economic justification that includes a description of the following:

- i. The geographic area where significant degradation of existing water quality will occur;
- ii. The current baseline social and economic conditions in the local area;
- iii. The net positive social and economic effects of development associated with the regulated discharge and allowing significant degradation;
- iv. The negative social, environmental, and economic effects of allowing significant degradation of existing water quality; and
- v. Alternatives to the regulated discharge that do not significantly degrade water quality yet may yield comparable social and economic benefits; and

~~e. Baseline characterization. A person seeking authorization to discharge under an individual AZPDES permit to a perennial water shall provide baseline water quality data on pollutants of concern where no data exist or there are insufficient data to characterize baseline water quality and to determine available assimilative capacity. A discharger shall characterize baseline water quality at a location upstream of the proposed discharge location; and~~

4. For purposes of this Section, the term “pollutant of concern” means a pollutant with either a numeric or narrative water quality standard.
5. Public participation. The Director shall provide public notice and an opportunity to comment on an antidegradation review under subsection (B)(3) and shall provide an opportunity for a public hearing under A.A.C. R18-9-A908(B).

C. Tier 3 antidegradation protection.

1. Tier 3 antidegradation protection applies only to an OAW listed in R18-11-112(G).
2. A new or expanded point-source discharge directly to an OAW is prohibited.
3. A person seeking authorization for a regulated discharge to a tributary to, or upstream of, an OAW shall demonstrate in a permit application or in other documentation submitted to the Department that the regulated discharge will not degrade existing water quality in the downstream OAW.

4. A discharge regulated under a § 404 permit that may affect existing water quality of an OAW requires an individual § 401 water quality certification to ensure that existing water quality is maintained and protected and any water quality impacts are temporary. Temporary water quality impacts are those impacts that occur for a period of six months or less **and are not regularly occurring.**
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- D.** Antidegradation review of a § 404 permit. The Director shall conduct the antidegradation review of any discharge authorized under a nationwide or regional § 404 permit as part of the § 401 water quality certification prior to issuance of the nationwide or regional permit. The Director shall conduct the antidegradation review of an individual § 404 permit if the discharge may degrade existing water quality in an OAW or a water listed on the 303(d) List of impaired waters. For regulated discharges that may degrade water quality in an OAW or a water that is on the 303(d) List of impaired waters, the Director shall conduct the antidegradation review as part of the § 401 water quality certification process.
 - E.** Antidegradation review of an AZPDES stormwater permit. An individual stormwater permit for a municipal separate storm sewer system (MS4) meets antidegradation requirements if the permittee complies with the permit, including developing a stormwater management plan containing controls that reduce the level of pollutants in stormwater discharges to the maximum extent practicable.
 - F.** Antidegradation review of a general permit. The Director shall conduct the antidegradation review of a regulated discharge authorized by a general permit at the time the general permit is issued or renewed. A person seeking authorization to discharge under a general permit is not required to undergo an individual antidegradation review at the time the Notice of Intent is submitted unless the discharge may degrade existing water quality in an OAW or a water listed on the 303(d) List of impaired waters.