UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND REGION
ONE CONGRESS STREET
BOSTON, MASSACHUSETTS 02114-2023

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

NPDES PERMIT NO.: NH0101192

PUBLIC NOTICE START/FINISH DATE:

NAME AND MAILING ADDRESS OF APPLICANT:

Newfields Water and Sewer District
P.O. Box 301
Newfields, New Hampshire 03856

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Newfields Wastewater Treatment Facility
Harvey Court
Newfields, New Hampshire 03856

RECEIVING WATER: Squamscott River (Hydrologic Unit Code: 01060003)

CLASSIFICATION: B

I. Proposed Action, Type of Facility and Discharge Location.

The above named applicant has applied to the U.S. Environmental Protection Agency ("EPA") for reissuance of its NPDES permit to discharge treated effluent into the designated receiving water. The facility collects and treats domestic, commercial, and minimal quantities of industrial wastewaters. The wastewater treatment facility is a conventional secondary treatment plant that uses three aerated lagoons for biological treatment and sodium hypochlorite for disinfection. This facility has a design flow of 0.117 million gallons per day ("mgd") and discharges the treated effluent to the tidal Squamscott River. Historically, due to the tidal characteristic of the river, the Newfields treatment plant discharged only during outgoing tides. Currently, the facility has an outfall diffuser, and the intermittent discharge requirement was removed from the existing permit. However, the facility continues to hold effluent in the lagoons for periods of

one to two weeks, and discharges over a five to seven day period.

The Town's previous permit was issued on June 17, 1996. The expired permit (hereafter referred to as the "existing permit") has been administratively extended pursuant to 40 C.F.R. §122.6.

The location of the facility, Outfall 001, and receiving water are shown in Attachment A.

II. Description of Discharge.

A quantitative description of significant effluent parameters based on Discharge Monitoring Reports (DMRs) is shown is Attachment B. The data are from January 2004 through December 2005.

III. Limitations and Conditions.

Effluent limitations, monitoring requirements, and any implementation schedule (if required) are found in PART I of the draft NPDES permit.

IV. Permit Basis and Explanation of Effluent Limitation Derivation.

A. General Regulatory Background

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit unless such discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water-quality based effluent limitations and other requirements including monitoring and reporting. The draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and any applicable State administrative rules. The regulations governing EPA's NPDES permit program are generally found in 40 C.F.R. Parts 122, 124, 125, and 136.

EPA is required to consider technology and water quality-based requirements as well as those requirements and limitations included in the existing permit when developing the effluent limits for the revised permit. Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA.

EPA regulations require NPDES permits to contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve state or federal water quality standards. (See Section 301(b)(1)(C) of the CWA). A water-quality standard consists of three elements: 1) beneficial designated use or uses for a water body or a segment of a water body; 2) a numeric or narrative water-quality criteria sufficient to protect the assigned designated use(s); and 3) antidegradation requirements to ensure that once a use is

attained it will not be eroded.

Receiving water requirements are established according to numeric and narrative standards adopted under state law for each stream classification. When using chemical-specific numeric criteria from the state's water quality standards to develop permit limits, both the acute and chronic aquatic life criteria, expressed in terms of maximum allowable in-stream pollutant concentration are used. Acute aquatic life criteria are considered applicable to daily time periods (maximum daily limit) and chronic aquatic life criteria are considered applicable to monthly time periods (average monthly limit). Chemical specific limits are allowed under 40 C.F.R. §122.44(d)(1) and are implemented under 40 C.F.R. §122.45(d).

B. Introduction

The permit must limit any pollutant parameter (conventional, non-conventional, toxic, and whole effluent toxicity) that is or may be discharged at a level that causes or has "reasonable potential" to cause or contribute to an excursion above any water quality criterion, see 40 C.F.R. §122.44(d)(1)(i). An excursion occurs if the projected or actual in-stream concentration exceeds the applicable criterion.

Reasonable Potential

In determining reasonable potential, EPA considers: 1) existing controls on point and non-point sources of pollution; 2) pollutant concentration and variability in the effluent and receiving water as determined from the permit's reissuance application, DMRs, and State and Federal Water Quality Reports; 3) sensitivity of the species to toxicity testing; 4) the statistical approach outlined in *Technical Support Document for Water Quality-Based Toxics Control*, March 1991, EPA/502/2-90-001 in Section 3; and, where appropriate, 5) dilution of the effluent in the receiving water. In accordance with the New Hampshire statutes and administrative rules [RSA 485-A:8, VI, Env-Ws 1705.02], available dilution in tidal waters and artificially regulated surface waters is based on a known or estimated value of the low flow condition in which that flow is exceeded 99 percent of the time. Mixing zones may be established for the low flow condition in accordance with Env-Ws 1707.01(b).

Anti-Backsliding

Section 402(o) of the CWA generally provides that the effluent limitations of a renewed, reissued, or modified permit must be at least as stringent as the comparable effluent limitation in the previous permit. Unless certain exceptions are met, "backsliding" from effluent limitation contained in previously issued permits is prohibited. EPA has also promulgated anti-backsliding regulations, which are found at 40 C.F.R. § 122.44(l). Unless applicable anti-backsliding requirements are met, the limits and conditions in the reissued permit must be at least as stringent as those in the previous permit.

State Certification

Section 401(a)(1) of the CWA requires all NPDES permit applicants to obtain a certification from the appropriate state agency stating that the permit will comply with all applicable federal effluent limitations and state water quality standards. See CWA § 401(a)(1). The regulatory provisions pertaining to state certification provide that EPA may not issue a permit until a certification is granted or waived by the state in which the discharge originates. 40 C.F.R. § 124.53(a). The regulations further provide that, "when certification is required….no final permit shall be issued….unless the final permit incorporates the requirements specified in the certification under 40 C.F.R. § 124.53(e). 40 C.F.R. § 124.55(a)(2). Section 124.53(e) in turn provides that the state certification shall include "any conditions more stringent than those in the draft permit which the state finds necessary" to assure compliance with, among other things, state water quality standards, see 40 C.F.R. § 124.53(e)(2), and shall also include "[a] statement of the extent to which each condition of the draft permit can be made less stringent without violating the requirements of state law, including water quality standards," see 40 C.F.R. § 124.53(e)(3).

However, when EPA reasonably believes that a state water quality standard requires a more stringent permit limitation than that reflected in a state certification, it has an independent dutey under CWA § 301(b)(1)(C) to include more stringent permit limitations. See 40 C.F.R. §§ 122.44(d)(1) and (5). It should be noted that under CWA § 401, EPA's duty to defer to considerations of state law is intended to prevent EPA from relaxing any requirements, limitations, or conditions imposed by state law. Therefore, "[a] state may not conditions or deny a certification on the grounds that state law allows a less stringent permit condition." 40 C.F.R. § 124.55(c). In such an instance, the regulation provides that, "The Regional Administrator shall disregard any such certification conditions or denials as waivers of certification." Id. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 C.F.R. § 122.4 and 40 C.F.R. § 122.44(d).

C. Flow

The Newfields Village WWTF has a design flow rate of 0.117 mgd. This flow rate is used to calculate mass limits for Biochemical Oxygen Demand (BOD_5), Total Suspended Solids (TSS), and Available Dilution as discussed below. Typically, NHDES requires that if the monthly average effluent flow rate exceeds 80 percent of the 0.117 mgd design flow (0.094 mgd) for a period of 3 consecutive months, the permittee must notify EPA and the NHDES-WD and implement a program to maintain satisfactory treatment levels. However, Newfield's operation includes holding effluent for certain periods of time, and releasing on an intermittent schedule. This mode of operation inherently results in effluent flows that routinely exceed the 80 percent design flow. Due to high volume effluent flow, Newfields Village WWTF has exceeded TSS and BOD loading (pounds per day) at increasing frequencies over the last two years.

A review of the facility's data from January 2000 to December 2005 shows the annual average

monthly influent flow has increased approximately 44 percent in five years. Likewise, the annual average monthly effluent flow has increased approximately 34 percent in five years (see Attachment B).

NHDES and EPA determined it is critical to ensure that organic mass loading to the receiving water not exceed the permit limits. Accordingly, this draft permit includes a flow limit which will ensure the maximum daily mass loading limits are not exceeded.

D. Conventional Pollutants

Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids

Average monthly and average weekly concentration (i.e. mg/l) effluent limits in the draft permit for Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS) are based on requirements of Section 301(b)(1)(B) of the CWA as defined in 40 C.F.R. §133.102. The average monthly, average weekly and maximum daily concentration limits for BOD_5 and TSS are also based upon limits in the existing permit in accordance with the anti-backsliding requirement found in 40 C.F.R. §122.44.

The draft permit also contains average monthly, average weekly, and maximum daily mass (i.e. lbs/day) for BOD_5 and TSS. Mass limits are incorporated into the permit based on 40 C.F.R. §122.45(f). These mass limits were calculated using the appropriate concentration limits and the design flow of the facility. Refer to Attachment C for the calculation of these limits.

pH

Pursuant to NH RSA 485-A:8.II, Class B waters shall have a pH range of 6.5 to 8.0 except when due to natural causes. However, language under State Permit Conditions (PART I.D.1.a.) allows for a change in the pH limit under certain conditions. A change would be considered if the applicant can demonstrate to the satisfaction of NHDES-WD that the pH standard of the receiving water will be protected when the discharge is outside the permitted range, then the applicant or NHDES-WD may request (in writing) that the permit limits be modified by EPA to incorporate the results of the demonstration. Anticipating the situation where NHDES-WD grants a formal approval changing the pH limit to outside 6.5 to 8.0 Standard Units (S.U.), EPA has added a provision to the draft permit (see SPECIAL CONDITIONS section). That provision will allow EPA to change the pH limit using a certified letter approach. This change will be allowed only if it is demonstrated that the revised pH limit range does not alter the naturally occurring receiving water pH. However, the pH limit range cannot be less restrictive than 6.0 to 9.0 S.U. found in the applicable National Effluent Limitation Guideline (Secondary Treatment Regulations in 40 C.F.R. Part 133) for the facility.

Fecal Coliform and Entercocci Bacteria

Applicable criteria for fecal coliform and enterococci bacteria are found in NH RSA 485-A:8.V. This criteria states "Tidal waters utilized for swimming purposes shall contain not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 35 enterococci per 100 milliliters, or 104 enterococci per 100 milliliters in any one sample, unless naturally occurring." Further, the criteria states that, "those tidal waters used for growing or taking of shellfish for human consumption shall, in addition to the forgoing requirements, be in accordance with the criteria recommended under the National Shellfish Program Manual of Operation, United States Department of Food and Drug Administration." The Shellfish Program Manual includes the criteria of 14 fecal coliform per 100 milliliters.

The criteria have been incorporated as end of pipe effluent limitations (i.e no dilution) in accordance with water quality standards (see NH Code of Administrative Rules, Part Env-Ws 1703.06).

E. Non-Conventional and Toxic Pollutants

Water quality based limits for specific toxic pollutants such as chlorine, ammonia, and copper are determined from numeric chemical specific criteria derived from extensive scientific studies. The EPA has summarized and published specific toxic pollutants and their associated toxicity criteria in *Quality Criteria for Water*, 1986, EPA440/5-86-001 as amended, commonly known as the federal "Gold Book". Each pollutant generally includes an acute aquatic life criteria to protect against short term effects, such as death, and a chronic aquatic life criteria to protect against long term effects, such as poor reproduction or impaired growth. New Hampshire adopted these "Gold Book" criteria, with certain exceptions, and included them as part of the State's Surface Water Quality Regulations adopted on December 10, 1999. EPA uses these pollutant specific criteria along with available dilution in the receiving water to determine a pollutant specific draft permit limits.

<u>Available Dilution</u>

The existing permit was based upon a dilution ratio of 100:1. This dilution factor was determined using the plant's design flow (0.117 mgd), outfall design information, and river monitoring (width, depth, velocity, salinity and temperature). The Cornell Mixing Zone Expert System model was used (CORMIX1 version 3.1) which accounts for re-entrainment of a previously discharged plume, such as occurs in tidally reversing rivers.

The modeling was done using data from both before and after the spring and neap low tides in accordance with the NHDES Policy on Dilution Factors for Marine/Estuarine Discharges dated July 27, 1995. The dilutions predicted by CORMIX1 were all greater than 100. The worst case dilution of 149 occurred 15 minutes before neap low tide. At this dilution, the centerline of the plume is 231 feet (72 meters) from the outfall and the plume width is 8.5 feet (2.6 meters) and does not contact the shore (which is desirable). However, since the NHDES policy allows mixing zones only up to a dilution of 100:1, the default dilution factor of 100 was set for

Newfields. Further, since the mixing zone was observed to use less than 90 percent of the river's assets, the State was not required to reserve 10 percent of the Assimilative Capacity of the receiving water pursuant to RSA 485-A:13, I and Env-Ws 1705.

Total Residual Chlorine

The Newfields Village Wastewater Treatment Facility disinfects its wastewater using sodium hypochlorite. The permit limits for TRC are based upon chlorine marine acute and chronic criteria of 0.013 mg/l and 0.0075 mg/l, respectively, which are found in NH RSA Env-Ws 1703.21. Using these criteria and the available dilution the monthly average limit is 0.75 mg/l (100 * 0.0075 mg/l) and the maximum daily limit is 1.0 mg/l based upon best professional judgment.

F. Whole Effluent Toxicity

EPA's **Technical Support Document for Water Quality Based Toxics Control,** EPA/505/2-90-001, March 1991, recommends using an "integrated strategy" containing both pollutant (chemical) specific approaches and whole effluent (biological) toxicity approaches to control toxic pollutants in effluent discharges from entering waters of the U.S.. EPA-New England adopted this "integrated strategy" on July 1, 1991, for use in permit development and issuance. These approaches are designed to protect aquatic life and human health. Pollutant specific approaches such as those in the Gold Book and State Regulations address individual chemicals, whereas whole effluent toxicity (WET) approaches evaluate interactions between pollutants thus rendering and "overall" or "aggregate" toxicity assessment of the effluent. Furthermore, WET measures the "additive" and/or "antagonistic" effects of individual chemical pollutants which pollutant specific approaches do not, thus the need for both approaches. In addition, the presence of an unknown toxic pollutant can be discovered and addressed through this process.

Section 101(a)(3) of the CWA specifically prohibits the discharge of toxic pollutants in toxic amounts and New Hampshire law states that, "all waters shall be free from toxic substances or chemical constituents in concentrations or combination that injure or are inimical to plants, animals, humans, or aquatic life; ...." (NH RSA 485-A:8, VI and the NH Code of Administrative Rules, PART Env-Ws 1703.21). The federal NPDES regulations at 40 CFR §122.44(d)(1)(v) require whole effluent toxicity limits in a permit when a discharge has a "reasonable potential" to cause or contribute to an excursion above the State's narrative criteria for toxicity. Inclusion of the whole effluent toxicity limit in the draft permit will demonstrate the compliance with narrative water quality criteria of "no toxics in toxics amounts" found in both the CWA and State of New Hampshire regulations.

The current policy of EPA New England is to require toxicity testing in all municipal permits. The type of whole effluent toxicity test (acute and/or chronic) and effluent limitation (LC50 and/or C-NOEC) are based on available dilution. The effluent limitation for toxicity testing in the draft permit is based upon the limitation in the existing permit in accordance with

antibacksliding provisions bound in 40 C.F.R. 122.44(1). Therefore, the draft permit contains a toxicity limit of an LC50 of 100%. The LC50 is defined as the percentage of effluent that would be lethal to 50% of the test organisms during an exposure of 48 hours. Therefore, the permit limit of 50% means that a sample of 50% effluent shall cause no greater than 50% mortality to the test organisms. Toxicity testing shall be performed using the mysid shrimp (*Mysidopsis bahia*) and inland silverside (*Menidia beryllina*) and testing shall be performed in the third quarter of each year (i.e. July, August, September) and the results shall be submitted to EPA and the NHDES-WD by the October 15.

If the WET limit is violated, EPA and NHDES may seek to increase monitoring frequency and testing requirements. The permit may also be modified, or alternatively revoked and reissued, to incorporate additional toxicity testing requirements or chemical specific limits. These actions will be taken if the Regional Administrator determines the NH standards are not adequately enforced and users of the receiving water are not adequately protected during the remaining life of the permit. Results of these toxicity testes are considered "new information not available at the permit development", therefore, the permitting authority is allowed to use said information to modify and issued permit under authority in 40 C.F.R. §122.62(a)(2).

G. Pretreatment

The permittee is not required to administer a pretreatment program based on the authority granted under 40 CFR §122.44(j), 40 CFR §403 and Section 307 of the Act. However, the draft permit contains conditions that are necessary to allow EPA and NHDES-WD to ensure that pollutants from industrial users will not pass through the facility and cause water quality standards violations and/or sludge use and disposal difficulties or cause interference with the operation of the treatment facility. The permittee is required to notify EPA and NHDES-WD whenever a process wastewater discharge to the facility from a primary industrial category (see 40 CFR §122 Appendix A for list) is planned or if there is any substantial change in the volume or character of pollutants being discharged into the facility by a source that was discharging at the time of issuance of the permit. The permit also contains the requirements to: 1) report to EPA and NHDES-WD the name(s) of all Industrial Users subject to Categorical Pretreatment Standards (see 40 CFR §403 Appendix C for list) who commence discharge to the POTW after the effective date of the finally issued permit, and 2) submit copies of Baseline Monitoring Reports and other pretreatment reports submitted by industrial users to EPA and NHDES-WD.

H. Sludge

Section 405(d) of the CWA requires that EPA develop technical standards regulating the use and disposal of sewage sludge. These regulations were signed on November 25, 1992, published in the Federal Register on February 19, 1993, and became effective on March 22, 1993. Domestic sludge which is land applied, disposed of in a surface disposal unit, or fired in a sewage sludge incinerator are subject to Part 503 technical standards. Part 503 regulations have a self implementing provision, however the CWA requires implementation through permits. Domestic

sludge which is disposed of in a municipal solid waste landfill is in compliance with Part 503 regulations provided that the sludge meets the quality criteria of the landfill and the landfill meets the requirements of 40 C.F.R. Part 258.

The draft permit requires that sewage sludge use and disposal practices meet Section 405(d) Technical Standards of the CWA. In addition, the EPA Region I – NPDES Permit Sludge

Compliance Guidance document dated November 4, 1999 is included with the draft permit for use by the permittee in determining their appropriate sludge conditions for their chosen method of sludge disposal. The permittee is required to submit to EPA and to NHDES-WD annually, by February 19th, the various sludge reporting requirements as specified in the guidance document for the chosen method of sludge disposal.

No sludge has been generated from the Newfields Village Wastewater Facility since its inception in 1983, as the facility's lagoons have not yet required sludge removal.

I. Essential Fish Habitat and Endangered Species

Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104267), established a new requirement to describe and identify (designate) "essential fish habitat" (EFH) in each federal fishery management plan. Only species managed under a federal fishery management plan are covered. Fishery Management Councils determine which area will be designated as EFH. The Councils have prepared written descriptions and maps of EFH, and include them in fishery management plans or their amendments. EFH designations for New England were approved by the Secretary of Commerce on March 3, 1999.

The 1996 Sustainable Fisheries Act broadly defined EFH as "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." Waters include aquatic areas and their associated physical, chemical, and biological properties. Substrate includes sediment, hard bottom, and structures underlying the waters. Necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem. Spawning, breeding, feeding, or growth to maturity covers all habitat types utilized by a species throughout its life cycle. Adversely affect means any impact which reduces the quality and/or quantity of EFH. Adverse impacts may include direct (i.e. contamination, physical disruption), indirect (i.e. loss of prey), site specific or habitat wide impacts including individual, cumulative, or synergistic consequences of actions.

According to the Guide to Essential Fish Habitat Designations in the Northeastern United States; Volume I: Maine and New Hampshire, March 1999, Great Bay, into which the Squamscott River flows, has been designated as EFH for the species listed in Attachment D.

EPA has concluded that the limits and conditions contained in this draft permit minimize adverse effects to EFH for the following reasons:

- The dilution factor for the facility is greater than100;
- The permit requires once per year toxicity testing using mysid shrimp and inland silversides to ensure that the discharge does not present toxicity problems;
- The permit prohibits the discharge to cause a violation of state water quality standards.

EPA believes the draft permit adequately protects EFH and therefore additional mitigation is not warranted. NMFS will be notified and an EFH consultation will be reinitiated if adverse impacts to EFH are detected as a result of this permit action or if new information is received that changes the basis for these conclusions.

Endangered Species

The Endangered Species Act (16 U.S.C. 1451 et seq), Section 7, requires the EPA to ensure, in consultation with the U.S. Fish and Wildlife Service (USFWS) and/or NMFS, as appropriate, that any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species, or adversely affect its critical habitat**.**

USFWS and NMFS were both contacted to determine whether or not threatened and/or endangered species are present in the Squamscott River. NMFS stated that they have no species of concern in this area and USFWS stated that no aquatic species are present but did note that bald eagles utilize areas of Great Bay during the winter.

V. Antidegradation.

This draft permit is being reissued with limitations that are as stringent as those in the existing permit and there is no change in the outfall location. The State of New Hampshire has indicated that there is no lowering of water quality and no loss of existing water uses and that no additional antidegradation review is warranted at this time.

VI. State Certification Requirements.

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving water(s) either certifies that the effluent limitations and/or conditions contained in the permit are stringent enough to assure, among other things, that the discharge will not cause the receiving water to violation NH standards or waives its right to certify as set forth in 40 C.F.R. §124.53.

Upon public noticing of the draft permit, EPA is formally requesting that the State's certifying authority make a written determination concerning certification. The State will be deemed to have waived its right to certify unless certification is received within 60 days of receipt of this request.

The NHDES-WD, Wastewater Engineering Bureau is the certifying authority. EPA has discussed this draft permit with the staff of the Wastewater Engineering Bureau and expects that the draft permit will be certified. Regulations governing state certification are set forth in 40 C.F.R. §§ 124.53 and 124.55.

The State's certification should include the specific conditions necessary to assure compliance with applicable provisions of the CWA, Sections 208(e), 301, 302, 303, 306, and 307 and with appropriate requirements of State law. In addition, the State should provide a statement of the extent to which each condition of the draft permit can be made less stringent without violating the requirements of State law. Since the State's certification is provided prior to permit issuance, any failure by the State to provide this statement waives the State's right to certify or object to any less stringent condition. These less stringent conditions may be established by EPA during the permit issuance process based on information received following the public notice of the draft permit. If the State believes that any conditions more stringent than those contained in the draft permit are necessary to meet the requirements of either the CWA or State law, the State should include such conditions and, in each case, cite the CWA or State law reference upon which that condition is based. Failure to provide such a citation waives the right to certify as to that condition.

Reviews and appeals of limitations and conditions attributable to State Certification shall be made through the applicable procedures of the State and may not be made through the applicable procedures set forth in 40 C.F.R. Part 124.

VII. Comment Period, Hearing Requests, and Procedures for Final Decisions.

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period to:

Dan Arsenault
U.S. Environmental Protection Agency
One Congress Street
Suite 1100 (Mail Code CMP)
Boston, Massachusetts 02114-2023
Telephone: (617) 918-1562
Fax: ((617) 918-1505

or

Susan A. Willoughby, P.E.
New Hampshire Department of Environmental Services
Water Division, Wastewater Engineering Bureau
P.O. Box 95
Concord, New Hampshire 03301
Telephone: (603) 271-3307
Fax: (603) 271-4128

Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such Requests shall state the nature of the issue proposed to be raised at the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit, the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after a public hearing (if applicable), the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

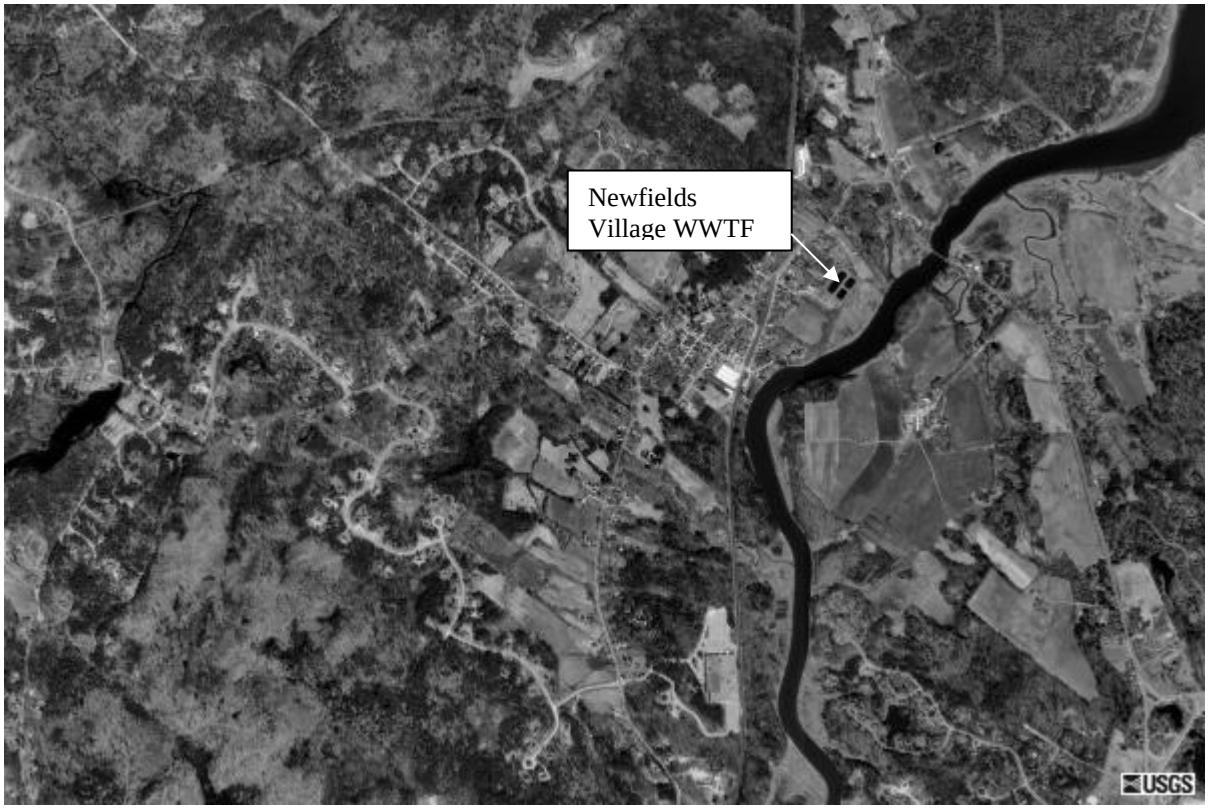
Information concerning the draft permit may be obtained between the hours of 9:00 am and 5:00 pm, Monday through Friday, excluding holidays.

_____
Date

Linda M. Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

ATTACHMENT A

NEWFIELDS VILLAGE WASTEWATER FACILITY LOCATION

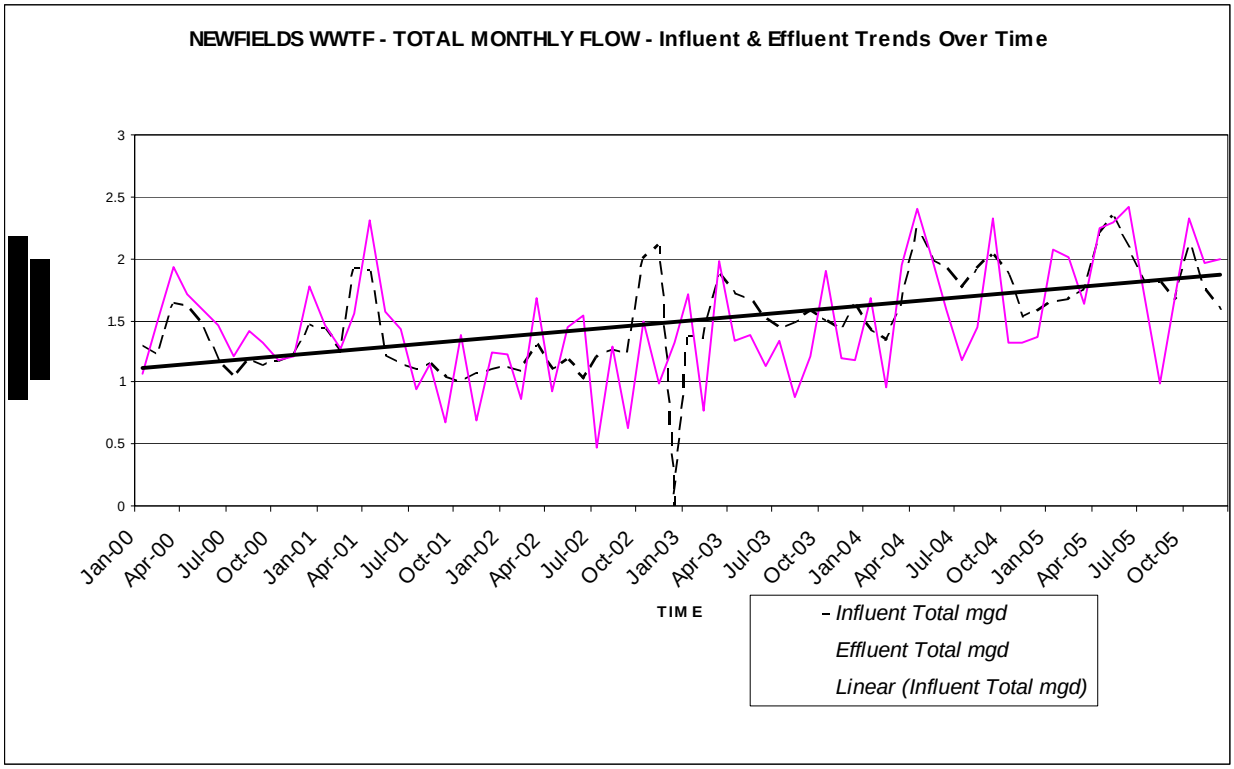


* Aerial photo taken April 11, 1998. Photo obtained through www.terraserver.microsoft.com.

ATTACHMENT B
SUMMARY OF EFFLUENT CHARACTERISTICS AT OUTFALL 001

The following effluent characteristics were derived from analysis of discharge monitoring data collected from Outfall 001 from January 2004 through December 2005. All data taken from the monthly Discharge Monitoring Reports. These effluent values characterize the treated wastewater discharged from the Newfields Village Wastewater Treatment Facility.

Parameter	Average of Monthly Averages	Range of Monthly Averages	Maximum Daily[1]
BOD_5 (mg/l)	6.75	0.0 – 20.0	820.0
BOD_5 (% Removal)	0.969	0.860 – 1.00	-----
TSS (mg/l)	10.12	0.00 – 38.0	230.0
TSS (% Removal)	0.957	0.863 – 1.0	-----
Total Residual Chlorine (mg/l)	0.12	0.00 – 0.25	0.67, 0.63, 0.53
pH (Standard Units)	---	6.7 – 7.9	-----
LC50 (% Effluent)	---	---	>100%



ATTACHMENT C

BOD AND TSS MASS LIMIT CALCULATIONS

Concentration Limits for BOD_5 and TSS: Monthly Average = 30 mg/l
Weekly Average = 45 mg/l
Daily Maximum = 50 mg/l

Plant Design Flow = 0.117 mgd = 117,000 g/d

Average Monthly Mass Limit:

(30 mg/l)(117,000 g/d)(1 gram/1000 mg)(1 lb/ 454 gram)(3.785 l/g) = 29.3 lb/day

Average Weekly Mass Limit:

(45 mg/l)(117,000 g/d)(1 gram/1000 mg)(1 lb/ 454 gram)(3.785 l/g) = 43.9 lb/d

Maximum Daily Limit:

(50 mg/l)(117,000 g/d)(1 gram/1000 mg)(1 lb/ 454 gram)(3.785 l/g) = 48.8 lb/d

ATTACHMENT D

EFH DESIGNATIONS FOR GREAT BAY

Species	Eggs	Larvae	Juveniles	Adults	Spawning Adults
Atlantic salmon (*Salmo salar*)			F,M		
Atlantic cod (*Gadus morhua*)	S	S			
haddock (*Meanogrammus aeglefinus*)	S	S			
pollack (*Pollachius virens*)	S	S	S		
red hake (*Urophycis chuss*)			S	S	
white hake (*Urophycis tenuis*)	S		S	S	
redfish (*Sebastes fasciatus*)	n/a				
winter flounder (*Pleuronectes americanus*)	M,S	M,S	M,S	M,S	M,S
yellowtail flounder (*Pleuronectes ferruginea*)	S	S			
windowpane flounder (*Scopthalmus aquosus*)	S	S	S	S	S
Atlantic halibut (*Hippoglossus hippoglossus*)	S	S	S	S	S
Atlantic sea scallop (*Placopecten magellanicus*)			S	S	
Atlantic sea herring (*Clupea harengus*)		M,S	M,S		
bluefish (*Pomatomus saltatrix*)			M,S	M,S	
long finned squid (*Loligo pealei*)	n/a	n/a			
short finned squid (*Illex illecebrosus*)	n/a	n/a			
Atlantic mackerel (*Scomber scombrus*)	M,S	M,S	S		
surf clam (*Spisula solidissima*)	n/a	n/a			
ocean quahog (*Artica islandica*)	n/a	n/a			
spiny dogfish (*Squalus acanthias*)	n/a	n/a			

S = The EFH designation for this species includes the seawater salinity zone of the bay (salinity > or = 25.0 $^{o}/_{oo}$).

M = The EFH designation for this species includes the mixing water/brackish salinity zone of this bay (0.5 $^{o}/_{oo}$ < salinity < 25.0 $^{o}/_{oo}$).

F = The EFH designation for this species includes the tidal freshwater salinity zone of this bay or estuary (0.0 $^{o}/_{oo}$ < or = salinity < or = 0.5 $^{o}/_{oo}$)

n/a = The species does not have this lifestage in its life history or has not EFH designated for this lifestage.