

TOTAL PHOSPHORUS TRADE PROGRAM AND NONPOINT SOURCE TRADING GUIDELINES



Bear Creek Watershed Association
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SECTION I. PURPOSE OF TRADING PROGRAM AND GUIDELINES

The Bear Creek Watershed Association ("Association") maintains a pollutant trading program as defined in these *Trading Guidelines* and in *Bear Creek Reservoir Control Regulation #74* for total phosphorus trades specific to the Bear Creek Watershed:

- point source to point source trades (Regulation and permit); and
- Nonpoint source to point source total phosphorus trading specific to the Bear Creek Watershed (*Trading Guidelines*).

The *Bear Creek Trading Program* allows permitted point source dischargers (Colorado Wastewater Discharge Permits) to either receive phosphorus pounds for new or increased phosphorus wasteload allocations in exchange for phosphorus loading reductions from nonpoint source pollutant reduction or through approved point source trades.

The goal of the *Bear Creek Trading Program* guidelines is to outline the process necessary for nonpoint source to point source trades that have a net water quality benefit in the watershed.

SECTION II. CONTROL REGULATION TRADING PROVISIONS

The Bear Creek Reservoir Control Regulation (Regulation #74) establishes trading provisions for point to point source trades and point to nonpoint source trades. The control regulation addresses two mechanisms for Trades. These mechanisms are:

Point-to-Point Trades

1. The Division is authorized to allow wastewater treatment facilities to discharge a total phosphorus concentration of greater than 1.0 mg/l if an agreement is made for equal phosphorus reduction at an alternative facility. The equivalent annual mass load from one wastewater treatment facility shall be calculated using a 1.0 mg/l total phosphorus concentration at the average daily wastewater flow for the most recent 12 months. The agreement for alternative treatment must be executed by the owners of the facilities, updated annually, summarized in the Association annual report and submitted to the Division to reflect changes in average wastewater flows and performance in treatment of phosphorus. The wastewater treatment facility which agrees to provide the equivalent phosphorus poundage reduction must demonstrate that it is achieving a total phosphorus effluent concentration of less than 1.0 mg/l for a period of time sufficient to remove the equivalent phosphorus load by which the other wastewater treatment facility is exceeding its wasteload allocation. The equivalent reduction provisions shall be incorporated as permit conditions in both discharge permits.
2. A reserve pool of total phosphorus shall be maintained for use by wastewater treatment facilities in the Bear Creek Watershed. Where phosphorus credits are created, consistent with section 74.3.6, such credits may be allocated to the reserve pool, subject to recommendation of the Association, and review and approval by the Division. Facilities with a phosphorus allocation in section 74.3.1 of this regulation may donate pounds to the reserve pool, subject to recommendation by the Association, and review and approval by the Division. Phosphorus credit pounds and donated pounds added to the reserve pool shall be summarized in the Association annual report. Any facility that proposes to use all or a portion of the reserve pool allocation must comply with the 1.0 mg/l total phosphorus effluent concentration. Exemptions provided for in paragraph 3 of this section do not apply to the reserve pool. The Division shall review all requests for use of reserve pool phosphorus and shall approve or deny such use as part of the site application process. For industrial facilities, approval or

denial of the use of reserve pool phosphorus shall be made by the Division through the discharge permit application and issuance process.

Nonpoint-To-Point Trades

1. Wastewater treatment facility dischargers shall apply to the Association for phosphorus trade credits which would allow corresponding increases to a discharger's total phosphorus wasteload allocation. Phosphorus trade credits shall be based upon reductions of existing sources of phosphorus from nonpoint sources generated in the watershed prior to January 1, 2005. The amount of wastewater treatment facility trade credit shall be based upon one pound of credit for two pounds of nonpoint source reduction. The Association shall review applications and make recommendations to the Division regarding allocations of phosphorus trade credits to dischargers. The Division shall consider the Association's recommendations in making determinations regarding phosphorus trade credit allocations, and shall incorporate credits into the relevant discharge permits.
2. Wastewater treatment facility dischargers shall apply to the Association for permanent or temporary transfers of all or part of the discharger's total phosphorus allocation to another wastewater discharger. Both dischargers must jointly apply to the Association for such transfers and shall include an agreement executed by the owners of the facilities specifying changes in average wastewater flows and performance in treatment of total phosphorus. The Association shall review transfer proposals and make recommendations to the Division. The Division shall consider the Association's recommendations in making such transfers, and shall incorporate its determinations into the relevant discharge permits, if these transfers are not otherwise accounted for by the Division.
3. If new wastewater treatment facilities are proposed in the Bear Creek Watershed, the appropriate entities shall apply to the Association for a phosphorus allocation. Phosphorus allocation pounds for such new wastewater dischargers shall be derived from: (1) withdrawals from the reserve/emergency pool pursuant to section 74.3.4; (2) nonpoint source to wastewater treatment facility trades pursuant to section 74.3.6; (3) point source to point source transfers pursuant to section 74.3.7; or (4) phosphorus concentration reductions through alternative treatment pursuant to section 74.3.3. New dischargers desiring allocations shall specify the number of desired total phosphorus pounds and how the pounds will be derived, consistent with section 74.3.5. The Association shall review the application and make recommendations to the Division on new phosphorus allocations. The Division shall make a determination on allocations for new facilities and incorporate in site approval and a discharge permit.

Definitions

All definitions contained in the Bear Creek Reservoir Control Regulation at 5 C.C.R. 1002-74 shall apply to these guidelines and the trading program, as well as:

1. Association Approved Trade Agreement means a written application/agreement with the Association that details an Association Trade Project with acceptable association Trade Credits consistent with these guidelines. A Trade Agreement must be approved by the Association at a regular or special Association meeting; whereas all Association meetings are open to the public.
2. Association Trade Pool means the complete set of eligible nonpoint source trade projects located within the Bear Creek Watershed for any given year and as listed in the Association Annual Report.
3. Association Trade Project means an eligible nonpoint-to-source trade project used to generate trade credits.

4. Association Trade Credit means the quantified nonpoint source total phosphorus annual pound reduction derived from an Association Trade Project and defined in an Association Approved Trade Agreement
5. Division Approval Means the Final Approved Trade Agreement approved by the Division and incorporated into discharge permits consistent with adopted site application and/ or permit regulations, or other state documents as appropriate.
6. Final Approved Trade Agreement means a Division approved trade agreement associated with the Bear Creek Watershed.
7. Nonpoint Source means for the purpose of this regulation diffuse sources of pollution that are not regulated as a point source and normally are associated with impacts from agriculture, silviculture, urban runoff, construction activities, inactive or abandoned mines, and individual sewage disposal systems.
8. Point Source means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft from which pollutants are or may be discharged. "Point Source" includes conveyances of regulated stormwater. "Point Source" does not include irrigation return flows.
9. Stormwater means stormwater runoff, snowmelt runoff, and surface runoff and drainage.
10. Trading Program means the program managed by the Association and Division for phosphorus trading in the Bear Creek Watershed.

SECTION III. NONPOINT-TO-POINT SOURCE TRADING PROGRAM

Legal Basis

The Bear Creek Watershed Association ("Association") maintains a program for nonpoint/point source phosphorus trading in the Bear Creek Watershed. The trading program and these water quality-trading guidelines are developed pursuant to the Bear Creek Reservoir Control Regulation, 5 C.C.R. 1002-74 ("Control Regulation").

Guideline Authorities

The Association adopted these trading guidelines on February 8, 2006 as consistent with Control Regulation #74, consistent with the Colorado Pollutant Trading Policy (October 2004), and in accordance with Association by-laws. The Association will administer and oversee the Bear Creek Trading Program.

The Association will take action on proposed trades consistent with these guidelines as "Association Approved Trade Agreements". The Association will present Association Approved Trade Agreements as recommendations to the Water Quality Control Division (Division) for final approval. Association Approved Trade Agreements does no guarantee Division final approval.

The Association will review a trade application for trade credits in coordination with the Division. The Association will take action by approving, conditionally approving, or denying the trade credits, and forward its decision to the Division. Thereafter, the Division shall consider the Association's decision and render the Division's final decision on the trade credits.

A Division approved trade agreement becomes a “Final Approved Trade Agreement”. The Division has the authority to incorporate Final Approved Trade Agreements into discharge permits consistent with adopted site application and/ or permit regulations, or other state documents as appropriate. The Division adopted these trading guidelines on _____ as consistent with Control Regulation #74 and state trading policies.

The Division shall provide notice of any application for a proposed trade in the Bear Creek watershed in the monthly Water Quality Bulletin. Such notice shall be provided as early in the process as possible but only after the Division has completed its initial review. In reviewing an application, the Association and the Division will use the criteria outlined in the Bear Creek Water Quality Trading Guidelines. Any issue not specifically addressed by the Bear Creek Trading Guidelines, such as antibacksliding or antidegradation, is deferred the Association and the Division the Colorado Pollutant Trading Policy (October 2004).

Association Trade Pools

The trading program allows point source dischargers to receive phosphorus pounds for new or increased phosphorus wasteload allocations in exchange for phosphorus loading reductions from nonpoint source pollutant reduction. The trading program and these guidelines provide for *Association trade pools*.

Association Oversight

Approved trade projects and trade credits remain subject to Association oversight indefinitely. The Association will not revoke an approved trade within a 3-year time period from project initiation. After this time, the Association may give notice to project owners that an approved trade is in noncompliance with these guidelines or any conditions imposed by the Association or the Control Regulation, modifications of the trading program or any other significant change in circumstances. A project owner will be given 120 days to produce and submit a compliance plan to the Association or substantiate that the Association Trade Project is functioning as approved. The Association may revoke an approved trade if the project owner does not comply with the administrative guidelines. The Association may use the weighted voting provision of the Association by-laws when making decisions related to trades.

Voluntary Transfers to the Emergency/Reserve Pool

The Association may receive transfers to the emergency/reserve pool of current phosphorus wasteload allocations from existing point source dischargers, on a voluntary basis, subject to terms and conditions in the control regulation. An existing point source discharger making such a voluntary donation will be given the first opportunity to use this phosphorus when required to meet wasteload allocation limits.

Duration of Association Trade Credits

Association Trade Credits received in approved trades shall otherwise remain valid in perpetuity subject to modifications or revocation by the Association, actions or decisions by any other state or federal governmental body or court, changes in state or federal law or compliance with the Bear Creek Reservoir control regulation.

Not a Property Right

Association Trade Credits are not a property right and a discharger does not own them and they may be modified or revoked.

Review of Guidelines

Upon motion by Association, subject to voting provisions of the Association by-laws and consistent with the Control Regulation, the Association may review and propose revisions to the trading program or these guidelines.

SECTION IV. TRADE AGREEMENT GUIDELINES

Association Trade Pool

The Association Trade Pool is a set of Association Trade Projects and Trade Credits from eligible projects available for use by permitted point source dischargers in the Bear Creek Watershed. Trade Projects require an approved Trade Agreement with the Association. The Association Trade Pool will be defined in the Association annual report and updated each year, as appropriate. Association Approved Trade Agreements are submitted to the Division for consideration as a Final Approved Trade Agreement.

Eligible Association Trade Project Types

The Association pool of trade credits includes three types of approvable Association Trade Projects.

1. ***Association-Funded Projects.*** Reductions of nonpoint source phosphorus as Association-funded trading projects.
2. ***Joint Projects.*** Reductions of nonpoint source phosphorus as Association Trade Projects funded jointly by the Association and third parties. Unless otherwise agreed to by the Association in writing, all benefits and credits for phosphorus removal from joint projects shall be managed by the Association and subject to Association approval of any modifications or revocation, if warranted.
3. ***Third Party Projects.*** The Association may also accept donations of nonpoint phosphorus reductions to the trading pool from other public or privately funded Association trade pool projects.

Discharger Eligibility for Trade Credits

Upon application, qualifying dischargers in the Bear Creek Watershed must demonstrate to the Association's satisfaction, compliance with the following eligibility criteria.

Need for Total Phosphorus Pounds

In determining whether a discharger demonstrates an appropriate and timely need for Association Trade Credits, the Association shall consider:

1. **Treatment Capacity.** Treated wastewater flows at the discharger's treatment facility are at eighty percent (80%) of the wastewater treatment facility's design capacity; however, trade credit requests can be made based on site specific needs without reaching the planning threshold.
2. **Wasteload Allocation.** The discharger's phosphorus wasteload allocation must be insufficient to accommodate predicted 5-year treated wastewater flows from the facility's expansion.
3. **Growth Plans.** The discharger's plans for facility expansion must be reasonable given current facility size, forecasts of population and employment in their service area, the proposed size of the incremental expansion, timing of need and schedule for completion of new or expanded facilities, and include a margin of safety.

4. Quantity of Desired Association Trade Credits. The amount of Association Trade Credits to be purchased must be reasonable and appropriate given the discharger's plans for facility expansion or operations, the discharger's current wasteload allocation, the actual and anticipated growth of other dischargers in the watershed, and the conditions of the watershed.

Treatment Efficiency

1. Current. A discharger requesting use of Association trade credits must demonstrate that its treatment facility is operated efficiently so that the facility achieves the optimal treatment results reasonably expected for the facility's wastewater treatment technology.
2. Future. A discharger requesting use of Association trade credits must demonstrate that the treatment facility, even with the increased wasteload allocation from Association Trade Credits, will be operated efficiently so that the facility achieves the optimal treatment results expected for the facility's wastewater treatment technology.

Compliance with Effluent Limitations

1. Current. The discharger must demonstrate that it achieves the effluent limitations in its discharge permit.
2. Future. The discharger must demonstrate that its treatment facility is or will be designed or operated to meet the effluent limitations expected to be set in its discharge permit.

Trade Ratio

Association Trade Credits represent quantification, in pounds per year, of nonpoint source phosphorus reduction achieved from Association Trading Projects. Trade Credits are transferable to dischargers in Bear Creek Watershed and represent the actual number of phosphorous wasteload allocation pounds that may be used for point source discharges. The trade ratio represents the pound(s) of Association Removal Credits required to establish one Association trade credit. The base trade ratio is 2:1 for Association Trade Projects.

Assignment of Credits

The Association members or non-Association third parties may nominate Association Trade Projects. The Association may assign Association Trade Credits to a trading project as part of the review and administration process. Trade credits can be assigned for new projects and qualifying projects.

1. New Projects. Upon its own petition or petition by Association members or third parties, the Association shall consider new Association Trade projects for nomination as Association Trade Projects.
2. Qualifying Projects. The Association will only consider for approval those Association trade projects that reduce phosphorus loading within the watershed and generate trade credits.

Prices and Payment for Association Trade Credits

In addition to the \$500 application fee, the Association may also charge the applicant for any additional direct costs incurred by the Association, including costs of consultants, to review the application and advise the Association on every aspect of the application. The Association shall establish, by resolution, all prices for Association Trade Credits.

When establishing prices, the Association may consider any of the following:

1. Costs of Nonpoint Source Projects. The Association may consider the costs of Association-funded Association Trade projects, including past development and capital costs; operating, monitoring and maintenance costs; and estimated future costs for construction and operation of new Association Trade projects.
2. Costs of Trading Program. The Association may consider the costs to Association to establish, administer and oversee the trading program.
3. Contribution to Project Costs. The Association may consider dischargers' participation in the Association and contributions to Association-funded Association Trade projects.
4. Price Levels. The Association may establish two levels of prices for Association Trade Credits, one price for those dischargers that are members of the Association, and a second price or surcharge for dischargers that become members of the Association after January 1, 2006. The Association may, from time to time, reconsider and modify prices for Association Trade Credits.

Unless otherwise approved in writing by the Association, dischargers awarded Association Trade Credits shall pay the total purchase price for the approved Association Trade Credits within forty-five (45) days after notice from the Association awarding the discharger Association Trade Credits. If the applicant is unable to pay the total purchase price for approved Association Trade Credits within forty-five (45) days of the Association's application decision, then the applicant and Association may propose a schedule for payment with written justification for such a schedule.

Application for Association Trade Projects and Credits

Dischargers seeking to establish Association Trade Projects and Credits must apply in writing to the Association in the form of an Association Trade Application. Trade applications must include, at a minimum:

1. Name and address of the discharger;
2. Proposed number of Association Trade Credits to be established;
3. Quantifications of total phosphorus trade credits;
4. Descriptions of the discharger's plans for new or modified wastewater treatment facilities and the schedule for construction of the facilities;
5. Sufficient evidence to demonstrate that the applicant satisfies each of the criteria for need, treatment efficiency, compliance with effluent limitations, and control regulation;
6. Analysis of the net benefit the trade will have on the water quality of the watershed;
7. A description of the financing arrangements, if any, used to fund purchase of the Association Trade Credits;
8. Such other information or data as the Association may determine is necessary to evaluate the request for Association Trade Credits; and
9. A non-refundable trade agreement application fee of \$500.

When the Association takes action to approve a trade application, that application constitutes a trade agreement with the Association. Generally, no other documentation will be necessary, unless specifically requested by the Association.

Project Review

For each nominated project, an Association member/ project owner shall prepare a technical report that includes, at a minimum, the following information:

1. Description and technical specifications of project;
2. Estimated quantification of nonpoint source phosphorus reduction and technical basis for such quantification, including any monitoring data, if available, or empirical modeling, if monitoring data is unavailable. Document calculations of trade credits and assumptions used to derive calculations.
3. Recommended number of Association Trade Credits removed by the project;
4. Recommended monitoring programs and commitments for maintenance and operation of the project; and
5. Analysis of the net benefit of the project on water quality in the watershed.

Division Involvement

A copy of a proposed trade agreement submitted to the Association will be provided to the Division at the beginning of the Association review process for comment purposes, as appropriate. The Association shall consider any such Division comments or evaluations on project proposals in the Association review process. The Division is not obligated to make comments or do an evaluation during the Association review process.

Association Review Criteria

The Association will review applications for completeness, and if the application is incomplete or additional information is necessary, the applicant will make any necessary changes and re-submit application. When considering whether to approve project proposals for Association Trade Projects and credits, the Association shall consider:

1. The completeness of the application for trade agreement;
2. The technical specifications of the project;
3. Estimated quantification of nonpoint source phosphorus reductions;
4. Reliability of project maintenance and operations;
5. Evaluation and comments of the Division;
6. The sufficiency of the evidence to demonstrate satisfaction of each of the criteria for need, treatment efficiency, and compliance with effluent limitations;
7. Consistency with the Association's trading guidelines and the control regulation;
8. The net benefit the trade will have on the water quality of the watershed; and
9. Any other factors the Association deems necessary to evaluate the proposal.

Association Meeting

The Association shall consider the proposed trade at a regular or special meeting of the Association. The Association shall provide an opportunity for the applicant and any interested agency or person to provide comments on the proposed trade.

Association Vote

Voting on project proposals is subject to the Association bylaws.

Association Decisions

The Association may approve, conditionally approve or deny all project proposals. In decisions approving or conditionally approving a proposed project for inclusion in the trading pool, the Association shall specify the trade credits based upon reduction estimates of the project.

Reconsideration

Affected parties may file, within 30 days of an adverse Association decision on an application, for reconsideration of the Association's decision, and the Association shall reconsider the decision.

Discharge Permits

For all phosphorus trades where a point source Credit is requested, such trades are subject to the requirements of a state-issued discharge permit. Association Trade Credits are subject to final approval by the Division. It is the sole responsibility of the applicant to obtain Division approval for modifications to their discharge permits necessary to allow increased or modified phosphorus discharges from their wastewater treatment facility. Association approved trades serve as recommendations and do not bind the Division on permit decisions.

Trade Pool Status and Periodic Review

Credits From Association Trade Projects

The Association shall maintain documentation reflecting all Trade Projects including Association Trade Credits for each project with a listing in the annual report. The Association shall maintain documentation in the annual report to reflect Trade Credits that have been transferred to each discharger, by trade, and the balance of untransferred Association Trade Credits in the trading pool available for future trades.

Adjustments to Pool

From time to time, the Association may review the Trade Projects, including estimates of phosphorus removals for each project, the basis for Association Removal Credits, and designated trade ratio. If appropriate, the Association may make necessary adjustments to removal credits for each project, as well as any commensurate adjustments to Association Trade Credits for each project. Compliance with the Bear Creek Reservoir standard and control regulation can be a basis for adjusting Association Credits.