

Document 4: Proposed Changes to Antidegradation Policy

R317-1-1 Definitions

1.32 “Existing Use” means any use during or after 1975.

1.33 “Assimilative Capacity” means the difference between the water quality standard or narrative criteria and the resulting concentration after the mixing zone of the effluent and waters of the state.

R317-2-3. Antidegradation Policy.



3.1 Maintenance of Water Quality

Waters whose existing quality is better than the established standards for the designated uses will be maintained at high quality unless it is determined by the Board, after appropriate intergovernmental coordination and public participation in concert with the Utah continuing planning process, allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. However, existing water uses shall be maintained and protected. No water quality degradation is allowable which would interfere with or become injurious to existing water uses.

In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with Section 316 of the Federal Clean Water Act.

3.2 Category 1 Waters

Waters which have been determined by the Board to be of exceptional recreational or ecological significance or have been determined to be a State or National resource requiring protection, shall be maintained at existing high quality through designation, by the Board after public hearing, as Category 1 Waters. New point source discharges of wastewater, treated or otherwise, are prohibited in such segments after the effective date of designation. Protection of such segments from pathogens in diffuse, underground sources is covered in R317-5 and R317-7 and the Regulations for Individual Wastewater Disposal Systems (R317-501 through R317-515). Other diffuse sources (nonpoint sources) of wastes shall be controlled to the extent feasible through implementation of best management practices or regulatory programs.

Projects such as, but not limited to, construction of dams or roads will be considered where pollution will result only during the actual construction activity, and where best management practices will be employed to minimize pollution effects.

Waters of the state designated as Category 1 Waters are listed in R317-2-12.1.

3.3 Category 2 Waters

Category 2 Waters are designated surface water segments which are treated as Category 1 Waters except that a point source discharge may be permitted, provided that the discharge does not degrade existing water quality. Waters of the state designated as Category 2 Waters are listed in R317-2-12.2.

3.5 Antidegradation Review (ADR)

An antidegradation review will determine whether the proposed activity complies with the applicable antidegradation requirements for receiving waters that may be affected.

An antidegradation review (ADR) may consist of two parts or levels. Level I reviews are conducted to ensure that the existing water quality will be maintained and protected, and to determine if a Level II review is required. Level II reviews are conducted to ensure that the project is necessary and to minimize environmental degradation to the extent feasible. Both Level I and Level II reviews will be conducted on a parameter-by-parameter basis. A decision to move to a Level II review for one parameter does not require a Level II review for other parameters. Parameters of concern are those parameters anticipated to be affected by the proposed activity with concentrations that exceed background conditions of the affected waterbody.

Antidegradation reviews shall include opportunities for public participation, as described in Section 3.5f.

a. Activities Subject to Antidegradation Review (ADR)

1. For all State waters, antidegradation reviews will be conducted for proposed federally regulated activities, such as those under Clean Water Act Sections 401 (FERC and other Federal actions), 402 (UPDES permits), and 404 (Army Corps of Engineers permits). The ADR will determine whether the proposed activity complies with the applicable antidegradation requirements for the particular receiving waters that may be affected if the proposed project is implemented.
2. The Executive Secretary may request a Level II ADR, or more extensive alternative evaluations, for any project that has the potential to significantly impact the quality of waters of the state. Factors that the executive secretary may consider include the following:
 - (a) existing concentrations in waters of the state are near numeric water quality criteria; or
 - (b) evidence is presented that alternatives not considered during previous antidegradation reviews would further reduce the degradation of water quality; or

- (c) evidence is presented that the designated uses are threatened;
- (d) evidence is presented that a waterbody is of exceptional biological or recreation importance.

- 3. An Antidegradation Level II Review will be required for discharges to waters with a Class 1C (drinking water) designated use.
- 4. For Category 1 Waters and Category 2 Waters, reviews shall be consistent with the requirements established in Sections 3.2 and 3.3, respectively.
- 5. For Category 3 Waters, reviews shall be consistent with the requirements established in this section

b. Level I Antidegradation Reviews

Level I reviews are conducted for all permitted activities as defined in 3.5(a) and will cover the following requirements and determinations:

(1) Will water quality criteria be violated by the discharge?

Proposed activities that will affect the quality of waters of the state will be allowed only where the proposed activity will not violate numeric or narrative water quality criteria, unless the effects are limited or short-term (as defined in 317-2-3.5(c)(4)). No UPDES permit will be allowed which will permit numeric water quality standards to be exceeded in a receiving waterbody outside the mixing zone. In the case of nonpoint pollution sources, the Section 319 program addresses these sources through application of best management practices

(2) Will existing uses be maintained and protected?

Proposed activities can only be allowed if they do not adversely affect support of existing uses. If a situation is found where there is an existing use which is a higher use (i.e., more stringent protection requirements) than that current designated use, the Division will apply the water quality standards and antidegradation policy to protect the existing use. Narrative criteria may be used as a basis to protect existing uses for parameters where numeric criteria have not been adopted. If an existing use requires higher water quality than the designated beneficial use, procedures to change the beneficial use designation to the existing use will be initiated within two years.

(3) A Level I review evaluates the criteria in Section 3.5c to determine if any degradation is short-term or limited in nature and therefore does not require a Level II review. A Level II review as described in Section 3.5d is required for all activities subject to an ADR unless it can be shown that it is not needed based on any of the 3.5c criteria.

c. An Antidegradation Level II review is not required, except as noted in 3.5(a)(2) and 3.5(a)(3), where any of the following conditions apply:

1. Water quality will not be lowered by the proposed activity. This includes situations where a UPDES permit is being renewed and the proposed effluent concentration value and pollutant loading is equal to or less than the effluent concentrations value and pollutant loading used for a previous ADR.

2. The receiving waters have no remaining assimilative capacity (based upon concentration) or the assimilative capacity has been previously allocated, as indicated by water quality monitoring or modeling information. This includes situations where:

(a) the water body is included on the current 303(d) list for the parameter of concern; or

(b) existing water quality for the parameter of concern does not satisfy applicable numeric or narrative water quality criteria; or

(c) discharge limits are established in an approved TMDL that is consistent with the current water quality standards for the receiving water (i.e., where TMDLs are established, and changes in effluent limits that are consistent with the existing load allocation would not trigger an antidegradation review).

3. Water quality impacts will be temporary and related only to sediment or turbidity and fish spawning will not be impaired,

4. The water quality effects of the proposed activity are expected to be short-term and limited in scope. The following are a few examples provide general guidance of short-term or limited activities: CWA Section 402 general permits, CWA Section 404 nationwide and general permits, or activities of short duration. For ADR, activities such as these will be deemed to have a temporary and limited effect on water quality where there is a reasonable factual basis to support such a conclusion. The 404 nationwide permits decision will be made at the time of permit issuance, as part of the Division's water quality certification under CWA Section 401. Where it is determined that the category of activities will result in temporary and limited effects, subsequent individual activities authorized under such permits will not be subject to further antidegradation review. Factors to be considered in determining the factual support of whether water quality effects will be temporary and limited may include the following:

(a) Length of time during which water quality will be lowered; or

(b) percent change in ambient concentrations of pollutants of concern; or

(c) pollutants affected; or

(d) likelihood for long-term water quality benefits to the segment (e.g., dredging of contaminated sediments); or

(e) potential for any residual long-term influences on existing uses; or

(f) Impairment of the fish spawning, survival and development of aquatic fauna excluding fish removal efforts.

d. Level II Antidegradation Review Process

For all activities requiring a Level II review, the Division will notify affected agencies and the public of the ADR. For Section 402 discharge permits, public participation will be conducted as part of the UPDES permitting process.

The Level II ADR will cover the following requirements or determinations:

1. Are there any reasonable less-degrading alternatives?

The project proponent shall present an evaluation of all reasonable non-degrading or less degrading alternatives for the proposed activity. The alternatives will be evaluated by the Executive Secretary for completeness and accuracy. The project proponent will be notified in writing of ADR application deficiencies.

For new proposed UPDES permitted discharges, or for proposed activities involving construction or upgrades to existing facilities, the alternatives analysis of the Level II ADR shall consist of two parts:

- (i) The review should include an evaluation of alternatives for disposal of all or part of the discharge. Examples of discharge disposal alternatives that should be evaluated include: connection to other treatment facilities, seasonal or controlled discharge to minimize effluent during critical water quality periods, pollutant trading, water conservation, land application, and total containment.
- (ii) Project proponents will evaluate and document feasible alternative treatment options. The magnitude and complexity of the project will determine the size of the report. The alternatives analysis should include alternative plant designs or treatment processes. Each major design or configuration should also present alternative processes, including product or raw material substitutions, and alternative operation and maintenance scenarios.

(b) For permit renewals, an addendum to a previously approved Level II review will be permitted, unless evidence is presented to the executive secretary that a more exhaustive alternatives review is warranted (as specified in 3.5(a)(2)). The addendum shall certify, that additional alternative analysis would not result in further minimization of pollution to waters of the state with:

- (i) A written statement certifying that all alternative treatment processes remain applicable and that the applicant is not aware of alternatives that were not previously considered.

- (ii) A written statement certifying that all operations and maintenance alternative procedures remain applicable and that the applicant is not aware of alternatives that were not previously considered.

2. Does the proposed activity have economic, environmental and social importance?

Information must be submitted by the applicant that any discharge or increased discharge is of economic, environmental or social importance.

The factors addressed in such a demonstration may include, but are not limited to, the following:

- (a) employment (i.e., increasing, maintaining, or avoiding a reduction in employment);
- (b) increased production;
- (c) improved community tax base;
- (d) housing;
- (e) indirect environmental impacts and benefits;
- (e) correction of an environmental or public health problem;
- (f) governmental support; and
- (g) other information that may be necessary to determine the social, environmental and economic importance of the proposed surface water discharge.

3. The applicant may submit a proposal to mitigate any adverse environmental effects of the proposed activity (e.g., instream habitat improvement, bank stabilization). Such optional mitigation plans can be proposed for a specific alternative (as evaluated in Section 3.5(d)(1)) or a group of alternatives. Mitigation plans should describe the proposed mitigation activities, measures of project success and the costs of implementation. Such mitigation plans will be developed and implemented by the applicant as a means to further minimize the environmental effects of the proposed activity and to increase its socioeconomic importance. Mitigation plans will not have any effect on effluent limits or conditions included in a permit, but an effective mitigation plan may, in some cases, allow the Executive Secretary to authorize proposed activities that would otherwise not be authorized.

e. Special Procedures

1. Drinking Water Sources

The Executive Secretary may require additional treatment, more stringent effluent limits, or additional monitoring when drinking waters are potentially impacted by a discharge. Any additional treatment/effluent limits/monitoring will be determined by the Executive Secretary after consultation with the Division of Drinking Water and the downstream drinking water users.

Such additional treatment options that may be required to protect public health include: additional disinfection, suspended solids removal to make the disinfection process more effective, removal of any specific contaminants for which drinking water maximum contaminant levels (MCLs) exists, and/or nutrient removal to reduce the organic content of raw water used as a source for domestic water systems.

Additional monitoring may include analyses for viruses, Giardia, Cryptosporidium, other pathogenic organisms, and/or any contaminant for which drinking water MCLs exist. Depending on the results of such monitoring, more stringent treatment may then be required.

2. 404 Permits.

For 404 permitted activities, all appropriate alternatives to avoid and minimize degradation should be evaluated. Activities involving a discharge of dredged or fill materials that are considered to have more than minor adverse effects on the aquatic environment are regulated by individual CWA Section 404 permits. The decision-making process relative to the 404 permitting program is contained in the 404(b)(1) guidelines (40 CFR Part 230). Prior to issuing a permit under the 404(b)(1) guidelines, the Corps of Engineers:

(a) makes a determination that the proposed activity discharges are unavoidable (i.e., necessary);

(b) examines alternatives to the proposed activity and authorize only the least damaging practicable alternative; and

(c) requires mitigation for all impacts associated with the activity. A 404(b)(1) finding document is produced as a result of this procedure and is the basis for the permit decision. Public participation is provided for in the process. Because the 404(b)(1) guidelines contains an alternatives analysis, the executive secretary will not require development of a separate alternatives analysis for the anti-degradation review. The division will use the analysis in the 404(b)(1) finding document in completing its anti-degradation review and 401 certification.

f. Evaluation of Level II Reviews

The Division will review and evaluate all information submitted by the applicant to determine whether the proposed activity will maintain existing uses, that the activity is necessary to accommodate socioeconomic development, and that every reasonable effort has been made to minimize environmental degradation.

Evaluations of all antidegradation reviews will cover the following procedures and determinations:

1. Evaluation of Statutory and Regulatory Requirements

The Executive Secretary will review each ADR and certify that all State and Federal statutory and regulatory requirements have been followed by approval of the ADR.

2. Selection among treatment alternatives

A feasible alternative (as specified in Section 3.5(d)(1)) more costly than the cheapest alternative that would meet water quality standards may be required if a benefit to water quality can be realized. For ADR purposes, alternatives are considered feasible where costs (including construction, and operation and maintenance expenses, calculated over a 20-year period, are no more than 20% higher than the cost of the discharging alternative. For POTWs, no alternative will be considered feasible if the option is projected to cause per connection service fees to be greater than 1.4% of MAGHI (median adjusted gross household income), the current affordability criterion now being used by the Water Quality Board in the wastewater revolving loan program. Alternatives within these cost ranges should be carefully considered and described by the applicant. Where State financing is appropriate, a financial assistance package may be influenced by this evaluation, e.g., a less polluting alternative may receive a more favorable funding arrangement in order to make it a more financially attractive alternative.

3. Evaluation of the Benefits of Treatment Options

For the purposes of ADR reviews, economic, social, and environmental alternatives of treatment alternatives shall be considered by the Executive Secretary, after appropriate consultation with local planning and development agencies, to make a determination of whether a proposed project is necessary to support economic and social considerations.

The Executive Secretary may consider that in some situations that it may be more beneficial to leave the water in a stream for instream flow purposes than to remove the discharge to the stream.

4. Overall evaluations of Level II reviews.

Level II antidegradation reviews are conducted for parameters of concern on a parameter-by-parameter basis, but ultimately the Executive Secretary will determine which feasible (as identified in 3.5(f)(2)) alternatives (as identified in 3.5 (d)(1)) and associated mitigation plans best minimize the overall environmental degradation of the watershed. The Executive Secretary shall establish reasonable protocols for completing technical, social, and economic need demonstrations based on existing federal guidance and on input from the local governments, the regulated community, and the general public.

5. Public Notice and Comments

The public will be provided notice and an opportunity to comment on the conclusions of all completed antidegradation reviews. Public notice of the antidegradation review conclusions will be combined with the public notice on the proposed permitting action whenever possible. In the case of UPDES permits, public notice will be provided through the normal permitting process, as all draft permits are public noticed for 30 days, and public comment solicited, before being issued as a final permit. The Statement of Basis for the draft UPDES permit will contain information on how the ADR was addressed including results of the Level I and Level II reviews and a copy of any Level II application materials submitted to the Division. In the case of Section 404 permits from the Corps of Engineers, the Division of Water Quality will develop any needed 401 Certifications and the public notice will be published in conjunction with the US Corps of Engineers public notice procedures. Other permits requiring a Level II review will receive a separate public notice according to the normal State public notice procedures. Procedures established in R-317-9 should be followed by project applicants or any member of the public with comments, questions, or concerns about any decisions made through the ADR process.

Discussion of Proposed Changes to Antidegradation Rule

Reorganization and General Edits

Many have suggested edits to provide additional clarity to existing ADR requirements. Most of these suggestions did not result in substantive changes to the intent of the antidegradation rule. We attempted to capture as many of these suggestions in our comments on each section of the rule below. While we made a considerable effort to capture all edits that have the potential to change interpretation of the rule, we may have inadvertently missed highlighting some of our proposed edits. As a result, we encourage workgroup members to not entirely rely on the summaries provided in this document.

The overall organization of the rule was changed by separating the requirements described in the previous rule into the following sections:

- a. Activities Subject to Antidegradation Reviews (ADRs)
- b. Procedures for Level I Reviews
- c. Level II Review “off ramps”
- d. Level II Review Procedures and Requirements
- e. Special Procedures (Drinking Water & 404 Permits)
- f. Review of Level II Reviews

The overall intent of the reorganization was to more clearly distinguish requirements for key ADR processes. Also, the addition of a separate section that describes procedures for evaluation of Level II reviews will allow easy incorporation of refinements to the evaluation procedures as they are developed.

Section-by-Section Edits to Rule Changes

Introduction

We suggest that parameters of concern should be more clearly defined as parameters that are: 1) influenced by the proposed activity, and 2) greater than background concentrations. The intent of this clarification is to specify that ADRs should efficiently focus on those parameters that reduce as opposed to improve water quality. However, a project proponent could still take “credit” for parameters that improve water quality in the “benefits” section of the ADR, especially with our suggested inclusion of consideration of environmental benefits (see below) in these justifications.

Section 3.5(a)

The most significant edit that we suggest should be applied to the existing rule is to create a separate section for the provision from the previous rule that allows the Executive Secretary to require Level II reviews as needed to protect waters of the state. The addition of a separate section allowed us to provide some examples of considerations that may influence such decisions. Overall, the intent of these changes was to minimize

ambiguity. This section will also allow us to incorporate additional explanations as they are developed (see 3.5(f) below).

Section 3.5(b)

We suggest that the addition of a separate section for Level I Reviews helps better distinguish between Level I and Level II reviews. The three items included in this section are part of current rule with a few edits intended to add clarity to the rule.

Section 3.5(c)

The most significant and obvious change of the “off ramps” provisions established in the previous rule is the elimination of all Level II “off ramps” for discharges affecting the loss of assimilative capacity. While this change will certainly stimulate much discussion among the workgroup, we suggest this response to EPA’s recent disapproval letter for the workgroup’s consideration for the following reasons:

- cumulative losses of assimilative capacity is difficult to measure and track
- practically speaking, a cumulative loss of 10% is low enough to negate the intent of the initial provision for *de minimis* exclusions
- the minimization of regulatory burden for projects that are unlikely to impact water quality can be better addressed through provisions that describe appropriate Level II requirements, *i.e.*, the magnitude of the potential impact to water quality should determine the level of effort for the Level II review.
- most litigation of Level II reviews are tied to a failure to conduct reviews as opposed to when reviews are conducted
- there are no federal rules about Level II implementation, so Utah has more flexibility in developing implementation procedures that are appropriate

We suggest that the first statement (3.5(c)(1)) should be edited to more clearly establish that an “increase” is a change in discharge over the concentrations used for previous ADRs. This clarification would allow an applicant the option of basing their initial ADR Level II review on plant capacity, and then subsequently avoid Level II reviews unless plant capacity significantly changes. In addition to removing ambiguity, we suggest that this change is consistent with the intent of ADRs as described in the Clean Water Act (CWA) because the necessity of the project is evaluated against larger and more long-term consequences of a proposed project. Also, the change appropriately means that more costly and time consuming alternatives are evaluated during planning for any new discharges that are proposed.

We also suggest removing the language from the current rule that specifies that permit limits would be based at the concentration of numeric criteria for impaired waters that do not yet have a TMDL (3.5(c)(2)). The intent of this edit is not to change this policy, which would remain intact (this is specified in section 3.5 (b), which specifies that a discharge will not be permitted to violate WQSs), but to avoid the implication that Level II reviews are directly used to establish permit limits.

Section 3.5(d)

Changes that we suggest for the alternatives analysis (**3.5(d)(1)**) were intended to more clearly define the requirements of these reviews under different scenarios to require more detailed reviews for projects that involve construction or reconfiguration of facilities as opposed to those that involve permit renewals. Generally speaking we do not feel as if reviews of construction alternatives, which are potentially costly and time consuming, are appropriate for renewals. However, we acknowledge that there may be situations where evidence exists that new construction should be evaluated, which is why we suggested more clearly define the role of the Executive Secretary to require more exhaustive reviews when evidence is presented that such reviews are appropriate. Please note that if the initial Level II ADR was based on plant capacity then the special renewal provisions would be mostly irrelevant (unless the discharge is to a IC waterbody).

We also suggest lumping the “laundry list” of alternatives from the previous rule into two broad classes: alternative discharge locations and construction/O&M. This edit should help with both preparation and review of Level II alternative analyses. Also, these categories will allow these broad alternatives to be more easily considered when evaluating whether an addendum is appropriate for a permit renewal based on evidence that was not considered in the previous review.

The primary edits that we suggest for **3.5(d)(2)** is to add environmental benefits to the list of considerations. This is closely aligned with the intent of ADRs and allows applicants to applicants to highlight all of the benefits of their projects and associated (optional) mitigation plans.

Most of our suggested changes to **3.5(d)(3)** are to add language that specifies that mitigation plans can be tied to specific treatment alternatives. This change would potentially allow applicants to improve the favorability of an alternative that would otherwise not be considered the “least degrading” alternative. We suggest that this change provides more options for ensuring that implementation efforts truly provide the greatest bang:buck for waters of the state.

Section 3.5(e)

Most of this section was directly taken from our current rule; we simply suggest creating a separate “special provision” section. This section currently contains provisions for IC waters and 404 Permit Activities, however the inclusion of the section will allow us to provide additional clarity for other permitting activities as future program-specific clarifications are identified.

Section 3.5(f)

We suggest moving the information about interpretation of Level II review materials to a separate section to provide clarity to the current rule and to provide a section for clarification of these processes as they are refined.

Our proposed edits to Section **3.5(f)(2)** are intended to more clearly define the term “feasible alternative” that is used in our current rule. The suggestions simply define “feasible” in terms of the cost criteria that were in the previous rule.

The addition of Section **3.5(f)(4)** is our first attempt to provide clarity on how Level II reviews will be evaluated. In particular, we consider that situations will almost always exist where treatment alternatives are more effective for some parameters than others. Also, we explicitly acknowledge that these procedures need to be described in more detail and commit in rule to working with others to more thoroughly evaluate a process that meets the intent of ADR without placing undue burdens on DWQ or the regulated community.

DRAFT

Antidegradation Reviews: Frequently Asked Questions

What are antidegradation reviews and why are they conducted?

The central goals of the Clean Water Act and the Utah Water Quality Act are to protect, maintain, and restore the quality of Utah's waters. One way in which this is accomplished is through Utah's water quality standards, which consist of: 1) designated uses (e.g., aquatic life, drinking water, recreation), 2) water quality criteria (numeric and narrative parameters), and 3) antidegradation policy and procedures. The intent of the antidegradation component of our standards is to protect existing instream uses and high quality waters. Our water quality criteria create a ceiling above which uses become impaired, whereas our antidegradation policy protects water quality in waters where the quality is already better than the criteria.

Utah's antidegradation policy (UAC R317-2-3) does not prohibit degradation of water quality, unless the Water Quality Board has previously considered the water to be of exceptional recreational or ecological significance (Category 1 waters). Instead the policy creates a series of rules that together ensure that when degradation of water quality is necessary for social and economic development, every possible way to minimize degradation are explored. Also, the policy requires that these management options and expected benefits are conveyed to Utah's citizens. Overall, our antidegradation policies provide a framework where DWQ can discuss openly, with all of our stakeholders, the costs and benefits of any action that degrades the quality of our waters. In short, this policy provides the information necessary to create a dialogue about how best to balance the needs of people (social and economic development) with those of the environment.

When are antidegradation reviews required?

Antidegradation reviews are required, as part of the permitting process, for any action that has the potential to degrade water quality. These reviews are conducted at two levels, referenced in rule as Level I and Level II reviews. Again, the findings of both Level I and Level II reviews are documented and made available for public comment.

Level I reviews are intended to ensure that the action will not degrade "existing uses". Legally, existing uses are defined as the most sensitive use that has been attained in a waterbody since 1975, whether or not the use is also a designated use. For instance, if a stream currently only contains warm water fish species, whereas it

supported a trout fishery at some point after 1975, the “existing use” would be 3a (cold water fish and organisms in their foodweb). Both state and federal regulations do not permit degradation of an existing instream use, and the Level I review simply asks whether there are existing uses with protection requirements that are more stringent than the currently designated uses. If there are such existing uses, they must be protected. The Level I review also evaluates whether the proposed activity is *de minimus* (temporary or limited impact; see “How can I determine if my permit will require a Level II review?” below).

Level II reviews are conducted for waters where water quality is better than the criteria assigned to protect designated uses. The central tenet of these reviews is that within a given designated use class there is a range of water quality values that are sufficiently protective and while water quality is permitted to degrade to the standard, degradation should be minimized. The two main components of a Level II review are: 1) an alternatives analysis; and 2) a statement of the economic and social importance of the proposed activity. As the name suggests, the alternatives analysis requires, to the extent feasible, documentation of the costs and environmental benefits of alternative treatment options. The purpose of an alternatives analysis is to evaluate the necessity of degradation. The statement of economic and social importance evaluates the societal benefits of the proposed activity by documenting factors such as: employment, production, tax revenues, housing, and correction of other societal concerns (i.e., health or environmental concerns). Level II reviews assure that degradation is necessary and that the proposed activity is economically and socially important.

Who is required to conduct the analyses and prepare documentation required by antidegradation reviews?

Level I reviews are conducted by DWQ staff. If a Level II review is required, the proponent of the project provides, for DWQ review: an alternatives analysis, a statement of the social and economic importance, and any proposed mitigations. That said, DWQ staff resources are available to assist project proponents as they prepare their materials. In fact, coordination with DWQ staff is critical to ensure that each review covers, in sufficient detail, all appropriate material.

When in the permitting process are antidegradation reviews conducted?

Antidegradation reviews are the first step in the permitting process because these reviews help define the design specifications of each

proposed project. For UPDES permits, DWQ strongly recommend that project proponents initiate the permitting process at least one year before the project commences.

How can I determine if my permit will require a Level II review?

Just ask! DWQ staff will work directly with all project proponents to determine whether a Level II review is required on a case-by-case basis. For UPDES permit renewals, a Level II review is generally not required unless facility operations have changed, or the permit is requesting relaxed standards or an increased in the volume of discharge compared to last approved antidegradation review. Also, Level II reviews are required for all permit renewals that discharge into waters protected as drinking water sources (Class 1C). For new UPDES permits, DWQ will require the project proponent to estimate the chemical constituents of their discharge and we will use these data to make a determination of whether the project is *de minimus* (temporary or limited impact), which opts the application out of the Level II review process.

How does DWQ determine if an activity is "*de minimus*," therefore not requiring a Level II antidegradation review?

Like most states, Utah administrative code (UAC R317-2-3-3.5-b1) allows for antidegradation reviews to be discontinued where water quality effects will be temporary or limited (*de minimus*). DWQ staff determines whether a Level II review will be required for all proposed projects on a case-by-case basis. There are numerous factors that are considered in making these determinations. For instance, temporary projects that contribute only sediment to a stream are generally excluded from Level II reviews provided that fish spawning will not be affected by the activity.

How much time and effort does a project proponent need to devote to Level II reviews?

Recall that the central goals of the antidegradation review process are to ensure protection of existing instream uses and high quality waters by minimizing the environmental degradation of proposed projects. While all Level II reviews have the same requirements, the extent of documentation required to meet these requirements will vary depending on the specific characteristics of each project and the characteristics of the receiving water. For instance, large and expensive projects may require a more detailed alternatives analysis than smaller projects. Similarly, project proponents are advised to provide more details if the receiving water is of particular ecological or recreation importance. Simply put, antidegradation reviews provide a

formal structure for project proponents to document the importance of their project, and to show that every possible effort has been made to minimize potential adverse environmental consequences. DWQ will assist each applicant by outlining specific expectations of each Level II review.

What specifically is involved for the alternatives analysis required by a Level II review?

Level II reviews require that DWQ evaluate whether there are any “reasonable” non-degrading or less degrading alternatives to each proposed project. These evaluations are made by evaluating evidence provided by the project proponent. A full range of alternatives should be evaluated by the project proponent. Utah Administrative Code provides examples of some alternatives to be considered:

- innovative or alternative treatment options,
- more effective treatment options or higher treatment levels,
- connection to other wastewater treatment facilities,
- process changes or product or raw material substitution,
- seasonal or controlled discharge options to minimize discharging during critical water quality periods,
- pollutant trading,
- water conservation, water recycle and reuse,
- alternative discharge locations or alternative receiving waters,
- land application,
- total containment, and
- improved operation and maintenance of existing treatment systems,
- or other appropriate alternatives.

Admittedly, this list of alternatives can initially seem daunting. However, many of these alternatives can be addressed fairly easily by working with DWQ staff to evaluate the specific alternative that each project should consider.

In practice, evaluations of alternative treatment options, treatment levels, or treatment processes is the most technically challenging requirement of the alternatives analysis. In order for DWQ to fairly evaluate alternative treatments, we expect the review to include the following for each alternative process:

- 1) A technical description of the treatment process, including construction costs and continued operation and maintenance expenses.
- 2) The mass and concentration of discharge constituents, and a description of the discharge location.
- 3) A description of the reliability of the system, including the frequency where recurring operation and maintenance may lead to temporary increases in discharged pollutants.

How is the required treatment option selected among the alternatives described in the Level II review?

DWQ may require a treatment option that is more costly than the cheapest alternative if the alternative project would provide a substantial environmental benefit to the receiving water. Alternatives would generally be considered feasible where costs are no more than 20% higher than the cost of the discharging alternative, and for Publicly Owned Treatment Works (POTWs) where the projected per connection service fees are not greater than 1.4% of the Median Adjusted Gross Household Income (MAGHI).

The review requests documentation of mitigation efforts, are a these required?

Utah encourages, but does not require, that projects to include a mitigation plan to compensate for any adverse environmental effects of the proposed activity. While mitigation efforts will not alter effluent limits, the effects of these activities can be included in the evaluation of the overall social and economic importance of a project (see below). In some cases, the submission of a mitigation plan with the antidegradation review may allow the Executive Secretary to authorize a proposed activity that would not otherwise be authorized. Also, while the initial permit limits will not be altered by these activities, permit renewals could be if the activities are successful in lowering background concentrations of pollutants. If a mitigation plan is submitted, it should include a description of the proposed activity, costs, and expected environmental benefits.

What specifically is required for the review of the social and economic importance of the proposed project?

The intent of this review is to document the social and economic costs and benefits of each proposed project. The section of the antidegradation review provides the project proponent the opportunity to demonstrate that the overall benefits of the project outweigh any

negative consequences to the environment. As a result, it is in the best interest of the proponent to make this review as thorough as possible. At a minimum this portion of the review should contain the following:

- 1) An estimate of important social and economic benefits that would be realized by the project, including the number and nature of jobs created and projected tax revenues generated.
- 2) An estimate of any social and economic costs of the project, including any impacts on commercial or recreational uses of the project.
- 3) Support of the affected body politic
- 4) A description of environmental benefits of the project and associated mitigation efforts (if any). For instance, if a project would result in an increase in stream flow that would provide additional habitat and a net benefit to stream biota, this benefit would be documented in this section of the review.

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