

3745-1-54 Wetland antidegradation.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules and federal statutory provisions referenced in this rule, see rules 3745-1-03 and 3745-1-50 of the Administrative Code.]

[Comment: For definitions of terms used in this rule, see rules 3745-1-02 and 3745-1-50 of the Administrative Code.]

- (A) The provisions in this rule apply in addition to the provisions in rule 3745-1-05 of the Administrative Code.
- (B) Wetland antidegradation requirements.
- (1) The wetland designated use shall be maintained and protected such that degradation of surface waters through direct, indirect, or cumulative impacts does not result in the net loss of wetland acreage or functions or services in accordance with paragraphs (D), (E), and (F) of this rule.
 - (2) Wetland categorization and function.
 - (a) Each wetland shall be assigned a category by Ohio EPA for the purposes of reviews of projects pursuant to this rule. Wetland categories assigned by Ohio EPA for regulatory purposes are valid for a period of five years following assignment by Ohio EPA unless the wetland category assignment is adopted in a permit decision. If adopted in a permit decision, wetland categories assigned by Ohio EPA will remain valid as long as the permit remains valid.
 - (i) A category will be assigned based on the wetland's relative functions and services, sensitivity to disturbance, rarity, and potential to be adequately compensated for by wetland mitigation.
 - (ii) In assigning a wetland category, the director will consider the results of an appropriate wetland evaluation method acceptable to the director, including but not limited to the "Ohio Rapid Assessment Method (ORAM)" version 5.0, "Vegetation Index of Biotic Integrity for Wetlands (VIBI)" version 1.5, and "Amphibian Index of Biotic Integrity for Wetlands (AmphIBI)", and other information necessary in order to fully assess the wetland's functions and services.
 - (iii) In assessing any reestablished (restored), established (created), or rehabilitated (enhanced) wetland for any purpose, the director will consider the results of VIBI or other appropriate wetland evaluation method acceptable to the director. ORAM is not an acceptable wetland evaluation method for reestablished (restored), established (created), or rehabilitated (enhanced) wetlands.
 - (iv) Wetland antidegradation categories, and the requirements for an antidegradation review for wetlands in each category, are outlined in paragraphs (C) and (D) of

this rule.

- (b) The functions and services of a wetland may include, but are not limited to, the following:
 - (i) Ground water exchange, including the discharge and recharge of ground water.
 - (ii) Nutrient removal or transformation.
 - (iii) Sediment or contaminant retention.
 - (iv) Water storage.
 - (v) Sediment stabilization.
 - (vi) Shoreline stabilization.
 - (vii) Maintenance of biodiversity, as that term is defined in rule 3745-1-50 of the Administrative Code.
 - (viii) Recreation.
 - (ix) Education and research.
 - (x) Habitat for threatened or endangered species.
- (3) The director may consider the regional significance of the functions and services a wetland performs (e.g., wetlands recognized as providing important hydrological functions in watershed management plans) when determining whether degradation of the wetland can be authorized.
- (4) Threatened or endangered species.
 - (a) In making determinations regarding the lowering of water quality in wetlands which contain critical habitat for threatened or endangered species, or either the permanent or seasonal presence of a threatened or endangered species, the director shall consider the anticipated impact of the proposed lowering of water quality on the threatened or endangered species.
 - (b) To assist the director in making this determination, an applicant shall provide Ohio EPA written comments from both the Ohio department of natural resources and the U.S. fish and wildlife service, regarding threatened and endangered species, including the presence or absence of critical habitat, for all wetlands under review, unless another entity has been designated by the aforementioned agencies to make this determination. In that case, the designated entity shall provide the required written comments.
- (5) Indirect impacts. In making determinations regarding the lowering of water quality in a wetland, the director may take into consideration other environmental impacts that may be a consequence of approving the request.
- (6) Wetlands impacted without prior authorization.

- (a) Where a wetland has been degraded or destroyed without prior authorization, the wetland will be considered a category 3 wetland, unless the applicant demonstrates that a lower category is appropriate based on other information including, but not limited to, adjacent wetland or vegetation, aerial photographs, U.S. fish and wildlife service national wetland inventory maps, Ohio wetland inventory maps, public information, on-site inspections, previous site descriptions, and soil maps.
 - (b) The director may consider other information in determining whether a lower category is appropriate.
 - (c) When reviewing applications for discharges to wetlands which have occurred without prior authorization, the fact that the discharge has already occurred shall have no bearing on the decision of whether to allow lower water quality. Ohio EPA shall review the impacts based on pre-discharge conditions.
 - (d) The director may require compensatory mitigation, if approved in accordance with other provisions of this rule, at the same mitigation ratios as required for impacts to category 3 wetlands, as indicated in table E-1 of this rule.
 - (e) Nothing in paragraph (B)(6) of this rule relieves any person from liability for degrading or destroying a wetland without prior authorization or in violation of any applicable laws.
- (C) Wetland categories.
- (1) Wetlands assigned to category 1.
 - (a) Wetlands assigned to category 1 support minimal habitat, and minimal hydrological and recreational functions as determined by an appropriate wetland evaluation methodology acceptable to the director. Wetlands assigned to category 1 do not provide critical habitat for threatened or endangered species or contain rare, threatened or endangered species.
 - (b) Wetlands assigned to category 1 may be typified by some or all of the following characteristics: hydrologic isolation, low species diversity, a predominance of non-native species (greater than fifty per cent areal cover for vegetative species), no significant habitat or wildlife use, and limited potential to achieve beneficial wetland functions.
 - (c) Wetlands assigned to category 1 may include, but are not limited to, wetlands that are acidic ponds created or excavated on mined lands without a connection to other surface waters throughout the year and that have little or no vegetation and wetlands that are hydrologically isolated and comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Lythrum salicaria*; *Phalaris arundinacea*; or *Phragmites australis*.
 - (2) Wetlands assigned to category 2.
 - (a) Wetlands assigned to category 2 support moderate habitat, or hydrological or recreational functions as determined by an appropriate wetland evaluation

methodology acceptable to the director.

- (b) Wetlands assigned to category 2 may include, but are not limited to: wetlands dominated by native species but generally without the presence of, or habitat for, rare, threatened or endangered species; and wetlands which are degraded but have a reasonable potential for reestablishing lost wetland functions.

(3) Wetlands assigned to category 3.

- (a) Wetlands assigned to category 3 support superior habitat, or hydrological or recreational functions as determined by an appropriate wetland evaluation methodology acceptable to the director.
- (b) Wetlands assigned to category 3 may be typified by some or all of the following characteristics: high levels of diversity, a high proportion of native species, or high functional values.
- (c) Wetlands assigned to category 3 may include, but are not limited to: wetlands which contain or provide habitat for threatened or endangered species; high quality forested wetlands, including old growth forested wetlands, mature forested riparian wetlands; vernal pools; and wetlands which are scarce regionally or statewide including, but not limited to, bogs and fens.

- (4) In addition to assigning a wetland a category pursuant to this rule, the director may designate a wetland which has national ecological or recreational significance as an outstanding national resource water pursuant to rule 3745-1-05 of the Administrative Code. Requests to undertake activities which will result in short-term disturbances to water quality in wetlands which are designated as outstanding national resource waters shall be evaluated in accordance with rule 3745-1-05 of the Administrative Code.

(D) Wetland avoidance, minimization, and compensatory mitigation.

(1) Alternatives analysis.

- (a) Category 1 wetlands. The wetland designated use shall be maintained and protected for wetlands assigned to category 1 unless the applicant demonstrates, to the satisfaction of the director, all of the following:
 - (i) Avoidance. There is no practicable alternative which would have less or no adverse impact on the wetland ecosystem.
 - (ii) Minimization. Storm water and water quality controls will be installed in accordance with paragraph (D)(2) of this rule
 - (iii) The impact would not result in significant degradation to the aquatic ecosystem, as determined consistent with 40 C.F.R Part 230.10(c).
 - (iv) Compensatory mitigation. The designated use is replaced by a category 2 or category 3 wetland in accordance with table E-1 of this rule.
- (b) Category 2 wetlands. The wetland designated use shall be maintained and protected

for wetlands assigned to category 2, and no lowering of water quality shall be allowed, unless the applicant demonstrates to the satisfaction of the director all of the following:

- (i) Avoidance. There is no practicable alternative, based on technical, social and economic criteria, which would have less or no adverse impact on the wetland ecosystem, so long as the alternative does not have other significant adverse environmental impacts as determined through an off-site and on-site alternatives analysis. Less damaging upland alternatives are presumed to be available for category 2 wetlands, unless clearly demonstrated otherwise.

[Comment: Social considerations may include, but are not limited to, public safety.]

- (ii) Minimization. Appropriate and practicable steps have been taken to minimize potential adverse impacts on the wetland ecosystem. For category 2 wetlands, the applicant shall minimize all potential adverse impacts foreseeably caused by the project and each application shall include an evaluation of all of the following:
 - (a) The spatial requirements of the project.
 - (b) The location of existing structural or natural features that may dictate the placement or configuration of the proposed project.
 - (c) The overall and basic purpose of the project and how the purpose relates to the placement, configuration or density of the project.
 - (d) The sensitivity of the site design to the natural features of the site, including topography, hydrology, and existing flora and fauna.
 - (e) Direct and indirect impacts.
- (iii) The lowering of water quality is necessary to accommodate important social or economic development in the area in which the water body is located.
- (iv) Storm water and water quality controls will be installed in accordance with paragraph (D)(2) of this rule.
- (v) Compensatory mitigation. The designated use is replaced by a category 2 wetland, of equal or higher quality, or a category 3 wetland in accordance with table E-1 of this rule.

- (c) Category 3 wetlands. The wetland designated use shall be maintained and protected in wetlands assigned to category 3, and no lowering of water quality shall be allowed, unless the applicant demonstrates to the satisfaction of the director all of the following:

- (i) Avoidance. There is no practicable alternative, based on technical, social and economic criteria, which would have less adverse impact on the wetland ecosystem, so long as the alternative does not have other significant adverse

environmental impacts as determined through an off-site and on-site alternatives analysis. Less damaging upland alternatives are presumed to be available for category 3 wetlands, unless clearly demonstrated otherwise.

- (ii) Minimization. Appropriate and practicable steps have been taken to minimize potential adverse impacts on the wetland ecosystem. For category 3 wetlands, the applicant shall minimize all potential adverse impacts foreseeably caused by the project and each application shall include an evaluation of all of the following:
 - (a) The spatial requirements of the project.
 - (b) The location of existing structural or natural features that may dictate the placement or configuration of the proposed project.
 - (c) The overall and basic purpose of the project and how the purpose relates to the placement, configuration or density of the project.
 - (d) The sensitivity of the site design to the natural features of the site, including topography, hydrology, and existing flora and fauna.
 - (e) Direct and in-direct impacts.
 - (iii) The proposed activity is necessary to meet a demonstrated public need, as defined in rule 3745-1-50 of the Administrative Code and as determined by the director.

[Comment: Additional information on the public need demonstration can be found on pages 6 to 7 of the ORAM manual, as cited in rule 3745-1-50 of the Administrative Code.]
 - (iv) The lowering of water quality is necessary to accommodate important social or economic development in the area in which the water body is located.
 - (v) Storm water and water quality controls will be installed in accordance with paragraph (D)(2) of this rule.
 - (vi) The wetland is not scarce regionally or statewide, or if the wetland is scarce, the project will cause only a short-term disturbance of water quality that will not cause long-term detrimental effects.
 - (vii) Compensatory mitigation. The designated use is replaced by a category 3 wetland, of equal or higher quality, in accordance with table E-1 of this rule.
- (2) Appropriate storm water control measures shall be installed to ensure that peak post-development rates of surface water runoff from the impacted wetland site do not exceed the peak pre-development rates of runoff from the on-site wetlands, for all categories of wetlands. Water quality improvement measures shall be incorporated into the design of the storm water control measures to the maximum extent practicable. Examples of these measures include, but are not limited to, incorporating vegetated areas in the storm water control plans.

(E) Compensatory mitigation requirements.

- (1) The compensatory mitigation type and location shall be provided in the following preferred order:
 - (a) At a mitigation bank, approved in accordance with 33 C.F.R. Part 332.8, with a service area including the same watershed as the location of the proposed wetland impacts that provides credits for the appropriate wetland category and type.
 - (b) Through an in-lieu-fee program, approved in accordance with 33 C.F.R. Part 332.8, with a service area including the same watershed as the location of the proposed wetland impacts that provides credits for the appropriate wetland category and type.
 - (c) At a permittee-responsible compensatory mitigation site located in accordance with 33 C.F.R. Part 332.3(b).
- (2) Deviations from the preferred order established in paragraph (E)(1) of this rule require a demonstration of all of the following:
 - (a) Description of the available credits for each approved mitigation bank or in-lieu fee program with a service area including the same watershed as the location of the proposed wetland impacts.
 - (b) Description of the costs associated with the proposed compensatory mitigation and each preceding option outlined in paragraph (E)(1) of this rule.
 - (c) Discussion of how the proposed compensatory mitigation will provide a greater ecological benefit than each preceding option outlined in paragraph (E)(1) of this rule.
- (3) Compensatory mitigation shall be in-kind unless there is a compelling ecological reason that it should not be. The director may consider compensatory mitigation at a forested wetland mitigation location for impacts to a non-forested wetland site.
- (4) Compensatory mitigation ratios.

Table E-1

Category of wetland impacted	Wetland type	Minimum mitigation ratio	Wetland replacement category
1	Non-forested	1.5 : 1	2 or 3
	Forested	1.5 : 1	
2	Non-forested	2.0 : 1	2 or 3
	Forested	2.5 : 1	
3	Non-forested	2.5 : 1	3
	Forested	3.0 : 1	

(F) Permittee-responsible compensatory mitigation.

- (1) Reestablishment (restoration) or establishment (creation) of wetlands as the sole component of compensatory mitigation shall be in accordance with the ratios and other provisions in paragraph (E) of this rule.
- (2) The applicant must demonstrate that the compensatory mitigation site will be protected long term and that appropriate management measures are, or will be, in place to restrict harmful activities that may jeopardize the compensatory mitigation wetland.
- (3) Compensatory mitigation shall be in the form of wetland reestablishment (restoration) unless it can be demonstrated by the applicant that wetland reestablishment (restoration) is impracticable. Alternative compensatory mitigation options include wetland establishment (creation) and wetland rehabilitation (enhancement). These and other alternative compensatory mitigation options, including preservation of high quality wetlands and upland buffers adjacent to wetlands assigned to category 2 or category 3 which have been avoided in accordance with other provisions of this rule, may be considered on a case-by-case basis.
- (4) Reestablishment (restoration) or establishment (creation) of wetlands as compensatory mitigation shall replace the impacted wetland with an equivalent or higher quality wetland.
- (5) Wetland rehabilitation (enhancement).
 - (a) Wetland rehabilitation (enhancement) may be a component of acceptable compensatory mitigation. In determining the acceptability of wetlands rehabilitation (enhancement) as compensatory mitigation, the director shall consider the extent to which the rehabilitation (enhancement) activities will improve or repair the existing or natural functions and services of the wetland.
 - (b) Wetland rehabilitation (enhancement) will be considered most favorably as a component of compensatory mitigation when it is located adjacent to a wetland reestablishment (restoration) project.
 - (c) When wetland rehabilitation (enhancement) is a component of acceptable compensatory mitigation, wetlands reestablishment (restoration) or establishment (creation) must also be a component of the compensatory mitigation and shall result in at least one acre of reestablished (restored) or established (created) wetland for each acre of wetland that is impacted. Wetland rehabilitation (enhancement) must occur at a rate of at least two acres of wetland rehabilitation (enhancement) for every remaining acre of the compensatory wetland mitigation requirement. The wetland rehabilitation (enhancement) requirement can be calculated using the following equation:

$$E = [(LMR - 1) \times 2] \times N, \text{ where:}$$

E = minimum number of acres of wetlands required to be enhanced.

LMR = left side of mitigation ratio, from the wetland mitigation table E-1 of this rule.

N = number of acres of impacted wetlands.

For example, if the required mitigation ratio for compensatory mitigation of a category 3 forested wetland is 3:1 for an impact to two acres of wetland, an acceptable mitigation plan may include at least two acres of reestablished (restored) or established (created) wetlands and at least eight acres of rehabilitated (enhanced) wetlands.

(6) Wetland preservation.

(a) The director may, in exceptional circumstances, consider wetland preservation, as defined in rule 3745-1-50 of the Administrative Code, for compensatory mitigation if the applicant can demonstrate all of the following:

- (i) The wetland to be preserved is a category 3 wetland which will be preserved long term, or the wetland to be preserved is pivotal in protecting a category 3 wetland and both wetlands will be preserved long term, or the wetland is a high quality category 2 wetland with a reasonable potential to reestablish superior functions if preserved, as determined by the director, including, but not limited to, mature forested wetlands, vernal pools and wetlands important to protecting other water resources.
- (ii) The wetland to be preserved for compensatory mitigation purposes should have important habitat or water quality characteristics which are imminently threatened.
- (iii) The wetland to be preserved for compensatory mitigation purposes shall be deeded to a responsible party for management or rehabilitation (enhancement) in accordance with a plan approved by the director.
- (iv) Long term protection of the wetland to be preserved for compensatory mitigation purposes shall include upland buffers and generally occur prior to any filling of wetlands at the project site. At the director's discretion, it may be acceptable for compensatory mitigation to occur concurrently with the impacts at the project site.

(b) When preservation is a component of acceptable compensatory mitigation, wetlands establishment (restoration) or establishment (creation) must also be a component of the compensatory mitigation and shall result in at least one acre of reestablished (restored) or established (created) wetland for each acre of wetland that is impacted to ensure no net loss of wetland acreage or function, unless the director determines that reestablishment (restoration) or establishment (creation) need not be a component of compensatory mitigation based on significant ecological reasons. Wetland preservation must occur at a rate of two acres of preservation for every remaining acre of the compensatory wetland mitigation requirement. The wetland preservation requirement can be calculated using the following equation:

$P = [(LMR - 1) \times 2] \times N$, where:

P = minimum number of acres of wetlands required to be preserved.

LMR = left side of mitigation ratio, from wetland mitigation table E-1 of this rule.

N = number of acres of impacted wetlands.

For example, if the required mitigation ratio for compensatory mitigation of a category 3 forested wetland is 3:1 for an impact to two acres of wetland, an acceptable compensatory mitigation plan may include at least two acres of reestablished (restored) wetlands and at least eight acres of preserved wetlands.

- (7) Upland buffers which are adjacent to wetlands assigned to category 2 or category 3 and which are avoided in accordance with the requirements of paragraph (D)(1)(b)(i) or (D)(1)(c)(i) of this rule, may be a component of acceptable compensatory mitigation, if the applicant can demonstrate all of the following:
 - (a) The average upland buffer width exceeds the minimum of fifty feet for category 2 wetlands and one hundred feet for category 3 wetlands.
 - (b) The upland buffer and the wetland are preserved long term.
 - (c) The upland buffer consists of native vegetation which is not maintained through mowing, application of herbicide or other means which would result in deleterious effects to either the upland buffer or the adjacent wetland.
 - (d) When upland buffers are a component of acceptable compensatory mitigation, credit shall not exceed more than 0.5 units of the required compensatory mitigation ratio, as identified in table E-1 of this rule. For example, upland buffers could be used to reduce the compensatory mitigation requirement for a category 2 non-forested wetland from 2.0:1 to 1.5:1.
- (8) Compensatory mitigation monitoring. The director shall require the permittee to conduct ecological monitoring of the compensatory mitigation project and submit annual reports detailing the results of the ecological monitoring.
 - (a) The ecological monitoring may include, but is not limited to, collection of data on hydrologic characteristics, vegetation communities and soils at the compensatory mitigation site and conducting an assessment of the compensatory mitigation wetlands using an appropriate wetland evaluation method in accordance with paragraph (B)(2)(a)(iii) of this rule.
 - (b) Ecological monitoring shall be conducted for a period of at least five years for non-forested wetlands and at least ten years for forested wetlands following construction of the compensatory mitigation.
 - (i) Upon written request, the director may waive ecological monitoring requirements for the full five or ten years if it is demonstrated to the satisfaction of the director that the compensatory mitigation wetland is meeting required goals or targets.
 - (ii) Upon written request, the director may grant a maximum two year extension from the end of the five year or ten year monitoring period to complete outstanding compensatory mitigation obligations. Submittal of annual reports shall continue during the extension.

- (iii) At the end of five years or ten years, or seven years or twelve years if an extension is approved, compensatory mitigation that does not meet required goals or targets shall be rectified through the purchase of mitigation credits at a wetland mitigation bank or through an in-lieu-fee program, when available, in accordance with paragraph (E) of this rule. When mitigation credits are not available, permittees may propose alternate compensatory mitigation to fulfill the permit requirements for the director to consider. The director may consider reductions in the required compensatory mitigation based upon the ecological status of the original compensatory mitigation project.
- (G) The following thirty-seven groupings of cataloging units from the hydrologic unit map of Ohio, U.S. geological survey, 1988, shall be the watersheds for the purposes of location of compensatory mitigation : (04100001, 04100002, and 04100009 - combined); (0410003, 04100005 - combined); 04100004; 04100006; 04100007; 04100008; 04100010; 04100011; 04100012; 04110001; 04110002; (04110003 (minus the Chagrin river watershed) and 04110101 - combined); 04110003 (Chagrin river watershed only); 04110004; 05030101; 05030102; 05030103; 05030106; 05030201; 05030202; 05030204; 05040001; 05040002; 05040003; 05040004; 05040005; 05040006; 05060001; 05060002; 05060003; 05080001; (05080002, 05080003, and 05090203 - combined); 05090101; 05090103; 05090201; 05090202; and (05120101 and 05120103 - combined). This information is also depicted in appendix 1 of this rule.

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Watersheds for Wetland Water Quality Standards

