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April 30, 2013

U.S. Environmental Protection Agency
Clerk of the Board
Environmental Appeals Board 1103M
1200 Pennsylvania Avenue, N.W.
East Building
Washington, D.C. 20460-0001

Re: Town of Newmarket Wastewater Treatment Plant
Permit Number: NH0100196
Appeal Number: NPDES 12-05

Dear Ms. Durr,

In its Response and Sur-reply, EPA claimed that draft state policies referenced in 40 C.F.R. § 122.44(d)(1)(vi) are used to determine if a water body is violating New Hampshire's narrative criteria. (*See* Response at 45-49, Sur-reply at 10-13). In particular, EPA claims 40 C.F.R. § 122.44(d)(1)(vi) is not merely used to determine an appropriate effluent limitation to meet a narrative criterion, it is also used to define whether a narrative criteria violation under § 122.44(d)(1)(ii) exists. After learning of EPA's re-interpretation of 40 C.F.R. § 122.44(d), Hall & Associates submitted a series of three Freedom of Information Act ("FOIA") requests seeking records associated with EPA's published statements on how the regulation was intended to be implemented. The Coalition now wants to bring the Board's attention to EPA's response to these three FOIAs as they contradict what EPA has filed in this permit appeal and further confirm that EPA is employing an unadopted and illegal rule interpretation, in issuing the Newmarket permit.

The FOIA requests asked for any records:

- (1) From EPA Headquarters, developed between 1989-2005, directing states to impose nutrient limits under § 122.44(d), for waters that are not nutrient impaired. (Attachment A- FOIA Request EPA-HQ-2013-003781);
- (2) Informing the public that with the adoption of § 122.44(d) and any subsequent amendments, EPA has the authority to impose stringent limitations even where state waters are not listed as impaired or exhibiting signs of impairment

(e.g., imbalance in aquatic fauna or flora) due to nutrient (Attachment B-FOIA Request EPA-HQ-2013-003782);

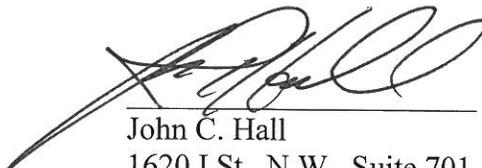
- (3) Containing guidance, post-2005, for NPDES permit writers, on how to implement a state narrative criteria under § 122.44(d) with respect to nutrients. (Attachment C- FOIA Request EPA-HQ-2013-003783).

With regards to the first FOIA request (EPA-HQ-2013-003781), EPA provided no responsive documents. For the remaining FOIA requests (EPA-HQ-2013-003782 and EPA-HQ-2013-003783), the only responsive document provided by EPA was entitled “Nutrient Criteria Implementation: Frequent Questions.”¹ (Attachment D). In the Frequent Questions document, 40 C.F.R. § 122.44(d) is only discussed three times. (*See Id.* at 1- Question 2; at 3- Question 3; and at 4-5- Question 8). These references are merely general statements that 40 C.F.R. § 122.44(d) should be used to derive water quality based “effluent limitations” (WQBEL). (*See, e.g., Id.* at 3 (“even if a water body is not currently impaired for nutrients, a permit writer must include a WQBEL if a discharge has the reasonable potential to cause or contribute to an excursion of the nutrient criteria.”) (emphasis added)). The document does not contain any statements indicating that EPA should use a draft numeric value to determine if a narrative criteria violation is predicted to occur.

Thus EPA’s FOIA responses are inconsistent with EPA’s argument that 40 C.F.R. § 122.44(d), or draft policy documents reference therein, can be used to declare waters in exceedance of a state’s narrative standard (either presently or in the future). Nor does the guidance allow a permitting authority to dispense with a demonstration that nutrients a violation of the applicable water quality standard - in this case Env-Wq 1703.14(c) (requiring a demonstration that nutrients are causing “cultural eutrophication.”). Put differently, EPA’s assertion of how to apply 40 C.F.R. § 122.44(d) is not consistent with how EPA has informed the public on how to interpret this rule. Accordingly, we ask the Board to take into consideration EPA’s responses in deciding whether to grant Petitioners’ appeal of the Newmarket NPDES permit.

Thank you for your consideration in this matter and we look forward to your response.

Respectfully submitted,



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¹ EPA provided an electronic version of the document as well as the following hyperlinks where the document may be accessed: <http://www2.epa.gov/nutrient-policy-data/frequent-questions-nutirent-criteria-implementation> and <http://cfpub.epa.gov/npdes/faqs.cfm#426>.

CERTIFICATION OF SERVICE

I hereby certify the copies the Petitioner's Letter to the Board regarding EPA's response to three FOIA requests in connection with NPDES Appeal No. 12-05, were sent to the following persons in the manner indicated:

By Electronic Filing:

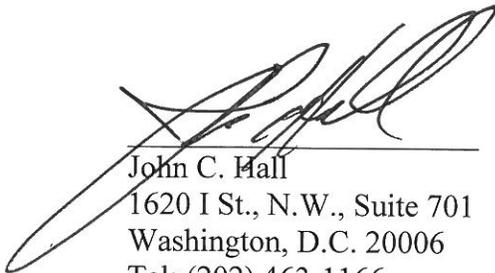
Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board 1103M
1200 Pennsylvania Avenue, N.W.
East Building
Washington, D.C. 20460-0001

By E-mail:

Mr. Samir Bukhari
U.S. Environmental Protection Agency
Office of Regional Counsel, Region 1
5 Post Office Square- Suite 100
Mail Code: ORA 18-1
Boston, MA 02109-3912
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Date: _____

4/30/13



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Attachment A:

FOIA Request

EPA-HQ-2013-003781

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February 19, 2013

VIA ELECTRONIC FILING SYSTEM

National Freedom of Information Officer
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (2822T)
Washington, D.C. 20460
E-mail: hq.foia@epa.gov

RE: Freedom of Information Act Request for Records Associated with the Interpretation of 40 C.F.R. § 122.44(d)

To Whom This May Concern:

This is a request for public records pursuant to the Freedom of Information Act (“FOIA”), 5 U.S.C. § 552, as implemented by the Environmental Protection Agency (“EPA”) at 40 C.F.R. Part 2. For purposes of this request, the definition of “records” includes, but is not limited to, documents, letters, memoranda, notes, reports, e-mail messages, policy statements, data, technical evaluations or analysis, and studies.

Request

In general, this request seeks all EPA guidance explaining when and how 40 C.F.R. § 122.44(d) should be used to formulate nutrient effluent limitations in a National Pollutant Discharge Elimination System (“NPDES”) permit. More specifically, this request seeks any records from EPA Headquarters, developed between 1989-2005, directing states to impose nutrient limits under § 122.44(d), for waters that are not nutrient impaired.

Please contact the undersigned if the associated search and duplication costs are anticipated to exceed \$250.00. Please duplicate the records that are responsible to this request and send them to the undersigned at the above address. If any requested records are withheld based upon any asserted privilege, please identify the basis for the non-disclosure. If the Agency lacks records

Attachment A

responsible to a particular item, please note that in the response. If you have any questions regarding this request, please do not hesitate to contact this office so as to ensure that agency resources are conserved and only the necessary documents are reproduced.

Sincerely,

/s/ John C. Hall

JOHN C. HALL

Attachment B:

FOIA Request

EPA-HQ-2013-003782

HALL & ASSOCIATES

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Washington, DC 20006-4033
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February 19, 2013

VIA ELECTRONIC FILING SYSTEM

National Freedom of Information Officer
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (2822T)
Washington, D.C. 20460
E-mail: hq.foia@epa.gov

RE: Freedom of Information Act Request for Records Associated with Requirements of 40 C.F.R. § 122.44(d)

To Whom This May Concern:

This is a request for public records pursuant to the Freedom of Information Act (“FOIA”), 5 U.S.C. § 552, as implemented by the Environmental Protection Agency (“EPA”) at 40 C.F.R. Part 2. For purposes of this request, the definition of “records” includes, but is not limited to, documents, letters, memoranda, notes, reports, e-mail messages, policy statements, data, technical evaluations or analysis, and studies.

Request

In general, this request seeks all EPA guidance explaining when and how 40 C.F.R. § 122.44(d) should be used to formulate nutrient effluent limitations in a National Pollutant Discharge Elimination System (“NPDES”) permit. More specifically, this request seeks any records informing the public that with the adoption of § 122.44(d) and any subsequent amendments, EPA has the authority to impose stringent limitations even where state waters are not listed as impaired or exhibiting signs of impairment (e.g., imbalance in aquatic fauna or flora) due to nutrients.

Please contact the undersigned if the associated search and duplication costs are anticipated to exceed \$250.00. Please duplicate the records that are responsible to this request and send them

Attachment B

to the undersigned at the above address. If any requested records are withheld based upon any asserted privilege, please identify the basis for the non-disclosure. If the Agency lacks records responsible to a particular item, please note that in the response. If you have any questions regarding this request, please do not hesitate to contact this office so as to ensure that agency resources are conserved and only the necessary documents are reproduced.

Sincerely,

/s/ John C. Hall
JOHN C. HALL

Attachment C:

FOIA Request

EPA-HQ-2013-003783

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February 19, 2013

VIA ELECTRONIC FILING SYSTEM

National Freedom of Information Officer
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (2822T)
Washington, D.C. 20460
E-mail: hq.foia@epa.gov

RE: Freedom of Information Act Request for Records Associated with Requirements of 40 C.F.R. § 122.44(d)

To Whom This May Concern:

This is a request for public records pursuant to the Freedom of Information Act (“FOIA”), 5 U.S.C. § 552, as implemented by the Environmental Protection Agency (“EPA”) at 40 C.F.R. Part 2. For purposes of this request, the definition of “records” includes, but is not limited to, documents, letters, memoranda, notes, reports, e-mail messages, policy statements, data, technical evaluations or analysis, and studies.

Request

In general, this request seeks all EPA guidance explaining when and how 40 C.F.R. § 122.44(d) should be used to formulate nutrient effluent limitations in a National Pollutant Discharge Elimination System (“NPDES”) permit. More specifically, this request seeks any records containing guidance, post-2005, for NPDES permit writers, on how to implement a state narrative criteria under § 122.44(d) with respect to nutrients.

Please contact the undersigned if the associated search and duplication costs are anticipated to exceed \$250.00. Please duplicate the records that are responsible to this request and send them to the undersigned at the above address. If any requested records are withheld based upon any asserted privilege, please identify the basis for the non-disclosure. If the Agency lacks records

Attachment C

responsible to a particular item, please note that in the response. If you have any questions regarding this request, please do not hesitate to contact this office so as to ensure that agency resources are conserved and only the necessary documents are reproduced.

Sincerely,

/s/ John C. Hall

JOHN C. HALL

Attachment D:

EPA Response to FOIA Requests

EPA-HQ-2013-003781

EPA-HQ-2013-003782

EPA-HQ-2013-003783



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 19, 2013

Mr. John C. Hall
Hall & Associates
1620 I Street, NW, Suite 701
Washington, DC 20006-4033

Subject: Freedom of Information Act Requests –
EPA-HQ-2013-003781
EPA-HQ-2013-003782
EPA-HQ-2013-003783

Dear Mr. Hall:

This letter is in response to the three Freedom of Information Act requests listed above, regarding records that provide guidance on EPA's interpretation of 40 CFR 122.44(d) in developing NPDES permit limits for nutrients. Our response to each of the three requests is as follows:

FOIA #781: "... any records from EPA Headquarters, developed between 1989-2005, directing states to impose nutrient limits under § 122.44(d), for waters that are not nutrient impaired."

Based on our inquiry of EPA Regions and other EPA offices, we have not located any documents that are responsive to this portion of your request.

FOIA #782: "... any records informing the public that with the adoption of § 122.44(d) and any subsequent amendments, EPA has the authority to impose stringent limitations even where state waters are not listed as impaired or exhibiting signs of impairment (e.g., imbalance in aquatic fauna or flora) due to nutrients."

EPA is providing documents that are responsive to this request. They are also responsive to FOIA #783; see below.

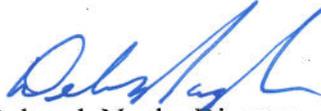
FOIA #783: "... any records containing guidance, post-2005, for NPDES permit writers, on how to implement a state narrative criteria under § 122.44(d) with respect to nutrients."

Information responsive to this request is reflected in Frequently Asked Questions that are available in two locations on EPA's website: <http://www2.epa.gov/nutrient-policy-data/frequent-questions-nutrient-criteria-implementation> and <http://cfpub.epa.gov/npdes/faqs.cfm#426>. The responsive FAQs are also included in a printed compilation - *Nutrient Criteria Implementation: Frequent Questions* - which is attached here.

This is an initial response. We are continuing to review other potentially responsive documents and will respond to you within three to six weeks regarding those potentially responsive records. Your FOIA appeal rights will accrue once a final response is issued.

Please contact Ross Brennan at Brennan.ross@epa.gov if you have any questions.

Sincerely,



Deborah Nagle, Director
Water Permits Division



Nutrient Criteria Implementation: Frequent Questions

For the most recent version of these Frequent Questions,
please visit EPA's nutrients website at
<http://www.epa.gov/waterscience/criteria/nutrient/>

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Standards

1. How do nutrient criteria relate to antidegradation procedures?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. States have existing antidegradation policies and procedures, which must be followed for nutrient criteria. States may modify their procedures at their discretion to address new/increased loadings of nutrients. For more information on antidegradation, please refer to 40 CFR 131.12 and Ephraim S. King memo, Tier 2 Antidegradation Reviews and Significance Thresholds (USEPA, 2005).

2. How will trans-boundary impacts be best addressed (e.g., nutrient loading to a river in state A causes no local problems but contributes to algal blooms in a downstream estuary in state B)?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. EPA's regulations provide that "[i]n designating uses of a water body and the appropriate criteria for those uses, the state shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters." 40 CFR 131.10. See also 40 CFR 122.4(d) and 122.44(d)(4) for information on permitting requirements related to the water quality of downstream states.

3. Can the designated use be removed if the naturally occurring conditions exceed the criterion?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. States may take one of two approaches to address natural conditions that exceed the criteria in a water body: 1) changing or removing the designated use, or 2) adjusting the criteria. When naturally occurring pollutant concentrations prevent the attainment of designated use, states may remove a designated use which is not an existing use, as defined in 40 CFR 131.3(e) provided the state demonstrate the designated use is not attainable. States can also change the designated use by establishing subcategories of a use. A use attainability analysis must be performed to change or remove a designated use that is a 101(a) use (40 CFR 131.10 (g)). Also, refer to the WQS Handbook (USEPA, 1994) for more information on use attainability analyses. Alternatively to changing designated uses, States may establish site-specific numeric aquatic life water quality criteria by setting the criteria value equal to natural background. For more information on site specific criteria and natural background, please refer to 40 CFR 131.11(b) and Tudor T. Davies memo, Establishing Site Specific Aquatic Life Criteria Equal to Natural Background (USEPA, 1997).

4. When making water quality standard attainment decisions, are there exceptions for natural causes of violating a water quality standard?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. Assessments of water quality are dependent on how the criteria are written into the water quality standards regulations. If a state does not have a provision for setting criteria based on natural background or natural conditions in its water quality standards regulations, or does not have site specific criteria based on natural background, then the criteria in place for the designated use for that water body would be the basis for determining whether the water body is impaired. If the state has a provision allowing for adjustment of the criteria based on natural conditions, the water body may be found to attain water quality standards. For more information on site-specific criteria and natural background, please see 40 CFR 131.11(b) and Tudor T. Davies memo, Establishing Site Specific Aquatic Life Criteria Equal to Natural Background (USEPA, 1997).

5. Does the adoption of nutrient standards that have different numeric criteria for different water body types constitute a subcategorization of uses, as described in 40 CFR 131.10(c)?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. States are required to adopt water quality criteria that protect the designated use (see 40 CFR 131.11 (a)). If a state believes that the designated use can be attained with different water quality criteria, it may adopt site-specific (or eco-specific) criteria without changing the designated use. If, however, the state believes that the highest attainable aquatic life uses may be different from the currently designated uses for different types of water bodies (such as streams, lakes and reservoirs, rivers, or coastal waters), the state may subcategorize its aquatic life uses to reflect the highest attainable use. A use attainability analysis (UAA) must be conducted when a state or tribe changes or removes a designated use, or adopts subcategories for uses that protect CWA 101(a)(2) uses if the new use or subcategory will require less stringent criteria than those associated with the previously designated use. Please refer to 40 CFR 131.10(c), (j), and (k) for the regulatory requirements for establishing subcategories of designated uses and 40 CFR 131.11 for the regulatory requirements for establishing criteria.

6. Are the procedures and necessary supporting documentation for site-specific nutrient criteria development based upon “natural causes” different from the procedures and supporting documentation needed to support a use attainability analysis (UAA) and subsequent nutrient criteria to support the lower use?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. The processes for establishing site-specific criteria and conducting a use attainability analysis have similar steps for data collection and analysis. For more information on site-specific criteria see Chapter 3 of the WQS Handbook (USEPA, 1994). Regulations governing use attainability analyses can be found at 40 CFR 131.10(g). For questions about establishing water quality criteria for aquatic life equal to natural background levels, please see EPA's memorandum, "Establishing Site Specific Aquatic Life Criteria Equal to

Natural Background" (USEPA, 1997). More information may also be found in The Lake and Reservoir Restoration Guidance Manual (USEPA, 1990b).

Permits

1. What design flow is appropriate for calculating limits for nutrients?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. Design flows for effluent limit calculations are based on treatment design flows at individual facilities. Please refer to 40 CFR 122.45(b) and Chapter 6 of the NPDES Permit Writers' Manual (http://cfpub.epa.gov/npdes/writermanual.cfm?program_id=45) for more information on determining appropriate effluent design flow.

2. What monitoring requirements for nutrients are necessary in permits?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. In general, monitoring requirements in permits must effectively ascertain compliance with effluent limits. Please refer to 40 CFR 122.44(i) and Chapter 8 of the NPDES Permit Writers Manual (http://cfpub.epa.gov/npdes/writermanual.cfm?program_id=45) for more information.

3. Should WQBELs apply only if a water is determined to be impaired by nutrients?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. The permitting authority must include a WQBEL in a permit if nutrients or any pollutant cause, contribute to, or have the reasonable potential to cause or contribute to an excursion of a water quality standard. In other words, even if a water body is not currently impaired for nutrients, a permit writer must include a WQBEL if a discharge has the reasonable potential to cause or contribute to an excursion of the nutrient criteria. For more information on WQBELs, please refer to 40 CFR 122.44(d).

4. When determining reasonable potential for nutrient NPDES permits, are dynamic models appropriate, and if so, which models?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. The decision to use dynamic models (time variable models) depends on the water body system to be modeled. The factors one considers to determine when to use a time variable model are found in a suite of technical guidances related to modeling the fate and transport of contaminants for the purposes of developing wasteload allocations that OW published between 1983 and 1990 (USEPA, 1983a; USEPA 1983b; USEPA, 1990a).

5. How can new nutrient criteria be implemented in existing NPDES permits?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. The permitting authority may be able to modify an existing permit (a

new nutrient standard may be an allowable cause for modification) during the existing permit term, wait until the end of the permit term, or use an overlay permit that captures multiple facilities and provides additional flexibility. Permitting authorities are encouraged to consider a watershed-based permitting approach, which allows for the coordinated reissuance of permits with applicable limits throughout a watershed and may expedite implementation of new criteria while lowering administrative burden. The Virginia Chesapeake Bay and the Connecticut Long Island Sound Permits are examples where states have utilized the overlay permit to implement new nutrient criteria. Refer to 40 CFR 122.62 and Chapter 11 of the NPDES Permit Writers' Manual (http://cfpub.epa.gov/npdes/writermanual.cfm?program_id=45) for regulatory requirements and information on reopening a permit. For more information on examples of overlay permits, refer to "Case Study 1 - General Permit for Nitrogen Discharges" and "Case Study 13 - Chesapeake Bay Watershed, Virginia: Watershed-based General Permit for Nutrient Discharges and Nutrient Trading" located on EPA's watershed-based permitting website at <http://www.epa.gov/npdes/watersheds>.

6. What options are available when treatment technology does not exist to enable dischargers to meet the WQBEL?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. If dischargers cannot meet the WQBEL based on existing water quality standards, states have the option of changing the water quality standards through variances or changes to designated uses, which would result in a different WQBEL that could be met. In other instances, dischargers may be able to meet the WQBELs based on existing water quality standards through options such as offsets from point and nonpoint sources (e.g., land based BMPs) and water quality trading, and watershed analysis. For information on variances, refer to EPA's Water Quality Standards Handbook (USEPA, 1994). For information on changing designated uses, please refer to 40 CFR 131.10 (g). For information on offsets, trading, and watershed analysis, refer to the watershed-based permitting website at <http://www.epa.gov/npdes/watersheds> and the water quality trading website at <http://www.epa.gov/owow/watershed/trading>.

7. How can watershed-based permitting strategies, trading, or other novel permitting strategies be utilized to “meet” water quality standards?

The answer to this question is not specific to nutrients. EPA promotes using a NPDES watershed approach and water quality trading as innovative tools that may provide low cost implementation solutions for meeting water quality standards. For more information on these tools, please refer to the watershed-based permitting website at <http://www.epa.gov/npdes/watersheds> and the water quality trading website at <http://www.epa.gov/owow/watershed/trading>.

8. How do technology-based effluent limits affect the need for water-quality based effluent limits (WQBELs) in permits?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. Water quality-based effluent limitations are needed where

technology-based effluent limitations are not stringent enough to meet applicable water quality standards. Refer to 40 CFR 122.44(d) and Chapter 6 of the NPDES Permit Writers' Manual (http://cfpub.epa.gov/npdes/writermanual.cfm?program_id=45) for more information on WQBELs.

9. Can a permit require chemical and biological sampling at points other than the discharge outfall?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. Biological sampling may be appropriate to effectively monitor the discharge status and ensure compliance. One practice for collecting ambient monitoring is described in EPA's Interim Guidance for Performance-based Reductions of NPDES Permit Monitoring Frequencies (www.epa.gov/npdes/pubs/perf-red.pdf), which states that the permit authority can grant reductions in effluent monitoring for a permittee with a history of good compliance and permitting performance in exchange for ambient monitoring. In an attempt to test some of the ideas in the 1996 Interim Guidance, performance track facilities have been piloting programs to strike a balance between ambient monitoring and end-of-pipe monitoring. Specifically, Kodak Colorado Division and other dischargers near Kodak on the Cache la Poudre River have formed an ambient water quality monitoring group. This group was formed in cooperation with the Colorado Department of Public Health & Environment (CDPHE) to monitor the ambient water quality of the receiving water body. Refer to: <https://yosemite.epa.gov/opei/ptrack.nsf/vRenewalViewPrintView/70067EB5DC425383852572F8007E8405> for more information about this ambient monitoring group. Refer to Chapter 8 of the NPDES Permit Writers' Manual (http://cfpub.epa.gov/npdes/writermanual.cfm?program_id=45) for information on including special studies and additional monitoring in NPDES permits.

10. Are seasonal water quality-based permit limits for nutrients appropriate?

The answer to this question is specific to nutrients. Seasonal water quality-based permit limits are not explicitly specified in the NPDES regulations under 40 CFR 122. However, seasonal permit limits may be acceptable if they are consistent with applicable water quality standards, and with the assumptions and requirements of the wasteload allocation of any approved TMDL (40 CFR 130.7(c)). For example, if the water quality standards for nutrients provide for seasonal limits, permits can include seasonal limits. See the memorandum Annual Permit Limits for Nitrogen and Phosphorus for Permits Designed to Protect Chesapeake Bay and its tidal tributaries from Excess Nutrient Loading under the National Pollutant Discharge Elimination System at http://www.epa.gov/reg3wapd/npdes/pdf/ches_bay_nutrients_hanlon.pdf.

Monitoring, Impairment, Assessment, and TMDLs; Permits

1. Can a new source or a new discharger be authorized in water bodies that are currently listed as impaired for nutrients?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. New sources and new dischargers can be authorized in water bodies currently listed as impaired. If a TMDL has been developed, the permit writer must demonstrate that there are remaining pollutant load allocations to allow for the additional loads and compliance schedules designed to bring the impaired water body into compliance with applicable water quality standards. When a TMDL has yet to be developed, the new source or new discharger can obtain a permit when certain conditions are met such as when the dischargers do not contain the pollutant causing the impairment, or other pollutant source reductions will offset the new discharge. For more information, refer to 40 CFR 122.4(i) and page 38 of EPA's decision on the Chesapeake Bay Foundation petition at <http://www.epa.gov/water/cbfpetition/petition.pdf>.

Monitoring, Impairment, Assessment, and TMDLs

1. How should sources of pollutant loadings be determined?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. To identify sources of pollutant loadings in a water body segment, states should identify point and nonpoint sources of the pollutant of concern. Where it is possible to separate natural background from nonpoint sources, the TMDL should include a description of natural background. For more information, please refer to EPA's TMDL guidance (USEPA, 1991a) or the Source Assessment section of the Protocol for Developing Nutrient TMDLs (USEPA, 1999). More information may also be found in The Lake and Reservoir Restoration Guidance Manual (USEPA, 1990b).

2. When is source identification conducted as part of assessment and listing decisions?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. Impairment decisions are based on the state's assessment of the water quality attainment status of the water body. Source identification can be performed during this assessment and included as additional optional information along with the impairment decision. Source identification does not affect the impairment decision except where natural conditions are demonstrated to be the sources of the impairment. Under some conditions, the state may adjust its criteria to reflect natural conditions, thus removing the impairment. For more information, please refer to EPA's Integrated Report Guidance (USEPA, 2006b).

3. Is there a minimum data requirement needed to assess whether a water body is not attaining applicable water quality standards? For example, would one exceedance of one variable of the criteria lead to the determination that the water body is not attaining applicable water quality standards?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. How the nutrient criteria were developed and written into the water quality standards should inform decisions about how the criteria are used in assessment decisions. While it is possible that a state may have minimum data requirements, EPA regulations require states to assemble and evaluate all existing and readily available water quality-related data for assessment decisions. Thus, depending on the expressed water quality standard, one exceedance of one variable may or may not lead to a determination that the water body is attaining its use. For more information, see 40 CFR 130.7(b)(5) and EPA's Integrated Report Guidance (USEPA, 2006b).

4. How should loads be allocated for multiple sources and source types to the same reach or segment?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. Each state has the discretion to decide how to allocate loads in such a manner that water quality standards will be achieved. For more information, please refer to EPA's TMDL guidance (USEPA, 1991a) or the Allocations section of the Protocol for Developing Nutrient TMDLs (USEPA, 1999).

5. In the TMDL process, how do you allow for future growth and associated increases in nutrient loadings that will reach a lake? How is reserve capacity awarded and what happens when it is “used up”?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. TMDLs can account for future growth by choosing to allocate a certain percentage to new sources. However, a future growth allocation or reserve capacity allocation is not a required component of a TMDL and reduces allocations for existing sources. In some areas, such as urbanizing watersheds, allocating for future growth can accommodate new point sources, such as a wastewater treatment plants. Each state has the discretion to decide how to allocate loads in such a manner that water quality standards will be achieved. Under an adaptive management approach, a state can revisit existing TMDLs, revise them and resubmit them for EPA approval, as needed. For more information, please refer to EPA's TMDL guidance (USEPA, 1991a).

6. In the absence of a TMDL, do permitting authorities have the flexibility to use a watershed approach similar to a TMDL analysis? Does EPA have guidance on an appropriate margin of safety for nutrient TMDLs associated with the wasteload allocation/load allocation (WLA/LA) to ensure that water quality standards are met when implemented into permit limits?

This question is not entirely specific to nutrients, and therefore, is answered the same as for any other water quality criteria. (a) Yes, in the absence of a TMDL, permitting authorities have the flexibility to use a watershed approach similar to a TMDL analysis. One such approach is watershed-based permitting, which may be valuable where a TMDL is not available or as a tool to implement a TMDL. However, unless the watershed-based permitting effort includes all of the required elements of a TMDL or a TMDL alternative, a water body impaired by nutrients should remain on the 303(d) list until it meets standards or has an actual TMDL established or approved by EPA. The Chesapeake Bay implemented a watershed-based permitting approach for controlling nutrient discharges, which can be found at http://www.epa.gov/reg3wapd/npdes/pdf/ches_bay_nutrients.pdf. For more information on watershed-based permitting, see www.epa.gov/npdes/watersheds. (b) For information on determining the margin of safety for nutrient TMDLs, refer to Chapter 9 of EPA's Protocol for Developing Nutrient TMDLs (USEPA, 1999).

Criteria

1. Are the criteria expressed as an index (like a TSI) that depends upon a combination of factors?

The answer to this question is specific to nutrients. This question has a technical response on NSTEPS at: <http://n-steps.tetrtech-ffx.com/Q&A-Implementation.cfm>. A good summary description of the trophic state index (TSI) can be found at: <http://dipin.kent.edu/tsi.htm>. In summary, the trophic state can be defined as the weight of living biological material (biomass) in a water body at a specific location and time. A good indicator of trophic state is the level of cloudiness in the water. The criteria language should be specific on which variables should be considered, if that is deemed critical to ensuring the criteria are protective.

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