STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

June 14, 2007

Mr. Glen Marquis
Town of North Haven
P.O. Box 400
North Haven, Maine 04853

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102482
Maine Waste Discharge License (WDL) #W008142-5S-B-R
Final Permit

Dear Mr. Marquis:

Enclosed please find a copy of your **final** MEPDES permit/WDL which was approved by the Department of Environmental Protection. Please read the permit and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding this matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.
cc: Beth Dehaas, DEP/CMRO
[redacted]

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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF NORTH HAVEN	)	MAINE POLLUTANT DISCHARGE
NORTH HAVEN, KNOX COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
DRINKING WATER TREATMENT PLANT	)	AND
#ME0102482	)	WASTE DISCHARGE LICENSE
#W008142-5S-B-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et. seq and Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations the Department of Environmental Protection (Department hereinafter) has considered the application of the TOWN OF NORTH HAVEN (North Haven herinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

North Haven has submitted an application to the Department for renewal of Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102482 and Waste Discharge License (WDL) #W008142-5S-A-N, hereinafter referred to as "permit." The permit was issued on June 18, 2002 and is due to expire on June 18, 2007. The June 18, 2002 permit authorized the discharge of a monthly average flow of 2,000 gallons per day (GPD) and a daily maximum flow of 16, 000 GPD of waste water associated with drinking water treatment and filter cleaning (backwash) from a municipal drinking water treatment plant to a palustrine forested/scrub-shrub wetland associated with Fresh Pond, Class GW-A, in North Haven, Maine.

PERMIT SUMMARY

This permitting action is similar to the June 18, 2002 permit in that it is carrying forward:

1. Effluent limitations and monitoring requirements for discharge flow and annual monitoring of the sludge levels in the settling lagoon.
2. Technology-based monthly average and daily maximum concentration limitations and monthly average mass limits for total suspended solids (TSS) and daily maximum concentration limits for settleable solids.

This permitting action is different from the June 18, 2002 permit in that it is:

3. Modifying the effluent limitations for pH by expanding the allowable pH values to 6.0 to 9.0 standard units (SU) to be consistent with Department Rule Chapter 525(3)(III)(c).
4. Eliminating the requirement to continue to conduct annual monitoring of the wetland conditions in the vicinity of the discharge outfall pipe for changes.
5. Modifying the daily maximum mass limit for TSS to be consistent with other facilities.
6. Modifying the monitoring frequencies for TSS, settleable solids, and pH.
7. Requiring flow monitoring when discharges occur on a daily basis.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated April 12, 2007, and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:

   (a) Existing in-stream and ground water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;

   (c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

   (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and

   (e) Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the above noted application of the TOWN OF NORTH HAVEN to discharge a monthly average flow of 2,000 GPD and a daily maximum flow of 16,000 GPD of drinking water treatment plant filter backwash to a palustrine forested/scrub-shrub wetland, Class GW-A, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions applicable To All Permits*," revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit expires five (5) years from the date of signature, below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 15TH DAY OF JUNE, 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
David P. Littell, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 23, 2007.
Date of application acceptance: March 27, 2007.

Date filed with Board of Environmental Protection FILED JUN 18 2007 BOARD OF ENVIRONMENTAL PROT. STATE OF MAINE.

This Order prepared by David Silver, BUREAU OF LAND & WATER QUALITY

W81425SB 6/13/07

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **drinking water filter backwash from Outfall #001A**[1] to a palustrine forested/scrub-shrub wetland. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[51500]*	---	---	2,000 GPD *[03]*	16,000 GPD *[03]*	Daily[4] *[01/01]*	Calculated *[CA]*
TSS *[00530]*	0.5 lb/day *[26]*	1.0 lb/day *[26]*	30 mg/l *[19]*	60 mg/l *[19]*	1/Month *[01/30]*	Composite[3] *[CP]*
Settleable Solids *[00545]*	---	---	---	0.3 ml/L *[25]*	1/Month *[01/30]*	Grab *[GR]*
Sludge Depth[2] *[95499]*	---	Report, inches *[61]*	---	----	1/Year *[01/YR]*	Measure *[MS]*
pH *[00400]*	---	---	---	6.0-9.0 S.U. *[12]*	1/Month *[01/30]*	Grab *[GR]*

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

All effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process. Sampling and analysis must be conducted in accordance with: a) methods approved by 40 Code of Federal Regulations (CFR) Part 136; b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136; or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services.

FOOTNOTES:

(1) Monitoring of effluent flow shall be required on a daily basis but only when discharges occur
(2) The permittee shall composite four equally spaced grab samples collected during the discharge event.
(3) Sludge depth shall be measured in the month of November of each year. See Special Condition G of this permit

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time, which would impair the usages designated by the classification of the receiving waters.

2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.

3. The discharge shall not cause visible discoloration or turbidity in the receiving waters, which would impair the usages designated by the classification of the receiving waters.

4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Forms provide by the Department and **postmarked on or before the thirteenth (13th) day of the month and submitted in a timely fashion such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the Discharge Monitoring Report and all other reports required herein shall be submitted to the Department's facility inspector at the following address:

Maine Department of Environmental Protection
Division of Water Quality Management
Bureau of Land and Water Quality
17 State House Station
Augusta, Maine 04333-0017

D. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following:

1. Any substantial change in the volume or character of pollutants being introduced into the waste water collection system.

2. For the purposes of this section, adequate notice shall include information on:

   (a) the quality and quantity of waste water introduced to the waste water collection and treatment system; and

   (b) any anticipated impact of the change in the quantity or quality of the waste water to be discharged from the treatment system.

SPECIAL CONDITIONS

E. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall #001A. Discharges of wastewater from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition B(5) *(Bypass)* of this permit.

F. OPERATION & MAINTENANCE (O&M) PLAN

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the waste water treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and EPA personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the waste water treatment facility, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

G. SETTLING LAGOON SLUDGE DEPTH MONITORING

The permittee shall monitor and report to the Department by December 31 each year, the amount of sludge in the settling lagoon. The permittee shall remove and properly dispose of accumulated sludge when the average depth reaches 18 inches, or when accumulated sludge interferes with the lagoon function, or contributes to degraded effluent quality. Further, the permittee shall under no circumstances allow sludge to be discharged to the receiving wetland.

H. RE-OPENER CLAUSE

Upon evaluation of test results required by any of the Special Conditions of this permitting action, additional site specific or any other information or test results obtained during the term of this permit, the Department may, at anytime and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements and or limitations based on new information.

SPECIAL CONDITIONS

I. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **April 09, 2007**

MEPDES PERMIT NUMBER: **#ME0102482**
WASTE DISCHARGE LICENSE: **#W008142-5S-B-R**

NAME AND ADDRESS OF APPLICANT:

Town of North Haven
P.O. Box 400
North Haven, Maine 04853

COUNTY: **Knox County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

North Haven Water Treatment Plant
94 Pumping Station Road
North Haven, Maine

RECEIVING WATER / CLASSIFICATION: **Palustrine forested/scrub-shrub wetland, Class GWA**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Glen Marquis (207) 867-4433**

1. APPLICATION SUMMARY

a. Application: The Town of North Haven has submitted an application to the Department for renewal of Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102482 and Waste Discharge License (WDL) #W008142-5S-A-N, hereinafter referred to as "permit." The permit was issued on June 18, 2002 and is due to expire on June 18, 2007. The June 18, 2002 permit authorized the discharge of a monthly average flow of 2,000 gallons per day (GPD) and a daily maximum flow of 16, 000 GPD of waste water associated with drinking water treatment and filter cleaning (backwash) from a municipal drinking water treatment plant to a palustrine forested/scrub-shrub wetland associated with Fresh Pond, Class GW-A, in North Haven, Maine.

1. APPLICATION SUMMARY (cont'd)

b. History: The most recent licensing/permitting actions include the following:

January 12, 2001 – The Department received authorization from EPA to administer the NPDES program in Maine. From this point forward, the program will be referenced as the Maine Pollutant Discharge Elimination System (MEPDES) and MEPDES permit numbers will be utilized as the primary facility reference.

March 21, 2002 – The Department's Division of Land Resource Regulation approved North Haven's Permit by Rule application (#29334) for replacement of an existing facility intake pipe in Fresh Pond with a new intake pipe as part of the facility upgrade.

June 18, 2002 – The Department issued a new WDL (W008142-5S-A-N) and MEPDES permit (ME0102482) authorizing the discharge from North Haven facility to the wetland.

June 23, 2007 -- The Department received an application from the Town of North Haven for the renewal of the June 18, 2002 license/permit.

c. Source Description/ Treatment Process

The Town of North Haven operates a drinking water treatment plant on the shore of Fresh Pond in North Haven. See Attachment "A" of this permit for a location of the water treatment plant. The existing operation extracts pond water through two intake pipes, a four-inch diameter poly-vinyl chloride pipe and a six-inch diameter cast iron pipe, from Fresh Pond at depths of eight feet. Raw water is treated with sodium hypochlorite and delivered through a distribution system to approximately 128 year round and 170 summer services. Reportedly, in December 1996, the Maine Department of Human Services' Drinking Water Program revoked North Haven's waiver of filtration requirements under the surface water treatment rule. As a result, North Haven constructed a new filtration building and filter backwash treatment lagoon on the site occupied by the previous pump station. This project was completed in calendar year 2002. North Haven discharges filter backwash supernatant from the settling lagoon to an adjacent palustrine forested/scrub-shrub wetland.

The treatment facility is designed to treat raw water from Fresh Pond at a maximum flow rate of 250,000 gallons per day (gpd). Water is drawn from Fresh Pond via a new 8-inch diameter high density polyethylene pipeline installed at a depth of eight feet. Raw water pumped from Fresh Pond is treated with ozone to oxidize humic material and total organic carbon (TOC). It is anticipated that TOC will be reduced from approximately 8.0 mg/L to less than 5.5 mg/L in the ozonation process. After ozonation, water flows to slow sand filtration vessels. No other chemicals are added to the process prior to filtration.

1. APPLICATION SUMMARY (cont'd)

The slow sand process is contained in four aluminum vessels, each containing three distinct treatment elements: roughing filtration, slow sand filtration, and limestone contact. The roughing filtration and slow sand filtration equipment must be periodically cleaned to remove accumulated particulates and maintain treatment efficiency.

Roughing Filtration - The roughing filter is a multi-media filter containing two layers of silica sand (300 mm in thickness) and one layer of granular activated carbon (GAC) (450 mm in thickness) designed for up-flow filtration. It is designed to remove large particles, debris, algae, and protozoans from the source water. The GAC serves to protect against any inadvertent over feed of ozone and to remove chlorine during the backwash cycle. The ozone must be completely consumed prior to the slow sand process to assure that the biological treatment activity in the subsequent sand bed is not destroyed. An ozone detector provides continuous monitoring of ozone residual in the slow sand influent to assure that the ozone is not overfed and present in the waste stream. The roughing filter is periodically cleaned using a high rate upflow backwash with potable water from the clearwell. Waste water is discharged to the facility treatment lagoon.

Slow Sand Filtration – Following the roughing filters, water flows to the slow sand filters. This stage involves filtration at a very slow rate down through a sand filter utilizing biological treatment to remove any microbial contamination from the surface water supply. The sand bed will contain 4 layers of filter sand and supporting gravel. After an initial filter ripening period, an organic layer forms on the filter surface serving as both a biological and physical layer for removing microbial contaminants. The organic layer or "schmutzdecke" will be removed approximately bi-monthly using a surface wash system. The surface wash system will consist of flowing small amounts of water over the filter surface while the sand surface is manually cleaned with high pressure flow from a hand held garden hose. The deposits are primarily organic in nature and washwater consists of water that has passed from the backwashing activity on the rough filter unit. Filtered water during the initial ripening period (filter to waste), as well as filter wash water, is discharged to the facility treatment lagoon. Disposal of the "filter to waste" water is designed to eliminate the potential for carryover of particulate material to the storage and distribution system.

Limestone Contactor – After filtration, water flows up through a limestone contactor where pH is adjusted from 5.5 to approximately 8.0 to provide for corrosion control within the distribution system. The limestone contactor is a vessel containing a height of 1,100 mm of limestone chips ranging in size from 8-12 mm. Treated water then flows by gravity to a 50,000 gallon clearwell, located beneath the floor of the filtration building, where sodium hypochlorite is added for disinfection resulting in a residual free-chlorine concentration of 1-1.5 mg/L. An emergency overflow pipe from the clearwell outlets to the treatment lagoon. Finished water is pumped from the clearwell to an 285,000 gallon storage tank on Mount Nebo and to the distribution system to North Haven's customers.

1. APPLICATION SUMMARY (cont'd)

d. Waste Water Treatment:

Filter backwashing is done manually by the permittee based on observed loss of head pressure in the filtering system components. Process waste waters from the roughing filtration and slow sand filtration processes is routed to a 120,000 gallon earthen lagoon for settling and flow equalization. The frequency and interval of waste water discharges to the lagoon from the treatment processes are estimated as follows:

i. Roughing Filter Backwash Flow – 12,000 gallons at a 6-month interval
ii. Slow Sand Washwater – 33,000 gallons per 4 filters at a two month interval
iii. Filter-to-Waste (slow sand) – 60,000 gallons per 4 filters at two month interval.

The flows is metered from the lagoon to the downgradient palustrine forested/scrub-shrub wetland area using a decant stop log gate. The lowest most 18 inches of the gate consists of a fixed plate to prevent the inadvertent discharge of settled materials. The plate shall only be removed if necessary for maintenance of the lagoon. From the outlet gate, flows are discharged through a 12-inch diameter ductile iron pipe to a riprap apron/level spreader, which is located in the upland immediately adjacent to Wetland "A". The riprap/level spreader is 10 feet long by 3 feet wide at the top and 10 feet wide at the base and ensures that flows are introduced to the wetland as sheet flow to prevent channel erosion.

Settled materials in the lagoon system is disposed of at an approved solid waste disposal facility or through spreading on agricultural fields, subject to approval by the Department's Bureau of Remediation and Waste Management. See Attachment "B" of this permit for a schematic of the waste water treatment facility.

Pursuant to Special Condition G, *Settling Lagoon Sludge Depth Monitoring*, f this permit, the permittee shall monitor and report the amount of sludge in the settling lagoon to the Department by December 31 each year,. The permittee shall remove and properly dispose of accumulated sludge when the average depth reaches 18 inches. Further, the permittee shall under no circumstances allow sludge to be discharged to the receiving wetland.

2. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Water Classification System.

3. RECEIVING WATER QUALITY STANDARDS

The permittee discharges waste water to a palustrine forested/scrub-shrub wetland. Analysis of the wetland indicates that its hydrology is provided through a combination of groundwater discharge to the surface and groundwater recharge from surface flows expressed seasonally through saturation of soils as well as periodic inundation. Based on the wetland's hydrologic relationship with groundwater, the Department has determined that the palustrine forested/scrub-shrub wetland at the point of discharge is best classified as a Class GW-A water pursuant to Maine law, 38 M.R.S.A., Section 470. Maine law, 38 M.R.S.A., Section 465-C.1 describes the standards for Class GW-A waters.

4. RECEIVING WATER QUALITY CONDITIONS

Wetlands on and adjacent to the project site were delineated by S.W. Cole Inc. according to methods established in the US Army Corps of Engineers' 1987 Wetland Delineation Manual. S.W. Cole submitted a wetland delineation report dated October 6, 1999 and supplemented October 9, 2001, as well as delineation sample plot logs to document their analyses. Two wetlands exist in proximity to the facility. Wetland "A" is located south of the facility and will receive treated waste water through Outfall #001A. Wetland "B" is located east of the facility and will not be impacted by the upgrade of the facility or its effluent discharge.

Wetland "A" consists of an approximately 0.43 acre (18,916 square foot) palustrine forested, needle-leaved coniferous wetland that transitions into a scrub-shrub wetland moving away from the facility. Dominant vegetation consists of red spruce, red maple, balsam fir, speckled alder, winterberry, bunchberry, jewelweed, and sensitive fern. S.W. Cole observed very poorly drained soils within most of the wetland, with poorly drained soils near the upland/wetland boundary. S.W. Cole noted the existence of a headwater stream originating in Wetland "A" and traversing across the wetland northward to Fresh Pond.

Wetland "B" consists of an approximately 0.08 acre (3,292 square foot) palustrine forested, needle-leaved coniferous wetland. Dominant vegetation consists of balsam fir, black spruce, winterberry, mountain holly, witherod, and cinnamon fern. S.W. Cole noted very poorly drained soils within Wetland "B".

The previous permitting action established an annual wetland monitoring program with a five (5) year duration. The monitoring program was based on the premise that the discharge of treated effluent may alter the wetland system in an adverse manner. The permittee conducted five-years of monitoring with the last monitoring report submitted to the Department on

4. RECEIVING WATER QUALITY CONDITIONS (cont'd)

December 28, 2006, entitled "*Final Monitoring Report, North Haven Water Treatment Facility, North Haven, Maine,*" prepared by Phillips EcoServices, and dated December 27, 2006. The 2006 monitoring program report indicates no significant changes to the wetland hydrology, biology, or soils between the time the outfall pipe was installed and little if any documented changes to the environment as a result of the discharge. The permit effluent limitation and monitoring requirements provide ample provisions to reduce or eliminate discharges that may alter the wetland ecosystem.

Therefore, the Department is discontinuing the requirement to conduct annual monitoring of the wetland area adjacent to the waste discharge outfall pipe from this permitting action. The Department may re-establish the requirement to monitor or mitigate impacts to the wetland in the future in the event that wetland impacts are observed as being caused by the discharge or if the Department determines that discharges from the outfall are causing or contributing to the degradation of water quality or for any other reason if the Department determines that discharges from the outfall are causing or contributing to the degradation of water quality in the palustrian wetland or Fresh Pond water bodies.

5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Flow: The monthly average flow limitation of 2,000 GPD and daily maximum flow limitation of 16,000 GPD for Outfall #001A are considered representative of the design flows for the facility. During the past five (5) years of operation, the permittee has reported a monthly average discharge ranging between 720 and 2,659 GPD, with an average value of 1,322 GPD. Also during the past five years, the permittee has reported a daily maximum flow discharge ranging between 720 and 15,291 GPD, with an average daily maximum flow volume of 5,823 GPD discharged. This permit requires monitoring on a daily basis frequency, but only when discharges occur.

b. TSS: The monthly average (30 mg/L) and daily maximum concentration limits (60 mg/L) for total suspended solids (TSS) are based on limits established in discharge licenses for other drinking water treatment plant discharges in Maine and are considered by the Department as a best professional judgment (BPJ) of best practicable treatment (BPT). The TSS mass limits were calculated utilizing the daily maximum and monthly average discharge flows of 16,000 GPD and 2,000 GPD, respectively, and the corresponding mass limits had been previously established at 8.0 and 0.5 pounds per day. In this permit, the Department is modifying the daily maximum mass limit, because the previous mass limit was established in error, as the Department establishes daily maximum mass limits based on the monthly average flow (2,000 GPD) multiplied by the concentration. The limits are calculated as follows:

Monthly average mass limit = (30 mg/L) (8.34 lbs/gallon) (0.002 MGD) = 0.5 lbs/Day
Daily maximum mass limit = (60 mg/L) (8.34 lbs/gallon) (0.002 MGD) = 1.0 lbs/Day

5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

The monitoring frequency in the previous permitting action of twice per month was based on Department guidelines for facility effluent discharges of 0-0.1 million gallons per day. The permittee had requested less frequent monitoring requirements for TSS. The Department has reviewed the TSS discharge data submitted to the Department by the permittee and finds that the quality of the discharge over the past five years has not exceeded limits and has been consistent. During the past five years discharges of TSS have ranged between 0.012 to 0.6 and have averaged 0.14 pounds per day (as a daily maximum mass level) and 0.012 to 0.15 and have averaged 0.033 pounds per day (as a monthly average mass level). Concentration of TSS in the same period have ranged between 1.0 to 7.5 and have averaged 3.2 mg/L (as a daily maximum) and 1.0 to 6.75 and averaged 2.11 mg/L (as a monthly average). The Department finds given the consistent quality of the discharge without exceeding previously established limits, that a reduction of monitoring frequency would not adversely impact receiving waters. Therefore, the Department finds that the monitoring frequency may be reduced to 1/month as appropriate.

c. Settleable Solids: The Department imposes a daily maximum limit of 0.3 ml/L for settleable solids as a best practicable treatment (BPT) requirement for sanitary waste water treatment facility discharges. In this permitting action, the Department is carrying forward the same daily maximum settleable solids limit of 0.3 ml/L as a BPT requirement and is requiring a monitoring frequency of once per week based on Department guidance. The permittee has requested less frequent monitoring requirements for settleable solids. The Department has reviewed the settleable solids discharge levels reported to the Department by the permittee (consistently less than 0.1 ml/L with no variation whatsoever, ie, average less than 0.1 ml/L) and finds that the quality of discharge over the past five years has been satisfactory and that a reduction of monitoring frequency to 1/month monitoring requirement is appropriate.

d. pH – The daily maximum pH limit of 6.0 – 8.5 standard units from the previous permit is being modified to a limit between 6.0 to 9.0 to be consistent with Department Rule Chapter 5225 (3)(III)(c). Review of the pH monitoring data submitted to the Department over the past five years indicates that pH has generally ranged between 6.72 to 8.1 standard units (SU) (with one value reported at 4.01 SU possibly due to initial start-up conditions at the replacement treatment plant). Since startup of the replacement treatment facility, pH values reported have averaged 6.35 SU. Monitoring frequency is being modified to once per month, however, the permittee may be required at any time to demonstrate upon request by Department staff that pH levels of the discharge is between 6.0 and 9.0 SU.

5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

e. Total Residual Chlorine: Limits on total residual chlorine (TRC) are typically specified in Department permits to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. However, in North Haven, chlorine may only enter the waste stream through use of finished water for backwashing of the filters and if the GAC filter material fails to perform or through an overflow of the clearwell to the lagoon. In these unlikely events, any chlorine that passes through the system is anticipated to be diluted and dissipate in the settling lagoon prior to discharge. The Department considers there to be virtually no risk of chlorine at detectable levels (0.05 mg/L) in the discharge effluent and therefore establishes no TRC effluent limits or monitoring requirements in this permitting action.

6. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the palustrine forested/scrub-shrub wetland to meet standards for Class GWA classification.

7. PUBLIC COMMENTS

Public notice of this application was made in the Rockland Courier newspaper on or about March 23, 2007. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

8. DEPARTMENT CONTACTS

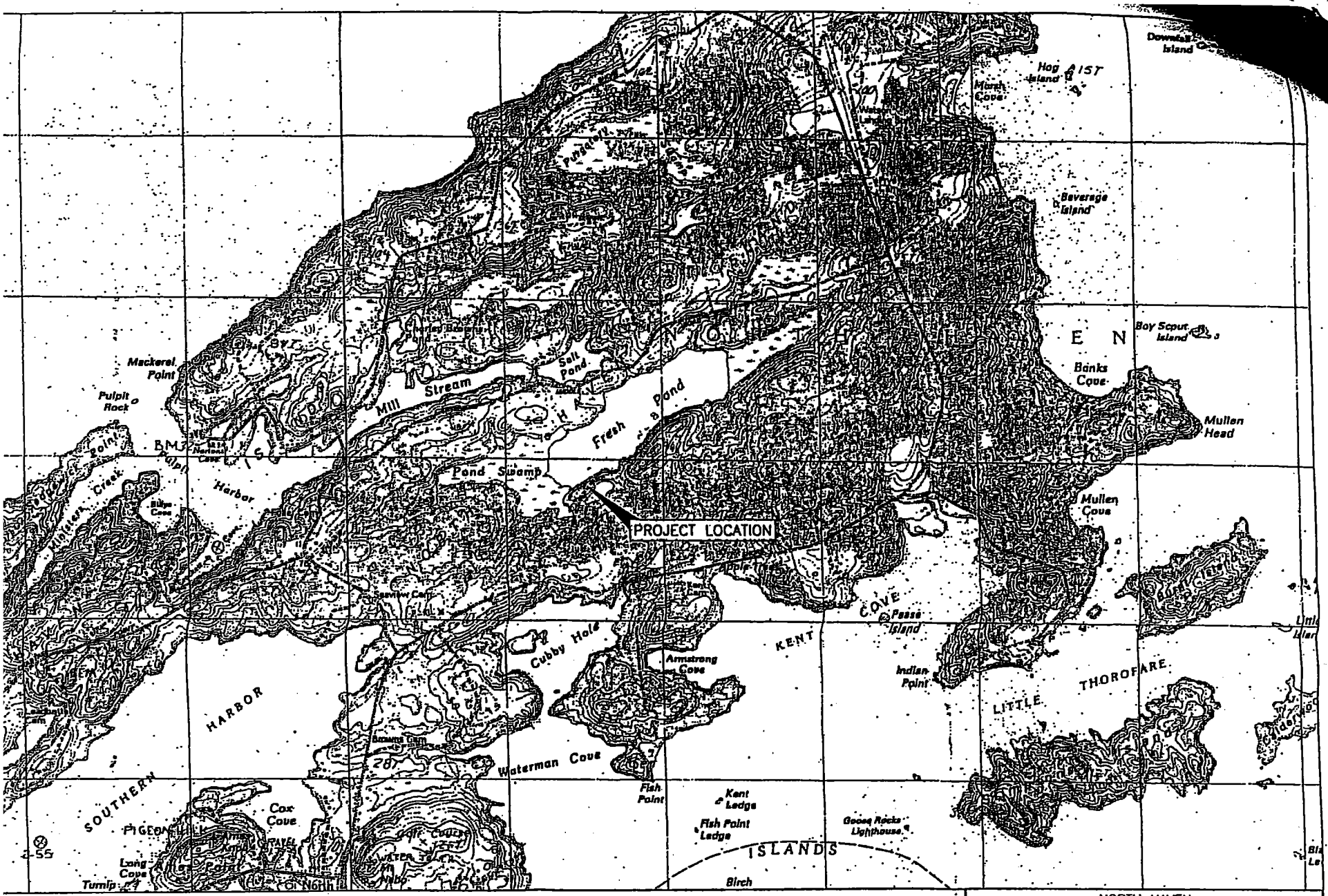
Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone (207) 287-7693

9. RESPONSE TO COMMENTS:

During the period April 9, 2007, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the permittee's facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

ATTACHMENT A



GRAPHIC SCALE

2000 0 1000 2000 4000 6000

(IN FEET)

1 Inch = 2000 ft.

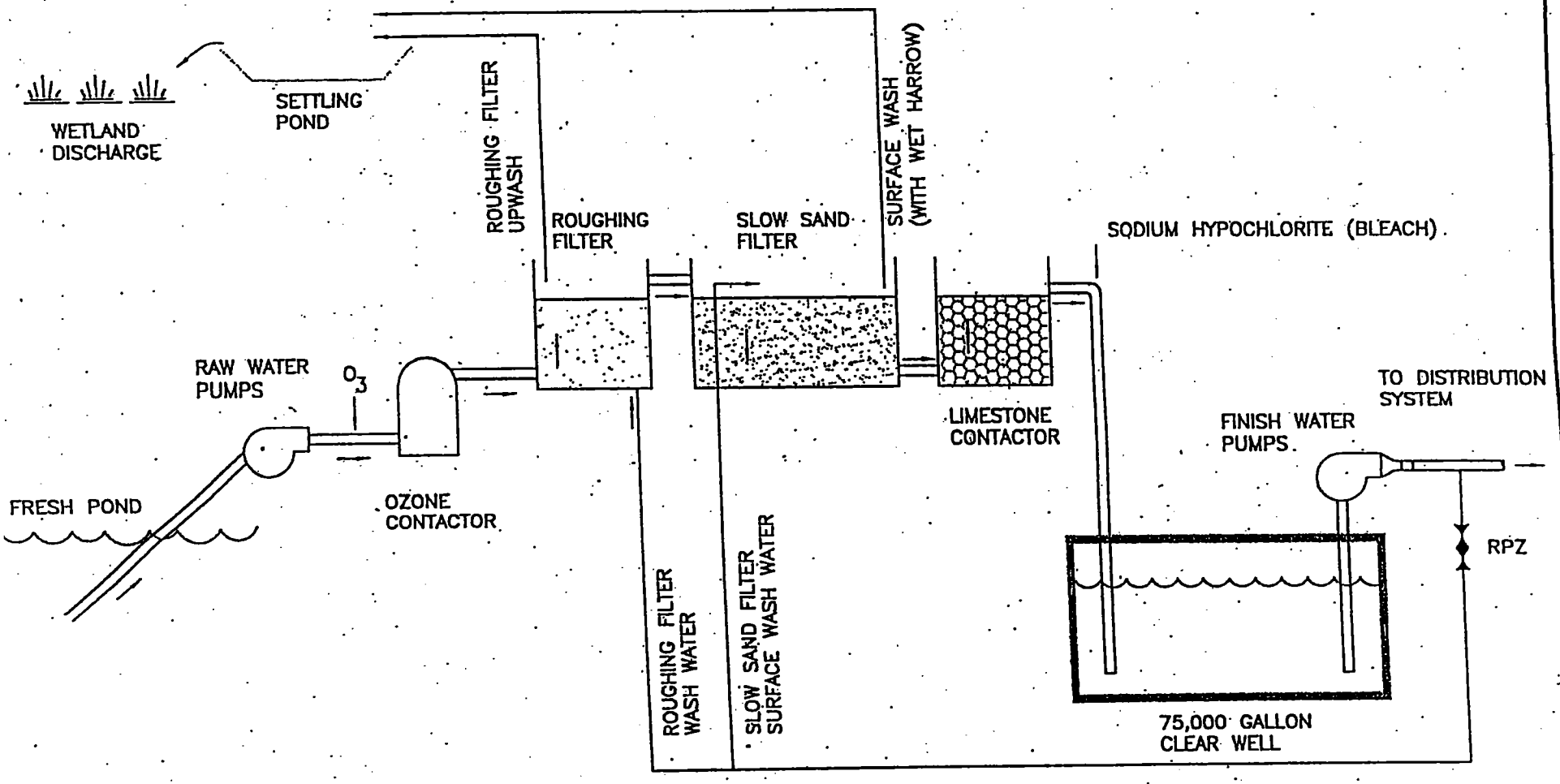
NORTH HAVEN
PRE-OZONATION
AND
SLOW SAND FILTRATION FACILITY

PROJ NO:	7080B
DATE:	JULY 2001
SCALE:	AS NOTED

Wright-Pierce

FIGURE: 1

ATTACHMENT B

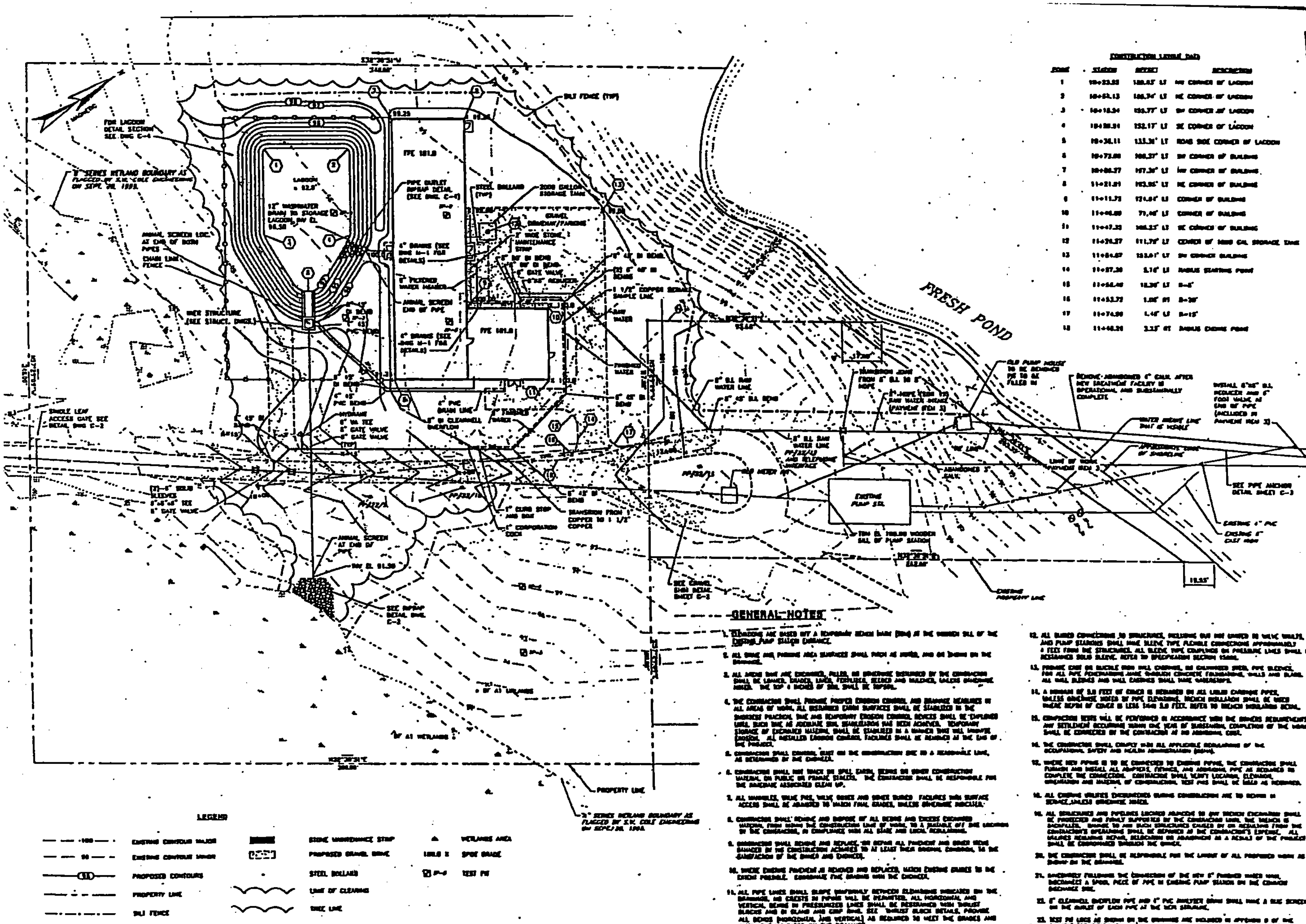


TOWN OF NORTH HAVEN, MAINE
WATER TREATMENT PLANT
PROCESS FLOW DIAGRAM

PROJ NO:	7080A
DATE:	FEB 2001
SCALE:	NTS

Wright-Pierce

FIGURE: 1



CONSTRUCTION LAYOUT DATA

POINT	STATION	OFFSET	DESCRIPTION
1	10+23.52	180.45' LT	NW CORNER OF LAGOON
2	10+51.13	186.74' LT	NE CORNER OF LAGOON
3	10+18.34	155.77' LT	SW CORNER OF LAGOON
4	10+38.34	152.17' LT	SE CORNER OF LAGOON
5	10+36.11	133.36' LT	ROAD SIDE CORNER OF LAGOON
6	10+73.88	188.37' LT	SW CORNER OF BUILDING
7	10+86.37	197.36' LT	NW CORNER OF BUILDING
8	11+21.81	163.95' LT	NE CORNER OF BUILDING
9	11+11.72	124.64' LT	CORNER OF BUILDING
10	11+46.89	71.46' LT	CORNER OF BUILDING
11	11+47.33	108.23' LT	SE CORNER OF BUILDING
12	11+34.27	111.79' LT	CORNER OF 2000 GAL STORAGE TANK
13	11+84.67	133.61' LT	SW CORNER BUILDING
14	11+37.30	5.16' LT	RADIUS STARTING POINT
15	11+56.40	18.30' LT	R=5'
16	11+53.72	1.06' RT	R=30'
17	11+74.90	1.46' LT	R=15'
18	11+48.26	3.33' RT	RADIUS ENDING POINT

GENERAL NOTES

1. ELEVATIONS ARE BASED ON A TEMPORARY BENCH MARK (TBM) AT THE WOODEN SILL OF THE EXISTING PUMP STATION ENTRANCE.
2. ALL DRIVE AND PARKING AREA SURFACES SHALL [illegible] AS NOTED, AND AS SHOWN ON THE DRAWINGS.
3. ALL AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE LOAMED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 6 INCHES OF SOIL SHALL BE TOPSOIL.
4. THE CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT.
5. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER.
6. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
7. ALL MANHOLES, VALVE PITS, VALVE BOXES AND OTHER BURIED FACILITIES WITH SURFACE ACCESS SHALL BE ADJUSTED TO MATCH FINAL GRADES, UNLESS OTHERWISE INDICATED.
8. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS AND EXCESS EXCAVATED MATERIAL FROM WITHIN THE CONSTRUCTION LIMIT OF WORK, TO A SUITABLE OFF SITE LOCATION BY THE CONTRACTOR, IN COMPLIANCE WITH ALL STATE AND LOCAL REGULATIONS.
9. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR ALL PAVEMENT AND OTHER ITEMS DAMAGED BY THE CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER AND ENGINEER.
10. WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.
11. ALL PIPE LINES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS IN PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED LINES SHALL BE RESTRAINED WITH THRUST BLOCKS AND DI GLAND AND GRIP RING. SEE THRUST BLOCK DETAILS. PROVIDE ALL BENDS (HORIZONTAL AND VERTICAL) AS REQUIRED TO MEET THE GRADES AND ALIGNMENT INDICATED ON THE DRAWINGS.
12. ALL BURIED CONNECTIONS TO STRUCTURES, INCLUDING BUT NOT LIMITED TO VALVE VAULTS, AND PUMP STATIONS SHALL HAVE SLEEVE TYPE FLEXIBLE CONNECTIONS APPROXIMATELY 4 FEET FROM THE STRUCTURES. ALL SLEEVE TYPE COUPLINGS ON PRESSURE LINES SHALL BE RESTRAINED SOLID SLEEVE. REFER TO SPECIFICATION SECTION [illegible].
13. PROVIDE CAST OR DUCTILE IRON WALL CASTINGS, OR GALVANIZED STEEL PIPE SLEEVES, FOR ALL PIPE PENETRATIONS MADE THROUGH CONCRETE FOUNDATIONS, WALLS AND SLABS. ALL WALL SLEEVES AND WALL CASTINGS SHALL HAVE WATERSTOPS.
14. A MINIMUM OF 5.0 FEET OF COVER IS REQUIRED ON ALL LIQUID CARRYING PIPES, UNLESS OTHERWISE NOTED BY PIPE ELEVATIONS. TRENCH INSULATION SHALL BE USED WHERE DEPTH OF COVER IS LESS THAN 5.0 FEET. REFER TO TRENCH INSULATION DETAIL.
15. COMPACTION TESTS WILL BE PERFORMED IN ACCORDANCE WITH THE OWNERS REQUIREMENTS. ANY SETTLEMENT OCCURRING WITHIN ONE YEAR OF SUBSTANTIAL COMPLETION OF THE WORK SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST.
16. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
17. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE MADE AS REQUIRED.
18. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED.
19. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO ANY TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ABANDONMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE OWNER.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF ALL PROPOSED WORK AS SHOWN ON THE DRAWINGS.
21. IMMEDIATELY FOLLOWING THE CONNECTION OF THE NEW 6" FINISHED WATER MAIN, DISCONNECT A SPOOL PIECE OF PIPE IN EXISTING PUMP STATION ON THE COMMON DISCHARGE LINE.
22. 8" CLEARWELL OVERFLOW PIPE AND 4" PVC ANALYZER DRAIN SHALL HAVE A BUG SCREEN ON THE OUTLET OF EACH PIPE AT THE [illegible].
23. TEST PIT LOGS AS SHOWN ON THE DRAWINGS ARE INCLUDED IN APPENDIX [illegible] OF THE PROJECT SPECIFICATIONS.

Wright-Pierce

NORTH HAVEN, MAINE
TOWN OF NORTH HAVEN
WATER TREATMENT PLANT

SITE PLAN

DWG C-1