City of Lebanon

Utility Operations Group
65 Pumping Station Road
Lebanon, New Hampshire 03766

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

December 7, 2009

US EPA, Region 1
PWTF GP Processing
Municipal Assistance Unit (CMU),
1 Congress Street, Suite 1100
Boston, MA 02114-2023

DEC 11 2009

RE: Notice of Intent Water Treatment General Permit NHG640012-City of Lebanon

Dear Sir or Madam,

This letter is to serve as notice of intent to request continuation of Water Treatment General Permit NHG640012.

The **owner** of the facility is:	Acting City Manager, Len Jarvi
Email	Len.Jarvi@lebcity.com
Telephone:	603-448-4220
	City of Lebanon
	51 North Park St.
	Lebanon, NH 03743

The **operator and contact** is:	Water Treatment Superintendent, James Angers
Email	Jim.Angers@lebcity.com
Telephone:	603-448-2514
Facility Name:	City of Lebanon Water Plant
Address:	65 Pumping Station Rd
	Lebanon, NH 03766

Water Supply **SIC code** is #4941.

General Permit: #NHG640012

Facility & Process Description
The facility consists of a water treatment plant and two wastewater storage lagoons. The water treatment plant utilizes conventional treatment, coagulation, flocculation, filtration, disinfection, corrosion control and fluoridation. Chemicals added during the water treatment process include

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December 7, 2009

(Facility & Process Description continued)

polyaluminum chloride for coagulation, sodium bicarbonate to provide alkalinity for coagulation and corrosion control, powdered activated carbon for algae taste and odor control, sodium hypochlorite for disinfection, and sodium carbonate to raise the finish water pH for alkalinity and corrosion control. Sodium fluoride is added to reduce tooth decay. At this time there are no chemicals containing phosphorus added at this facility.

The wastewater that is stored in the lagoons is generated from filter backwashing, filter-to-waste operations, residuals generated from the flocculation sedimentation processes, sedimentation basin maintenance dewatering and cleaning residuals as well as process monitoring equipment waste flows from turbidity, pH and chlorine analyzers. There are no sanitary wastes included in the flows. The NPDES permit is for the indirect discharge from the lagoons The lagoons do not have a single point of discharge the lagoons discharge only during an overflow event at approximate lagoon berm crest location latitude 43.64N, longitude 72.24W, to wetlands that eventually flow to the Mascoma River as shown on map included with this communication.

There has not been a discharge event for several years and for that reason there has not been data collected in the last six months on Aluminum residuals.

Endangered Species Act Eligibility: Using Appendix I of the PWTF GP, under which criterion listed in Part II we are eligible for coverage under criteria A. Please find documentation of ESA eligibility included in this packet.

National Historic Properties Act Eligibility: Using the instructions in Appendix III of the PWTF GP we are eligible under criteria 1. To be confirmed with the NHDHR through RPR submitted November 17, 2009.

Certification and Signature:

I certify that the discharge for which I am seeking coverage under the general permit consists solely of a surface water discharge from a potable water treatment facility. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Leonard W. Jarvi Date 12-7-09

Printed Name and Title LEONARD W. JARVI Water City Manager

Wastewater Treatment Facility
130 South Main Street
West Lebanon, New Hampshire 03784
Telephone: 603-298-5986 • Fax: 603-298-6442

Water Filtration Facility
65 Pumping Station Road
Lebanon, New Hampshire 03766
Telephone: 603-448-2514 • Fax: 603-448-0693

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65 Pumping Station Road
Lebanon, New Hampshire 03766

December 7, 2009

(RE: NOI continued)

Please find included with this packet a letter from the HACH Company detailing analysis of the reagent discharge from the HACH CL17 chlorine analyzer.

Submitted Respectfully,

James Angers

James Angers
Water Treatment Superintendent

Enclosure

Cc: Dan Dudley, NH-DES Wastewater Bureau
File

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
http://www.fws.gov/northeast/newenglandfieldoffice

January 2, 2009

To Whom It May Concern:

This project was reviewed for the presence of federally-listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm)

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN NEW HAMPSHIRE

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Belknap	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Meredith, Alton and Laconia
Carroll	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Albany, Eaton, Madison Wolfeboro, Brookfield and Wakefield
Coos	Canada Lynx	Threatened	Regenerating softwood forest, usually with a high density of snowshoe hare.	All Towns
	Dwarf wedgemussel	Endangered	Connecticut River main channel and Johns River	Northumberland, Lancaster and Dalton
Cheshire	Dwarf wedgemussel	Endangered	S. Branch Ashuelot River and Ashuelot River	Swanzey, Keene and Surry
Grafton	Dwarf wedgemussel	Endangered	Connecticut River main channel	Haverhill, Piermont, Orford and Lyme
	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Holderness
Hillsborough	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Weare
Merrimack	Karner Blue Butterfly	Endangered	Pine Barrens with wild blue lupine	Concord and Pembroke
	Small whorled Pogonia	Threatened	Forests	Danbury, Epsom, Warner and Allenstown
Rockingham	Piping Plover	Threatened	Coastal Beaches	Hampton and Seabrook
	Roseate Tern	Endangered	Atlantic Ocean and nesting at the Isle of Shoals	
	Small whorled Pogonia	Threatened	Forests	Northwood, Nottingham, and Epping
Strafford	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Middleton, New Durham, Milton, Farmington, Strafford, Barrington, and Madbury
Sullivan	Northeastern bulrush	Endangered	Wetlands	Acworth, Charlestown, Langdon and Walpole
	Dwarf wedgemussel	Endangered	Connecticut River main channel	Plainfield, Cornish, Claremont and Charlestown
	Jesup's milk-vetch	Endangered	Banks of the Connecticut River	Plainfield and Claremont

-Eastern cougar, gray wolf and Puritan tiger beetle are considered extirpated in New Hampshire.
-Endangered gray wolves are not known to be present in New Hampshire, but dispersing individuals from source populations in Canada may occur statewide.
-There is no federally-designated Critical Habitat in New Hampshire.

7/31/2008

RECEIVED NOV 20 2009

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
19 Pillsbury Street, Concord, NH 03301-3570

DHR Use Only	
R&C #	1490
Log In Date	11/20/09
Response Date	11/25/09
Sent Date	11/30/09

Request for Project Review by the New Hampshire Division of Historical Resources

☐ This Project is funded by the **American Recovery and Reinvestment Act of 2009**

X This is a new submittal ☐ This is additional information relating to DHR Review #:_____

GENERAL PROJECT INFORMATION

Project Title: City of Lebanon Water Plant Lagoon NPDES Permit #NHG640012 Renewal

Project Location: Across the Mascoma River from 65 Pumping Station Road, Lebanon NH 03766

Tax Map & Lot # 93-109 and 93-110
NH State Plane Geographic Coordinates: Easting 834185 Northing 416631 WGS84 Datum
(see RPR Manual and R&C FAQ's for help accessing this data)

Lead Federal Agency
(Agency providing funds, licenses, or permits) USEPA

Permit or Job Reference #NHG640012

State Agency and Contact (if applicable) NH DES WWEB Dan Dudley,271-0671 (Daniel.Dudley@des.nh.gov)

Permit or Job Reference #NHG640012

APPLICANT INFORMATION

Applicant Name City of Lebanon, City Manager Phone Number City Hall 603-448-4224
Street Address 51 North Park Street

City: Lebanon State: New Hampshire Zip: 03766 Email: Gregg.Mandsanger@lebcity.com

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Jim Angers, City of Lebanon Water Plant Superintendent Phone Number: 603-448-2514

Street Address: 65 Pumping Station Road

City: Lebanon State: NH Zip: 03766 Email: Jim.Angers@lebcity.com

Please refer to the Request for Project Review manual for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, the Division of Historical Resources (DHR) may require additional information to complete our review. All items and supporting documentation submitted with a review request, including photographs and publications, must be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified.

PROJECT BOUNDARIES AND DESCRIPTION

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

REQUIRED

X Attach the relevant portion of a 7.5' USGS Map (photocopied or computer-generated) ***indicating the defined project boundary.***

X Attach a detailed written description of the proposed project. Include: (1) a narrative description of the proposed project; (2) site plan; (3) photos and description of the proposed work if the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures; and (4) a photocopy of the relevant portion of a soils map (if accessible) for ground-disturbing projects.

Architecture

Are there any buildings or structures within the project area? ☐ Yes X No
If yes, submit all of the following information:

Approximate age(s): ______________________

☐ Photographs of ***each*** building located within the project area along with a photo key. Include streetscape images if applicable. (Digital photographs are accepted. All photographs must be clear, crisp and focused)

☐ DHR file review conducted on _____/_____/_____

Please note that as part of the review process, the DHR may request an architectural survey or other additional information.

Archaeology

Does the proposed undertaking involve ground-disturbing activity? ☐ Yes X No
If yes, submit all of the following information:

☐ Project specific map and/or preliminary site plan that fully describes the project boundaries and areas of proposed excavation.

☐ Description of current and previous land use and disturbances.

☐ Any available information concerning known or suspected archaeological resources within the project area.

Please note that as part of the review process, the DHR may request an archaeological survey or other additional information.

DHR COMMENT *This Space for Division of Historical Resources Use Only*

☐ No Potential to cause Effects ☐ Additional information is needed in order to complete our review

☐ No Adverse Effect ☑ No Historic Properties Affected ☐ Adverse Effect

Comments:______________________

If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature: E H Muggy Date: 11/25/09

Hach CL17 Reagents Discharge Analysis Summary

To Whom It May Concern *January 23, 2009*

Introduction

There have been several inquires from customers about any hazardous issues associated with the CL17-generated waste stream. Several analyses of the CL17 discharge have been conducted by two independent EPA certified laboratories to determine if hazardous chemicals are present in the discharge due the reagents supplied with the analyzer.

Study Setup and Results

The discharge samples were obtained from two CL17 analyzers running on DI water as a sample – one using a set of Total Chlorine and the other a set of Free Chlorine reagents. The DI water matrix was chosen to identify only waste produced by the reagents, so as not to complicate the analyses with any foreign materials (including chlorine) present in regular water samples.

It must be noted that results of this study are applicable to only reagents provided by Hach Company and will not reflect waste produced by a CL17 if third party or user-prepared reagents are used. Hach Company does not recommend use of third party or user-prepared reagents.

The standpipe sample conditioning (Hach CL17 Instrument Manual 4ed, p.19) was employed to separate the effluent and achieve the most concentrated waste stream. However, the most common installation involving the standpipe combines the waste stream and the sample overflow resulting in significant dilution of the waste stream. Another variant of recommended CL17 installation with a pressure regulator can also supply more sample to the analyzer than in the case of standpipe and, therefore, the effluent will be diluted to a greater extent than the analyzed worst case scenario.

In order to identify chemicals produced by the reagents and analyzer, additional analyses of the sample matrix and pure reagents were also conducted. The EPA approved set of analyses was chosen to identify and quantify chemical compounds in the CL17 discharge (Appendix, CWA Methods of Interest Approved for use at 40 CFR 136).

Due to the absence of federal regulations (RCRA) for this kind of discharge, the results were compared with MCL's of chemicals regulated for Drinking Water (http://www.epa.gov/waterscience/criteria/drinking/dwstandards.pdf). Obviously, comparison to drinking water standards is a very stringent test to apply to a discharge sample that is considered wastewater.

No regulated compounds produced by Hach reagents, in concentrations exceeding the federal drinking water regulations, were found in the CL17 discharge.

Conclusions

- In the worst case scenario of concentrated discharge, there were no federally regulated compounds resulting from Hach reagents in concentrations exceeding the MCL found in the CL17 effluent.
- Hach Company recommends consulting with local or regional authorities to clarify the applied discharge rules and regulations (if any) in case the waste stream is discharged to any point other than a properly constructed sewer, because chlorine residual at a minimum may be present in the discharge.
- If desired, the waste stream produced by the analyzer can be separated and the effluent containing introduced chemicals can be collected for disposal. Contact Hach Company technical support or your local Hach Regional Sales Manager for additional information.

Signature:

Dr. Vadim B. Malkov
Product Applications Manager
Process Instruments Business Unit

HACH
Be Right

Appendix – List of Analyzed Chemicals

Volatile Organic Compounds (VOC), EPA Method 8260B GC/MS

1,1,1,2-Tetrachloroethane	1,3-Dichloropropane	Bromomethane	Naphthalene
1,1,1-Trichloroethane	1,4-Dichlorobenzene	Carbon Disulfide	n-Butylbenzene
1,1,2,2-Tetrachloroethane	2,2-Dichloropropane	Carbon Tetrachloride	n-Propylbenzene
1,1,2-Trichloroethane	2-Butanone	Chlorobenzene	o Xylene
1,1-Dichloroethane	2-Chloroethyl vinyl ether	Chloroethane	sec-Butylbenzene
1,1-Dichloroethene	2-Chlorotoluene	Chloroform	Styrene
1,1-Dichloropropene	2-Hexanone	Chloromethane	tert-Butylbenzene
1,2,3-Trichlorobenzene	4-Chlorotoluene	cis-1,2-Dichloroethene	Tetrachloroethene
1,2,3-Trichloropropane	4-Isopropyltoluene	cis-1,3-Dichloropropene	Toluene
1,2,4-Trichlorobenzene	4-Methyl-2-Pentanone	Dibromochloromethane	Toluene-d8
1,2,4-Trimethylbenzene	Acetone	Dibromofluoromethane	trans-1,2-Dichloroethene
1,2-Dibromo-3-chloropropane	Acrylonitrile	Dibromomethane	trans-1,3-Dichloropropene
1,2-Dibromoethane	Benzene	Dichlorodifluoromethane	Trichloroethene
1,2-Dichlorobenzene	Bromobenzene	Ethylbenzene	Trichlorofluoromethane
1,2-Dichloroethane	Bromochloromethane	Isopropylbenzene	Vinyl Acetate
1,2-Dichloropropane	Bromodichloromethane	m-, p-Xylene	Vinyl Chloride
1,3,5-Trimethylbenzene	Bromofluorobenzene	Methyl Tert Butyl Ether	
1,3-Dichlorobenzene	Bromoform	Methylene Chloride	
Hexachlorobutadiene			

Semi-Volatile Organic Compounds (SVOC), EPA Method 8270C GC/MS

1,2,4-Trichlorobenzene	2-Nitrophenol	Benzo(g,h,i)perylene	Hexachlorobenzene
1,2-Dichlorobenzene	3- & 4-Methylphenol	Benzo(k)fluoranthene	Hexachlorobutadiene
1,3-Dichlorobenzene	3,3-Dichlorobenzidine	Benzoic acid	Hexachlorocyclopentadiene
1,4-Dichlorobenzene	3-Nitroaniline	Benzyl alcohol	Hexachloroethane
2,4,5-Trichlorophenol	4,6-Dinitro-2-methylphenol	Bis(2-chloroethoxy)methane	Indeno(1,2,3-cd)pyrene
2,4,6-Tribromophenol	4-Bromophenyl phenyl ether	Bis(2-chloroethyl) ether	Isophorone
2,4,6-Trichlorophenol	4-Chloro-3-methylphenol	Bis(2-chloroisopropyl) ether	Naphthalene
2,4-Dichlorophenol	4-Chloroaniline	Bis(2-ethylhexyl) phthalate	Nitrobenzene
2,4-Dimethylphenol	4-Chlorophenyl phenyl ether	Butyl benzyl phthalate	Nitrobenzene-d5
2,4-Dinitrophenol	4-Nitroaniline	Chrysene	N-Nitrosodimethylamine
2,4-Dinitrotoluene	4-Nitrophenol	Dibenzo(a,h)anthracene	N-Nitrosodi-n-propylamine
2,6-Dinitrotoluene	Acenaphthene	Dibenzofuran	N-Nitrosodiphenylamine
2-Chloronaphthalene	Acenaphthylene	Diethylphthalate	Pentachlorophenol
2-Chlorophenol	Aniline	Dimethyl phthalate	Phenanthrene
2-Fluorobiphenyl	Anthracene	Di-n-butyl phthalate	Phenol
2-Fluorophenol	Azobenzene	Di-n-octyl phthalate	Phenol-d6
2-Methylnaphthalene	Benzo(a)anthracene	Fluoranthene	Pyrene
2-Methylphenol	Benzo(a)pyrene	Fluorene	Terphenyl-d14
2-Nitroaniline	Benzo(b)fluoranthene		

Metals, EPA Method 200.7 ICP

Antimony, total	Chromium, total	Manganese, total	Thallium, total
Arsenic, total	Cobalt, total	Nickel, total	Vanadium, total
Barium, total	Copper, total	Potassium, total	Aluminum, total (M200.8 ICP-MS)
Beryllium, total	Iron, total	Selenium, total	Lead, total (M200.8 ICP-MS)
Cadmium, total	Lithium, total	Silver, total	Zinc, total (M200.8 ICP-MS)
Calcium, total	Magnesium, total	Sodium, total	Mercury, total (M245.1 CVAA)