

State of Michigan

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
(MDEQ)**

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Surface Water Quality Division  
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**PUBLIC HEARING REPORT**

**REPORT TO  
JOINT COMMITTEE ON ADMINISTRATIVE RULES  
ORR 1999-036 EQ**

Natural Resources and Environmental Protection Act,  
1994 PA 451, as Amended

Part 31, Water Resources Protection

February 16, 2001

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## **I. AGENCY CONTACT**

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## **II. PRINCIPAL REASONS FOR THE PROPOSED RULES**

Water quality trading is a market-based approach to improving water quality on a watershed basis. The proposed rules establish a statewide program that can reduce the cost of achieving and maintaining water quality standards and implementing programs required under the federal Clean Water Act (CWA). The proposed rules provide greater operational and regulatory flexibility. The proposed rules establish economic incentives for pollutant reductions greater than those required by federal and state regulations. Participation is voluntary.

## **III. SUMMARY OF THE CONTENTS OF THE PROPOSED RULES**

Nutrient trading and other types of trades may occur on a watershed basis among and between point sources and nonpoint sources (NPSs) throughout the state. The rules include specific provisions to be consistent with the federal clean water act, state water quality standards and permit program requirements.

Sources must make pollutant reductions beyond those required by the most protective requirement to generate a credit. A percentage of all reductions are retired. Each trade will result in a net loading reduction and water quality benefit. The rules contain prohibitions and restrictions to ensure that the use of credits does not result in adverse localized impacts. The rules include a number of design elements to maintain the levels of control and margins of safety that have been achieved in practice and to improve water quality: trading ratios, actual versus allowed baselines, discount factors and requirements for directional and contemporaneous nutrient trading.

Each source that generates, uses, or trades credits must submit a notice to the department. The department must approve and register the notices before any trading activity can occur. Operational requirements specified in the notices become enforceable when the department approves and registers a notice. The rules do not require that permits be issued to NPSs that engage in trading or that NPS requirements be incorporated into point source permits. NPS accountability is provided directly under the rules.

The rules include a dual liability scheme for generators and users of credits. Generators of bad or insufficient credits are subject to treble credit damages. Users of bad or insufficient credits would have the burden to show due diligence. The rules include reconciliation and true-up provisions.

The rules require for the Department to establish and maintain a trading registry and electronic bulletin board, to conduct periodic program evaluations, review watershed management plans for trading, respond to citizen petitions and perform case-by-case evaluations of proposed trades, alternate quantification protocols and site-specific discount factors.

#### **IV. PUBLICATION METHODS USED FOR PUBLIC NOTICES**

1. The public hearing notice and rules were published in the Michigan Register dated January 31, 2000. Public notice of the second hearing and rules were published in the Michigan Register dated June 7, 2000. All comments received between January 31, 2000 and June 14, 2000 were included in the public record.
2. The public hearing notice was published in the following newspapers:
  - The Mining Journal (May 18, 2000).
  - The Lansing State Journal (May 17, 2000).
  - The Observer & Eccentric Newspaper (May 18, 2000).
  - The Grand Rapids Press (May 18, 2000).
3. The public hearing notice was published in the MDEQ Calendar on June 5, 2000.

#### **V. PUBLIC HEARING**

The first of two public hearings was held on March 15, 2000. The second public hearing was held on June 7, 2000. Both hearings were held in the auditorium of the G. Mennen Williams Building located at 525 W. Ottawa Street in Lansing, Michigan.

#### **VI. MDEQ REPRESENTATIVES WHO PARTICIPATED IN THE PUBLIC HEARING**

Mr. David J. Batchelor, Program Specialist (SWQD).

**VII. PERSONS WHO ATTENDED THE PUBLIC HEARINGS AND DID NOT COMMENT**

**March 15, 2000, Hearing**

Number	Name	Company and Address
1	Susan Lindquist	Ford Motor Company 1400 PTE 1 Parklane Blvd. Dearborn, MI 48126
2	Kim Lanterman	Ford Motor Company 1400 PTE 1 Parklane Blvd. Dearborn, MI 48126
3	John Rafter	Fishbeck, Thompson, Carr & Associates 6090 E. Fulton Ada, MI 49301
4	Scott Piggott	Michigan Farm Bureau W. Saginaw Highway Lansing, MI 48909
5	William Bishop	Michigan Drain Code Coalition 3172 Lake Drive, Lake Wilson Hillsdale, MI 49242
6	Alan E, Gaulke	American Electric Power PO Box 16631 Columbus, OH 43216-6631
7	Dennis Smith	Michigan Legislature Joint Committee on Administrative Rules
8	Isaac Elnecave	Michigan Environmental Council 119 Pere Marquette Drive, Suite 2A Lansing, MI 48912
9	Mert Alexander	Wade Trim 3922 Monitor Road Bay City, MI
10	Susan Julian	PO Box 304 Holly, MI 48442
11	Christopher Klaver	Gongwer News Service, Inc. 630 Michigan National Tower Lansing, MI 48933

**June 7, 2000 Hearing**

Number	Name	Company and Address
1	Scott Piggott	Michigan Farm Bureau W. Saginaw Highway Lansing, MI 48909
2	Mark Swartz	Michigan Department of Agriculture 4 <sup>th</sup> Floor Ottawa Building Lansing, MI
3	Brett A. Grossman	Fraser Trebillock Davis & Foster, P.C. 1000 Michigan National Tower Lansing, MI 48933
4	Jeff Surfus	Clean Water Action 8447 Boenaro Court Dexter, MI 48130
5	Kris Stepenuck	Macatawa Area Coordinating Council 400 136 <sup>th</sup> Avenue, Suite 416 Holland, MI 49424

**VIII. PERSONS WHO ATTENDED THE MARCH 15, 2000, PUBLIC HEARING AND MADE ORAL COMMENTS**

Number	Name	Company and Address
1	Dana Debel	Michigan United Conservation Clubs 2102 Wood Street Lansing, MI 48909

**IX. PERSONS WHO SUBMITTED WRITTEN COMMENTS**

Number	Name	Company and Address
1	Jo Lynn Traub, Director Water Division	United States Environmental Protection Agency Region 5 77 West Jackson Boulevard Chicago, Illinois 60604
2	William Reed and Mark S. Kieser, Co-Principal Investigators	Kalamazoo River Water Quality Trading Demonstration Project Steering Committee 217 Monroe Street Kalamazoo, MI 49006-4434
3	Andy Buchsbaum, Water Quality Project Manager	National Wildlife Federation Great Lakes Natural Resource Center 506 E. Liberty Street, Second Floor Ann Arbor, MI 48104-2210
4	Jeff Surfus, Project Coordinator	Clean Water Action 4990 Northwind Drive Suite 210 East Lansing, MI 48823
5	James Clift, Policy Director	Michigan Environmental Council 119 Pere Marquette Drive, Suite 2A Lansing, MI 48912
6	David W. Merkel, Chair	Michigan Pulp & Paper Environmental Council 2843 East Grand River, Suite 187 East Lansing, MI 48823
7	Dana Debel, Environmental Policy Specialist	Michigan United Conservation Clubs 2101 Wood Street PO Box 30235 Lansing, MI 48909
8	Richard G. Lacasse, Chief Administrative Law Judge	Michigan Department of Environmental Quality, Office of Administrative Hearings P.O. Box 30473 Lansing, MI 48909-7973

## **X. RESPONSE TO ORAL AND WRITTEN COMMENTS**

### **1. Public Notice, Comment, and Hearings**

Public notice of the proposed Part 30, Water Quality Trading Rules, was first published in the 1999 Michigan Register, MR 12, dated January 31, 2000. The first of two public hearings was held on March 15, 2000. Michigan United Conservation Clubs presented testimony at that hearing. A second public hearing was held on June 7, 2000, because notice of the first hearing was defective. Public notice of the second hearing was published in the 2000 Michigan Register, MR 6, dated June 7, 2000. Notice was also published in The Mining Journal (May 18, 2000), the Lansing State Journal (May 17, 2000), the Observer and Eccentric Newspaper (May 18, 2000) and the Michigan Department of Environmental Quality Calendar (June 5, 2000). No testimony was presented. The record was held open until June 14, 2000. All comments received between January 31, 2000 and June 14, 2000 have been included in the public record.

Comments were received from 8 entities, 5 of which represent state and national environmental organizations and the United States Environmental Protection Agency (EPA). Lists of commentors and those who attended the March 15 and June 7, 2000 public hearings are attached.

There is broad-based support for nutrient trading on a watershed basis. Requirements for the generation of credits and the use of trading ratios provide a net water quality benefit. Discount factors address site-specific conditions. Environmental groups support the enhanced enforcement, mandatory program evaluations and monitoring and citizen petition provisions in the proposed rules. Agricultural organizations and agencies support the framework for voluntary agricultural participation and accountability without permits.

Environmental groups generally oppose trading that involves "toxics" and cross-pollutant trading. Strong concerns were expressed regarding the proposed level of public participation, a lack of monitoring and enforcement and nutrient trading in impaired waters prior to the development of total maximum daily loads (TMDLs).

Several commentors made recommendations deemed necessary for successful implementation of the program, including: the need to establish a permanent source of funding, preparation of a technical support/guidance manual and providing public information and education through workshops and presentations.

A summary of key issues and important changes to the proposed rules in response to comments is presented in Section 2. Responses to specific comments from each commentor are presented in Section 3.

## 2. Summary of Key Issues and Important Changes

Several public policy and regulatory issues received substantial comments from more than one commentator. The department is making changes to the proposed rules in response to these comments. The changes made in response to comments on public participation, permit modification by rule, banking and the contemporaneous generation and use of credits constitute significant modifications of the trading framework approved by the Governors Steering Committee for Market-Based Environmental Programs (Steering Committee) and the draft rules and recommendations of the Water Quality Trading Workgroup (Workgroup).

### A. Public Participation (NPDES Permit Modifications)

Public access to information and the opportunity to provide input on proposed trades is the single most important issue of public policy raised in comments on the proposed rules. EPA and environmental groups (Commentors 1, 3, 4 and 7) believe that the public should be given notice and have an opportunity to comment on every trade before it occurs. These commentors expressed strong concern for allowing point sources to engage in trading by submitting notices of generation and use that once determined complete by the department would constitute a "permit modification by rule." EPA and environmental groups contend that the use of credits to increase a discharge is a change for which a formal permit modification and full public notice and opportunity for comment is required under the CWA and federal regulations. EPA also raised regulatory issues regarding the relationship between trading and TMDLs.

The department has changed the rules in response to these comments. The proposed change would provide full opportunity for public notice, comment and opportunity for hearing, but would not require a formal permit modification for each use of credits.

A new section is being added to Rule 7 in response to comments. The effect of this change will require trading to be incorporated into NPDES permits or require a formal permit modification before trading can occur. New Rule 7(2) limits the use of nutrient credits to a 20% increase above a water quality based limit in a point source permit unless otherwise specified by a permit. The use of nutrient credits over the 20% level would require a formal permit modification before trading could occur. The department agrees with EPA's recommendation that NPDES point source permits should have two sets of limitations. One set would be the water quality based effluent limitation that would apply if trading does not occur. The second set would include the water quality based limit and the quantity of credits to "offset" a proposed use. This approach will provide the public with specific information and an opportunity to comment on proposed trades up to a 20% increase or a different level authorized in the permit.

Other types of trades (pollutants other than nutrients, cross-pollutant trading, the use of banked nutrient credits) under proposed Rule 9 require prior department approval

subject to public notice and opportunity for comment. Point source permits or permit modifications are required for all of these trades.

The department believes this approach provides greater public access to information and participation in decision making and fully complies with federal administrative permitting procedures for public notice and opportunity for comment.

The issue of public participation was also raised in the context of trading under a TMDL established under CWA Section 303(d). EPA believes that a TMDL must account for changes in loadings by trading. EPA suggested source specific caps on the number of credits that could be used to meet an individual wasteload allocation (WLA) in addition to setting specific WLA for point sources that trade. EPA has previously indicated that formal TMDL modifications would be required to provide public notice and opportunity to comment on trading that would change a point source WLA or a nonpoint source (NPS) load allocation (LA). This is a key regulatory issue that must be resolved with EPA for trading under TMDLs to be successful.

#### B. Pre-TMDL Trading In Impaired Waters

Every Commentor commented on the issue of whether trading should be allowed to occur in impaired waters for which a TMDL has not been developed. Commentors 1, 3, 4, and 5 oppose pre-TMDL trading in impaired waters. Michigan United Conservation Clubs (MUCC) expressed concern but recognized the opportunity for trading to improve water quality pending the development of TMDLs. Commentors 2 and 6 support pre-TMDL trading in impaired waters as a cost effective way to improve water quality, make progress towards attainment and sustain local economies.

The comments in opposition to pre-TMDL trading in impaired waters are based on several concerns. It is EPA's position that it is banned under the CWA and federal regulations. Environmental groups fear that trading will be used to avoid or delay the development and implementation of TMDLs. Concerns were expressed that the most cost-effective reductions would be made and traded before the TMDL was established, thereby making these reductions unavailable for TMDL implementation. Several environmental groups also believe that trading should not occur until that final reductions required under a TMDL have been established. Trading would be putting the "means before the end."

The department does not agree with recommendations to remove provisions for pre-TMDL nutrient trading from the rules. The United States Supreme Court (Supreme Court) has ruled that the CWA does not ban the issuance of permits for new and increased uses in impaired waters absent a determination that the proposed use or increase would result in a noticeable change (deterioration) of water quality. The Supreme Court also found that the CWA vests in EPA and the states broad authority to develop area wide programs to control pollution. The CWA is silent on trading. Nutrient trading under the proposed rules will result in a net loading reduction that constitutes voluntary progress towards attainment of water quality standards. The partnerships,

early reductions and cost/benefit information obtained from pre-TMDL trades will facilitate the development and implementation of TMDLs.

### C. Department Reviews and Approvals

EPA and environmental groups interpreted the proposed rules to allow trading to occur without the department evaluating whether proposed trades (generation and uses of credits) comply with all the requirements in the rules and ensuring that the use of credits is consistent with water quality standards. They read the rules to allow sources to simply submit a notice that the department would review only to determine if all the required information had been provided. Clean Water Action (CW) recommended that the department certify that credits are real, surplus and quantifiable.

Proposed Rules 18(4) and 19(3) have been renumbered as Rules 19(4) and 20(3) and revised to clarify that the department will review each notice of generation and use to determine that all required information has been provided and that proposed generation and use of credits is consistent with water quality standards and other provisions of the rules. Rule 20(4) has been revised to include language to prohibit the department from making a completeness determination and approving any use of credits that would violate water quality standards.

The department believes these changes are consistent with the trading framework recommended by the Steering Committee and the Workgroup.

### D. Monitoring

EPA, Michigan Environmental Council (MEC) and MUCC commented on the need for and importance of monitoring. EPA recommended that NPDES permits include requirements for ambient monitoring below point sources that use credits to ensure that localized impacts do not occur. EPA also recommended monitoring in conjunction with siting, design and maintenance criteria to determine the effectiveness of stormwater management practices. MEC and MUCC believe that trading should not occur without adequate monitoring. MEC does not believe there is adequate monitoring in place to establish a foundation for the trading program. MUCC commented that monitoring is essential and will "watch" the program to see if adequate monitoring is conducted by the department under the program evaluations and other programs.

The department agrees that monitoring is vital to the credibility of the program and support of environmental groups. The proposed rules establish mandatory monitoring requirements for the department to evaluate and make changes to the program. The department will review the need for ambient monitoring by point sources and establish permit conditions necessary to ensure that credit use does not cause a violation of water quality standards or impair existing uses. No changes are being made to the proposed rules that would require individual NPS monitoring.

#### E. Bioaccumulative Chemicals of Concern (BCC) and Cross Pollutant Trading

The NWF, CW, and MUCC oppose trading of BCCs. NWF and MUCC support the narrow exemption to allow BCC trading in areas of concern for which a remedial action or lakewide management plan to achieve virtual elimination has been approved by the department for the purpose of trading. CW opposes any BCC trading. NWF and CW also oppose cross pollutant trading.

The proposed rules are intended primarily for nutrient trading. Opportunities for BCC trading are very limited and must be incorporated into NPDES permits. The department sees trading as a tool that may optimize the cost of phased BCC reductions towards virtual elimination. Opportunities for cross-pollutant trading are also very limited but can provide substantial environmental and economic benefits as shown by the Rahr Malting trade in the Minnesota River.

The department is not revising the rules to ban cross-pollutant trading in response to comments.

#### F. Trading Ratios

All commentors submitted recommendations on trading ratios. There is broad support for retiring a percentage of all point and NPS reductions made to generate credits. Retiring a percentage of all credits traded will result in a net loading reduction and water quality benefit. The proposed rules require 10% (1.1:1 ratio) of all point source reductions and 50% (2:1 ratio) of NPS reductions to be retired.

EPA commented that the 2:1 ratio may not be adequate to address uncertainties associated with NPS reductions and provide a net water quality benefit. NWF and MUCC recommended higher nonpoint:point source ratios between 2:1 to 4:1. CW recommended using trading ratios that had been previously recommended by EPA in the range of 7:1 to 10:1. The Kalamazoo River Water Quality Trading Demonstration Project Steering Committee (KPSC) and Michigan Pulp and Paper Environmental Council (MP&PEC) support the 2:1 ratio in the proposed rules.

The department believes that the proposed trading ratios and the application of site specific discount factors is adequate to address uncertainty and provide a water quality benefit. No changes have been made to the proposed trading ratios.

#### G. Use of Banked Credits

The proposed rules allowed the use of banked nutrient credits (total phosphorus and total nitrogen) for up to 5 years, subject to prior approval by the department (Rule 9). The department has added a new subrule Rule 5(7) to restrict the use of banked nutrient credits to sources that discharge into lakes with a retention time greater than 1 year. The use of banked credits is also restricted to meeting the 1-milligram per liter standard established to be protective of the Great Lakes.

This change is not consistent with the recommendation made by the Workgroup. It is being made in response to EPA comments and to be consistent with the state's water quality standards for phosphorus.

#### H. Public Education and Technical Assistance

The NWF commented that the proposed rules are complex and suggested that the proposed rules include a preamble.

The department will provide technical assistance and guidance instead. The KPSC and MP&PEC recommended that public education and information be provided through presentations and a workshop so that the rules can be implemented effectively in communities and used to develop TMDLs. The department will hold trading workshops in several watersheds where TMDLs are being developed to encourage and facilitate achieving the reductions required under the TMDLs.

#### I. Coastal Zone Act Reauthorization Amendments (CZARA)

This is a key regulatory issue that must be resolved for trading to be successful. It is EPA's position that CZARA NPS management measures must be fully implemented in coastal areas before credits can be generated. EPA considers the CZARA management measures as being technology requirements that must be met without the use of credits.

The department does not agree with EPA on this issue. CZARA is a federal statute that, among other things, provides funding to the states for implementation of programs to protect and conserve coastal areas. CZARA management measures are guidelines that must be met for states to obtain funding of these programs. Federal guidelines do not constitute regulations that require coastal NPS to implement management measures.

NPS are not regulated under the CWA therefore it is inappropriate for EPA to require CZARA management measures be met for purposes of trading. Funding for the water quality trading program is not provided under CZARA. The proposed rules do not allow NPS reductions funded under CWA Section 319 to be eligible to generate credits. CZARA program requirements should not be applied to water quality trading.

The department believes trading will create economic incentives and funding of voluntary NPS programs and projects in coastal areas. Applying CZARA management measures would replace economics with mandatory requirements for which funding is not available.

The application of CZARA management measures in coastal areas would "split watersheds" so that NPSs in the same watershed would have extremely different baselines. NPSs that are required to fully implement CZARA would have nothing

surplus to trade. Most coastal areas in Michigan are currently meeting water quality standards. Requiring NPSs to fully implement CZARA would be costly and is not necessary.

#### J. Impacts on Economically Disadvantaged Communities

The CW expressed the concern that trading could adversely affect economically disadvantaged communities "that have historically borne the burden of environmental contamination and associated health impacts. The CW referenced EPA Title VI regulations that prohibit EPA-funded agencies for engaging in acts, particularly permitting, that are intentionally discriminatory or have a discriminatory effect based on race, color or national origin. The CW recommended that the proposed rules include provisions for ensuring that communities would not be adversely impacted by a source proposing a trade, including greater opportunity for public input than proposed in the rules.

The siting, design, construction and operation of sources, and resulting impacts on the environment and communities is evaluated by the department at the time actions are taken to approve or disapprove permits. The proposed rules require point sources to obtain permits before they are eligible to engage in trading. These requirements ensure that economically disadvantaged communities will not be adversely impacted by a source that uses credits.

The department has made revisions to the proposed rules that provide greater opportunity for public input by requiring trading to be incorporated into point source NPDES permits at the time they are issued or reissued. In this way the public will be given notice, have access to information and provided an opportunity for comment and hearing before trading occurs.

### 3. Individual Comments and Response

Individual comments and the department's response to each comment is presented in this section. Changes to the proposed rules that the department is making in response to comments are in "bold/strike-through" or "revised to read" format.

#### A. EPA Region 5 (Commentor 1)

EPA supports the concept of trading to improve water quality. EPA's comments focus on maintaining public accountability, the integrity of the NPDES permit program and assuring that TMDLs are properly implemented. EPA also made suggestions to provide greater margins of safety to address the equivalence and difficulties of quantifying NPS loadings and load reductions.

## 1. General Comments:

EPA understands but has concerns with trading in a way that minimizes agency oversight primarily as it relates to the use of credits by point sources to comply with the requirements of NPDES permits issued under the CWA. EPA believes that additional restrictions and more case-by-case reviews by the departments are necessary.

EPA may require a revision of the NPDES permit program authorization before implementation of the trading program can be applied to NPDES permitted facilities.

**Response:** The department recognizes the need to implement trading in a manner consistent with the CWA and NPDES permit requirements. EPA and the department have discussed the concept of adding language to the proposed rules that would provide greater opportunity for public notice and input on individual trades, establish further restrictions on the use of credits by point sources and require additional case-by-case reviews by the department.

The department has modified the rules to restrict the quantity of nutrient credits that can be used to a 20% increase over the water quality-based effluent limitation (WQBELs) specified in an NPDES permit. Under this approach, two sets of permit conditions would be established. One would be the WQBEL that would apply if trading does not occur. An alternate set of permit limits would apply if trading occurred up to a 20% increase. These conditions would be included in the draft permit at the time it is public noticed for issuance or reissuance. Information on the derivation of WQBEL and limits on the use of credits that would apply if trading occurs would be included in the fact sheet for public review.

This approach accomplishes several objectives. First, it provide the public with clear facts and information on how the WQBEL is set and the specific limits on credit use that would apply if trading occurs. The permit reviewer will be able to review the potential impacts of a 20% increase to determine if violations of water quality standards would occur, considering the pollutant to be traded and the spatial and temporal factors involved. The permit reviewer could then establish case-by-case discount factors and further restrictions as needed to ensure that localized violations of water quality standards do not occur. Monitoring requirements may also be established in the point source permit to verify that in stream water quality standards are exceeded below the point of use.

This approach would still allow nutrient trading by rule to occur within the limitations established in the point source permit. This is necessary to reduce administrative and transaction costs and to allow sources to respond to market conditions.

Refer to Specific Comment 4 for the specific rule changes being made by the department to address this issue.

## 2. Specific Comments:

### a. Public Participation

Maintaining opportunities for public input is a key principle in EPA's Draft Framework for Watershed-Based Trading (May 1996). The EPA is concerned that trading would be authorized under the proposed rules without a formal permit modification and opportunity for public comment. The EPA is also concerned that TMDL point source WLA's may be affected without public participation. The EPA believes that the public needs to have access to information and be able to participate in environmental decision making as provided under the CWA.

**Response:** The department agrees that public access to information and participation in trading is important and must be provided. The proposed rules include a number of features that are designed to accomplish these objectives. The intent of Rule 5(5) is to assure that NPDES permit requirements are met. The following language has been added to Rule 5(5) to clarify that point sources must have a permit to participate in trading: **A point source is prohibited from participating in trading under this part unless a national pollutant discharge elimination system permit has first been obtained as required under the federal clean water act."**

Rule 6(1)(b) requires that reductions be "surplus" to generate a credit. The term "surplus" is defined in Rule 1(nn) to mean reductions greater than required by an applicable requirement. TMDLs are included in the definition of "applicable requirements" under Rule 1(c). The purpose and effect of these definitions is to ensure that the reductions required to achieve water quality standards under a TMDL are met. Reductions greater than those required under a TMDL must be made to generate a credit. Rule 8 specifically addresses nutrient trading under a TMDL that has been approved by the department and EPA. Rule 8 requires sources that trade to be located in the same area and included in the inventory of sources for which the TMDL has been established (Rule 8(1)(b)). Rule 8(1)(c) requires that the cap, point source WLA and nonpoint source LA shall establish the baselines for the generation and use of credits. The baselines for point sources other than stormwater (Rule 11(1)(b)), unpermitted sources of stormwater (Rule 13(1)(b)(i)) and agricultural NPSs subject to an applicable requirement (eg. TMDL) (Rule 14(1)(b)) are the level of reduction required under a TMDL. Rule 8(1)(d) requires the generation, use and trading of credits to be consistent with a TMDL that has been approved by the department and EPA.

Collectively, these provisions ensure that trading will occur in a manner consistent with TMDLs and that reductions greater than those required under the TMDL will be achieved through trading.

Full public participation is provided in the development of individual TMDLs and plans for the implementation of TMDLs. Trading is based on, and goes beyond, the TMDL and respective point and nonpoint source allocations specified in the implementation

plans. For these reasons, the department believes that individual trades should not be required to go through a formal TMDL modification before trading is allowed to occur.

Public access to the water quality trading registry will be provided by an electronic bulletin board (proposed Rule 21(4)). The information in the water quality trading registry will identify sources and delineate watersheds where trading occurs. The electronic bulletin board will provide the public with real time information on all sources that generate, use and trade credits, by source, pollutant and watershed. The department must provide daily updates on all the information required under proposed Rule 21(4). This includes the name and location of the source, a description of the process or operations involved and changes made to generate or use credits, the limitations or management practices specified by an applicable requirement and the quantity of credits generated, used or traded. This information will allow potential trading partners to conduct cost benefit determinations and determine the market value of credits. It will also allow the public to track the generation and use of credits from "cradle to grave". This system is supplemental to the traditional public access to information provided by permits and available under freedom of information act requests to the agency.

b. Temporal and Spatial Relationship Between the Generation and Use of Credits

NPDES permits specify WQBEL within defined time frames to assure compliance with water quality-based requirements of the CWA. For example, EPA points out that acute toxicity can not be offset by reductions of the same pollutant that occur during a different time frame. In addition to the temporal factor, EPA also points out that location factors may apply. For oxygen demanding pollutants, the downstream impacts are a function of both time and location, specific to a given body of water and ambient conditions.

EPA recognizes that the proposed rules focus on nutrient (phosphorus and nitrogen) trading to minimize concerns and impacts over temporal and spatial impacts. EPA supports this approach but still has some concerns over the degree of review that the department would require for each trade.

EPA believes that the definition of "contemporaneous" in Rule 1(l) is vague and should be more explicit. EPA suggests that examples are given in reference to "the same day, week, month, season or year...", as dictated by the NPDES permit.

EPA also points out that Rule 4(2) requires in pertinent part that "credits shall be generated before or contemporaneous with the time they are used or traded." EPA states that credits generated before the time in which they are used can not be effectively used to offset point source discharges to comply with a WQBEL. EPA feels the language in the proposed rules is unclear as to whether the generators of credits have instituted specific controls to reduce pollutant loads before they can register credits; or, that credits must be generated and used within the same timeframe specified by NPDES permit.

EPA agrees with the requirement that credits used to comply with a seasonal limitation must be generated in the same period that the limit applies (Rule 4(4)). EPA suggests making this explicitly clear with respect to daily, weekly, monthly and annual limits.

EPA comments that proposed Rules 9, 16(1) and 16(2) appear to conflict with the principle of time-sensitive credit use and recommends that they be removed from the rules or limited to situations where pollutant impacts are not time dependent such as lakes with long residence times. EPA supports the use of banked credits for meeting a 1 mg/l phosphorus limit designed to be protective of the Great Lakes.

**Response:** The department agrees that the use of credits for certain pollutants, particularly oxygen related substances such as BOD and those that exert an acute toxicity, is time and location dependent.

Contemporaneous is defined in the proposed rules to achieve two goals. One is to ensure that reductions are made before credits can be used. The second is to allow for the use of banked nutrient credits. Rule 9(2) allows sources to use banked credits. Proposed Rule 16(1) establishes limits on the period of time that banked credits can be used by setting a credit life. The purpose of proposed Rule 16(2) is to provide incentives for sources to make reductions before being required to do so by regulations. The credit life for early reductions made before a final compliance date specified by regulation is 1 year after the date of final compliance, or 5 years after generations, whichever is first. Together these provisions of the proposed rules are necessary to assure that generators make reductions during the same time frame they are used and to create incentives for sources to make "early" reductions.

To address EPA comments and to provide greater clarity the department is changing the following rules to read:

Rule 1(e) "Banked credits" means credits for total phosphorus and total nitrogen that are generated and that have been registered prior to the time period during which they are used or traded under this part.

Rule 1(l) "Contemporaneous" means that the generation of credits occurs during the same day, week, month, season, calendar year or other specified time period during which the credits are used to comply with an applicable requirement.

Rule 4(4) Credits used to comply with a daily, weekly, monthly or seasonal effluent limitation established to achieve or maintain water quality standards in a stream or a lake with a retention time of less than 1 year shall be generated during the same time period for which the effluent limitation applies.

New Rule 5(7) The use of banked credits pursuant to rule R 323.3009 of this part shall be restricted to the following:

- (a) Complying with a 1 milligram per liter water quality based effluent limitation established under R 323.1060(1), and
- (b) Complying with a water quality based effluent limitation for a source that discharges into a lake or other water body with a retention time greater than 1 year.
- (c) Banked credits shall not be used to comply with a daily, weekly, monthly or seasonal water quality based effluent limitation by a source that discharges into a stream or a lake with a retention time of less than 1 year.

Rule 9(2) The use of banked credits, trading of pollutants other than total phosphorus and total nitrogen, intra-plant trading, cross pollutant trading, trading under a remedial action or lakewide management plan and any other types of trades shall occur in a manner consistent with all applicable requirements of this part and shall be approved by the department before any such activity occurs.

Proposed Rules 17(1) and (2) have been renumbered as Rules 18(1) and (2).

Revised Rule 18(1) Banked credits for total phosphorus and total nitrogen which are entered in the water quality trading registry under R 323.3020(1) may be used or traded for a period of 5 calendar years after the year of generation, subject to the prohibitions, restrictions and conditions established by this part.

Revised Rule 18(2) Point source discharge reductions and nonpoint source load reductions of total phosphorus and total nitrogen that are necessary to comply with a proposed applicable requirement and which occur after the date the applicable requirement is proposed and before the final compliance date specified by the applicable requirement, may be registered for use at a later time. These banked credits may be used or traded for a period of 5 calendar years after the year of generation or 1 calendar year after the effective date of final compliance, whichever occurs first, subject to the prohibitions, restrictions and conditions established by this part.

New Rule 18(3) Credits not used within the credit life specified in subrules (1) and (2) of this rule shall be retired to provide a water quality benefit and shall not be eligible for use under this part.

### c. Preventing Localized Impacts

The proposed rules prohibit any use of credits that would violate water quality standards. EPA agrees with this prohibition but questions whether the rules contain adequate safeguards. EPA points out that the rules do not require a user to certify the credits they use. EPA does not believe the proposed rules require the department to review individual trades and recommends that the department approves every trade.

**Response:** The department agrees that safeguards need to be in place to ensure that the use of credits does not violate water quality standards. Proposed Rules 18 and 19 require the department to review the generation and use of credits. Notices and

certifications must be submitted to the department for review and determinations of completeness before any trading can occur. The intent of the proposed rules is for each generation and use of credits to be reviewed by the department. This review would include whether all required information had been included and whether the generation and use of credits would be consistent with water quality standards and all other applicable provisions of the rules. Rather than prescribing a detailed technical review that the department would have to conduct for every trade, the proposed rules establish requirements to ensure that trading is consistent with the federal CWA and water quality standards. In this way administrative requirements and transaction costs are reduced and the department has the authority to require any information necessary to demonstrate how a proposed generation or use of credits is consistent with water quality standards.

There are several reasons why the proposed rules do not require each source to demonstrate that their use of credits will not violate water quality standards, particularly for nutrients. First, the use of credits by individual sources is likely to be minor or insignificant compared to the nutrient budget for a given watershed. Violations of water quality standards attributable to excess nutrients in most watersheds involves a combination of many sources, not just one source. The size and type of water body, ambient conditions, hydrology and meteorological events affect water quality. Most individuals and sources do not have the information needed to model or make a complex water quality demonstration. For relatively large uses of credits, sensitive waters, or fully allocated waterbodies for the department may require additional information, modeling, or monitoring to determine if water quality standards would be violated.

The proposed rules require the department to conduct program evaluations that include all sources that engage in the program, by watershed and pollutant. A statewide program evaluation must be done 3 years after the rules take effect. Then program evaluations must be done at least once every 5 years thereafter on a watershed basis. The evaluations conducted by the department will be done in conjunction with ambient water quality monitoring and permit reviews. This brings together all the relevant information at the time the department makes decisions for the next watershed monitoring and permit cycle. The program evaluations conducted by the department may include paired watershed, edge of field NPS monitoring with ambient, event-related sampling to verify loading reductions and water quality correlation's. The department believes this approach is preferable to having water quality standard determinations by individual sources that use credits.

The department is making the following changes to the proposed rules in response to EPA's and other comments. The purpose of these changes is to clarify how the department will review each trade to ensure consistency with water quality standards. The revised (bold/strike-through) rules include wording changes made for clarity and readability.

Proposed Rule 18(4): The applicant shall submit the notice and certification required under this rule **shall be submitted** electronically or by certified mail to the department for a determination of completeness. **The department shall review the notice and certification for completeness and consistency with this part.** Within 30 days of receipt of the notice and certification, the department shall make a ~~completeness~~ determination and provide a written response to the person submitting the notice and certification ~~as to the completeness of the submittal.~~ A determination of ~~completeness or incompleteness~~ made by the department shall be considered a final agency decision subject to review by a court of competent jurisdiction under section 631 of Act No. 236 of the Public Acts of 1961, as amended, being §600.631 of the Michigan Compiled Laws. A determination of completeness and consistency by the department does not constitute an agency certification that the credits are real, surplus, or quantifiable. If the notice and certification **include all the information required under subrules (2) and (3) of this rule and the department determines that the generation of credits is consistent with all applicable provisions of this part** ~~are determined to be complete,~~ then the department shall, within 5 business days, enter the information required by R 323.3020(2) in the water quality trading registry. Immediately upon entry in the water quality trading registry, the information in the notice and certification shall be available to the public, except for information that is determined to be confidential under the provisions of section 3111 of Part 31 of Act No. 451 of the Public Acts of 1994, R 323.2128 of the Michigan Administrative Code and the freedom of information act, Act No. 442 of the Public Acts of 1976, being §§15.231 to 15.246 of the Michigan Compiled Laws. If the **department determines that the notice and certification do not include all the information required under subrules (2) and (3) of this rule or that the proposed generation of credits is inconsistent with any provision in this part** ~~are determined by the department to be incomplete,~~ then the discharge or load reductions are not eligible to generate credits. **A determination of incompleteness or inconsistency made by the department shall include an explanation of why the determination was made.** A ~~notice~~ determination of incompleteness or inconsistency shall not preclude a person from submitting a corrected or revised notice and certification.

Proposed Rule 18(5): After the words "effective dates of the", change the word "notice" to read "determination".

Proposed Rules 18(4), (5) and (6) have been renumbered as Rules 19(4), (5) and (6).

Proposed Rule 19(3): The notice and certification required under this rule shall be submitted electronically or by certified mail to the department for a ~~determination of completeness.~~ **The department shall review the notice and certification for completeness and consistency with this part.** The department shall enter the proposed notice of use on the registry within 3 business days of receipt. Within 30 days of receipt of the notice and certification, the department shall make a ~~completeness~~ determination **as to whether the notice and certification are complete and the proposed use is consistent with all applicable provisions of this part** and provide a written response to the person submitting the notice and certification ~~as to the~~

~~completeness of the submittal. A determination of completeness or incompleteness made by the department shall be considered a final agency decision subject to review by a court of competent jurisdiction under section 631 of Act No. 236 of the Public Acts of 1961, as amended, being §600.631 of the Michigan Compiled Laws. If the notice and certification are determined to be complete include all the information required under subrules (1) and (2) of this rule and the department determines that the proposed use of credits is consistent with all applicable provisions of this part, then the department shall, within 5 business days, enter the information required by R 323.3021(2) in the water quality trading registry. Immediately upon entry in the water quality trading registry, the information in the notice and certification shall be available to the public, except for information that is determined to be confidential under the provisions of section 3111 of Part 31 of Act No. 451 of the Public Acts of 1994, R 323.2128 of the Michigan Administrative Code, and the freedom of information act, Act No. 442 of the Public Acts of 1976, being §§15.231 to 15.246 of the Michigan Compiled Laws. If the notice and certification are determined by the department to be incomplete, then credits shall not be used or traded under this part. A notice of incompleteness shall not preclude a person from submitting a corrected or revised notice and certification.~~

(4) The department shall not issue a ~~notice determination~~ **determination of completeness and consistency for a notice and certification that do not include all the information required under subrules (1) and (2) of this rule or for a proposed use of credits that the department determines would violate water quality standards or is inconsistent with any other applicable provision of this part. If the department determines the notice and certification are incomplete or the department determines that the proposed use of credits is not consistent with water quality standards or other provisions of this part, then the proposed use of credits shall not occur.** The ~~determination made by the department under this rule shall send a written response to the person who submitted the notice of use and certification explaining why the determination of incompleteness or inconsistency was made.~~ **determination made by the department under this rule** shall send a written response to the person who submitted the notice of use and certification explaining why the determination of **incompleteness or inconsistency** was made. A determination of **incompleteness or inconsistency** with the provisions of this part by the department shall not preclude a person applying to use credits from submitting a revised notice and certification to correct the incompleteness and inconsistency identified by the department.

Proposed Rules 19(3), (4) and (8) have been renumbered as Rules 20(3), (4) and (8).

#### d. NPDES Permit Modification

EPA references proposed Rules 18(6) and 19(8) that state in pertinent part "Approval of a notice by the department... shall constitute a permit modification by rule." EPA also cites federal regulations governing permit modifications (40 CFR 122.62 and 122.63). Except for minor permit modifications, all permit modifications are required to follow administrative procedures at 40 CFR 124, including public notice and opportunity for comment. EPA's position is that the use of credits would constitute a change to an effluent limitation and can not be considered a minor modification. To meet federal requirements, permits for each trade would have to go through the formal permit

modification process. Alternatively, EPA suggests that there may be ways to write permits to allow trading to occur without the need for formal modifications. EPA's preferred approach would be for each permit to identify specific permit limits that would apply when trading occurs and when trading does not occur.

EPA is also concerned that proposed Rules 18(6) and 19(8) may be interpreted by some to act as a permit by rule provision for new discharges. EPA recommends adding language to Rule 5(5) to clarify this is not the case: "Participation in trading under this rule does not provide permit coverage required by NPDES regulations."

**Response:** EPA and environmental groups commented that "permit modification" by rule for nutrient trading is inconsistent with federal NPDES permit regulations and undermines the fundamental principle of public access to information and participation in permitting under the CWA. The department agrees that public access to information and participation in the NPDES permitting process is required under the CWA. The department recognizes the need for all permit modifications to follow the requirements set forth in 40 CFR 122.62 and 122.63 and the administrative procedures for public notice and comment in 40 CFR 124.

The proposed rules require all point sources to first obtain an NPDES permit before being able to engage in trading (Rule 5(5)). Rules 18(6) and 19(8) proposed permit modifications by rule for nutrients only. The permit modification by rule approach was proposed to streamline the permit process, reduce administrative and transaction costs and is consistent with federal permitting requirements. This approach is similar to the one used for general permits. Under the general permit program, the permit requirements are established by rule. Sources that wish to obtain coverage under a permit submit an application. The department issues certificates of coverage if the source meets all the requirements in the rule. This is essentially what is proposed for water quality trading. Requirements are set forth in the proposed rules and the department would issue a determination of completeness (approval) before any point source trading could occur. The department also based this approach on not changing the water quality based effluent limitations in a permit. The rationale is that water quality based effluent limitations constitute the baseline for the generation and use of credits and that these limitations should not be changed. The proposed rules have water quality standards and anti-backsliding and antidegradation policies built in to them. For point sources that wish to generate a credit all the following requirements have to be met under the proposed rules:

1. A permit is required (Rule 5(5)). The department would establish general and specific permit conditions to allow trading to occur under the rules. The permit would be subject to public notice, comment and opportunity for hearing.
2. The baseline is the actual or allowed discharge level that is the most protective (revised Rule 11(1)). Rule 10(2)) requires baselines to be established by using data representative of the 3-year period before a change is made to generate credit.
3. Discharge reductions greater than required by a permit limit (or other applicable requirement) must be made to generate credits.

4. Trading ratios and discount factors ensure a net loading reduction.

The foregoing provisions are intended to require point sources to undergo a permit review subject to public participation, maintain pollution control achieved through proper installation and maintenance of process and control equipment (anti-backsliding) and to achieve reductions greater than required under federal regulations.

Point sources that use credits must meet all of the following requirements:

1. The use of credits that would violate water quality standards is prohibited (Rule 5(1)).
2. For nutrient trading, contemporaneous upstream reductions are required to offset downstream uses (Rule 7 (1)(a) or (b)). This rule embodies the antidegradation policy in Michigan's Water Quality Standards Part 4, Rule 323.1098(8)(k).
3. A water quality contribution is required under proposed Rule 15(1) and (2). The effect of this requirement is to achieve a net loading reduction and water quality benefit for each trade that occurs.

Collectively, the department believes that the requirements in the proposed rules for the generation of credits and the foregoing restrictions and provisions for the use of credits meet or exceed federal permitting requirements. These provisions are intended to assure that water quality standards are not violated, to maintain the integrity of federal antibacksliding requirements and to be consistent with the state's antidegradation policy. The department also believes these provisions are important to establish a creditable trading program.

EPA specifically recommended changing Rule 5(5) to read: Participation in trading under this rule does not provide permit coverage required by NPDES regulations. Nothing in this part shall be construed to obviate the need for a permit or permit modification required by an applicable requirement. The department does not agree with the language proposed by EPA for the reason that trading must be consistent with and provide coverage under federal permit regulations for point sources to participate in the program and remain in compliance with NPDES permit requirements. Instead, the department is making the following changes that are intended to accomplish the same objective.

Rule 5(5): Add the following language: "A point source is prohibited from participating in trading under this part unless a national pollutant discharge elimination system permit has first been obtained as required under the federal clean water act."

EPA's comments are based on an entirely different view on the generation and use of credits compared to that of the department. EPA interprets the generation and use of credits as a change in a discharge that requires a point source's permit limitation to be modified. Under this interpretation, a permit modification by rule can not be made under existing federal regulations. Each trade would be required to undergo a formal permit modification.

The department does not agree that the generation or use of credits by a point source under the proposed rules constitutes a change of the water quality based limitations specified in an NPDES permit. Although there may be a change in the actual discharge (either a reduction for point sources that generate credits or an increase for point sources that use credits), the water quality based limit in the permit would remain unchanged. Water quality based effluent limits constitute the baselines necessary for trading to occur and should not change. Rather than changing a limit, credits may be used to comply with the limit.

Upstream reductions are required to increase background assimilative capacity and offset the increased point source discharge at the point of use. A percentage of all credits traded are retired to achieve a net loading reduction. This achieves a greater overall pollutant reduction than that achieved by simply applying the water quality based limit to a single point source.

Notwithstanding the difference in perspectives, the department is amending Rule 7 (Nutrient trading) in response to comments from EPA and environmental groups. The changes to Rule 7 will limit the use of nutrient credits by rule to an amount equal to or less than a 20% increase above the discharge limit specified in the permit unless otherwise authorized by permit. This approach will allow permit reviewers and the public to evaluate the effects of a trade up to a 20% increase at the time the draft permit is put on public notice. Higher levels of credit use could be authorized if specific permit conditions are established.

There are two scenarios where trading can occur. One is where a source knows at the time a permit first issues or is reissued that it wants to engage in trading and the quantity of credits that it will use. A permit review will be conducted to determine whether the proposed use of credits would be consistent with water quality standards. Potential impacts can be assessed by taking stream conditions (flow, ambient concentration, location and distance) into account. Permit limits on the use of credits and conditions, that may include ambient monitoring downstream of the point of use, can be established and included in a fact sheet and draft permit for public notice, comment and opportunity for hearing. In this way the permit reviewer and public can evaluate specific proposed uses of credits before trading occurs.

The second more common scenario involves a source for which a permit is being issued or reissued and the source would like to have the option of trading but does not know the quantity of credits that it would like to use. In this case, the department could establish a general set of permit conditions that would limit nutrient trading to a 20% increase under the proposed rules. The permit reviewer and public could then consider the impacts that may result for a "worst case" 20% use of credits.

In either case, two distinct sets of permit conditions would be incorporated into NPDES permits for point sources. One set would apply if trading occurs, the other set would

apply absent trading. The source would have the option of making the most cost-effective choice.

This approach provides full opportunity for comment and a public hearing. Parties that are aggrieved by issuance of a permit may file a contested case petition and then seek judicial review as provided by federal and state regulations. The department believes that adding the following language will establish authority to limit credit use and establish permit conditions consistent with federal NPDES permit requirements.

**Add a new Rule 7(2): The use of credits by a point source to increase the discharge of total phosphorus or total nitrogen under the provisions of R 323.3020 of this part shall be limited to a 20% increase above the discharge level authorized in a permit, unless a greater use of credits is specifically authorized by special conditions in the permit or by a formal permit modification approved by the department in accordance with federal regulations. The department shall establish general or specific permit conditions that apply to point sources that generate and use credits under this rule.**

This change will increase administrative and transaction costs of trading but is being made to obtain EPA approval and the support of environmental groups.

e. Baselines for Generation of Credits by Non-Point Sources under a TMDL

EPA correctly interprets the rules to allow sources to calculate credits generated and used. The proposed rules include the formulae for this to be done as EPA indicates. EPA commented that the rules appear to be missing information that would be needed for unpermitted dischargers to calculate reduction credits. EPA references Rule 8(1)(c) as stating that the NPS allocations specified in the TMDL shall constitute the baseline for trading in an impaired watershed following development of a TMDL. EPA agrees with this concept but questions how a NPS (farmer or landowner) would calculate their baseline loading prior to registering a reduction credit. EPA points out that TMDLs written to date have not included load allocations for individual NPSs and questions whether this will be done in future TMDLs, in implementation plans or in some other way.

**Response:** The department agrees with EPA's comment that NPS allocations must be determined and incorporated either into a TMDL or a plan to implement a TMDL. The proposed rules establish the requirement for this to be done but do not prescribe how it should be done. In this way sources, communities and watershed groups have the option of developing individual NPS load allocations as part of a TMDL or establishing NPS load reductions that must be achieved on an individual, categorical or overall NPS basis as specified in TMDL implementation plans. This approach will provide greater flexibility for the development and implementation of TMDLs by communities and watershed groups at the local level. TMDLs and TMDL implementation plans that have been approved by the department, along with any agreements or permits required for

implementation, will be submitted to EPA in accordance with federal regulations and guidance.

The department believes that this approach will help assure that trading under a TMDL will be consistent with how the TMDL has been developed and that the NPS reductions specified in implementation plans will actually be achieved. It should be noted that this approach is consistent with suggestions made by EPA staff from the Office of Water. On several occasions EPA Office of Water staff have suggested that TMDLs be written to establish point source waste load allocations and NPS load reductions requirements that could be applied to individual NPSs, categories of NPSs or all NPSs in a given watershed. This will facilitate trading among point sources and among NPSs without requiring a formal TMDL modification for every trade. Establishing the point source and NPS reduction requirements, baselines and provisions for trading in a TMDL or TMDL implementation plan will also fulfill the public participation requirements under federal regulations. This approach does not address trading between point sources and NPSs. This is an out-standing issue that still must be addressed.

#### f. Local Pretreatment Trading Programs

EPA agrees that pretreatment authorities may establish trading programs for the purposes of complying with local limitations, but not federal categorical technology-based requirements. EPA is concerned that the language in Rule 5(6) may not be clear to municipalities or categorical dischargers. EPA recommends adding language to the proposed rules to make it clear that trading can not be used to comply with categorical pretreatment standards.

**Response:** Proposed Rule 5(6) does not establish a pretreatment trading program. This rule intended to make it clear that the proposed rules do not prohibit municipalities or sewer authorities from developing and implementing their own programs under a local ordinance.

To address EPA's concern, Rule 5(6) is being revised to read:

(6) Nothing in this part shall be construed to prohibit a municipality or regional sewerage authority from developing and implementing its own pretreatment trading program. **for the purposes of complying with local limits and to comply with federal technology-based categorical standards to the extent allowed under federal regulations established after the effective date of this part.**

This revision will allow pretreatment trading to comply with federal categorical limitations to the extent allowed in future regulations.

#### g. Retirement of Credits

EPA finds the "one time contribution" wording in proposed Rule 15 to be confusing. EPA comments that credits must be generated on an ongoing basis contemporaneous

with the use of credits to comply with NPDES permit limits. EPA concludes that the 10% or 50% water quality contribution should also be generated for as long as credits are generated. EPA recommends that this be made clear and that the term "one time contribution" be avoided.

**Response:** The department agrees with EPA's comment that the proposed should be made clear as to how "one time contribution" is made when a source generates and registers credits. Consider the following example. A source makes a reduction of 100 pounds of phosphorus per year and will do so for five years. The proposed rules are written in a way that could be interpreted as requiring a one-time contribution of 10 pounds or a one-time contribution of 100 pounds (10 pounds per year for 10 years). The intent of the rules was to retire 10% of all point source discharge reduction credits and 50% of all nonpoint source loading reduction credits that are traded.

Proposed Rule 15 has been renumbered as Rule 16. To clarify how the one time contribution is made, a new subrule (3) has been added to proposed Rule 16. It reads as follows:

**(3) The 1-time contribution required under subrules (1) and (2) of this rule shall be calculated in the same units and for the same time periods during which the discharge or load reductions are made to generate credits.**

h. Open Trading in Impaired Waters Prior to the Development of a TMDL

EPA commented that the CWA presents a number of obstacles to trading in impaired waters for which a TMDL has not been developed. EPA states that NPDES permits must contain water quality based effluent limitations where there is a reasonable potential that a discharge will cause or contribute to a violation of water quality standards. EPA cited federal regulations which require that permit limits must be derived from and comply with all applicable water quality standards (40 CFR 122.44(d)(1)(vii)(A)). EPA's position is that NPDES permit limits must be set at or below the water quality criterion since impaired waters have no in-stream assimilative capacity for the pollutant of concern. EPA references the Supplemental Information Document for the Great Lakes Water Quality Guidance. The only exception acceptable to EPA is where an upstream reduction would achieve attainment of water quality standards at the point of credit use. This concern applies to toxic pollutants and any number of pollutants whose presence at a certain concentration constitutes a violation of water quality standards.

EPA believes that oxygen demanding substances and nutrients exert an indirect effect in-stream due to biological or chemical transformations and that the discharge levels at which adverse effects occur may be as much a function of total loading as ambient concentrations. EPA is in the process of developing regional nutrient criteria and approaches specific to permitting these types of pollutants in impaired waters for which a TMDL has not been established.

EPA also sees a problem with offsetting new and significantly increased discharges to impaired waters prior to the development of a TMDL. EPA's concern is that the most technologically and economically achievable loading reductions could be "used up" to offset these loadings and therefore not be available to meet the loading reductions required once a TMDL has been established. EPA offers two specific recommendations based on the foregoing concerns.

Open trading for NPDES dischargers should be restricted to areas where water quality standards are currently being met.

For NPDES-related nutrient trading where water quality standards are not being met due to excessive nutrients (nuisance growth and depressed oxygen levels) and a TMDL has not been developed, each trade should be subject to review and approval by EPA. EPA's position is that the trade should be consistent with the development of future national guidance on NPDES permitting in impaired watersheds. This review should place scrutiny on situations where a new or increased discharge is being offset by reductions from existing sources to ensure that available reductions needed to comply with future TMDL requirements are not exhausted.

**Response:** In effect, EPA is saying that permits can not be issued and trading can not occur in impaired waters until water quality standards have been attained or a TMDL that allows for growth has been developed. EPA bases this position on its interpretation that the CWA and federal regulations ban the issuance of permits for new and increased uses in impaired waters unless issuance of the permit is accounted for under a TMDL approved by EPA.

The department does not agree with EPA's position on this issue. In *Arkansas v Oklahoma*, 503 US 91 (1992), the United States Supreme Court found that nothing in the CWA mandates a complete ban on the issuance of a permit to a new or increased use unless there would be a detectable further degradation of water quality. Instead the CWA vests in the EPA and the states broad authority to develop long-range, area wide programs to control pollution (Pp. 107-108). It is interesting to note that in this case, EPA issued an NPDES permit authorizing a discharge from a sewage treatment plant that would contribute to conditions that then constituted a violation of applicable water quality standards. The Court found that EPA's issuance of the permit was authorized by the CWA (Pp. 98-114).

EPA cites 40 CFR 122.44(d)(1)(vii)(A). This reference is likely meant to be 40 CFR 122.44(d)(1)(vi)(A) which requires that state NPDES permit programs include provisions to establish permit limitations, standards and other conditions that are necessary to comply with the CWA and federal regulations. CFR Part 122.44(d)(1)(vi)(A) does not ban the issuance of a permit or the use of credits under a trading program. It requires states to establish and include in NPDES permits effluent limits using a calculated numeric water quality criterion that is demonstrated to attain and maintain water quality standards and fully protect designated uses. The department agrees that this regulation applies to permitting. The proposed trading rules require point sources to first obtain a

permit before NPDES related trading occurs (Rule 5(5), as revised). This assures that appropriate water quality based limitations are established. It is also necessary to establish the point source baselines for water quality trading to occur.

The proposed rules are consistent with 40 CFR 122.44(d)(1)(vi) because pre-TMDL nutrient trading under the proposed rules would be based on numeric criterion (1 mg/l total phosphorus maximum monthly average) for phosphorus derived from water quality standards (R 323.1060(1)) and effluent limitations derived from the application of narrative water quality standards for nutrients (R 323.1060(2)). The provisions for pre-TMDL nutrient trading under the proposed rules have been integrated and are consistent with Michigan's water quality standards and consistent with cited federal regulations.

A situation where water quality standards are being violated and designated uses are not being met as a result of a single point source discharge is rare in Michigan. These situations are typically dealt with through enforcement actions. Any strategy to make reasonable further progress towards achieving and maintaining water quality standards on a watershed basis must include point sources and NPSs. EPA recognizes this fact and has included it in the requirements for developing TMDLs. It should also be recognized and allowed for trading.

The most recent national water quality inventory indicates that 36% of the assessed river miles fail to fully support drinking supply, swimming and fishing and that approximately 39% of the lakes and 38% of the areas assessed do not meet applicable standards (USEPA, 1998). The same report cited agricultural runoff as the biggest source of pollution in rivers and lakes. Municipal point sources were also reported to be major contributors to impairment. Urban runoff and storm sewers were the ranked fourth and second as the leading sources of impairment in lakes and estuaries, respectively. These facts make it clear that attainment of water quality standards in virtually every watershed, particularly for nutrients, will require a comprehensive approach that involves point sources and NPSs. Efforts to achieve water quality standards and restore designated uses by applying water quality nutrient criterion at the end of pipe for individual point source discharges is technologically and economically unrealistic.

"It is the policy of Congress to recognize, preserve and protect the primary responsibilities and rights of the states to prevent, reduce, and eliminate pollution, to plan the development and use of land and water resources..." (Sec. 101(b) CWA). This is exactly what the proposed trading rules are intended to do. The proposed rules require a net loading reduction for each trade (proposed Rule 15) and prohibit any use of credits that would violate water quality standards (Rule 5(1)). Point sources must first obtain a permit to establish water quality based nutrient limits. These limits are the baseline for point source trading. NPSs that are not regulated must implement measures to reduce loadings to generate credits. This approach creates economic incentives for the very reductions that are needed to achieve progress towards

attainment and to maintain water quality standards. The department believes this is consistent with the provisions of the CWA.

The effect of trading under the proposed rules will be to reduce upstream loadings to offset downstream uses of credits. This applies to all pollutants, but is particularly important to nutrient trading on a watershed basis. For pollutants other than nutrients, each trade will be evaluated on a case by case basis and permits issued for point sources under Rule 9.

Proposed Rule 7 allows open nutrient trading in attainment waters and impaired waters for which the development of a TMDL has not been completed. Upstream reductions must be made contemporaneously with downstream use. This requirement is built in to the trading rules to comply with the state's antidegradation policy (R 323.1098(8)(k)). Trading is expressly allowed under the antidegradation rule since each trade will result in a net loading reduction. Trading will improve water quality in attainment areas and achieve progress towards attainment in impaired waters. Proposed Rule 16(2) establishes an additional discount factor that requires sources using credits in impaired waters for which a TMDL has not yet been developed to obtain a quantity of credits 10% greater than would otherwise be required. Proposed Rule 16(3) provides the department authority to establish more restrictive discount factors if needed to achieve and maintain water quality standards.

EPA appears to support the concept of upstream reductions to offset downstream credit use that is built into Michigan's Water Quality Standards antidegradation policy and the proposed trading rules. However, this is not clear from EPA's comment about requiring an upstream trade to result in attainment at the point of use. The effect of this requirement would place the entire burden of achieving water quality standards on a single trade. While there are rare circumstances where this may indeed be feasible and appropriate, it certainly is not the norm. Since many point sources and NPSs contribute to water quality within each watershed it is unrealistic to require attainment on a watershed scale through a single trade. This would be tantamount to requiring each point source waste load allocation or NPS load allocation to achieve water quality standards for the entire area for which a TMDL is developed. The department does not agree with this approach.

The department believes that point sources and NPSs should share the benefits and burden of managing water quality on a watershed basis. The proposed rules establish a trading program that will reduce the cost of complying with WQBELs, provide economic incentives for voluntary NPS reductions and result in a net loading reduction for each trade that occurs. The department believes this is consistent with the interim CWA goal of protecting water quality for the propagation of fish and wildlife, recreation and designated uses. The department also believes that market forces must be applied to achieve further progress towards the ultimate goal of the CWA, the elimination of discharges into the navigable waters.

Although EPA is moving expeditiously to establish regional nutrient criteria, it may be some time before federal regulations are final. In the meantime, states should not be prohibited from implementing programs designed to improve water quality and achieve progress towards attainment in impaired waters. This is not consistent with the provisions of the CWA. It would also increase the cost of achieving nutrient reductions significantly from higher interest rates, increased regulatory and administrative costs and higher implementation and transaction cost to the public. These are reasons to encourage early voluntary reductions rather than await mandatory federal regulations.

EPA comments that reductions made for trading should not be used until after a TMDL has been developed because such trading may exhaust available reductions needed to comply with future TMDL requirements. The department does not agree with this comment.

Trading may actually result in net loading reductions in certain watersheds that are adequate to achieve water quality standards and restore designate uses. If so, the impaired waters could be delisted as provided under Section 303 of the CWA. If not, a TMDL must still be developed. Pre-TMDL trading will result in the most cost-effective reductions being made sooner than waiting until a TMDL has been established. Since federal regulations require that TMDLs consider and provide for future growth, the department believes that TMDLs are the appropriate mechanism to address this issue. The department believes that water quality and the public interest can best be served by making the most cost-effective reductions as early as possible. If voluntary efforts fail to achieve the desired objectives, federal and state regulatory programs can and should be applied. Nothing should prohibit a state from implementing a program that will improve water quality at lower cost sooner rather than later. This is exactly what the proposed rules are intended to do.

For all the above reasons, the department does not agree with the EPA's recommendation to remove pre-TMDL trading provisions from the rules. The department supports the goals and objectives of the CWA and is committed to developing and implementing programs that are designed to improve water quality and optimize the cost of complying with federal regulations.

#### i. Storm Water Trading

EPA points out that storm water NPDES permits typically require the development of best management practices (BMPs) to control pollutant discharges rather than applying effluent limitations. Where growth occurs storm water loadings may actually increase even though best management practices accompany development.

It is EPA's position that all sources must meet applicable technology-based standards for municipal storm water (the maximum extent practicable (MEP) standard under CWA Section 402(p)(3)(B)(iii) and industrial storm water discharges (the best available technology (BAT) standard under CWA Section 402(p)(3)(A)). Trading can not be used to comply with these basic requirements. EPA commented that the use of credits to

comply with water quality based requirements above and beyond these technology requirements would be acceptable. EPA states that Michigan's stormwater permits and voluntary general permits, industrial and construction site permits to not provide for this distinction.

EPA agrees, in concept, to setting the baseline for generating storm water credits equivalent to what is required under storm water permits. EPA believes this may be difficult since these permits do not typically include pollutant specific effluent limits. Discharges from regulated municipal separate storm sewer systems (MS4s) are required to reduce pollutant loadings to the MEP standard. Industrial and construction site discharges must implement stormwater pollution prevention plans. Due to the flexible nature of these requirements, EPA comments that it may be difficult to calculate the baseline and reduced pollutant loadings. EPA believes that these permits need to define and quantify performance expectations in terms of allowable loadings and document pollution reductions before storm water permit holders can generate credits to be traded. To use credits to comply with an NPDES permit requirement, credits would have to be generated during the same timeframe as that used to determine compliance. EPA states that it is not generally practical for a storm water discharge to generate credits for use by a continuous discharge due to the variable and unpredictable nature of precipitation events. EPA noted possible exceptions involving phosphorus discharges to a lake with a long retention time and impacts are less sensitive to a specific timeframe.

EPA also expressed concern over the "liberal" BMP removal efficiencies in the proposed rules (Table 2 of Rule 13). EPA recommends that the department specify BMP siting, design and maintenance criteria coupled with monitoring to determine BMP effectiveness for the purpose of generating credits.

**Response:** The department sees trading as an instrument to achieve greater reductions in municipal and storm water discharges than those required under federal regulations. EPA correctly points out that permits typically require implementation of BMPs rather than specifying numeric effluent limitations. The primary reason for this approach is the lack of reliable cost benefit and water quality information to establish technology-based discharge limitations that constitute MEP. The opportunity to trade will provide incentives for this information to be developed. In this way trading can help define and reduce the overall costs of implementing the MEP standard.

MEP is a technology requirement. Technology based effluent limitations and the MEP standards are subject to federal antibacksliding requirements. Antibacksliding regulations prohibit the relaxation of a permit limit or the actual discharge level that is achieved in practice through implementation of the technology requirements. The application of antibacksliding regulations in conjunction with a lack of adequate information to define and establish numerical effluent limits for MEP create a situation where it is necessary to define MEP through the implementation of BMPs specified in NPDES permits. The result will be least cost minimal storm water control programs and pollution prevention plans. These federal regulations are barriers to obtaining the cost

benefit information needed to properly define the standard. There is no incentive or basis to implement more than least cost programs that meet the minimum federal requirements. This department sees this as a major opportunity for trading. Trading can provide incentives for permitted sources of storm water to implement BMPs that achieve greater pollutant reductions than those that will otherwise be achieved under federal regulations by allowing credits to be generated through the implementation of BMPs beyond what is required under the permit.

The proposed rules do not allow trading to comply with technology-based effluent limitations, unless it is allowed in federal regulations (Rule 5(4)). The baseline for permitted sources of stormwater is either the numerical effluent limitation or the pollutant-specific loading achieved after implementation of the management practices that are specified in an NPDES permit (Rule 12(1)). The baseline in the proposed rules requires full implementation of the BMPs that define MEP before any credits can be generated. The proposed rules require the baseline and loading reductions to be calculated using methods and procedures set forth in the rules (Rule 12(3)). Monitoring data and actual measurements of load reductions must be used if required by a permit, and otherwise may be used where available. Market forces will provide incentives for sources to use the best information that is available. Credits that are quantified by actual monitoring or measurement will be of greater value.

For nutrient trading, storm water loading reductions should be eligible to generate credits that can be used by a continuous discharger. Revisions being made to the proposed rules in response to EPA and other comments makes it clear that nutrient credits must be generated during the same time frame they are used. (Rule 1(l), Rule 7). Special restrictions apply to the use of credits to comply with seasonal effluent limitations (Rule 4(4)). These provisions of the proposed rules establish contemporaneous generation and use requirements that, in conjunction with the daily, weekly, monthly or annual permit limitations, will govern the use of storm water credits. Storm water nutrient credits generated on an annual basis by implementing BMPs beyond those required by permit may be used to comply with an annual mass nutrient limit. A source wishing to use storm water credits that have been generated on an annual basis to comply with a monthly mass limit could also do so by calculating the long term average monthly loading equivalent by meeting the requirements for banked credits and using procedures set forth in the rules. It would be very difficult to convert event related storm water credits to comply with daily or weekly limits.

The stormwater BMP removal efficiencies in the rules are based on national averages and data obtained from the Rouge River in Southeastern Michigan.

The department does not agree with EPA's recommendation that the department should specify BMP siting, design and maintenance criteria coupled with monitoring to determine effectiveness. While this approach may be appropriate to develop mandatory BMP requirements it is not necessary to establish NPS baselines and loading reductions under a voluntary trading program. Watersheds and the type and relative NPS loading contributions vary greatly. Most coastal areas in Michigan, for example,

are meeting water quality standards. NPS categories do not have the same impact in every watershed. What may be necessary to address NPS runoff from agricultural, urban and forestry in one watershed may be totally different in others. For these reasons and others, the department did not establish minimum BMP requirements in the proposed rules. The shared burden and targeted BMPs for NPSs in impaired waters can be addressed during the development and implementation of TMDLs. It may also be necessary to develop mandatory BMPs in the future. In the meantime, the approach taken by the department will encourage voluntary reductions and establish a mechanism to quantify the baseline and loading reductions made to generate NPS credits.

j. Concentrated Animal Feeding Operations (CAFOs)

EPA commented that CAFOs cannot participate in trading because they are subject to federal "no discharge" technology requirements. EPA recommends that the proposed rules should clarify that trading related to animal feeding operations is limited to those which are not CAFOs as defined at 40 CFR Part 412.

**Response:** The proposed rules define the term point source to include a concentrated animal feeding operation (Rule 1(cc)). Rule 5(5) in effect requires point sources to obtain permits required by applicable federal regulations. NPDES permits issued to CAFOs must meet federal "no discharge" requirements to be approved by EPA. For these reasons, the department believes that the proposed rules are clear.

The language in the proposed rules would allow unregulated farming operations (such as row crops for wheat, beans or beets) that may be associated with a CAFO to be eligible to participate. EPA's proposed language would not. The department does not feel that EPA's recommended language change is necessary.

k. Nonpoint Source Trading Ratios

EPA agrees with the concept of retiring a portion of NPS loading reductions that are made to generate credits. EPA questions whether the 2:1 ratio in the proposed rules will actually result in reduced loading due to the uncertainties related to the lack of monitoring and the temporal and spatial aspects of NPS reductions in relation to credit use by point sources.

Response:

The department shares EPA's concerns and has given this issue a lot of consideration. By itself a 2:1 trading ratio may be inadequate to address multiple uncertainties and achieve a net loading reduction. The proposed rules contain a number of provisions that collectively reduce uncertainty factors and will result in a net loading reduction. All trading between point and NPS must occur in the same watershed (Rule 4(1)). Most of Michigan's major watersheds are relatively small. Discount factors can be set for trades in the larger watersheds where spatial separation is a concern. Credit use must be

contemporaneous with generation (Rule 4(2)). Seasonal limitations restrict use to minimize low flow impacts in streams and lakes with retention times less than 1 year (Rule 4(4)). Any use of credits that the department determines would cause a violation of water quality standards is prohibited (Rule 5(1)). Point source discharge reductions and NPS load reductions must be real, surplus, and quantifiable to generate credits (Rule 6(1)(b)). Discount factors require sources using credits to obtain 10% more than would otherwise be required where an impoundment is located between the sources generating and using credits and for sources using credits in impaired waters for which a TMDL has not yet been developed. The proposed rules have strict and dual liability provisions that apply to generators and users of credits (proposed Rule 24 (1)). This is intended to cause users of credits to be conservative and purchase more credits than necessary from multiple sources. Treble damage provisions are intended to cause generators to be conservative in the quantity of credits registered for use (proposed Rule 24(3)). The department is required to conduct periodic program evaluations that include ambient and site specific monitoring to assess, among other things, whether the use of credits has caused any localized impacts, the generation, retirement and use of credits results in net loading reductions. The rules (proposed Rule 25) include a citizen petition provision as means of ensuring public participation and agency accountability.

The department believes that taken together the foregoing provisions adequately address uncertainty and that the 2:1 nonpoint source trading ratio will result in a net loading reductions that improve water quality.

#### I. Coastal Zone Act Reauthorization Amendments (CZARA)

It is EPA's position that the baseline for generating NPS credits must be CZARA technology-based management measures. EPA cites its Draft Framework for Watershed-Based Trading (May 1996): "To avoid double counting, pollutant reductions associated with federal requirements are not available for trading. For example, reduction credits from new or revised effluent guidelines or BMPs required by CZARA cannot be counted again in trade." (Pp. 2-5).

**Response:** The department does not agree with EPA position on this issue. CZARA is a federal statute to provide funding to states for the implementation of environmental programs to protect and conserve coastal areas. CZARA requirements apply to the funding of these programs, not water quality trading under the CWA. If the states do not meet CZARA funding requirements, EPA may pursue the remedies under CZARA rather than impose CZARA guidelines on voluntary state trading programs.

CZARA management measures must also be implemented for NPS projects that are administered by the states under funding through Section 319 of the CWA. The department considered the issue of double counting and included a provision in the proposed rules that prevents this from occurring. NPS load reductions that result for implementation projects funded under Section 319 of the CWA are not eligible to generate credits under the proposed rules (Rule 9(9)).

CZARA NPS management measures are guidelines, not regulations. EPA should not attempt to enforce CZARA guidelines under the CWA. This appears to go beyond EPA's authority under the CWA. One of the important aspects of regulations is that they are applied equally. EPA's requirement that CZARA management measures must be fully implemented before NPS can generate credits has only been applied to Michigan. EPA has not attempted to apply CZARA in other trading programs across the country. EPA should not be arbitrary in its application of CZARA.

Most coastal areas in Michigan are meeting water quality standards without implementing CZARA management measures. Requiring full implementation of CZARA's management measures would be costly and split watersheds for purposes of trading. NPSs in the same watershed would have entirely different baselines depending on their relative locations to major impoundments that mark the coastal boundaries.

CZARA management measure guidelines have been developed for most NPS categories. The management measures require a relatively high loading reduction (generally greater than 95%) and prescribe a series of management practices that would be required to achieve the target loading reductions. Requiring full implementation of CZARA management measures, regardless of cost and water quality benefit, would leave nothing to be traded.

Michigan's proposed trading quality trading program provides economic incentives for voluntary NPS reductions. It creates a mechanism for NPSs to obtain operating capital to install and maintain management practices that will improve water quality. As such water quality trading should be seen as a tool to facilitate implementation of CZARA.

#### m. TMDL and TMDL Modification

EPA believes that TMDLs need to account for changes in loadings brought about by trades. TMDLs may need to include, in addition to specific point source WLAs, source specific caps on the number of credits that could be used to meet an individual WLA.

**Response:** The department agrees that TMDLs must account for trading. This is necessary to maintain the integrity of the TMDL and assure that reductions needed to achieve water quality standards are achieved.

The proposed rules incorporate a number of provisions to address this issue. One of the stated purposes of the rules is to facilitate implementation of TMDLs (Rule 2(c)). The proposed rules require trading to be consistent with TMDLs (Rule 3(3)(a)). Any use of credits that would violate water quality standards is prohibited (Rule 5(1)). Trading in areas for which a TMDL has been developed and approved by EPA and the department must be consistent with the TMDL. The sources that trade must be included in the inventory upon which the TMDL is based (Rule 8(1)(b)). The nutrient cap, point source waste load allocations and NPS load allocations shall constitute the respective baselines for the generation, use and trading of credits (Rule 8(1)(c)). The generation, use and trading of credits shall be consistent with the TMDL and this part (Rule 8(1)(d)).

The baselines for point sources (Rule 11(b) and Rule 12(1)), unpermitted sources of stormwater (Rule 13(1)(b)(i)) and agricultural NPS (Rule 14(1)(b)) are the reductions required under a TMDL.

The department believes that the proposed rules include adequate provisions and requirements to assure that the generation, use and trading of credits will be consistent with TMDLs that have been approved by the department and EPA.

It is important that TMDLs be developed and implementation plans written in a way that allows trading to occur. EPA should develop regulations that specifically allow trading among and between point and NPS to achieve the reductions required under TMDLs. This would provide clear authority for states and watershed groups to develop TMDLs and implement plans that offer the greatest flexibility and optimize the cost of achieving water quality standards.

### 3. Other Comments

Rule 11: Baseline (B) and Reduced Discharge Level (RDL) lack units that should be in pounds per day.

**Response:** Rule 11(7) requires that the baseline, reduced discharge level and quantity of discharge reductions generated to be expressed in the same units. It is not necessary to specify the units as being in pounds per day. This would prevent sources from using pounds per week, month or year.

Rule 12(1): EPA suggests changing the rule to read: "The baseline shall be the more protective of the numerical effluent limitation or pollutant specific loading level..."

**Response:** The department does not agree with this suggestion as it would have the effect of requiring states to develop both a numerical effluent limitation and a pollutant specific loading level achieved after implementation of management practices specified in a permit before trading could occur. Numerical effluent limitations are established and included in permits where required by federal regulations. For permitted sources of stormwater subject to federal MEP technology requirements, information is not available to determine pollutant specific loading levels that will be achieved after implementation of the management practices that are specified in permits. If this information were available, EPA would have been able to establish numerical effluent limitations. The proposed rules require full implementation of NPS management practices so that credits can only be generated by implementing additional practices or more fully implementing practices (higher removal efficiencies, greater areas, more locations) that are specified in MS4 permits and storm water pollution prevention plans.

EPA feels proposed Rule 22 includes an inconsistency. Proposed Rule 22(3) references approval of watershed plans by the department before any trading occurs under the plan. Proposed Rule 22(1)(c) references as one type of watershed plan those that are submitted under the state's voluntary storm water permit program.

**Response:** Proposed Rule 22 is not inconsistent. Although EPA is correct that storm water management plans submitted under voluntary permits are not approved by the department during the permit reviews, the intended effect of the proposed rules is for these plans to be approved for purposes of trading before any trading occurs. The department's review and approval of voluntary storm water management plans is necessary to assure that trading occurs in a manner consistent with the plans and the trading rules.

#### 4. Summary of EPA Comments:

The majority of EPA's concerns relate to the fact that the proposed rules would allow trades to occur that alter the discharge requirements for NPDES permit holders without adequate review by the department, oversight by EPA and opportunity for public participation. EPA encourages the department to consider case-by-case approvals of all trades involving NPDES permits and specific incorporation of the results of trades into NPDES permits.

**Response:** The department recognizes the importance of maintaining the integrity of the NPDES permit program. The proposed rules are intended to strike a balance between the level of review that is given to each trade and the ability to respond to market conditions. The rules, as proposed, require the department to review each trade. This is achieved by the completeness reviews that the department conducts for each proposed generation and use of credits. The proposed rules establish legal authority for the department to prevent any trading activity that the department determines would be inconsistent with water quality standards or other provisions of the rules. The rules allow the department to exercise its knowledge and discretion to determine the level of review that is appropriate and to require information to demonstrate consistency with water quality standards and compliance with the proposed rules. A case-by-case permit review is not necessary for each trade, but can be required where the department determines it is necessary.

The department is making a number of changes to the proposed rules to provide greater public notice and participation in trading and to incorporate trading into NPDES permits. Perhaps the single most important change is to Rule 7. This change limits the use of nutrient credits to a 20% increase by rule. Any greater use would require a formal permit modification to be first approved by the department. All other types of trade will undergo a case-by-case point source permit review. The department will continue to work with EPA to develop specific permit conditions that establish requirements that will have to be met if trading occurs. In this way point source permit holders will have two sets of conditions. One that applies if trading does not occur and a second if it does. The department will establish general and specific conditions on the generation and use of credits to ensure that water quality standards are met. The department appreciates EPA assistance in working to find workable solutions to this issue.

## B. Kalamazoo River Water Quality Trading Demonstration Project Steering Committee (Commentor 2)

The Kalamazoo River Water Quality Trading Demonstration Project Steering Committee (KPSC) supports and endorses the proposed Water Quality Trading Rules. Experience from the Kalamazoo Project has shown that water quality trading provides a positive tool for Michigan to use for achieving water quality improvements. The KRSC comments are presented in the form of conclusions from the Kalamazoo Project that are supported in the rules, points of agreement with the rules that are deemed vital for a successful state-wide program and specific additions recommended to be included in the final rules. These are presented in Sections 1, 2 and 3 below. The department's response follows each section.

1. Kalamazoo Demonstration Project Input on Statewide Rules - The statewide (proposed) rules incorporate several important recommendations, findings and lessons learned from the Kalamazoo Demonstration Project. These include:  
Interagency cooperation and accountability through the use of USDA NRCS certified planners and the integration of traditional conservation planning protocols and tools to establish ... agricultural baselines and participation.
  - a. A 2:1 (nonpoint to point source) trading ratio.
  - b. Discount factors as appropriate.
  - c. Recognition that the framework for trading must be flexible to encourage a wide range of nonpoint source participation due to differences between watersheds, community needs and diverse solutions to address water quality issues.
  - d. Adoption of standardized protocols for determining baselines, loading reductions and credit computations.
  - e. Provisions in the proposed rules for open voluntary trading outside of a TMDL or watershed cap.

**Response:** The department appreciates the support of the KPSC. Many of the design elements in the proposed rules were developed based on findings, lessons learned and information obtained through the Kalamazoo Project.

As point of clarification, the department would like to make it clear that the proposed rules are not intended to delay or avoid the federal requirements to develop and implement TMDLs in impaired waters. Rule 2(1)(c) is being revised in response to EPA and NWF comments to emphasize this point. The provisions for open nutrient trading (Rule 7) apply on waters where water quality standards are being met and only to impaired waters for which a TMDL has not yet been developed. The department is committed to developing and timely implementation of TMDLs for all impaired waters that have been listed under Section 303 of the CWA. Once a TMDL has been developed nutrient trading and all other types of trades must be fully consistent with the TMDL (Rules 8(1) and 9).

2. Supported Points of Agreement - The following elements incorporated in the (proposed) rules have been considered and are supported by the KPSC as vital to the success of the program.

- a. Clear legal authority is necessary for trading to occur. The proposed rules establish this.
- b. A guidance document is necessary to help people understand trading and how it works. Elements in the proposed rules and the information that can be found on the Trading web site (MDEQ Water Quality Trading Home Page) provide this information.
- c. The use of watershed planning provisions to incorporate trading.
- d. The ability to apply trading in watershed planning and TMDLs is provided in the proposed rules and is important.
- e. Loading reductions (net) for each trade to improve water quality.
- f. Necessary procedures for setting baselines.
- g. The requirement to go beyond what is required by regulations to generate credits since this will achieve additional actual reductions.
- h. Mechanisms such as partnerships and contracts should provide the nonpoint source accountability that is typically derived from permit enforcement.
- i. Public participation is vital in a trading program and the rules provide a process for this.

**Response:** The department would like to clarify that while the proposed rules allow partnerships and contracts to be used between point sources and NPSs that participate in the program, the proposed rules establish direct NPS accountability. The rules establish the requirements that must be met by NPSs and a mechanism to make them legally enforceable without requiring that NPSs be permitted and without incorporating NPS requirements in point source NPDES permits.

3. Recommendations - The KPSC has divided recommendations into those that apply to the proposed rules and those that apply to how the department implements the program.

- a. Rules: (Three rule changes are recommended).
  - i. Streambank erosion control projects should be expressly included as valid nonpoint source techniques for load reductions undertaken to generate credits (Add to R 323.3006)
  - ii. To quantify streambank erosion control reductions, we recommend the protocols used in the Kalamazoo Project. These include:  
Recommended Quantification Protocols in Order of Validity and Precision
    - 1<sup>st</sup> aerial photographs (current and historic).
    - 2<sup>nd</sup> lateral recession rates (MDEQ, 1999).
    - 3<sup>rd</sup> 1/2 of the gully erosion equation (USDA-NRCS).(Add to R 323.3013)

- iii. Grandparenting: Create the opportunity for Kalamazoo Project nonpoint source Partners to continue to generate future credits for improvements made during the project but under the rules once implemented. Specific language: "Projects implemented to generate load reductions at sites in the Kalamazoo River Water Quality Trading Demonstration Project shall be eligible to participate in water quality trading to the extent that those projects are both fully implemented and maintained." (Add to R 323.3006).

**Response:** The department agrees with the recommendation to add streambank erosion controls to the list of methods that are eligible to generate credits. Rule 6(1) has been revised to read: "**Implementation of streambank erosion controls.**"

**Add new subrule (m): "Other pollution controls or management practices approved by the department."** (This is the current language in proposed subrule (l)).

The department agrees that the proposed rules should include a method or provision for quantifying loading and load reductions from streambank erosion control projects.

The department does not agree that the quantification methods recommended by the KPSC should be added to Rule 13 because this rule addresses stormwater runoff. It would be confusing to add streambank erosion procedures to it. Instead the department is creating a new Rule 15 specific to NPS streambank erosion. The new Rule 15 reads as follows:

**R 323.3015 Streambank erosion nonpoint source baseline; reduced loading level; generation of load reductions and credits.**

**Rule 15. (1) The baseline for streambank erosion sources shall be one of the following, whichever is applicable and most protective:**

- (a) The pollutant-specific loading from existing streambank erosion sources that are not subject to an applicable requirement,
- (b) The pollutant-specific loading achieved after implementation of management practices established by an applicable requirement,
- (c) A pollutant-specific cap and loading allocation specified in watershed management plan approved by the department under this part; or,
- (d) A pollutant-specific cap and loading allocation determined by the department to be consistent with water quality standards and specified in a remedial action plan or lakewide management plan.

**(2) If not specified otherwise by an applicable requirement, the baseline and pollutant-specific reduced loading level for each operational change and management practice implemented to control streambank erosion shall be established by the most conservative of the following methods:**

- (a) The use of historical aerial photographs over a period of at least 10 years and current aerial photographs representative of the site and approved by the department.
- (b) Lateral recession rates calculated in accordance with procedures specified in "Pollutants Controlled Calculation and Documentation," Michigan department of environmental quality, 1999.

**(c) Using gully erosion estimates at one half of the amount calculated as specified in United States department of agriculture, natural resource conservation service, Field Office Technical Guide for Michigan Section I-L. Water Erosion Protection, 1982.**

**(d) Other methods or procedures approved by the department.**

**(3) The quantity of load reductions generated shall be determined by subtracting from the baseline calculated under subrule (1) or (2) of this rule, the reduced loading level for each control installed and management practice implemented to control streambank erosion.**

**(4) The baseline, reduced loading levels, and quantity of load reductions generated shall be expressed in pounds of a specific pollutant per month or year.**

**(5) The quantity of credits generated and which may be registered under R 323.3019(1) shall be the quantity of load reductions calculated under subrule (3) of this rule minus the water quality contribution required under R 323.3016(2).**

**(6) The same methods and procedures shall be used to calculate the baseline, reduced loading level, load reductions generated and credits. The baseline, reduced loading level, and quantity of load reductions generated shall be expressed in the same units.**

The department agrees that the NPSs that voluntarily participated in the Kalamazoo River Water Quality Trading Demonstration Project should be eligible to generate credits under the water quality trading rules provided the management practices meet all the requirements in the proposed rules. Individual sources must submit notices of generation for review by the department and credits will only be earned for those management practices that have been properly installed, implemented and that are properly and fully maintained for the period specified in the notice of generation.

The department is adding a new subrule (11) to Rule 6 to read as follows:

**(11) Sources that install control devices or implement management practices to control streambank erosion or stormwater or agricultural runoff as part of a pilot project conducted with approval by or involving the active participation of the department shall be eligible to generate credits that may be used for trading under this part if all of the following conditions are met:**

**(a) The control devices have been installed or the management practices implemented within the 18-month period immediately proceeding the effective date of this part.**

**(b) The control devices or management practices have been installed or implemented in a manner that is consistent with all applicable provisions of this part.**

**(c) The control devices or management practices that have been installed or implemented have been fully and properly maintained from the time they were established and remain so for the time they are registered to generate credits.**

**(d) All applicable requirements established under this part shall be fully complied with, including without limitation the requirements to**

**establish baselines, load reductions and reduced loading levels and the submittal of notices and submit annual reports.**

**(e) The notice and certification required under R 323.3019(1) shall be submitted to the department within 6 months of the date upon which this part takes effect.**

4. Process:

- a. Permanent funding is needed for the program, including technical support, accountability, maintenance of the registry and public education workshops.
- b. A strong public education process needs to accompany the rules for trading partners, persons affected by trading in their watershed and corporate entities.
- c. Priority for education and implementation should be given to impaired watersheds, where trading should be strongly encouraged.
- d. Benefits available to both parties in water quality trades must be clearly identified.
- e. Who communicates the "facts and benefits" to agricultural sources is critical.
- f. Workshops are needed to provide integration of different programs, transfer technology and share experiences.

**Response:** The department agrees that permanent funding for the program is necessary. The department plans to obtain information on the types and number trades, the pollutants trades, the watersheds where trading occurs, cost benefit data and the costs of administering the program during the first year or so of implementation. This information will determine the level of funding needed and be used to support requests for permanent funding.

The department also agrees that education and outreach are vital to the success of the trading program. The department is pursuing collaborative projects and is planning to provide several presentations that demonstrate what trading is and how it can be applied across the state. The department plans to expand the Water Quality Trading Home Page through development of the water quality trading registry with Internet access and geographical information system (GIS) applications. Efforts are also being pursued to develop or participate in the development of interactive web sites to provide the public with information on trading and the tools to evaluate trading options.

C. National Wildlife Federation (Commentor 3)

The National Wildlife Federation (NWF) is the nation's largest conservation education and advocacy group with approximately 4 million members and contributors and supporters. NWF commented that trading is a two-edged sword. Done correctly it can create substantial reductions in pollution, particularly from NPSs. Done wrong, trading can lead to severe degradation of lakes and streams by allowing more pollution to be discharged from point sources "in exchange for NPS reductions that are more illusory than real."

NWF points out that Michigan's stakes are high with 267 impaired waterways and 240 inland lakes having high or excessive levels of nutrients. According to NWF, the vast majority of nutrient loadings are from unregulated NPSs. NWF states that 80% of the heavy nutrient pollution in the Saginaw Bay watershed is from NPSs. NWF comments "Persuading the NPSs to make real and deep cuts in nutrient pollution would go a long way toward cleaning the state's waterways."

NWF expressed appreciation at serving on the Governor's Steering Committee for Market-Based Environmental Programs (Steering Committee) and feels the process was open and fair and that the department was responsive to suggestions.

NWF commented that on June 13, 2000 it for the first time became aware of the department proposed "Cooperative Agreement to Meet TMDL for Phosphorus," dated March 30, 2000. NWF understands that the cooperative agreement would allow point sources to avoid having TMDL phosphorus limits in their permits. NWF believes that these cooperative agreements could impact trading by creating strong incentives for some sources to trade and alternatives to trading that could avoid the procedural safeguards built into the proposed rules. Either way, NWF believes that cooperative agreements undermine implementation of TMDLs. The lack of explanation and discussion of the cooperative agreements and relationships to trading is of great concern to NWF and "raises questions about the primary purpose of the trading program". For these reasons, NWF strongly opposes any action on the proposed trading rules until a meeting of the Steering Committee has been held to provide a full explanation of the cooperative agreement(s) and the relationship to the trading program.

NWF does not support the proposed rules. "Although the rules have several positive features, weaknesses outweigh their strengths." The following is a summary of NWF's discussion on the positive and negative aspects of the proposed rules.

1. Positive features of the rules:

- a. NWF supports the requirement for trades to occur in the same a watershed but would like to see greater specificity and a limit placed on the size of watersheds where trading occurs.
- b. NWF believes that NPS reductions are reasonable well measured and verified. The proposed rules include a number of methods to measure and verify baselines and load reductions from NPS. NWF highlighted the following requirements:

- NRCS planners and plans to calculate the baseline and reductions that would occur after management practices are implemented for agricultural NPS (Rule 14(2)).
- The requirement for the department to conduct ambient water quality monitoring in watersheds where trading occurs to determine actual reductions that take place (proposed Rule 23(1)(a)).
- NPS inspections by the department to ensure that measures to reduce loadings have been implemented (Act 451).

- NPS are required to submit annual reports on management practices implemented to generate credits (proposed Rule 18(7), renumbered as 19(7) and revised to require quarterly reports and set forth reporting requirements).
- The 2:1 trading ratio.
- The application of an additional 10% discount factor for the use of credits in impaired waters for which a TMDL has not been developed.

c. NWF comments that the trades will reduce the amount of pollution and that even poorly quantified NPS reductions are likely to provide a net benefit. NWF would prefer a higher trading ratio of 3:1 or 4:1.

d. Unused credits in each trade must be retired and can not be sold or used later.

e. The retirement of the 10% additional discount factor for credits used in impaired waters for which there is no TMDL will reduce allowable pollution.

f. The rules include a variety of effective enforcement mechanisms for the department, EPA and citizens (proposed Rule 24(1)).

g. The rules prohibit any use of credits that causes a violation of water quality standards. NWF recommends that this provision be written into NPDES permits for point sources that trade.

h. The rules include provisions for citizens to have an effective administrative enforcement option for each trade.

**Response to Positive Features of the Rules:** The department appreciates NWF active participation on the Steering Committee and input drafting the proposed rules. The department appreciates NWF's support for the "positive features of the rules." These features are intended to ensure public access to information and participation in trading, the use of trading ratios and discount factors to achieve a net water quality benefit for each trade, NPS quantification protocols, enhanced enforcement and citizen petition provisions.

NWF comments that unused credits must be retired and cannot be sold or used later. This may or not be the case. Proposed Rule 19(7) allows a person up to 60 days, beginning with the end of the period of use specified in a notice of use, to register any unused credits in excess of the quantity needed for compliance as specified in the original notice. Rule 9 allows limited use of banked nutrient credits with prior department approval.

Changes that are being made to the proposed rules in response to comments will tighten the requirements for contemporaneous generation and use of credits. However, it will be possible for a source that does not use all the credits it registered to submit a notice to "re-register" unused credits for future sale or use. The future use of banked nutrient credits by a point source would undergo a formal NPDES permit review and be subject to public notice, comment and opportunity for hearing.

## 2. Negative Features:

a. The proposed rules allow trading in impaired waters before a TMDL has been established. The CWA requires that TMDLs be developed to achieve water quality standards in impaired waters. TMDLs establish a pollution cap that applies to all point sources, NPSs and airborne deposition. NWF believes that trading sets the "means" in motion before the "ends" are established. This raises a concern that trading could conflict with later-developed TMDLs and discourage the state and sources from developing TMDLs.

NWF believes that the proposed rules would allow pre-TMDL increased discharges in impaired waters. Section 303(d)(1) of the CWA requires states to develop TMDLs for impaired waters. Once a TMDL has been established an NPDES permit may be issued if the TMDL provides for growth and establishes compliance schedules for existing permit holders to achieve water quality standards (40 CFR 122.4(i)). NWF interprets 40 CFR 122.4(i) as a ban on the issuance of NPDES permits that allow new or additional pollutant discharges into waters impaired by that pollutant.

NWF comments that TMDLs are necessary prior to trading because narrative criteria, designated uses and antidegradation policy must be considered in addition to the establishment of a numerical criteria. NWF cites 40 CFR 131.12(a)(1) &(2) and 131.3(e).

After the proposed rules were put on public notice, the department proposed adding language to the proposed rules to address NWF and other environmental organizations concern that trading would be used to avoid or delay TMDL development and implementation in impaired waters. The department proposed adding the following language to Rule 2(1)(c):

"Nothing in this part shall be construed to obviate the requirement to develop a total daily maximum load for sites listed under section 303(d) of the clean water act or to delay the implementation of a total daily maximum load plan that has been approved by the department and the administrator."

The above language proposed by the department would ease NWF's concern, but does not address the basic problems with pre-TMDL trading in impaired waters as described above. For these reasons, NWF concludes that "trading simply should not be allowed to occur in impaired watersheds that do not have TMDLs."

**Response:** The department agrees that TMDLs must be developed for all impaired waters under Section 303(d) of the CWA. The rules are not intended to obviate the need for or delay the implementation of TMDLs. To clarify this and respond to NWF's concern, the department has added the following language to Rule 2(1)(c).

**"Nothing in this part shall be construed to obviate the requirement to develop a total daily maximum load for waters that do not meet water quality standards as**

**required by section 303(d) of the clean water act or to delay the implementation of a total daily maximum load that has been approved by the department and the administrator."**

The department does not agree with NWF's position that federal regulations prohibit pre-TMDL trading in impaired waters. This issue was considered by the United States Supreme Court (Supreme Court) in *Arkansas v Oklahoma*, 503 US 91 (1992). The Supreme Court found that nothing in the CWA mandates a complete ban on the issuance of a permit to a new or increased use unless there would be a detectable further degradation of water quality. Instead, the CWA vests in the EPA and the states broad authority to develop long-range, area wide programs to control pollution. (Pp. 107-108).

As discussed in response to EPA comments, the proposed rules are consistent with 40 CFR 122.44(d)(1)(vi) because pre-TMDL nutrient trading under the proposed rules is based on numeric water quality standards (1 mg/l total phosphorus maximum monthly average) for phosphorus (R 323.1060(1)). For other nutrients, effluent limitations are established in NPDES permits based upon the application of narrative water quality standards (R 323.1060(2)). The provisions for pre-TMDL nutrient trading under the proposed rules include and are consistent with Michigan's water quality standards and cited federal regulations.

Federal regulations cited by NWF at 40 CFR 122.4(i) refer to the issuance of a permit to a new source or a new discharger. The terms "new discharger" and "new source" are defined at 40 CFR 122.2. Neither definition applies to an increased use from existing sources. The department agrees that permits are required and must be obtained for new dischargers and new sources. The proposed rules do not obviate the need to obtain a permit. The effect of Rule 5(5) is to require new dischargers and new sources to obtain a permit before they can participate in trading. In this way, the proposed rules are consistent with 40 CFR 122.4(i). It is the department's belief that 40 CFR 122.4(i) does not apply to the use of credits through permit modifications of existing facilities.

Federal regulation 40 CFR 122.4(d) prohibits the issuance of any permit that does not provide for compliance with all applicable water quality standards. The proposed trading rules incorporate a number of elements to be consistent with water quality standards. Michigan's water quality standards establish numeric criteria for phosphorus (1 mg/l of total phosphorus as a maximum monthly average) unless higher or lower limits are approved by the department (Part 4. Water Quality Standards, R 3231060(1)). In addition nutrients must be limited to prevent the stimulation of aquatic growths that are or may become injurious to designated uses (R 323,1060(2)). The numeric water quality standard for phosphorus and water quality based effluent limitations derived by the application of the "no nuisance" narrative water quality standard for other nutrients are specified in NDPEs permits. Discharge limitations derived from the application of WQD constitute the baselines for the generation and use of credits under the proposed rules.

Michigan's water quality standards (Antidegradation Rule R 323.1098(8)(k)) expressly allows for trading where there is a simultaneous enforceable decrease in the allowed loading of the pollutant under consideration ... such that there is no net increase in the loading... consistent with trading rules established by the department." The proposed rules prohibit any use of credits that would cause a violation of water quality standards. These provisions are necessary and have been incorporated in the proposed rules to be consistent with federal regulations and Michigan's water quality standards.

Pre-TMDL trading in impaired waters under the proposed rules will result in a net loading reduction for every trade and progress towards attainment. As discussed above, pre-TMDL open nutrient trading in impaired waters requires real, surplus contemporaneous upstream reductions (Rules 6 and 7) to offset the downstream use in impaired waters for which a TMDL has not yet been developed. A net loading reduction ("progress towards attainment") is achieved by the water quality contributions (proposed Rules 15(1) and (2) trading ratios). Additional discount factors (proposed Rules 16(2) and (3)) address uncertainty of pre-TMDL trading in impaired waters, ensure that water quality standards are not violated at the point of use and that each trade provides a water quality benefit.

The primary goal of the proposed rules is to reduce the cost of improving water quality. Facilitating the implementation of TMDLs is one of the stated purposes (Rule 2(1)(c)). Pre-TMDL trading between point sources and NPSs in impaired waters under the proposed rules will achieve NPS reductions prior to the development of the TMDL. In watersheds where point sources are not the primary cause of water quality standard violations, the NPS load reductions achieved through trading will result in progress towards attainment. Contemporaneous upstream reductions to offset downstream uses will result in lowering background concentrations to allow an increase use downstream. Trading will result in net loading reductions from upstream NPS reductions. Achieving progress towards attainment should not be held in abeyance pending the development of a TMDL.

Trading will also create and strengthen partnerships between point sources and NPSs and interactions between local and state agencies. This process of establishing partnerships and consensus is also vital to the development and implementation of TMDLs.

Trading will also facilitate the development of TMDLs by providing information that can be used to evaluate the water quality benefit and costs of various TMDL implementation strategies. This is particularly important when considering the equitable issues associated with establishing point source WLA and NPS LA under a TMDL.

The provision for pre-TMDL trading to improve water quality in impaired waters is being retained.

b. Proposed Rules 18 and 19 describe a "determination of completeness" review that must be conducted by the department regarding notices for the generation, registration,

use and trading of credits. Determinations of completeness or incompleteness made by the department are considered final agency decisions (proposed Rules 18(4) and 19(3)) that constitute modifications of point source NPDES permits (proposed Rules 18(6) and 19(8)). NWF finds this to be highly problematic because it believes that the completeness review and determinations conducted by the department will not consider whether the information is accurate and truthful or the impact on the waterway. NWF states that the department can not avoid exercising its responsibility to conduct a substantive review and determining the impact of a proposed modification on the receiving waters. NWF also states that NPDES permits can not be modified without public notice and comment as this is required by the CWA and good public policy.

After the proposed rules were put on public notice, the department proposed adding language to the proposed rules to address NWF and EPA concern that the completeness review was merely an administrative review (whether all the information required for notices of credit generation and use had been provided). The department proposed adding the following language to proposed Rules 18(4) and 19(3):

**"The department shall review the notice and certification for completeness and consistency with this part."**

This language satisfies NWF's concern on this issue.

Rules 18 and 19 have been renumbered as Rules 19 and 20. The department has revised proposed Rules 19(4) and 20(3) to address the concerns of NWF and EPA. Language changes in addition to the foregoing language have been made for clarification and consistency. These revisions in their entirety are under the response to EPA comment Number 3 (Preventing Local Impacts). Rules 18 and 19 have been renumbered as Rules 19 and 20.

c. NWF believes that proposed Rules 18 and 19 pose another serious problem. At the December 1999 Steering Committee meeting, the department indicated that proposed Rules 18(6) and 19(8) would hold a point source discharger liable if it attempted to use credits generated by a NPS that were not real, surplus and quantifiable at the level claimed by the NPS in its notice of generation. NWF believes that holding point sources accountable for NPS reduction requirements will ensure that the promised NPS load reductions will actually occur. This would result in significant water quality improvements with minimal oversight from the state, EPA and citizens.

NWF believes that the language in proposed Rules 18 and 19 is too vague as to whether point source dischargers would be liable for improper claims of credits by NPS trading partners. To address the critical issue of whether credits used have actually been generated, NWF recommends amending proposed Rule 19(8) in pertinent part as follows:

"The discharge for a source shall be considered by the department to be in compliance if the actual discharge is equal to or less than the water quality based effluent limitation

specified in the permit plus the actual load reduction achieved by the generator(s) of the credits used by the source, expressed in pounds per day, week, month ...."

**Response:** The department agrees to make the language change in Rule 20(8), as recommended by NWF.

d. NWF wants to ensure that trading does not result in "hot spots" of localized water quality degradation. NWF believes that trading must better consider the relative locations of the trading partners, the size of the watersheds where trading occurs, compliance records, trading ratios, enforcement and monitoring to ensure attainment of water quality standards.

The department developed language to address this concern after the proposed rules were put on public notice. These changes alleviate NWF's basic concern on this issue.

**Response:** The department believes that the rules as proposed contain adequate prohibitions, restrictions and requirements to prevent "hot spots" of localized water quality degradation. However, the department is strengthening the requirements for reductions and establishing additional restrictions on the use of banked nutrient credits (Response to EPA Comment 2). The department is also adding language that explicitly requires the department to review notices of generation (proposed Rule 18) and use (proposed Rule 19) to ensure consistency with water quality standards (Response to EPA Comment 3 and NWF Comment 2 above). The department is also establishing additional restrictions on the use of nutrient credits by rule to provide greater opportunity for public participation and comply with federal permitting requirements (New Subrule 7(2)). The department believes that these changes to the proposed rules adequately address NWF's concern regarding "hot spots".

e. NWF commented that public participation is a cornerstone to successful trading and that it is required by federal regulations before modifying NPDES permits. Prior to public notice of the proposed rules, NWF was "reluctantly willing to accept" the requirement added to the draft rules by the department for each proposed use of credits to be published in the trading registry. The citizen petition provisions only guarantee public's ability to participate and challenge a trading activity after the fact.

NWF does not now support the "limited pre-trade public participation" in the proposed rules because the department's completeness determinations would constitute "an automatic modification of the NPDES permit and any TMDL that is in place." NWF describes an approach to resolve this issue that has also been discussed with EPA. The approach involves the issuance of permits with two sets of limits, one that would apply if trading does not occur and the other conditions that would apply if trading does occur. The draft permit would include a limit on the type and quantity of credits that could be used without first going through a formal permit modification. NWF sees potential for this approach but reserves comment until the details are set forth and can be evaluated.

**Response:** The department agrees that "public participation" is a cornerstone of the CWA and federal NPDES permit programs. It is also vital to the creditability of a functional trading program. The proposed rules establish the requirement for the department to create and maintain a water quality trading register and make information contained in the registry electronically available to the public. The department is currently developing the registry with Internet access and GIS applications to provide the public with real time information on each source that engages in the program. It will allow sources and citizens to track the generation, use and retirement of credits, by pollutant and watershed. The water quality trading registry is supplemental to the federal administrative requirements for NPDES permits and freedom of information act provisions under state law. The registry provides information that is necessary for the market to function and at the same time provides citizens with a very accessible tool to oversee how the program is being used.

There are two types of trading that can occur under the proposed rules. Nutrient trading is the predominant type of trading that will occur. Rule 7 (as revised in response to comments) will assure that the public has information needed to evaluate the use of credits at the time NPDES permits are issued or re-issued. Other types of trades, including cross-pollutant trading, use of banked nutrient credits, pollutants other than nutrients, will occur infrequently. For all "other types of trades", prior department approval is required and point source NPDES permits will be reviewed and issued on a case by case basis.

The proposed trading rules, as revised, will provide even greater public access to information on each trade and allow public participation in decision making at the time point source NPDES permits are issued or re-issued. The department believes that these provisions collectively provide greater opportunity for public participation than is required by federal regulations.

f. NWF believes that trading of bioaccumulative toxic chemicals of concern (BCC) should be banned. NWF opposes all forms of BCC trading as it would foster continued discharges and creates the potential for localized toxic hot spots.

The proposed rules contain a general prohibition against the trading of BCC, but includes a narrow exception for such trading to occur under a remedial action plan (RAP) or lakewide management plan (LaMP) that is designed to achieve the virtual elimination of BCCs. NWF would "strongly prefer to see an outright ban" but is willing to accept the narrow (virtual elimination) exemption in the proposed rules.

**Response:** The proposed rules are not intended to be used to allow the trading of BCC. The department shares the concerns expressed by NWF and appreciates NWF's willingness to accept a narrow provision for BCC trading to achieve virtual elimination under plans that may be developed to address areas of concern in the Great Lakes.

The intention is for trading to be used to optimize the cost of getting to “zero” under phased programs that are designed to eliminate the discharges of BCC's into the Great Lakes and connecting waters and inland lakes and streams.

NWF notes a typographical error in Rule 9(1): R 323.1005(3) should be R 323.3005(3). The typographical error in Rule 9(1) has been corrected.

g. Although NWF supports the department's oversight of other types of trades allowed under proposed Rule 9, NWF does not support including cross-pollutant trading and would like to see it banned. NWF acknowledges that there are relationships between different pollutants, such as dissolved oxygen and nutrients, and ammonia and temperature. However, the necessary ranking of toxicity, health risk and ecosystem impacts is too complex to ensure adequate water quality protection.

**Response:** The department does not agree that provisions for cross-pollutant trading should be removed from the rules. Although the department does not expect cross-pollutant trading to be very common, it does present an opportunity to achieve greater environmental and economic benefits than traditional regulatory approaches. The types of cross-pollutant trading that are likely would involve nutrient and biochemical oxygen demand (BOD) reductions to offset downstream depressed oxygen levels. The Rahr Malting Company trade in Minnesota provides a model for such cross-pollutant trading.

These types of trades are very complex. This is a major reason why cross pollutant trading under proposed Rule 9 is required to undergo a detailed case by case review and to have point source limits and conditions specified in NPDES permits. The amount of information that will be required by the department to approve a cross-pollutant trade will consider the parameters that NWF identifies and likely others as necessary to ensure that a given trade does not result in a violation of water quality standards and that there is "equivalence" in terms reductions and uses of credits.

h. NWF commented that the proposed rules are very complex and detailed. NWF recommended that the department prepare a preamble to set out priorities the rules are intended to address and how the rules will address them. NWF recommends that the preamble should include discussions on critical safeguards:

- How the rules should be interpreted and implemented to ensure that local impairment and "hot spots" do not result.
- Attainment of water quality standards and maintenance of existing uses should be emphasized.
- Continued and expanded control of point source impairments (such as animal feeding operations) through the use of NPDES permits.

NWF Conclusion - The proposed rules contain a number of specific problems that prevent NWF from supporting them. Reconvening the Steering Committee to explain and discuss the impacts of cooperative agreements on trading is critical.

**Response:** The department agrees that the proposed rules are complex and detailed. This is due to the scope and nature of the program and the need to be consistent with federal regulations and water quality standards.

The department does not feel that a preamble to the rules is needed. The department will maintain the Water Quality Trading Home Page and continue making presentations to agencies, organizations, watershed groups and stakeholder across the state. The department is also planning to conduct at least one workshop for a watershed in southern Michigan where trading is likely to occur.

The department may develop a technical guidance manual based on the input and experience gained from initial trades that occur.

The department believes that the education and outreach described above in conjunction with the water quality trading registry with Internet access and GIS applications will provide the information needed to implement the program.

#### D. Clean Water Action (Commentor #4)

Clean Water Action (CW) applauded the departments to build on the accomplishments achieved under the federal CWA. CW has concerns about the strategy and procedures in the proposed rules and provided general and specific comments. Generally, the concerns about the trading program as proposed include:

- Trading within large watersheds.
- Trading in threatened or impaired waters without a TMDL in place (Pre-TMDL trading).
- Potential impact on economically disadvantaged communities.
- Disincentives to eliminate pollutants.
- Lack of commitment and resources for monitoring and enforcement.
- Inadequate trading ratios.

#### General Comments

1. Trading is proposed within the same watershed. While this is necessary, it is not adequately conservative. Some watersheds in Michigan cover hundreds of square miles with very different topographical, geological, hydrogeological, aquatic, and meteorological characteristics. Reductions in one area of a watershed may not yield the same benefit when loading is increased in another distant part of the watershed. Trading should be considered between sources discharging into the same relatively small and clearly defined part of the same water body with the same characteristics.

**Response:** The department shares the concerns that CW raises but believes that the proposed rules adequately address the issue of "equivalence" regarding the generation and use of credits on a watershed basis.

The Water Quality Trading Workgroup discussed the size, characteristics and ways to define watershed boundaries for purposes of trading on a number of occasions. These factors were considered in the development of trading ratios, discount factors, pollutants to be traded and the techniques and information to be used to clearly delineate watersheds. Consideration was given to establishing restrictions and special discount factors to address distance, stream orders, impoundments, different forms of pollutants traded and more.

The proposed rules prohibit the use of any credits that would violate water quality standards (Rule 5(1)). This fundamental principle gives the department the legal authority to withhold approval and prevent nutrient trading under Rule 7 and other types of trades under Rule 9. This is key safeguard that can be applied when considering individual trades.

The proposed rules include features that address and mitigate concerns over trading in very large watershed. These include the following:

- An additional 10% discount factor for the use of credits where an impoundment is located between the generator and user of credits (proposed Rule 16(1)).
- Authority for the department to establish discount factors as necessary to be consistent with water quality standards on a case by case basis (proposed Rule 16(2)).
- The requirement that reductions be made "contemporaneously" during the period they are used.
- A seasonal restriction on the use of credits (Rule 4(4)).
- The requirement that sources be "connected to" the waters to be eligible to generate credits.
- Contemporaneous upstream reductions for downstream uses for nutrient trading by rule. Case by case reviews and prior approvals of all other types of trades by the department.

As a practical matter, sources that trade are likely to be quite close to each other. Most of the watersheds that are delineated under proposed Rule 21 are deemed to be an appropriate size and of similar character so that trading from one end to the other should not pose a problem. For individual trades that involve considerable distances and differences between areas in the Grand, Huron, Muskegon, Manistee, AuSable, Kalamazoo and St. Joseph Rivers, the department can set appropriate discount factors (in addition to the trading ratios) to ensure "equivalence" and a net water quality benefit.

Splitting watersheds based on topographical, geological, hydrogeological, aquatic, and meteorological characteristics is not necessary for trading to occur. This would be extremely costly and take years to complete.

Splitting large watersheds would create fragmented markets, reduce the population of potential trading partners and reduce the environmental and economic benefits that trading offers.

For these reasons the department does not believe that trading should be restricted between sources in a small area of a larger watershed.

2. CW believes that trading in impaired waters for which a TMDL has not been developed is illegal under the federal CWA and should be prohibited. CW states that TMDLs must be designed appropriately to protect designated uses and prevent degradation, with a margin of safety to guard against uncertainties.

**Response:** The department does not agree for the reasons stated in response to EPA Comment Number 8 and NWF Comment (Negative Features) Number 1.

3. CW commented that there is a possibility for trading to adversely affect economically disadvantaged communities those areas that have historically borne the burden of environmental contamination and health impacts. EPA's Title VI regulations state that EPA-funded agencies are prohibited from taking acts, including permitting actions that are intentionally discriminatory or have a discriminatory effect based on race, color or national origin.

CW recommends that the rules include a provision for evaluating local communities for which trades are proposed to assure that these communities are not already being adversely impacted by the source proposing the trade or other sources and by providing more opportunity for public input and financial resources than are currently proposed.

**Response:** The department shares CW concerns regarding potential impacts of discrimination against economically disadvantaged communities and discrimination on the basis of race, color and national origin. Nothing in the proposed rules discriminates against economically disadvantaged communities or individuals based on race, color or national origin.

Trading involves the generation and use of credits on a watershed basis. Communities where trading occurs will benefit from improved water quality and receive economic compensation for the credits that are generated by sources that are located in them. This would improve, not worsen, environmental and economic conditions in these communities.

The proposed rules include a number of factors that apply statewide to ensure that water quality standards are not violated and that each trade results in a net loading reduction. Most trading under the proposed rules will be for nutrients - total phosphorus and total nitrogen. Toxic and adverse health effects will not result from increased discharges of phosphorus and nitrogen. The proposed rules establish requirements for each discharge increase to be offset by reductions from within the same watershed. Demonstration projects and other trading programs across the country have shown that most trading involves sources within the same community.

Federal NPDES permits must be obtained by every point source before it participates in trading. Revisions to the proposed rules are being made to provide greater opportunity for public access to information on individual trades and provide input at the time these permits are issued. The department considers impacts to individuals and economically disadvantaged communities during the review, public notice and comment period and issuance of NPDES permits. Revising the rules to establish general or specific conditions that will apply if trading occurs will allow citizens the opportunity to evaluate proposed trades before the permits issue. In this way EPA Title VI requirements will be applied to trading.

It is also important to note that the proposed rules require the department to conduct periodic evaluations of the program. Water quality monitoring, trends and impacts on the generation and use of credits will be conducted by pollutant for each watershed where trading occurs. Citizens will be given an opportunity to review and make recommendations for program revisions each time an evaluation is conducted. This provision of the proposed rules provides another opportunity for public oversight and input on the program.

For these reasons, the department believes that the proposed rules adequately address this issue.

4. CW feels that trading should have the ultimate goal of eliminating the pollutant for which the trade is being proposed. CW believes that trading may actually be a disincentive for eliminating pollutants if a source can sell credits for just making reductions, not eliminating the pollutant. CW asked for an explanation of how the proposed rules address the concern that sources can generate credits by reducing discharges but will not "reward" a source for a pollutant that no longer exists.

CW states that the proposed rules should require each trading proposal to include a pollution elimination plan that sets forth short and long term plans and schedules for elimination of pollutants traded.

**Response:** One of the primary goals of the CWA is to eliminate the discharge of pollutants into navigable waters by 1985. Congress recognized the difficulties of achieving "zero discharge". It established an interim goal of water quality that provides for the protection and propagation of aquatic life and provides recreation. Trading is consistent with the interim goals of achieving and maintaining water quality standards and designated uses established under the provisions of the CWA.

The CWA embodies several key features that are designed to meet the goals of the act. Technology requirements controlling point source pollution have been established. Antidegradation requires point sources to maintain levels of pollution control achieved in practice based on the application of technology requirements. Each state is required to inventory and list impaired waters and implement TMDLs to restore designated uses. Existing water quality is required to be maintained under antidegradation policy. Public participation is built into environmental decision making to provide input and oversight.

This is the fabric from which existing water pollution control programs have been tailored.

Trading is supplemental to existing regulatory pollution control programs. It is not a replacement for them. Establishing requirements for individual trades or a voluntary program that have not been achieved under existing federal and state regulations is unrealistic and would result in a trading program that is not practical. Sources, citizens and the department do not have the resources needed to design "zero discharge" trading implementation plans.

The department acknowledges and supports the fundamental principal that trading should not be used to avoid achieving "zero discharge". The proposed provide economic incentives for sources to install controls and implement management practices beyond what is required under existing regulatory programs. This will generate and make information available that can be considered in setting future technology requirements.

The economic feasibility of implementing technology requirements is considered when making permit decisions and developing regulations. Trading can mitigate the economic impacts of more protective technology-based requirements by capitalizing on economies of scale and cost differentials between sources. Including trading provisions in future technology requirements will drive innovative pollution control equipment, techniques, pollution prevention programs and management practices.

The proposed rules are fully consistent with the interim goals of the CWA and state water quality standards. Each trade will result in a net loading reduction greater than reductions required by law. This will achieve progress towards elimination of discharges of pollution. Nothing in the rules provides an incentive for continued pollution. The greater the reduction, the more credits generated. Nothing in the proposed rules prohibits or diminishes the quantity of credits that can be earned by total elimination of a discharge.

The department does not agree with the recommendation to require short and long-term elimination plans and schedules into the proposed rules or to require sources to do so before voluntary reductions can be made.

5. CW states that enforcement is key to making the trading program. CW comments that there have been significant problems with enforcing point source NPDES permit standards. CW recommends that there must be enforceable provisions for every trade that include incorporation of nonpoint source controls into point source NPDES permits.

**Response:** The department agrees that enforcement is key to a successful program. The integrity of existing regulatory programs and water quality trading must be based on clear legal authority to hold point sources and NPS accountable for the generation and use of credits. Without enforcement the credibility of the trading program will be

undermined and the environmental and economic benefits that trading has to offer will not be realized.

The issue of establishing NPS accountability for a voluntary trading program in the absence federal and state NPS regulations was considered extensively in drafting the proposed rules. Trading projects and various programs across the country were studied. Regulations were analyzed. Input from point and nonpoint stakeholders was solicited and evaluated. Lessons learned from the Kalamazoo Project had a powerful influence. The information obtained from these sources was considered by the Water Quality Trading Workgroup in making the recommendation to establish direct accountability for NPS and to have dual liability/treble damage provisions that hold NPDES permit holders and NPS accountable for each trade. The enforcement provisions in the proposed rules are based on the following points:

- The need for clear legal authority.
- Experience showing that incorporating NPS requirements in NPDES permit results in significant delay and significantly increased transaction and administrative costs.
- Point sources and NPSs in Michigan do not support making the point sources responsible for other point source or NPS requirements.
- Establishing interagency partnerships allows trading to leverage the resources of traditional agricultural programs to encourage participation, provide technical assistance in documenting baselines and quantification of NPS reductions and verifying proper implementation and maintenance of management practices that are implemented to generate credits.
- Administrative, civil, and criminal enforcement actions for violations of rules can be taken without first having to go through a contested case proceeding for actions to amend, suspend, or revoke an NPDES permit. This approach allows the department to seek injunctive relief and corrective action that is not available in contested cases.

These are the primary reasons that the proposed rules do not require NPS requirements to be included in NPDES permits. The proposed rules establish strict dual liability for each point source and NPS trade (proposed Rule 24(1)). A point source or a NPS that generates "insufficient" credits that are used by another source is subject to "treble damages" (proposed Rule 24(3)). If the department takes an enforcement action as provided under the act (Part 31 of Act 451) and rules, the burden of proving that reductions are real, surplus, quantifiable and sufficient is on the person or source that generates the credits. A person or source that uses credits would have the burden of proving "due diligence" to comply with all applicable discharge standards and limitations and the trading requirements in the proposed rules (proposed Rule 24(5)).

There is broad support for the direct dual liability approach in the proposed rules. It applies traditional enforcement tools and the forces of the market on both ends of each trade. The department believes that this will result in generators of credits being conservative in the quantity of credits that they register. Users of credits will have

incentives to obtain credits from more than one source and to obtain a greater quantity of credits than needed to meet a discharge limitation. Together this will provide an even greater water quality benefit.

The proposed rules to not require trading partners to enter contracts but this is likely to occur. Performance contracts between generators and users of credits will provide equally strong incentives for NPSs to properly implement and maintain controls and management measures implemented to generate credits.

The CWA has provisions for citizens to initiate enforcement actions against point sources for NPDES permit violations. Part 31 of Act 451 does not have citizen suit provisions. The provision for citizen petitions (proposed Rule 25) was added to the proposed rules at the recommendation of the director. This provides a mechanism for citizens to seek relief against the department for failure to perform non-discretionary elements of the program and for failure to enforce violations of the trading rules.

The department believes that the proposed rules, in conjunction with the administrative, civil and criminal sanctions established under Part 31 of Act 451, establish clear legal authority and citizen oversight necessary for the success of the program.

6. CW states that monitoring must be a key component of every trade. CW believes that an expanded, independent and reliable monitoring program must be put in place before trading occurs. CW recommends that each trade should have a detailed water quality monitoring plan and that baselines and reductions be demonstrated by monitoring data. CW also recommends that periodic monitoring reports be submitted on a monthly basis at a minimum and that the department conducts an adequate monitoring program to assess the program.

**Response:** The department agrees that monitoring should be conducted to evaluate the program. Proposed Rule 23 (1)(b) specifically requires the department to conduct ambient monitoring to quantify actual NPS reductions and assess water quality where trading occurs.

The department does not agree that a water quality monitoring plan and monitoring to demonstrate baselines and reductions should be required for every trade. The rules require the use of the most accurate, representative and reliable ... information, flow and monitoring data ... and records that are available (Rule 10(1)). The proposed rules (Rule 13(7)) require monitoring data to be used in determining the baseline for unpermitted sources of stormwater, if required by an applicable requirement, or where it is available. The baseline for agricultural NPS must be established under a plan prepared a certified planner under the USDA NRCS (Rule 14(2)). This plan will document existing operations and management practices and calculate baseline loadings by using methods and procedures set forth in the rules (Rule 14 (4)). The methods that are required to be used have been demonstrated in practice at many locations across the county, in Michigan and are used by the department to approve NPS projects funded under Section 319 of the CWA.

The requirements for an NPS to generate credits under the proposed rules are performance based. This approach makes compliance determinations, particularly for agricultural sources, much more straightforward. Site visits can readily determine whether management practices have been properly implemented and are being maintained. The public can also "see" and "report" whether this is being done.

The use of performance based approaches to verification of NPS loading reductions reduces the cost of implementation. It also avoids "second guessing" and "taking" issues. Many NPSs do not have the expertise, equipment and experience needed to conduct monitoring.

The proposed rules require the department to conduct monitoring for these reasons.

7. CW believes that the trading ratios (1.1:1 for point sources and 2:1 for NPS) are inadequate. CW recommends using ratios as high as 7:1 to 10:1 for point/nonpoint source trades as suggested by EPA during reviews of earlier versions of the proposed rules.

**Response:** The department believes that the water quality contributions ("trading ratios") proposed in the rules for point and NPS are adequate. The proposed rules contain many features that taken together substantially reduce the uncertainty of NPS reductions. Many of these have been discussed above. They include the features listed in the department's response to General Comment Number 1 as well as the following:

- Quantification protocols established in the rules.
- Certified planning requirements for agriculture.
- Mandatory program evaluations, including monitoring, that must be conducted by the department.
- Periodic program revisions if necessary.

CW Specific Comments:

1. Rule 5(3) prohibits the trading of BCC with the exception of trading under a RAP or LaMP designed to achieve virtual elimination. CW recommends that this narrow exception be eliminated and that BCC trading be banned entirely.

**Response:** The department agrees that the trading of BCC should not be allowed unless trading can lower the cost and achieve voluntary reductions of BCC before final compliance dates that may be established under future federal or state regulations. (Also see the response to NWF (Negative Features) Comment Number 6.)

2. Rule 6(5) prohibits trading by sources in violation of monitoring, record keeping or reporting requirements related to a pollutant for which a discharge or load reduction (credit) has been made. CW recommends that sources with a history of violations,

regardless of which pollutant is involved, should not be allowed to participate in trading. Specifically, it is recommended that the phrase "applicable to the specific pollutant for which the discharge or load reduction has been made" be deleted from Rule 6(5).

**Response:** The department does not agree with the recommendation that all sources with a history of violations should be banned from trading. Federal and state water quality regulations provide independent authority for enforcement. Sources in violation of federal and state regulations, including trading, are subject to administrative actions, civil fines and injunctive relief and criminal sanctions. Trading should be used to facilitate compliance. Sources that meet all the applicable requirements in the proposed rules should not be banned because of past problems.

The department also feels that "bad actors" would have credibility problems trying to trade under the proposed rules. The enhanced enforcement provisions (Rule 24) provide very strong incentives for sources that generate and use credits to comply with all existing regulations that underlie the trading program as well as the trading requirements in the proposed rules.

For these reasons, the department does not feel that it is necessary to make the change recommended for Rule 6(5).

3. Rule 6(6) establishes a 5-year sunset period for agricultural operations to generate credits by implementing management practices or installing controls absent any applicable requirement. CW believes that this period is too long to allow financial credit for NPS to do something that "they should be doing anyway." CW recommends a shorter sunset period of 1 to 3 years.

**Response:** There is broad support for the 5-year sunset period in the proposed rules. Longer (10-year design life) and shorter periods (1 to 3 years) were considered by the Water Quality Trading Workgroup. A 5-year period was recommended given the lack of NPS regulations and the desire to provide financial incentives for agricultural operations to make sustainable long-term changes that improve water quality. If federal or state NPS regulations are enacted or promulgated, TMDLs are developed or watershed management plans are approved, the baseline for agricultural operations would become the level of reduction required (Rule 14(1)(b), (c) and (d)).

For these reasons, the department believes the 5-year sunset period is appropriate.

4. CW commented that all trades should be approved by the department before trading occurs and recommends that the rules be revised to make this a requirement. CW objects to cross-pollutant trading and recommends that this be deleted from the rule.

**Response:** The department agrees that all trading activity and trades should be reviewed by the department. The proposed rules establish requirements and a process for this to occur (proposed Rules 18 and 19). Revisions being made in response to comments from EPA and NWF will clarify and strengthen the departments authority for

reviewing proposed generations and uses of credits (See discussion in response to EPA Comments Number 1,3 and 4). NPDES permits are required for all point sources that engage in trading.

The department believes that cross-pollutant trading is appropriate and should be retained in the proposed rules for the reasons given in response to NWF (Comment 2.g.).

5. Rules 9(5) and 22(f) require sources that engage in other types of trades to either "demonstrate that the social or economic development and benefits ... would be foregone if the use of credits is not allowed ... or "show that the use of credits does not constitute a lowering of water quality." CW recommends that both be required and that both rules should replace the word "either" with the word "both".

**Response:** The wording in the proposed Rules 9(5) and 22(f) was incorporated into the rules to be consistent with the antidegradation policy established under R 323.1098(8)(k) of Michigan's Water Quality Standards. Making the change recommended by CW would be inconsistent with existing regulations. Trading in accordance with rules promulgated by the department that require simultaneous (contemporaneous) enforceable decreases in loadings ... such that there is no net increase ... is required under the proposed rules.

Establishing a duplicative and unnecessary requirement for trading would create barriers to participation and increase administrative and transaction costs without any additional water quality benefit.

The department believes that the rules as proposed are appropriate for these reasons.

6. CW points out that the EPA has commented that NPS credits should not be allowed until CZARA management measures have been fully implemented.

CW requests that the rules be revised to require such.

**Response:** The department does not agree for the reasons discussed in response to EPA Comment 2.I.

7. Rules 18(4) and 19(3). CW believes that these proposed rules are unclear as to what is meant by "completeness review". CW states that the department must take all precautions and steps to determine if notices are complete; and that the information is technically sound, factual and that credits are real, surplus and quantifiable."

**Response:** The department agrees that the term "completeness determination" should be made clearer. The rules as proposed require the department to review each proposed notice of generation and use of credits as to "completeness." This completeness determination was intended to include administrative completeness and give the department authority to require information needed to demonstrate that a given

generation or use of credits is consistent with water quality standards and all other requirements in the proposed rules.

The department has revised proposed Rules 18(4) and 19(3) in response to EPA, NWF and CW comments. The specific changes that are being made to address this issue are presented in the response to EPA Comment 2.c.

8. Rule 18(6) provides that approval of a notice by the department constitutes a "permit modification by rule... for the period specified in the notice." This would allow the source to go back to previously elevated levels of discharge after demonstrating the technical ability to reduce the discharge. CW believes that this is unacceptable. Once a source has proven the ability to reduce the discharge, CW believes it should be required to maintain the lower level of discharge permanently. CW requests that the rule be revised to read in part: "constitutes a permanent permit modification by rule."

**Response:** The Water Quality Trading Workgroup and the department considered this issue during development of the proposed rules.

Federal antibacksliding requirements apply to technology-based requirements. Water quality trading is based on water quality standards and discharge limitations, not federal technology-based discharge limitations or requirements. Federal antidegradation policy (Section 402(o)(1)) of the CWA provides that in cases where water quality-based effluent limitations are established under Section 301(b)(1)(C) or Section 303(d) a permit can not be reissued to contain less stringent requirements except as allowed under Section 303(d)(4). Section 303(d)(4) requires that antidegradation requirements be met where water quality standards are being met. TMDLs must be established where waters are impaired. The proposed rules incorporate and are consistent with federal antidegradation policy and state water quality standards. Therefore, department believes that the proposed rules are consistent with federal antidegradation regulations standards as described above.

The proposed rules do not allow sources to generate credits by a relaxation of an effluent limit or by temporarily increasing a discharge or loading to establish an inflated baseline. For point source, the baseline is established based on the lowest of actual discharge levels or those that are allocated under a TMDL. In this way a source must make a reduction greater than that achieved in practice. This prevents backsliding to generate credits and more importantly, maintains the margin of safety that sources have achieved in practice.

The department believes that the proposed rules appropriately allow voluntary reductions to be discontinued after the dates specified in a notice of generation. Applying the federal antibacksliding requirement to trading would discourage use of the program and reduce water quality benefits.

9. Rules 18(8) and 19(9) require NPSs to file an annual report. CW recommends that NPS reporting requirements be as stringent as those for point sources and that there

should be a vigorous inspection and compliance program. CW specifically recommends that the rules be revised to require monthly NPS reporting.

**Response:** The department agrees that NPSs should be required to submit regular reports so that compliance can be determined and inspections conducted to verify compliance. The department believes that quarterly reporting is adequate for sources that are not regulated by permit. The department is revising proposed Rules 18(8) and 19(9) to require quarterly reports and information that is required for NPSs that are approved for funding under Section 319 of the CWA.

Proposed Rule 18(7) has been renumbered as 19(7) and revised to read in pertinent part as follows:

"For nonpoint sources, ~~an annual~~ a **quarterly** report shall be submitted to the department on a form provided by the department. **The reports shall include the following information:**

- a) **The name and location of the source.**
- b) **The pollutants controlled.**
- c) **The control devices installed or management practices implemented and dates completed.**
- d) **The lineal feet or acres for which controls and management practices have been installed or implemented.**
- e) **A calculation of the quantity of each pollutant controlled using the same methods and procedures used to determine the baseline and reduced loading level.**

10. Rule 20 requires the department to make information in the water quality trading registry available to the public through an electronic bulletin board. CW believes this is discriminatory to those who do not have a computer and access to the Internet, particularly those who are economically disadvantaged. CW recommends that the department make this information available by public notice in local newspapers and "hard copies" that are locally available. CW requests the department to revise the rules to provide for a more complete availability of trading information to citizens.

**Response:** The department does not agree with this recommendation. The water quality trading registry and electronic bulletin board are supplemental to the administrative requirements for NPDES permits. The department is revising the proposed rules to provide greater public access to information and opportunity for participation. The revisions that are being made to Rule 7(2) and proposed Rule 9 provide an opportunity for public notice, comment and hearing for all point source permits that authorize trading to occur.

The information in the water quality trading registry that the department must provide through the electronic bulletin board can also be obtained upon request under the Freedom of Information Act. Public access to the electronic bulletin board is available in

many public libraries and district field offices. "Hard copies" of information contained in the department's files may be obtained upon request.

The water quality trading registry provides greater access to information than is currently available and is supplemental to the requirements for public participation under the federal regulations. Nothing in the proposed rules is intended to discriminate against any sector of the public. Citizens that do not have a computer with Internet access can obtain the information contained in the registry in traditional ways.

11. Rule 23(b) requires the department to conduct ambient monitoring to determine the effectiveness of the overall program, statewide 3 years after its effect and every 5 years thereafter on a watershed basis. CW believes this is wholly inadequate. CW believes at a minimum that annual monitoring should be conducted along with nonscheduled compliance monitoring and inspections. CW requests that the proposed rules be revised to include a more rigorous monitoring scheme.

**Response:** The proposed rules require the department to conduct program evaluations, which includes ambient monitoring, 3 years after the program takes effect statewide and every 5 years thereafter on a watershed basis that coincides with the 5 year permit and ambient monitoring cycles. The purpose of these program evaluation is evaluate the program and obtain information that can be used to make revisions to the regulations and procedures the department uses to implement the program. The ambient monitoring that is required as part of the program evaluations is supplemental to the ambient monitoring that the department conducts to assess water quality, document trends and identify impaired waters for which TMDLs must be developed.

The department will conduct site visits, compliance inspections and may perform ambient monitoring at specific locations to ensure that the use of credits does not result in adverse local impacts, in addition to conducting the program evaluations. The department will also work cooperatively with local soil conservation district offices, the USDA NRCS and department of agriculture to verify that agricultural NPS management practices are properly installed, implemented and maintained for the period of time that credits are being generated.

The department believes that conducting ambient monitoring at selected locations and as part of program evaluations is adequate.

12. CW comments that there are no provisions in the rule that indicate the steps that the department is going to take to determine compliance with the program. CW asked that the proposed rules be revised to indicate the compliance tools the department will use and provide assurances that adequate funding will be available for compliance and enforcement.

**Response:** The proposed rules do specify what compliance and enforcement tools the department will use to ensure that the water quality trading program rules are complied with. Authority to determine compliance and take enforcement action is provided in Part

31 of Act 451. The proposed rules do specify that NPDES permits and monthly monitoring will be required for point sources. The proposed rules are being revised to require NPS credit generators to submit quarterly monitoring reports. Point source compliance reviews and district field staff will conduct inspections. NPS site visits will be conducted by certified planners and local conservation district staff. The department of agriculture may also conduct inspections. The department may conduct routine NPS inspections to verify that controls are installed and management measures are implemented and maintained. The department will also respond to citizen complaints.

Traditional compliance and enforcement tools will be used to implement the trading program. The proposed rules establish some additional requirements for NPSs that participate. For these reasons the department does not believe that the rules need to be revised.

One of the primary reasons for conducting the mandatory program evaluations is to obtain information that can be used to support permanent funding for the program. The resources needed to implement the program will depend on the types and number of trades that occur, the sources that participate, the permit and technical reviews that must be conducted, the development and maintenance of the trading registry/electronic bulletin board, conducting program evaluations and reviewing notices for the generation and use of credits.

The department expects to establish a permanent funding source based on the information obtained from the first program evaluation that is conducted 3 years after the program takes effect. Until that time the department will continue to seek grant funds and implement the program with existing resources.

13. Rule 25 allows citizens to petition the department to initiate enforcement action against a source for violations of the trading rules. The rules require the department to provide a copy of the petition to the person or sources named in the petition. CW recommends that the proposed rules be revised to withhold the name of the petitioner from the person or sources named in the petition.

**Response:** The citizen petition provision in proposed Rule 25 is intended to establish a process for the public to ensure that the department fulfills its non-discretionary duties and that proper enforcement actions are taken for sources that violate the requirements of the rules. An aggrieved person may file a petition for a contested case hearing if the department fails to respond or the person believes the department has failed to perform non-discretionary duties or take appropriate enforcement action for sources in violation of the rules. The department believes that it is appropriate for the name of the petitioner to be available to those against those named in the petition.

## E. Michigan Environmental Council (Commentor #5)

The Michigan Environmental Council (MEC) opposes the proposed program. MEC believes it is based on flawed economic assumptions and provides too much benefit to polluters at the expense of taxpayers and water quality.

### 1. General Comments

Flawed Economic Basis - MEC commented that the basis for the program is severely flawed because it allows a person or company to generate a credit that represents a "license to pollute". MEC would only support a water pollution trading program under strict guidelines based on the following:

A. The state recognizes the original permit to discharge (license to pollute) as a commodity sold by the state to the polluters in the first place. The proposed rules recognize the value of credits and polluters should purchase the original credits, the state should not simply give them away.

At the same time the department is proposing the water quality trading program, it is asking the taxpayers to authorize bond money to pay staff costs to monitor water quality. MEC believes that it is time to make polluters pay, not the taxpayers.

**Response:** The proposed trading program is not based on a right or license to pollute. Pollution is illegal. NPDES permits that allow a discharge of pollutants in violation of water quality standards and designated uses are prohibited. Trading is a watershed approach to allocating the use of water resources, similar to NPDES permits. Any trading activity that would constitute a right or "license to pollute" would also be illegal. The proposed rules prohibit the use of credits that would cause a violation of water quality standards.

There are several different types of market-based environmental programs, including: marketable permits, effluent trading and fees and taxes. Marketable permit programs allow a source to sell a right to discharge to another source. The proposed rules do not. Effluent trading programs allow reductions at one source to be used by another source. This is typically done by both sources obtaining NPDES permit modifications, one for the generation of credits at lower discharge effluent limitations, the other for use of credits at a higher discharge level. Effluent trading merely involves an exchange between sources with no net discharge reduction.

The proposed water quality trading program is different from each of these programs. It is called water quality trading because reductions greater than required by permit or regulation must be made to generate a credit. Pollutant reductions are traded not pollution. Unlike other programs, a percentage of each credit traded is retired to provide a net water quality benefit. Prohibitions, restrictions, discount factors and other provisions in the proposed rules ensure that trading will not result in "pollution."

The point sources and NPSs that generate credits pay to make the discharge and load reductions, not the taxpayer. The sources that generate credits must also bear the cost of proper operation and maintenance, not the public.

The proposed trading program is not supported by federal grants or state appropriated "bond money." NPS reductions which result from implementation of projects or programs funded by Act 288 of the Public Acts of 1998 and section 319 of the federal CWA are not eligible to generate credits under the proposed rules (Rule 6(9)). Public funds cannot be traded for private gain.

The economic feasibility and basis for the proposed trading program is based on case studies of other state programs, demonstration projects and modeling in the Saginaw River Basin conducted by the World Resources Institute (WRI).

The department believes the proposed trading program is economically sound and in keeping with good public policy.

B. MEC believes that the program should be based on a system where contributors to water pollution problems incorporate basic pollution prevention before being allowed to trade reductions to other facilities.

It is MEC's position that the Michigan Environmental Protection Act (MEPA) requires all polluters to engage in pollution prevention. MEPA prohibits the generation of pollution that destroys or impairs natural resources if a feasible and prudent alternative exists. MEC believes the proposed trading program substitutes the duty of polluters to reduce pollution into a property right they can sell.

**Response:** The department agrees that everyone should share in improving water quality. The proposed trading rules establish economic incentives for point sources and NPSs to invest capital to install pollution control equipment and implement pollution prevention programs and management practices to reduce pollutant loadings. Each source must earn its own credits. They are not given away by permit. However, permits are required by law and must be obtained before point sources can participate in trading. The proposed trading program will encourage regulated and unregulated sources to install controls and implement programs that improve water quality.

The department believes that the proposed rules will result in voluntary programs being implemented by point sources and NPSs that reduce discharge and loading levels, respectively.

Trading does not constitute an activity that is likely to cause impairment, pollution or destruction of the natural resources. The department agrees that this is prohibited under MEPA. Voluntary reductions greater than required by law is consistent with MEPA and constitutes environmentally and economically sound public policy.

C. MEC believes that trading should only be allowed on water bodies that have a TMDL established. Any such programs should be designed to reduce discharges to achieve or exceed what is necessary.

MEC believes that Michigan is years behind in establishing TMDLs for impaired waters and that more focus should be placed on this rather than trading. MEC states that trading can delay reductions by "allowing one persons reductions to be added to another person's discharge." The retirement (proposed water quality contributions) are arbitrary if the overall reductions needed are not known.

**Response:** The department does not agree that trading should only be allowed on water bodies for which a TMDL has been established. This would require the state to develop a TMDL of waters that are currently meeting water quality standards and for which existing uses are being met.

The proposed rules are intended to facilitate the development and implementation of TMDLs for impaired waters (Rule 2(1)(c)). Nothing in the proposed rules is intended to obviate the need for, or delay the development and implementation of, TMDLs required under Section 303(d) of the CWA.

The department believes that pre-TMDL trading in impaired waters is appropriate for the reasons stated in response to EPA Comment 2.h. and NWF Comment 2.a. Pre-TMDL trading under the proposed rules will achieve net loading reductions and water quality improvements early. Each trade will result in progress towards attainment. Progress should not be held in abeyance TMDLs can be developed.

D. MEC states that Michigan's water quality monitoring program is suffering from 10 years of neglect. MEC believes the proper foundation does not exist upon which to measure compliance or improvements in water quality.

**Response:** The department agrees that monitoring is critical to ensuring that actual reductions are achieved and that water quality is improved. The proposed rules require additional monitoring as part of the mandatory program evaluations required under Rule 23. The program evaluations supplement monitoring and reporting requirements that the department may establish for individual sources that participate in the program. Point sources may be required to conduct ambient monitoring downstream of locations where credits are used to ensure that adverse localized impacts do not result from credit use.

Monitoring and program evaluations conducted for trading are also supplemental to existing ambient monitoring conducted by the department. They will be conducted on a watershed basis to coincide with ambient monitoring and permit cycles. This will ensure that that generation and use of credits can be assessed in conjunction with studies to identify impaired waters and develop water quality based effluent limitations for NPDES permits.

The department believes that existing programs and the additional monitoring required under the proposed rules is adequate to verify compliance and ensure that trading is consistent with water quality standards and NPDES permit requirements.

## 2. Specific Comments

A. Methods of generating credits - It is unclear how some of the proposed methods for generating credits would work, especially: implementation of pollution prevention and energy conservation programs.

**Response:** Pollution prevention and energy conservation programs would be able to generate credits where a point source discharge or NPS loading is reduced. For these types of programs to generate credits the following requirements would have to be met:

1. The programs must be implemented after the effective date of the rules.
2. The programs must result in surplus reductions beyond those required by any applicable requirement (federal regulation, permit and state rules).
3. The baseline for determining the quantity of credits generated must be based on a 3 year period prior to implementation that is representative of historical operations (other timeframes could be used if first approved by the department).
4. The baseline, reduced discharge or loading level and credits must be calculated using the procedures set forth in the rules.

Some examples of a pollution prevention program are source reductions, reuse or recycling that result from equipment modifications, raw material substitutions, process changes or changes in management practices (housekeeping and inventory control). Energy conservation programs could include reductions in water use, especially for biological pollution control facilities.

B. Manure runoff practices - MEC comments that animal feeding operations should be required to implement proper manure management practices and obtain NPDES permits.

**Response:** The proposed rules define the term "point source" (Rule 1(cc)(ix)) to include concentrated animal feeding operations. Point sources must obtain an NPDES permit to engage in the program (Rule 5(5), as revised). Rule 6(6) provides a window with a 5-year sunset for agricultural sources to generate credits by implementing practices that eliminate or reduce manure or runoff containing manure or other animal wastes. This provision is expressly intended to provide an incentive for agricultural sources to make voluntary reductions that will improve water quality in the near future.

C. Retirement of credits - MEC commented that the "10% retirement" should be increased to offset uncertainties in measuring results and to provide a greater water quality benefit.

**Response:** The proposed rules require 10% of the point source reductions (proposed Rule 15(1)) and 50% of the NPS reductions (proposed Rule 15(2)) to be retired to address uncertainty and achieve a net water quality benefit. Proposed Rules 16(1) and (2), respectively, establish additional 10% discount factors to address impoundments and the use of credits in impaired waters for which a TMDL has not yet been developed. Discount factors different than those specified in proposed Rules 16(1) and (2) may be established where necessary to achieve and maintain water quality standards. The 1.1:1 and 2:1 trading ratios in Rule 15 apply to all trades. Taken together, the proposed rules establish minimum trading ratios and discount factors, with provisions for higher ones to address site specific conditions and uncertainties associated with effectiveness and quantification.

#### F. Michigan Pulp and Paper Environmental Council (Commentor #6)

The MPPEC believes that trading is an important tool for achieving water quality standards and that all feasible tools must be considered to control water quality in non-attainment areas. The MPPEC believes that "new performance driven, economically minded tools, regulatory flexibility, creative thinking and ways of allowing citizens and companies to be involved ... is another way we can insure a strong future..." MPPEC submitted general and specific comments on the proposed rules.

##### 1. General Comments:

- MPPEC supports the spirit and intent of the trading goals in the proposed rules.
- A more defined framework is needed to help agriculture and other NPSs participate voluntarily. An outreach campaign is needed to make sure these groups are included. TMDL implementation is difficult. Tools for getting stakeholders are needed.
- Market-based methods are strongly indicated in many cases and should be preferred where appropriate. It makes sense to tie pollutant control with market forces. Trading can help control the massive cost of pollution control and achieve actual reductions.
- Permits should not be required for all trades. MPPEC believes this will be time consuming and very expensive. Nonpoint source requirements should not be placed into point source permits. A market-based system with monitoring and contracts will ensure water quality is met.
- Pilot projects have shown that prior agency approvals and permits increase the administrative and transaction costs that deter market performance and are not needed. The Rahr Malting trade in Minnesota was cited as an example.

**Response:** The department agrees with the MPPEC's general comments. No rule changes are needed to respond to these comments.

## 2. Specific Comments:

The rules incorporate important findings and lessons learned through the Kalamazoo Demonstration Project that several MPPEC paper companies participated in. They see the following as especially worthy of note:

- Interagency cooperation and accountability through USDA NRCS certified planners and integration with traditional conservation tools as the baseline for agriculture.
- A 2:1 (NPS/PS) trading ratio.
- Application of discount factors as appropriate.
- Recognition that the trading framework must be flexible to encourage wide nonpoint source participation, especially considering watershed-specific differences, varying community needs and diverse water quality issues and solutions.
- Adoption of standardized protocols for determining baselines, loading reductions and credit computation.
- Provision for open voluntary trading outside of a TMDL or watershed cap to provide communities and business flexibility needed to remain locally competitive without sacrificing water quality.

**Response:** The department appreciates MPPEC's support for the foregoing provisions of the proposed rules. The department would like to clarify that support for pre-TMDL trading in impaired waters should not be construed to obviate the need to develop and implement TMDLs for all areas that are impaired and listed under Section 303(d) of the CWA. The department agrees that open voluntary trading in waters for which standards and existing uses are being met is important to offset growth and maintain high water quality and to reduce the cost of improving water quality.

The MPPEC supports the Kalamazoo Project steering committee recommendations on the proposed rules and the process of program implementation. These are separated into comments on the Rules and Process.

## 3. Rules:

- Adding streambank erosion control projects as valid NPS method for making load reductions to generate credits in Rule 6.
- Adding specific protocols to quantify streambank erosion controls to Rule 13. (MPPEC recommends the same protocols and language recommended by the Kalamazoo Project Steering Committee).
- Adding a provision for Kalamazoo Project NPS to be eligible "to participate in water quality trading to the extent that those projects are both fully implemented and maintained" under Rule 6. (MPPEC recommends the same language recommended by the Kalamazoo Project Steering Committee).

**Response:** The department agrees with the recommendations to add streambank erosion control to the list of methods to generate credits and to add the suggested protocols for quantification of streambank erosion control baselines, reduced loading levels and credits. The department also agrees to add a provision to the proposed rules to allow sources that participated in the Kalamazoo Project to be eligible to generate credits within certain limitations.

The specific rule changes are set forth in Responses KPSC Comments 3.a., b. and c.

#### 4. Process:

- Permanent funding is needed for the program to succeed.
- Strong public education is needed.
- Prioritization should be developed for impaired watersheds where trading should be encouraged to occur first.
- Benefits (of trading) are available to both parties and should be clearly identified.
- Who communicates facts and benefits to agricultural NPS is critical.
- Workshops should be conducted.

**Response:** The department agrees with these recommendations and offers the same response as that given to the KPSC Comments 4.a.-f.

#### G. Michigan United Conservation Clubs (Commentor #7)

The Michigan United Conservation Clubs (MUCC) represents over 100,000 members and 500 affiliated clubs. MUCC sees water quality trading as an opportunity for achieving accelerated improvement of water quality throughout the state. MUCC comments are presented in three parts: The Good, The Problems and Conclusion.

##### 1. The Good Part of the Package

- Trading is allowed only within a designated watershed. This makes sense to protect and improve water quality and moves one step closer to managing on a watershed basis.
- Credit retirement ensures that water quality is improved by continually reducing total loading within a watershed.
- The eligibility requirements appear specific enough to ensure that reductions are achieved. Offering this flexibility is essential to ensure that the program functions effectively.

**Response:** The department appreciates MUCC's support for the watershed based approach to improving water quality and use of trading ratios to achieve a net loading reduction and water quality benefit from each trade.

## 2. The Problems

A. Reduction Ratios - The reduction ratios are an important part of ensuring that improvements in water quality occur. MUCC notes that NWF recommends a trading ratio of 2:1 at a minimum and recommends a range of 4:1 to 2:1. MUCC suggests revisiting the ratios and making them stronger.

**Response:** The department has considered MUCC's suggestion. The additional discount factors in proposed Rule 16 were added to address concerns raised by environmental groups and EPA. At a minimum, 50% of every NPS reduction must be retired to benefit water quality and an additional 10% discount factor will be applied to address impoundments and the use of credits in impaired water pending the development of a TMDL. These discount factors are additive to the minimum 2:1 trading ratio.

The department believes that the trading ratios and discount factors in the proposed rules are adequate to address uncertainty, site specific conditions and achieve a net water quality benefit.

B. Trading on impaired reaches that have not completed a TMDL - MUCC comments that TMDLs provide a framework for trading by setting the overall level or cap of pollutant and dividing responsibilities among all sources. MUCC believes that TMDLs should be a prerequisite for trading, however, the time it takes to develop them could delay trading. MUCC understands the department has put a priority on bringing TMDLs to completion and believe that this is vital to assess water quality improvement and well as for a successful trading program.

**Response:** The department agrees that TMDLs need to be completed for all impaired waters listed under Section 303(d) of the CWA. For the reasons provided in Response to EPA (Comment # 8) and NWF (Negative Features Comment # 1) the department believes that pre-TMDL trading in impaired waters is appropriate.

C. Monitoring - Monitoring is essential to determine current water quality and where improvements can be reached. The proposed rules will evaluate the program in 3 years and then every 5 years on a watershed cycle. MUCC will watch this to ensure that it is accurate and appropriate. If adequate monitoring at a site does not exist, MUCC states that trading should not occur.

**Response:** The department agrees that monitoring is necessary to evaluate the effectiveness of the program. The department does not believe that ambient monitoring at each NPS is necessary before trading can occur. A lot of information is available on the effectiveness of implementing various management practices to control NPS pollution. The use of certified planners to document the baseline and calculate loading reductions for agricultural operations in accordance with methods specified in the rules will also help ensure that the reductions claimed are actually achieved.

The department welcomes MUCC's and other environmental groups participation in the program evaluations and making revisions to the design element of the trading program on an iterative basis to ensure that NPS reductions are real, the use of credits does not adversely impact local water quality and that trading results in net water quality improvements.

D. Trading of Bioaccumulative Chemicals - MUCC supports the virtual elimination of BCC from air and water. BCC have different persistent and assimilative capacities in the environment. Mercury, PCBs, DDT and others can cause major harm to wildlife and fish populations as well as impair water quality. The proposed rules allow BCC trading within the context of LaMPs or a RAP where the goal is virtual elimination. This provision is a compromise reached with NWF, MUCC and the department.

MUCC still has major reservations about the trading of toxics, but understands the reasons for including it in the proposed rules. It is MUCC's understanding that this provision is only for extreme cases and will not be applied on a regular basis. If it becomes wide practice, MUCC will advocate repeal of this provision for a full ban on the trading of toxics.

**Response:** The department appreciates MUCC's guarded support for the ban on BCC trading. The narrow exception to the ban would only allow trading to achieve virtual elimination of BCCs under a LaMP or a RAP that has been approved by the department.

The department agrees that the proposed rules are not intended to be widely used for the trading of toxic substances. The opportunities for toxic trading are extremely limited and would be considered an "other type of trade" for which prior department approval is required before such trading could occur. Any trading that involves pollutants other than nutrients would be subject to public notice, comment and opportunity for hearing. Requirements for point source trading of pollutants other than nutrients would be incorporated into NPDES permits.

The department shares the concerns that "toxic trading" and will closely scrutinize any such trading activity.

E. Public Participation - MUCC commented that the public participation process established in the proposed rules is vastly different from other public participation avenues that currently exist. The requirement for the department to post proposed notices of credit use (proposed Rule 19(3)) within 3 days of receipt alleviates some concerns, but MUCC will monitor how the public voice is heard to ensure that public input is not minimized.

**Response:** The subrule being added to Rule 7(2) will provide greater opportunity for public input in trading. This change to the proposed rules will essentially require formal permit approval for every nutrient trade and set forth limits on the use of credits and other conditions determined appropriate by the department. Point source permit

reviews with full public participation are required for all other types of trades. The notices of generation and use, water quality trading registry with Internet access and GIS application combined with the traditional public notice, comment and opportunity for hearing assures that the public voice will be heard.

### 3. Conclusion

MUCC offers its support for the statewide water quality trading framework. This support is guarded and pending the results of the program evaluations that must be conducted by the department in the next 3 and then 5 year periods. MUCC believes the long-term impact is unclear. MUCC support is contingent on future demonstrated improvement in water quality based on a comprehensive and reliable monitoring strategy, completion of TMDLs and very limited trading of toxics.

**Response:** The department appreciates MUCC's support and active participation on the Governor's Steering Committee and Water Quality Trading Workgroup. Many features of the proposed rules that are considered positive by EPA and other environmental organizations were developed with input from MUCC. MUCC staff contributed objective critiques and offered positive solutions to address many of the difficult issues raised during development of the proposed rules. The department looks forward to working with MUCC and other environmental groups for successful implementation of the program.

### H. Office of Administrative Hearings

The Administrative Law Judge for the Office of Administrative Hearings (OAH) commented on the proposed citizen petition (Rule 25). The OAH objected to the proposed rules on the grounds that the provisions for a person to file a citizen petition were too broad and not well defined. Concerns were expressed about any person being able to file a petition regardless of whether they were aggrieved by a violation of the rules or the department's failure to exercise its non-discretionary duties under the rules. The OAH was also concerned that the proposed rules did not set forth the scope of review and authority of the administrative law judge.

The OAH also expressed concern with allowing a citizen who is not satisfied with an enforcement action taken by the department to file a petition for a contested case hearing. The department has authority to exercise discretion in taking enforcement actions under the Natural Resources and Environmental Protection Act (Act 451). Actions taken, fines and penalties imposed and settlements entered should not be subject of a contested case hearing.

**Response:** The proposed rules provided that any person may file a petition requesting the department to initiate an enforcement action to enjoin, abate or correct a violation of the rules. As used in the proposed rules a violation of the rules includes a failure by the department to conduct a program evaluation and ministerial duties established by the rules. The purpose of the citizen petition provision is to establish a process for public

participation to ensure that the trading program is enforced and that the department performs its ministerial duties.

Rule 26 has been rewritten in response to comments to provide greater clarification and consistency. Rule 26(1) has been revised to include "ministerial requirements established by the proposed rules". The words enjoin and abate have been deleted because the department does not have injunctive power. The rule has also been revised procedurally to have requests submitted to the department rather than the director. A two step process has been established. The first step involves the filing of a request with the department. If issues raised in the initial request are not resolved, an aggrieved person that submitted the request may subsequently file a petition for a contested case hearing. The word "request" has been substituted for the word "petition". Rule 26(1) has been revised to read:

"Any person may file with the department a written request for the department to perform a ministerial requirement established by this part or for the department to initiate enforcement action to correct a violation of this part. The request shall include all of the information specified in subrule (2) of this rule and shall be sent by certified mail. Within 10 business days of receiving a complete request, the department shall provide the person who submitted the request with a letter acknowledging receipt of the request and provide a copy of the request to the persons or sources named in the request. Within 30 calendar days of receipt of a complete request, the department shall have done one of the following:

Subrules 26(1)(a), (b) and (c) have been revised to read:

(a) Initiated the ministerial requirement referred to in the request or an enforcement action deemed appropriate by the department to correct the violation referred to in the request.

(b) Provided the person who submitted the request with a schedule for implementing the ministerial requirement referred to in the request or taking an enforcement action deemed appropriate by the department to correct the violation referred to in the request.

(c) Provided the person who submitted the request with a written explanation of why the ministerial requirement referred to in the request has not been performed or an enforcement action is not appropriate or has not been taken to correct the violation referred to in request.

Subrules 26(2)(b), (c) and (e) have been revised to read:

(b) A detailed description of the ministerial requirement the department allegedly failed to perform or the activity that constitutes the alleged violation of this part.

(c) A reference to the specific rules contained in this part that allegedly establish ministerial requirements for the department or that are allegedly being violated.

(e) The corrective measures believed to be appropriate to address the alleged violation or the departments alleged failure to perform the ministerial requirement referred to in the request.

These changes to subrules 26(1) and (2) have been made for clarification, consistency and readability.

The department agrees that only aggrieved persons should have standing to file a petition for a contested case hearing. However, the department believes that any person should be able to request the department to take enforcement action or perform its ministerial duties. The proposed rules have been revised to establish standing requirements for the filing of a petition for a contested case hearing. The provision for any person to request the department to perform its duties and take an enforcement action has been retained.

An aggrieved person who submits a request may file a petition for a contested case hearing if the department does not respond to the request in a timely manner, fails to perform ministerial requirements, or the person who submitted the request is not satisfied with the departments explanation why a ministerial requirement has not been performed or an enforcement action has not been taken. This approach provides greater opportunity for public input and for the department to respond in a timely manner without the need for a contested case hearing.

The department agrees that enforcement actions taken by the department and fines, penalties and settlements entered by the department should not be subject to a contested case hearing under the rules. Language has been added to subrule 26(3) accordingly.

Two revisions have been made to establish standing requirements for the filing of a petition for a contested case hearing. A new subrule 26(2)(f) has been added to establish the relationship of the person making a request to the alleged violation or department's failure to perform ministerial duties. The word "aggrieved" has been added in Rule 26(3). Language has also been added to Rule 26(3) to require that the initial request and the departments response be submitted with a petition for a contested case hearing.

New subrule 26(2)(f) reads: An explanation of how the person submitting the request is affected by the departments alleged failure to perform the ministerial requirement or the alleged violation referred to in the request.

Rule 26(3) has been revised to read:

If the department fails to provide a timely response to the person who filed the request under subrule (1) of this rule, fails to perform a ministerial requirement established by this part, or the person who files the request is not satisfied by the departments explanation why a ministerial requirement has not been performed or an enforcement action has not been taken, an aggrieved person may file with the department a petition for a contested case hearing in accordance with the provisions of the act or initiate a civil action in a court of competent jurisdiction as otherwise provided by law. The petition shall be submitted by certified mail and include a copy of the initial request filed with the department and the department's response. Enforcement actions taken by the

department, administrative orders issued, settlements entered and fines and penalties accepted by the department in its exercise of enforcement responsibilities under the act shall not be subject to review under the provisions of this part.

The department agrees that the scope of review and authority of the administrative law judge should be clarified. A new subrule 26(4) has been added in response to comments. It reads as follows:

"Once a proper petition for a contested case hearing on a request has been filed, the administrative law judge shall hold a contested case hearing. In the form of a proposal for decision to the director, the administrative law judge shall:

- (i) Make a finding of fact as to whether the department has failed to perform a ministerial requirement established by this part or a violation of the rules contained in this part has occurred.
- (ii) Make a conclusion of law as to whether there is a legal basis for the commencement of administrative, civil or criminal action under the act to correct a violation of the rules contained in this part.
- (iii) Make a recommendation to the department for performing a ministerial requirement established by this part or for the commencement of appropriate enforcement action under the act for a violation of the rules contained in this part.

The department believes these changes are responsive to the comment, consistent with the intent of the proposed rules, the provisions of the act and the recommendations of the Steering Committee and the workgroup.

#### IV. General Changes for Correctness, Clarity, Consistency and Readability.

Definitions. Rule 1(e) The words 'total phosphorus and total nitrogen' added and wording revised in the definition of banked credits.  
Rule 1(l) The words 'day, week, month, season' added to the definition of contemporaneous for clarification.

Purpose. Rule 2(c) Wording added to clarify that trading shall not obviate the need or delay the development of a TMDL for impaired waters.

Title. Rule 4 Typographical error correction.  
Rule 4(4) The words 'daily, weekly, monthly or (seasonal)' added for consistency with the definition of contemporaneous and the words 'in a stream or a lake with a retention time of less than 1 year' added to restrict the use of banked credits.

Prohibitions. Rule 5(5) Language added to clarify that point sources must obtain a permit to be eligible to participate in trading.

Rule 5(6) Language added to clarify that local pretreatment programs can allow trading to comply with federal technology requirements only where allowed by federal regulations.

New Rule 5(7) Language added to restrict the use of banked credits to comply with a 1 mg/l phosphorus limit or a water quality based limit for phosphorus in a lake or water body with a retention time of more than 1 year. These changes prohibit the use of banked credits to meet a daily, weekly, monthly or seasonal limit in a lake or water body with a retention time of less than 1 year.

Eligibility.

New Rule 6(2)(l) Language added to include the implementation of streambank controls.

New Rule 6(2)(m) Renumbered proposed Rule 6(2)(l).

New Rule 6(11) Language added to allow reductions made as part of a demonstration project before the effective date of the rules to be used after the effective date of the rules subject to the requirements set forth in subrules (a) - (e).

Title.

Rule 7 Reworded.

Rule 7(2) Language added to limit the use of nutrient credits to a 20% increase without triggering a formal permit modification.

Closed Trading.

Rule 8(2)(a) Correction - rule number change 323.3022 to 323.3023.

Other Types of Trades.

Rule 9(2) The word 'nutrient' replaced with the words 'total phosphorus and total nitrogen' for clarification and consistency.

Baseline for Point Sources.

Rule 11(1) The word 'allowed' was added to the baseline to allow point source trading to achieve the reductions required under a TMDL.

Rule 11(6) Referenced rule number changes 323.3018(1) to 323.3019(1) and 323.3015(1) to 323.3016(1).

Baseline for unpermitted NPS of stormwater.

Rule 13(5) Referenced rule number changes 323.3018(1) to 323.3019(1) and 323.3015(2) to 323.3016(2).

Baseline for agricultural NPS.

Rule 14(7) Referenced rule number changes 323.3018(1) to 323.3019(1) and 323.3015(2) to 323.3016(2).

New Baseline for streambank erosion.

Rule 15(1) to 15(6) New rules to establish the baseline for streambank erosion NPS.

Water Quality Contribution.

Rule 16 Renumbered proposed Rule 15.

Rule 16(3) Language added to clarify that the contributions are to be calculated in the same units and time periods during which they are made to be 'contemporaneous'.

Discount Factors.

Rule 17 Renumbered proposed Rule 16.

Rule 17(1) Referenced rule number change 323.3019 to 323.3020.

Rule 17(2) Referenced rule number change 323.3019 to 323.3020.

Rule 17(3) Correction 'subrules (1) and (2)'.

Credit Life.

Rule 18 Renumbered proposed Rule 17.

Rule 18(1) The word 'banked' was added for consistency and clarification. The last sentence of the rule was deleted and moved to new subrule (3) and the referenced rule number was changed from 323.3020 to 323.3021.

Rule 18(2) The term 'registered for use at a later time' was added for clarification and the last sentence was deleted and moved to new subrule (3).

New Rule 18(3) Last sentence from subrules (1) and (2).

Notification Requirement - Generation.

Rule 19 Renumbered proposed Rule 18.

Rule 19(2)(a) The words 'street', 'zip code', 'latitude and longitude', 'section, township and range' added to require point and nonpoint sources to provide information needed for electronic access and watershed identification.

Rule 19(2)(b) The word 'street' added for clarification.

Rule 19(4) Language changes to clarify that the department will review each notice for completeness and consistency. Wording changes were also made to eliminate redundancy.

Rule 19(5) The word 'notice' was changed to 'determination' for consistency.

Rule 19(7) The annual NPS reporting requirement was changed to quarterly.

New Rule 19(7)(a)-(e) These subrules were added to establish the reporting requirements for NPS. The requirements are the same as those used for nonpoint source projects funded under Section 319 of the CWA.

#### Notification Requirement - Use.

Rule 20 Renumbered proposed Rule 19.

Rule 20(1) The words "street," "zip code," "latitude and longitude," "section, township and range" added to require point and nonpoint sources to provide information needed for electronic access and watershed identification.

Rule 20(3) Language changes to clarify that the department's review of proposed credit use will include completeness and consistency with all applicable requirements established under the trading rules. The referenced rule was renumbered from 323.3020(2) to 323.3021(2).

Rule 20(4) Language was added to clarify that the department will not approve a proposed use of credits that would violate water quality standards.

Rule 20(7) The referenced rule was renumbered from 323.3018(1) to 323.3019(1).

Rule 20(8) The words 'the actual discharge or load reductions achieved by the source(s) that generate the (credits)' were added to clarify how compliance will be determined.

#### Water Quality Trading Registry.

Rule 21 Renumbered proposed Rule 20.

Rule 21(1)(c) The referenced rule was renumbered from 323.3015(1) to 323.3016(1).

Rule 21(2) The referenced rules were renumbered from 323.3018(2) to 323.3019(2) and 323.3019 to 323.3020(1).

#### Delineation of Watersheds.

Rule 22 Renumbered proposed Rule 21.

#### Watershed Management Plans.

Rule 23 Renumbered proposed Rule 22.

#### Program Evaluation.

Rule 24 Renumbered proposed Rule 23.

#### Compliance and Enforcement.

Rule 25 Renumbered proposed Rule 24.

#### Citizen Petition.

Rule 26 Renumbered proposed Rule 25.

Rule 26(1) The word "request" has been substituted for the word "petition." Language added to clarify that any person may request the department to perform its ministerial duties. The words "enjoin" and "abate" have been removed because the department does not have injunctive powers. The words "a program evaluation, other ministerial requirement established by

this part or an" have been added to subrules 26(1)(a), (b) and (c) for clarification and consistency.

Rule 26(2) The word "request" has been substituted for the word "petition." Subrules (2)(b), (c) and (e) have wording added for consistency to address the department's failure to perform a ministerial requirement. A new subrule (f) has been added to explain the relationship of the person making a request to the alleged violation or department's failure to perform ministerial duties.

Rule 26(3) The word "aggrieved" has been added to establish standing requirements for the filing of a petition for a contested case hearing. Language was added to clarify the scope of review that is available through a citizen petition. The revised language does not allow a citizen to file a petition if they are not satisfied with an enforcement action that the department has taken for violations of the rules.

Wording regarding failure of the department to perform a ministerial requirement has also been added to subrule 26(3) for clarification and consistency.

New Rule 26(4) This subrule was added to clarify the scope of review and procedures for a contested case hearing. Specifically, it establishes authority for the administrative law judge, in the form of a proposal for decision to the director, to make findings of fact as to whether the department has failed to perform a ministerial requirement or if a violation of the rules has occurred, conclusions of law as to whether the department has failed to perform a ministerial requirement established by the rules or if there is a legal basis for enforcement action by the department, and a recommendation to the director for the department to perform a ministerial requirement established by the rules or to the department for the commencement of an administrative, civil or criminal action under the act.

#### **XI. ARE THE PROPOSED RULES MORE STRINGENT THAN ANY EXISTING FEDERAL STANDARD?**

The proposed water quality trading rules provide greater regulatory and operational flexibility to comply with federal clean water act requirements. The proposed rules are neither more nor less restrictive than federal rules or industry standards.

#### **XII. DOES THE PROPOSED RULE REQUIRE A DISBURSEMENT PURSUANT TO 1979 PA 101 (THE HEADLEE AMENDMENT)?**

The proposed rules do not require a disbursement pursuant to The Headlee Amendment.

**APPENDIX A**

**REGULATORY IMPACT STATEMENT**

**ORR 1999-036 EQ**

**APPENDIX B**

**PROOF OF PUBLICATION**

**ORR 1999-036 EQ**