AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act, as amended (33 U.S.C. §§ 1251 et seq.;) ("CWA"), the

Town of Swanzey

("Permittee") is authorized to discharge from the West Swanzey Wastewater Treatment Plant located at

Denman Thompson Highway
Swanzey, New Hampshire 03446

to the receiving water named

Ashuelot River
(Hydologic Basin Code: 01080201)

in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein, including, but not limited to, conditions requiring the proper operation and maintenance of West Swanzey's wastewater collection system.

This Permit will become effective on December 1, 2006.

This Permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This Permit supersedes the permit issued on October 25, 1982.

This Permit consists of 14 pages in Part I, including effluent limitations and monitoring requirements, Attachments A and B, and 27 pages in Part II, including General Conditions and Definitions.

Signed this 28th day of September, 2006

/s/ SIGNATURE ON FILE

Linda M. Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency (EPA)
New England Region
Boston, Massachusetts 02114-2023

PART I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this Permit and lasting through the expiration date, the Permittee is authorized to discharge treated sanitary wastewater from Outfall Serial Number 001 of the West Swanzey Wastewater Treatment Plant into the Ashuelot River. Such discharges shall be limited and monitored by the Permittee as specified herein. Footnotes to the following table appear on pages 5-6.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements[12]	
	Average Monthly	Average Weekly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow, MGD	-----	-----	-----	Report	-----	Report	Continuous	Recorder [1]
$CBOD_5$	33.4 lbs/day	53.4 lbs/day	60.1 lbs/day	25 mg/l	40 mg/l	45 mg/l	1/Week[2]	Grab
TSS	40.1 lbs/day	60.1 lbs/day	66.8 lbs/day	30 mg/l	45 mg/l	50 mg/l	1/Week[2]	Grab
Escherichia coli[3]	-----	-----	-----	126 colonies per 100 ml	-----	406 colonies per 100 ml	2/Week	Grab
Dissolved Oxygen	-----	-----	-----	Report (mg/l)	-----	Report (mg/l)	1/Day[13]	Grab[14]
pH[7]	6.5-8.0 su (See PART I.G.1)						1/Day	Grab

PART I.A.1 (Continued)

Effluent Characteristic	Discharge Limitations		Monitoring Requirement[12]	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Total Residual Chlorine[3, 4, 5]	---------	1.0 mg/l	1/Day	Grab
Phosphorus, Total[6] (April 1 – October 31)	1.0 mg/l	Report	1/Week	Grab
Phosphorus, Total (November 1 – March 31)	Report	Report	2/Month	Grab
Phosphorus, Ortho (November 1 - March 31)	Report (mg/l)	Report (mg/l)	1/Month	Grab
Aluminum, Total Recoverable[6]	Report (mg/l)	Report (mg/l)	1/Week	Grab
Ammonia as Nitrogen May 1st – September 30th	Report (mg/l)	Report (mg/l)	2/Month	Grab

PART I.A.1 (Continued)

Whole Effluent Toxicity	Discharge Limitations	Monitoring Requirement[12]	
		Measurement Frequency[11]	Sample Type
LC50[8, 9, 10, 11]; in percent	≥50%	1/ Year	Grab
Ammonia Nitrogen as Nitrogen; mg/l[10]	Report	1/ Year	Grab
Hardness; mg/l[10]	Report	1/ Year	Grab
Total Recoverable Aluminum; mg/l[10]	Report	1/ Year	Grab
Total Recoverable Cadmium; mg/l[10]	Report	1/ Year	Grab
Total Recoverable Chromium; mg/l[10]	Report	1/ Year	Grab
Total Recoverable Copper; mg/l[10]	Report	1/ Year	Grab
Total Recoverable Nickel; mg/l[10]	Report	1/ Year	Grab
Total Recoverable Zinc; mg/l[10]	Report	1/ Year	Grab

FOOTNOTE PART I.A.I

(1) The effluent flow shall be continuously measured and recorded using a flow meter and totalizer.

(2) The influent concentrations of both Carbonaceous Biological Oxygen Demand ($CBOD_5$) and Total Suspended Solids (TSS) shall be monitored twice per month (2/Month) by grab sampling the inlet channel every sixty minutes over an eight (8) hour period.

(3) The average monthly value for *Escherichia coli* shall be determined by calculating the geometric mean. *Escherichia coli* shall be tested using test method 1103.1 found in *Escherichia coli (E. Coli)* in *Water by the Membrane Filter Using Membrane-Thermotolerant Escherichia coli Agar (mTec)*, EPA-821-R-02-020. This monitoring shall be conducted concurrently with the TRC sampling described below.

(4) The minimum level (ML) for total residual chlorine is 20 ug/l. This value may be reduced by permit modification as more sensitive test methods are approved by the EPA and the NHDES-WD. Sample results of 20 ug/l or less shall be reported as zero on the discharge monitoring report.

(5) Total residual chlorine shall be tested using any one of the following three methods listed below:

a. DPD spectrophotometric (colorimetric). Standard Methods 18th or subsequent edition(s), as approved in 40 C.F.R. Part 136, No. 4500-C1 G.

b. DPD titrimetric (ferrous titrimetric). Standard Methods 18th or subsequent edition(s), as approved in 40 C.F.R. Part 136, No. 4500-C1 F.

c. Amperometric titration. Standard Methods 18th or subsequent edition(s), as approved in 40 C.F.R. Part 136, No. 4500-C1 D or E.

(6) Aluminum sampling is only required during months when aluminum compounds are added to the wastewater flow to enhance removal of phosphorus or other pollutants. At the time of permit issuance, the facility does not add aluminum compounds, so monitoring is not currently required for aluminum. If, in the future, the Permittee decides to add these compounds, it must notify EPA and NHDES sixty (60) days prior to commencing such addition. Thereafter, the Permittee shall sample aluminum concurrently with phosphorus at the frequency specified on page 3.

(7) State Certification requirement.

(8) The Permittee shall conduct a 48-hour acute survival toxicity test using the Daphnid (*Ceriodaphnia dubia*) and a 48-hour acute survival toxicity test using the Fathead

Minnow (*Pimephales promelas*) on effluent samples following the protocol in Attachment A (*Freshwater Acute Toxicity Test Procedure and Protocol*, December 1995). Dilution water is to be prepared according to conditions set forth in Attachment A, Section IV. DILUTION WATER on page A-2.

(9) LC50 is the concentration of wastewater (effluent) causing mortality to 50 percent (%) of the test organisms. The "50% limit" is defined as a sample which is composed of 50% effluent (See A.1 of Part 1 and Attachment A of Part 1). Therefore, a 50% limit means that a sample of 50% effluent shall cause no greater than a 50% mortality rate in that effluent sample. The limit is considered to be a maximum daily limit.

(10) For each WET test the Permittee shall report on the appropriate DMR the concentrations of Ammonia Nitrogen as Nitrogen, Hardness, and Total Recoverable Aluminum, Cadmium, Chromium, Copper, Lead, Nickel and Zinc found in the 100 percent effluent sample. All these chemical parameters shall be determined to at least the Minimum Quantification Level (MLs) shown in Attachment A on page A-7, or as amended. The Permittee should also note that all chemical parameter results must still be reported in the appropriate WET test toxicity report.

(11) The WET test shall be collected and completed within 60-days of the effective date of the issued permit. Results are to be submitted to EPA and NHDES-WD within 30-days of completing the first test. In succeeding calendar years, one WET test shall be conducted in August. Toxicity test results are to be submitted with the September DMR due by October 15th.

(12) Effluent samples shall be taken after appropriate treatment and prior to discharge to Outfall 001. All sampling shall be representative of the effluent that is discharged through Outfall 001 to the Asheulot River. A routine sampling program shall be developed in which samples are taken at the same location, same time and same weekday(s) of every month. Deviations from the routine sampling program shall be permitted for good cause, the grounds for which shall be explained in correspondence appended to the applicable discharge monitoring report that is submitted to EPA. In addition, all samples shall be analyzed using the analytical methods found in 40 CFR Part 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR Part 136.

(13) Monitoring the Dissolved Oxygen content of the effluent shall occur no later than 8:00 AM.

(14) Grab sampling or Analysis in situ shall be used to measure Dissolved Oxygen using Membrane Electrode Methods as described in Standards and Methods 18th Edition, 4500-OG.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

2. The discharge shall not cause a violation of the water quality standards of the receiving water.

3. The Permittee shall not discharge into the receiving water any pollutant or combination of pollutants in toxic amounts.

4. The Permittee's treatment facility shall maintain a minimum of 85 percent removal of both $CBOD_5$ and TSS. The percent removal shall be based on a comparison of average monthly influent versus effluent concentrations.

5. The discharge shall be adequately treated to ensure that the surface water remains free from pollutants in concentrations or combinations that settle to form harmful deposits, float as foam, debris, scum or other visible pollutants. It shall be adequately treated to ensure that the surface waters remain free from pollutants which produce odor, color, taste or turbidity in the receiving waters which is not naturally occurring and would render it unsuitable for its designated uses.

4. When the average monthly effluent flow for a period of three (3) consecutive months exceeds 80 percent of the 0.16 MGD design flow (0.13 MGD), the Permittee shall submit to EPA and New Hampshire Department of Environmental Services, Water Division (NHDES-WD) a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans. Before the design flow will be reached, or whenever treatment necessary to achieve permit limits cannot be assured, the Permittee may be required to submit plans for facility improvements.

5. A User may not introduce into any Publicly Owned Treatment Works (POTWs) any pollutant(s) which cause Pass Through or Interference. The terms User, Pass Through and Interference are defined in 40 CFR § 403.3.

6. All POTWs must provide adequate notice to both EPA and the NHDES-WD of the following:

   a. Any new introduction of pollutants into the POTW from an indirect discharger in a primary industry category (see 40 CFR § 122 Appendix A as amended) discharging process water; or

   b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

   c. For purposes of this paragraph, adequate notice shall include information on:

(1) the quantity and quality of effluent introduced into the POTW; and

(2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

7. The Permittee shall submit to EPA and NHDES-WD the name of any Industrial User (IU) that commences to discharge into the POTW after the effective date of this Permit and:

a. That is subject to Categorical Pretreatment Standards pursuant to 40 CFR § 403.6 and established in 40 CFR Chapter I, Subchapter N (Parts 405-415, 417-436, 439-440, 443, 446-447, 454-455, 457-461, 463-469, and 471, as amended), or

b. That discharges an average of 25,000 gallons per day or more of process wastewater into the POTW (excluding sanitary, non-contact cooling and boiler blow-down wastewater), or

c. That contributes process wastewater which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW, or

d. That is designated as an IU by the Control Authority as defined in 40 CFR § 403.12(a) on the basis that the industrial user has a reasonable potential to adversely affect the wastewater treatment facility's operation, or violate any pretreatment standard or requirement in accordance with 40 CFR § 403.8(f)(6).

8. In the event that the Permittee receives reports (baseline monitoring reports, 90-day compliance reports periodic reports on continued compliance, etc.) from Categorical Industrial Facilities regulated in 40 CFR Chapter I, Subchapter N (Parts 405-415, 417-436, 439-440, 443,446-447, 454-455, 457-461, 463-469, and 471, as amended), the Permittee shall forward all copies of these reports within ninety (90) days of their receipt to EPA and NHDES-WD.

9. The Permittee shall minimize the use of chlorine while maintaining adequate bacterial control.

B. UNAUTHORIZED DISCHARGES

The Permittee is authorized to discharge only in accordance with the terms and conditions of this Permit and only from the outfall listed in Part I A.1 of this Permit, outfall 001. Discharge of pollutants from any other point sources, including sanitary sewer overflows (SSOs), are not authorized by this Permit and shall be reported in accordance with Section D.1.e.(1) of the General Requirements of this permit (twenty-four hour reporting).

C. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions. The Permittee is required to complete the following activities for the collection system which it owns:

1. Maintenance Staff

The Permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this Permit.

2. Preventative Maintenance Program

The Permittee shall maintain an ongoing preventative maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges.

3. Infiltration/Inflow

The Permittee shall control infiltration and inflow into their sewer systems as necessary to prevent high flow-related unauthorized discharges from their collection systems and high flow-related violations of the wastewater treatment plant's effluent limitations.

The Permittee shall each submit a summary report of all actions taken to minimize I/I during the previous calendar year to EPA and the NHDES by **February 28th of each year**. The report shall also include a summary of unauthorized discharges during the previous calendar year which were caused by inadequate sewer system capacity, excessive I/I and operational/maintenance problems, including a status of action items necessary to eliminate the discharges. The information reported shall include the date, location, duration and volume of discharge as well as the cause of the overflow and the receiving water.

D. ALTERNATE POWER SOURCE

In order to maintain compliance with the terms and conditions of this Permit, the Permittee shall provide an alternate power source with which to sufficiently operate its publicly owned treatment works, as defined at 40 CFR § 122.2, which references the definition at 40 CFR § 403.3(o).

E. SLUDGE CONDITIONS

1. The Permittee shall comply with all existing federal and State laws and regulations that apply to sewage sludge use and disposal practices and with the Clean Water Act (CWA) § 405(d) technical standards.

2. The Permittee shall comply with the more stringent of either State (Env-Ws 800) or Federal (40 C.F.R. Part 503) requirements.

3. The technical standards (Part 503 regulations) apply to facilities which perform one or more of the following use or disposal practices:

a. Land Application – The use of sewage sludge to condition or fertilize the soil.

b. Surface Disposal – The placement of sewage sludge in a sludge only landfill.

c. Fired in a sewage sludge incinerator.

4. The 40 C.F.R. Part 503 conditions do not apply to facilities that place sludge within a municipal solid waste landfill (MSWLF). Part 503 relies on 40 C.F.R. Part 258 criteria, which regulates landfill disposal, for sewage sludge disposed in a MSWLF. These conditions also do not apply to facilities which do not disposed of sewage sludge during the life of the permit, bury rather treat the sludge (lagoon reed beds), or are otherwise excluded under 40 C.F.R. § 503.6.

5. The Permittee shall use and comply with the attached Sludge Compliance Guidance document to determine appropriate conditions. Appropriate conditions contain the following items:

a. General Requirements
b. Pollutant Limitations
c. Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
d. Management Practices
e. Record Keeping
f. Monitoring
g. Reporting

Depending upon the quality of material produced by a facility all conditions may not apply to the facility.

6. If the sludge disposal method requires monitoring, the Permittee shall monitor the pollutant concentrations, pathogen reduction, and vector attraction reduction at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year.

a. less than 290……..……..1/Year
b. 290 to less than 1,500…….1/Quarter
c. 1,500 to less than 15,000…….....6/Year
d. 15,000 plus……..1/Month

7. The Permittee shall perform all required sewage sludge sampling using the procedures detailed in 40 C.F.R. § 503(h).

8. When the Permittee is responsible for an annual report containing the information specified in the regulations, the report shall be submitted by February 19th of each year. Reports shall be submitted to the address contained in the reporting section of the permit.

9. Sludge monitoring is not required by the Permittee when the Permittee is not responsible for the ultimate sludge use or disposal or when the sludge is disposed of in a MSWLF. The Permittee must be assured that any third party contractor is in compliance with appropriate regulatory requirements. In such cases, the Permittee is required only to submit an annual report by February 19th of each year containing the following information:

a. Name and address of the contractor responsible for sludge use and disposal.
b. Quantity of sludge in dry metric tons removed from the facility.

Reports shall be submitted to the address contained in the reporting section of the permit.

F. MONITORING AND REPORTING

Monitoring results shall be summarized for each calendar month and reported on separate Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15th day of the month following the completed reporting period.

Signed and dated original DMRs and all other reports or notifications required herein or in Part II shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114-8127

Duplicate signed copies (original signature) of all written reports or notifications required herein or in Part II shall be submitted to the State at:

New Hampshire Department of Environmental Services (NHDES)
Water Division
Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

All verbal reports or notifications shall be made to both EPA and NHDES and shall be followed in writing to both agencies in accordance with the reporting and notification requirements of this Permit, which correspond to the subject matter of such communications.

G. STATE PERMIT CONDITIONS

1. The Permittee shall comply with the following conditions which are included as State Certification requirements.

   a. The pH range of 6.5-8.0 Standard Units (S.U.) must be achieved in the final effluent unless the Permittee can demonstrate to NHDES-WD:

      (1) that the range should be widened due to naturally occurring conditions in the receiving water, or

      (2) that the naturally occurring receiving water pH is not significantly altered by the Permittee's discharge.

      The scope of any demonstration project must receive prior approval from NHDES-WD. In no case shall the above procedure result in pH limits outside of the range of 6.0 to 9.0 S.U., which is the federal effluent limitation guideline regulation for pH for secondary treatment and is found in 40 CFR § 133.102(c).

      Please see Part I.H.1 (Special Conditions; pH Limit Adjustment) below.

   b. Pursuant to State Law NH RSA 485-A:13 and the New Hampshire Code of Administrative Rules, Env-Wq 703.07(a) and Env-Ws 904.10 the following submissions shall be made to the NHDES-WD by a municipality proposing to accept into its POTW (including sewers and interceptors):

      (1) An "Application for Sewer Connection Permit" for any proposal to construct or modify any of the following:

         (a) Any extension of a collector or interceptor, whether public or private, regardless of flow;

         (b) Any wastewater connection or other discharge in excess of 5,000 gpd;

         (c) Any wastewater connection or other discharge to a wastewater treatment facility operating in excess of 80 percent design flow capacity for 3 consecutive months;

         (d) Any industrial wastewater connection or change in existing discharge of industrial wastewater, regardless of quality or quantity; and

(e) Any sewage pumping station greater than 50 gpm or serving more than one building.

(2) An "Industrial Wastewater Discharge Request Application" for new or increased loadings of industrial waste, in accordance with Env-Ws 904.10.

c. The Permittee shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water unless it has been treated in such a manner as will not lower the legislated water quality classification or interfere with the uses assigned to said water by the New Hampshire Legislature (RSA 485-A:12).

d. Any modifications of the Permittee's Sewer Use Ordinance, including local limitations on pollutant concentrations, shall be submitted to the NHDES-WD for approval prior to adoption by the Permittee.

e. Within 90 days of the effective date of this Permit, the Permittee shall submit to NHDES-WD a copy of its current sewer use ordinance if it has been revised since any previously approved submittal.

f. Within 120 days of the effective date of this permit, the Permittee shall submit to NHDES-WD a current list of all industries discharging industrial waste to the municipal wastewater treatment plant. As a minimum, the list shall indicate the name and address of each industry, along with the following information: telephone number, contact person, products manufactured, industrial processes used, existing level of pretreatment, and list of existing industrial discharge permits with effective dates.

2. This NPDES Discharge Permit is issued by the EPA under Federal law. Upon final issuance by the EPA, the NHDES-WD may adopt this Permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13.

EPA shall have the right to enforce the terms and conditions of this Permit pursuant to federal law and NHDES-WD shall have the right to enforce the Permit pursuant to state law, if the Permit is adopted. Any modification, suspension or revocation of this Permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of the Permit as issued by the other agency.

H. SPECIAL CONDITIONS

1. pH Limit Adjustment

The Permittee may submit a written request to EPA for a change in the permitted pH limit range provided that the new range is not less restrictive than 6.0 to 9.0 Standard Units found in the applicable National Effluent Limitation Guideline

(Secondary Treatment Regulations in 40 CFR Part 133) for this facility. The Permittee's written request must include an approval letter from NHDES-WD containing an original signature (no copies), which shall certify that the Permittee has demonstrated to the State's satisfaction that as long as discharges to the receiving water from a specific outfall are within a specific numeric pH range the naturally occurring receiving water pH will be unaltered. That letter must specify for each outfall the associated numeric pH limit range. Until written notice is received by certified mail from the EPA indicating the pH limit range has been changed, the Permittee is required to meet the existing permitted pH limit range in the Permit.

I. REOPENER CLAUSE

This Permit may be modified or revoked and reissued in accordance with 40 CFR § 122.62(a) (Causes for modification) or (b) (Causes for modification or revocation and reissuance). One basis for reopening and modifying the permit during its term is the receipt of information that was not available at the time of permit issuance and that would have justified the application of different permit conditions ("New Information"). See 40 CFR §122.62(a)(2). New Information may include, but is not limited to, an applicable final Total Maximum Daily Load ("TMDL"); the failure to issue a final NPDES permit containing a total phosphorus effluent limit of 0.2 mg/l to the City of Keene for discharges from the Keene WTP; other relevant water quality data or studies provided by any party; and the results of ESA Section 7 consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service. In addition to constituting New Information, the outcome of the ESA Section 7 consultation may also satisfy the requirements of 40 CFR § 122.62(b)(1).