

Presented below are water quality standards that are in effect for Clean Water Act purposes.

EPA is posting these standards as a convenience to users and has made a reasonable effort to assure their accuracy. Additionally, EPA has made a reasonable effort to identify parts of the standards that are not approved, disapproved, or are otherwise not in effect for Clean Water Act purposes.

3745-1-50 Wetland definitions.

In addition to the definitions in rule 3745-1-02 of the Administrative Code technical words used in rules 3745-1-50 to 3745-1-54 of the Administrative Code shall be defined as follows:

- (A) "Alternatives analysis" means a systematic review and evaluation of practicable alternatives including avoidance, minimization and/or compensatory mitigation for impacts to a wetland.
- (B) "Areal cover" means the per cent of vegetation covering any area of vegetated wetland. Areal measurements are those made as if the wetland were being viewed from the air.
- (C) "Avoidance" is the first step in the alternatives analysis and means that the applicant must demonstrate that alternatives which fulfill the basic project purpose and have less impacts to the wetland are not practicable, so long as the alternative does not have other significant adverse environmental consequences.
- (D) "Biodiversity" means the number of community types, different species, and genetic variants of species found in a given area.
- (E) "Bog" means a peat-accumulating wetland that has no significant inflows or outflows and supports acidophilic mosses, particularly *Sphagnum* spp.
- (F) "Compensatory mitigation" refers to the final step in the alternatives analysis and means restoration, creation, enhancement or, in exceptional circumstances, preservation of wetlands expressly for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization have been achieved.
- (G) "Creation" means the establishment of a wetland where one did not formerly exist. This would involve wetland construction on non-hydric soils.
- (H) "Critical habitat" means:
 - (1) The specific areas within the geographical area currently occupied by a species, at the time it is listed in accordance with the Endangered Species Act (16 U.S.C.A. section 1531 et seq., as amended) on which are found those physical or biological features essential to the conservation of the species, and that may require special management considerations or protection; and
 - (2) Specific areas outside the geographical area occupied by a species at the time it is listed in accordance with the Endangered Species Act, upon a determination by the secretary of the department of the interior, that such areas are essential for the conservation of the species.
- (I) "Cumulative impacts" mean the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions. Cumulative impacts can result from individually minor but

collectively significant actions taking place over a period of time. Cumulative impacts shall be considered on a watershed basis.

- (J) "Direct impacts" mean effects which are caused by the action and occur at the same time and place.
- (K) "Dispersal corridor" means a linear area that is used by organisms to move from one place of suitable habitat to another.
- (L) "Endangered species" means a native Ohio plant species listed or designated by the Ohio department of natural resources as endangered pursuant to section 1518.01 of the Revised Code, and animal species listed or designated as endangered by the Ohio department of natural resources pursuant to section 1531.25 of the Revised Code; or any plant or animal species that is native to Ohio or that migrates or is otherwise reasonably likely to occur within the state which has been listed as endangered pursuant to section 4 of the Endangered Species Act, (16 U.S.C.A. 1531 et seq., as amended).
- (M) "Enhancement" means activities conducted in existing wetlands to improve or repair existing or natural wetland functions and values of that wetland.
- (N) "Fen" means a carbon accumulating (peat, muck) wetland that is saturated, primarily by a discharge of free flowing ground water during most of the year. Fens are rarely inundated. Fens often have a sloped surface which prevents the accumulation of stagnant or ponded water. The water of fens is usually mineral rich and has a circumneutral pH (5.5-9.0). In calcareous fens, soil may be dominated by deposits of calcium carbonate rich sediments (marl). Characteristic indicator vegetation species may include, but are not limited to *Potentilla fruticosa*, *Solidago ohioensis*, *Lobelia kalmii*, *Cacalia plantaginea*, *Deschampsia cespitosa*, *Triglochin* spp., *Parnassia glauca*, *Gentianopsis* spp., *Rhynchospora* spp., and some *Eleocharis* spp.
- (O) "Forested wetland" means a wetland class characterized by woody vegetation that is twenty feet tall or taller.
- (P) "Floodplain" means the relatively level land next to a stream or river channel that is periodically submerged by flood waters. It is composed of alluvium deposited by the present stream or river when it floods.
- (Q) "Function" means processes occurring in, or because of, the presence of a wetland that contribute to a larger ecological condition such as water quality improvement, flood control and/or biodiversity maintenance.
- (R) "Ground water discharge" means water flowing out of a ground water zone. In regards to wetlands, ground water discharge occurs when water flows from a ground water zone to a wetland.

- (S) "Ground water recharge" means water flow into a ground water zone. In regards to wetlands, ground water recharge occurs when water flows from a wetland to a ground water zone.
- (T) "Hydrologically isolated wetlands " means those wetlands which;
- (1) Have no surface water connection to a surface water of the state;
 - (2) Are outside of, and not contiguous to, any one hundred-year "floodplain" as that term is defined in this rule; and
 - (3) Have no contiguous hydric soil between the wetland and any surface water of the state.
- (U) "Indirect impacts" means effects which are caused by the project that occur farther removed in distance from the project, but are still reasonably foreseeable. Indirect impacts may include related effects on air and water and other natural systems, including ecosystems, and other adverse environmental impacts that may be a consequence of the project.
- (V) "In-kind" means compensatory mitigation of wetland losses by restoring or creating a forested wetland for a forested wetland and a non-forested wetland for a non-forested wetland.
- (W) "Minimization" refers to a step in the alternatives analysis and means that unavoidable impacts are reduced to the maximum extent practicable.
- (X) "Mitigation bank" means a site where wetlands have been restored, created, enhanced or, in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation generally in advance of authorizing impacts.
- (Y) "Mitigation bank service area" means the designated area where a mitigation bank can reasonably be expected to provide appropriate compensation for impacts to wetlands and other aquatic resources.
- (Z) "Mitigation ratio" means the rate at which wetland units (e.g., acres) will be restored, created, enhanced or preserved to provide for compensation of unavoidable wetland losses.
- (AA) "Native species" means a species which, by scientific evidence, was present in Ohio just prior to European exploration and settlement.
- (BB) "Non-native species" means a species which, by scientific evidence, was not present in Ohio just prior to European exploration and settlement.
- (CC) "Nuisance organisms" means organisms that are primarily vegetative organisms, that generally are non-native and have opportunistic growth patterns, and that displace more

diverse assemblages.

- (DD) "Off-site mitigation" means wetland restoration, creation, enhancement or preservation occurring farther than one mile from the project boundary but within the same watershed.
- (EE) "Old-growth forests" means forests characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least fifty per cent of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past eighty to one hundred years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs.
- (FF) "On-site mitigation" means wetland restoration, creation, enhancement or preservation occurring within one mile of the project boundary but within the same watershed.
- (GG) "Practicable" means available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall and basic project purposes. For the purposes of this definition,
- (1) "Available" means an alternative which is obtainable for the purpose of the project;
 - (2) "Basic project purpose" means the generic function of the project; and
 - (3) "Overall project purpose" means the basic project purpose plus consideration of costs and technical and logistical feasibility.
- (HH) "Preservation" means protection of ecologically important wetlands in perpetuity through the implementation of appropriate legal mechanisms to prevent harm to the wetland. Preservation may include protection of adjacent upland areas as necessary to ensure protection of the wetland.
- (II) "Public need" means an activity or project that provides important tangible and intangible gains to society, that satisfies the expressed or observed needs of the public where accrued benefits significantly outweigh reasonably foreseeable detriments.
- (JJ) "Restoration" means the re-establishment of a previously existing wetland at a site where it has ceased to exist.
- (KK) "Substrate" means solid material, such as soil, on or within which organisms can live.
- (LL) "Threatened species" means: a native Ohio plant species listed or designated by the Ohio department of natural resources as threatened with extirpation pursuant to section 1518.01 of the Revised Code; or an animal species listed or designated as threatened with statewide extinction by the Ohio department of natural resources pursuant to section 1531.25 of the

Revised Code; or a species that appears on the threatened species registry, as defined in rule 3745-1-05 of the Administrative Code; or any plant or animal species that is native to Ohio or that migrates or is otherwise reasonably likely to occur within the state and which has been listed as threatened pursuant to section 4 of the Endangered Species Act (16 U.S.C.A. 1531 et seq., as amended).

- (MM) "Vernal pools" means shallow, temporarily flooded, depressional forested or forest edge wetlands, that are typically dry for most of the summer and fall. These wetlands are generally inundated in the late winter and spring when they are subject to a burst of biological activity, including amphibian breeding. When flooded, vernal pools are often comprised of areas of open water that are not densely vegetated. They also tend to accumulate organic (woody) debris.
- (NN) "Watershed" means a common surface drainage area corresponding to one from the list of thirty-seven adapted from the forty-four cataloging units as depicted on the hydrologic unit map of Ohio, U.S. geological survey, 1988, and as described in paragraph (F)(2) of rule 3745-1-54 of the Administrative Code or as otherwise shown on map number 1 found in rule 3745-1-54 of the Administrative Code. Watersheds are limited to those parts of the cataloging units that geographically lie within the borders of the state of Ohio.

Effective: 5/1/1998

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

Promulgated under: R.C. Section 119.03

Rule authorized by: R.C. Sections 6111.041 and 6111.12

Rule amplifies: R.C. Sections 6111.041 and 6111.12

Prior effective dates: none

3745-1-51 Wetland narrative criteria.

[Comment: to the extent the director has specific authority under Chapter 6111. of the Revised Code, including sections 6111.03 and 6111.041 of the Revised Code, the criteria specified in this rule are applicable to the maintenance or enhancement of wetland functions. Such authority includes the issuance of certifications under section 401 of the Clean Water Act, 33 U.S.C. section 1341 (effective December 27, 1977), and Chapter 3745-32 of the Administrative Code, the issuance of NPDES permits under section 402 of the Clean Water Act, 33 U.S.C. section 1342 (effective December 21, 2000), and Chapter 3745-33 of the Administrative Code, and the issuance of permits and plan approvals under Chapter 3745-42 of the Administrative Code and sections 6111.44 and 6111.45 of the Revised Code.]

In addition to the criteria listed in rule 3745-1-04 of the Administrative Code, to every extent practicable and possible as determined by the director, and except as authorized in accordance with rule 3745-1-54 of the Administrative Code, the following narrative criteria shall apply to wetlands.

(A) The hydrology necessary to support the biological and physical characteristics naturally present in wetlands shall be protected to prevent significant adverse impacts on:

- (1) Water currents, erosion or sedimentation patterns;
- (2) Natural water temperature variations;
- (3) Chemical, nutrient and dissolved oxygen regimes of the wetland;
- (4) The movement of aquatic fauna;
- (5) The pH of the wetland; and
- (6) Water levels or elevations, including those resulting from ground water recharge and discharge.

(B)

- (1) Water quality necessary to support existing habitats and the populations of wetland flora and fauna shall be protected to prevent significant adverse impacts on:
 - (a) Food supplies for fish and wildlife;
 - (b) Reproductive and nursery areas; and
 - (c) Dispersal corridors, as that term is defined in rule 3745-1-50 of the Administrative Code.
- (2) Water quality shall be protected to prevent conditions conducive to the establishment or proliferation of nuisance organisms, as that term is defined in rule 3745-1-50 of the

Administrative Code.

- (C) Conditions shall not occur that will have a significant adverse impact on the ability of the wetland to be used for wetland-dependent recreational opportunities in or on the water.

Effective: 10/17/2003

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

Promulgated Under: R.C. 119.03

Statutory Authority: R.C. 6111.041 and 6111.12

Rule Amplifies: R.C. 6111.041 and 6111.12

Prior Effective Date: 5/1/1998

3745-1-52 Numeric chemical criteria for waste water discharges to wetlands.

For the purposes of establishing waste water discharge permit limits for waste water discharges to wetlands pursuant to Chapter 6111. of the Revised Code, numeric chemical criteria associated with the "warmwater aquatic life habitat" use designation, as specified in this chapter of the Administrative Code, shall apply at the "end of pipe". The applicant may submit a request, in writing, to the director to use alternate criteria. The director may approve the request if the use of alternative criteria is deemed not to be injurious to the wetland's designated use and assigned category, as specified in rule 3745-1-54 of the Administrative Code.

Effective: 5/1/1998

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

Promulgated under: R.C. Section 119.03

Rule authorized by: R.C. Sections 6111.041 and 6111.12

Rule amplifies: R.C. Sections 6111.041 and 6111.12

Prior effective dates: none

3745-1-53 Wetland use designation.

All surface waters of the state of Ohio which meet the definition of a wetland in rule 3745-1-02 of the Administrative Code are assigned the wetland designated use.

Effective: 5/1/1998

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

Promulgated under: R.C. Section 119.03

Rule authorized by: R.C. Sections 6111.041 and 6111.12

Rule amplifies: R.C. Sections 6111.041 and 6111.12

Prior effective dates: none

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 foreseeable 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 foreseeable 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:

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

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:

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

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.

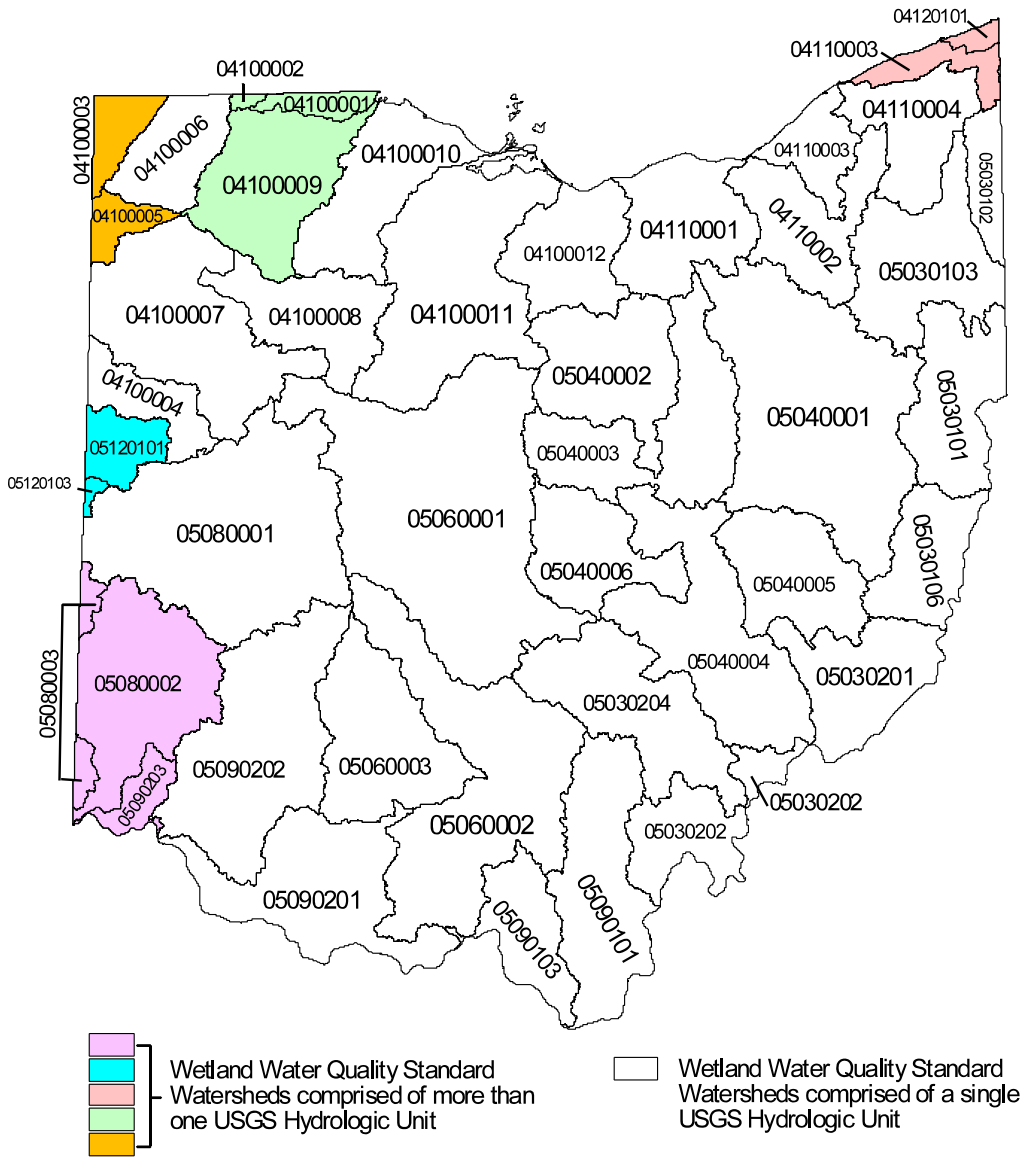
(1) Wetland mitigation table.

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.

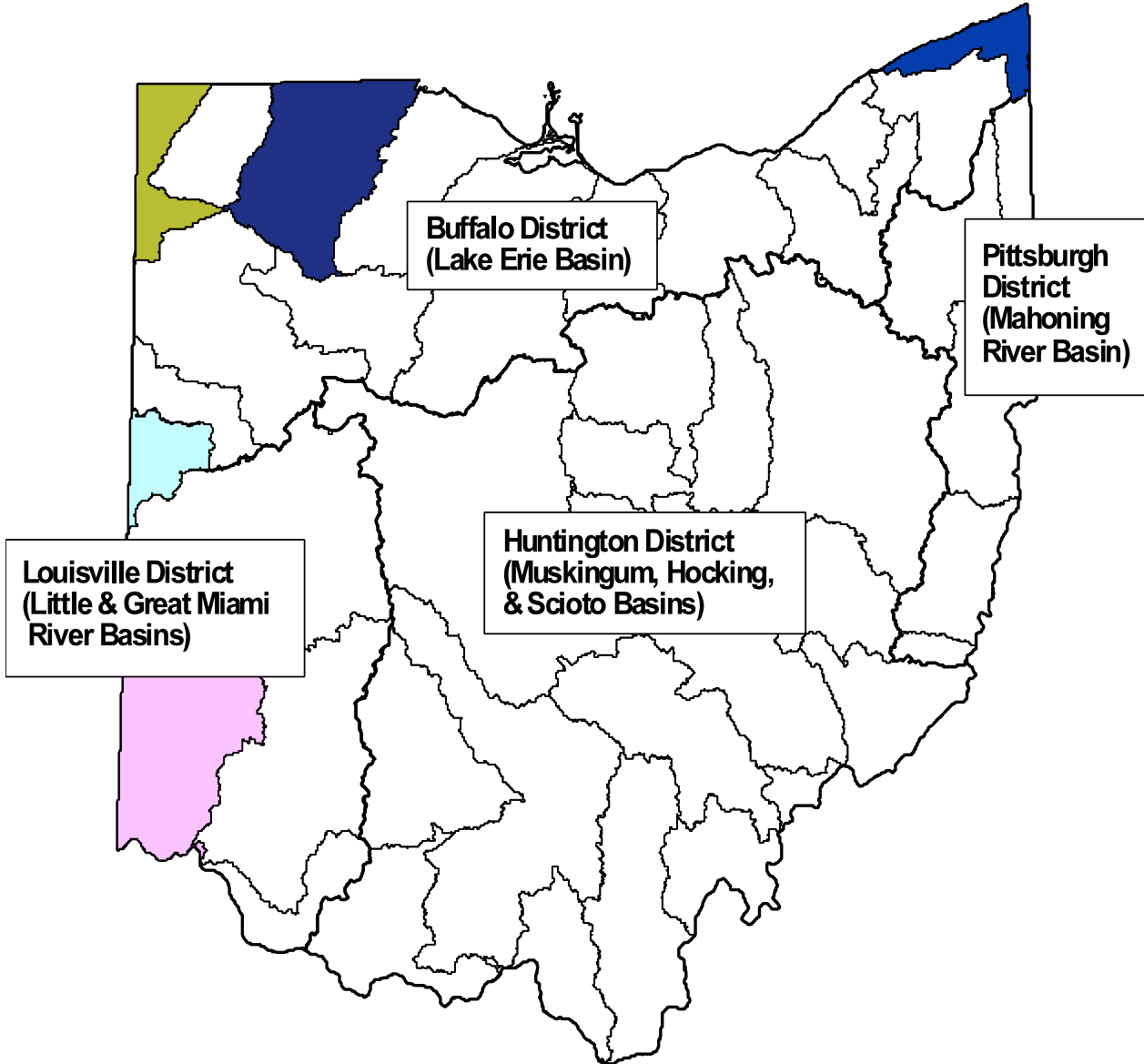
Map 1. Hydrologic unit map of Ohio, U.S. geological survey, 1988, as modified by Ohio EPA 1997.

Watersheds for Wetland Water Quality Standards



Map2. U.S. army corps of engineers district boundaries map, prepared by Ohio EPA, May 1997.

U.S. Army Corps of Engineers Boundaries



Effective: 10/17/2003

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

Promulgated Under: R.C. 119.03

Statutory Authority: R.C. 6111.041 and 6111.12

Rule Amplifies: R.C. 6111.041 and 6111.12

Prior Effective Date: 5/1/1998