



CONSERVATION LAW FOUNDATION

March 15, 2005

Via Facsimile and U.S. Mail

Mr. Roger A. Janson, Director Municipal Permits Branch United States Environmental Protection Agency One Congress Street, Suite 11 (Mail Code: CMP) Boston, MA 02114-2023



RE: City of Portsmouth, New Hampshire Publicly Owned Treatment Works Application for Section 301(h) Variance from the Secondary Treatment Requirements of the Clean Water Act, Tentative Waiver Decision and Draft NPDES Permit No. NH0100234

Dear Mr. Janson:

The Conservation Law Foundation (CLF) appreciates the opportunity to comment on the City of Portsmouth's (Portsmouth) above-referenced 301(h) waiver request, and the Environmental Protection Agency's (EPA) tentative waiver decision and draft NPDES permit. CLF is a member-supported, non-profit organization that works to solve the environmental problems threatening communities throughout New Hampshire and New England. CLF has significant concerns regarding the long-term health and sustainability of the Great Bay estuary—one of New Hampshire's most sensitive and ecologically valuable natural resources—and is devoting considerable effort to its protection.

Portsmouth's Peirce Island wastewater treatment plant is currently discharging 4.5 million gallons per day (assuming compliance with the original NPDES permit) of sewage effluent into the Piscataqua River, an estuarine water body that is a critical part of the larger Great Bay estuary. The effluent flows from a single 24 inch orifice located approximately 400 feet from shore in the Federal Project navigation channel. (Letter dated June 15, 2004 from Underwood Engineers, Portsmouth, NH, to the Army Corps of Engineers, EPA Admin. Record, Exhibit 12). The Peirce Island WWTP is a primary treatment plant providing sedimentation and chlorine disinfection of the sewage. Portsmouth does not have a secondary treatment facility for its sewage effluent. Portsmouth also discharges untreated sewage into the estuary through four combined sewer overflows (CSOs). (EPA Fact sheet, p. 21, and Attachment B.).

27 North Main Street, Concord, New Hampshire 03301-4930 • Phone 603-225-3060 • Fax 603-225-3059 • www.clf.org

MAINE: 120 Tillson Avenue, Rockland, Maine 04841-3416 • Phone 207-594-8107 • Fax 207-596-7706 MASSACHUSETTS: 62 Summer Street, Boston, Massachusetts 02110-1016 • Phone 617-350-0990 • Fax 617-350-4030 RHODE ISLAND: 55 Dorrance Street, Providence, Rhode Island 02903-2221 • Phone 401-351-1102 • Fax 401-351-1130 VERMONT: 15 East State Street, Suite 4, Montpelier, Vermont 05602-3010 • Phone 802-223-5992 • Fax 802-223-0060

Portsmouth does not have a current NPDES permit. EPA originally granted a permit for the facility on January 18, 1985. The permit allowed Portsmouth to discharge sewage effluent without secondary treatment, pursuant to a waiver under Section 301(h) of the Clean Water Act. (EPA Fact Sheet, pp. 8-9). The permit expired on January 17, 1990, and the facility has since discharged sewage effluent with only the EPA's "administrative" blessing. Portsmouth now seeks yet another waiver from secondary treatment standards of its sewage effluent. (EPA Fact Sheet, p. 4). As part of its waiver application, it proposes to extend the single 24 inch orifice outfall farther into the Piscataqua River by adding a 20 port diffuser. (EPA Fact Sheet, p. 4). Portsmouth argues that the additional orifices will permit its sewage effluent to be more widely dispersed, thus more diluted. It does not propose to reduce the 4.5 million gallon per day volume of sewage effluent (which will no doubt increase), nor does it propose treatment to more effectively remove pollutants.

EPA has issued a tentative waiver decision and draft NPDES permit approving Portsmouth's proposal. The draft permit would allow Portsmouth until February 28, 2007, to complete installation of the diffuser extension. The New Hampshire Department of Environmental Services, by letter dated May 17, 2004, signed off on the proposal. (EPA Administrative Record, Exhibit 11).

For the reasons that follow, CLF strongly urges the EPA to deny Portsmouth's request for a section 301(h) variance from the Clean Water Act's secondary-treatment requirements, and to amend its tentative waiver decision and draft NPDES permit accordingly.

I. Portsmouth's 301(h) application, and the EPA's tentative decision and draft NPDES permit, ignore the strong intent of Congress to protect estuarine resources.

A. Since the time of Portsmouth's first 301(h) waiver, Congress has enacted strong protections for estuarine resources.

In 1987, Congress adopted important amendments to the Clean Water Act by enacting the Water Quality Act of 1987 (WQA), "an Act to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's water..." In doing so, Congress demonstrated a strong intent to protect the valuable functions provided by the Nation's estuaries. For example, Congress established the National Estuary Program for the purpose of identifying and protecting nationally significant estuaries. It did so based on important findings that, *inter alia*:

(A) the Nation's estuaries are of great importance for fish and wildlife resources and recreation and economic opportunity;

(B) maintaining the health and ecological integrity of these estuaries is in the national interest; [and]

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(C) increasing coastal population, development, and other direct and indirect uses of these estuaries threaten their health and ecological integrity....

WQA (Public Law 100-4) § 317(a). See also WQA Legislative History, 133 Congressional Record H 131, January 7, 1987 at 32 ("Section 317 contains purposes and policies of the National Estuary Program which declare that the Nation's estuaries are of great national significance for fish and wildlife resources and provide important recreation and economic opportunities. As such, it is national policy to maintain and enhance the water quality in estuaries and provide for the biological integrity of these waters. In addition to creating the National Estuaries Program, the WQA also took steps to reserve funding to address water quality problems of marine bays and estuaries caused by discharges from combined stormwater and sanitary sewer overflows. WQA (Public Law 100-4) § 210.

Of particular significance, the WQA resulted in critical new statutory provisions in Section 301(h) of the Clean Water Act to protect the Nation's estuaries. Specifically, the WQA resulted in the amendment of Section 301(h) to include the following language:

No permit issued under this subsection shall authorize the discharge of any pollutant into saline estuarine waters which at the time of application do not support a balanced indigenous population of shellfish, fish and wildlife, or allow recreation in and on the waters or which exhibit ambient water quality below applicable water quality standards adopted for the protection of public water supplies, shellfish, fish and wildlife or recreational activities or such other standards necessary to assure support and protection of such uses. The prohibition contained in the preceding sentence shall apply without regard to the presence or absence of a causal relationship between such characteristics and the applicant's current or proposed discharge.

WQA (Public Laws 100-4) § 303(e); 33 U.S.C. § 1311(h). See also WQA Legislative History, 133 Cong. Rec. H. 131 (Jan. 7, 1987) (explaining that under Section 303(e) of the WQA, "[n]o permit may authorize the discharge of any pollutant into saline estuarine waters which do not support a balanced indigenous population of fish, shellfish and wildlife or which exhibit water quality below applicable standards."). As the EPA recognized in the preamble to regulations promulgating the new WQA provisions,¹ the above-quoted language provided enhanced protections for saline estuarine waters, creating a "flat prohibition" against the issuance of Section 301(h) variances into such waters exhibiting certain signs of stress. 59 Fed. Reg. 40642, 40646 (emphasis added).

B. The Piscataqua River is a critical part of the Great Bay estuary, which is an estuary of national importance.

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¹ The EPA's regulations explicitly incorporate the above-quoted language. See 40 CFR § 125.57(a). See also 40 CFR § 125.59(b)(4).

The Great Bay Estuary is a large, inland, tidally-dominated system comprised of several important water bodies, including the Piscataqua River, Little Bay, and Great Bay. With a total drainage area of 930 square miles, it receives fresh water flows from seven major rivers, several small creeks, and their numerous tributaries. The mixing of these fresh waters with the influx of tidal flows—which travel through Portsmouth Harbor and Little Harbor, and up the Piscataqua River—provides for a unique, sensitive, and highly productive natural resource.

The estuary contains a broad diversity of habitat types, including salt marshes, mudflats, channel bottom, rocky intertidal, and eelgrass. This diversity makes the estuary a critical breeding and nursery ground for finfish, shellfish and other invertebrates, as well as an important food source for many fish, mammals, birds and invertebrates. Fish species depending on the estuary are numerous, and include rainbow smelt, river herring (alewife and blueback), and oysters, to name a few. Bird species also are numerous, with 75 percent of New Hampshire's overwintering waterfowl found on Great Bay. <u>NH Estuaries Project Management Plan</u> at 2-18 (2000). In addition to its immeasurable ecological value, the water bodies comprising the Great Bay estuary represent an essential recreational resource that contributes greatly to the character and environment of the seacoast region. *See New Hampshire Estuaries Project Management Plan* (2000), appended as Attachment 1.

Because of its significant value, the Great Bay estuary is part of the National Estuarine Research Reserve. Its important ecological and recreational values also have led to the creation of the New Hampshire Estuaries Program, as well as the Natural Resource Protection Partnership—of which EPA is a member—which seeks to identify and preserve land parcels important to the estuary's health. Public and official concern over the state of the estuary has grown. Witness, for example, the 2003 passage of Senate Bill 70, creating the Great Bay Estuary Commission and addressing ways to better protect and restore the Great Bay estuary.

C. Conditions in the Piscataqua River and associated estuarine resources, including the larger Great Bay estuary (of which the Piscataqua River is a critical part) mandate prohibition of a 301(h) waiver.

The Great Bay estuary, of which the Piscataqua River is a part, is under increasing stress as a result of growth and development, as well as sewage effluent (including combined sewer overflows) from a total of 17 sewage treatment plants of varying age, condition and efficiency. The watershed for the Great Bay estuary is one of the state's fastest growing regions, which has the potential to generate further sprawl development and its attendant water quality impacts, as well as place more demands on the WWTFs. (*See* New Hampshire Seacoast Region Wastewater Management Study, Project Newsletter 1, December 15, 2004, appended hereto as Attachment 2; *see also* Attachment 1). As documented in the New Hampshire Estuary Project's 2003 *State of the* Estuaries Report, appended hereto as Attachment 3, there are a number of troubling trends occurring in and

around the estuary, including increasing nitrogen levels in Great Bay. See also 'N.H. sinking in sewage," Robert M. Cook, Foster's Online, Feb. 27, 2005, attached as Exhibit 4).

(1) Section 301(h) prohibits issuance of a waiver because the estuarine waters affected by the proposed discharge are in violation of state water quality standards adopted for the protection of aquatic life and recreational activities.

New Hampshire's 2004 Section 303(d) list of impaired waters includes numerous estuarine resources that are not supporting aquatic life and/or recreational uses. The Lower Piscataqua River, for example, is listed as (1) not supporting primary contact recreation uses as a result of enterococcus, (2) not supporting shellfishing as a result of dioxin and polychlorinated biphenyls (PCBs), and (3) not supporting fish consumption as a result of PCBs.² According to the list, nearly every estuarine water body is not supporting fish consumption uses as a result of PCBs, and not supporting shellfishing as a result of PCBs and dioxin. In addition to the above:

- South Mill Pond is supporting neither primary contact recreation nor secondary contact recreation as a result of enterococcus;
- North Mill Pond is supporting neither primary contact recreation nor secondary contact recreation as a result of enterococcus;
- Portions of Great Bay are not supporting shellfishing uses as a result of total fecal coliform;
- The Cocheco River is not supporting primary contact recreation uses as a result of enterococcus;
- The Lamprey River is not supporting primary contact recreation uses as a result of enterococcus; nor is it supporting aquatic life uses as a result of dissolved oxygen saturation;
- The Squamscott River is not supporting primary contact recreation as a result of enterococcus and chlorophyll-a; nor is it supporting aquatic life uses as a result of dissolved oxygen saturation;
- The Oyster River is not supporting aquatic life uses as a result of dissolved oxygen saturation;
- The Bellamy River is not supporting primary contact recreation as a result of enterococcus;
- Lower Sagamore Creek is not supporting primary contact recreation as a result of enterococcus;
- The Back Channel is not supporting primary contact recreation as a result of enteroccus;

² In addition, the Lower Piscataqua River, like every surface water body in New Hampshire, is considered impaired for fish/shellfish consumption as a result of mercury.



• Little Harbor is not supporting primary contact recreation uses as a result of enterococcus, nor is it supporting shellfishing uses as a result of total fecal coliform;

(NH Final 2004 List of Threatened or Impaired Waters that Require a TMDL (Section 303(d) List)).

In addition to estuarine water bodies in New Hampshire, estuarine waters located in Maine also must be considered.³ The State of Maine has apparently identified the Piscataqua River as impaired, having completed (but not yet implemented) a TMDL for dissolved oxygen. (State of Maine, 2002, Integrated Water Quality Monitoring and Assessment Report, p. 42). Other water bodies on the Maine side of the estuary presumably also have been identified as impaired, at the very least as a result of shellfish contamination. As discussed below, Maine has recently adopted emergency regulations closing substantial portions of the Piscataqua River to shellfishing. This is strong evidence that water quality in the Piscataqua River, and in associated estuarine waters on the Maine side of the border, does not support aquatic life and recreational uses.

(2) Section 301(h) prohibits issuance of a waiver because the estuarine waters affected by the proposed discharge do not support a balanced indigenous population of shellfish.

The NH DES, Water Division, Watershed Management Bureau has developed a Shellfish Program. The program maintains a regular shellfish monitoring regimen in New Hampshire tidal waters. The focus of the program is to collect and test water samples of fecal coliform bacteria, an indication of contamination from human waste. Each year, the Program issues a report on its findings, including a summary of the pollution source, identification, and evaluation. The program has placed particular emphasis on the Cochecco River, Lamprey River, Squamscott River, Upper Piscataqua River, and Salmon Falls River, all part of the Great Bay estuary. The 2003 Annual Report, Appendix 1, details the acreages closed to shellfishing in Little Harbor and Back Channel, the Great Bay tributaries, Little Bay, Piscataqua River, and Portsmouth Harbor. As noted, substantial portions of the estuary are classified as prohibited for shellfishing. (*See* NHDES Shellfish Program Reports, 2000, 2001, 2002 and 2003, appended hereto as Attachments 5, 6, 7, 8; Appendix 1, Shellfish Water Classification and Acreage, of Attachment 8.⁴). Additional closings also occur on an emergency basis, when warranted by specific discharges.

In addition to New Hampshire's shellfish resources, the State of Maine has documented and taken action on serious contamination problems. Specifically, Maine

³ The extent to which Portsmouth and the EPA have included the State of Maine in this process is unclear. It is essential both as a matter of addressing the estuarine resources based on ecology rather than political boundaries, and as a matter of achieving coordination under the Clean Water Act, that the State of Maine be treated as a "downstream" entity and fully included in this process.

⁴ Note: The areas designated Prohibited/Unclassified are designated as such as a cautionary measure because the Program has not completed testing in these areas.

recently adopted emergency regulations, effective February 3, 2004, prohibiting shellfishing in substantial portions of the Piscataqua River very near to, and upstream and downstream of, the Peirce Island outfall. Not only are the designated areas closed to shellfishing, but Maine has made violations of the closure regulation a crime. (*See* Notices of Emergency Rule Repeal and Promulgation, appended as Attachments 9 and 10; Maine Shellfish Growing Area, Closed Area Inventory, appended as Attachment 11).

D. Portsmouth's application, and the EPA's tentative waiver decision and draft permit, are premised on a flawed, artificially constrained analysis which fails to properly assess the impacts of the proposed discharge on estuarine waters.

Notwithstanding the estuaries' 303(d) impairments, and in spite of the fact that substantial portions of the estuary are closed to shellfishing, Portsmouth insists that dilution of its sewage effluent entitles it to a waiver of the Clean Water Act's secondary-treatment requirements. Portsmouth's application, and the EPA's analysis thereof, ignore the strong prohibitions adopted as a result of the Water Quality Act of 1987. They also are premised on incomplete information and data that fails to address the impacts of the proposed discharge on estuarine water bodies located "upstream"⁵ of the Route 1 and Route 95 bridges.

Portsmouth's insistence that dilution of its sewage effluent entitles it to avoid secondary treatment is simply not supported by the Administrative Record. Portsmouth's consultants have posited that the proposed 20 port diffuser extension will increase the effluent's dilution ratio from about 20 +/-/1 to 177/1. (EPA Fact Sheet, p. 10). The dilution factor is a mathematical calculation based upon a complex formula (Cormix). Dilution will not reduce the gross volume of effluent discharged into the Piscataqua River and associated estuarine waters, nor reduce its toxicity. The question remains: what happens to the effluent even with greater dilution. Nowhere in the EPA decision document is this question properly addressed.

EPA's Dye Dispersion Study reveals no consideration of upstream resources, and supports the need to protect Little Harbor: The EPA itself commissioned a paper entitled <u>Portsmouth WWTP Dye Dispersion Study, Portsmouth, NH (July 2001).</u> (EPA Administrative Record, Exhibit 10). The stated goal of the study was to determine if the Portsmouth facility's sewage effluent could reach the shellfish beds in Little Harbor and Back Channel. (Study, p. 1). The particular concern was untreated sewage (noting incidents of raw sewage discharges). (Study, p.1). Of particular importance was the path the Portsmouth effluent took in the estuary. As part of the study, technicians performed

⁵ The Piscataqua River is an estuarine water body subject to tidal influence. Accordingly, areas that are truly upstream or downstream of the proposed discharge will vary depending upon the tidal cycle. As used in these comments, the term "upstream" is meant to identify geographical areas such as the Upper Piscataqua River, Little Bay and Great Bay that are northwest of the Route 95 bridge (even though these areas can just as easily be characterized as "downstream", on the flood-tide cycle).

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two dye-dumps, using rhodamine, mixed into the Portsmouth WWTP effluent stream. (Study, p. 3). The first dye-dump, on May 4, 1999, occurred on the flood-tide cycle. The monitoring crews, in boats, started near the effluent boil. The crews were stationed upstream of the boil in the Piscataqua River, but unexpectedly, the dye reached Little Harbor. The second dye-dump took place on May 12, 1999, on the ebb-tide cycle. Crews were stationed both upstream and downstream of the effluent boil. After the dye was dumped, the plume was tracked upstream in the Piscataqua River past the Route 1 bridge. "This was unexpected because the currents in the main channel had slowed and were about to reverse to downstream...." (Study, p. 4). The dye was not tracked upstream past an area between the Route 1 bridge and the Route 95 bridge. (Study, p. 4).

It is very important to note that at no time was the dye tracked, either on the ebb or flood tides, past the area between the Route 1 bridge and the Route 95 bridge. Therefore, the EPA has no data or evidence of record to determine the "upstream" destination of the Portsmouth sewage effluent. Consequently, the record is devoid of data or evidence to ascertain the impact the Portsmouth sewage may have on Great Bay, Little Bay, and other large and small tributaries and coves in this tidal estuary. Not only is there no evidence of record as to the upstream destination of the sewage effluent, in the Tentative Decision Document, p. 2, the EPA states: "Currently, Portsmouth Harbor is meeting state water quality standards for dissolved oxygen, turbidity, ph, and fecal coliform bacteria...." By focusing on Portsmouth Harbor, to the exclusion of other water bodies (including those "upstream" of the Route 95 bridge), EPA has failed to properly assess the true impacts of the discharge.

What *can* be properly concluded from the dye dispersion study is stated at page 6 of the Study, as follows:

It is recommended that the shellfish areas in Little Harbor stayed closed because the 1,000,000/1 dilution was not achieved when the dye initially entered and spread through the shellfishing areas. There is potential that Little Harbor could be affected if effluent went untreated on a slack high tide.

DES, by mathematical calculation, converted the dye concentration at various (GPS fixed) points to fecal coliform colonies. Many exceeded the NH DES minimum (>14.0 ppb). (See attachments to Study). The Dye Dispersion Study, standing alone, requires EPA to deny the 301(h) waiver.

The Michael Report, upon which EPA's Tentative Decision relies, is flawed: A consultant retained by the City of Portsmouth, Allan D. Michael, Ph.D., prepared a report entitled "301h Monitoring Program Peirce Island Waste Water Treatment Plant" (hereinafter "Michael Report"), which is the document upon which the EPA principally bases its Tentative Decision Document. (Admin. Record, Exhibit 9). The Michael Report states that a group of water quality and benthic sampling stations were established

"to evaluate the effects of effluent from the Portsmouth outfall on receiving waters in the Piscataqua River and Little Harbor. The water quality sites were selected based on the results of a dye study...". (Michael report, p. 5). As stated above, the dye study was geographically limited to downstream evaluation, as it did not go further upstream than the area between the Route 1 and Route 95 bridges. Therefore, the Michael test site selection was downstream-biased and provides no data or evidence whatsoever of the effluent's impact upstream and into Great Bay, Little Bay, and other parts of the estuary. From this fatally flawed test-site platform, the Michael Report makes some sweeping conclusions:

Page 6 of the report states: "Effluent from the Portsmouth treatment plant operating mode does not have significant impact on water quality parameters outside the zone of initial dilution (ZID)." This conclusion directly contradicts the Dye Dispersion Study and its fecal coliform colony counts.

Page 6 of the report further states: "The highest counts of fecal coliforms, which are typically higher in the upper reaches of the estuary, occur as a result of precipitation due to runoff." We know that fecal coliform colonies in the upper reaches of the estuary are higher because many parts of the estuary are impaired for the pathogen, enterococcus, and fecal coliforms. The Michael Report, however, is devoid of data or evidence about the effect of the Portsmouth effluent upstream. Michael's suggestion that the higher fecal coliform counts upstream "occur as a result of precipitation due to runoff" is irrelevant. If the Portsmouth effluent contributes in any way to water quality problems—even if those water quality problems are the result of other causes—issuance of a 301(h) waiver is prohibited as a matter of law. CWA 301(h), *supra*.

Page 6 of the report further concludes: "The addition of a multipart diffuser, extending into the center of the channel, would significantly improve dilution, and possibly prevent effluent flow into the Little Harbor region...." This characterization of dilution as a *possibility* is not a factual or legal basis for a 301(h) waiver, especially since it has been established that shellfish beds in Little Harbor are closed due to fecal coliform.

Page 6 of the Michael Report further states:

Low levels of contaminants, such as petroleum hydrocarbons and certain metals, are present in the sediments throughout the lower estuary. These produce a slight, but not severe, alteration in benthic communities. In other areas, *with low current speed*, high organic carbon loading has a *significant impact* on the benthic fauna. An evaluation of the relative contribution of Portsmouth effluent is beyond the scope of this monitoring program.

(Emphasis added). This self-limiting, exculpatory, conclusion raises questions about the efficacy of the entire study and reaffirms concerns about the destination of effluent in shallow areas of the estuary where there is less tidal energy.

For the above reasons, the Michael Report should be rejected as a basis for the Tentative Decision.

II. Portsmouth's proposal does not satisfy the criteria set forth in Section 301(h) and 40 CFR Part 125, Subpart G.

In addition to failing to demonstrate that its waiver request is entitled to overcome the "flat prohibition" resulting from the Water Quality Act of 1987's amendments to Section 301(h), discussed above, the proposal and analysis do not satisfy criteria identified in Section 301(h) and the EPA's regulations set forth at 40 CFR Part 125, Subpart G. More specifically, for the same reasons discussed above in Part I of these comments, Portsmouth's proposal, and EPA's analysis thereof, do not satisfy the requirements of Section 301(h)(2) and its implementing regulations, relative to the attainment or maintenance of water quality which assures protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife, and which allows recreational activities in and on the water.

The failure to assess the impacts of the proposal in the broader context of the related estuarine water bodies, including measurements of contaminants at the zone of initial dilution or edge of a theoretical mixing zone, precludes satisfaction of these criteria by artificially constraining the geographical scope of the analysis. For example, the proposal and analysis do not satisfy the provisions of 40 CFR § 125.62(c), relative to the biological impact of the discharge. Portsmouth has not properly demonstrated that its discharge will "allow for the attainment or maintenance of water quality which assures protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife," which balanced populations must, as a matter of law, exist:

(i) Immediately beyond the zone of initial dilution of the applicant's modified discharge; and

(ii) In all other areas beyond the zone of initial dilution where marine life is actually or potentially affected by the applicant's modified discharge.

40 CFR §125.62(c)(2). EPA's regulations define "balanced indigenous population" as meaning:

an ecological community which:

(1) Exhibits characteristics similar to those of nearby, healthy communities existing under comparable but unpolluted environmental conditions; or
(2) May reasonably be expected to become re-established in the polluted water body segment from adjacent waters if sources of pollution were removed.

40 CFR § 125.58(f). Especially with regard to shellfish populations, Portsmouth has failed to demonstrate the presence of a "balanced indigenous population." Quite to the contrary, and as demonstrated by the closure of shellfish beds in nearby estuarine waters (both in New Hampshire and Maine), it does not appear that balanced indigenous shellfish populations exist⁶. Accordingly, the proposal cannot satisfy the criteria of 40 CFR §125.62(c)(2).

In addition to the above, Portsmouth also has failed to satisfy regulatory standards assuring protection of recreational activities beyond the zone of initial dilution, "including, without limitation, swimming, diving, boating, fishing, and picknicking...." 40 CFR §125.62(d)(1).

III. The EPA should not have issued a tentative decision and draft permit on the *presumption* that the New Hampshire Coastal Program will issue a favorable coastal consistency determination.

New Hampshire's Coastal Program has not yet rendered a determination whether Portsmouth's proposal satisfies "coastal consistency" requirements. CLF objects to the EPA's presumption that, because NHDES has issued approval of Portsmouth's proposal, the Coastal Program will render a finding of consistency. First, the EPA's presumption may, as a political matter, make it difficult for the Coastal Program to reach a contrary determination (even if it believes it has good cause to do so). Second, the Coastal Program's consistency review can and should include input from other agencies, such as the NH Fish & Game Department. According to John Nelson, Chief of Marine Fisheries at the NH Fish & Game Department, the proposal could potentially result in a freshwater plume that blocks the passage of fish species, including finfish and, at greater depths where freshwater dilution may not be as great, crustaceans.⁷ Impacts to shellfish beds also may be of concern to the Department.⁸ The EPA should refrain from final action until such time as New Hampshire's Coastal Program has conducted a full and complete coastal-consistency review, including one that addresses concerns of the NH Fish & Game Department.

IV. Portsmouth's compliance with the CWA has been less than exemplary.

EPA originally granted a NPDES permit for Portsmouth's wastewater treatment plant on January 18, 1985. The permit allowed Portsmouth to discharge sewage effluent without secondary treatment, pursuant to a waiver under Section 301(h) of the Clean Water Act. (EPA Fact Sheet, pp. 8-9). In the late 1980's, EPA sued Portsmouth to force compliance with the Clean Water Act. The EPA sought injunctive relief and civil

⁶ New Hampshire's shellfish program addresses shellfish populations to determine their fitness for human consumption pursuant to the National Shellfish Sanitation Program (NSSP). New Hampshire has adopted the NSSP standards. See Attachments 5, 6, 7, 8.

⁷ Telephone conversation between Thomas F. Irwin, CLF, and John Nelson, NHFGD (March 15, 2005).

⁸ Telephone conversations between Thomas F. Irwin, CLF, and William Ingham, NHFGD (March 15, 2005).

penalties. The case resulted in a Consent Decree in November, 1990 (following the January 17, 1990 expiration of Portsmouth's NPDES permit), requiring Portsmouth to upgrade its sewage treatment plant pursuant to deadlines, and to comply with specific sewage effluent limits.

Almost three years later, on April 23, 1993, Portsmouth submitted a "final" request for another waiver of effluent standards in order to avoid secondary treatment of its sewage. The EPA review of the waiver application indicated that the wastewater treatment plant was experiencing problems meeting standards requiring the removal efficiency of 30 percent biochemical oxygen demand (BOD₅). (EPA Fact Sheet, p. 8). Five years later, on August 5, 1998, EPA sent Portsmouth a letter requiring the City to outline steps that would ensure its sewage plant would obtain at least 30 percent BOD₅ removal. (EPA Fact Sheet, P. 8). The City installed chemical enhancement (chlorine) apparatus in order to achieve compliance. (EPA Fact Sheet, p. 9). Less than a year later, on November 14, 2000, EPA sent Portsmouth a letter expressing concern over the plant's high residual chlorine levels, and its ability to meet both chlorine and effluent bacteria levels. (EPA Fact sheet, p. 9). The EPA then required Portsmouth to conduct whole effluent toxicity testing (WET) and, on February 16, 2001, the City advised EPA that the sewage effluent would not meet toxicity standards. Two years later, on January 31, 2003, Portsmouth requested that EPA Region I allow less stringent acute toxicity limits for the plant than would otherwise be requested under Region I's whole effluent toxicity (WET) strategy for municipal permits. (EPA Fact Sheet, pp. 9-10). EPA took no enforcement action, but suggested that if the effluent was more dilute, the outfall may meet water quality standards for toxicity and total residual chlorine. (EPA Fact Sheet, p. 10).

In May, 2004, 15 years after its compliance difficulties began, and after discharging sewage effluent with the EPA's "administrative" blessing since January 17, 1990, Portsmouth submitted the current Clean Water Act 301(h) waiver application. The significant time period during which Portsmouth operated under the EPA's administrative extension of its original 301(h) waiver and NPDES permit is greatly troubling, particularly in light of the EPA's findings that the current plant does not satisfy sewage discharge standards for a 301(h) waiver.⁹

Portsmouth's less-than-exemplary compliance with the Clean Water Act strongly militates against further waiver of the Clean Water Act's secondary-treatment

⁹ See EPA Fact Sheet, p. 11 ("EPA has determined that the City of Portsmouth's current discharge is ineligible for a waiver from secondary treatment standards because it fails to meet all the criteria set forth in CFR Part 125, Subpart G. <u>Specifically, the WWTF's discharge fails to consistently meet state water-quality standards for Whole Effluent Toxicity (WET) and Total Residual Chlorine at the edge of the ZID...."</u>) (emphasis added); Tentative Decision Document, p. 8 ("Based on a review of (Portsmouth's) Discharge Monitoring Reports (DMRs). Whole Effluent Toxicity (WET) tests, and other data submitted by applicant, it does not appear that the current outfall is located and designed to provide adequate initial dilution, dispersion and transport of effluent to meet all applicable water quality standards. Specifically, EPA has determined that the current discharge will not consistently meet water quality standards for total residual chlorine and whole effluent toxicity....")

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requirements. Simply put, the time is long overdue for Portsmouth's wastewater treatment plant to come into full compliance with the requirements of the Clean Water Act and to provide the necessary treatment to protect the Piscataqua River and the incredibly valuable estuarine ecosystem of which it is such an important part.

For each of the reasons discussed above, the EPA should deny Portsmouth's request for a 301(h) waiver and, in accordance with such denial, refrain from finalizing and issuing its tentative decision and draft NPDES permit.

CLF appreciates the opportunity to comment on the above matters, and hereby reiterates its request for a public hearing.

Respectfully submitted,

Thomas F. Irwin, Staff Attorney

Arthur B. Cunningham

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