

STATE OF OHIO

Water Quality Trading

Chapter 3745-5 of the ADMINISTRATIVE CODE

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Ohio Environmental Protection Agency  
Division of Surface Water  
Standards & Technical Support Section

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**3745-5-01 Water quality trading: definitions.**

[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 3745-5-02 of the Administrative Code.]

As used in this chapter, terms in this rule are defined as follows:

- (A) "Animal feed operation" or "AFO" means animal feeding operation, as defined in 40 C.F.R. 122.23.
- (B)
  - (1) "Best management practice" or "BMP" means structural, vegetative, or managerial practices that reduce or prevent the discharge of pollutants to waters of the state, typically from a nonpoint source, but could also be from green infrastructure storm water controls.
  - (2) "Bioaccumulative chemical of concern" or "BCC" means bioaccumulative chemical of concern, as defined in rule 3745-1-02 of the Administrative Code.
- (C)
  - (1) "Concentrated animal feeding operation" or "CAFO" means an AFO that is defined as a large CAFO or as a medium CAFO by the terms of 40 C.F.R. 122.23, or that is designated as a CAFO by the director or regional administrator. Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.
  - (2) "Cross-pollutant trading" means the trading of two different oxygen-related pollutants when equivalent mass loads of the pollutants can be calculated, and the water quality effects of those equivalent mass loads are similar (for example, meeting an effluent limit for biochemical oxygen demand by purchasing credits generated by a reduction in an ammonia load or by a reduction in a phosphorus load).
  - (3) "Current discharge level" for a permittee means the pollutant-specific discharge load, including daily, weekly, monthly, seasonal or annual as appropriate, calculated using the median flow and concentration data for the last three calendar years.
- (D) "Director" means the director of Ohio environmental protection agency.
- (E) "Endorsed watershed plan" means a watershed action plan that meets all criteria of Ohio's Guide to Developing Local Watershed Action Plans in Ohio (June 1997), including the Appendix 8 update (February 7, 2003), and the most recent U.S. EPA section 319 planning guidance (federal fiscal year 2006). Endorsed watershed plans have been replaced with nine

element watershed plans, as defined in this rule.

(H)

(F) "Federal Water Pollution Control Act" means the Federal Water Pollution Control Act, more commonly known as the Clean Water Act, 33 U.S.C. section 1251.

(G) [Reserved.]

(H) [Reserved.]

(I) [Reserved.]

(J) [Reserved.]

(K) [Reserved.]

(L)

(1) "Load allocation" means load allocation, as defined in rule 3745-2-02 of the Administrative Code.

(2) "Loading capacity" means loading capacity, as defined in rule 3745-2-02 of the Administrative Code.

(3) "Load reduction spreadsheet" means "Region 5 Model for Estimating Load Reductions", U.S. EPA Region 5, September 2017. This document is available on the internet at: [http://it.tetrattech-ffx.com/steplweb/models\\$docs.htm](http://it.tetrattech-ffx.com/steplweb/models$docs.htm).

(4) "Local impacts" mean a stream segment, where high levels of pollutants being traded contribute to partial attainment or non-attainment of water quality standards.

(M) [Reserved.]

(N)

(1) "Nine element watershed plan" or "nine essential elements" means the U.S. EPA recommended minimum elements for a watershed action plan, available online at: <https://www.epa.gov/nps/watershed-planning>.

(2) "Nonpoint source" means any source of pollutants other than those defined or designated as point sources.

(3) "NPDES" means national pollutant discharge elimination system.

(4) "NPDES permit" means a permit issued by the state of Ohio pursuant to section 402 of the Federal Water Pollution Control Act and Chapter 6111. of the Revised Code and rules adopted thereunder.

(O) "Ohio EPA" means the Ohio environmental protection agency.

## (P)

- (1) "Person" means person, as defined in section 6111.01 of the Revised Code.
- (2) "Permittee" means an NPDES permit holder.
- (3) "Point source", for the purpose of this chapter, means any discernible, confined and discrete conveyance from a wastewater treatment works. This term does not include agricultural storm water discharges or return flows from irrigated agriculture.
- (4) "Point source-point source trade" means a trade in which the person using water quality credits and the person generating water quality credits are both permittees.
- (5) "Point source-nonpoint source trade" means a trade in which the person using water quality credits is a permittee and the person generating water quality credits is a nonpoint source.
- (6) "Pollutant load" means the quantity of a pollutant expressed in units of mass or mass per unit time.
- (7) "Pollutant specific-cap" means the sum of the wasteload allocations established under a TMDL for permittees participating in a point source-point source trade.
- (8) "Pollution" means pollution as defined in section 6111.01 of the Revised Code.
- (9) "Production area" means an AFO production area, as defined in 40 C.F.R. 122.23.

## (Q)

- (1) "Qualified soil and water conservation professional" means county soil and water conservation district or "SWCD" staff, staff from the Ohio department of agriculture division of soil and water conservation or other Ohio department of agriculture staff, a natural resource conservation service or "NRCS" certified planner or an NRCS employee, a united states department of agriculture registered technical service provider or "TSP", a certified crop planner, a soil scientist as certified by the association of Ohio pedologists, a professional engineer, or equivalent professional as deemed by the director to have the education, knowledge and experience commensurate with this definition.
  - (2) "Quantified load reduction" means the reduction in a nonpoint source discharge that has been determined using one of the methods specified in this chapter.
- (R) "Regional administrator" means the regional administrator of the appropriate regional office of the United States environmental protection agency or the authorized representative of the regional administrator.
- (S) "Stewardship credit" means a water quality credit that is purchased and retired for the public benefit, rather than being used to meet an NPDES permit limit or other regulatory obligation.

## (T)

- (1) "Total maximum daily load" or "TMDL" means total maximum daily load, as defined in rule 3745-2-02 of the Administrative Code.
- (2) "Trading ratio" means the mass of a pollutant that must be reduced to receive a water quality credit.

[Comment: A trading ratio of one to one or "1:1" means that one pound of a pollutant must be removed to receive a water quality credit for the reduction of one pound of that pollutant. A trading ratio of two to one or "2:1" means that two pounds of a pollutant must be removed to receive a water quality credit for the reduction of one pound of that pollutant.]

## (U)

- (1) "U.S. EPA" means the United States environmental protection agency.
- (2) "Upstream trade" means a trade in which one source purchases water quality credits for pollutant reductions that are made by another source located upstream.

## (V) [Reserved.]

## (W)

- (1) "Wasteload allocation" means wasteload allocation, as defined in rule 3745-2-02 of the Administrative Code.
- (2) "Water quality baseline" means the level of pollutant reduction that must be achieved before water quality credits can be generated.
- (3) "Water quality credit" means the quantity of a pollutant that is available for a trade. Water quality credits are generated by pollutant reductions that are in excess of water quality baseline requirements, that occur within a specified period of time, and that are greater than those required by a regulatory requirement, such as an NPDES permit, or the wasteload allocation established under a TMDL.
- (4) "Water quality standards" means the standards set forth in Chapter 3745-1 of the Administrative Code.
- (5) "Water quality trade" means the purchase, sale, conveyance or other transfer of a water quality credit from one person or permittee to another person or permittee.
- (6) "Water quality trading" or "trading" means a regulatory program that allows a permittee to meet its regulatory obligations by using pollutant reductions generated by another person.
- (7) "Water quality trading activity" means all requirements established and all activities regulated by this chapter.

- (8) "Water quality trading area" means the region identified in a water quality trading management plan where trading will occur. Common water quality trading areas include areas delineated by the boundaries of all receiving waters, a TMDL area or a watershed area.
- (9) "Water quality trading management plan" means a management plan governing the operation and maintenance of water quality trading activities within a water quality trading area.
- (10) "Watershed" means an area of land that drains to a common lake, pond, river, stream, or other waters of the state. A watershed may encompass a large river mainstem and all of its subbasins and tributaries when this is necessary to address regional or national water quality issues.
- (11) "Watershed trading" means water quality trading activities within an area that occur between two or more permittees and one or more nonpoint sources.
- (12) "Waters of the state" means waters of the state, as defined in rule 3745-33-01 of the Administrative Code.

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**3745-5-02 Purpose and applicability.**

- (A) The purpose of this chapter is to establish a voluntary statewide water quality trading program that does all of the following:
- (1) Facilitates watershed-based approaches to improving water quality.
  - (2) Improves water quality and minimizes the costs of achieving and maintaining water quality standards.
  - (3) Provides economic incentives for voluntary pollutant reductions from point sources and nonpoint sources.
  - (4) Achieves additional environmental benefits beyond pollutant reductions.
- (B) This chapter applies to any person that participates in water quality trading activities.
- (C) The director may consider whether water quality trading activities have met the purpose of this chapter when determining if the rules should continue without change, be amended or be rescinded.

[Comment: Pursuant to section 106.03 of the Revised Code, every five years state agencies are required to review each of their rules to determine if the rules should continue without change, be amended or be rescinded. In making this review, the director must consider the continued need for the rule, the nature of any complaints or comments received, and any relevant factors that may have changed in the subject matter affected by the rule. The above information is found in the joint committee on agency rule review procedures manual available at <http://www.jcarr.state.oh.us>.]

- (D) Incorporation by reference.

[Comment: Incorporation by reference. This chapter includes references to certain acts and regulations in which the text of the specified act or regulation is not included. Those statutes and regulations are hereby incorporated by reference into this chapter and made a part of this chapter as if fully rewritten therein. For statutes and regulations subject to change, only the specific version specified in the rule are incorporated. Except for subsequent annual publication of existing (unmodified) Code of Federal Regulation compilations, any amendment or revision to a referenced document is not incorporated unless and until this rule has been amended to specify the new dates.]

- (1) Availability. The acts and regulations incorporated by reference are available as follows:
  - (a) Acts of the United States Government. Information and copies may be obtained by writing to: "U.S. Government Publishing Office Bookstore, 710 North Capitol

Street NW, Washington, DC 20403." The full text is also available in electronic format at [www.archives.gov/federal-register](http://www.archives.gov/federal-register). A copy of federal acts are also available for inspection and copying at the state library of Ohio and most public libraries. The laws listed in this chapter are those effective through July 1, 2017.

- (b) Federal regulations ("Code of Federal Regulations" or "C.F.R."). Information and copies may be obtained by writing to: "U.S. Government Publishing Office Bookstore, 710 North Capitol Street NW, Washington, DC 20403." Compilations are also available for inspection and copying at the state library of Ohio and most public libraries, and can be viewed electronically online at: <https://www.gpo.gov/fdsys/>. The regulations listed in this chapter are those effective through July 1, 2017.

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**3745-5-03 Prohibitions and restrictions.**

[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 3745-5-02 of the Administrative Code.]

- (A) The use of a water quality credit shall conform to the following:
- (1) Not cause or contribute to a violation of water quality standards.
  - (2) Not cause impairment of existing use or designated uses, as defined in Chapter 3745-1 of the Administrative Code, including adversely affecting water quality at an intake for drinking water supply.
  - (3) Not exceed a loading capacity established by a TMDL.
  - (4) Not be used to comply with a technology based effluent limit based on the secondary treatment regulations as specified in 40 C.F.R. 133, the national effluent limitations guidelines and performance standards as specified in 40 C.F.R. 405 through 499, or established based on the best professional judgment of the permit writer pursuant to section 402(a)(1) of the Clean Water Act and 40 C.F.R. 122.44(a)(1).
  - (5) In accordance with section 6111.03 of the Revised Code, not conflict with an areawide waste treatment management plan adopted in accordance with section 208 of the Federal Water Pollution Control Act.
- (B) A water quality credit shall not be developed for a bioaccumulative chemical of concern.
- (C) A stewardship credit shall not be used to meet an NPDES permit limit or other regulatory obligation.
- (D) Concentrated animal feeding operations may participate in water quality trading activities subject to the following restrictions:
- (1) Load reductions that result from implementing structural controls or management practices in a CAFO production area are not eligible for the generation of water quality credits.
  - (2) A concentrated animal feeding operation may not use water quality credits to comply with the no discharge technology limit that applies to a CAFO production area.
  - (3) Load reductions that are achieved by implementing BMPs or habitat restoration projects are eligible for the generation of water quality credits provided the practices or projects are not implemented to comply with a nutrient management plan required under an NPDES permit or a permit-to-operate.
- (E) The director may consider the generation of water quality credits from habitat restoration

projects, provided the pollutant load reductions can be calculated in accordance with this chapter.

[Comment: Examples of habitat restoration projects include dam removal projects, stream bank stabilization and stream channel reconfiguration.]

(F) Nonpoint source load reductions that result from the implementation of BMPs shall conform to the following:

- (1) Except as provided in paragraph (F)(2) of this rule, be eligible to generate water quality credits in direct proportion to the per cent local contribution, where the BMPs are funded under a federal grant program.
- (2) Not be eligible for the generation of water quality credits where the BMPs are partially or in total funded by a grant, under section 319 of the Federal Water Pollution Control Act or through Ohio EPA's water resource restoration sponsor program.

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**3745-5-04 General program requirements.**

- (A) Water quality trading activities shall be in accordance with this chapter and all other applicable rules and laws. The director may deny any water quality trading management plan application that does not contain the required information.
- (B) An approved water quality trading management plan shall be effective for up to five years from the date it is approved by the director.
- (C) Except as provided in paragraph (D) of this rule, after January 1, 2007, no person shall participate in water quality trading activities without an approved water quality trading management plan.
  - (1) When a water quality trading management plan application is part of an NPDES permit, the only application fee required is the NPDES permit application fee, in accordance with section 3745.11 of the Revised Code.
  - (2) When a water quality trading management plan application is not part of an NPDES permit, the plan application fee and plan review fee, in accordance with section 3745.11 of the Revised Code shall apply.
- (D) For any water quality trading activities in effect on January 1, 2007, a water quality trading management plan shall be submitted to the director as follows:
  - (1) For the great Miami river watershed water quality credit trading program, not later than January 1, 2020.
    - (a) Until the date that a water quality trading management plan is approved by the director, water quality trading activities shall be in accordance with the great Miami river watershed water quality credit trading program operations manual, dated February 8, 2005, as endorsed by Ohio EPA.
    - (b) Any changes to the operations manual shall be mutually agreeable to the director and all permittees, organizations and agencies responsible for implementing the program.
    - (c) The director may deny the use of water quality credits for any trading activities that conform to the following:
      - (i) Are not in accordance with the operations manual.
      - (ii) Are causing adverse local impacts.
      - (iii) Are not achieving the program measures of success and benefits included in section 1.3 of the operations manual.
  - (2) The alpine cheese phosphorus nutrient trading program was required to submit a water

quality trading management plan to the director no later than January 1, 2017.

- (a) Until the date that a water quality trading management plan is approved by the director, water quality trading activities shall be in accordance with the alpine cheese phosphorus nutrient trading plan, dated January 1, 2006, as required by NPDES permit number 3PH00100.
- (b) Any changes to the trading plan shall be mutually agreeable to the director and all permittees, organizations and agencies responsible for implementing the program.
- (c) The director may deny the use of water quality credits for any trading activities that conform to the following:
  - (i) Are not in accordance with the trading plan.
  - (ii) Are causing adverse local impacts.
  - (iii) Are not achieving the criteria for success that are included on pages seventeen and eighteen of the trading plan.

(E) Water quality trading activities can occur in any of the following areas:

- (1) A watershed.
- (2) A TMDL area.
- (3) Any other area, where the director determines that water quality trading activities will achieve the purpose of this chapter.

(F) After applying the appropriate trading ratio, all nonpoint source pollutant reductions funded by a permittee shall be available as water quality credits for the permittee to use in meeting its NPDES permit effluent limits subject to the prohibitions and restrictions of rule 3745-5-03 of the Administrative Code or limits on trading activities established by the director pursuant to paragraphs (B) and (C) of rule 3745-5-11 of the Administrative Code.

(G) Any water quality trading activity in impaired waters, where there is not an approved TMDL, shall achieve progress towards meeting water quality standards. Data and information in endorsed watershed action plans (developed from 2001 to 2015 and conforming to applicable Ohio EPA and U.S. EPA guidance), nonpoint source implementation strategies that are consistent with the nine essential elements as described in the U.S. EPA Handbook for Developing Watershed Plans to Restore and Protect Our Waters (U.S. EPA, 2008, found online at: <https://www.epa.gov/nps/handbook-developing-watershed-plans-restore-and-protect-our-waters>), and other locally developed watershed plans that have been reviewed and deemed acceptable by the director, may be used to provide the necessary scientific basis for pre-TMDL trading.

- (H) Water quality trading activities in impaired waters, with an approved TMDL, shall be consistent with the assumptions and requirements upon which the TMDL is established and shall not delay implementation of an approved TMDL.
- (I) Subject to an annual inspection and verification by a qualified soil and water conservation professional, best management practices may generate water quality credits for each year that they are fully maintained and continue to function as designed.
- (J) Best management practices may have contracts that extend beyond the expiration date of an approved water quality trading management plan. Upon renewal of the plan, these BMPs may continue to generate water quality credits, provided the provisions of paragraph (I) of this rule are met.
- (K) A qualified soil and water conservation professional shall do all of the following:
- (1) Calculate any point source-nonpoint source water quality credit.
  - (2) Select the appropriate BMP.
  - (3) Determine the baseline for the generation of water quality credits and quantifying pollutant load reductions for any BMP.
  - (4) Conduct field inspections of any BMP to ensure correct installation and proper function, and to determine BMP failure.
  - (5) If required by the director, conduct water quality monitoring to obtain data to evaluate BMP effectiveness and to evaluate and improve the method used to quantify pollutant load reductions and water quality credits.

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**3745-5-05      General requirements for a water quality trading management plan application.**

- (A) All water quality management plan applications shall be developed in accordance with this chapter.
- (B) Any person proposing to modify water quality trading activities that are in an approved water quality trading management plan or any person that proposes to expand a watershed water quality trading area shall submit to the director a new water quality trading management plan application. The new water quality trading management plan application shall be submitted to the director at least six months prior to modifying any water quality trading activities or expanding a water quality trading area.
- (C) A water quality trading management plan renewal application shall be submitted to the director at least six months prior to an approved water quality trading management plan's expiration date. A water quality trading management plan renewal application shall include all of the following:
  - (1) An economic evaluation of the water quality trading activities, including the number and types of water quality trades, prices paid for any water quality credits, all administrative costs, grant funding and in kind benefits received, and a determination of any net cost savings resulting from the water quality trading activities.
  - (2) An assessment of both the overall environmental and the economic effectiveness of all water quality trading activity.
  - (3) If necessary, revisions or corrective measures to the water quality trading management plan.
- (D) The director may waive or reduce the scope of the evaluation and assessment required under paragraphs (C)(1) and (C)(2) of this rule based on consideration of factors, such as the number of trades that have occurred, the number of nonpoint source BMPs that have been implemented, the status of the BMPs and the overall participation level in a trading program.

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**3745-5-06 Requirements for a water quality trading management plan application.**

(A) A water quality trading management plan application shall satisfy all of the following:

- (1) Be in narrative form.
- (2) Include forms specified by the director.
- (3) Include additional information as the director deems necessary, such as memoranda of understanding or other agreements between persons participating in the trading activities or between Ohio EPA and persons participating in the trading activities, land use plans, or other watershed-based agreements.

(B) When point source trading occurs between permittees, the water quality trading management plan application shall meet all of the following requirements:

- (1) Be submitted as part of each permittee's NPDES permit application or by the permittees at any time during the term of each permittee's NPDES permit. Such applications shall be submitted as proposed modifications of the respective NPDES permits. Applications for a water quality trading management plan by two or more point sources shall be submitted at approximately the same time.
- (2) Include a statement of purpose.
- (3) Include a map of the entire water quality trading area that identifies and delineates all of the following that apply:
  - (a) The boundaries of all receiving waters.
  - (b) A TMDL area.
  - (c) The entire watershed area where trading will occur.
- (4) Identify all permittees participating in the trading activity at the time the water quality trading management plan is submitted along with the names of responsible contact persons.
- (5) Include a list of pollutants being proposed for water quality trading.
- (6) Include an assessment of all readily available information of the existing water quality, along with a comparison to water quality standards for the receiving waters, TMDL area or watershed where trading will occur.
- (7) Provide justification for all trading ratios, in accordance with this chapter.

- (8) Identify any pollutant-specific cap, wasteload allocations or load allocations that have been developed.
  - (9) In accordance with this chapter, provide justification for all water quality baselines for the generation of water quality credits for all sources participating in the trading activity, as well as the procedures used to determine the baselines.
  - (10) Describe the water quality trading activities.
  - (11) Include a schedule for implementing the trading activity.
  - (12) In accordance with rule 3745-5-13 of the Administrative Code, describe the process for public participation throughout the development, implementation and revision of the trading activities.
  - (13) Include corrective measures, should any negotiated water quality credit not be produced.
- (C) In addition to meeting all requirements in paragraphs (A) and (B)(1) to (B)(13) of this rule, when point source-nonpoint source trading occurs between one permittee and one or more nonpoint sources, the water quality trading management plan application shall also include all of the following:
- (1) Identify other persons, organizations, agencies and qualified soil and water conservation professionals responsible for implementing the proposal.
  - (2) Describe current and projected land use activities within the area where trading will occur.
  - (3) Include a map which identifies all hydrologic assessment units where nonpoint sources that might participate in the water quality trading activities are located. The hydrologic assessment units shall be identified using either the ten digit or twelve digit hydrologic unit code as appropriate for the size of the water quality trading area.
  - (4) Include a list that illustrates the range of BMPs anticipated to be used in the trading activity, including the frequency for all of the following:
    - (a) Conducting field inspections and verifications of any BMP.
    - (b) Assessing the pollutant removal rates and the load reductions for each BMP.
    - (c) If required by the director, collecting water quality monitoring data for evaluating BMP effectiveness.
- (D) In addition to meeting all the requirements in paragraphs (A), (B)(2) to (B)(13), and (C)(1) to (C)(4) of this rule, an application for watershed trading shall include the following:

- (1) All water quality baselines, developed in accordance with this chapter, for the generation of water quality credits for all sources anticipated to participate in the plan, as well as the procedures used to determine the baselines.
- (2) A map which identifies all hydrologic assessment units where nonpoint sources that might participate in the water quality trading activities are located. The hydrologic assessment units shall be identified using either the ten digit or twelve digit hydrologic unit code as appropriate for the size of the water quality trading area.

[Comment: Watershed trading means water quality trading activities within an area that occur between two or more permittees and one or more nonpoint sources.]

- (E) The director may require a schedule for conducting ambient water quality monitoring to determine if there have been negative impacts to water quality and to document the presence or absence of improvements in water quality. If required, ambient water quality monitoring shall be conducted in accordance with rule 3745-5-14 of the Administrative Code.

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**3745-5-07 Requirements for water quality credits.**

(A) A water quality credit for each pollutant shall meet all of the following requirements:

- (1) Have clearly defined units expressed as mass per unit time, or other appropriate units for those pollutants not expressible by mass, and determined in accordance with rule 3745-5-08 of the Administrative Code.
- (2) Have units that are consistent with time periods and provisions used in developing a TMDL, used to determine compliance with an NPDES permit limit, or use in other regulatory requirements.
- (3) Except as provided in paragraph (B) of this rule, be generated during the same time period when they are used to comply with effluent limits or other requirements specified in an NPDES permit.

(B) In accordance with an approved water quality trading management plan, credits may be held by a trading program as part of the corrective measures required under paragraph (B)(13) of rule 3745-5-06 of the Administrative Code for addressing situations when a permittee discovers that water quality credits are insufficient to achieve compliance with an NPDES permit.

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**3745-5-08 Water quality credits and pollutant loading calculations.**

- (A) Where methods and procedures (e.g., sampling protocols, monitoring frequencies) are specified by federal regulations or in NPDES permits, they shall be used where applicable for measuring pollutant loads and determining compliance of permittees that engage in water quality trading.
- (B) Where methods and procedures are not specified by other applicable rules and laws or an NPDES permit, a water quality credit shall be calculated as follows:
  - (1) Unless alternate methods are deemed acceptable by the director, using the load reduction spreadsheet used to estimate load reductions that are achieved by implementing BMPs.
  - (2) For pollutants or BMPs not included in the load reduction spreadsheet, using generally accepted engineering methods deemed acceptable by the director.
- (C) When evaluating load reductions for any water quality credit, the director may consider monitoring data for pollutant load reductions resulting from the implementation of BMPs or changes in land use.

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**3745-5-09 Determining water quality baselines.**

- (A) For permittees in an area where there is an approved TMDL, the water quality baseline shall be the lower of the following:
  - (1) The wasteload allocation established by the approved TMDL.
  - (2) The current discharge level.
- (B) For permittees in an area where there is not an approved TMDL or where water quality fully supports designated uses assigned in Chapter 3745-1 of the Administrative Code, the water quality baseline shall be the lower of the following:
  - (1) The existing NPDES permit limit.
  - (2) A technology-based performance standard.
  - (3) The current discharge level.
- (C) For nonpoint sources, the water quality baseline shall be the pollutant load associated with existing land uses and management practices. Existing management practices shall comply with any applicable federal, state or local requirements and shall be established as follows:
  - (1) By using the following:
    - (a) Accurate, representative, and reliable process and operational information.
    - (b) Available flow and monitoring data.
    - (c) Pollutant loading data.
    - (d) Available records that are deemed acceptable by the director.
  - (2) Unless otherwise specified in this chapter, by using information and data representative of the three year period before the date that a change is made to generate a pollutant load reduction. A different time period, such as the previous full crop rotation history, that is representative of historical operations and provides accurate and reliable data on existing pollutant loads may be used if certified by a qualified soil and water conservation professional or deemed acceptable by the director.
- (D) For storm water sources regulated under an NPDES permit, the water quality baseline shall be either of the following:
  - (1) The numeric effluent limit, if one is established in the NPDES permit.
  - (2) The pollutant-specific loading achieved after implementation of management practices

specified in or approved under the NPDES permit.

(E) The director may consider data and information submitted as part of a water quality trading management plan application that supports the use of alternate methods of setting baselines, provided that the data is established as follows:

(1) By using information representative of a three year period.

(2) By using the following:

(a) Accurate, representative, and reliable process and operational information.

(b) Available flow and monitoring data.

(c) Pollutant loading data.

(d) Available records that are deemed acceptable by the director.

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**3745-5-10      Trading ratios.**

- (A) For water quality trading activities between two permittees, a water quality credit shall be calculated using the trading ratio, where one pound of pollutant reduction equals one pound of water quality credit for that pollutant.
- (B) For water quality trading activities between a permittee and a nonpoint source, the water quality credit shall satisfy either of the following:
  - (1) When there is not an approved TMDL, be calculated using a trading ratio where two pounds of pollutant reduction equals one pound of water quality credit for that pollutant.
  - (2) When there is an approved TMDL, be calculated using a trading ratio where three pounds of pollutant reduction equals one pound of water quality credit for that pollutant.
- (C) The director may consider and impose alternate trading ratios that satisfy any of the following:
  - (1) Consider field monitoring and observations.
  - (2) Consider water quality survey results.
  - (3) Consider the ability of habitat restoration projects to achieve additional environmental benefits beyond pollutant reductions.
  - (4) Consider project-specific information.
  - (5) In the case of cross-pollutant trading, consider a project-specific modeling study that establishes an equivalency between the pollutants being traded.
  - (6) Protect water quality standards.
  - (7) Are based on additional information the director deems necessary to justify departure from the trading ratios set forth in paragraphs (A) and (B) of this rule.

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**3745-5-11 Incorporating trades into individual NPDES permits and general permits.**

- (A) For any permittee participating in trading activities, a special condition will be included in the NPDES permit, either at renewal or by modification, that does the following:
- (1) Authorizes water quality trading.
  - (2) Requires implementation of actions from the approved water quality trading management plan that are included in the NPDES permit and specifies that failure to implement these actions is a violation of the permit.
  - (3) Requires the permittee to notify the director upon discovering that water quality credits are insufficient to achieve compliance with an NPDES permit limit and outlines the actions required by paragraph (B) of rule 3745-5-12 of the Administrative Code.
  - (4) Requires submittal of an annual report that identifies the actions implemented by the permittee in the previous twelve-month period.
  - (5) Provides that the director may revoke the approved plan and require compliance with water quality based effluent limits based on the following:
    - (a) Failure by participants in the trading program to implement actions in the approved plan.
    - (b) A determination by the director that sufficient pollutant reductions have not been achieved by the participants in the trading program to meet the applicable water quality based effluent limits.
    - (c) New information becomes available that changes the director's determination on the approvability of the water quality trading management plan or on the suitability of using water quality trading as a mechanism to achieve water quality improvements in the defined trading area.
- (B) The director may incorporate special conditions in an NPDES permit to limit water quality trading activities so that adverse local impacts do not occur, including the following:
- (1) Limiting water quality trading to upstream trades.
  - (2) Requiring a higher trading ratio.
  - (3) Including a cap on the portion of its effluent limit that a permittee can replace with water quality credits.
  - (4) Establishing a minimum treatment level a plant shall meet before engaging in water quality trading activities.

- (C) When deciding whether or not to limit water quality trading activity in an NPDES permit, the director may consider such information as follows:
- (1) The results of Ohio EPA water quality surveys that indicate existing local impacts.
  - (2) The results of modeling and data assessment, and the availability of assimilative capacity for the pollutant.
  - (3) The presence of environmental factors such as low flow areas or impoundments that would cause the pollutant to persist longer in the water column.
  - (4) The potential for any pollutant to cause acute effects.
- (D) When water quality trading occurs between two permittees, the effluent limit in an NPDES permit will be based on the quantity of water quality credit being traded and will do the following:
- (1) For the permittee using the water quality credit, be increased.
  - (2) For the permittee generating the water quality credit, be decreased.
- (E) When point source-nonpoint source water quality trading occurs, the permittee's NPDES permit will do the following:
- (1) Include the effluent limit that would apply without water quality trading.
  - (2) Include effluent monitoring and reporting requirements.
  - (3) Include any water quality credit being applied to the discharge.
  - (4) Include special conditions necessary to determine compliance with any NPDES effluent limit.
- (F) In accordance with Chapter 3745-38 of the Administrative Code, the director may issue a watershed general permit to establish pollutant-specific limitations for a group of similar permittees to achieve the pollutant reductions specified by a TMDL or multiple TMDLs for the same watershed.

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**3745-5-12 Record keeping, reporting requirements, compliance, enforcement, and oversight.**

- (A) Record keeping. Upon request by the director or the director's authorized representative, any permittee, qualified soil and water conservation professional or other person participating in the administration of an approved water quality trading management plan shall make available, within a reasonable time for inspection and copying, all records pertaining to those activities, including the following:
- (1) Any records that are maintained to document point source-point source trades.
  - (2) Any records that are maintained to document point source-nonpoint source trades.
  - (3) Water quality monitoring data collected as part of the water quality trading activities.
  - (4) Any records necessary to assess the effectiveness of a BMP to reduce a pollutant load.
- (B) Reporting requirements. Upon discovering that water quality credits are insufficient to achieve compliance with an NPDES permit, a permittee shall complete all of the following:
- (1) Notify the director, in writing and within seven days of discovery.
  - (2) Act as expeditiously as possible, but no later than ninety days from the date of discovery, to comply with its NPDES effluent limit through either.
    - (a) Obtaining sufficient water quality credits.
    - (b) Reducing its hydraulic discharge or its pollutant loading to waters of the state.
  - (3) Notify the director in writing, within seven days of achieving compliance.
- (C) Compliance, enforcement and oversight.
- (1) Any permittee who participates in water quality trading activities is responsible for meeting all applicable permit requirements, including all NPDES permit effluent limits.
  - (2) The director may deny any water quality trading management plan application not in compliance with this chapter.
  - (3) For any water quality trading activities in effect that are not in accordance with an approved water quality trading management plan, except those water quality trading activities covered under paragraph (D) of rule 3745-5-04 of the Administrative Code, the director may do either of the following:
    - (a) Require the submittal of a new water quality trading management plan application, including all applicable fees, to be submitted to Ohio EPA within thirty days.

- (b) Revoke the approved water quality trading management plan.
- (4) Participating in water quality trading activities does not prevent the director from taking enforcement action for violations of Chapter 6111. of the Revised Code or any other applicable rules or laws.
- (5) The director may require an evaluation of water quality trading activities that includes all of the following:
  - (a) Describes the number and types of water quality trades.
  - (b) Includes the costs for purchasing water quality credits.
  - (c) Includes any administrative costs, grant funding and in kind benefits received associated with water quality trading activities.
  - (d) Provides a determination of any net cost savings resulting from the water quality trading activities.
  - (e) Includes an assessment of the overall environmental and the economic effectiveness of the water quality trading activities.
  - (f) Describes any need for corrective measures.
- (6) The director may reduce the scope of the evaluation required under paragraph (C)(5) of this rule based on consideration of factors, such as the number of trades that occurred, the number of nonpoint source BMPs that were implemented, the status of the BMPs, and the overall participation level in the trading activities.

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**3745-5-13 Public participation requirements.**

Any person submitting a water quality trading management plan for approval shall meet all of the following requirements:

- (A) Hold at least one public meeting for the submission of an initial water quality trading management plan or any revision of a water quality trading management plan that materially changes the nature of the water quality trading activities.
- (B) Hold the public meeting referred to in paragraph (A) of this rule after the submission of the proposed management plan or proposed revised management plan and before the plan's approval by the director.
- (C) Provide public notice of any public meeting at least thirty days prior to the public meeting in a generally circulated newspaper within each county that is within the water quality trading area. Each public notice shall provide all of the following:
  - (1) Identify the person, organization, agency or qualified soil and water conservation professional responsible for implementing the water quality trading activities.
  - (2) Identify any NPDES permit holder that will participate in the water quality trading activities.
  - (3) Include the delineations of watershed and trading boundaries.
  - (4) Describe briefly the nature of the proposed water quality trading activities.
- (D) Notify the director of any public meeting at least thirty days prior to the date of the public meeting.
- (E) Provide the director and all participants of the public meeting with a responsiveness summary that addresses each oral and written comment received as part of the public meeting.

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**3745-5-14 Ambient water quality monitoring requirements.**

(A) The ambient water quality monitoring plan shall include sufficient information for the director to do the following:

- (1) Determine if there have been negative impacts to water quality.
- (2) Document the presence or absence of any improvements to water quality.

(B) The ambient water quality monitoring plan shall provide all of the following:

- (1) Include a list of chemical, biological and stream habitat parameters being monitored.
- (2) Provide the sampling frequency for each parameter being monitored.
- (3) Provide the location of each sampling site.
- (4) Identify the methods and procedures used to monitor each parameter.

(C) The director may require the applicant to submit additional information if the information submitted pursuant to paragraph (B) of this rule will not enable the director to determine if the trading activities have resulted in positive or negative impacts to water quality.

[Comment: For guidance on study plan design, sample collection, analytical methods, data assessment, and quality assurance and quality control procedures that are appropriate for the ambient water quality monitoring required under this rule, see the appendices to rule 3745-4-05 of the Administrative Code.]

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