



Response to Comments

Rule: OAC 3745-1-05 (Antidegradation)
OAC 3745-1-07 (Water use designations and statewide criteria)

Note: The draft rules, made available for public comment in March 2009, also included revisions to rule 3745-1-31 (Lake Erie standards) that would restrict disposal of dredge material in Lake Erie. The Agency has decided to delay proposal of the rule 3745-1-31 revisions to allow more time to discuss them with stakeholders. The comments submitted on draft rule 3745-1-31 are included in this Response to Comments; however, the Agency has not yet prepared responses to them.

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Ohio EPA made available for review and comment three draft amended rules regarding water quality standards. This document identifies the comments and questions received during the associated comment period, which ended on April 17, 2009.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health.

In an effort to help you review this document, the comments and questions are grouped by topic and organized in a consistent format. The name of the commenter follows the comment in parentheses.

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General Comments

Comment 1: The Ohio Farm Bureau Federation (OFBF) is the largest general farm organization in the state of Ohio with members in all of Ohio's 88 counties. Our members produce virtually every kind of agricultural commodity and as a result, OFBF is strongly interested in Ohio's environmental policies and their potential impact to sustaining a viable agbioresource industry. OFBF policies support the development of programs that are scientifically based, economically sound and whenever possible, delivered in a flexible and voluntary manner. (John C. Fisher, Ohio Farm Bureau Federation)

Response 1: No response needed.

Comment 2: On behalf of our over 100 environmental and conservation member organizations and thousands of members throughout the state of Ohio, Ohio Environmental Council (OEC) respectfully submits the following comments on proposed changes to Ohio's Water Quality Regulations. OEC is generally supportive of these proposed changes to Ohio's water quality rules. (Trent A. Dougherty, Ohio Environmental Council)

Response 2: No response needed.

Comment 3: General Concern on timing of these proposed amendments and delay in the larger rule package. While we are supportive, generally of this particular rule package, however, we are concerned about the needless delay in moving forward with the entire rule package. The larger rule package consisting of the proposed amendments to water quality standards, Antidegradation, 401 certification rules, and stream and wetland mitigation were proposed (except for mitigation) more than 5 months ago. These rules have unnecessarily been shelved because of general objections by industry groups, and, to our knowledge, these groups have not identified any specific rules that are unlawful, unreasonable, or could not be complied with. We feel this is an illegitimate reason for indefinitely suspending progress on finalizing those rules. OEC has been, and will to continue to be, objective and critical partners in working with both the regulated community and the Agency in working through actual and perceived differences to move forward on water quality rules that protect Ohioans.

While recognizing that OEC and the environmental/conservation community, too, have specific comments and recommendations on how to improve the proposed rules, generally we are supportive. Our support is based on evidence such as Ohio EPA's 2008 Integrated Report findings on impacts to small streams and Total Maximum Daily Load (TMDL) results. Because of the importance of these four rule packages in protecting the human and environmental health and safety of Ohio, we urge swift

approval and implementation of the entire package of rules. These rules strike a balance between protection of both the economic and environmental interests of our state, and many (if not all) stakeholders have had the opportunity contribute to the development of these rules over the past several years. (Trent A. Dougherty, Ohio Environmental Council)

Response 3: The Agency issued three sets of draft rules in August, September and October of 2008 and anticipated release of a fourth rule several months later. It has taken the Agency longer than expected to complete the fourth set of rules on stream mitigation. We are committed to the premise that, as regards a number of overlapping issues, the public should be able to concurrently review the full set of four rule packages. The delay caused us to examine which rule topics might be unrelated to the stream mitigation rule and also have time-sensitive elements. See the fact sheet for the reasons why this small set of rules was carved out from the larger package.

The Agency takes note of the comments regarding various process issues affecting the larger surface water rule making effort. Ohio EPA will continue to push for an appropriate resolution to the objections raised by a coalition of business interest groups.

Comment 4: The Association of Ohio Metropolitan Wastewater Agencies ("AOMWA") appreciates the opportunity to comment on Ohio EPA's proposed revisions under OAC Chapter 3745-1. Overall, AOMWA is supportive of the draft revisions that have been proposed. However, there are several rule revisions that warrant comment. (Tatyana Arsh, P.E., Association of Ohio Metropolitan Wastewater Agencies)

Response 4: No response needed.

Comment 5: The Utilities would like to thank Ohio EPA for preparing this draft rule package and welcome Ohio EPA's rulemaking efforts. The Utilities hope that Ohio EPA will endeavor to improve the rules by providing clarity, certainty, and flexibility for regulated parties. As such, the draft rules do raise a number of issues which the Utilities wish to see clarified or revised prior to issuing proposed rules. (Cheri A. Budzynski, on behalf of the Ohio Utility Group Environmental Committee and the following member companies: Buckeye Power, Inc., Columbus Southern Power Company (American Electric Power), Dayton Power & Light Company, Duke Energy Ohio, Inc., Ohio Power Company (American Electric Power), Ohio Valley Electric Corporation)

Response 5: No response needed.

Comment 6: As discussed in more detail below, the City is concerned with the effect that the Draft Rules will have on the City and on other similarly situated parties.

Therefore, the City urges the Ohio EPA to refrain from sending the Draft Rules to the Joint Committee on Agency Rule Review ("JCARR") for processing until such time as the issues discussed herein can be resolved to all parties' satisfaction. In summary, the City understands the concept behind the extension of the recreational season until October 31 and the removal of fecal coliform criteria standard from Ohio Administrative Code Rule ("OAC") 3745-1-07. However, as currently written, the Draft Rules will likely lead to increased costs on the part of the City and similarly situated parties without any associated environmental benefits. In addition, certain aspects of the sampling analytical protocol proposed in the Draft Rules can be interpreted in a manner that is inconsistent with federal water quality standards guidance, as prepared by the United States Environmental Protection Agency ("U.S. EPA"), and U.S. EPA's promulgation of water quality standards for Coastal and Great Lakes recreation waters. (See "Water Quality Standards for Coastal and Great Lakes Recreation Waters; Final Rule" (November 16, 2004, Federal Register, Vol. 69, No. 220, p. 67225).

For ease of understanding, the specific comments provided below are organized in separate sections. Several of the comments discussed below are further supported in the "Technical Review Comments for the City of Akron on Ohio EPA Proposed Revisions to 3745-1-07," prepared by Dr. Daniel Markowitz and Guy Jamesson, P.E. of Malcolm Pirnie Inc. ("Technical Review Comments"), which are attached to this letter and incorporated herein. (Terrence S. Finn, on behalf of the City of Akron)

Response 6: Responses are provided below for the specific comments.

Comment 7: The proposed revisions to the water use designations and statewide criteria in 3745-1-07 contain some issues where Ohio EPA has proposed revisions that may create an unnecessary burden on the City of Akron where real water quality concerns and human health protection risk has not been adequately documented. The specific issues of most concern are related to the recreational use criteria and the designated classes of recreational use. (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 7: Responses are provided below for the specific comments.

Rule 3745-1-05 Antidegradation.

Comment 8: Regarding antidegradation at OAC 3745-1-05 (B)(4). The Ohio Environmental Protection Agency has proposed the following language related to antidegradation and section 401 water quality certifications:

"Applications for section 401 water quality certifications are exempt from paragraphs (B)(3) of this rule. Required submissions shall be determined in accordance with section 6111.30 of the Revised Code, Chapter 3745-32 of the Administrative Code and rules 3745-1-50 to 3745-1-54 of the Administrative Code."

The above text seems to exempt all 401 certifications from tier 2 antidegradation review. The exemption for 404 permits and 401 certifications would be acceptable because OAC 3745-1-54 references antidegradation demonstration requirements specifically for wetlands. However, there are other activities which require a 401 certification under Ohio rules at 3745-32 which indicate certifications are required for: "Any other federal permit or license to conduct any activity which may result in any discharge to waters of the state." Federal regulations for 401 certifications mention that not only Clean Water Act 404 permits require a 401 certification, but also Federal Energy Regulatory Commission licenses for hydroelectric projects, and permitted activities under Section 10 of the Rivers and Harbors Act, etc. The draft rule change appears to exempt all of these activities, but only provides a safeguard at 3745-1-54 to ensure wetlands continue to undergo an antidegradation review.

EPA suggests Ohio consider changing the text to something similar to the following: "(4) Applications for section 401 water quality certifications for Clean Water Act section 404 permits are exempt from paragraphs (B)(3) of this rule...." This change would make it clearer that only 401 certifications for 404 permits and wetlands are exempt because there are other antidegradation review procedures in place. A broad exemption for the other applicable activities, without some sort of review for potential lowering of water quality, is unacceptable to EPA. (Linda Holst, U.S. EPA Region 5)

Response 8: The draft language would not exempt all 401 certifications from a Tier 2 Antidegradation review. The draft language would only exempt the 401 certification applicant from the application submittal requirements in this rule. Currently, 401 certification applicants are required to submit project information, alternatives analysis, etc. by Ohio Revised Code Chapter 6111.30. The intent of the draft rule language change is to eliminate duplicative requirements. The requirements in Ohio Revised Code 6111.30 are not specific to 404 permits so submittal requirements for 401 certification applications for projects other than 404 permits are covered by the statute.

Comment 9: In its letter to interested parties and its fact sheet, Ohio EPA states that this stand-alone rulemaking package was necessary in order to promptly promulgate a few "minor" rule revisions and make "grammatical changes that don't substantively change the rules." However, in Ohio Adm. Code 3745-1-05(C)(2) Required treatment technology, nonpoint source controls,

Ohio EPA inserted the following language: "More stringent treatment may be required pursuant to paragraph (C)(8) of this rule **or other applicable laws and rules**, or if needed to meet water quality standards." The Utilities believe that insertion of the highlighted language is a substantive change that could significantly broaden Ohio EPA's ability to require more stringent treatment. Ohio Adm. Code 3745-1-05(C)(8) provides the Director with specific procedures for applying more stringent treatment and allows for an administrative appeal of the Director's action. While the Utilities are not necessarily opposed to the change, the Utilities would like an explanation of why Ohio EPA needs the increased authority that this rule revision would appear to provide to Ohio EPA. The Utilities may submit additional comments on this issue after receiving and analyzing Ohio EPA's response. (Cheri A. Budzynski, on behalf of the Ohio Utility Group Environmental Committee and the following member companies: Buckeye Power, Inc., Columbus Southern Power Company (American Electric Power), Dayton Power & Light Company, Duke Energy Ohio, Inc., Ohio Power Company (American Electric Power), Ohio Valley Electric Corporation)

Response 9: The draft language inserted in paragraph (C)(2) is intended to connect the treatment required by the Antidegradation rule with treatment requirements of other rules such as National Pollutant Discharge Elimination System rules in OAC 3745-33 and Permit to Install rules in OAC 3745-42. It does not make sense for Ohio EPA to review proposed technologies in the Antidegradation process that would not be approvable because they would not provide the level of treatment necessary to comply with other applicable laws and rules.

For example, a new publicly owned wastewater treatment plant with a design flow of 1.5 million gallons per day in the Lake Erie basin would be required by the Antidegradation rule to meet the design criteria in Table 5-1 of the rule based on BADCT. However, the plant would also be required to meet a total phosphorus effluent limitation of 1.0 mg/L based on the NPDES requirements in paragraph (C) of OAC 3745-33-06. Therefore, treatment technologies capable of meeting both the Antidegradation rule and NPDES rule requirements must be evaluated. The additional language in paragraph (C)(2) of the Antidegradation rule is a reminder that other requirements should be considered in the selection of treatment technologies.

In order to provide additional time to discuss the draft language, this language change will be removed from this rulemaking. The draft language is included in a separate version of the Antidegradation rule that is currently open for Interested Party Review. Therefore, please submit additional comments and/or questions on this draft language during the comment period on the Antidegradation rule, which has a deadline yet to be

determined. Please check Ohio EPA Division of Surface Water's Web site <http://www.epa.state.oh.us/dsw/> for updates.

Rule 3745-1-07 Water use designations and statewide criteria.

Topic: Support for the draft rule

Comment 10: The draft rule at OAC 3745-1-07 revises water quality criteria for five recreation use designations: Bathing Waters, Class A Primary Contact Recreation, Class B Primary Contact Recreation, Class C Primary Contact Recreation, and Secondary Contact Recreation. The criteria would apply inside and outside the mixing zone. These proposed changes are acceptable to EPA for the protection of the recreation use subcategories. (Linda Holst, USEPA Region 5)

Response 10: No response needed.

Comment 11: NEORSD would like to thank the Ohio EPA for moving forward with these time-sensitive items in a separate, standalone rulemaking. As the 2009 recreation season is fast approaching, promulgating the proposed changes to the recreational use criteria in a timely manner will serve to benefit the public with improved beach notification and with more appropriate water quality criteria for determining attainment of recreational uses.

NEORSD supports deleting the existing fecal coliform criteria. NEORSD also supports adoption of seasonal geometric mean criteria for E. coli. In both respects, the draft revisions would result in statewide water quality criteria that are more consistent with the existing federal water quality criteria and with their underlying scientific basis. As drafted, these would constitute appropriate applications – at least until new federal criteria for recreational use, currently under development, are established.

For the same reasons, NEORSD strongly supports applications of the single sample maximum criteria "if only one measurement is available" and "for the issuance of beach advisories." (Julius Ciaccia, Northeast Ohio Regional Sewer District)

Response 11: No response needed.

Topic: General opposition

Comment 12: The application of the new numeric criteria for E. coli (as an indicator bacteria) is unclear and provides no significant clarification or demonstrated level of protection for human health over the existing criteria using E. coli or Fecal coliform indicator for bacteria. (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 12: The draft Ohio criteria are based current USEPA guidance. They are a refinement to the E. coli criteria currently in rule 3745-1-07, allowing less restrictive criteria for waters that are rarely used for recreation. USEPA has concluded that the relationship between swimmer illnesses and E. coli bacteria levels is better than that for fecal coliform bacteria levels.

Topic: Use of geometric means

Comment 13: The rule states “ Compliance with the E. coli criteria shall be based on the seasonal geometric mean if more than one measurement is available and on the single sample maximum if only one measurement is available”.

Geometric means should not apply to pathogen indicators. Where is the precedent for this? Humans don't ingest pathogens based on geometric means, the ingest pathogens because high concentrations of these organisms exist in the water during recreational activities. This is a law suit waiting to happen. (J2ENTRY@aol.com)

Response 13: The use of geometric means for determining compliance with water quality criteria for bacteria is recommended in the USEPA document “Ambient Water Quality Criteria for Bacteria – 1986,” upon which the draft Ohio criteria are based. The USEPA document is on the Internet at <http://www.epa.gov/waterscience/beaches/rules/bacteria-rule.htm>. USEPA studies have shown a relationship between swimmer illnesses and the seasonal geometric mean concentration of E. coli bacteria.

Topic: Impact on monitoring requirements

Comment 14: If Ohio EPA eliminates fecal coliform water quality criteria and relies solely on E. Coli water quality criteria, how would the change impact monitoring requirements for NPDES permit holders such as BCWS, if at all? If Ohio EPA ultimately intends to replace fecal coliform testing requirements with E. Coli testing requirements in NPDES permits, BCWS offers the following suggestion for implementation:

- Because BCWS operates six wastewater treatment plants each on a unique NPDES permit cycle, we would suggest that Ohio EPA establish a blanket deadline by which time all NPDES permit holders with bacteriological testing provisions must comply with any new testing requirements. This sort of approach would eliminate the need for laboratories such as BCWS to test simultaneously for both fecal coliform and E. Coli, and would therefore minimize unnecessary expense and operational burden. Furthermore, it would minimize potential confusion related to sampling programs for permittees with

multiple treatment plants. (Adam M. Sackenheim, Butler County Water and Sewer Department)

Response 14: After the rule is adopted, the Agency will begin to put limits and monitoring requirements based on the new E. coli criteria into permits as they come up for renewal. If an entity would like Ohio EPA to include the E. coli limits and monitoring requirements prior to renewal, we are willing to issue Agency initiated permit modifications for the treatment plants. This would allow the E. coli monitoring requirements for all six BCWS wastewater treatment plants to begin at the same time.

Topic: Costs of switching to E. coli

Comment 15: If Ohio EPA replaces fecal coliform testing requirements with E. Coli testing requirements, BCWS' laboratory will likely need to spend about \$6,200.00 on new equipment and materials to be able to comply with new testing protocols assuming the lab utilizes the IDEXX Quanti-Tray/2000 method (SM 9223 B). This amount includes, among other things, the cost of a new incubator and sealer device. Following initial start-up costs, BCWS anticipates each E. Coli sample to cost about \$7.00 in consumables, which is about \$4.00 more per test compared to the current membrane filter test used for fecal coliform analysis (SM 9222 D). In 2008 BCWS' laboratory processed over 490 fecal samples; had the lab been required to run E. Coli instead, the additional analytical costs would have neared \$2,000.00.

While the consumable cost per test will increase, BCWS does not believe that the amount of staff time required to run the E. Coli test will differ significantly from the amount of time required to run the fecal coliform test. (Adam M. Sackenheim, Butler County Water and Sewer Department)

Response 15: We believe most laboratories will choose to use the IDEXX Quanti-Tray/2000 method (SM 9223 B) for E. coli analyses. We agree there may be start-up costs and increased costs for consumables. However, that method takes less time and effort than the fecal coliform membrane filtration method, so some laboratories may see their staff costs per analysis reduced. Based on our experience, some contract laboratories currently charge the same amount for fecal coliform and E. coli analyses, whereas others charge \$5.00 to \$10.00 more for E. coli analyses.

Comment 16: The City's laboratory staff have extensive experience with Fecal coliform analysis, but no experience with E. coli analysis, resulting in increased costs for a combination of increased staff training, equipment and use of outside laboratories for E. coli analysis. (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 16: See response 15.

Topic: Opposition to SSM; use rule 3745-1-04

Comment 17: NEORSD is concerned about the portion of the draft language expressly providing that the single sample maximum criterion "may be used in other circumstances if the director determines that, based on magnitude, duration or frequency of exceedences, it is necessary to protect the designated use."

NEORSD recognizes that there may be circumstances where the seasonal geometric mean criteria do not sufficiently protect a designated use. Nevertheless, such other applications of the single sample maximum criteria, especially as values never to be exceeded both "inside and outside the mixing zone," are not supported by any scientific or regulatory basis and would invariably be overprotective. In the preamble to "Water Quality Standards for Coastal and Great Lakes Recreation Waters; Final Rule" (Federal Register, Vol. 69, No. 220, p. 67225), U.S. EPA offers the following explanations:

Numerous commenters said that application of the single sample maximum values in the criteria as never-to-be-surpassed limitations in other contexts could lead to consequences which were not contemplated in the 1986 bacteria criteria document, including, for example, Total Maximum Daily Loads and National Pollutant Discharge Elimination System permit limitations which might be technologically and economically unattainable at a particular location. *EPA agrees that the 1986 bacteria criteria document did not discuss using the single sample maximum as a never-to-be-surpassed value for all implementation applications under the Clean Water Act.*

Furthermore, the single sample maximum values in the 1986 bacteria criteria document were not developed as acute criteria; rather, they were developed as a statistical construction to allow decision makers to make informed decisions to open or close beaches based on small data sets. This does not mean single sample maximums serve no purpose outside of beach notification decisions. For example, they may give States and Territories the ability to make waterbody assessments where they have limited data for a waterbody. However, the single sample maximums were not designed to provide a further reduction in the design illness level provided for by the geometric mean criterion. Based on the derivation of the single sample maximums as percentiles of a distribution around the geometric mean, *using the single sample maximums as values not to be surpassed for all Clean Water Act applications, even when the data set is large, could impart a level of protection much more stringent than intended by the 1986 bacteria criteria document.* [Emphasis added]

NEORSD is concerned that wherever the seasonal geometric criteria are believed to be insufficiently protective, Ohio EPA's draft language would, in practice, encourage application of the single sample maximum criteria in the manner that U.S. EPA discourages above. Ohio EPA already has the authority, granted in rule 3745-1-04 of the Administrative Code, to protect designated uses that may not be sufficiently protected by codified numeric criteria. Any alternative numeric values applied in the implementation of this rule should be determined through fate-and-transport modeling or other scientifically valid, site-specific approaches, and not through the misapplication of criteria to purposes for which they were not designed.

We therefore urge Ohio EPA, in the final rule, to remove the draft language stating that the single sample maximum criteria "may be used in other circumstances if the director determines that ... it is necessary to protect the designated use." To assure protection of designated uses, more appropriate language would be a reference to the flexibility provided under rule 3745-1-04 of the Administrative Code. (Julius Ciaccia, Northeast Ohio Regional Sewer District)

Response 17: The Agency understands the concerns over the vagueness of the draft rule regarding the single sample maximum. The referenced language will be replaced with a footnote stating that the single sample maximum "shall not be exceeded in more than ten per cent of the samples taken during any thirty-day period." This language is in the currently effective rule and has been associated with the bacteria standards in OAC rule 3745-1-07 since the 1970s. In addition, the single sample maximum will continue to be used for the issuance of beach advisories.

USEPA acknowledges in the federal BEACH Act (Beaches Environmental Assessment and Coastal Health Act of 2000) rule and in their guidance on using single sample maximum values that the single sample maximum may play a role in Clean Water Act programs. Ohio EPA feels there is a need to retain the single sample maximum to help control large exceedences of the geometric mean criteria during the recreation season, without waiting until the end of the recreation season.

The language in paragraph (F) of rule 3745-1-04 is not intended to address recreation. It is for the protection against public health nuisances and applies year round.

Comment 18: Single Sample Maximum. AOMWA is concerned with the draft language in OAC 3745-1-07 which would permit the use of "single sample maximum" criterion "if ...it is necessary to protect the designated use."

By only referring to "single sample maximum criterion" in this provision, AOMWA is concerned that Ohio EPA is actually limiting its ability to utilize

other criteria that would also be protective. Indeed, AOMWA recognizes that there may be circumstances where the seasonal geometric mean criteria is not sufficiently protective. But, application of the single sample maximum criteria, especially as values never to be exceeded both "inside and outside the mixing zone," would invariably be overprotective in many instances and is in such cases, not supported by any scientific or regulatory basis. AOMWA is concerned that Ohio EPA's draft language would, in practice, have the effect of encouraging application of the single sample maximum criteria in the manner that is overly stringent and even discouraged by U.S. EPA. See "Water Quality Standards for Coastal and Great Lakes Recreation Waters; Final Rule" (Federal Register, Vol. 69, No. 220, p. 67225) (preamble).

Ohio EPA already has the authority, granted in rule 3745-1-04 of the Administrative Code, to protect designated uses that may not be sufficiently protected by codified numeric criteria. We therefore urge Ohio EPA, in the final rule, to remove the draft language stating that the single sample maximum criteria "may be used in other circumstances if the director determines that ... it is necessary to protect the designated use." To assure protection of designated uses, more appropriate language would be a reference to the flexibility provided under rule 3745-1-04 of the Administrative Code. (Tatyana Arsh, P.E., Association of Ohio Metropolitan Wastewater Agencies)

Response 18: See response 17.

Comment 19: The Draft Rules Establish A Sampling Analytical Protocol That Could Be Interpreted To Require A Single E-coli Sample Standard Where A Geometric Mean Standard Is Appropriate.

Table 7-13 of proposed Ohio Administrative Code ("OAC") Rule 3745-1-07 provides that a "single sample maximum criteria shall also be used for the issuance of beach advisories and may be used in other circumstances if the director determines that, based on the magnitude, duration or frequency of exceedences, it is necessary to protect the designated use." (emphasis added).

The above-referenced language establishes the use of a single sample maximum in place of a geometric mean in instances where the data is not being utilized to determine whether a beach advisory is appropriate. In doing so, Ohio EPA has proposed a sampling analytical protocol that has been previously discouraged by U.S. EPA.

The use of a single sample maximum sampling protocol was originally developed by U.S. EPA primarily to be utilized in determining whether U.S. EPA should support a beach closing based upon an immediate threat to

human health. The reliance upon a single sample analytical protocol was discussed in U.S. EPA's 1986 "Ambient Water Quality Criteria for Bacteria" (the "1986 Bacteria Document").

The 1986 Bacteria Document is further discussed in the Federal Register notice for the adoption of 40 CFR Part 131, the "Water Quality Standards for Coastal and Great Lakes Recreation Waters Final Rule." In this Federal Register notice, U.S. EPA again reinforces that the single sample maximum methodology would be utilized primarily in the context of establishing a beach advisory.

Thus, consistent with the 1986 bacteria criteria document, EPA expects that States and Territories would apply the single sample maximum for making beach notification decisions as values that if exceeded would trigger a notification or closure action at the beach. (See November 16, 2004, Federal Register, Vol. 69, No. 220, p. 67225).

Notably, U.S. EPA stated that:

... the 1986 bacteria criteria document did not discuss using the single sample maximum as a never-to-be-surpassed value for all implementation applications under the Clean Water Act. . . Single sample maximums were not designed to provide a further reduction in the design illness level provided for by the geometric mean criterion. (Emphasis added). *Id.*

There are technical and practical reasons that support U.S. EPA's expressed concerns regarding the technical adequacy of a single sample maximum result. A single E-coli sample may not be representative of the actual in-stream conditions and reliance upon only a single sample event could result in a compliance determination that is not supported by adequate technical data. Therefore, Table 7-13 in the proposed OAC Rule 3745-1-07 establishes a sampling analytical protocol that is not supported by adequate technical justification.

The current version of the rule requires a methodology of five (5) samples obtained over a thirty (30) day period. Thus, this revision may result in determinations that are not based on data that is representative of the actual conditions.

The City's consultant, Malcolm Pirnie, has prepared additional comments regarding the potential technical problems presented by proposed Table 7-13. Please see Section IV of the attached Technical Review Comments for more detail.

In light of the foregoing, the City is concerned that Table 7-13 of the proposed OAC Rule 3745-1-07 may improperly allow the director to rely upon a single sample maximum analytical protocol when the reliance upon a geometric mean is the method most consistent with U.S. EPA's analytical sampling protocol recommendations. Additionally, the City is concerned that the proposed Table 7-13 may permit Ohio EPA to make determinations regarding a stream's compliance with a use designation based upon incomplete and inadequate data. (Terrence S. Finn, on behalf of the City of Akron)

Response 19: See response 17.

Comment 20: Reliance upon a simple sample maximum is problematic.

The application of the single sample maximum in the absence of multiple samples is also problematic. The variability of E. coli concentrations in natural waters is well documented in numerous studies. Wet weather concentrations of bacteria from both point and non-point sources can be more than 5 orders of magnitude higher than dry weather concentrations. Some studies show persistence of viable bacteria (those capable of producing colonies in the standard test) for periods of months in bottom sediments of rivers and lakes¹. A single sample of high concentration could be collected for a variety of reasons unrelated to current sources of discharge into recreational waters. Unless both weather and flow conditions are well understood it would be difficult to attribute a single high bacteria count to any particular source and additional sampling should occur prior to any action. Certainly a sample taken during an extended period of dry weather should be considered differently than a wet weather sample.

We request that Ohio EPA remove the proposed language that the single sample maximum criteria “may be used in other circumstances if the director determines that ... it is necessary to protect the designated use”. This proposed language appears likely to encourage use of single samples for regulatory decision-making, while in many instances additional sampling or other evaluation of circumstances should be performed prior to regulatory action. Sufficient protection from public health risks is afforded in existing rule OAC 3745-1-04, and the proposed additional determination authority for the Director based upon only a single sample is unnecessary. (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 20: See response 17.

¹ W. B. Ksoll, S. Ishii, M. J. Sadowsky, and R. E. Hicks Presence and Sources of Fecal Coliform Bacteria in Epilithic Periphyton Communities of Lake Superior Appl. Envir. Microbiol., June 15, 2007; 73(12): 3771 – 3778.

Comment 21: The Standard is Based on an Indicator and is Not as Accurate a Predictor of Disease as it is Precise as an Enumeration of the Indicator.

The difference between the proposed criteria for bathing waters and primary contact waters does not appear to be significant relative to likely bacterial contamination, or related to levels of risk for different recreational activities. The level of variation between samples in bacteria enumeration is high which is why a geometric mean is used as the standard. The single sample maximum criteria for these uses range from 235 to 940 cfu/100 ml. Generally if a sample is contaminated with some source of *E. coli* (from humans or wildlife, including geese) in most smaller streams the concentrations that result from a small amount of source material will be higher than 1000 cfu/100ml. Hence the difference in single sample maximum criteria will not likely result in a different attainment status nor will a single sample provide a precise measure of the real risk of acquiring a waterborne disease. The USEPA derived the different risk levels and resultant concentrations based on regression relationships and mathematical models of risk where incidence of a disease in more than 8 of 1000 users was likely to occur. The assumptions in their risk model were justifiably conservative at all levels and the differences in proposed criteria were entirely mathematically derived. The risk models were all based on a statistically significant minimum of 5 (or more) samples. There are few studies that actually demonstrate the actual incidence of waterborne disease related directly to concentrations of the indicator bacteria². *E. coli* was chosen as an indicator by USEPA based on a slightly better relationship to gastrointestinal ailments derived from waterborne contaminants. However the accuracy of that relationship is less than the precision required to enumerate the bacteria at the different concentrations proposed by USEPA and Ohio EPA. The studies on overall incidence of waterborne disease were used as input to a series of mathematical models³ which is how the numeric ranges proposed by Ohio EPA have been derived. The use of a geometric mean minimizes many of the potential sources of error and provides a more reliable general estimate of risk. A single sample inherently contains no ability to estimate error and so cannot be assumed to be representative of actual conditions nor of the real risk of waterborne disease. At best, a single sample criterion should be used to justify additional investigation. (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 21: See response 17.

² Summarized in: Russell D. Arnone and Joyce Perdek Walling, 2007 "Waterborne pathogens in urban watersheds" *Journal of Water and Health* Vol 5 #1.

³ Dufour, A. 1984 Health Effects Criteria for Fresh Recreational Waters. EPA-600/1-84-004, USEPA, Research Triangle Park, North Carolina.

Topic: Not consistent with rule 3745-1-04

Comment 22: The Proposed Rule Revisions Are Not Consistent With Ohio EPA's Sampling Analytical Protocol As Established By OAC Rule 3745-1-04(F).

Ohio EPA's reliance upon a single sample maximum is not consistent with the sampling procedure set forth in OAC Rule 3745-1-04(F). The sampling protocol contained in OAC Rule 3745-1-04(F) requires multiple samples be obtained and analyzed in order to demonstrate compliance with the E. coli "free from" standards contained in that rule (i.e., at least two hours apart and over a period not to exceed thirty days). However, proposed Table 7-13 may permit the director of Ohio EPA to make designated use compliance determinations for E. coli levels based upon a single sample maximum. There is no technical justification to support the inconsistency presented in the Draft Rules.

Moreover, the proposed change in Table 7-13 is not necessary because the Ohio EPA already has the authority to protect designated uses pursuant to OAC Rule 3745-1-04. As a result, the City asserts that Ohio EPA should delete the draft language stating that the single sample maximum criteria "may be used in other circumstances if the director determines that ... it is necessary to protect the designated use."

In addition, OAC Rule 3745-1-04(F)(1) provides that samples must be collected " ... when flow is representative of steady state dry weather conditions, i.e., base flow or delayed flow ..." In contrast, however, the proposed OAC Rule 3745-1-07 may allow Ohio EPA to determine compliance based upon samples procured during wet weather conditions. As discussed in the attached Technical Comments, wet weather concentrations of bacteria from both point and non-point sources can be more than 5 orders of magnitude higher than dry weather concentrations. As a result, a sample that is not taken during dry weather conditions, i.e. base flow or delayed flow, may provide an inaccurate assessment of the status of the water body. Please see Section IV(B) of the attached Technical Review Comments for more detail regarding why a wet weather sample does not provide an accurate assessment of a water body's use attainment status.

As a result of the foregoing, the City urges Ohio EPA to remove the above-referenced language from the proposed OAC Rule 3745-1-07. (Terrence S. Finn, on behalf of the City of Akron)

Response 22: To document public health nuisances OAC rule 3745-1-04(F) requires the collection of two samples in combination with other evidence of raw or poorly treated sewage. This protocol is appropriate as a means to document evidence of pollution. It is important to avoid acting on a single

sample result, and to take corrective actions only when pollution is confirmed through the other indicators being present. The assessment of recreation use attainment should not apply these protocols because the objective is different, namely to measure and report on ambient water quality and attainment of recreation use.

That said, the language referred to in the comment has been removed and replaced with other language. See response 17.

Topic: Will Ohio EPA begin to issue advisories?

Comment 23: Beach Monitoring, Advisories and Closures Are Currently Conducted by the Ohio Department of Health and the Ohio Department of Natural Resources.

Pursuant to Ohio Revised Code ("R.C.") §§ 3701.18 and 1541.032, the director of the Ohio Department of Health and the Chief of the Ohio Department of Natural Resources are required to work together to operate a monitoring and notification program associated with the waters of the state that are adjacent to public swimming beaches located along the Ohio/Lake Erie border. The goal of the program is to monitor the bacteria content of the state's bathing beach waters and to notify the public whenever bacteria levels present a potential health risk to bathers.

Because proposed OAC Rule 3745-1-07 introduces the possibility that Ohio EPA may issue a beach advisory based upon the result from a single sample maximum analysis, it is unclear whether Ohio EPA is proposing that the Ohio Department of Health's beach monitoring program is to be replaced or modified by the proposed language. In addition, it is not clear from the Draft Rules when and under what circumstances Ohio EPA intends to engage in testing and issuance of beach advisories. As a result, it appears that Ohio EPA, Ohio Department of Health and the Ohio Department of Natural Resources may engage in duplicative regulatory efforts. In light of the foregoing, the City asserts that Ohio EPA should clarify the relationship between proposed OAC Rule 3745-1-07 and the existing R.C. §§ 3701.18 and 1541.032 prior to the issuance of the final rules. (Terrence S. Finn, on behalf of the City of Akron)

Response 23: Adoption of draft rule 3745-1-07 will not alter the operating practices or responsibilities of Ohio DNR or the Ohio Department of Health regarding beach monitoring and advisories. Sections 3701.18 and 1541.032 of the Revised Code were enacted prior to the passage of the federal BEACH Act. Subsequent to the federal BEACH Act, the Ohio Department of Health, which coordinates the bathing beach monitoring program in Ohio in cooperation with Ohio DNR and local health departments, has been utilizing E. coli bathing water criteria and interpreting results of water testing

in a manner consistent with the federal BEACH Act and draft rule 3745-1-07.

Comment 24: The Relationship Between Ohio EPA and County Health Departments In Proposed Water Quality Standard Revisions Is Unclear.

Most beach advisories and closures are issued by County health departments in Ohio and the role of Ohio EPA standards in that process for contact recreation standards is not clear. Are these standards being universally adopted by County health departments? The relationship between beach advisories and nonattainment of designated uses needs to be better defined in these rules. (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 24: County health departments coordinate with the Ohio Department of Health on matters of beach monitoring and advisories (see response 23).

Recreational use attainment determinations are addressed in the Integrated Water Quality Monitoring and Assessment Report assessment methodology. See Ohio EPA's latest Integrated Report for more information (available on the Web at <http://www.epa.state.oh.us/dsw/tmdl/2008IntReport/2008OhioIntegratedReport.html>). The issuance of beach advisories is a factor considered by Ohio EPA in the determination of whether or not bathing waters are attaining their designated recreation use.

Topic: Disinfection outside the recreation season

Comment 25: Disinfection Outside Recreation Season. AOMWA is concerned about the following draft revisions to OAC 3745-1-07:

The director may require effluent disinfection during the months outside the recreation season if necessary to protect an unusually high level of water based recreation activity such as, but not limited to, canoeing, kayaking, scuba diving, or sport fishing during spawning runs.

The proposed language would give Ohio EPA broad discretion to require additional and costly disinfection outside the recreation season during times when there is little direct contact with surface waters. We are concerned that this broad discretion may be utilized to impose costly requirements on our members when there is very little risk of exposure. The proposed language does not define "unusually high levels of water based recreation activity" such that it is clear when this discretion may be invoked. Furthermore, AOMWA is not aware of any data showing a significant increase in water recreation and risk of illness outside the

recreation season in Ohio that would warrant the addition of this language to the rule. Our members budget in advance for disinfection costs and being required to implement disinfection mid-year at the sole discretion of Ohio EPA for little protective benefit (i.e., a limited number of potential recreational users) would impose a significant burden on our members. AOMWA believes that further assessment of human health risks and potential fiscal impacts should be conducted before it is appropriate to impose costly disinfection requirements outside the recreation season. Accordingly, this provision should be deleted from the final version of the rule. (Tatyana Arsh, P.E., Association of Ohio Metropolitan Wastewater Agencies)

Response 25: It is necessary and appropriate to impose disinfection requirements on sources of domestic wastewater during all or a portion of the non-recreation season when there is strong evidence that a large number of people are recreating in or on a water body. We disagree that the language should be deleted but, having considered all the comments, believe expanded qualifiers on when and where the requirements apply are appropriate. See response 27 for further explanation and additional proposed language.

Ohio EPA has authority under ORC 6111.041 to adopt this provision within the Water Quality Standards rules. Doing so will help set appropriate specifications on when and where disinfection outside the recreation season will be considered.

Current NPDES permit rules include a broad provision stating that the “.... director may impose additional terms and conditions as part of an NPDES permit as are appropriate or necessary to ensure compliance with the applicable laws and to ensure adequate protection of water quality” [OAC 3745-33-07(A)]. The Agency has previously applied this broad discretion to impose bacteria effluent limits on two wastewater treatment plants in the winter months (see response 27 for details). The Agency periodically receives comments from the public about recreation during the winter months at locations near wastewater outfalls, including specific requests that bacteria criteria be met.

Comment 26: The Proposed Extension of the Recreational Season Will Likely Lead to Additional Costs Incurred by the City and Other Similarly Situated Parties.

As currently proposed, OAC Rule 3745-1-07(B)(4) will extend the season in which use designations are in effect until October 31st. Since the City's NPDES Permit already requires disinfection and dechlorination through October 31, the City supports the extension of the season to utilize the water quality designations until October 31st as an appropriate measure that is protective of human health. However, the proposed rule provides that “... [t]he Director may require effluent disinfection during the months

outside the recreation season if necessary to protect an unusually high level of water based recreation activity such as, but not limited to, canoeing, kayaking, scuba diving, or sport fishing during spawning runs." This draft rule does not describe under what specific circumstances, or upon what basis, the Director would make the determination that extension of the disinfection requirements would be applicable. As a result, this language gives Ohio EPA broad discretion to require additional and costly disinfection outside the recreation season, i.e. during the winter, at times when there is decreased risk to human health because there is decreased direct contact with surface waters. Since a significant portion of the City's disinfection and dechlorination equipment is outside and exposed to weather and the City has no experience with disinfection and dechlorination of treated wastewater during extended subfreezing weather, the City would incur substantial capital and operating costs to perform those activities outside of the current May through October season. Because the proposed language does not define nor provide the standard for "unusually high levels of water based recreation activity," it is unclear when or under what specific circumstances this discretion may be invoked. The proposed rule also does not provide for a "trigger" to end such disinfection requirements.

As a result of this ambiguity, the Director's determination that the disinfection services may be required outside of the recreation system could result in substantial increased costs to Publicly Owned Treatment Works ("POTWs"). Please see the Section II of the attached Technical Review Comments for more detail regarding how an extended disinfection season may burden POTWs with increased operational costs.

In light of the foregoing concerns, the City asserts that the proposed rule should clarify and specifically state under which circumstances the Director of Ohio EPA may extend the disinfection requirements beyond the recreational season. (Terrence S. Finn, on behalf of the City of Akron)

Response 26: See response 27.

Comment 27: Increased Costs Associated with the Potential Extension of the Recreation Season

3745-1-07 (B)(4) provides that "director **may require effluent disinfection during the months outside the recreation season** if necessary to protect an unusually high level of water based recreation activity such as, but not limited to, canoeing, kayaking, scuba diving, or sport fishing during spawning runs". **[Emphasis added]**

This could result in substantial costs to POTWs to disinfect beyond the current six-month summer disinfection season. Most POTWs do not have redundant capacity in their disinfection system since they can perform any

required maintenance when the system is not required outside the recreational season. In the event that disinfection was required year round an effective doubling of disinfection capacity might be required to safely meet permit limits.

As the length of any proposed change is considered the financial burden on the POTW should be weighed against documented benefit to verifiable recreational use of the receiving waters during that extended season.

What evidence would the director use to make this determination? Would the decision be based on evidence of pathogen-caused illness in any people during winter season recreation activities? Would it be based on some actual measure of recreational use?

This rule appears likely to add costs for treatment to POTWs in some instances without any clear benefit.

Any decision made by the Director in this regard needs to be scientifically defensible and be based on documented recreational use and verifiable research that illustrates the risk of waterborne disease related to any off-season recreational uses. (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 27: Ohio EPA does not dispute the claim that there will be additional costs for any POTW required to be disinfected to meet bacteria criteria in the non-recreation season. However, the requirement will be imposed in instances where there are real threats to public health.

The Agency has imposed limits in this manner in one situation to date: a stretch of the Maumee River frequented by thousands of fishermen during spring and fall spawning runs. Two nearby wastewater treatment plants (operated by the City of Perrysburg and Lucas County) have bacteria limits and disinfection requirements in November, March and April. While no epidemiological studies exist, common sense tells us that a significant number of individuals are at risk of exposure to water borne pathogens through frequent dermal contact when fishing. This is especially true when unhooking fish because of the likelihood of experiencing fresh cuts and skin abrasions while handling the tackle and fish.

As explained in response 25 the Agency already has authority to impose these disinfection requirements. The intent of this rule change is to better describe the situations where non-recreation season bacteria limits in permits are appropriate to protect unique situations. Because they are unique, the rule cannot be overly prescriptive. The following change (added language in italics) will be made to distinguish situations of

significant exposure risks (as evident in the Maumee River example) from more remote exposure scenarios that can exist on almost any water body.

The director may require effluent disinfection during the months outside the recreation season if necessary to protect an unusually high level of water based recreation activity such as, but not limited to, canoeing, kayaking, scuba diving, or sport fishing during spawning runs *and, in the normal pursuit of the recreation activity, there is a strong likelihood of exposure to water borne pathogens through ingestion of water or from dermal exposure through fresh cuts or abrasions.*

Topic: Recreation use classes

Comment 28: Recategorization of Recreational Classes Cannot Be Quantitatively Defined

3745-1-07 (B) (4) (a)-(c) redefines classes of contact recreational use to be more consistent with the definitions and categories of recreational use defined in the USEPA Beach Act. The application of these designations is poorly defined and difficult to differentiate in actual practice. The Director will be required to distinguish between: “heavily use”; “support or potentially support frequent”; “support or potentially support occasional”; “support or potentially support infrequent”; and “rarely use”. It is clear that the intent of these regulations is to enforce standards that are based on the risk of exposure to potential pathogens based on some measure of contact; however, in practice it will be difficult to clearly distinguish at what threshold a designated use attainment shall change. In fact in one set of comments submitted on these regulations, it was suggested that small streams in urban areas should by default be designated a Class A primary contact with no regard to accessibility of the stream as is stated in paragraph (c) where Secondary Contact is defined⁴. In particular, the ability to distinguish between Class A, B and C primary contact recreation uses is highly suspect. The actual criteria applicable to these waters in table 7-13 are also not substantively different as will be discussed in the following section so it is not clear how designation of these different uses will actually be administered or how it will result in an actual difference in the incidence of waterborne disease.

As a further example of how the interpretation of the A, B and C classes is problematic, the rule pre-designates a list of streams (Table 7-16) as Class A based on an ODNR designation of public access points. While the list certainly includes some streams that are actually used for these paddling activities there is no documentation that clearly distinguishes if these activities are frequent, occasional or infrequent as is required in the rule.

⁴ Mid Ohio Regional Planning Commission Comments dated September 3, 2008.

The agency should base this determination on some measure of actual user days in order to achieve the risk based goal of the Beach Act. Also the rule contains no provisions or mechanism to update this list of Class A waters. Certainly ODNR will add sites to their lists as public access points are developed at new locations. Will those streams automatically be re-designated as Class A streams as they are added to the ODNR list? If access points are closed or removed will streams be returned to the default Class B status? (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 28: This comment has an unstated assumption that recreation use should be assigned based upon actual *present day usage*. The three classes of primary contact recreation and the assignment of waters to Class A, Class B and Class C is alleged to be “problematic” because such information is lacking. The Agency does not agree. Beneficial use designations equivalent to the Clean Water Act goal of “fishable and swimmable waters” must be assigned based a reasonable assessment of a water body’s potential to support that use. See federal water quality standards regulations 40 CFR 131.2 (Purpose) and 40 CFR 131.10 (Designation of uses).

There is ample ability to define and distinguish each Class of Primary Contact recreation waters. Albeit the criteria values do not vary widely, but those are USEPA’s recommendations and we have elected to apply them.

Regarding the specific questions posed, streams will not be automatically re-designated as Class A streams as they are added to the ODNR list. Class A waters may be added to the list in the Water Quality Standards rules based upon consultation with ODNR and public input. If public access points are removed from a river it will remain Class A waters until such time that the Water Quality Standards rule is amended.

Comment 29: Recreational Use Definitions. In its letter to interested parties and its fact sheet, Ohio EPA states that revising the recreational use designations under Ohio Adm. Code 3745-1-07 is necessary because "Ohio EPA must prepare and submit to U.S. EPA a biennial water quality report and a listing of impaired waters pursuant to Section 303(d) of the Clean Water Act by April 2010, and the assessment of recreational use impairment is an important component of that report." The revised definitions include three separate class designations for primary contact recreation. Further, the revised language in Ohio Adm. Code 3745-1-07(B)(4)(b) makes reference to the class C primary contact recreation designations as specifically designated in Ohio Adm. Code 3745-1-08 to 30. Because Ohio EPA will complete the revisions to Ohio Adm. Code 3745-1-08 to 30 at a later date and, therefore, the stand-alone package does not include these class C designations, the Utilities do not understand Ohio EPA's urgent need to revise these definitions at this time. Because the recreational use

definitions reference other rules that have yet to be revised, it appears that it would be prudent to revise these definitions when Ohio EPA proposes more substantial rule revisions in this area later this year. Further, the Utilities seek clarification regarding why these new class designations are critical for the submission of the biennial water quality report. The current rules include definitions for recreational use and, therefore, do not impede Ohio EPA from assessing recreational use impairment under the current definitions.

In addition, the Utilities request clarification on the necessity of three classes for primary contact recreation. The Utilities are unclear how the three class designations will further Ohio EPA's assessment of recreational use impairment. Further, the Utilities request clarification on whether these three classes are directed at addressing recreational use impairment due to pathogen impairment or whether these three classes will address recreational use impairment based on other WQS. The necessity of this revision is not evident in the rulemaking package. (Cheri A. Budzynski, on behalf of the Ohio Utility Group Environmental Committee and the following member companies: Buckeye Power, Inc., Columbus Southern Power Company (American Electric Power), Dayton Power & Light Company, Duke Energy Ohio, Inc., Ohio Power Company (American Electric Power), Ohio Valley Electric Corporation)

Response 29: Under the draft rule, water body segments with drainage areas less than 3.1 square miles and meeting the definition in 6111.01 of the Revised Code of historically channelized watercourse will be designated class C primary contact recreation. The references to rules 3745-1-08 to 30 in paragraph (B)(4)(b) are made in case the Agency, through its ongoing biological survey program, discovers a water body that meets the definition above but should not be designated class C, or discovers a water body that does not meet the definition above but should be designated class C. Any such designation would be done in the appropriate use designation rule as part of our yearly use designation rulemaking.

The three classes of primary contact recreation are proposed, recognizing that there is a range of primary contact recreation activities in Ohio, from those water bodies heavily used for recreation (class A) to those rarely used (class C). This approach allows less restrictive E. coli criteria for waters that are rarely used for recreation. The Agency is adopting these classes into rule at this time because they were developed as part of the review of the E. coli criteria. These classes will not address recreational use impairment based on other WQS as a result of this rulemaking.

Comment 30: Page 7. (4) Recreation. It is unclear where private farm ponds fit into the logic scheme presented in this rule. How will the E. coli criteria presented in Table 7 – 13 be enforced in private farm ponds? Coliform bacteria are

universally present in high numbers in the intestinal tracts and feces of warm-blooded animals, including wildlife, livestock and humans. Without implementing expensive bacterial source tracking methodologies, the identification of who or what is the cause/source of the bacteria cannot be reliably determined. An "elevated" presence of E. coli could very well be natural. (John C. Fisher, Ohio Farm Bureau Federation)

Response 30: Private farm ponds have historically been considered surface waters of the State [see definition at OAC 3745-1-02(B)(77)]. An exception is made for those private waters which do not combine or effect a junction with natural surface or underground waters. Under the draft rule any farm pond that is connected to other waters would be assigned the Primary Contact Recreation use, Class B. However, it is highly unlikely that Ohio EPA or other parties would ever assess recreation use attainment in a private pond.

Water quality sampling of private farm ponds may be undertaken by Ohio EPA or local health departments when a pollution complaint is made. These types of situations are generally most effectively investigated and pursued as public health nuisances under OAC 3745-1-04(F) and other sanitary codes. E. coli bacteria that might be present from background sources aren't an issue in the pursuit of enforcing against public health nuisances because of additional stipulations made in rule 3745-1-04(F), namely the documentation of odor, color and/or other visual manifestations of raw or poorly treated sewage.

Topic: Should require at least 5 samples within a 30-day period

Comment 31: Page 25. Table 7-13. The description of this table should be modified to reflect that compliance with the E. coli criteria shall be based on a single sample maximum or a geometric mean of at least five samples collected during separate 24-hour periods within a 30-day period. (John C. Fisher, Ohio Farm Bureau Federation)

Response 31: Under the recommended scenario, if less than five samples were collected over a 30-day period each sample result would have to meet the single sample maximum. That is an overly restrictive approach and one that is not supported by federal criteria or guidance. The bacteria criteria are based on studies demonstrating the relationship between swimmers' illness and E. coli concentrations averaged over the recreation season. We believe, therefore, that it is most appropriate to express the geometric mean criteria as seasonal geometric means.

As with all other water quality criteria in Ohio's WQS, a minimum number of bacteria samples will not be specified in the rule. Statistically speaking, the more sample results used to calculate a geometric mean, the more

confidence one can have that the geometric mean calculated represents the actual geometric mean concentration. However, a geometric mean can be calculated with as few as two samples. Federal criteria or guidance does not recommend a minimum number of samples.

We are changing the language associated with the single sample maximum in the draft rule to allow occasional exceedences of those criteria. See response 17.

Topic: Should continue to use both E. coli and fecal coliform criteria

Comment 32: 3745-1-07 (B)(4) & Table 7-13. We are generally supportive of the reclassification and specificity given to the recreational use designations. However, we take pause in the deviation from using fecal coliform as the standard bacterial criteria, the reasoning behind the use of only E. coli as a determination of bacterial contamination, and why the near doubling of acceptable E. coli levels for secondary contact from 576/100ml to 1030/100ml.

It is our understanding, from OEPA experts, that moving to E. coli only as an indicator will be more protective of human health than utilizing only fecal coliform, but without much detail. To truly be protective of human health, would it not be appropriate to simply change the "or" in the current regulation to an "and," and thereby use both as indicators? (Trent A. Dougherty, Ohio Environmental Council)

Response 32: Ohio EPA has based its proposed rule on the current USEPA criteria recommendation (see <http://www.epa.gov/waterscience/criteria/humanhealth/microbial/#wgs>). Fecal coliform has been dropped because of the poor correlation that has been demonstrated between fecal coliform levels and illness rates in recreational users. The criteria for secondary contact recreation are not based on epidemiological studies (none exist) but rather on USEPA guidance, which recommends using a value five times the primary contact geometric mean.

Topic: Applying criteria inside mixing zones

Comment 33: Proposed Table 7-13 May Lead to Ohio EPA's Reliance Upon Inappropriate Data from End of Pipe Sampling Points Inside the Mixing Zone.

Table 7-13 in proposed OAC Rule 3745-1-07 states that the water quality criteria may be applied both inside and outside of the mixing zone. This language suggests the possibility that a water quality sample may be obtained and analyzed from the end of pipe discharge. The City asserts

that Ohio EPA's proposed reliance upon end of pipe discharge will not provide Ohio EPA with accurate technical data that is reflective of the stream's compliance with a water quality use designation. Please see the attached Technical Review Comments for a complete discussion of this concern. (Terrence S. Finn, on behalf of the City of Akron)

Response 33: Determination of recreational use attainment will be based on the geometric mean of the valid samples collected during a recreation season for a particular instream location. The recreation use applies to the designated stream, including any mixing zones that may be present. This is necessary because recreational users are unlikely to know where mixing zones are present, and where they begin or end. Because both the use and the criteria apply within the mixing zone, it would be appropriate to sample within those areas to ascertain whether the site is in attainment of the use. The results of effluent samples are not considered in determining use designation attainment; they are used to determine compliance with permit limits. A similar situation applies with the inside mixing zone maximum aquatic life criteria in rule 3745-1-07.

Comment 34: Application of proposed Table 7-13 to NPDES permittees is unclear.

The application of these standards to use attainment and the potential attribution of responsibility to NPDES permittees is unclear. The table introduction says the criteria apply inside and outside of the mixing zone. In practice this will be linked to an end of pipe measure of E. coli concentration required in a permit. If those measures consistently show attainment of best available demonstrated control technology (<126 cfu/100ml) and stream measures show non-attainment of these criteria from non-point source or wet weather discharges what action will Ohio EPA take? POTWs should have some confidence that in such a hypothetical situation they would not be held responsible for discharges other than those under their control.

Historically non-compliance with recreational use criteria has triggered a TMDL. Bacteria TMDLs typically require BADCT effluent controls and compliance with controls required by the various wet weather programs of the Clean Water Act. Allocation of controls to other non-point sources of bacteria, have not been adequately addressed in TMDLs to date. If these revised standards are proposed to address non-point sources they should be specifically linked to statutory authority to control those sources in order to make them effective. The current proposal does not attempt to make that connection in any clear way. (Daniel Markowitz PhD, on behalf of the City of Akron)

Response 34: The draft standards are designed to protect the recreational use of surface water bodies and do not expand or contract the level of authority the

Agency currently has over nonpoint source pollution. Under the draft rule, NPDES permit holders would not get limits lower than 126 cfu/100ml. As observed in the comment, nonattainment of the applicable recreation use criteria may require a TMDL and these rule revisions will not change that possibility. Such TMDLs may recommend various action items to reduce bacteria loadings from nonpoint sources utilizing best management practices, 319 grant funding, etc.

Rule 3745-1-31 Lake Erie standards.

The Agency has decided to delay proposal of the rule 3745-1-31 revisions to allow more time to discuss them with stakeholders. The comments submitted on draft rule 3745-1-31 are below; however, the Agency has not yet prepared responses to them.

Comment 35: I agree with the Ohio Lake Erie Commission and Ohio Environmental Protection Agency that open-lake disposal of dredge material in Ohio waters of the western Lake Erie basin should be limited, and strongly support the adoption of OAC 3745-1 (C).

Lake Erie is vitally important to my family and to Ohio's environment and economy. It supplies drinking water to 11 million people, 3 million of whom live in Ohio.

Lake Erie also supports the largest sport fishery in the Great Lakes and the one of the largest commercial freshwater fisheries in the world, underpinning a \$1 billion sport fishing industry. The Lake Erie shoreline contributes \$9.45 billion a year in tourism and travel revenue to the Ohio economy. Lake Erie is a critical resource for humans and wildlife and is worth protecting and improving.

Sediment is a major water pollutant and is considered to be one of the top causes of water quality impairment. No other Great Lake states allow open-lake disposal unless it is clean sand (the dredge material in the Toledo Harbor is not sand - it is clay slit).

Therefore, I support a prohibition of open-lake disposal in excess of 50,000 cubic yards by 2011. (Emails from 265 people)

Comment 36: Audubon Ohio has a longstanding interest in protecting and restoring Lake Erie, the Western Lake Erie Basin, and the accompanying shoreline. Audubon Ohio takes the position that it is critical to regulate the water quality of these critical ecosystems that are vital to the birds, wildlife and humans that utilize Lake Erie and the shallow Western Lake Erie Basin.

Audubon Ohio is submitting comments in strong support of the adoption of Ohio Administrative Code (OAC) 3745-1-31 (C) restricting open lake disposal of dredge materials.

Within the Great Lakes navigation system, the waters of the Toledo Harbor on Lake Erie are shallow and consequently, the most heavily dredged. For nearly 20 years, the United States Army Corp of Engineers (USACE) has placed approximately two-thirds of the sediments dredged annually into the open waters of Lake Erie. The remaining one-third of the sediments, which are defined by the USACE as contaminated (sediments including heavy metals and other point source pollutants), are placed in nearby Confined Disposal Facilities (CDFs) which have been reserved for this purpose.

The least contaminated soils, approximately 600,000 cubic yards annually, are disposed in the open lake three and a half miles northwest of the Toledo Harbor lighthouse. The contaminated sediments are disposed of at the Toledo Harbor Facility 3, Grassy Island (Island 18) and Toledo Harbor Facility 3 Extension).

Over the last 20 years, the OEPA, through its 401 certification process, provided temporary approval of open-lake disposal with the requirement that alternatives be developed due to the environmental impacts. In 1987, the Ohio Environmental Protection Agency (OEPA), with the support of the United States Protection Agency (USEPA), made the determination that open-lake disposal of sediment from the Toledo Harbor was an unacceptable practice.

In 1991, the Buffalo District of the USACE made a federal standard determination that sediments dredged lake-ward from Lake Mile 5 were not contaminated, and therefore, suitable for open water disposal. Within the USACE regulations, the federal standard is the least costly disposal alternative that is structurally sound and satisfies applicable environmental regulations. The OEPA does not concur with the USACE's determination that the sediments dredged lake-ward from Lake Mile 5 are clean and thus, the USACE's determination is incorrect as open-lake disposal of the sediment would not satisfy applicable environmental regulations.

The USACE has developed a Great Lakes Testing Manual that is intended to determine whether sediment is clean based on the concentration of point source contaminants such as heavy metals. OEPA does not concur as the agency recognizes that sediment itself, and associated phosphate and nitrates, are also contaminants and have major impacts on the Toledo Harbor. The amount of dredged sediment material that is currently open-lake disposed – on the average 600,000 cubic yards annually – results in significant pollutant loading to the Western Lake Erie Basin.

Sediment is a major water pollutant and is considered to be one of the top causes of water quality impairment. Suspended sediment reduces sunlight from penetrating the water column causing reduction in plankton and aquatic plant growth. High concentrations of suspended sediment can abrade, thus damaging fish gills and destroying the protective mucous covering the eyes and scales and increasing the risk of infection and disease. As sediment settles out of the water column, fish eggs, benthic organisms and high quality bottom substrate are covered creating major impacts to the ecosystem. The huge amount of sediment leading also increases the amounts of nutrients and phosphates that are deposited in the Toledo Harbor. As Dr. Jeffrey Reutter, Director of Sea Grant, stated in a letter addressed to the Director of the Ohio Department of Natural Resources (ODNR) dated November 26, 2007 – the most important problem facing the Lake Erie ecosystem at present is Harmful Algae Blooms, a form of blue-green algae that produces the toxin microcystin that can be a significant human health issue. Open-lake disposal of sediments increases loading of nutrients and contaminants that make the Dead Zone and harmful algal blooms worse. In addition, the treatment of drinking water requires that sediment be removed. In recent years, the Toledo Water Treatment Plant has seen an increase in the number of times that the raw Lake Erie water that is drawn in for treatment contains large amounts of very fine particles of sediment. The elimination process of this sediment is costly and increases treatment costs to meet USEPA requirements. No other Great Lake states allow open-lake disposal unless it is clean sand (the dredge material in the Toledo Harbor is not sand – it is clay silt).

The OEPA maintains that the sheer volume of sediments placed into open waters impacts lake ecology by reducing water clarity for an extended time and redistributing pollutants. Former Governor Bob Taft stated in a February 2004 letter to Michigan Governor Jennifer Granholm that placing dredged material in such a shallow part of Lake Erie “where it can spread by wind and current action is counterproductive to our efforts to restore this Great Lake”. In the Lake Erie Protection and Restoration Plan of 2008, Priority Nonpoint Source Pollution, the Ohio Lake Erie Commission states that critical actions for the years 2009-2011 should be to develop water quality criteria for the western Lake Erie basin that would result in a prohibition of open-lake disposal in excess of 50,000 cubic yards by 2011.

Audubon Ohio agrees with former Governor Taft, the OLEC and OEPA that open-lake disposal of dredge material in Ohio waters of the western Lake Erie basin should be limited, and strongly support the adoption of OAC 3745-1 (C). We look forward to future opportunities to work with the OEPA to promote our shared objective of protecting and restoring water quality and the ecological integrity of the Lake Erie and Western Lake Erie Basin

for the benefit of all citizens of Ohio, and the birds and wildlife that reside in and cross our borders. (Vicki Deisner, Audubon Ohio)

Comment 37: The Nature Conservancy supports the proposed restriction on open lake disposal of dredged material into the waters of Lake Erie, specifically limiting that practice through a prohibition of large scale open lake dredgings disposal beginning in 2011. We emphasize the benefit to Ohioans of the improvements in the quality of Lake Erie.

The restrictions are reasonable, as states have taken action to limit open lake disposal

(<http://www.glc.org/dredging/case/documents/OpenWaterFinal.pdf>). There are other beneficial uses for dredged material. We recognize that in some instances, small marina operators do not have the means that the U.S. Army Corps of Engineers has in developing and utilizing more beneficial, and water quality protective uses of this material. Therefore we support the decision to establish a threshold of 50,000 cubic yards of material per year in the Western Lake Erie basin.

We encourage Ohio EPA, the Army Corps, ODNR, local governments and others work to develop other cost-effective beneficial uses of this material so that we can end this practice in Lake Erie. Where alternatives are used, they need to be of low impact. For example, alternatives should not negatively affect wetlands or their hydrology, or restrict connectivity or habitat in an estuary or along a stream. (Josh Knights, The Nature Conservancy in Ohio)

Comment 38: Open lake dumping of dredged sediment into Lake Erie results in a needless lowering of water quality and catalyst for long term impacts on the already increasing levels of nutrients into the Lake. Sediment is a major water pollutant and is considered to be one of the top causes of water quality impairment. Suspended sediment reduces sunlight from penetrating the water column causing reduction in plankton and aquatic plant growth. High concentrations of suspended sediment can abrade, thus damaging fish gills and destroying the protective mucous covering the eyes and scales and increasing the risk of infection and disease. As sediment settles out of the water column, fish eggs, benthic organisms and high quality bottom substrate are covered creating major impacts to the ecosystem. The huge amount of sediment leading also increases the amounts of nutrients and phosphates that are deposited in the Toledo Harbor. As Dr. Jeffrey Reutter, Director of Ohio Sea Grant, stated in a letter addressed to the Director of the Ohio Department of Natural Resources (ODNR) dated November 26,2007 – the most important problem facing the Lake Erie ecosystem at present is Harmful Algae Blooms, a form of blue-green algae that produces the toxin microcystin that can be a significant human health issue. Open-lake disposal of sediments

increases loading of nutrients and contaminants that exacerbate the Dead Zone and harmful algal blooms.

Furthermore, open lake disposal is unnecessary because the dredged sediment can be put to sure beneficial uses. Opportunities for other uses of this dredged material, other than as a sheer discharged pollutant, include: habitat creation and enhancement; land reclamation and rehabilitation; and uses in commercial markets. All of these options must be identified and inventoried immediately. Such uses are not foreign to the Great Lakes. For example, the state of Wisconsin recommends, as alternatives to open lake dumping, alternatives such as island creation, beach nourishment and wetlands creation. We urge the Director to consider these alternatives as sure beneficial uses of the dredged sediment, and viable alternatives that must be considered before a lowering of water quality is permitted.

We believe that this practice should be completely prohibited, no matter the threshold of cubic yards dredged. The states of Minnesota and Wisconsin restrict or prohibit open lake dumping into the adjacent Great Lakes of Superior and Michigan -- the deepest of all the Great Lakes. Lake Erie is far shallower, warmer and biologically sensitive than the other lakes, thus Ohio has more to lose if water quality continues to decline due to this practice. Within the Great Lakes navigation system, the waters of the Toledo Harbor on Lake Erie are shallow and consequently, the most heavily dredged. For nearly 20 years, the United States Army Corps of Engineers (USACE) has placed approximately two-thirds of the sediments dredged annually into the open waters of Lake Erie. The remaining one-third of the sediments, which are defined by the USACE as contaminated (sediments including heavy metals and other point source pollutants), are placed in nearby Confined Disposal Facilities (CDFs) which have been reserved for this purpose.

Nevertheless, we recognize that in some instances small marina operators do not have the means that the USACE has in developing and utilizing more beneficial and water quality protective uses of this material. Therefore, we support the Ohio EPA for limiting that practice through a prohibition of large scale open lake dumping beginning in 2011.

Interim measures

All the same, we also believe that some steps must be taken in the interim to prepare for the prohibition. Therefore, we support short-term requirements suggested in comments by Sierra Club and Western Lake Erie Waterkeeper Association, outlined below as ways to alleviate the impacts of open lake disposal that could occur as we phase in the prohibition proposed by the Agency: The proposed rule should be amended to read that:

Until January 1, 2011, The Army Corps of Engineers shall be required to complete an Environmental Impact Statement(EIS) on open lake dumping projects that exceed 100,000 cubic yards annually. The EIS would include options in lieu of open lake dumping. There should be a calendar with required steps to address open lake dumping:

- a) Upon commencement of this rule, an Open Lake Dumping Oversight Review Committee shall be formed which shall meet quarterly to review progress on eliminating open lake disposal for dredging in excess of 50,000 cubic yards annually
- b) By January 1, 2010 the Army Corps shall have a completed EIS including alternatives to open Lake Dumping
- c) By March 31, 2010, after public review and comment on the EIS, the top alternatives to open lake disposal will be evaluated
- d) By August 1, 2010 the preferred alternative to open lake disposal shall be determined along with pursuing funding for the selected option(s).

In 2009 and 2010 the Army Corps of Engineers should be required to do mitigation for open lake dumping due to the spreading (turbidity caused by eind movement of the sediments) of the sediments throughout Western and Central Lake Erie. A determination of the nutrient content of the sediments and the impacts to algal growth from open lake disposal should be determined along with the impacts on the alterations to fish habitat, spawning, and production.

(Trent A. Dougherty, Ohio Environmental Council)

Comment 39: The Land and Water Management Division (LWMD) of the Michigan Department of Environmental Quality (MDEQ) supports the draft rules regarding the open lake disposal of dredged material in Ohio waters of the western basin of Lake Erie as proposed by the Ohio Environmental Protection Agency. Michigan supports any measure that significantly reduces open lake disposal of dredge material in Lake Erie.

The draft rule proposes to limit the open lake disposal of dredged material to 50,000 cubic yards per applicant per any twelve month period. In particular, the proposed rule would significantly reduce the environmental impacts from the disposal by the U.S. Army Corps of Engineers of up to 840,000 cubic yards of material dredged from the Toledo Harbor channel in the existing open lake disposal site approximately one mile from the State of Michigan boundary in Lake Erie.

Although the disposal site is located outside of Michigan's boundaries, its resources are affected by this action. The impacts of the disposal of this

large amount of material include increased turbidity, large plumes of turbid water drifting into Michigan, decreased dissolved oxygen and the smothering of fish eggs and macroinvertebrates. The western basin of Lake Erie is the location for the majority of walleye production, a resource shared by Ohio. (Elizabeth M. Browne, Michigan Department of Environmental Quality, Land and Water Management Division)

Comment 40: The U.S. Army Corps of Engineers (USACE)-Buffalo District offers the following comments relative to the proposed amendment to Ohio Administrative Code (OAC) Rule No. 3745-1-31 (C), "Lake Erie standards," seeking to limit open-lake placement of dredged material in the Western Basin of Lake Erie to 50,000 cubic yards (CY) per year:

a. The proposed rule is arbitrary because it has no scientific foundation and would most likely only affect one project and party, the maintenance dredging of Toledo Harbor performed by the Federal government.

b. The proposed rule appears to lack a scientific foundation in terms of adverse impacts to the aquatic ecosystem, and is not directly related to water quality compliance pursuant to Section 401 of the Clean Water Act. Existing information on the placement of Toledo Harbor dredged material at the existing area in the Western Basin of Lake Erie indicates that it meets Federal (U.S. Environmental Protection Agency [USEPA]/ USACE) guidelines because it is toxicologically similar to the sediment in the lake environs. In addition, open-lake placement of the dredged material complies with applicable, promulgated State Water Quality Standards designed to protect aquatic life in Lake Erie.

c. Absent further evidence of the scientific and regulatory validity of the 50,000 CY limit, this proposed rule would not alter the USACE determination of the appropriate Federal responsibility for dredged material management. The local sponsor (non-Federal) or State would be fully responsible for any and all additional costs associated with dredged material management resulting from such a limitation. For example, dredging and placement of the dredged material in a State-permitted landfill is estimated to cost \$50 per cubic yard, in comparison to the current Federal responsibility of about \$6 per cubic yard for dredging and placement of the dredged material in the open-lake. If non-Federal funding were not secured to support the dredging operation beyond the Federal interest, it is possible that Toledo Harbor would not be dredged by the USACE. If the harbor were not dredged and is no longer available to commercial navigation traffic over time, commodities would need to be moved by alternative modes of transportation, such as rail or truck. The transportation costs would then increase by \$268 million annually, which is the estimate of rate savings benefits that the maintained port currently provides. In addition, it is estimated that there would be a loss of \$126

million in regional revenues and 1,789 maritime-related jobs. (Daniel B. Snead, P.E., U.S. Army Corps of Engineers-Buffalo District)

Comment 41: Page 1. Paragraph (C) establishes a limit on the amount of dredge material that can be open lake disposed in the Western Lake Erie Basin to a maximum of fifty thousand cubic yards per applicant per year. The US Army Corps of Engineers estimate that 850,000 cubic yards of material must be dredged annually to maintain shipping at the Port of Toledo. Of that amount, approximately 540,000 cubic yards has historically been open lake disposed, a value more than ten times greater than the amount allowed by this proposed standard. What analysis was used to determine the validity of the 50,000 cubic yard maximum allowed by this proposed standard? What will be the impact on the ability to move freight into and out of Port of Toledo if the navigation channel cannot be adequately maintained? What was the result of the economic impact assessment related to the implementation of this rule? (John C. Fisher, Ohio Farm Bureau Federation)

Comment 42: Re: Proposed changes to WQS for Lake Erie
Open Lake Disposal of Dredged Material:

I wish to address the proposed changes to the WQS that significantly limit the volumes which can be disposed of by open lake disposal post January 1, 2011.

The Toledo-Lucas County Port Authority has been a leading advocate of sustainability throughout the U.S. and continues to promote that objective in all respects. We are good environment stewards and we are constantly looking for opportunities to enhance the role and to promote the message. We do so, wherever possible, based on the sound application of science.

It is accepted that on an annual basis the Maumee River deposits into the federal waterways of Toledo Harbor an average of 1.3 million cubic yards of sediments. In order to maintain the federal channels to standard that same amount would have to be averaged annually by the Army Corps of Engineers (ACE) in its dredging effort. The Army Corps has not exceeded 800,000 CY of dredging in Toledo Harbor for a decade at least. Currently the ACE's dredging is at a rate below 500,000 CY and most of that is being open lake disposed.

The Maumee River also deposits very substantial volumes onto its riverbeds outside of the federal waterways in areas that require dredging in order to maintain safe navigation between the federal waterways and the locations along the River and in Lake Erie where vessels berth. The volume of private dredging required is not exactly known however it does

not exceed the federal waterways dredging needs. None of the private dredgings are open lake disposal.

It is apparent that limiting open lake disposal to a maximum of 50,000 CY will mean the ACE will be forced to change its disposal methods radically. Instead of disposing of up to an annual average of about 500,000 CY open lake it will be reduced tenfold to 50,000 CY. The ACE does not have in existence now or achievable in the short term, sufficient CDF or alternative upland capacities to otherwise dispose of 450,000 CY or greater. The ACE's in-river dredging is already significantly limited by insufficient disposal capacity in its CDF's.

Annual Dredging of the federal waterways in Toledo's Harbor is absolutely essential to keeping our Harbor open to effectively support Ohio's economic recovery. Without that dredging the closing of the Harbor is inevitable in the short term. We already have a backlog of sediments needing to be dredged exceeding 3 million CY in our federal waterways.

Ohio's ports contribute \$6.5 B to Ohio's economy annually and the great port of Toledo is responsible for much of that. Maritime transportation is the most efficient (cost effective) and environment friendly means of moving raw materials and goods. The Global economy is forcing all people worldwide to further enhance their respective transportation systems, not to make them more expensive, less efficient and less environment friendly.

We urge consideration be given to all of the best interests of our communities and the global environment. It would make no sense to undermine our economy and do net damage to our natural environment as a whole simply to respond to a narrow environmental concern. We appreciate that the time for open lake disposals is disappearing and is already gone in areas where it is not essential. We suggest that consideration be given to phasing out the practice in a manner supported by science and prudent economic planning. This is not a simple matter.

Please consider doing that, including initiating an initial graduated phase-in yet to be determined, possibly starting in 2011. (Warren D. McCrimmon, Toledo-Lucas County Port Authority)

Comment 43: Great Lakes Maritime Task Force is the largest coalition ever to advocate for waterborne commerce on the Great Lakes. We draw our membership from labor and management. Included among our 28 Ohio-based members are several of the state's largest employers.

We share Ohio's commitment to the Great Lakes environment, but are troubled by the proposed new rule that would limit the disposal of dredge material in Ohio waters of western Lake Erie to a maximum of 50,000 cubic

yards per applicant per any 12-month period. This places severe limitations on Open Lake disposal of **clean** dredge material, the most cost-effective manner of disposal.

The U.S. Army Corps of Engineers has built Confined Disposal Facilities (“CDFs”) to hold dredge material not suitable for Open Lake Disposal. These facilities, however, are not of infinite capacity. And once they are filled, the cost of a new CDF is considerable – as much as \$280 million for the new CDF under consideration in Cleveland.

The limitation on Open Lake disposal in western Lake Erie will make dredging Toledo Harbor even more difficult and costly. As a result of farmland erosion far from Toledo, the navigation channel silts in quite quickly. A minimum of 850,000 cubic yards must be dredged each year, and that does not even accomplish restoring the port to project dimensions.

Toledo is the seventh largest port on the Great Lakes. Waterborne commerce typically tops 12 million tons a year. Loss of this port could cost our economy 50,000 jobs.

What is the basis for this action? Material disposed by the Open Lake method must be clean. Is there scientific evidence that Open Lake Disposal of clean dredge material in some way harms the environment? That can be the only valid basis for this new rule. If Open Lake disposal poses no threat to the environment or Ohioan’s enjoyment of our Lake Erie waters, then the limitation must be lifted. We need a healthy environment, but we need the jobs associated with cargo movement through the Port of Toledo. Both are attainable.

In the interests of our members and all the Ohioans who benefit from waterborne commerce through the Port of Toledo, we ask that you reconsider this rule and allow for maximum use of Open Lake disposal of clean dredge material. (Donald Cree, Great Lakes Maritime Task Force)

End of Response to Comments