

For Interested Party Review – December 2010 Draft

3745-1-56 Mitigation for impacts to streams authorized under state water quality permits.

[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 rule 3745-1-03 of the Administrative Code.]

(A) This rule shall be applied when establishing mitigation requirements for impacts that are authorized under state water quality permits issued in accordance with Chapter 3745-32 of the Administrative Code.

[Comment: Compensatory mitigation requirements for authorized impacts to wetlands are in rule 3745-1-54 of the Administrative Code.]

(B) Stream mitigation categories. As part of the application process, the applicant shall determine, subject to the director's approval, the applicable mitigation categories for streams or stream segments pursuant to this paragraph. If necessary, a use attainability analysis to determine the existing use of the stream shall be conducted and the data provided to Ohio EPA for review and approval as part of the application.

[Comment: Stream use designations are defined in rule 3745-1-07 of the Administrative Code and are assigned in rules 3745-1-07 to 3745-1-30 of the Administrative Code.]

(1) Streams assigned to mitigation category 1. Streams that are designated, or through a use attainability analysis are found to meet the definitions of, any of the following use designations are in mitigation category 1:

(a) Limited resource water, acid mine drainage where qualitative habitat evaluation index (QHEI) scores representative of the impacted stream segment are found to be less than forty;

[Comment: Although streams that cannot meet the biological water quality criteria found in rule 3745-1-43 of the Administrative Code because of the effects of acid mine drainage may be designated as limited resource water, many of these streams may have the capacity to recover when and if the chemical pollutant source or sources are treated or eliminated. Acid mine drainage streams with adequate habitat quality (QHEI scores greater than or equal to forty) are placed into a higher mitigation category in order to not preclude restoration of these streams.]

(b) Limited resource water, small drainageway maintenance;

- (c) Other limited resource water designated streams listed under the provisions of rule 3745-1-07 of the Administrative Code;
 - (d) Class I primary headwater habitat; or
 - (e) Modified primary headwater habitat.
- (2) Streams assigned to mitigation category 2. Streams that are designated, or through a use attainability analysis are found to meet the definitions of, any of the following use designations are mitigation category 2 streams:
 - (a) Modified warmwater habitat;
 - (b) Limited resource water, acid mine drainage where QHEI scores representative of the impacted stream segment are found to be greater than or equal to forty; or
 - (c) Class II primary headwater habitat.
- (3) Streams assigned to mitigation category 3. Streams that are designated, or through a use attainability analysis are found to meet the definitions of, any of the following use designations are mitigation category 3 streams:
 - (a) Warmwater habitat where the stream is categorized as general high quality water in of rule 3745-1-05 of the Administrative Code;
 - (b) Coldwater habitat – inland trout streams where the stream is categorized as general high quality water in rule 3745-1-05 of the Administrative Code;
 - (c) Seasonal salmonid habitat; or
 - (d) Class III primary headwater habitat.
- (4) Streams assigned to mitigation category 4. Streams that are designated, or through a use attainability analysis are found to meet the definitions of, any of the following use designations are mitigation category 4 streams:
 - (a) Warmwater habitat, where the stream is categorized superior high quality water, outstanding state water, or outstanding national resource water in rule 3745-1-05 of the Administrative Code;

- (b) Coldwater habitat – inland trout streams where the stream is categorized superior high quality water, outstanding state water, or outstanding national resource water in rule 3745-1-05 of the Administrative Code;
 - (c) Coldwater habitat – native fauna ; or
 - (d) Exceptional warmwater habitat.
- (C) On a case-by-case basis, the director may re-assign streams to a different mitigation category listed in paragraph (B) of this rule if the director determines there are technically justified reasons for making the adjustment. Examples include but are not limited to a demonstration that downstream waters could be adversely impacted under the mitigation requirements imposed through the original mitigation category or a demonstration that a designated aquatic life use is not attainable in a stream segment due to irretrievable conditions. The re-assigned mitigation category shall be based upon site-specific data. The director shall make re-assignments based upon an analysis of the effects of the proposed mitigation plan upon the attainment of applicable water quality criteria and the maintenance of existing and designated uses in downstream waters.
- (D) Stream mitigation requirements. Mitigation for impacts to streams shall be designed based upon the stream mitigation categories at the project location and, where necessary to protect downstream water quality standards, the stream mitigation categories of downstream waters. The director shall assess each proposed project and activity covered by this rule on a case-by-case basis. The assessment shall use a standardized methodology acceptable to the director to evaluate the impacts of projects and the likely effectiveness of mitigation plans to restore water quality functions of the stream and flood prone area, maintain vertical stream channel stability and maintain habitat for aquatic life. Except as allowed under paragraph (E) of this rule the applicant shall develop mitigation plans as described in this paragraph using the methods published in “Compensatory Mitigation Requirements for Stream Impacts in the State of Ohio (Revision 5.0).”
 - (1) All approved mitigation projects must ensure the protection of downstream water quality standards.
 - (2) All re-constructed or modified stream channel segments must ensure the maintenance of vertical stability of the stream channel under anticipated land use and stream flow conditions.
 - (3) Conditions for approving on-site mitigation without additional off-site mitigation.

[Comment: Applicants who meet the conditions in this paragraph are exempted from certain antidegradation requirements as described in rule 3745-32-04 of the Administrative Code.]

- (a) Mitigation category 1. Stream mitigation can be accomplished entirely on-site if the applicant demonstrates the maintenance or improvement in water quality functions of the flood prone area using the methods described in “Compensatory Mitigation Requirements for Stream Impacts in the State of Ohio (Revision 5.0).”
- (b) Mitigation category 2. Stream mitigation can be accomplished entirely on-site if the applicant demonstrates:
 - (i) A minimum of one to one replacement of stream channel length;
 - (ii) The maintenance or improvement in water quality functions of the stream and flood prone area using the methods described in “Compensatory Mitigation Requirements for Stream Impacts in the State of Ohio (Revision 5.0);” and
 - (iii) For streams designated limited resource water, acid mine drainage where QHEI scores representative of the impacted stream segment are found to be greater than or equal to forty and for streams designated modified warmwater habitat, suitable habitat for aquatic life as measured with the qualitative habitat evaluation index using the methods described in “Compensatory Mitigation Requirements for Stream Impacts in the State of Ohio (Revision 5.0).”
- (c) Mitigation categories 3 and 4. Stream mitigation can be accomplished entirely on-site if the applicant demonstrates:
 - (i) A minimum of one to one replacement of stream channel length;
 - (ii) The replacement of stream channel with appropriate bed form, meander pattern, and longitudinal profile appropriate to the watershed setting. In addition, adequate flood prone area and vegetated riparian buffer shall be provided to maintain or enhance water quality functions to maintain existing beneficial uses using the methods described in “Compensatory Mitigation Requirements for Stream Impacts in the State of Ohio (Revision 5.0);” and
 - (iii) Suitable habitat for aquatic life as measured with the qualitative habitat evaluation index or the headwater habitat evaluation index using the methods described in “Compensatory Mitigation

Requirements for Stream Impacts in the State of Ohio (Revision 5.0)."

- (4) Where on-site replacement is not provided that meets the requirements of paragraph (D)(3) of this rule, applicants must provide suitable mitigation using the debit-credit system described in "Compensatory Mitigation Requirements for Stream Impacts in the State of Ohio (Revision 5.0)." Mitigation credits may be generated on-site, off-site, or in combination.
- (a) Debits and credits shall be calculated for two metrics, adjusted flood prone area and adjusted habitat area, using the procedures provided in "Compensatory Mitigation Requirements for Stream Impacts in the State of Ohio (Revision 5.0)."
- (i) Debits and credits for adjusted flood prone area and for adjusted habitat area must be accounted for separately when evaluating mitigation plans for compliance with this rule.
- (ii) The units for debits and credits shall be expressed in acres. For adjusted flood prone area, debits and credits shall be calculated to the nearest tenth of an acre. For adjusted habitat area, the level of precision shall be the nearest hundredth of an acre. An acre impacted for either metric constitutes a unit of debit and an acre of mitigation as measured using either metric constitutes a unit of credit.
- (b) For debits accrued for impacts to streams that fall within either mitigation category 3 or 4, the majority of the credits (at least fifty-one per cent) must be generated through stream restoration or stream enhancement activities. Mitigation credits for stream preservation projects up to forty-nine per cent are acceptable for stream segments that are assigned to mitigation categories 3 or 4.
- (c) The director may approve mitigation credits for stream preservation projects for stream segments assigned to mitigation category 1 or 2 based upon a demonstration by the applicant that the following conditions are true:
- (i) The project is necessary to protect ecologically important downstream uses; and
- (ii) The preserved stream segment has sufficient physical or ecological integrity to provide beneficial water quality or ecological function.

- (d) Mitigation credits necessary to meet the requirements of this rule shall be provided according to the ratios in table 1 of this rule. The mitigation ratio expresses the number of credits required per number of debits.

Table 1. Mitigation credit requirements.

<u>Impacted stream category</u>	<u>Mitigation ratio (credits:debts)</u>
<u>Mitigation category 1</u>	<u>1.0 : 1.0</u>
<u>Mitigation category 2</u>	<u>1.0 : 1.0</u>
<u>Mitigation category 3</u>	<u>1.5 : 1.0</u>
<u>Mitigation category 4</u>	<u>3.0 : 1.0</u>

- (e) Mitigation credits necessary for off-site stream mitigation projects shall be adjusted based upon the location of the mitigation project in relation to the location of impact as described in this paragraph.
- (i) For mitigation projects located along the same stream as the impact and within the same 12-digit HUC watershed, no adjustment is required.
- (ii) For mitigation projects that are not along the same stream but are located within the same 12-digit HUC watershed as the impact, ten per cent additional credits are required. The director may waive the addition of required mitigation credits for mitigation projects that are located within the same 12-digit HUC watershed if it is determined that:
- (a) Site-specific conditions prevent mitigation either on-site or along the impacted stream;
- (b) The resulting stream condition following the completion of the project causing the impacts will not negatively impact downstream water quality; and
- (c) The mitigation provided will provide significant water quality benefits.
- (iii) For mitigation projects that are not located within the same 12-digit HUC watershed as the impact but are within the same 8-digit HUC watershed, twenty per cent additional credits are required.
- (iv) For mitigation projects that are located outside the 8-digit HUC watershed where the impacts occur, forty per cent additional credits are required.

[Comment: Mitigation projects outside the 8-digit watershed where the impacts occur will be allowed only rarely and in instances where it can be demonstrated that no other suitable mitigation is possible within the watershed.]

- (E) Alternative stream mitigation methods. The director may authorize mitigation for impacts to streams based upon other methodologies if the applicant demonstrates that the methods are as protective as those described in “Compensatory Mitigation Requirements for Stream Impacts in the State of Ohio (Revision 5.0).”
- (F) General permits. The director may use the tiered stream mitigation categories as a basis for the development of mitigation techniques and best management practices specified in a general permit applicable to projects that impact selected categories of streams.
- (G) The director shall include requirements for post-project monitoring to document the proper installation, maintenance and performance of stream mitigation.
- (H) Mitigation requirements on any application submitted prior to the effective date of this rule shall be determined on a case-by-case basis.

Effective:

R.C. 119.032 rule review date:

Certification

Date

Promulgated Under: R.C. 119.03
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