

## ANTIDegradation [01/17/2008]

### 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 instream water uses shall be maintained and protected. No water quality degradation is allowable which would interfere with or become injurious to existing instream 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 ~~High Quality Waters~~—Category 1 Waters

Waters of high quality 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 ~~High Quality Waters~~—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 ~~High Quality Waters~~—Category 1 Waters are listed in R317-2-12.1.

### 3.3 ~~High Quality Waters~~—Category 2 Waters

~~High Quality Waters~~—Category 2 Waters are designated surface water segments which are treated as ~~High Quality Waters~~—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 ~~High Quality Waters~~—Category 2 Waters are listed in R317-2- 12.2.

### 3.4 ~~Other Waters~~—Category 3 Waters

For all other waters of the state, point source discharges are allowed and degradation may occur, pursuant to the conditions and review procedures outlined ~~below~~in Section 3.5.

### 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. A Level I review is conducted to insure that existing uses will be maintained and protected. In addition, a Level I review evaluates the criteria in Section 3.5.b to determine if any degradation is *de minimis* in nature and therefore does not require a Level II review. A Level II review as described in Section 3.5 c, is needed when the impacts are not *de minimis*.

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. Discussion of parameters of concern are those expected to be affected by the proposed activity.

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

#### 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 Executive Secretary may conduct an ADR on other projects with the potential for major impact on the quality of waters of the state. ~~The review will determine whether the proposed activity complies with the applicable antidegradation requirements for the particular receiving waters that may be affected.~~

2. For ~~High Quality~~ Category 1 Waters and ~~High Quality~~ Category 2 Wwaters, reviews shall be consistent with the requirement established in Sections 3.2 and 3.3, respectively.

3. For Category 3 Waters, reviews shall be consistent with the requirement established in this section.

~~For State waters that do not have a High Quality Category 1 or High Quality Category 2 designation, reviews shall be consistent with the procedures identified in Section 3.4 a.-3.4 b.~~

~~The antidegradation review consists of two parts. An antidegradation Level I review will be to determine if the proposed activity requires an antidegradation Level II review as described in Section 3.4 b. below. If so, further review will be required.~~

b. An Anti-degradation Level II review is not required where any of the following conditions apply:

1. Water quality will not be ~~lowered~~ degraded by the proposed activity (e.g., a UPDES permit is being renewed and the proposed effluent concentration value and pollutant loading is equal to or less than the existing effluent concentrations value and pollutant loading).

~~2. Discharge limits are established in an approved TMDL that is consistent with the current water quality standards for the receiving water (e.g., where TMDLs are established, changes in effluent limits that are consistent with the existing load allocation would not trigger an anti-degradation review), Assimilative capacity (based upon concentration) is not available or has previously been 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 (e.g., where TMDLs are established, changes in effluent limits that are consistent with the existing load allocation would not trigger an antidegradation review).

Under conditions (a) or (b) the effluent limit in an UPDES permit ~~may~~ be equal to the water quality numeric criterion for the parameter of concern.

3. Water quality-impacts will be temporary and related only to sediment or turbidity and ~~fish spawning~~ fish spawning, survival, and development of aquatic fauna will not be impaired.

~~4. The discharge is to a water quality limited water, and assimilative capacity is essentially allocated to existing discharges.~~

~~4.5.~~ The water quality effects of the proposed activity are expected to be temporary and limited. As general guidance, CWA Section 402 general permits, CWA Section 404 nationwide and general permits, or activities of short duration, 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 ~~DWA-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 whether water quality effects will be temporary and limited may include the following:

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

(b) Percent change in ambient concentrations of pollutants of concern

(c) Pollutants affected

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

(e) Potential for any residual long-term influences on existing uses.

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

~~6. The affected waters are classified as 3C, 3D (and not 3A or 3B), or 3E waters, or are classified only as Class 4.~~

Back to management for further discussion. We need more information about how many Level II reviews would be required? Will there be too many reviews?

5. The proposed concentration downstream of the mixing zone:

(a) Would be equal to or less than 50% of the any applicable criterion, and the project would consume less than 20% [WOM1] of remaining assimilative capacity; or,

(b) Is greater than 50% and less than 75% [WOM2] of the criterion, and the project would consume less than 10% [WOM3] of the remaining assimilative capacity.

(c) Exception: Level II reviews are required if the proposed concentration after mix is equal to or greater than 75% [WOM4] of the criterion.

~~7. The affected waters are considered to be poor quality fisheries as indicated by Utah Division of Wildlife Resource (UDWR) Classes IV, V, and VI with the exception of those waters which add a letter (P, R, N, B, X, or C) to the numerical rating and those which have a "unique rating".~~

~~8. The water body is listed on the current 303(d) list for the parameters of concern.~~

~~9. Existing water quality for the parameters of concern does not satisfy applicable numeric and narrative water quality criteria.~~

~~10. Water quality impacts are expected to be minor. For example: (a) for discharge permit renewals, if the increase in project loading over the prior permit is less than 20%; or (b) if the increase in pollutant loading to the stream is less than 20% over existing background.~~

~~11. The volume of the discharge is small as compared to the flow of the receiving stream. In general, this would be considered where the ratio of the average stream flow to the discharged flow is expected to be greater than 100:1, the ratio of the 7Q10 (7 day-10 year) low flow to the discharge flow is expected to be greater than 25:1, and where the increase in concentration of the pollutants in the stream at 7Q10 at low flow is expected to be less than 10%, or based upon other site specific criteria.~~

~~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 may not require a Level II review for other parameters that will be affected by the proposed activity. An antidegradation review may be required by the Executive Secretary if the receiving water is a drinking water source, if the receiving water has a special value for recreation or fisheries, if an existing use may be impaired, or based on other site-specific factors as appropriate.~~

**c. Anti-degradation Review Process**

For all activities requiring a Level II review, the Division will notify affected agencies and the public with regards to the requested proposed activity and discussions with stakeholders may be held. In the case of Section 402 discharge permits, if it is determined

that a discharge will be allowed, the Division of Water Quality will develop any needed UPDES permits for public notice following the normal permit issuance process.

The ADR will cover the following requirements or determinations:

**1. Will all Statutory and regulatory requirements be met?**

The Executive Secretary will review to determine that there will be achieved all statutory and regulatory requirements for all new and existing point sources and all required cost-effective and reasonable best management practices for nonpoint source control in the area of the discharge. 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 "area 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.

**2. Are there any reasonable less-degrading alternatives?**

There will be an evaluation of whether there are any reasonable non-degrading or less degrading alternatives for the proposed activity. This question will be addressed by the Division based on information provided by the project proponent. Control alternatives for a proposed activity will be evaluated in an effort to avoid or minimize degradation of the receiving water. Alternatives to be considered, evaluated, and implemented to the extent feasible, could include pollutant trading, water conservation, water recycling and reuse, land application, total containment, etc.

For proposed UPDES permitted discharges, the following list of alternatives should be considered, evaluated and implemented to the extent feasible:

- (a) innovative or alternative treatment options
- (b) more effective treatment options or higher treatment levels
- (c) connection to other wastewater treatment facilities
- (d) process changes or product or raw material substitution
- (e) seasonal or controlled discharge options to minimize discharging during critical water quality periods
- (f) seasonal or controlled discharge options to minimize discharging during critical water quality periods
- (g) pollutant trading
- (h) water conservation
- (i) water recycle and reuse

- (j) alternative discharge locations or alternative receiving waters
- (k) land application
- (l) total containment
- (m) improved operation and maintenance of existing treatment systems
- (n) other appropriate alternatives

An option more costly than the cheapest alternative may have to be implemented if a substantial benefit to the stream can be realized. Alternatives would generally be considered feasible where costs are no more than 20% higher than the cost of the discharging alternative, and (for POTWs) where the projected per connection service fees are not 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 by the discharger. Where State financing is appropriate, a financial assistance package may be influenced by this evaluation, i.e., a less polluting alternative may receive a more favorable funding arrangement in order to make it a more financially attractive alternative.

It must also be recognized in relationship to evaluating options that would avoid or reduce discharges to the stream, that in some situations it may be more beneficial to leave the water in the stream for instream flow purposes than to remove the discharge to the stream.

### **3. Special Procedures for 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.

#### **4. Does the proposed activity have economic and social importance?**

**Although it is recognized that any activity resulting in a discharge to surface waters will have positive and negative aspects, information must be submitted by the applicant that any discharge or increased discharge will be of economic or social importance in the area.**

**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) correction of an environmental or public health problem; and**
- (f) other information that may be necessary to determine the social and economic importance of the proposed surface water discharge.**

**5. The applicant may submit a proposal to mitigate any adverse environmental effects of the proposed activity (e.g., instream habitat improvement, bank stabilization). Such mitigation plans should describe the proposed mitigation measures and the costs of such mitigation. Mitigation plans will not have any effect on effluent limits or conditions included in a permit (except possibly where a previously completed mitigation project has resulted in an improvement in background water quality that affects a water quality-based limit). 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 socio-economic importance. An effective mitigation plan may, in some cases, allow the Executive Secretary to authorize proposed activities that would otherwise not be authorized.**

#### **6. Will water quality standards 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 water quality standards.**

#### **7. Will existing uses be maintained and protected?**

**Proposed activities can only be allowed if "existing uses" will be maintained and protected. No UPDES permit will be allowed which will permit numeric water quality standards to be exceeded in a receiving water outside the mixing zone. In the case of nonpoint pollution sources, the non-regulatory Section 319 program now in place will address these sources through application of best management practices to ensure that numeric water quality standards are not exceeded.**

**8. 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 anti-degradation 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. Procedures to change the stream use designation to recognize the existing use as the designated use would be initiated.

#### d. Special Procedures for Drinking Water Sources

An Antidegradation Review may be required by the Executive Secretary for discharges to waters with a Class 1C drinking water use assigned, irrespective of whether any of the conditions in Section 3.4 b. applies. Factors to be considered may include the volume of the discharge compared to the flow of the receiving stream, or where the pollutants discharged may have potentially adverse impact on the drinking water supply.

Depending upon the locations of the discharge and its proximity to downstream drinking water diversions, additional treatment or more stringent effluent limits or additional monitoring, beyond that which may otherwise be required to meet minimum technology standards or in stream water quality standards, may be required by the Executive Secretary in order to adequately protect public health and the environment. Such additional treatment may 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) exist, 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~~ 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.

The additional treatment/effluent limits/monitoring which may be required will be determined by the Executive Secretary after consultation with the Division of Drinking Water and the downstream drinking water users.

#### e. Public Notice

The public will be provided notice and an opportunity to comment on the conclusions of all completed antidegradation reviews. Where possible, public notice on the antidegradation review conclusions will be combined with the public notice on the proposed permitting action. 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. 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.