SUPPLEMENTAL EXHIBIT – 14

S. Exh. 14

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

November 30, 2012

OFFICE OF
WATER

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

Subject: Freedom of Information Act Requests –
EPA-HQ-2013-000197
EPA-HQ-2013-000711
EPA-HQ-2013-000712
EPA-HQ-2013-000713
EPA-HQ-2013-000714
EPA-HQ-2013-000715
EPA-HQ-2013-000716
EPA-HQ-2013-000717
EPA-HQ-2013-000723

Dear Mr. Hall:

This letter is in response to the nine Freedom of Information Act (FOIA) requests listed above.

The first FOIA request (EPA-HQ-2013-000197), dated October 4, 2012, seeks "records relied upon by the EPA's Office of Water and the Interim Science Integrity Official to determine that scientific misconduct, as alleged in the May 4, 2012, letter to the Agency has not occurred." The Office of Water at EPA Headquarters has identified five documents falling within the scope of your request. Those documents are provided with this letter.

Each of the other eight FOIA requests seeks records or factual analysis that disprove a particular factual statement in the Great Bay Coalition's May 4, 2012, letter to EPA. The Office of Water objects to responding to these FOIA requests as they do not reasonably describe the records being sought, as required by 40 CFR 2.102(c), and improperly request that the Agency conduct analysis and research and formulate opinions. We note that similar requests were made of EPA Region 1 and were similarly objected to.

If you consider any portion of this response to be a denial, you may appeal it by addressing your written appeal to the National Freedom of Information Officer U.S. EPA, FOIA and Privacy Branch, 1200 Pennsylvania Avenue, N.W. (2822T), Washington, DC 20460 (U.S. Postal Service Only), FAX: (202) 566-2147, E-mail: hq.foia@epa.gov. Only items mailed

through the United States Postal Service may be delivered to 1200 Pennsylvania Avenue, NW. If you are submitting your appeal via hand delivery, courier service or overnight delivery, you must address your correspondence to 1301 Constitution Avenue, N.W., Room 6416J, Washington, DC 20001. Your appeal must be made in writing, and it must be submitted no later than 30 calendar days from the date of this letter. The Agency will not consider appeals received after the 30-calendar-day limit. The appeal letter should include the FOI numbers listed above. For quickest possible handling, the appeal letter and its envelope should be marked "Freedom of Information Act Appeal."

The consolidated cost of providing the information in response to these nine FOIA requests is $615, or an average of $68 per FOIA request. An itemized invoice covering the charges for processing your request is enclosed. Please forward your check or money order, made payable to the U. S. Environmental Protection Agency, within 30 days of the date of this response. Your check should refer to the RIN number above and should be accompanied by the top portion of the enclosed Bill for Collection. Your prompt payment of the amount indicated will be appreciated. In a continued effort to streamline the FOIA process, EPA is now offering you the option of paying your FOIA bill on-line. There is no requirement for you to use the on-line system to pay your bill, but if you choose to do so please go to www.pay.gov and follow the simple instructions. Please be sure to have your RIN number available so that the payment can be applied to the correct charge.

Please contact Ross Brennan at brennan.ross@epa.gov if you have any questions about this response.

Sincerely,

Acting For

Deborah Nagle, Director
Water Permits Division

U.S. Environmental Protection Agency
Scientific Integrity Policy

I. Purpose

The Agency has established, and continues to promote, a culture of scientific integrity for all of its employees. This policy provides a framework intended to ensure scientific integrity throughout the EPA and promote scientific and ethical standards, including quality standards; communications with the public; the use of peer review and advisory committees; and professional development. It also describes the scope and role of a standing committee of Agency-wide scientific integrity officials to implement this policy.

II. Background

Science is the backbone of the EPA's decision-making.[1] The Agency's ability to pursue its mission to protect human health and the environment depends upon the integrity of the science on which it relies. The environmental policies, decisions, guidance, and regulations that impact the lives of all Americans every day must be grounded, at a most fundamental level, in sound, high quality science. When dealing with science, it is the responsibility of every EPA employee to conduct, utilize, and communicate science with honesty, integrity, and transparency, both within and outside the Agency. To operate an effective science and regulatory agency like the EPA, it is also essential that political or other officials not suppress or alter scientific findings.

At the EPA, promoting a culture of scientific integrity is closely linked to transparency. The Agency remains committed to transparency in its interactions with all members of the public. These values were first expressed in then Administrator William Ruckelshaus' "Fishbowl Memo" (19 May 1983) [1]. This memorandum established a culture of integrity and openness for all employees by promising the EPA would operate "in a fishbowl" and "will attempt to communicate with everyone from the environmentalists to those we regulate, and we will do so as openly as possible."

This Scientific Integrity Policy builds upon existing Agency and government-wide policies and guidance documents, enhancing the EPA's overall commitment to scientific integrity. This commitment is evidenced by the Agency's adherence to the 2002 Office of Management and Budget (OMB) Information Quality Guidelines [2], the 2005 OMB Information Quality Bulletin for Peer Review [3], the EPA's Quality Policy [4] for assuring the collection and use of sound scientific data and information, the EPA's Peer Review Handbook [5] for internal and external review of scientific products, and the EPA's Information Quality Guidelines [6] for establishing the transparency, integrity, and utility of information published on the Agency's websites.

The Agency has appointed a Scientific Integrity Official to champion scientific integrity throughout the Agency. The Scientific Integrity Official chairs a standing committee of Deputy

[1] In this document, "science" and "scientific" are expansive terms that refer to the full spectrum of scientific endeavors, e.g., basic science, applied science, engineering, technology, economics, social sciences, and statistics. The term "scientist" refers to anyone who collects, generates, uses, or evaluates scientific data, analyses, or products.

Scientific Integrity Officials representing each EPA Program Office and Region. These senior-level employees provide oversight for the implementation of the Scientific Integrity Policy at the EPA, act as liaisons for their respective Programs and Regions, and are available to address any questions or concerns regarding this policy.

III. Policy Applicability

As of the effective date, all Agency employees, including scientists, managers, and political appointees, are required to follow this policy when engaging in, supervising, managing, or influencing scientific activities; communicating information in an official capacity about Agency scientific activities; and utilizing scientific information in making Agency policy or management decisions. In addition, all contractors, grantees, collaborators and student volunteers of the Agency who engage in scientific activities are expected to uphold the standards established by this policy and may be required to do so as part of their respective agreements with the EPA.[2]

This policy is created against a complicated regulatory backdrop; it is intended to guide Agency activities in an area that is already subject to a number of rules and policies for various purposes. When there is overlap with other applicable rules and guidance, this policy is not intended to preempt other authorities, but instead to work in conjunction with and supplement them. This policy is intended to improve the internal management and operation of the Agency. It does not create any obligation, right or benefit for any member of the public, substantive or procedural, enforceable by law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees or agents, or any other person.

Actions taken in accordance with this policy are subject to the availability of appropriated funds, and must be authorized under and consistent with existing authorities, including applicable law and regulations, Executive Orders, and Federal and EPA ethics, information, and personnel rules and policies. This policy does not limit the legal requirements contained in the Standards of Ethical Conduct for Employees of the Executive Branch (5 C.F.R. 2635), EPA Supplemental Standards of Ethical Conduct (5 C.F.R. 6401), any of the criminal conflict of interest statutes (18 U.S.C. 201-209), the Hatch Act (5 U.S.C. 7321 – 7326) or its implementing regulations (5 C.F.R. 734), or law enforcement actions and/or investigations and inspections for regulatory compliance. Special attention should also be given to the EPA clearance procedures[3] and compliance with the Privacy Act (5 U.S.C. 552a) and the Freedom of Information Act (FOIA), 5 U.S.C. 552.

IV. Scientific Integrity Policy

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[2] In addition, the EPA often uses existing data and information generated by third parties to inform its decisions. The EPA's Information Quality Guidelines requires the quality and scientific soundness of this type of data to be reviewed and documented prior to use.

[3] 5 CFR 2635.702(b) provides "an employee shall not use or permit the use of his Government position or title or any authority associated with his public office in a manner that could reasonably be construed to imply that his agency or the government sanctions or endorses his personal activities or those of another." See also 5 CFR 2635.807(b) for more specific requirements related to uncompensated teaching, speaking, and writing. Section 807(b)(1) provides that an employee "may include or permit the inclusion of his title or position as one of several biographical details when such information is given to identify him . . . provided his title is given no more prominence than other significant biographical details." It should be clearly understood that, except as permitted by 5 C.F.R. 2635.807(a)(3), an employee may not receive compensation from any source other than the Government for teaching, speaking, or writing that relates to the employee's official duties [7].

The Agency has long fostered a culture of scientific integrity through its *Principles of Scientific Integrity* [8]. These principles were developed in 1999 in conjunction with the EPA's National Partnership Council (NPC), a partnership of Agency labor unions and management. The *Principles of Scientific Integrity* sets forth the Agency's commitment to conducting science objectively, presenting results fairly and accurately, and avoiding conflicts of interest.

Consistent with the EPA's *Principles of Scientific Integrity*, the Agency's Scientific Integrity Policy reaffirms the expectation that all Agency employees, including scientists, managers, and political appointees, regardless of grade level, position, or duties:

- Ensure that the Agency's scientific work is of the highest quality, free from political interference or personal motivations.
- Represent his/her own work fairly and accurately.
- Appropriately characterize, convey, and acknowledge the intellectual contributions of others.
- Avoid conflicts of interest and ensure impartiality.
- Be cognizant of and understand the specific programmatic statutes that guide their work.
- Welcome differing views and opinions on scientific and technical matters as a legitimate and necessary part of the scientific process.
- Accept the affirmative responsibility to report any breach of this Scientific Integrity Policy.

To promote scientific integrity throughout the Agency, this policy outlines four specific areas: a) the culture of scientific integrity at the EPA, b) public communications, c) the use of peer review and Federal Advisory Committees, and d) professional development of government scientists. In addition, the policy establishes the Scientific Integrity Committee, chaired by the Agency's Scientific Integrity Official, to implement this policy.

A. Promoting a Culture of Scientific Integrity at the EPA

Successful application of science in Agency policy decisions relies on the integrity of the scientific process both to ensure the validity of scientific information and to engender public trust in the Agency. Thus, it is essential that the EPA's policymakers involve science experts on scientific issues and that the scientific information and processes relied upon in policymaking manifest scientific integrity, quality, rigor, and objectivity. The Agency reaffirms and promotes scientific integrity across the EPA by supporting the culture of scientific integrity, enhancing transparency within scientific processes, and protecting Agency scientists.

1. <u>To support a culture of scientific integrity within the Agency, this policy:</u>

    - Promotes a culture of scientific integrity, fostering honest investigation, open discussion, refined understanding, and a firm commitment to evidence.
    - Requires adherence to applicable Agency information quality, quality assurance, and peer review policies and procedures, ensuring that the Agency produces scientific products of the highest quality, rigor, and objectivity for use in policy decisions.
    - Recognizes the distinction between scientific information, analyses, and results from the policy decisions made based on that scientific information; policy makers within

the Agency weigh the best available science, along with additional factors such as practicality, economics, and societal impact, when making policy decisions.

- Prohibits all EPA employees, including scientists, managers, and other Agency leadership, from suppressing, altering, or otherwise impeding the timely release of scientific findings or conclusions.
- Requires all Agency employees to act honestly and refrain from acts of scientific misconduct. Scientific misconduct includes fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific and research activities, or in the publication or reporting of these activities; scientific misconduct does not include honest error or differences of opinion.
- Requires adherence to Agency documents that address the use and characterization of scientific information in Agency policy development, such as EPA's Action Development Process [9], the EPA's *Guidance for Risk Characterization* [10] and *Risk Characterization Handbook* [11].
- Recognizes that while Agency risk assessments are intended to address the needs of risk management, quantitative conclusions should not be influenced by possible risk management implications of the results.

2. To enhance transparency within Agency scientific processes, this policy:

- Requires reviews by Agency managers and other Agency leadership regarding the content of a scientific product to be based only on scientific quality considerations, e.g., the methods used are clear and appropriate, the presentation of results and conclusions is impartial.
- Ensures scientific findings are generated and disseminated in a timely and transparent manner, including scientific research performed by contractors, grantees, or other Agency partners who assist with developing or applying the results of scientific activities.
- Establishes the expectation that when communicating scientific findings, Agency employees include a clear explication of underlying assumptions, accurate contextualization of uncertainties, and a description of the probabilities associated with both optimistic and pessimistic projections, if applicable.
- Strengthens the actual and perceived credibility of Agency science by, e.g., ensuring that the selection of candidates for scientific positions is based primarily on their scientific and technological knowledge, credentials, experience, and integrity; ensuring that scientific studies used to support regulatory and other policy decisions undergo appropriate levels of independent peer review; setting clear standards governing conflicts of interest; and adopting appropriate whistleblower protections.
- Recognizes the value of independent validation of scientific methods.
- Recognizes the value of independent review of the Agency scientific facilities and testing activities, as occurs with accreditation by a nationally or internationally recognized sanctioning body and as required by Agency policy directives [12].
- Facilitates the free flow of scientific information. The Agency will continue to expand and promote access to scientific information by making it available online in open formats in a timely manner, including access to data and non-proprietary models underlying Agency policy decisions. Further, the use of non-proprietary data and models are encouraged, when feasible, to increase transparency.

3. To assure the protection of Agency scientists, this policy:

   - Prohibits managers and other Agency leadership from intimidating or coercing scientists to alter scientific data, findings, or professional opinions or inappropriately influencing scientific advisory boards. In addition, policy makers shall not knowingly misrepresent, exaggerate, or downplay areas of scientific uncertainty associated with policy decisions.
   - Mandates the Scientific Integrity Official, with input from the Deputy Scientific Integrity Officials, to develop a transparent mechanism for Agency employees to express differing scientific opinions. When an Agency employee substantively engaged in the science informing an Agency policy decision disagrees with the scientific data, scientific interpretations, or scientific conclusions that will be relied upon for said Agency decision, the employee is encouraged to express that opinion, complete with rationale, preferably in writing. It is expected that any differing scientific opinions will be resolved during internal deliberations and if not, will be addressed during scientific peer review. The report from the peer review panel will be made available for the policy makers' consideration. When no peer review occurs, differing scientific opinions will be reflected in the Agency's deliberative documents for the policy makers' consideration.
   - Extends whistleblower protections [13] to all EPA employees who uncover or report allegations of scientific and research misconduct, or who express a differing scientific opinion, from retaliation or other punitive actions. Employees who have allegedly engaged in scientific or research misconduct will be afforded the due process protections provided by law, regulation, and applicable collective bargaining agreements, prior to any Agency action. All Agency employees should be familiar with these protections and avoid the appearance of retaliatory actions.

B. Release of Scientific Information to the Public

Scientific research and analysis comprise the foundation of all major EPA policy decisions. Therefore, the Agency should maintain vigilance toward ensuring that scientific research and results are presented openly and with integrity, accuracy, timeliness, and the full public scrutiny demanded when developing sound, high-quality environmental science. This policy is intended to outline the Agency's expectations for developing and communicating scientific information to the public, to the scientific community, to Congress, and to the news media by further providing for and protecting the EPA's longstanding commitment to the timely and unfiltered dissemination of its scientific information – uncompromised by political or other interference. This policy recognizes the importance of, and the need to foster a culture of, openness regarding the results of research, scientific activities, and technical findings. To that end, the EPA strongly encourages and supports transparency and active, open communications through various forms including, but not limited to, publication in peer-reviewed or refereed journals, conference papers and presentations, media interviews, responses to Congressional inquiries, web postings, and news releases.

Full and open communication is a shared responsibility throughout the Agency. To fulfill this shared responsibility, the following describes both what is expected of the EPA's employees and what they, in turn, can expect from others in the Agency.

1. EPA Scientists and Managers

The Agency's scientists and managers are expected to:

- Represent Agency scientific activities clearly, accurately, honestly, objectively, thoroughly, without political or other interference, and in a timely manner, consistent with their official responsibilities. While a scientist's primary responsibility is to pursue their scientific activities, it is also a scientist and his/her manager's responsibility to provide timely responses to requests for information by the media, the public, and the scientific community.
- Freely exercise their right to express their personal views provided they specify that they are not speaking on behalf of, or as a representative of, the Agency but rather in their private capacity. Scientists and managers must clearly identify that the information represents their views and not necessarily those of the EPA and use the following disclaimer language when presenting scientific information on matters that do not reflect their official Agency scientific activities and direct responsibilities:

  The views expressed in this [article/chapter/paper/speech] are those of the author(s) and do not necessarily reflect the views or policies of the U.S. Environmental Protection Agency.

- Notify their managers when communicating in an official Agency capacity. Outreach activities and media interactions are expected to adhere to Agency ethics regulations [14] and clearance procedures[4] associated with ensuring accuracy and disseminating scientific information and scientific assessments. Scientists and managers are also expected to notify and coordinate with appropriate Agency offices that might receive public inquiries to ensure that scientific information for the general public and media is clearly, comprehensively, consistently, and accurately presented and explained.
- Be available to answer inquiries from the news media regarding their scientific work. If the scientist or manager is unwilling or unable to communicate directly with the news media, he/she should still provide timely assistance to the public affairs office to help prepare and approve full and accurate responses to media inquiries.
- Review, correct, and approve the scientific content of any proposed Agency document intended for public dissemination that significantly relies on their research, identifies them as an author, or represents their scientific opinion. Disputes associated with the dissemination plan for a scientific product will be resolved first by the employees' direct supervisors, and if necessary, the Office of External Affairs and Environmental Education (OEAEE) and the Deputy Scientific Integrity Official or his/her designee.

2. Policy Officials

- Public and media questions about any policy implications raised by scientific studies should be addressed by designated Agency officials responsible for conveying

[4] The EPA Scientific Integrity Committee will develop an Agency-wide framework for the approval of scientific communications. Each Program Office and Regional Office will develop and document procedures for review and approval, consistent with the Scientific Integrity Committee's framework. The procedures will include guidance for review elements, time frames for review and approval, and a process for redress if review procedures are not met.

information about EPA policy matters, such as program policy experts or designated spokespersons.

3. Public Affairs Staff

- Agency public affairs staff, with input from program managers, will designate knowledgeable and articulate spokespersons from Regional, Program, or HQ offices to coordinate with EPA scientists and managers for the purpose of ensuring that Agency research is clearly, accurately, and accessibly presented, in a timely manner, thereby best serving the needs of the media and the public.
- Under no circumstances should the public affairs staff attempt to alter or change scientific findings or results. The role of the public affairs officer is to ensure that the science is plainly and clearly communicated for the intended audience in a timely fashion.
- The public affairs staff from Regional, Program or HQ offices should attend interviews with members of the media, when possible, to ensure that the Agency is being fully responsive to media questions in a timely manner and to ensure responsiveness, consistency, and accuracy both on the part of the interviewer and when responding to future information requests.
- Members of the public affairs staff from Regional, Program, or HQ offices must alert and coordinate with involved scientists and managers when the public affairs staff receives media inquiries about their research or other scientific activities.
- During a nationally significant incident or environmental crisis, OEAEE may officially activate or follow the EPA National Approach to Response Crisis Communications Plan [15]. During such episodes, this plan establishes the EPA's process for communicating critical environmental information to the public and for coordinating public information among EPA field operations, Regional Offices, and Headquarters. Under the plan, OEAEE has the communication lead for coordinating and publicly disseminating pertinent information. OEAEE will closely coordinate with involved Agency scientists to ensure the accuracy of any Agency scientific information to be issued by the EPA.

4. Congressional Relations Staff

- Office of Congressional and Intergovernmental Relations (OCIR) staff members are expected to coordinate with Agency scientists and managers to ensure that Congressional inquiries regarding EPA science receive prompt, accurate, and responsive answers.
- If testifying before Congress in their official capacity (i.e., on behalf of the EPA), scientists and managers should review prepared testimony with OCIR staff and communicate on matters associated with their work or area(s) of expertise in an accurate and clearly understandable manner.
- Senior management in the Congressional and Program/Regional Offices will provide any statements needed to address policy-related questions.

C. Peer Review and the Use of Federal Advisory Committees

1. Peer Review

Independent peer review of Agency science is a crucial aspect of scientific integrity. To ensure that scientific products undergo appropriate peer review by qualified experts, the EPA relies on its Peer Review Policy [16] and *Peer Review Handbook* [5]. The *Peer Review Handbook* is a how-to manual used by Agency staff. Agency-wide peer review policies have been in place since 1993 [17] and establish the EPA's policy for peer review of scientific work products, including economic and social science products, that are intended to inform Agency decisions. The handbook includes specific expectations for categories of scientific products, including influential scientific information (ISI) and highly influential scientific assessments (HISA). In compliance with OMB's 2004 Final Information Quality Bulletin for Peer Review, the EPA posts a Peer Review Agenda [18] for its ISIs and HISAs. In addition, the 2009 Addendum to the EPA's *Peer Review Handbook* entitled: "Appearance of a Lack of Impartiality in External Peer Reviews" [19] provides additional clarity for the regulatory definition of "appearance of a lack of impartiality" for individuals who serve on peer review panels, criteria for applying this definition, and illustrative examples.

The Agency's quality and peer review programs are further supported by its *Summary of General Assessment Factors for Evaluating the Quality of Scientific and Technical Information* [20]. This document describes the assessment factors and considerations used by the Agency to evaluate the quality and relevance of scientific and technical information. These assessment factors are founded in guidelines, practices, and procedures that constitute the EPA's information and quality systems, including existing program-specific quality assurance policies.

2. Federal Advisory Committees

The Peer Review Handbook describes the range of peer review options, from individual letter reviews from outside experts to large, formal reviews by Federal Advisory Committees (FACs) or the National Academy of Sciences. Federal Advisory Committees are an important tool within the EPA for ensuring the credibility and quality of Agency science, enhancing the transparency of the peer review process, and providing for input from the EPA's diverse customers, partners, and stakeholders. In almost all cases, FACs meet and deliberate in public and materials prepared by or for the FAC are available to the public. Consistent with the requirements of the Federal Advisory Committee Act (5 USC Appendix 2) [21], implementing regulations from the General Services Administration (41 CFR Part 102-3) [22], and guidance that lobbyists not serve on FACs [23], the EPA's scientific or technical FACs are expected to adhere to the following procedures[5]:

- Transparent recruitment of new FAC members should be conducted through broad-based vacancy announcements, including publication in the Federal Register, with an invitation for the public to recommend individuals for consideration and submit self-nominations.

[5] Peer-reviewed committees convened solely for the purpose of reviewing research proposals to provide individual input on intra- or extramural funding decisions are *not* covered by this policy. GSA has provided additional guidances [24-27].

- Professional biographical information (including current and past professional affiliations) for appointed committee members should be made widely available to the public (e.g., via a website). Such information should clearly illustrate an individual's qualifications for serving on the committee.
- The selection of members to serve on a scientific or technical FAC should be based on expertise, knowledge, contribution to the relevant subject area, balance of the scientific or technical points of view represented by the members, and the consideration of conflicts of interest. Members of scientific and technical FACs should be appointed as special government employees. The Agency is to make all Conflict of Interest Waivers granted to committee members publicly available (e.g., via a website).
- All reports, recommendations, and products developed by FACs are to be treated as solely the findings of such committees rather than of the EPA, and thus are not subject to Agency revision.

At the EPA, FACs are overseen by the Office of Federal Advisory Committee Management and Outreach (OFACMO) with legal support from the Office of General Counsel (OGC). All EPA FACs are expected to comply with the requirements of the Federal Advisory Committee Act (5 USC Appendix 2) [21] and the regulations issued by the General Services Administration (41 CFR Part 102-3) [22].

The Agency adheres to the current standards governing conflict of interest as defined in statutes and implementing regulations. The Office of General Counsel's Ethics Office develops standard procedures and ethics training for Special Government Employees (SGEs) who serve on scientific FACs. These procedures include the submission and review of Confidential Financial Disclosure Forms for SGEs serving on advisory committees, EPA Ethics Advisory 08-02: "Ethics Obligations for Special Government Employees" [28], and completion of an online and/or in-person Office of Government Ethics course. Some FACs at the EPA are staffed with representative members. These committee members represent the point of view of a group or organization and are not subject to the conflict of interest requirements referenced above.

D. Professional Development of Government Scientists

Scientific leadership is a key component of advancing the mission of the EPA. Agency scientists are therefore encouraged to engage with their peers in academia, industry, government, and non-governmental organizations, consistent with their work responsibilities. Examples of encouraged professional activities include presenting their work at scientific meetings, serving on editorial boards and on scientific expert review panels, and actively participating in professional societies and national/international scientific advisory and science assessment bodies. It is Agency policy to:

- Encourage publication and presentation of research findings in peer-reviewed, professional, or scholarly journals and at professional meetings.
- Allow Agency scientists to become editors or editorial board members of peer-reviewed, professional, or scholarly journals.
- Allow participation in professional societies, committees, task forces and other specialized bodies of professional societies, including serving as officers or on the governing boards of such societies.

- Encourage Agency scientists to obtain training to keep current their scientific qualifications and professional certifications.
- Allow Agency scientists to accrue professional awards, honors and patents for their research and discoveries.

V. The EPA's Scientific Integrity Committee

The Agency's Scientific Integrity Committee is charged with implementing, reviewing, and revising as needed policy governing the four specific areas of scientific integrity described in the previous section. The committee is chaired by the Scientific Integrity Official and consists of Deputy Scientific Integrity Officials that represent each of the Agency's Program Offices and Regions, in accordance with its charter [29].

A. Roles and Responsibilities of the Scientific Integrity Committee

- Provide leadership for the Agency on scientific integrity.
- Implement this policy across the Agency in a consistent manner.
- Promote Agency compliance with this policy, including safeguarding against and mechanisms to ensure accountability for any alteration or manipulation of scientific data by managers and other Agency leadership.
- Address Scientific Integrity Policy concerns, updates, and amendments.
- Provide an annual meeting and report on scientific integrity implementation and scientific misconduct issues within the Agency.
- Keep the Agency's Senior Leadership informed on and involved with the Agency-wide status of scientific integrity, as necessary and appropriate.
- Develop a framework for Agency clearance procedures for scientific products as a guidance for Program Offices and Regional Offices.
- Evaluate Program Offices' and Regional Offices' clearance procedures for scientific products and make recommendations as appropriate to promote standardization across the Agency.

B. Scientific Misconduct

The Scientific Integrity Official or his/her designee shall coordinate with the Office of the Inspector General (OIG) on issues of scientific misconduct. The Agency already has in place clearly articulated policies protecting against scientific misconduct by all Agency employees, including managers and other Agency leadership, in the following two important documents:

- Scientific Misconduct in the EPA *Conduct and Discipline Manual* (Appendix - Guidance on Corrective Discipline, Tables of Offenses and Penalties #45 - Scientific Misconduct) includes discipline guidelines for fabrication, plagiarism, misrepresentation, and causing a subordinate to engage in scientific misconduct [30].
- *Policy and Procedures for Addressing Research Misconduct* provides policy on reporting, procedures, investigations, and adjudication of research misconduct by the EPA's employees, contractors, and recipients of assistance agreements [31].

C. Training

As part of its mandate, the Scientific Integrity Committee oversees the development and implementation of training related to scientific integrity for all Agency employees. Contractors, cooperators, grantees, and volunteers are also encouraged to take this training and may be required to do so if such training is part of their respective agreements with the EPA.

In addition, accredited EPA laboratories provide annual Laboratory Ethics and Data Integrity Training for scientists engaged in generating scientific data to support cleanups, enforcement, and environmental assessments. This annual scientific ethics training fulfills accreditation standards and reinforces an understanding of the laboratory ethics policy.

D. Annual Reporting

The Scientific Integrity Official, with input from the Deputy Scientific Integrity Officials, is responsible for generating and making publicly available an annual report to the EPA Science Advisor on the status of scientific integrity within the Agency. The report is expected to highlight scientific integrity successes throughout the Program Offices and Regions, as well as identify areas for improvement and develop a plan for addressing critical weaknesses, if any. As part of this annual review, Deputy Scientific Integrity Officials are responsible for certifying compliance with the Agency Scientific Integrity Policy and report on scientific integrity implementation and scientific misconduct issues within their respective Offices or Regions. In advance of completing the annual report, the Scientific Integrity Committee will conduct an Agency-wide annual meeting on scientific integrity that will include the involvement of senior EPA leadership, reports from offices and programs, and an opportunity for input from the EPA scientific community.

The report should include, but is not limited to, the findings of scientific integrity violations. The report should also include lessons learned during the previous year, input from the annual meeting, and recommendations for action/deliberation by the Scientific Integrity Committee during the upcoming fiscal year, to ensure continuous improvement in implementation of the Scientific Integrity Policy.

E. Amending the Scientific Integrity Policy

This policy will become effective upon approval.

At a minimum, this policy is to be reviewed every two years by the Scientific Integrity Committee to ensure its effectiveness and adherence with applicable rules and regulations.

This policy shall be revised as recommended by the Scientific Integrity Committee and approved by the EPA Science Advisor.

Bibliography

[1] Ruckelshaus, William (1983) *Fishbowl Memo.* http://www.epa.gov/aboutepa/history/topics/policy/fishbowl.html

[2] Executive Office of the President, Office of Management and Budget (2002) *Information Quality Guidelines.* http://www.whitehouse.gov/sites/default/files/omb/inforeg/iqg_oct2002.pdf

[3] Executive Office of the President, Office of Management and Budget (2005) *OMB Information Quality Bulletin for Peer Review.* http://www.whitehouse.gov/sites/default/files/omb/assets/omb/memoranda/fy2005/m05-03.pdf

[4] U.S. Environmental Protection Agency (2008) *EPA Quality Policy.* http://www.epa.gov/irmpoli8/policies/21060.pdf

[5] U.S. Environmental Protection Agency (2006) *Peer Review Handbook, Third Edition.* http://www.epa.gov/peerreview/pdfs/peer_review_handbook_2006.pdf

[6] U.S. Environmental Protection Agency (2002) *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency.* http://www.epa.gov/QUALITY/informationguidelines/documents/EPA_InfoQualityGuidelines.pdf

[7] U.S. Government Printing Office (1997) 5 CFR 2635.702 http://www.gpo.gov/fdsys/pkg/CFR-1997-title5-vol3/pdf/CFR-1997-title5-vol3-sec2635-702.pdf

[8] U.S. Environmental Protection Agency (1999) *Principles of Scientific Integrity.* http://www.epa.gov/osa/pdfs/scientific-integrity-principles.pdf

[9] U.S. Environmental Protection Agency (2011) *Action Development Process Library.* http://intranet.epa.gov/actiondp/

[10] U.S. Environmental Protection Agency. Science Policy Council (1995) *Guidance for Risk Characterization.* http://www.epa.gov/spc/pdfs/rcguide.pdf

[11] U.S. Environmental Protection Agency Science Policy Council (2000) *Risk Characterization Handbook.* http://www.epa.gov/spc/pdfs/rchandbk.pdf

[12] U.S. Environmental Protection Agency (2011) *Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions,* and (2004) *Assuring the Competency of Environmental Protection Agency Laboratories.* http://www.epa.gov/fem/pdfs/fem-lab-competency-policy.pdf

[13] U.S. Environmental Protection Agency (2000) *Employee Rights under the Whistleblower Protection Act.* http://intranet.epa.gov/ohr/rmpolicy/ads/orders/1000.pdf

[14] U.S. Environmental Protection Agency (2002) *The Ethics Program.* http://intranet.epa.gov/ogc/ethics.htm

[15] U.S. Environmental Protection Agency (2009) *National Approach to Response Crisis Communications Plan.* http://intranet.epa.gov/ohr/rmpolicy/ads/orders/2010.pdf

[16] U.S. Environmental Protection Agency (2006) *Peer Review and Peer Involvement at the U.S. Environmental Protection Agency.* http://www.epa.gov/peerreview/pdfs/peer_review_policy_and_memo.pdf

[17] U.S. Environmental Protection Agency, Office of the Science Advisor (1993) *Peer Review Program.* http://www.epa.gov/peerreview/

[18] U.S. Environmental Protection Agency (2004) *Peer Review Agenda.* http://cfpub.epa.gov/si/si_public_pr_agenda.cfm

[19] U.S. Environmental Protection Agency (2009) *Addendum to the Peer Review Handbook, Third Edition: Appearance of a Lack of Impartiality in External Peer Reviews.* http://www.epa.gov/peerreview/pdfs/spc_peer_rvw_handbook_addendum.pdf

[20] U.S. Environmental Protection Agency (2003) *A Summary of General Assessment Factors for Evaluating the Quality of Scientific and Technical Information.* http://www.epa.gov/spc/pdfs/assess2.pdf

[21] Title 5 United States Code, Appendix 2 (1972) http://www.archives.gov/federal-register/laws/fed-advisory-committee/09.html

[22] 41 Code of Federal Regulations, Part 102-3 (2006) Federal Advisory Committee Management http://www.gpo.gov/fdsys/pkg/CFR-2006-title41-vol3/pdf/CFR-2006-title41-vol3-part102-id46.pdf

[23] The White House, Office of the Press Secretary (2010) *Presidential Memorandum – Lobbyists on Agency Boards and Commissions.* http://www.whitehouse.gov/the-press-office/presidential-memorandum-lobbyists-agency-boards-and-commissions

[24] GSA Guidance (1998) *Appointment of Consultants to FACA.* http://www.gsa.gov/portal/content/100786

[25] GSA Guidance (2011) *Appointment of Special Government Employees.* http://www.gsa.gov/portal/content/100796

[26] GSA Guidance (2000) *Public Access to Records (FACA).* http://www.gsa.gov/portal/content/100785

[27] GSA Guidance (2011) *When FACA is and is Not Applicable to Interactions with the Private Sector.* http://www.gsa.gov/portal/content/100794

[28] U.S. Environmental Protection Agency (2008) *Ethics Obligations for Special Government Employees.* http://intranet.epa.gov/ogc/ethics/08-02.pdf

[29] U.S. Environmental Protection Agency (2011) *Scientific Integrity Committee Charter (Draft).* http://www.epa.gov/osa/pdfs/draft-charter-scientific-integrity-committee-%20aug-2011.pdf

[30] U.S. Environmental Protection Agency, Office of Human Resources (1985) *Appendix - Guide on Corrective Discipline.* http://intranet.epa.gov/ohr/rmpolicy/ads/cadm/html/app.htm

[31] U.S. Environmental Protection Agency (2003) *Policy and Procedures for Addressing Research Misconduct.* http://intranet.epa.gov/ohr/rmpolicy/ads/orders/3120-5.pdf

MAYOR
and
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City of Dover, New Hampshire

June 29, 2012

VIA E-MAIL

Ms. Ellen Gilinsky
Senior Policy Advisor, Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: June 28, 2012, Meeting on Great Bay Nutrient and Science Misconduct Issues

Dear Ms. Gilinsky:

The Great Bay Municipal Coalition members greatly appreciated the opportunity to review key technical and regulatory concerns underlying our objections to the Region's proposed "limits of technology" (LOT) nitrogen requirements for our communities. As documented in our letter of May 4, 2012, and discussed at the meeting by our experts, the Region's proposed action is inappropriate because (1) federally-funded scientific studies and expert reviews have repeatedly determined Great Bay does not have any type of nutrient-induced transparency problem, (2) the Region's peer review process was seriously flawed and biased to produce reviews that supported the Region's position, and (3) the Region repeatedly changed scientific and regulatory findings to accommodate requests from the Conservation Law Foundation. Moreover, the Region's claim that LOT is required where significant non-point source (NPS) controls are necessary is not and never has been the position of EPA. If the Region's position correctly reflected existing regulatory requirements, LOT would be mandated throughout the Midwest and Chesapeake Bay due to nutrient impairments in those locations and high NPS load contributions. This new regulatory interpretation, however, has never been imposed in those areas, which have distinct nutrient problems. Given the very minor effect that increased nutrient levels have had on Great Bay – as repeatedly documented in the Piscataqua River Estuary Project reports for the past decade – there is no rational scientific or regulatory basis for now imposing such requirements on our citizens. Alternatively, the Coalition has supported an adaptive management approach and reasonable nitrogen reductions as a precautionary measure to protect the Estuary's resources.

At our meeting, you indicated that EPA did follow its peer review policy and had conducted a valid peer review. We would ask that EPA rethink that position, as it is not objectively

supported by the peer review record. The following events are well documented in the peer review record:

1. The public was excluded from the peer review, affecting over $100 million in municipal expenditures, despite the state's position that community involvement should be allowed. This is contrary to both law and federal peer review policies.

2. The documentation provided to the reviewers excluded the numerous prior analyses and data evaluations (most of which were developed by DES and presented to EPA) that confirmed (1) nitrogen had not caused excessive plant growth in the system; (2) system transparency had never changed during the period of apparent eelgrass decline; (3) color and turbidity, not nutrients, controlled system transparency; (4) the causes of changing eelgrass populations were unknown; and (5) Great Bay was not a "transparency-limited" system. The failure to provide all relevant scientific information certainly violates federal peer review policies.

3. The peer review charge questions were crafted to avoid any serious scientific review and certainly did not address any of the key scientific questions raised by the Coalition (e.g., What data from this system show (a) increasing nitrogen has caused excessive plant growth and (b) transparency has changed during the period of eelgrass decline?). Failure to raise the critical scientific questions thoroughly undermined the basic purpose of a peer review.

4. This peer review occurred without consideration of EPA's 2009 Science Advisory Board peer review, which concluded the type of "stressor-response" analysis used to generate the stringent TN criteria was not "scientifically defensible," did not demonstrate "cause and effect," and could misallocate local resources We would note further that the recent depositions conducted of key experts and DES scientists confirmed that the methods used in the criteria development did not demonstrate "cause and effect." The key admissions made in those depositions were provided as part of the briefing materials given to the Agency.

Given these facts, plainly documented in the record presented to EPA Headquarters, it is hard to understand why EPA would defend the prior peer review exercise as consistent with federal policies and law. In any event, as discussed at our meeting, the Coalition's issues could be resolved by conducting an open, complete peer review that assesses the technical validity and need for stringent nitrogen criteria to protect the Estuary. The peer reviewers should be comprised of local University of New Hampshire scientists with decades of expertise on Great Bay issues and nationally recognized experts on pollutant fate and transport. Our communities are willing to live with the results of such a peer review, as it will ensure our municipal expenditures are properly justified and will produce demonstrable environmental improvements.

We understand that EPA has indicated that it has sufficient information to respond to our independent peer review request. In our view, that is the linchpin issue underlying local concerns. We ask that EPA provide a response on that request within the next two weeks, given that EPA Headquarters has been evaluating the science misconduct letter for over six weeks at

this point. We look forward to EPA's response and an opportunity to resolve our differences in an open scientific forum rather than through legal process.

Sincerely,

Mayor of Portsmouth

Mayor of Dover

cc. Congressman Guinta
Senator Ayotte
Senator Shaheen

clf
conservation law foundation

For a thriving New England

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June 19, 2012

Ms. Lisa Jackson
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Mr. Arthur A. Elkins, Jr.
Inspector General
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: May 4, 2012 Correspondence from John Hall & Associates on behalf of the Great Bay Municipal Coalition

Dear Administrator Jackson and Inspector General Elkins:

On May 4, 2012, John Hall & Associates wrote to you on behalf of the so-called Great Bay Municipal Coalition consisting of five municipalities (Portsmouth, Dover, Exeter, Rochester and Newmarket, NH) that own and operate wastewater treatment facilities (WWTFs) that discharge into waters that are part of or directly affect the Great Bay estuary. As you know, none of these WWTFs currently have National Pollutant Discharge Elimination System (NPDES) permits limiting the discharge of total nitrogen. Mr. Hall's May 4 correspondence is the latest example of an unfortunate and misguided sustained attack by the Municipal Coalition against the Environmental Protection Agency (EPA) and N.H. Department of Environmental Services (NHDES) and their efforts to solve the problems facing the Great Bay estuary. The Municipal Coalition's highly unusual and baseless claims of science misconduct are deeply troubling and represent yet another tactic aimed at delaying actions needed to restore the health of the Great Bay estuary. I am writing to address particularly egregious aspects of the Municipal Coalition's letter.

I. The foundation of the Municipal Coalition's argument – that EPA and NHDES departed from and abandoned the "scientific consensus" of a Great Bay Technical Advisory Committee – is false and utterly lacking in factual basis

As the very foundation of the arguments set forth in their letter, Mr. Hall and the Municipal Coalition assert that "an independent, federally funded Technical Advisory Committee (TAC) for the Great Bay Estuary" conducted "[d]etailed site-specific research . . . on the factors influencing the Estuary and in particular the effect of nutrient concentrations on both the tidal rivers and Great Bay." *See* John Hall & Associates letter to Administrator Jackson and Inspector General Elkins, May 4, 2010 (hereinafter "Hall correspondence") at 1-2. They proceed to describe the TAC as having reached "scientific consensus" on

six specific issues[1] and as having reached scientific "findings" and "technical conclusions." *Id.* at 2-3. With this as their launching point, they then proceed to attack NHDES and EPA for engaging in the development of criteria that run counter to the "findings" and "technical conclusions" of the TAC. The Municipal Coalition's charges are utterly baseless.

A. The Municipal Coalition has mischaracterized the nature and role of the TAC

Mr. Hall's and the Municipal Coalition's characterization of the TAC is grossly misleading. First, the TAC was not a specific "federally funded" body that itself engaged in site-specific research. Rather, it was a group of volunteers (including university researchers, individuals associated with the Municipal Coalition, CLF, and The Nature Conservancy) and agency staff who met on occasion to discuss the status of NHDES's nutrients analysis, to learn of methods and approaches being taken elsewhere, to learn of the status and results of certain research, and to provide the N.H. Estuary Project (predecessor to the Piscataqua Region Estuaries Partnership) feedback and advice. Second, at no time did the TAC reach, or even to attempt to reach, "scientific consensus" on specific issues; nor did it render, as a body, any scientific "findings" or "technical conclusions." Third, even if the TAC *had* reached "scientific consensus" on key issues as suggested by the Hall correspondence (which it did not), the TAC – consistent with its name – was *advisory* in nature (i.e., its advice was not binding on NHDES). Indeed, contrary to Mr. Hall's and the Municipal Coalition's misrepresentations, the minutes provided as Exhibit 1 of the Hall correspondence demonstrate the true advisory nature of the TAC and its role providing feedback, as well as the fact that no official consensus, conclusions or findings were rendered by this group. In sharp contrast to these facts, the Hall correspondence is replete with mischaracterizations of the TAC as having reached definitive scientific consensus, conclusions and findings relative to nitrogen issues and the development of criteria. *See* Hall correspondence at 2 ("scientific consensus"), 3 ("TAC findings", "TAC technical conclusions"), 4 (*"the precise impact the TAC concluded did not exist"* (emphasis in original), "TAC findings"), 8 ("Region I has purposefully ignored the valid scientific findings of the TAC"). These characterizations have no basis in fact and are entirely inaccurate.

B. The Municipal Coalition has mischaracterized the NHDES 2009 nitrogen analysis as departing from or ignoring the purported "scientific consensus" and "findings" of the TAC

As the primary basis for leveling its charges of scientific misconduct – serious charges that one would expect to be based on accurate facts – Mr. Hall and the Municipal Coalition assert that "Region I has (1) purposefully ignored *the valid scientific findings of the TAC* that a 'cause and effect' relationship between eelgrass loss, transparency, and TN did not exist." Hall correspondence at 9 (emphasis added).[2] Not stopping there, Mr. Hall and the Municipal Coalition further rely on their inaccurate

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[1] The manner in which the Hall correspondence is formatted might lead one to believe that the six matters on which the TAC purportedly reached "scientific consensus" were excerpted directly from a TAC document. As a review of the TAC minutes reveal (Hall correspondence, Exhibit 1), this is not the case. Rather the language describing six areas of purported "consensus" is that of Mr. Hall. Moreover, as described below, the characterization of those six matters as matters on which the TAC reached "scientific consensus" is simply not accurate.

[2] Mr. Hall, testifying under oath on behalf of the Municipal Coalition at a June 4, 2012 Congressional field hearing conducted by Congressmen Issa and Guinta in Exeter, New Hampshire, made similar representations, stating: "The communities believe that the record is clear that the Region was determined to implement a pre-defined regulatory agenda of stringent nitrogen limits (1) even after a federally funded technical advisory committee for the Great Bay confirmed there was no cause and effect relationship between nitrogen, transparency, and eelgrass

characterization of the TAC in their incredible allegation that EPA, apparently as part of a larger conspiracy, engaged in "the manipulation of real data to produce a false conclusion," claiming:

> Neither Region I, Dr. Short, nor DES can claim ignorance of the lack of scientific justification for the proposed transparency-based TN restrictions, **as they were present at the TAC meetings wherein it was expressly concluded** that increased TN concentrations *had not caused increased algal growth causing significantly lower transparency levels.* In contradiction to their later research claims, the federal research reviewed by the TAC expressly determined that a significant relationship between TN and transparency did not exist. The TAC minutes confirmed that the changing physical factors unrelated to TN (color, dilution, salinity, and turbidity) actually controlled the transparency existing at those different sites.

Hall correspondence at 9 (bold emphasis added; italics in original). *See also id.* at 9 ("the conclusions of which were expressly agreed upon in formal State/Federal TAC meetings"), 14 (alleging that EPA engaged in misconduct by "[i]gnoring TAC conclusions based on federally-funded Great Bay research. . . .").

To reiterate, the Municipal Coalition's characterizations of the TAC as a formal, federally funded body that reached scientific consensus and technical conclusions are simply false. Building on these inaccuracies, the Municipal Coalition attempts to characterize the development of numeric nutrient thresholds for the Great Bay estuary as a radical departure from, and as ignoring, the purported conclusions of the TAC. In doing so, the Municipal Coalition overlooks key facts, including the following:

- **The TAC reviewed and commented on a November 2008 draft numeric nutrient threshold analysis.** On November 12, 2008, NHDES published a document titled "Nutrient Criteria for New Hampshire's Estuaries." *See* Exhibit 1. The document, marked as "Draft for Review and Comment," included a total nitrogen numeric threshold of 0.32 mg/L for aquatic life support to protect eelgrass. It based this numeric threshold on water transparency issues related to eelgrass and explicitly noted that certain additional research was needed relative to the threshold. Importantly, the draft analysis was made available to the TAC prior to the TAC's meeting of November 17, 2008. Members of the TAC were provided the opportunity to comment on the draft analysis both during and after the November 17 meeting. Based on the Municipal Coalition's characterization of the TAC as having reached scientific consensus that nitrogen-related transparency was not an issue for eelgrass in the estuary, one would expect the draft analysis to have generated a fire-storm of opposition by the TAC. It did not.

- **The public, including members of the Municipal Coalition and the TAC, had the opportunity to review and comment on a December 2008 draft numeric nutrient threshold analysis.** On December 30, 2008, having received input from the TAC, NHDES published a next iteration of its numeric nitrogen threshold analysis, this time entitled (as a result of TAC feedback) "Nutrient Criteria for the Great Bay Estuary." *See* Exhibit 2. Like the prior version, the document was marked "Draft for Review and Comment." The analysis again identified a total nitrogen numeric threshold of 0.32 mg/L for aquatic life support to protect eelgrass, this time providing greater specificity about the waters to which the numeric threshold would apply. On January 9, 2009, NHDES published the document to a large number of stakeholders, including

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loss. . . ." *See* http://oversight.house.gov/hearing/field-hearing-epa-overreach-and-the-impact-on-new-hampshire-communities/

municipal officials, providing a 30-day time period (with a February 9, 2009 deadline) for public review and comment. *See* Exhibit 3. The draft document also was published to NHDES's Water Quality Standards Advisory Committee (WQSAC) with notice that the analysis would be presented at the WQSAC's January 22, 2009 meeting and that written comments could be submitted by February 9, 2009. *See* Exhibit 4. Importantly, at the WQSAC's meeting of January 22, 2009, Peter Rice, City of Portsmouth staff, stated that the City of Portsmouth had hired a consultant to conduct a "peer review" of the draft nutrient thresholds analysis and that they were requesting an extension of the February 9 comment period to mid-March. On January 30, 2009, NHDES notified interested parties that the February 9 deadline had been extended to March 20, 2009. *See* Exhibit 5. On that date, the City of Portsmouth and other members of the Municipal Coalition jointly submitted comments, including technical memoranda prepared by two consultants. *See* Exhibit 6. Other stakeholders submitted comments at that time as well. *See e.g.*, Exhibits 7 (comments of CLF), 8 (comments of The Nature Conservancy).

- **NHDES specifically responded to comments on the draft numeric threshold analysis.** As part of the final Numeric Nitrogen Criteria for the Great Bay Estuary (June 2009), NHDES responded to comments submitted on the prior draft document, including comments submitted by members of the Municipal Coalition.

The foregoing facts strongly contradict the Municipal Coalition's effort to characterize the TAC as having reached scientific consensus and as the development of numeric nitrogen thresholds, including the final 2009 thresholds, as some radical departure by NHDES and EPA from the TAC. The above facts also strongly contradict the Municipal Coalition's claims that they were not provided an adequate opportunity to provide input regarding development of the numeric nitrogen thresholds. The inaccurate characterizations at the core of the Municipal Coalition's arguments undermine the accuracy and credibility of their entire letter to you. Regrettably, the mischaracterization of facts and/or the selective use of facts outside their factual context appear to be part of a larger pattern of conduct by the Municipal Coalition.[3]

C. The Municipal Coalition's arguments are based on the flawed premise that scientific understanding and analysis must be fixed in time and cannot evolve

Even if the TAC *could* accurately be characterized as an independent federally funded body that reached a scientific consensus, the Municipal Coalition suggests, improperly, that scientific knowledge regarding nitrogen and its impacts on the estuary is somehow static and could not evolve beyond the purported "scientific consensus" of the TAC. NHDES has developed and continues to develop a greater understanding of the issues surrounding the Great Bay estuary, as documented in the analyses leading

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[3] *See e.g.* Exhibit 9(Technical Memorandum to John Hall from HydroQual, Jan. 10, 2011) and Exhibit 10 (NHDES Comments on HydroQual's Technical Memorandum). *See also* Hall letter at 3 (characterizing CLF Oct. 6, 2008 correspondence to EPA); *id.* at 7 (stating without any support that in 2011 "DES agreed that there remained a significant degree of uncertainty with regard to the draft numeric [total nitrogen] standards"); *id.* at 7 (inaccurately suggesting that "open technical meetings" with University of New Hampshire researchers, NHDES and EPA resulted in a "consensus that the impairment mechanism attributed to the loss of eelgrass in the June 2009 Criteria – loss of light transparency due to increased phytoplankton growth – *did not occur and was not the cause of eelgrass changes* in Great Bay.") (emphasis in original).

up to and including the 2009 numeric nutrient criteria, and as set forth in more recent analyses. *See* Exhibit 11 (NHDES Response to Public Comment on the Draft 2012 Consolidated Assessment and Listing Methodology (CALM), Apr. 20, 2012 (excerpts)); Exhibit 12 (New Hampshire's 2012 Section 305(b)/303(d) List, Technical Support Document, Assessments of Aquatic Life Use Support in the Great Bay Estuary for Chlorophyll-a, Dissolved Oxygen, Water Clarity, Eelgrass Habitat, and Nitrogen, Apr. 20, 2012).

II. The NHDES 2009 analysis was, contrary to the Municipal Coalition's claims, subject to independent peer review.

The Municipal Coalition claims that the 2009 NHDES nutrients analysis was not subjected to independent peer review. Contrary to Mr. Hall's and the Municipal Coalition's claim, it was. The peer reviewers are highly regarded independent experts in the field of estuarine biogeochemistry and eutrophication[4] and in no way beholden to EPA or any other regulatory body, or to any of the regulated entities in the Great Bay estuary watershed. The Municipal Coalition suggests that because they were not allowed to influence the substance of the questions, the peer review lacked independence. To the contrary, the independence of the peer review would come into question if the Municipal Coalition, as regulated entities, had been permitted to influence that review.

III. The Municipal Coalition appears more interested in delaying needed actions than in implementing needed pollution reduction measures

Through public statements, the Municipal Coalition has attempted to make clear that it cares about the health of the Great Bay estuary and taking steps to safeguard its future. Unfortunately, at least with respect to certain members of the Municipal Coalition, it appears that delay is the primary goal and motivating factor. For example, whereas the Municipal Coalition has expressed a willingness on the part of some of its members to "immediately" proceed with WWTF upgrades to achieve an effluent limit of 8 mg/L total nitrogen in combination with a so-called Adaptive Management Plan, the Municipal Coalition also has made clear that if EPA issues permits establishing a 3 mg/L limit, its members will appeal those permits and will take *no* action to upgrade WWTFs while appeals are pending, *even if EPA allows a compliance schedule enabling WWTFs to initially upgrade to 8 mg/L and obviating the need for further WWTF upgrades if – through a combination of WWTF improvements and other measures – water quality standards are met.* Thus, it appears the Municipal Coalition is content to hold the estuary hostage, holding out for a permit limit of 8 milligrams N/L even if EPA were to allow an incremental approach to implementation.

The objective of delaying needed action also is strongly evident in the actions (and in some cases inaction) of the City of Portsmouth, a prominent and leading member of the Municipal Coalition. In 1985, the City of Portsmouth was granted a waiver from the Clean Water Act's requirement that WWTFs achieve secondary treatment levels. As a result of that waiver, the City of Portsmouth's 4.5 million-gallon-per-day capacity Pierce Island WWTF is one of a handful of WWTFs across the nation operating with only primary treatment – even though, technically, its 1985 NPDES permit and accompanying Section 301(h) waiver expired in 1990. In June 2010, after EPA's April 2007 denial of the City's request for a renewal of its 1985 waiver and issuance of an NPDES permit requiring it to upgrade from enhanced primary treatment to secondary treatment, the City of Portsmouth presented EPA with a detailed study

[4] See Correspondence from Drs. Ivan Valiela and Erin Kinney, appended as Exhibit 13, at 8-9 (discussing credentials of EPA's peer reviewers).

pursuant to which it proposed to a final date by which it would complete its upgrade to secondary treatment. Incredibly, the City of Portsmouth proposed **2028** as the year by which it would complete its upgrade and eliminate all primary-treated discharges. By letter dated September 20, 2010, the EPA appropriately rejected the City of Portsmouth's schedule as "unacceptably long, especially in comparison to what other municipalities with similar financial and technological issues have accomplished." *See* Exhibit 14. Nearly two years after proposing its unreasonably long schedule with a 2028 completion date, and approximately five years – a roughly a full permit cycle – since EPA's issuance of a permit requiring secondary treatment, the City of Portsmouth recently approved a new schedule, currently under review by EPA, proposing completion of secondary treatment in 2017. If that schedule is adopted, it will have taken the City ten years – two NPDES permit cycles – to upgrade just to secondary treatment. In light of the City of Portsmouth's foot-dragging – roughly a full five-year permit cycle – merely to commit to a schedule to upgrade from enhanced-primary treatment to secondary treatment, it is difficult to interpret the City of Portsmouth's actions with respect to nitrogen controls as anything other than efforts to delay needed WWTF upgrades.

Public comments by City of Portsmouth staff further reveal a concerted intent to delay needed solutions. Initially, officials from the City of Portsmouth and other members of the Municipal Coalition resisted the need to fully reduce nitrogen discharges from WWTFs on the ground that stormwater pollution and non-point sources represented the larger share of the estuary's nitrogen load. Thus, they contended, efforts to reduce nitrogen pollution should focus on those other sources. In October 2011, after it was reported that EPA was signaling a willingness to allow an incremental approach to WWTF upgrades on the condition that the regulated municipalities implement – and demonstrate real progress in – measures to reduce nitrogen pollution from stormwater,[5] City of Portsmouth staff quickly changed their tune. Specifically, after commenting on various steps the City of Portsmouth had taken to better manage stormwater and promote low impact development, the City of Portsmouth's engineer reportedly commented to the Portsmouth Herald that "there is no real data yet on the effectiveness of some of these steps [to address the non-point pollution problem]." *See* Exhibit 15. It was further reported that: "The Great Bay Coalition communities have advocated for a phased and cautious approach to the nitrogen limits at the wastewater treatment plants *and are advocating for a similar approach to addressing the non-point sources.*" *Id.* (emphasis added). These statements evidence a concerted lack of urgency and a persistent willingness to delay needed action.

It also bears noting that the City of Portsmouth, despite continuously expressing concern about the cost of updating its WWTFs and addressing the problem of nitrogen pollution, apparently is far behind other communities in its willingness to generate wastewater funding from new development. According to a December 9, 2011 memorandum prepared by the Town of Durham's Department of Public Works (appended as Exhibit 16), some Seacoast communities generate funds through meaningful sewer connection fees. According to the above-referenced memorandum, for example, for a 100-bed mixed use (commercial/residential) development, the Town of Somersworth would charge a sewer connection fee of $180,000. Exhibit 16, Table at page 4. The City of Dover would charge a lesser fee of $53,000. *Id.* According to the attached memorandum, the City of Portsmouth, despite major new hotels and other development and re-development that could generate funds to support wastewater treatment, apparently would charge an equivalent development a sewer connection fee of a mere $250. *Id.*

[5] "EPA may ease nitrogen limit," Portsmouth Herald, Aug. 21, 2011, http://www.seacoastonline.com/articles/20110821-NEWS-108210340?cid=sitesearch.

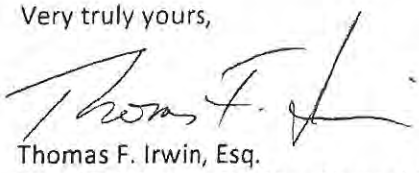
IV. Fortunately, other Seacoast communities appear willing to take constructive action and to work toward meaningful solutions as opposed to delay tactics

Contrary to the Municipal Coalition's efforts to thwart – at every step of the way – meaningful action to reduce nitrogen pollution in the Great Bay estuary in compliance with the Clean Water Act, other communities have expressed a willingness to be part of the solution. For example, the Town of Newington, a New Hampshire Seacoast municipality with a WWTF, strongly supports the NPDES permits proposed by EPA and has stated on the record that it "currently has plans underway to upgrade our wastewater treatment plant to the proposed standard of 3 milligrams per liter." *See* Exhibit 17. The Town of Durham, once part of the Municipal Coalition, has consciously chosen to "take a pass" on the Municipal Coalition's tactics of its May 4 letter to you and the lawsuit filed against NHDES in N.H. Superior Court, opting instead to proactively work with EPA to address nitrogen pollution from both its WWTF and stormwater sources. *See* Exhibit 18. It is our hope that members of the Municipal Coalition soon will desist from their efforts to delay needed action and work toward real, meaningful solutions.

****

We regret that the Municipal Coalition has taken the recent actions that it has (i.e., its May 4, 2012 letter to you; its recent lawsuit against NHDES; its recent politicization of the EPA regulatory process in a recent Congressional field hearing) in an effort to de-rail needed action required under the Clean Water Act to restore the health of the Great Bay estuary. These actions represent a significant opportunity cost on the part of the regulatory agencies, diverting attention away from implementing solutions to the estuary's water pollution problems. We commend EPA for its work on this important issue and urge it to move forward promptly with Clean Water Act permitting consistent with the requirements of that law to solve the problem of nitrogen pollution in the Great Bay estuary.

Very truly yours,



Thomas F. Irwin, Esq.
Vice President & CLF-New Hampshire Director

Encls.

cc: Nancy K. Stoner, U.S. Environmental Protection Agency, Office of Water

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Message Information

Date 05/04/2012 07:21 PM
From Amber Thornhill <athornhill@hall-associates.com>
To LisaP Jackson/DC/USEPA/US@EPA; Arthur Elkins/OIG/USEPA/US@EPA
cc John Hall <jhall@hall-associates.com>
Subject Electronic Copy of Great Bay Municipal Coalition Letter to EPA Documenting Apparent Region I Scientific Misconduct and Agency Bias and Requesting Transfer of Matter to Independent Panel of Experts

Message Body

Dear Ms. Jackson and Mr. Elkins:

Attached please find an electronic copy of a letter sent on behalf of the Great Bay Municipal Coalition (1) documenting apparent scientific misconduct in EPA Region I regarding the imposition of stringent nutrient criteria in the Great Bay Estuary and (2) requesting that the matter be transferred to an independent panel of experts for review. Due to the file size of the exhibits, the second half of the exhibits will follow in a separate email. A hard copy of these documents will arrive via Federal Express. We look forward to the Agency's swift resolution of this matter and the approval of scientifically defensible approaches to protect the resources of the Great Bay Estuary.

Sincerely,

Amber N. Thornhill

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Great Bay Municipal Coalition - Scientific Misconduct Letter to EPA - Final - 5-4-12.pdf

Att. A - Timeline for Nitrogen Criteria Development in Great Bay Estuary - Final - 5-4-12.pdf

Exhibits to Scientific Misconduct Letter - Part 1 of 2 - 5-4-12.pdf

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May 4, 2012

VIA FEDERAL EXPRESS AND E-MAIL
Lisa Jackson, Administrator
Arthur A. Elkins, Jr., Inspector General
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

RE: Great Bay Nutrient Criteria and Permit Development - Documentation of Apparent Scientific Misconduct and Agency Bias; Request for Transfer of Matter to Independent Panel of Experts for Review

Dear Administrator Jackson and Inspector General Elkins:

This correspondence is submitted on behalf of the Great Bay Municipal Coalition, which is comprised of the cities of Dover, Exeter, Newmarket, Portsmouth, and Rochester, NH. In recent months, EPA Region I has issued three draft NPDES permits for Exeter, Newmarket, and Dover that seek to impose a 3 mg/l total nitrogen (TN) effluent limit based on a draft numeric TN water quality criterion of 0.3 mg/l that has never been formally adopted by the state of New Hampshire or approved by EPA. These severe effluent limits and related stormwater reduction requirements are expected to cost the regulated communities in the watershed more than *one billion dollars* in additional capital and operating costs. The affected communities have repeatedly provided Region I with detailed analyses of the relevant Great Bay water quality data and studies conducted by independent researchers that show there are fundamental errors underlying the Region's mandates. The same concerns regarding oversimplified "stressor-response" analyses were highlighted by EPA's Science Advisory Board (SAB) in April 2010 and by an internal EPA Region I assessment in September 2010. Moreover, an independent, federally funded Technical Advisory Committee (TAC) for the Great Bay Estuary had also identified many of the same errors and deficiencies in 2008. Nonetheless, Region I has ignored all of these findings.

It is now apparent that serious regulatory violations, bias, and scientific misconduct underlie the Region's actions. The history regarding this matter is summarized on the attached timeline (Attachment A) and discussed in greater detail below for your consideration. For the reasons detailed herein, in accordance with the *EPA Scientific Integrity Policy* and the *Federal Policy on Research Misconduct*, the Coalition requests that (1) the review of Great Bay water quality criteria compliance and permitting be

withdrawn from EPA Region I and transferred to an independent panel of experts who can assess the scientific basis of the Region's position and that (2) the Region's actions leading to this request be investigated by the Office of Inspector General.

Background on Great Bay Estuary Impairment Evaluation

The following provides a brief synopsis of key scientific and regulatory issues affecting Region I's decision to impose "limits of technology" TN regulation mandates on municipal dischargers to Great Bay.

1. Technical Advisory Committee (2005 – 2008) Concludes TN/Transparency is Not the Cause of Eelgrass Declines in the Great Bay Estuary

The New Hampshire Estuaries Project (NHEP) (a federally-funded state project) formed a Technical Advisory Committee (TAC) in September 2005 to address the development of appropriate numeric water quality standards for the Estuary. The TAC members included EPA Region I, New Hampshire Department of Environmental Services (DES), University of New Hampshire (UNH) professors, municipal representatives, the Conservation Law Foundation (CLF), and a number of environmental consultants. Detailed site-specific research was conducted on the factors influencing the ecology of the Estuary and in particular the effect of nutrient concentrations on both the tidal rivers and Great Bay. Over the course of several meetings from 2006 to 2008, the TAC evaluated the results of these detailed studies, reaching the following scientific consensus:

(1) The classic model of eelgrass loss due to TN-induced transparency decrease is inapplicable to Great Bay because transparency reduction was not the cause of the eelgrass losses and there is minimal phytoplankton growth in Bay and Piscataqua River due to physical characteristics of those waters;

(2) Increasing total inorganic nitrogen (TIN) levels since the 1980s did not significantly increase algal blooms;

(3) The main factor controlling transparency in Great Bay [and tidal rivers] is color and turbidity from the tidal rivers (algal levels in the Bay are low and only account for 8% of the light extinction in Bay waters);

(4) Using data from other estuaries (i.e., Chesapeake Bay) to set Great Bay standards is not appropriate due to significant physical differences (eelgrass in Great Bay apparently tolerate higher TN loadings than other estuaries due to short retention times);

(5) It should not be presumed that TN is the cause of eelgrass losses; analyses that combine data from different areas of the Estuary to justify a TN/transparency connection do not prove causation and may be misleading; and

(6) DES should not claim eelgrass impairments exist in the tidal rivers (e.g., Squamscott River) if the area in question is no longer suitable for eelgrass growth [several tidal rivers exhibit naturally low transparency].

See Ex. 1 – TAC Meeting minutes, at Meeting Minutes dated June 10, 2008, and November 17, 2008.

Subsequent to the TAC findings, DES prepared its Methodology and Assessment Results related to Eelgrass and Nitrogen in the Great Bay Estuary for Compliance with Water Quality Standards for the New Hampshire 2008 Section 303(d) List (August 11, 2008). *See* Ex. 2 - Methodology and Assessment Results related to Eelgrass and Nitrogen in the Great Bay Estuary for Compliance with Water Quality Standards for the New Hampshire 2008 Section 303(d) List (August 11, 2008). That document provides a detailed history of eelgrass declines unrelated to nutrient levels occurring in the Estuary. The main factor causing periodic eelgrass losses was noted to be a "wasting disease" that has decimated eelgrass populations around the globe. Consistent with the TAC findings, the Section 303(d) assessment concluded that eelgrass-related impairment listings for nutrients was not justified in Great Bay, Little Bay, the Upper and Lower Piscataqua River, or in Portsmouth Harbor and Little Harbor.

2. Region I Initiative to Develop TN Criteria and Generate TN-induced Eelgrass Impairment Designations (October 2008 – 2010)

In October 2008, subsequent to the TAC findings and DES completion of the 2008 impairment listings, CLF wrote a letter to Region I insisting that more restrictive impairment designations were needed for the Estuary. CLF claimed that TN should be designated the cause of eelgrass loss throughout the Estuary because TN *can* cause loss in *some* situations and, therefore, must be regulated. *See* Ex. 3 – October 6, 2008, CLF letter to EPA Region I. This position was contrary to the TAC technical conclusions and was not based on any new data or revised scientific analysis of the available information. Region I staff favored CLF's position and pressured DES to further change impairment designations and conclusions to reflect this position. *See* Ex. 4 – L. Hamjian, EPA Region I, letter to H. Stewart, NHDES, dated September 30, 2009, at 3. Region I's internal correspondence in November 2008 confirms that the Region knew that no cause and effect relationship between TN and eelgrass loss existed but, despite this knowledge, still pursued the development of stringent TN criteria for Great Bay to "restore" eelgrass populations. *See* Ex. 5 – M. Liebman, EPA Region I, email dated November 21, 2008. Federally-funded studies contemporaneously completed by Dr. Fred Short,[1] a local eelgrass expert, confirmed that eelgrass losses were occurring in areas with both elevated and low TN and transparency levels.[2] Moreover, Great Bay, which had the highest eelgrass populations, had much higher TN levels and lower transparency than Little Bay and the Piscataqua River, where eelgrass failed to recover after the last bout of wasting disease in 1988. Plainly, from these studies, there was no indication that TN or transparency levels were controlling eelgrass recovery anywhere in the Great Bay system.

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[1] Dr. Short is a UNH professor whose supposed research Region I is relying upon to support the need for TN criteria to protect eelgrass in Great Bay.

[2] *See* Beem, N. T., and F. T. Short 2009, Subtidal eelgrass declines in the Great Bay Estuary, New Hampshire and Maine, USA. Estuaries and Coasts, 32: 202-205.

Nonetheless, from November 2008 through June 2009, EPA Region I supported the development of a new TN criteria approach based on transparency impacts (*the precise impact the TAC concluded did not exist*). By June 2009, the state began to implement Region I's recommended approach by developing draft TN numeric criteria for the Great Bay Estuary[3] and revising the impairment assessment for Great Bay using the June 2009 Criteria.[4] The Coalition Members did not find out about the revised impairment designations until after DES in August 2009 submitted a radically revised, final document to Region I, who promptly approved it in September 2009.[5] *See* Ex. 4 – L. Hamjian, EPA Region I, letter to H. Stewart, NHDES, dated September 30, 2009. A review of the impairment listing methodology and the draft criterion indicated that the foregoing represented a 180 degree shift from the TAC findings and the prior publically-released documents. All subsequent attempts by the regulated community to have an independent review of the revised scientific positions have been ignored by the regulatory authorities. Region I subsequently informed DES that it "must" apply the new draft TN criteria wherever eelgrass historically existed. *See* Ex. 6 – S. Perkins, EPA Region I, letter to H. Stewart, NHDES, dated December 9, 2009. By February 2010, Region I had begun internal discussions on the effluent limitation potentially applicable to Great Bay communities. *See* Ex. 7 – S. Silva, EPA Region I, email to C. Deloi, EPA Region I, dated Feb. 11, 2010. Region I acknowledged that a 5 mg/l TN limitation would be acceptable, but the Region would only propose this limitation "with CLF's agreement not to appeal." *Id.* at 1. Absent this agreement, Region I would impose a 3 mg/l TN limitation. *Id.* at 1.

In March 2010, without notice to the public, Region I initiated an internal "peer review" of the 2009 numeric criteria under EPA's N-STEPS program to deflect mounting criticism. *See* Ex. 8 – E. Tupper Kinder letters to EPA Region I dated April 9, 2010, and May 12, 2010 (with attached report). However, repeated Coalition requests to have public involvement in that process and a detailed scientific inquiry were rejected by the Region. The comments submitted by the Coalition to DES were never submitted to the peer reviewers for their consideration. Region I then issued its "peer review" document in June 2010, claiming that the review supported the revised June 2009 Criteria, despite the fact that critical issues raised by the Coalition were never evaluated. At nearly the same time, EPA's Science Advisory Board (SAB) was peer reviewing a draft guidance document on the use of "stressor-response" analysis to derive numeric nutrient criteria for EPA Headquarters. The SAB released its final report in April 2010, and EPA finalized

[3] *See* Numeric Nutrient Criteria for the Great Bay Estuary, NHDES June 2009 (hereinafter "June 2009 Criteria") (which claimed that the numeric water quality criteria for TN in the Great Bay Estuary should be set at 0.3 mg/l to improve transparency and restore eelgrass populations).

[4] *See* revised 303(d) listing for Great Bay – 2009.

[5] The Region's approval letter noted that the Region had worked closely with DES in developing the eelgrass/transparency-based TN numeric criteria that were used to declare Bay and tidal river areas as eelgrass impaired due to nutrients.

its guidance in November 2010.[6] The SAB report and the EPA guidance document are relevant to this matter because the draft numeric TN criteria presented in the June 2009 Criteria were based on a similar stressor-response analysis. Both the SAB Report and the final Guidance confirm that the use of stressor-response analyses are only scientifically defensible when cause and effect has been demonstrated and significant confounding factors influencing the stressor-response relationship have been accounted for in the analysis. *Id.* at 6. The June 2009 Criteria did not address either of these fundamental considerations, and contemporaneous EPA Region I emails derided the need to make such a demonstration. *See* Ex. 9 – EPA Region I emails regarding cause and effect, dated July-August 2010. Unbeknownst to the Coalition, Region I subsequently conducted a review of the 2009 criteria document in light of the Coalition's technical comments and EPA's SAB Report. *See* Ex. 10 - M. Liebman, EPA Region I, document titled "Review of: Numeric Nutrient Criteria for the Great Bay Estuary, in light of comments made by John C. Hall and Thomas Gallagher (2010)" dated September 1, 2010.[7] This internal analysis confirmed the Coalition's observation that numerous scientific deficiencies underlie the June 2009 Criteria document, including the following:

> **Conceptual models**
>
> "They rely on literature and only sparingly rely on established results from the estuary itself. It would be better to document some of the connections within the estuary itself." [Ex. 10 at 2.]
>
> *Algal blooms*
>
> "The correlations between total nitrogen and 90th percentile chlorophyll *a* levels by assessment unit or by trend monitoring station are strong, but does this discount other factors, such as salinity and wind, or stratification? ... Is there supporting information to suggest that the chlorophyll *a* levels observed in the estuary are consistent with a response from the measured or estimated nutrient loading to the estuary?" [Ex. 10 at 2.]
>
> *Macroalgae*
>
> "The conceptual model is that as TN increases, eelgrass is replaced by macroalgae, but the actual mechanism is not sufficiently explained. Are macroalgae better able to utilize nutrients in enriched conditions and thus outcompete eelgrass? Are there any literature or mesocosm experiments in Great Bay that document this? There is literature from Waquoit Bay, but is this area similar enough to Great Bay to explain the process?" [Ex. 10 at 3.]
>
> "Although there does seem to be supporting evidence of this replacement based on one aerial surveys, there is insufficient documentation of the loss of eelgrass and coincident replacement by macroalgae." [Ex. 10 at 3.]

[6] *See* "Using Stressor-response Relationships to Derive Numeric Nutrient Criteria." USEPA, EPA-820-S-10-001, November 2010.

[7] This document was provided to the Coalition by Region I in response to FOIA Request No. 01-FOI-00148-11.

Light extinction

"On page 15, the authors state that eelgrass is sensitive to water clarity without citing the specific experimental evidence in the Great Bay estuary. ... For example, do the mesocosm experiments show the effects of increasing nitrogen enrichment on eelgrass in terms of light attenuation, or lengthening of blades, or loss of carbohydrate stores, or epiphytic growth? Are these loadings similar to loadings into Great Bay and are the responses in Great Bay expected based on the mesocosm experiments?" [Ex. 10 at 3.]

Confounding factors

Chlorophyll a

"The authors did not sufficiently evaluate whether salinity is more important than nitrogen in controlling phytoplankton abundance. ... Does chlorophyll *a* track salinity as well? ... This would provide supporting material to document that the chlorophyll *a* response is controlled primarily by nutrients, rather than habitat changes (i.e. low salinity vs. higher salinity zones)." [Ex. 10 at 3-4.]

Benthic indicators

"The authors state (on page 40) that organic matter comes from primary producers, but they don't evaluate the effect of organic matter from terrestrial sources, especially in the upper parts of the estuary. On page 41, they state that the regressions prove that total organic carbon in sediments is associated with nitrogen and chlorophyll *a* concentrations in the water column, but they don't say that they are caused by them. I suspect that terrestrial sources from nonpoint and sewage treatment effluent are more important than autotrophic sources of organic matter." [Ex. 10 at 4.]

Dissolved oxygen

"The dissolved oxygen section on page 45 presents an incomplete conceptual model, because they do not address other sources of organic matter, including sewage treatment effluent, and terrestrial runoff. ... In addition, the relationships could be confounded by salinity stratification, or flushing, rather than nitrogen. The sonde data sources for low dissolved oxygen are all in the tributaries, which are really different than the Great Bay areas, and therefore the low dissolved oxygen could be partly related to poor circulation and salinity wedges and other sources of organic matter (e.g. terrestrial organic matter). Additional information should be presented to discount these other factors." [Ex. 10 at 4.]

Light extinction

"On page 63 and in Figure 34 the authors suggest that the particulate organic matter in the water column expressed as turbidity is caused by nitrogen and that this particulate matter is autochthonous (i.e. derived from phytoplankton). But, there should be supplemental evidence that discounts the possibility that this organic matter is related to the salinity gradient and is from upstream sources of terrestrial runoff." [Ex. 10 at 5.]

Despite the obvious, significant technical deficiencies and failure to provide analyses consistent with the SAB recommendations, Region I continued to claim that the June 2009 Criteria were scientifically defensible.

3. Coalition Members Meet with DES to Review Applicable Scientific Information and Develop a Memorandum of Agreement (2011)

Once the Coalition communities obtained the amended 303(d) listing and learned of Region I's decision to limit the "peer review" of the June 2009 Criteria analysis, they prepared and submitted site-specific data and analyses showing that elevated levels of TN could not possibly have caused eelgrass losses in the Estuary as a result of phytoplankton-induced light extinction and that the water quality criteria of 0.3 mg/l TN was unsupported by any of the site-specific data. In particular, the Coalition documented that there was no information showing that either transparency had significantly *decreased* or algal growth had significantly *increased* in the Estuary from 1990 to 2009. Therefore, it was indefensible to assert TN-induced transparency changes caused the eelgrass losses.

Several meetings were held with DES technical staff to review the information. By April 2011, in response to the presentation of these site-specific data analyses, DES agreed that there remained a significant degree of uncertainty with regard to the draft numeric TN standards and signed a Memorandum of Agreement (MOA) with the Coalition communities designed to investigate and resolve key technical issues. *See* Ex. 11 - MOA. The parties to the MOA agreed that appropriate TN criteria for the Estuary would need to be set for each tidal river on a site-specific basis. Under the MOA, open technical meetings were held with UNH researchers, DES and Region I. Those meetings culminated in a consensus that the impairment mechanism attributed to the loss of eelgrass in the June 2009 Criteria – loss of light transparency due to increased phytoplankton growth – *did not occur and was not the cause of eelgrass changes* in Great Bay. *See* Ex. 12 – MOA Meeting Minutes.

4. EPA Region I Ignores Terms of MOA and Drafts NPDES Permits with Stringent TN Limits (2011)

Throughout 2011 and 2012, the communities repeatedly presented data and analyses to Region I confirming that transparency reductions associated with TN *cannot* be the cause of the eelgrass declines and that TN-induced impacts on transparency (i.e., increased algal growth) are documented to be negligible. *See, e.g.*, Exs. 13, 14, and 15 – Transparency-phytoplankton relationship charts for the Squamscott, Lamprey, and Piscataqua Rivers. The Coalition also reconfirmed that the transparency in the tidal rivers was quite low due to natural factors (color, turbidity, etc.) and, due to these factors, apparently could no longer support eelgrass growth based on the degree of light penetration presumed by DES to be necessary to support such growth. *See id.* Despite the numerous, unrefuted studies confirming there is no "eelgrass-TN-transparency" paradigm controlling eelgrass populations in Great Bay or the tidal rivers, Region I continued to ignore the information submitted by the Coalition communities, without comment, and proceeded to issue three draft NPDES permits (Exeter, Newmarket, and Dover) that established limits-of-technology TN requirements based on the draft TN criteria of 0.3 mg/l from the discredited June 2009 Criteria. In response to comments made on the draft permits, Region I subsequently claimed that its TN-transparency-

eelgrass loss position was based on the scientific findings of Dr. Fred Short. *See* EPA Region I Response to FOIA Request No. 01-FOI-00053-12.[8] Because of Region I's reliance on Dr. Short's research claims, the Coalition requested that Dr. Short produce the research he claimed demonstrated that TN levels caused increased algal growth, reduced transparency, and the loss of eelgrass populations throughout the Estuary. *See* Ex. 17 – F. Short email to EPA Region I dated December 22, 2011; Ex. 18 – Correspondence from Coalition to F. Short, dated January 23, 2012, and February 9, 2012. To date, Dr. Short has been unable to produce any such information, and the Region has also failed to produce any such information.

5. Historical Summary

Based on these interactions and documented events it is apparent that Region I has purposefully ignored the valid scientific findings of the TAC and has taken, without support, a position that stringent TN limitations are required to improve transparency and restore eelgrass populations in Great Bay. Furthermore, although critical scientific deficiencies were confirmed by Region I, the Region has undertaken repeated efforts to thwart a comprehensive evaluation of the underlying science and has rendered its decision to impose stringent TN limitations based on administrative fiat, which it has no intention of altering regardless of whatever information is presented.

Basis for Requesting Inspector General Scientific Misconduct and/or Lack of Impartiality Investigation and Transfer of Matter from EPA Region I Due to Documented Bias

EPA's *Scientific Integrity Policy* and the *Federal Policy on Research Misconduct* specify the requirements for appropriate scientific and research conduct and specify the elements that constitute scientific misconduct. As further discussed below, Region I (1) based its regulatory assertions on the manipulation or misuse of data and analyses to support its desired outcome, as opposed to sound science; (2) refused and/or was unable to produce valid documentation to support its position; (3) prevented public involvement in its peer review process; and (4) has consistently demonstrated a lack of impartiality regarding the matter. The Region I's actions plainly violate these policies that are intended to ensure that sound science is used in the regulatory decision-making process. As such, these violations justify withdrawal of the matter from Region I and further investigation.

[8] As part of the publication of the draft NPDES permits, the Region also issued multipage "fact sheets" to support the application of stringent TN limitations for Coalition members. In order to obtain the underlying basis and support for Region I's various scientific assertions, the Coalition submitted a series of Freedom of Information Act (FOIA) requests to Region I. Upon review, Region I's FOIA responses confirmed that Region I's basis for imposing the new TN restrictions relied heavily on the claims of Dr. Fred Short. *See* Ex. 16 – EPA Region I Phone Logs of Conversations with F. Short, dated November 14, 2011, and November 18, 2011. The Region also made numerous other unsupported claims (i.e., organic nitrogen is rapidly converted to inorganic nitrogen within Great Bay justifying TN control; excessive nitrate levels are harming eelgrass, eelgrass restoration in the tidal rivers is dependent on TN reduction). The FOIA responses further confirmed that Region I did not have any other Great Bay studies or analyses supporting these claims.

1. **EPA Region I's Stance is Based on the Improper Use of Data and Analyses to Support a Desired Outcome and is Not Grounded in Sound Science**

Based on these interactions and documented events, it is apparent that EPA Region I has (1) purposefully ignored the valid scientific findings of the TAC that a "cause and effect" relationship between eelgrass loss, transparency, and TN did not exist, (2) ignored its own analyses identifying numerous significant scientific deficiencies regarding the June 2009 Criteria, and (3) adopted a contrary position that stringent TN limitations are required to improve transparency and thereby restore eelgrass populations in Great Bay. Additionally Region I has intentionally, knowingly, or recklessly adopted the scientific claims of a UNH researcher that it knows are factually unsupported, in order to justify the adoption of stringent TN criteria for the Great Bay Estuary. Individually and collectively, these actions constitute research misconduct. The *Federal Policy on Research Misconduct* states:

> "[r]esearch misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing or reviewing research, or in reporting research results [65 Fed. Reg. 76262 at I], or ordering, advising or suggesting that subordinates engage in research misconduct." 65 Fed. Reg. 76262 at I n.2. "Fabrication is making up data or results and recording or reporting them." 65 Fed. Reg. 76262 at I. "Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record." 65 Fed. Reg. 76262 at I. The federal policy further states that a finding of research misconduct requires that "[t]here be a significant departure from accepted practice of the relevant research community;" "[t]he misconduct be committed intentionally, or knowingly, or recklessly;" and "[t]he allegation be proven by a preponderance of evidence." 65 Fed. Reg. 76262 at II.

In this case, "[t]he significant departure from accepted practice of the relevant research community" began with the lack of any objective data regarding TN levels causing adverse transparency impacts on eelgrass in the Estuary and developed into the manipulation of real data to produce a false conclusion. Neither Region I, Dr. Short, nor DES can claim ignorance of the lack of scientific justification for the proposed transparency-based TN restrictions, as they were present at the TAC meetings wherein it was expressly concluded that increased TN concentrations *had not caused increased algal growth causing significantly lower transparency levels*. In contradiction to their later research claims, the federal research reviewed by the TAC expressly determined that a significant relationship between TN and transparency did not exist. The TAC minutes confirmed that the changing physical factors unrelated to TN (color, dilution (salinity), and turbidity) actually controlled the transparency existing at those different sites. *See* Ex. 1 – TAC Meeting Minutes, at Meeting Minutes dated December 7, 2007.

When this legitimate research (the conclusions of which were expressly agreed upon in formal State/Federal TAC meetings) produced findings that did not justify an imposition of stringent TN criteria, Region I requested that DES create alternative findings (numeric water quality criteria) specifically to back up their desire for stringent TN regulation and to supplant the properly documented research conclusions reached by the TAC. DES employee Philip Trowbridge (also a TAC member) then created a new "stressor-

response" analysis designed to support the falsified claim that TN had induced algal growth increases causing major changes in transparency in both the Bay and tidal rivers.[9] When these new DES analyses (later comprising the June 2009 Criteria) were presented to the TAC in June and November 2008, the TAC advised that the approach did not demonstrate cause and effect and should receive an independent peer review because of the unconventional methods employed. *See id.*, at Meeting Minutes dated June 10, 2008, and November 17, 2008. This independent peer review never occurred. Likewise, Region I internal correspondence demonstrates that it knew these analyses did not represent a "cause and effect" relationship, but nonetheless promoted the methods as scientifically defensible. *See* Ex. 9 – EPA Region I emails regarding cause and effect, dated July-August 2010. As such, the entire TN/transparency analysis used to justify the stringent TN criteria was a gross scientific misrepresentation.

Moreover, the Coalition noted that the simplified "stressor-response" procedures used to develop the draft TN criteria had been specifically rejected by EPA's Science Advisory Board as not scientifically defensible in April 2010.[10] In evaluating the Coalition's comments, Region I itself noted numerous "confounding variables" were not addressed in the development of the June 2009 Criteria. *See* Ex. 10 - M. Liebman, EPA Region I, document titled "Review of: Numeric Nutrient Criteria for the Great Bay Estuary, in light of comments made by John C. Hall and Thomas Gallagher (2010)" dated September 1, 2010. In particular, the Region noted a failure to confirm that salinity or upstream runoff did not control transparency/dissolved oxygen (DO) and a failure to confirm that algal growth actually increased due to higher TN loadings. *Id.* at 3-5. Nonetheless, Region I continued to assert that the June 2009 Criteria may be used to justify the application of stringent TN water quality criteria requiring effluent limits of 3 mg/l TN asserting that the "weight of evidence" justifies such findings.

Finally, all of these issues and fundamental scientific errors were again brought to the Region's attention at the Exeter, NH, NPDES draft permit modification hearing (NPDES Permit No. NH0100871) in June 2011. As demonstrated in the Coalition's reports,[11] which were submitted to Region I and Dr. Short, and the Coalition's response to Region I's request for comments regarding the Exeter draft permit modification, the development of the June 2009 Criteria by DES analysis violated fundamental scientific principles

[9] This analysis plotted data from dramatically different physical settings (river, bay, ocean) to conclude that TN "caused" the changes in transparency at these different locations, when in fact the data simply showed the inherent principle that TN levels decrease and transparency levels increase from the head of the Estuary to its mouth. *See* Ex. 19 - Relationship between Light Attenuation Coefficient and TN at Trend Stations (NHDES 2009).

[10] In 2010, EPA published guidance on the use of empirical approaches such as stressor response analysis to develop numeric nutrient criteria. (*See* EPA-820-S-10-001.) This guidance was subject to Science Advisory Board review prior to publication. The guidance affirms that stressor response analysis is a valid method *only after a cause-and-effect relationship has been established and confounding factors have been accounted for*. The June 2009 Criteria analysis did not consider either of these critical factors.

[11] Ex. 18 at Attachments to January 23, 2012, Coalition Correspondence to F. Short: HydroQual Reports dated June 14, 2010, and January 10, 2011.

governing water quality impact assessment and was specifically at odds with the TAC-reviewed site-specific information collected for Great Bay. Most notably, the Coalition pointed out that data were combined from dramatically different hydrologic and physical settings to mask the effect of other controlling parameters (e.g., turbidity, dilution (salinity), and color) and to claim that changing TN levels were the sole cause of changing transparency levels. *See id.* The Coalition also provided data plots for the Squamscott River confirming that algal growth was *not* the cause of low transparency in the tidal river. *See* Ex. 13 – Transparency-phytoplankton relationship chart for the Squamscott River. This information was ignored as well, and the Region continued to issue draft permits with identical TN effluent limitations under the claim that the June 2009 Criteria were properly conducted and determined by Region I to be "scientifically defensible."

To bolster its untenable position, Region I later claimed that Dr. Short had completed research for the Estuary that confirmed reduced transparency caused system-wide eelgrass losses. *See* EPA Region I Response to FOIA Request No. 01-FOI-00053-12.[12] That assertion was yet another serious misrepresentation. In fact, the prior TAC meetings that evaluated the proper water quality requirements for Great Bay *expressly concluded that this transparency mechanism for eelgrass loss DID NOT occur in Great Bay. See* Ex. 1 – TAC Meeting Minutes, at Meeting Minutes dated December 7, 2007. Federally-funded research completed by Dr. J. Ru Morrison (UNH Professor) had confirmed that transparency in Great Bay was negligibly impacted by algal growth and that color (originating naturally from the tidal rivers) controlled light penetration in those waters.[13] If Dr. Short actually had completed research relevant to that issue, it would have been presented to the TAC, of which he was a member. In reality, Dr. Short's research never looked at whether light transmission in the water column in the Estuary had changed over time due to increased TN and algal growth.

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[12] Region I's FOIA responses confirmed that Region I was relying on the claims of Dr. Fred Short. *See* Ex. 16 – EPA Region I Phone Logs of Conversations with F. Short, dated November 14, 2011, and November 18, 2011. We understand that Dr. Short received extensive federal funding for eelgrass research in Great Bay and the Piscataqua River. Based on this federally-funded research that was supposedly conducted in the Estuary, Dr. Short made a number of very specific scientific claims regarding the factors that caused eelgrass losses in the Bay and tidal rivers. These unsupported claims were used by the Region and DES as the primary basis to link TN to eelgrass loss and to support imposition of a 0.3 mg/l TN water quality standard to improve transparency in the tidal waters of the Bay and to further impose 3 mg/l TN effluent limits to achieve that standard. Specifically, Dr. Short asserted that his research confirmed that increasing TN levels caused increased algal growth, significantly reducing water column transparency causing the demise of eelgrass throughout the system. However, the available records show that he never conducted research that was designed to demonstrate that TN-induced transparency reduction caused the eelgrass losses in Great Bay.

[13] *See* Morrison, J. Ru, et al. *Using Moored Arrays and Hyperspectral Aerial Imaging to Develop Nutrient Criteria for New Hampshire's Estuaries – A Final Report to The New Hampshire Estuaries Project* (September 30, 2008). Available at: http://ccom.unh.edu/sites/default/files/publications/Morrison_2010_Report_Using_Moored_Arrays_and_Hyperspecral_Areial_Imagery_to_Develop_Nutrient_Criteria_NH_Estuaries.pdf.

Despite repeated requests, no research or studies supporting Dr. Short's claims have been provided to the Coalition. *See* Ex. 18 – Correspondence from Coalition to F. Short, dated January 23, 2012, and February 9, 2012. Region I's continuing efforts to rely on a position it knows, or should know, is unsupported also violates EPA's Research Misconduct guidelines. Based on all of the records and documentation available to the Coalition, it is clear that the technical basis used to create the TN standard was, at best, recklessly prepared or, at worst, intentionally falsified. As the Region was directly involved in promoting these analyses based on research claims regarding Great Bay data it knew were unsupported, Region I has committed science misconduct.

2. Refusal to Allow an Independent Peer Review and Public Involvement in the Process

Region I has undertaken repeated efforts to prevent public input into an objective investigation of the underlying science. These activities confirm that EPA Region I has rendered its biased decision to impose stringent TN limitations based on administrative fiat, which it has no intention of altering regardless of whatever information is presented. Despite the TAC's open evaluation, with the participation of all interested stakeholders, of the detailed studies conducted on Great Bay and its subsequent conclusion that TN should not be designated the cause of eelgrass loss, CLF wrote a letter to Region I in October 2008 claiming that TN should be designated the cause of eelgrass loss in the Bay because TN *can* cause loss in *some* situations and, therefore, must be regulated. *See* Ex. 3 – October 6, 2008, CLF letter to EPA Region I. Following the CLF letter, Region I embarked on a mission to induce DES to change impairment designations and conclusions to reflect that TN was the cause of eelgrass loss. *See* Ex. 5 – M. Liebman, EPA Region I, email dated November 21, 2008. Region I's internal correspondence in November 2008 confirms that that no cause and effect relationship between TN and eelgrass loss existed in Great Bay but, despite this knowledge, Region I still pursued the development of stringent TN criteria for Great Bay. *See id.* Region I's letter approving the radically revised impairment listings for the Estuary acknowledged Region I's major role in developing the new TN criteria and in altering the original DES position that presented to the public. Ex. 4 – L. Hamjian, EPA Region I, letter to H. Stewart, NHDES, dated September 30, 2009.

By June 2009, the state had begun to implement Region I's recommended approach by finalizing the TN criteria and revising the impairment assessments for Great Bay. Region I promoted the state's immediate use of the unadopted numeric criteria, by now calling them a "narrative criteria interpretation."[14] Without further public review, DES submitted the radically revised impairment listings (based on the new, unadopted numeric TN criteria) in August 2009. Region I promptly approved the revised listings and impairment causes in September 2009. Both Region I and DES ignored all attempts by

[14] It should be noted that EPA itself, under the direction of the 11th Circuit Court of Appeals in *Florida Public Interest Group v. EPA*, 386 F.3d 1070 (11th Cir. 2004), developed the controlling analysis of what factors determine when new water quality standards have been developed. The June 2009 Criteria are clearly new water quality standards under this test. New water quality standards can only be adopted through formal rulemaking, which has never been conducted.

the regulated community to have an independent review of the revised scientific positions. *See* Ex. 8 – E. Tupper Kinder letters to EPA Region I dated April 9, 2010, and May 12, 2010 (with attached report). To provide some semblance of reliability and to deflect mounting criticism, the Region set up an extremely limited internal peer review in March 2010 with selected EPA contractors. All Coalition requests to have public involvement in that process and to ensure that appropriate technical questions prepared by the Coalition were addressed through the peer review process were rejected by the Region. The questions posed to the experts selected by Region I were designed to avoid any serious investigation into the lack of demonstrated cause and effect relationships. None of the earlier TAC recommendations or analyses was provided to the peer reviewers. The Coalition members strongly protested the scope of the questions presented and asked for a more public process to occur. *See* Ex. 8 – E. Tupper Kinder letters to EPA Region I dated April 9, 2010, and May 12, 2010 (with attached report). Region I refused to allow the peer review to address the scientific questions raised by the Coalition – in particular whether the analysis framework was consistent with EPA's Science Advisory Board recommendations on use of simplified regressions to establish "stressor-response" nutrient criteria for complex waters. No public input on this "peer review" was allowed.

Consequently, Region I's "independent peer review" document, issued in June 2010, amounted to little more than a contrived approval derived by withholding relevant scientific information and public input from the experts selected by Region I for the review. Subsequent responses to FOIA requests and permit "fact sheets" asserted that this "peer review" justified the Region's conclusion that the new restrictive TN criteria were "scientifically defensible." As noted earlier, all subsequent data and analyses submitted by the Coalition and its experts, confirming the TN-transparency connection did not exist, were ignored by Region I. This occurred even though the Region knew that the Coalition's objections were well-founded. *See* Ex. 10 - M. Liebman, EPA Region I, document titled "Review of: Numeric Nutrient Criteria for the Great Bay Estuary, in light of comments made by John C. Hall and Thomas Gallagher (2010)" dated September 1, 2010. As such, Region I's refusal to allow public participation in the internal "peer review," was plainly an attempt to conceal the Region's internal evaluation identifying critical deficiencies and to prevent an objective scientific assessment. In addition to violating EPA's policies against research misconduct, these actions plainly violate EPA's Scientific Integrity policy that "prohibits all EPA employees, including scientists, managers, and other Agency leadership, from suppressing, altering, or otherwise impeding the timely release of scientific findings or conclusions." EPA Scientific Integrity Policy at IV, Section A, Part 1.

Conclusion and Request for Action

The *Federal Policy on Research Misconduct* states, "[i]n deciding what administrative actions are appropriate, the Agency should consider the seriousness of the misconduct, including, but not limited to, 1) the degree to which the misconduct was knowing, intentional, or reckless; 2) was an isolated event or part of a pattern; and 3) had significant impact on the research record, research subjects, other researchers, entities, or the public welfare." 65 Fed. Reg. 76264 at V. The record is clear that Region I was determined to implement stringent transparency-based TN criteria and designate TN as the cause of eelgrass loss in the Bay. However, no objective scientific information from the Great Bay Estuary supported either action. Moreover, the Region's decision to impose the June 2009 Criteria even after internally identifying major scientific deficiencies with the numeric criteria confirms that the Region has no intention of conducting a competent and impartial scientific assessment for Great Bay. The Region's actions demonstrate that it is biased toward and intent on implementing a predefined regulatory agenda.

This misconduct is not an isolated event, as Region I has intentionally, knowingly, or recklessly committed violations of the *Federal Policy on Research Misconduct* and the *EPA Scientific Integrity Policy* in every step of these proceedings, including the following:

- Ignoring TAC conclusions based on federally-funded Great Bay research which confirmed that TN-induced transparency decreases did not cause the eelgrass losses;

- Promoting stringent transparency-based TN criteria, knowing that algal growth and transparency did not change over time due to TN load increases;

- Purposefully excluding the public from the peer review process and limiting the information provided to the peer reviewers;

- Continuing to support the June 2009 Criteria after internally identifying major scientific deficiencies and significant conflicts with the SAB recommendations on acceptable stressor-response-based criteria;

- Relying on the undocumented claims of a UNH researcher that the Region knew or should have known were unsupported; and

- Continuing to issue stringent NPDES permits, despite available data confirming the basis for these actions is clearly in error.

These actions have great potential to cause harm to the public welfare, as the watershed-wide costs of compliance with the excessive restrictions, if imposed, could easily exceed $1 billion. Consequently, in accordance with applicable policies intended to ensure the integrity of scientific decision making, the Coalition requests EPA Headquarters take the

following actions:

1. Due to the severity and quantity of violations, we request that (1) a meeting be arranged with the Administrator's office to discuss the matter and (2) further review of Great Bay Estuary matters be withdrawn from Region I and transferred to an independent panel of experts who can evaluate the scientific information that is the foundation of the Region's position.

2. We further request that Region I's actions be reviewed by the Office of Inspector General.

We look forward to the Agency's swift resolution of this matter and the approval of scientifically defensible approaches to protect the resources of Great Bay.

Sincerely,

John C. Hall

Enclosures

cc: Coalition Members
Curt Spaulding, Administrator of EPA Region I
Thomas Burack, Commissioner of NH DES
Gov. John Lynch
Rep. Frank Guinta
Sen. Jeanne Shaheen
Sen. Kelly Ayotte
Rep. Bob Gibbs
White House Council on Environmental Quality