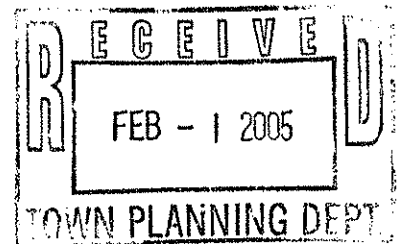
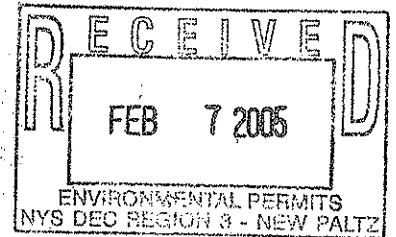


**TOWN OF CLARKSTOWN
DEPARTMENT OF ENVIRONMENTAL CONTROL
INTER-OFFICE MEMORANDUM**

DATE: January 29, 2005
FROM: Dennis M. Letson, P.E., Deputy Director
TO: Joe Simoes, Town Planner
SUBJECT: United Water -Lake DeForest



The attached EAF and project narrative was received for review by this Office. As the Planning Board was lead agency for the recent Dissolved Air Flotation facility review, I suggest this be circulated by the Board for review and comment to those same agencies which received the previous circulation. The Board would continue as Lead Agency for the site plan modification; a new lead agency circulation would not be necessary.



RECEIVED

2005 JAN 21 PM 1:46

Transmittal

CDM

100 Crossways Park Dr. West
Suite 415
Woodbury, NY 11797
phone: (516) 496-8400
fax: (516) 496-8864

ENVIRONMENTAL CONTROL

To: Dennis Letson
Organization/Address: Town of Clarkstown
Department of Environmental Control
10 Maple Avenue
New City, NY 10956
From: Patrick Goodfellow
Date: January 20, 2005

Re: United Water New York – Short Environmental Assessment Form

Job #: 20379-41881.DN.ODC

Via: Mail: X Overnight: Courier:

Enclosed please find: Short Environmental Assessment Form

For your information		Approved	
For your review	X	Approved as noted	
For your signature		Returned to you for correction	

Message:

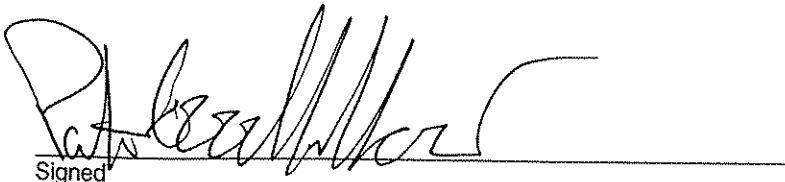
Mr. Letson

Please find the enclosed Short Environmental Assessment Form with attached Engineering Report and 11x17 Site Plan.

Please contact myself or Joseph Gibney if you have any questions or require more information.

Thank you,

Patrick Goodfellow


Signed

cc: D. Distante - UWN
T. Parashkevov - UWN
J. Gibney - CDM
File



100 Crossways Park West
Woodbury, New York 11797
tel: 516 496-8400
fax: 516 496-8864

December 3, 2004

Robert Geneslaw
Town of Clarkstown
Department of Planning
10 Maple Ave
New City, NY 10956-5099

Subject: United Water New York Lake De Forest Water Treatment Plant Potassium Permanganate System Upgrade Engineering Report

Dear Mr. Geneslaw:

CDM is pleased to submit this narrative for the proposed United Water New York Lake DeForest Water Treatment Plant Potassium Permanganate System Upgrade for your review and comment.

General Facility Description

The United Water New York (UWNY) Lake DeForest Water Treatment Plant has recently been upgraded with a new dissolved air flotation (DAF) system, which was started up in June 2003. DAF improved the removal of algae, turbidity, particles, organics, reduced chlorine demand and the formation of disinfection by-products for the production capacity to 20 mgd. UWNY has recognized that, like any treatment technology, DAF has its limitations. Since the startup of the DAF system, it has been noted that when the potassium permanganate dose fell below the targeted 1 mg/L, plant staff observed instances of passage of colloidal material, manganese, and color through the filters. To address the need for upgrade and expansion of the pre-oxidation system, UWNY selected Camp Dresser & McKee (CDM) to assist in its oxidation process design.

Description of Treatment Plant Upgrades

The plant is permitted to take 20.8 mgd from Lake DeForest. To improve potassium permanganate dosage of the raw water, a new potassium permanganate system will be installed and the existing potassium permanganate system will be decommissioned. The new potassium permanganate system will be installed in a prefabricated building to be placed next to the existing Dam Control Building. The new permanganate system will meet the demands of the recent upgrade and expansion of the plant.



Robert Geneslaw

December 3, 2004

Page 2

Potassium Permanganate System

An eductor-based system was selected to enhance the operations and handling practices for potassium permanganate. The eductor-based system uses motive water to create a vacuum in a tube. The vacuum is then used to convey the chemical as a solution from the pail to the mixing tank. This eliminates the need to 'dump' the pails and greatly reduces fugitive dust and direct operator contact with the chemical.

The permanganate system consists of two 550 gallon FRP tanks with mixers, two metering pumps, a booster pump, an eductor, and control panel. The system is designed to handle a range from the minimum flow of 5 mgd to the permitted flow of 20.8 mgd.

The system will mix 55-lb pails of dry potassium permanganate with water to create a 3% solution. This solution will then be pumped to the existing application points to provide a maximum 1 mg/L dosage. New underground 1/2" double contained PVC pipe will convey the chemical flow to application points located within new pre-cast manholes above the 30 and 60 inch raw water lines.

New Pre-cast Building

A modular prefabricated building will be installed with an architectural finish matching the existing Dam Control building. The new building will be installed on an existing concrete slab adjacent to the Dam Control Building. The building slab elevation will be set above the 100 year flood elevation.

The building will be completely prefabricated with mechanical, process and electrical systems, requiring only connection to on-site utilities. The building will house the potassium permanganate feed system, an emergency eyewash/shower station, a stainless steel sink, water heater, fire protection system, lighting, and temperature controls. Secondary containment for the chemical storage tanks will provide 110% containment of both 550 gal storage tanks and the volume associated with fire suppression.

The existing walkway and steps, providing access to the Dam Control Building, will be demolished. A new platform will be installed to provide access to the new potassium permanganate building and the existing Dam Control Building.

A new 2-inch HDPE water service will be provided for the potassium permanganate system and fire protection. Backflow prevention equipment will be provided within the pre-cast building. The service will be tapped off an existing plant water service line located at the nearest yard hydrant, to the south west of the Dam Control Building.



Robert Geneslaw
December 3, 2004
Page 3

Fire protection will consist of a water sprinkling system with water flow alarm indicators to provide local and remote alarms. The system will be designed in accordance with Federal, State, and Local building requirements.

Instrumentation

The new potassium permanganate system will be provided with a local control panel with provisions made for remote monitoring and control at the existing control room. Instrumentation connections between both areas will be over an existing fiber optic line or via radio.

Electrical

The existing transformer pad, transformer, and electrical equipment located on the concrete slab adjacent to the Dam Control Building will be demolished.

A new 480V 400 Amp electrical service will be provided from the existing utility power pole located near the Dam Control Building. A transformer inside the building will provide 120/208V power.

HVAC

A wall mounted fan will be provided to ventilate at 6 air changes per hour. A thermostatically controlled exhaust fan will also be provided to limit the building temperature. Heat will be provided by a wall mounted electric unit heater.

If you should have any further questions or require any additional information regarding the proposed upgrades, please contact me at (516) 496-8400.

Very truly yours,

Joseph Gibney, P.E.
Project Manager
Camp Dresser & McKee

cc: File 7.04A



State Environmental Quality Review
SHORT ENVIRONMENTAL ASSESSMENT FORM
For UNLISTED ACTIONS Only



PART 1 - PROJECT INFORMATION (To be completed by Applicant or Project sponsor)

1. APPLICANT/OWNER - NAME, ADDRESS, TEL. NO. Applicant: Joseph Gibney, P.E. Camp Dresser & McKee 100 Crossways Park Drive West, Suite 415, Woodbury, NY 11797 (516)-496-8400 Owner: Donald Distante, P.E. United Water New York 360 West Nyack Rd, West Nyack, NY 10994 (845) 623-1500	PROJECT NAME: Lake De Forest WTP - Potassium Permanganate System Upgrade
	3. TAX MAP ID #: 59.13 Block 1 Lot 1

4. PRECISE LOCATION (Street address and road intersections, prominent landmarks, etc., or provide map)
55 Old Mill Road, West Nyack, New York

5. PROPOSED ACTION IS: New Expansion Modification/alteration

6. DESCRIBE PROJECT BRIEFLY:
Installation of a new pre-cast concrete building with a potassium permanganate chemical delivery system.
See Attached Engineers Report.

7. AMOUNT OF LAND AFFECTED:
Initially <1/4 acres Ultimately <1/4 acres

8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER EXISTING LAND USE RESTRICTIONS?
 Yes No - If No, describe briefly

9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT?
Residential Industrial Commercial Agricultural Park/Forest/Open space Other
Describe: Water Treatment Plant

10. DOES ACTION INVOLVE A PERMIT APPROVAL, OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (FEDERAL, STATE OR LOCAL)?
 Yes No - If yes, list agency(s) name and permit/approvals
Clarkstown Building Department

11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL?
Yes No - If yes, list agency(s) name and permit/approval

12. AS A RESULT OF PROPOSED ACTION WILL EXISTING PERMIT/APPROVAL REQUIRE MODIFICATION?
Yes No - If yes, list permit/approval

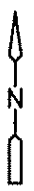
13. INTERESTED/INVOLVED AGENCIES

<input type="checkbox"/> Town Board	<input type="checkbox"/> Historical Review Board	<input type="checkbox"/> NYS Dept. of Transportation
<input type="checkbox"/> Zoning Board of Appeals	<input type="checkbox"/> Traffic Advisory Board	<input checked="" type="checkbox"/> NYS Dept. of Environmental Conservation
<input checked="" type="checkbox"/> Planning Board	<input checked="" type="checkbox"/> Rockland Co. Planning Board	<input type="checkbox"/> NYS Thruway Authority
<input type="checkbox"/> Planning Consultant	<input type="checkbox"/> Rockland Co. Highway Dept.	<input type="checkbox"/> Palisades Interstate Park Commission
<input checked="" type="checkbox"/> Building Department	<input type="checkbox"/> Rockland Co. Sewer Dist. #1	<input type="checkbox"/> US Army Corps of Engineers
<input checked="" type="checkbox"/> Dept. of Environmental Control	<input checked="" type="checkbox"/> Rockland Co. Drainage Agency	<input type="checkbox"/> Other (Indicate) _____
<input type="checkbox"/> Highway Department	<input checked="" type="checkbox"/> Rockland Co. Health Dept.	
<input type="checkbox"/> Architecture & Landscape Comm.		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE
Applicant/Sponsor name: Joseph Gibney, P.E. Date: 1/20/2005

Signature: *Joseph Gibney* Title: Project Manager

- NOTES:
1. CONTRACTOR SHALL USE TRENCHLESS METHOD TO INSTALL PIPE BELOW EXISTING PAVEMENT.
 2. ALL BURIED CHEMICAL PIPE SIZE CALL OUTS ARE CARRIER PIPE SIZE. CHEMICAL PIPING SHALL SLOPE TO CHEMICAL INJECTION MANHOLES.
 3. HACKENSACK RIVER WATER LEVELS AT THE DAM 100 YR.
FLOOD LEVEL 66.00
AVG LEVEL ELEV 58.00
MIN LEVEL ELEV 55.00

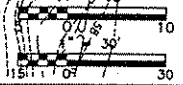


SEE ENLARGED PLANS FOR DEMOLITION NEW WORK

NEW POTASSIUM PERMANGANATE PUMP BUILDING
LIMITS OF NEW PAVEMENT (C) G-5
EXISTING CONCRETE WALL

HACKENSACK RIVER
SILT FENCE (E) G-5

EXISTING CONCRETE WALL



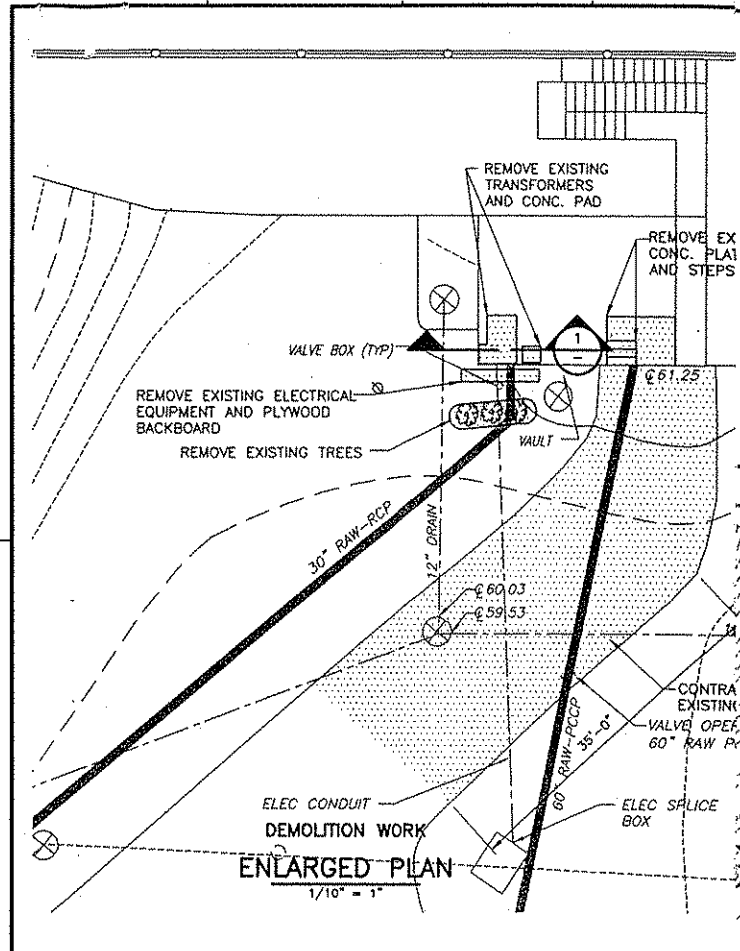
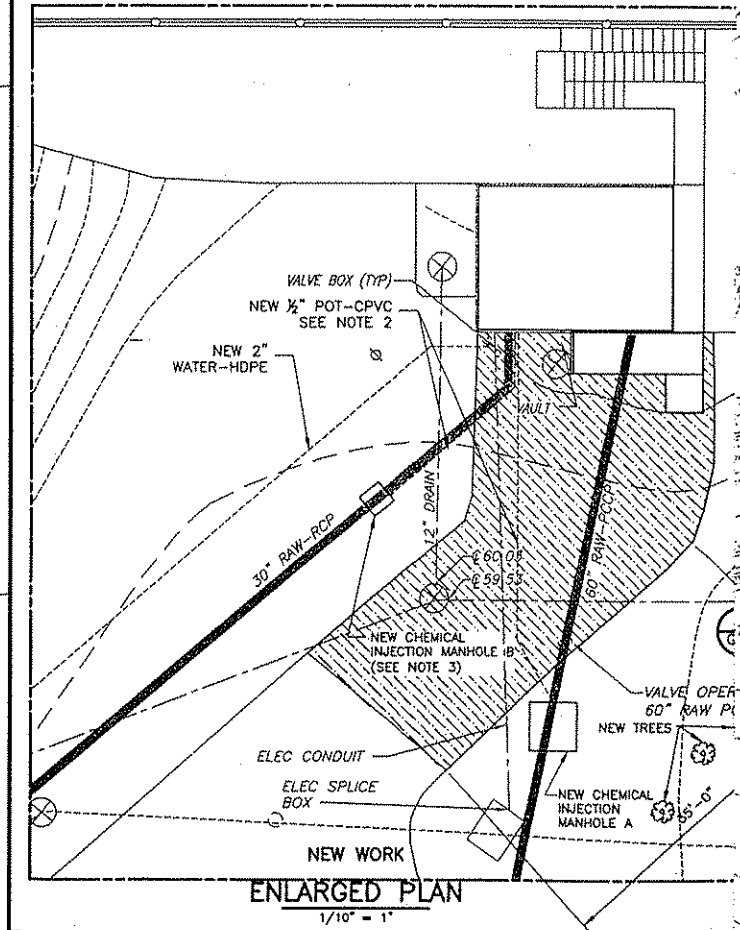
ENLARGED PLAN
1/10" = 1'

ENLARGED PLAN
1/10" = 1'

PRELIMINARY SITE PLAN
DEMOLITION AND NEW WORK

UWNY PROJ. NO. -----
CDM PROJ. NO. 5000-4188
FILE NAME: CSTPL002

SHEET NO.
G-2



REV. NO.	DATE	DRWN	CHKD	REMARKS

U:\20379\4188\BLDG. PERMIT\CIVL\ CSTPL002 01/20/05 15:47 garveydj XREFS: XCPPL001, UNPPBDR, SPPPL001, XMPPL001