3745-1-54 Wetland antidegradation.

(A) The provisions in this rule apply in addition to the provisions in rule 3745-1-05 of the Administrative Code.

(B)

(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 in accordance with paragraphs (D) and (E) of this rule.

(2)

(a) Each wetland shall be assigned a category by Ohio EPA for the purposes of reviews of projects pursuant to this rule.

(i) A category will be assigned based on the wetland's relative functions and values, 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(s) acceptable to the director, and other information necessary in order to fully assess the wetland's functions and values.

(iii) Wetland antidegradation categories, and the requirements for an antidegradation review for wetlands in each category, are outlined in paragraphs (C), (D) and (E) of this rule.

(b) The functions 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 and/or transformation;

(iii) Sediment and/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; and

(x) Habitat for threatened or endangered species.

(3) The director may consider the regional significance of the function(s) 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) The applicant shall provide Ohio EPA with written comments from both the Ohio department of natural resources and the United States fish and wildlife service, regarding threatened and endangered species, including the presence or absence of critical habitat, for all wetlands under review.

(b) 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.

(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 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 paragraph (F)(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 wildlife 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 species including, but not limited to: Lythrum salicaria; Phalaris arundinacea; and Phragmites australis.

(2) Wetlands assigned to category 2.

(a) Wetlands assigned to category 2 support moderate wildlife habitat, or hydrological or recreational functions as determined by an appropriate wetland evaluation methodology acceptable to the director or his authorized representative.

(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 or his authorized representative.

(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, and mature forested riparian wetlands; vernal pools; and wetlands which are scarce regionally and/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.

[Comment: the demonstrations and analysis required by paragraph (D) of this rule, will generally occur in the context of an application for a permit to install or plan approval, a section 401 water quality certification, or an Ohio NPDES permit pursuant to Chapter 3745-42, 3745-32, or 3745-33 of the Administrative Code.]

(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 the following:

(i) Avoidance. There is no practicable alternative which would have less adverse impact on the wetland ecosystem; and

(ii) Minimization. Storm water and water quality controls will be installed in accordance with paragraph (D)(3) of this rule; and

(iii) The impact would not result in significant degradation to the aquatic ecosystem, as determined consistent with 40 CFR part 230.10(c) (45 FR

85336, December 24, 1980); and

(iv) Compensatory mitigation. The designated use is replaced by a category 2 or category 3 wetland in accordance with paragraph (E) 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:

(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 2 wetlands, unless clearly demonstrated otherwise; and

(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 forseeably caused by the project and each application shall include an evaluation of:

(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; and

(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; and

(iv) Storm water and water quality controls will be installed in accordance with paragraph (D)(3) of this rule; and

(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 paragraph (E) of this rule. For projects which are linear projects, the designated use is replaced by a category 2 wetland, of equal or higher quality, or a category 3 wetland and the mitigation may take place in accordance with paragraph (D)(2) 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 it is demonstrated to the satisfaction of the director that:

(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; and

(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 forseeably caused by the project and each application shall include an evaluation of:

(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; and

(iii) The proposed activity is necessary to meet a demonstrated public need, as defined in rule 3745-1-50 of the Administrative Code; and

(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; and

(v) Storm water and water quality controls will be installed in accordance with paragraph (D)(3) of this rule; and

(vi) The wetland is not scarce regionally and/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; and

(vii) Compensatory mitigation. The designated use is replaced by a category 3 wetland, of equal or higher quality, in accordance with paragraph (E) of this rule. For projects which are linear projects, the designated use is replaced by a category 3 wetland, of equal or higher quality, and the mitigation may take place in accordance with paragraph (D)(2) of this rule.

(2) Compensatory mitigation for linear projects (e.g., highways) in wetlands, as allowed by paragraphs (D)(1)(b)(v) and (D)(1)(c)(vii) of this rule, may be mitigated for by the following, in descending order of practicability:

(a) In accordance with paragraph (E) of this rule; or

(b) Wetland impacts associated with a linear project may be mitigated at a single mitigation location or wetland mitigation bank, acceptable to the director, within each watershed in which such impacts occur; or

(c) If no wetland mitigation bank acceptable to the director is located within the watershed in which the impact occurs, then mitigation may occur in another watershed impacted by the linear project; at a single mitigation location, or a wetland mitigation bank, acceptable to the director; or

(d) If no wetland mitigation bank occurs within any of the watersheds connected with the linear project, then mitigation may occur within the watershed in which the largest impacts (in terms of area) occur.

(3) 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 ratio, replacement category, and mitigation location requirements. Compensatory mitigation ratio, replacement category, and mitigation location requirements for antidegradation categories 1 to 3 are listed in the table 1 of this rule. Options for mitigation projects which may be acceptable to the director are described in paragraphs (E)(3) to (E)(6) of this rule.

(1) When compensatory mitigation is approved.

(a) For category 2 wetlands and category 3 wetlands, if compensatory mitigation is to be off-site, the applicant shall demonstrate the impracticability of mitigating on-site.

(b) Compensatory mitigation shall be in-kind unless there is a compelling ecological reason that it should not be.

(c) The mitigation location shall be as defined in paragraph (F) of this rule unless the applicant demonstrates:

(i) The mitigation is located at a mitigation bank, acceptable to the director, and the wetland which is proposed to be impacted is within the mitigation service area for the mitigation bank, and the director determines that mitigation at the mitigation bank is acceptable; or

(ii) There is a significant ecological reason that the mitigation location should not be limited to the mitigation location specified in table 1 and the proposed mitigation will result in a substantially greater ecological benefit. Generally, if compensatory mitigation is approved to occur outside of the watershed specified in paragraph (F) of this rule, it shall be located in a watershed which is adjacent to the watershed where the impact is proposed to occur, or has occurred.

(d) Restoration or creation of wetlands as the sole component of compensatory mitigation shall be in accordance with the ratios and other provisions in paragraph (F) of this rule.

(e) The director shall require the applicant to conduct ecological monitoring of the compensatory mitigation project and submit annual reports detailing the results of the ecological monitoring for a period of at least five years following construction of the compensatory mitigation. 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 acceptable to the director. The director may reduce or increase the number of years for which ecological monitoring is required to be conducted based on the effectiveness of the compensatory mitigation project.

(f) The applicant must demonstrate that the compensatory mitigation site will be protected in perpetuity and that appropriate management measures are, or will be, in place to restrict harmful activities that may jeopardize the mitigation wetland.

(2) Wetland restoration shall be the form of compensatory mitigation unless it can be demonstrated by the applicant that wetland restoration is impracticable. Alternative

compensatory mitigation options include wetland creation, and wetland enhancement. These and other alternative compensatory mitigation options, including preservation of high quality wetlands and non-wetland 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.

(3) Restoration or creation of wetlands as compensatory mitigation shall replace the impacted wetland with an equivalent or higher quality wetland.

(4) Wetland enhancement.

(a) Wetland enhancement may be a component of acceptable compensatory mitigation. In determining the acceptability of wetlands enhancement as compensatory mitigation, the director shall consider the extent to which the enhancement activities will improve or repair the existing or natural functions and values of the wetland.

(b) Wetland enhancement will be considered most favorably as a component of compensatory mitigation when it is located adjacent to a wetlands restoration project.

(c) When wetland enhancement is a component of acceptable compensatory mitigation, wetlands restoration or creation must also be a component of the compensatory mitigation and shall result in at least one acre of restored or created wetland for each acre of wetland that is impacted. Wetland enhancement must occur at a rate of at least two acres of wetland enhancement for every remaining acre of the compensatory wetland mitigation requirement. The wetland enhancement requirement can be calculated using the following equation:

$E = [(LMR - 1) \times 2] \times N$; where

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

LMR = left side of mitigation ratio, from the wetland mitigation table of paragraph (F)(1) of this rule; and

N = number of acres of impacted wetlands.

For example, if the required mitigation ratio is 3:1 for an impact to two acres of wetland, an acceptable mitigation plan may include at least two acres of restored or created wetlands and at least eight acres of enhanced wetlands.

(5) Wetland preservation.

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

(i) The wetland to be preserved is a category 3 wetland which will be preserved in perpetuity, or the wetland to be preserved is pivotal in protecting a category 3 wetland and both wetlands will be preserved in perpetuity; and

(ii) There is concurrence with the decision to accept the wetland to be preserved for mitigation purposes by the Ohio department of natural resources, and other environmental resource agencies the director deems necessary; and

(iii) The wetland to be preserved for mitigation purposes should have important habitat and/or water quality characteristics which are imminently threatened; and

(iv) The wetland to be preserved for mitigation purposes shall be deeded to a responsible party for management and/or enhancement in accordance with a plan approved by the director; and

(v) Purchase and transfer of the deed for the wetland to be preserved for mitigation purposes shall occur prior to any filling of wetlands at the project site.

(b) When preservation is a component of acceptable compensatory mitigation, wetlands restoration or creation must also be a component of the mitigation and shall result in at least one acre of restored or created wetland for each acre of wetland that is impacted, unless the director determines that restoration or 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 in paragraph (F)(1) of this rule; and

N = number of acres of impacted wetlands.

For example, if the required mitigation ratio is 3:1 for an impact to two acres of

wetland, an acceptable mitigation plan may include at least two acres of restored wetlands and at least eight acres of preserved wetlands.

(6) Non-wetland 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 the following:

(a) The non-wetland buffer and the wetland are preserved in perpetuity;

(b) The non-wetland buffer consists of natural vegetation which is not maintained through mowing, application of herbicide or other means which would result in deleterious effects to either the non-wetland buffer or the adjacent wetland; and

(c) When non-wetland buffers are a component of acceptable compensatory mitigation, the buffers shall not be considered to fulfill more than 0.5 units of the required mitigation ratio, as identified in table 1 of this rule. For example, non-wetland buffers could be used to reduce the mitigation requirement from 2.0:1 to 1.5:1.

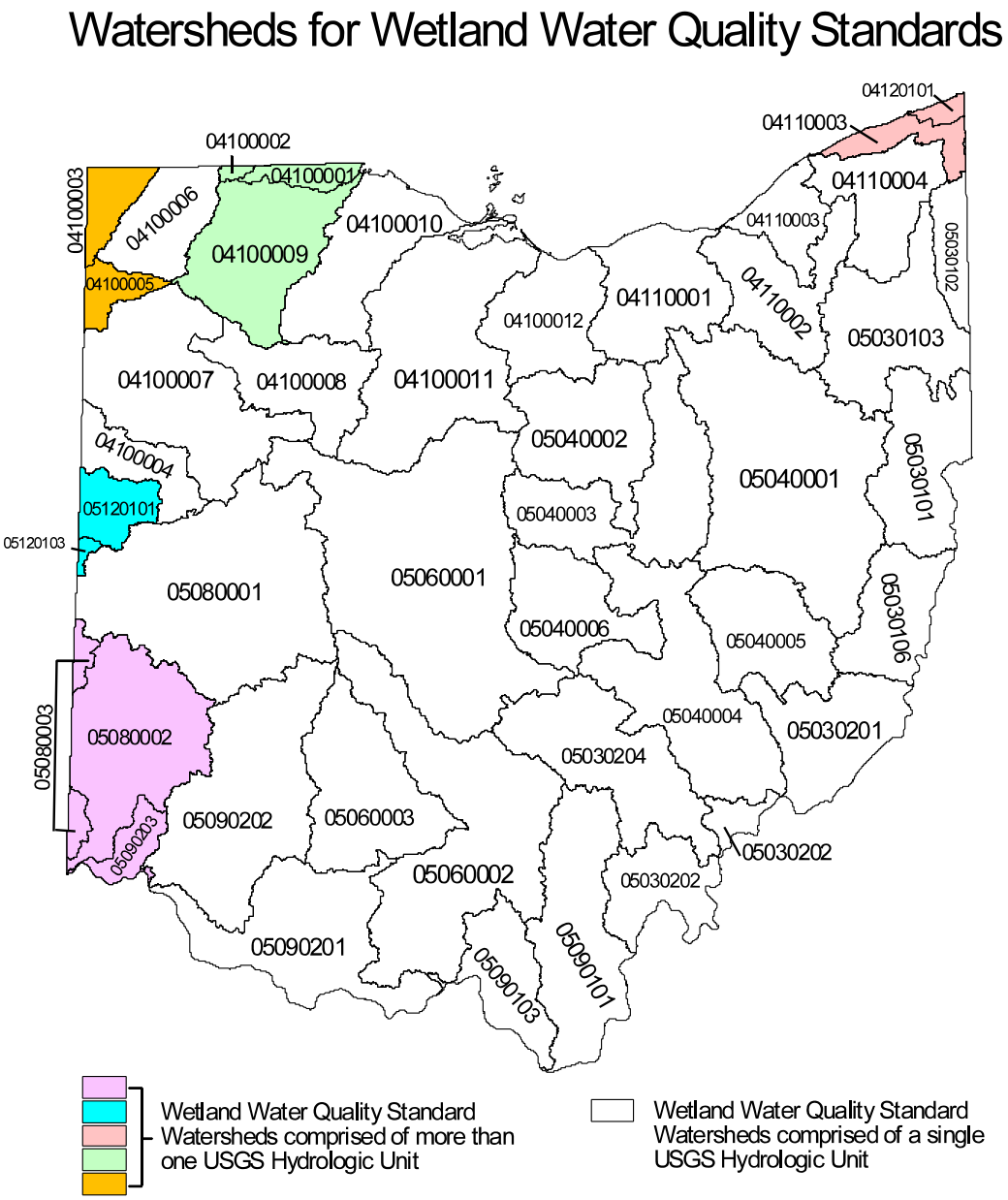
(F) Wetland compensatory mitigation criteria for mitigation ratio, replacement category, and location for antidegradation categories 1 to 3. Note "mitigation ratio," "compensatory mitigation," "forested wetland," "off-site mitigation," "on-site mitigation," and "watershed" are defined in rule 3745-1-50 of the Administrative Code. Wetland categories are discussed in paragraph (C) of this rule.

(1) Wetland mitigation table.

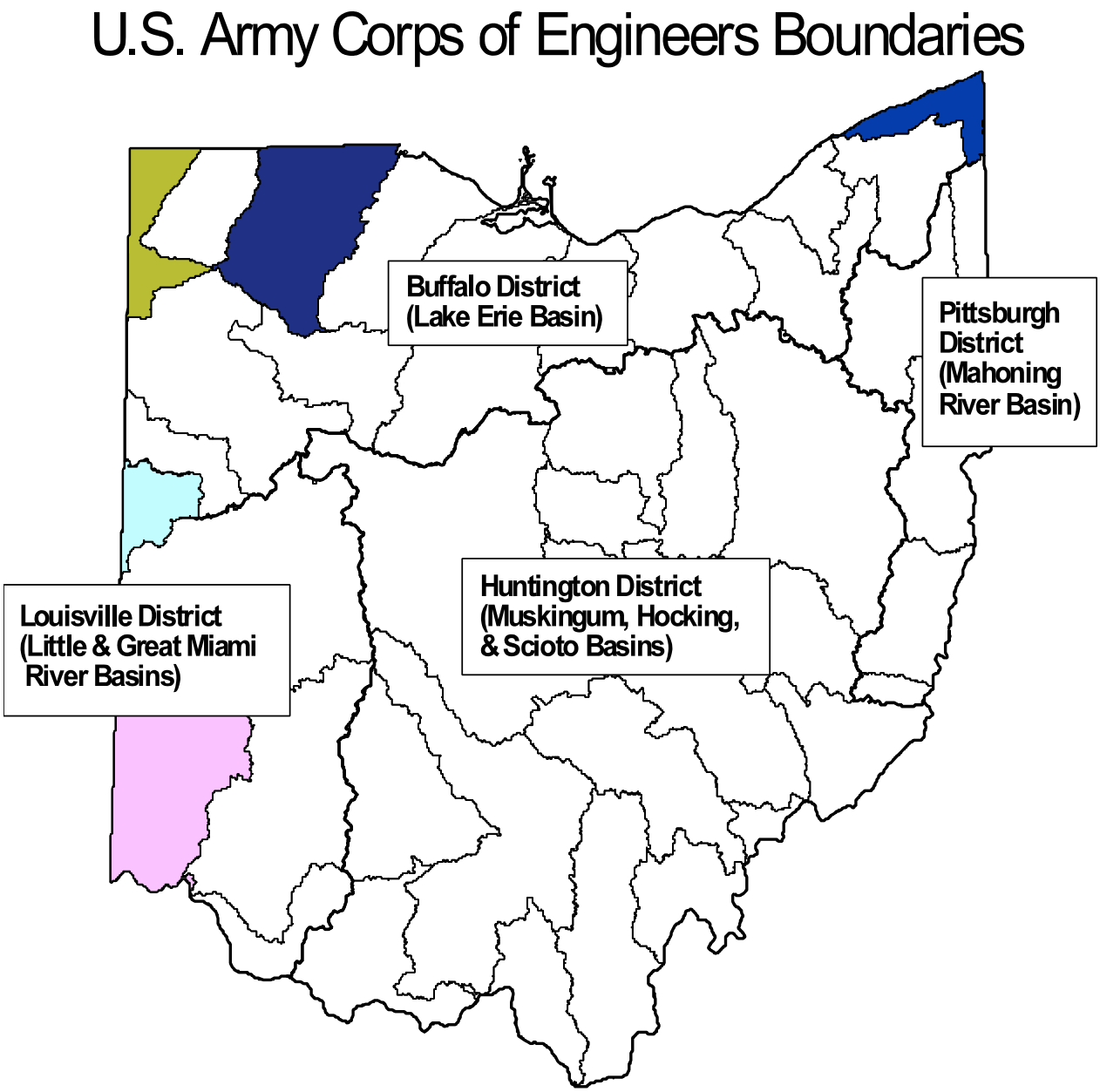
Wetland category	On-site mitigation ratio	Off-site mitigation ratio	Replacement category	Compensatory Mitigation location (Off-site)
1	1.5:1 Non-forested & Forested	1.5:1 Non-forested & Forested	2 and 3	Within the U.S. army corps of engineers district
2	1.5:1 Non-forested 2.0:1 Forested	2.0:1 Non-forested 2.5:1 Forested	2 and 3	Within watershed
3	2.0:1 Non-forested 2.5:1 Forested	2.5:1 Non-forested 3.0:1 Forested	3	Within watershed

(2) 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 for impacts to category 2 and 3 wetlands: (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 map 1 of this rule.

Map 1. Hydrologic unit map of Ohio, U.S. geological survey, 1988, as modified by Ohio EPA 1997.



Map 2. U.S. army corps of engineers district boundaries map, prepared by Ohio EPA, May 1997.



R.C. 119.032 review dates: 10/31/2007 and 10/31/2012

CERTIFIED ELECTRONICALLY

Certification

10/31/2007

Date

Promulgated Under:	119.03
Statutory Authority:	6111.041, 6111.12
Rule Amplifies:	6111.041, 6111.12
Prior Effective Dates:	5/1/1998, 10/17/2003