EPA Region 5 Records Ctr.
277916

Five-Year Review Report

Third Five-Year Review Report
For
Eau Claire Municipal Well Field Superfund Site
Eau Claire, Wisconsin

Prepared By:
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Region 5
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Approved By: _____ Date: 7/20/07
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List of Acronyms

ACRONYM	NAME OR TERM
AOC	Administrative Order on Consent
ARARs	Applicable or Relevant and Appropriate Requirements
CERCLA/SARA	Comprehensive Environmental Response, Compensation and Liability Act/Superfund Amendments and Reauthorization Act of 1986 (Superfund)
COC	Contaminants of Concern
CD	Consent Decree
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
ECMWF	Eau Claire Municipal Well Field
ESD	Explanation of Significant Differences
GF	Gannett Fleming
HSL	Hazardous Substance List (chemicals)
ICs	Institutional Controls
IRM	Interim Remedial Measure
MCLs	Maximum Contaminant Limits
NCP	National Contingency Plan
NDC	National Defense Corporation
NPI	National Presto Industries, Incorporated
NPL	National Priorities List
O&M	Operation and Maintenance
PALs	Preventive Action Limits
PCE	Tetrachloroethene
PFS	Phased Feasibility Study
ppb	Parts per Billion concentration
PRP	Potential Responsible Parties
PSC	Public Service Commission
RAO	Remedial Action Objectives
ROD	Record of Decision
RD/RA	Remedial Design/Remedial Action
RI/FS	Remedial Investigation/Feasibility Study
SOW	Statement of Work
TBC	To Be Considered
TCLs	Target Compound Limits
1,1,1-TCA	1,1,1-trichlorlethane
TCE	Trichloroethene
UAO	Unilateral Administrative Order
U.S. EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
WDNR	Wisconsin Department of Natural Resources
WPDES	Wisconsin Pollution Discharge Elimination System

Executive Summary

The purpose of a five-year review is to evaluate whether a completed remedial action remains protective of human health and the environment where hazardous waste remains on-site at levels that do not allow for unlimited use and unrestricted exposure. The methods, findings, and conclusion of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and identify recommendations to address them.

U.S. EPA conducted this statutory five-year review under Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP). The next five-year review report is due five years after the completion of this report.

The remedy at ECMWF currently protects human health and the environment in the short term because the operation of the air strippers effectively removes the contaminants from the drinking water used by the City of Eau Claire. However, in order for the remedy to be protective in the long-term, effective institutional controls must be in-place and maintained until the groundwater cleanup standards are achieved throughout the plume area. Institutional controls are also necessary to ensure that there continues to be no unacceptable exposures to the contaminated groundwater. Institutional controls in the form of local ordinances are currently in place, which require that city residents connect to the municipal water supply, and prohibit any cross connection between private wells and the municipal water supply. The City of Eau Claire recently discovered 77 parcels of land which do not receive water bills. The City is concerned that the owners of these parcels may be using private water wells for drinking water purposes, and that the well water could be contaminated above drinking water standards. City personnel are going to physically inspect each of these parcels to determine whether the property is actually already hooked up to the municipal water supply; if the property has a groundwater well on-site; and whether, if it is not currently connected, the property should be connected to the City of Eau Claire municipal water system (if feasible). The City is also in the process of establishing a well abandonment program which will require the abandonment of all private water wells on properties connected to the municipal water supply. An evaluation of the effectiveness of these institutional controls will be included in the IC Study currently underway in connection with this five-year review.

A copy of the final review will be placed in the Site files and local repositories for the ECMWF Superfund Site at the following locations and will be available for viewing during normal business hours:

L.E. Phillips Memorial Public Library
400 Eau Claire Street
Eau Claire, Wisconsin 54701

U.S. EPA Region 5
Region 5 Records Center-7th Floor
77 West Jackson Boulevard
Chicago, Illinois 60604

Five-Year Review Summary Form-Eau Claire Municipal Well Field

SITE IDENTIFICATION		
Site name ***(from WasteLan)*****:** Eau Claire Municipal Well Field		
EPA ID ***(from WasteLan)*****:** WID 980 820054		
Region: 5	**State:** Wisconsin	**City/County:** Eau Claire/ Eau Claire and Chippewa
SITE STATUS		
NPL status: **X** Final Deleted Other (specify)		
Remediation status (choose all that apply): Under Construction **X** Operating Complete		
Multiple OUs: Yes **X** No	**Construction completion date:** September 21, 1999	
Has site been put into reuse? **X** Yes (part of the site) No		
REVIEW STATUS		
Lead agency: **X** EPA State Tribe Other Federal Agency		
Author Name: Howard Caine		
Author Title: Remedial Project Manager	**Author affiliation:** U.S. EPA Region 5	
Review period: December 13, 2006 to July 6, 2007		
Date(s) of site inspection: January 25, 2007		
Type of review: **X** Post-SARA Pre-Sara NPL-Removal Only Non-NPL Remedial Action Site NPL State/Tribe-lead Regional Discretion		
Review number: 1 (first) 2 (second) **X** 3 (third) Other (specify)		
Triggering action: Actual RA Onsite Construction at OU #1 Actual RA Start at OU#____ Construction Completion **X** Previous Five-Year Review Report Other Specify		
Triggering action date ***(from WasteLan)*****:** Five-Year Report dated September 27, 2002		
Due date ***(five years after triggering action date)*****:** September 27, 2007		

Issues:

- ICs-To determine if effective ICs are in place and maintained, an IC Study is underway
- ICs-To evaluate the IC Study and plan for follow-up actions needed to assure long-term Site stewardship, an IC Plan will be prepared
- An ESD for the 1988 ROD must be completed to document that groundwater extraction wells in Plume 2 will not be installed
- Seventy-seven parcels of land were found in the City of Eau Claire which could be on private wells

Recommendations and Follow-Up Actions:

- An IC Study needs to be performed and evaluated at the Site to determine if current ICs are protective of human health and the environment
- An IC Plan will be prepared to evaluate ICs and implement any necessary follow-up activities
- An ESD will be prepared as an Administrative Matter
- Need to determine status of these parcels and determine if the ground water is being consumed by the tenants of these properties and if municipal water is available to these parcels

Protectiveness Statement(s):

The remedy at ECMWF currently protects human health and the environment in the short term because the operation of the air strippers effectively removes the contaminants from the drinking water used by the City of Eau Claire. However, in order for the remedy to be protective in the long-term, effective institutional controls must be in-place and maintained until the groundwater cleanup standards are achieved throughout the plume area. Institutional controls are also necessary to ensure that there continue to be no unacceptable exposures to the contaminated groundwater. Institutional controls in the form of local ordinances are currently in place, which require that city residents connect to the municipal water supply, and prohibit any cross connection between private wells and the municipal water supply. The City of Eau Claire recently discovered, however, 77 parcels of land which do not receive water bills. The City is concerned that the owners of these parcels may be using private water wells for drinking water purposes, and that the well water could be contaminated above drinking water standards. City personnel are going to physically inspect each of these parcels to determine whether the property is actually already hooked up to the municipal water supply; if the property has a groundwater well on-site; and whether, if it is not currently connected, the property should be connected to the City of Eau Claire municipal water system (if feasible). The City is also in the process of establishing a well abandonment program which will require the abandonment of all private water wells on properties connected to the municipal water supply. An evaluation of the effectiveness of these institutional controls will be included in the general IC Study currently underway in connection with this five-year review.

Five-Year Review Report

I. Introduction

The Purpose of the Review

The purpose of a five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of the review are documented in a Five-Year Review report. In addition, a Five-Year Review report identifies issues found during the review, if any, and includes recommendations to address them.

Authority for Conducting the Five-Year Review

The Agency is preparing this five-year review pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

The Agency interpreted this requirement further in the National Contingency Plan (NCP); 40 CFR §300.430(f)(4)(ii) states:

If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.

Who conducted the Five-Year Review

The United States Environmental Protection Agency (U.S. EPA) Region 5 conducted this statutory five-year review of the remedial actions implemented at the Eau Claire Municipal Well Field (ECMWF) located in Eau Claire, Wisconsin. The Wisconsin Department of Natural Resources (WDNR) also participated in this five year review. This review was conducted from December 2006 through July 2007. This report documents the results of the review.

Other Review Characteristics

This is the third five-year review for the ECMWF site. The triggering action for this review is the date of the previous five-year review, as shown in U.S. EPA's WasteLAN database: September 27, 2002. This is a statutory review: the final ROD for the ECMWF site was signed March 31, 1988. The review is being conducted because there are hazardous substances, pollutants, or contaminants left on site above levels that allow for unlimited use and unrestricted exposure at the related National Presto Industries (NPI) site.

The Five Year Review for NPI is being done under separate cover and is being written by the WDNR. For more detailed information on NPI, please see the Final Five Year Review report for the NPI site.

II. Site Chronology

Activity	Date
Site Proposed for NPL	9/8/1983
Site Becomes Final on NPL	9/21/1984
Combined RI/FS Start	11/27/1984
Combined RI/FS Complete	3/31/1988
Interim Remedial Action ROD	6/10/1985
Final ROD	3/31/1988
Remedial Action Start	10/24/1989
Remedial Action Complete	7/1/1990
Construction Complete	9/28/1992
First Five-Year Review	9/29/1997
Second Five-Year Review	9/27/2002

III. Background

Physical Characteristics

The ECMWF is located in the Chippewa River Valley, east of the Chippewa River and approximately 2.5 miles west of the NPI site. Both sites and their locations relative to one another are shown in the attached Figures (Attachment 2). The ECMWF consists of 15 municipal groundwater wells in two adjoining well fields (five in the north well field and ten in the south) which provide drinking water to approximately 60,000 residential and commercial users. All municipal wells are completed in the glacial outwash sand and gravel aquifer. In addition to these municipal wells, a number of private wells previously drew drinking water from this sand and gravel aquifer. This sand and gravel aquifer is hydraulically connected to the underlying sandstone aquifer, which is not used extensively in the area due to its low hydraulic conductivity and the water's poor aesthetic qualities. The well field is about a mile long and trends generally in a north-south direction. Land use in the area around the well field is primarily residential.

Land and Resource Use

This site has been a well field for the city for the past 70+ years. According to city personnel, prior to that time it was forested land.

Current land use in the surrounding area is primarily residential, with a small park to the south and the Eau Claire airport about one-quarter mile east of the northern portion of the city well field. It is anticipated that these land uses will continue into the foreseeable future.

History of Contamination and Initial Response

In March 1981, as part of the U.S. EPA Groundwater Supply Survey, the WDNR tested the Eau Claire municipal water supply for volatile organic compounds (VOCs). Trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), and 1,1,1-trichloroethane (1,1,1-TCA) were detected in samples collected from the north well field. The WDNR informed the City of Eau Claire that the concentrations for each of the VOCs detected in the finished water were below Wisconsin groundwater standards. In addition to monitoring individual municipal production wells, the City began testing private residential wells located immediately northeast of the well field. VOCs were detected in several of the residential wells sampled at levels above Wisconsin groundwater standards.

U.S. EPA initiated a Remedial Investigation/Feasibility Study (RI/FS) at the ECMWF site in October 1984. Based on groundwater monitoring data from private wells and monitoring wells installed as part of the field investigation, the ECMWF RI identified two distinct plumes of contamination at the site, separated by a gap of approximately 1,700 feet at the Eau Claire County Airport. The ECMWF RI failed to confirm the source of the groundwater contamination at the well field. (The nearby NPI property was not investigated as a potential source of the groundwater contamination at the ECMWF site since an RI of the separately listed NPI site was ongoing pursuant to an Administrative Order by Consent between NPI, WDNR and U.S. EPA. The ECMWF RI did suggest, however, that past waste disposal practices at, and waste materials located on, the NPI property might be a source of the groundwater contamination at the nearby well field. It was later determined that the Potentially Responsible Parties (PRPs) for this site were National Presto Industries and National Defense Corporation).

On June 10, 1985, U.S. EPA issued a Record of Decision (ROD) which selected a packed column air stripper as an Initial Remedial Measure (IRM) to address contamination at the municipal well field. Construction of the air stripper was completed in June 1987, and the system became operational on August 1987.

Following the completion of the RI/FS, the final ROD for the ECMWF site was issued on March 31, 1988. The major components of the selected remedy were:

1. continued treatment of contaminated municipal water with the air stripper

constructed as the IRM;

2. provision of municipal water from the City of Eau Claire to private well users within or near the two plumes of groundwater contamination identified and mapped during the RI;
3. installation of groundwater extraction wells in one of the two plumes of contamination (Plume 2); and
4. discharge of untreated groundwater from extraction wells to the Chippewa River.

The WDNR concurred with the remedy selected by U.S. EPA for ECMWF. Because no continuing source of groundwater contamination had been identified in the ECMWF RI, the final ROD estimated a five-year cleanup time for Plume 2. (U.S. EPA was later to learn, however, that this estimate was incorrect. Data generated during the NPI RI clearly established that waste disposal areas at the NPI site were the source of contamination at the ECMWF site, and indeed, continued to release contaminants to groundwater).

Remedial design for the air stripper selected as the IRM in the 1985 ROD was completed in February 1986. Construction commenced in July 1986 under the management of the U.S. Army Corps of Engineers, St. Paul, Minnesota District. Construction of the air stripper continues to operate effectively in removing VOCs from the contaminated groundwater in the north well field prior to introduction into the City's treatment and distribution system.

To provide an appropriate margin of safety for private well users, the ECMWF final ROD established a 2,000 foot buffer zone around Plumes 1 and 2. U.S. EPA determined that an alternate water supply should be made available to all private well users within the plumes or the buffer areas. Initially, U.S. EPA determined that the provider of drinking water should be the City of Eau Claire.

Sixteen private wells were identified within Plume 1 and adjacent buffer zone. Most of these wells were located northeast of the well field in the unincorporated Town of Hallie. The City of Eau Claire's long-standing policy regarding extension of municipal services required the private well users to annex to the City of Eau Claire in order to receive municipal drinking water. The sixteen properties within the Plume 1 duly annexed to the City of Eau Claire.

Superfund monies were provided to the State by means of a Cooperative Agreement. The State, with its required ten percent match, entered into an agreement with the City of Eau Claire to implement the selected remedy. Extension of the Eau Claire municipal water supply to these sixteen properties was initiated in the fall of 1989 and completed in early summer 1990.

The provision of an alternate water supply to those areas in and adjacent to Plume 2 proved more problematic. Data generated during the NPI RI had revealed that the extent of contamination was significantly greater than U.S. EPA had believed to be the case at the conclusion of the ECMWF ROD. Groundwater contamination extended more than

one mile north of the NPI site into the Town of Hallie, terminating at its discharge point, Lake Hallie. Within this area were more than 200 private wells drawing water from the contaminated aquifer.

After issuance of the final ECMWF ROD, it also became apparent to U.S. EPA and WDNR that, because of the sensitive nature of providing municipal services to unincorporated areas, the selected remedy in the ECMWF ROD presented political and technical difficulties. Furthermore, the remedy was not likely to be implemented due to a lack of community acceptance in the Town of Hallie. U.S. EPA decided, accordingly, to delay implementation of this component of the ECMWF ROD until a more thorough study of the problem could be completed.

On April 25, 1989, U.S. EPA issued a Section 106 Administrative Order to NPI to execute remedial action tasks consistent with the ECMWF final ROD and the data generated in the NPI RI. These activities included implementation of a temporary bottle water distribution program for those areas in and adjacent to the redefined Plume 2 or affected area. NPI was also required to conduct a Phased Feasibility Study (PFS) to identify and reevaluate options for a permanent alternate drinking water supply for the affected area. (To ensure consistency with the ECMWF final ROD, bottled water was to be made available to all private well users in the affected area until a permanent and uncontaminated drinking water supply was fully implemented and operational.)

On August 1, 1990, U.S. EPA issued a ROD for the NPI site selecting a permanent drinking water supply for Plume 2's redefined affected area. Under this ROD, the City of Eau Claire would extend it municipal service to those portions of the affected area that had annexed to the City. The remaining portions of the affected area were to be serviced by a newly-created Hallie Sanitary District (District). Remedial design of the respective components of this remedy commenced in September 1990. U.S. EPA approved the design in February 1991.

In March 1991, U.S. EPA issued a second Section 106 Administrative Order to NPI and its wholly-owned subsidiary, National Defense Corporation (NDC) requiring the companies to implement the approved design. Construction of the District and City of Eau Claire components commenced in April 1991 and July 1991, respectively. The City of Eau Claire hookups were completed by November 1991. The first service connections to the District were completed in December 1991 and by mid-summer 1992 the District was fully operational and servicing the affected area within the Town of Hallie.

U.S. EPA conducted a pre-certification inspection of the District on August 19, 1992. Upon completion of the certification process by the Agency and satisfaction of the terms of the Administrative Order by NPI and NDC, the District assumed full control and responsibility (including operation and maintenance) of its drinking water system.

The NPI RI confirmed the presence of a continuous contaminant plume originating from waste disposal areas at the NPI site and extending to the ECMWF. Consequently, remediation of off-site groundwater (including the formerly identified Plume 2) was

addressed in the final FS for the NPI site in conjunction with remediation of on-site source areas. NPI implemented an interim action for on-site plume containment pursuant to a third Section 106 Administrative Order issued to NPI on July 2, 1992. This action was designed to be consistent with the final cleanup action for the NPI site by preventing the off-site movement of contaminated groundwater through extraction and treatment. This alternative was selected in an Interim Action ROD issued by U.S. EPA on September 30, 1992.

Operation and maintenance (O&M) requirements outlined in the O&M Plan for the IRM were: (1) routine maintenance of the air stripper as described in the manufacturer's manual; and (2) sampling and analysis requirements of stripper influent and effluent, as previously discussed. TCE, 1,1-DEC, 1,1-DCA, 1,1,1-TCA and tetrachloroethene (PCE) are monitored regularly to ensure compliance with Wisconsin Health Advisories and Maximum Contaminant Limits (MCLs) for drinking water by the City of Eau Claire.

During the first month of operation (August 1987), influent to the air strippers was sampled and analyzed weekly for the VOCs of concern. Influent and effluent have been tested monthly thereafter. Influent and effluent samples are analyzed for VOCs according to modified Method 601 of 40 CFR 136.

The permanent alternate drinking water supply for: (1) private well users within Plume 1 and its adjacent buffer zone; and (2) the affected area near NPI site, was an extension of the municipal system owned and operated by the City of Eau Claire. All design plans and specifications for the construction of these extensions of the municipal water system were approved by WDNR's Bureau of Public Water Supply and U.S. EPA. The operation of the Eau Claire municipal water system is strictly regulated and monitored by applicable Wisconsin Administrative Codes and the Safe Drinking Water Act. All customers of the municipal system are billed pursuant to the user rates approved by the Wisconsin Public Service Commission (PSC).

Similarly, the operation of the District is governed by the requirements set forth in applicable Wisconsin Administrative Codes and the Safe Drinking Water Act. The District was created in September 1989 pursuant to applicable State laws. As the State regulatory agency, the PSC authorized the District to construct and operate as a water utility on June 13, 1990. Design plans and specifications for the production well, reservoir and distribution system were approved by WDNR's Bureau of Public Water Supply and U.S. EPA in early 1991. Following construction completion in early summer 1992, WDNR inspected the District on July 15, 1992, and found overall system operation and performance to be excellent and in compliance with applicable State laws. The District had also employed an operator with appropriate training and certification to perform and ensure continued operation and maintenance.

The District is generating revenue in accordance with the user rates established by the PSC. U.S. EPA conducted a pre-certification inspection of the District on August 19, 1992, and formally certified the District in the fall of 1992, thereby entrusting the District with full responsibility (including fiscal) for operation and maintenance of the drinking

water system.

The investigations at both the ECMWF and NPI sites utilized the operable unit approach to address the principal threat at each site: drinking water supplies contaminated from source areas at the NPI facility. The 1985 interim remedy and the 1988 final remedy at the ECMWF site included remedial measures intended to protect a municipal drinking water supply and provide an alternate drinking water supply to homes near the well field with private wells that were contaminated or threatened by contamination. The 1990 remedy for the NPI site provided for a permanent alternate drinking water supply for over 200 private well users near the NPI site in the City of Eau Claire and Town of Hallie. All remedial actions have been successfully implemented and are operating effectively and efficiently, thus offering protectiveness in each instance. (The City of Eau Claire recently discovered that there were 77 parcels of land which did not receive water bills. The city personnel are going to be physically inspecting each of these parcels to determine whether the property is actually already hooked up to the municipal water supply or not. See 'Institutional Controls' on page 9 of this report for further discussion).

The September 28, 1992 Close Out Report for the ECMWF stated that an ESD was being written concurrently with it. U.S. EPA recognized that, because an element of the remedy selected in the ECMWF ROD was not being implemented, an Explanation of Significant Differences (ESD) was required. A search through U.S. EPA databases and files indicates the ESD was never issued. The NPI RODs are also silent on requiring the installation of extraction wells and discharging the untreated groundwater into the Chippewa River. Therefore, an ESD will have to be written for administrative purposes; the extraction wells will not be installed and the untreated groundwater will not be discharged to the Chippewa River.

U.S. EPA and WDNR determined that the remedies selected in the IRM and final ROD for the ECMWF site were fully implemented and continue to be protective of human health. Safeguards are in place to ensure their continued efficient and effective operation. Unless additional or modified institutional controls are necessary (see below), U.S. EPA contemplates no further remedial action in connection with the ECMWF site. Remediation of off-site groundwater was addressed in the final ROD for the NPI site, which now encompasses ECMWF.

Five Year Reviews were completed for the ECMWF in 1997 and 2002. Although there had been significant improvements in groundwater quality at the city well field, the recommendation of those reviews were for the continued operation of the air stripper.

Basis for Taking Action

The ECMWF ROD dated March 1988 states that "EPA will cleanup the groundwater to non-detect for these compounds and continue to pump and treat for a period of time beyond the non-detect to assure that the target compound limits (TCLs) have been reached." The TCLs included:

Plume 1: 1,1-DCE (0.1 ppb), TCE (0.5 ppb) and PCE (0.01 ppb)

Plume 2: 1,1-DCE (0.007 ppb), TCE (0.4 ppb), PCE (0.09 ppb) and Chloroform (0.06 ppb)

The ROD explains that the TCLs were intentionally set low to protect against cumulative carcinogenic effects. The cumulative carcinogenic risk for the site was set at 1 x $10E^{-06}$ and apportioned the risk across several of the site's volatile organic compounds. In order to provide the desired protectiveness, the TCLs needed to be lower than the federal drinking water standards also known as MCLs.

The NPI ROD dated May 1996 states the selected remedy for addressing plumes 1/ 2 included continued operation of the ECMWF air stripper. The ROD further stated that the groundwater cleanup goals which must be achieved within a reasonable period of time for the contaminants of concern are the Preventive Action Limits (PALs). A reasonable period of time was defined in the ROD as 30 years. (See previous section discussion on how ECMWF air strippers are part of the overall NPI remedy. Thus, the PALs are the standard that has to be met for both the NPI and ECMWF sites.) The determination whether additional measures will be required for Plumes 1/ 2 will be based upon compliance/or projected compliance within a reasonable period of time. The 1996 ROD for the NPI site, third Operable Unit, states that U.S. EPA will evaluate the effectiveness of the selected remedy as part of the 5-Year Review process. "If the data available at the first such review is insufficient for a reliable trend analysis, evaluation of remedy performance will be completed in subsequent review...The 5-Year Review would also evaluate the technical impracticability of attaining PALs in the groundwater."

The operation of the air stripper at the ECMWF eliminates human exposure to the contaminated groundwater from Plumes 1/ 2 from the NPI site.

IV. Remedial Actions

Remedy Selection

The final remedy for the ECMWF site was developed to protect public health and the environment by preventing ingestion and inhalation of contaminants found in groundwater and by restoring the contaminated aquifer. The remedy was selected to meet these objectives. The major components of the selected remedy were:

- Treat municipal water with an existing air stripper;
- Provide municipal water to private well users within or near the area of groundwater contamination;
- Install groundwater extraction wells in the plumes of contaminated groundwater; and
- Discharge untreated groundwater from the extraction wells into the Chippewa River.

Monitoring of the influent and effluent at the air stripper continues to document that the implemented remedy is functioning properly and is protective of human health and the environment.

After the ECMWF ROD was issued, WDNR determined that the discharge of untreated groundwater from the proposed extraction wells into the Chippewa River was not allowed under Wisconsin law. As a result, that component of the ECMWF remedy was never implemented. As stated above, an ESD was supposed to be written about the elimination of the groundwater extraction wells installation and the discharge of the untreated groundwater from these extraction wells to the Chippewa River. The ESD was never written.

Remedy Implementation

Construction completion for the Site was documented in a close-out report dated September 28, 1992.

The air stripper has been in constant operation since completion of the interim remedial action in 1987. A permanent municipal water supply has been provided to affected private well owners in the City of Eau Claire and a permanent municipal water supply was constructed and is operating in the Town of Hallie and provides its residents with drinking water. The groundwater extraction wells at/near the city well field were never installed because Wisconsin law prohibits the discharge of untreated contaminated water.

Institutional Controls

Institutional Controls (ICs) are required to ensure protectiveness of the remedy. ICs are non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for exposure to contamination and protect the integrity of the remedy. Compliance with ICs is required to assure long-term protectiveness for any areas which do not allow for unlimited use or unrestricted exposure (UU/UE).

The NPI 1996 ROD states:

> Institutional controls are in effect to prevent area residences and businesses in Plumes 1-2, 3, 4 and 5 from using wells in the area for drinking water. Residences in the area supplied with municipal water are allowed to use private wells for other purposes, such as irrigation and car washing, as long as there is no connection to indoor plumbing. To use these wells, property owners must submit applications for annual permits to either the City of Eau Claire's Health Department or Hallie Sanitary District. (pp. 26, 44)

Hence, the NPI ROD acknowledges that the ICs are required to ensure the protectiveness of the remedy until the water meets the TCLs. To make sure the requirement is clear, U.S. EPA will evaluate whether the ROD must be clarified or amended to clarify the ICs.

Institutional Controls Summary Table		
Media, Engineered Controls, & Areas that Do Not Support UU/UE Based on Current Conditions	**IC Objective**	**Title of Instrument Control Instrument Implemented (note if planned)**
Groundwater	Prohibit potable use of groundwater unless treated until cleanup standards are achieved	Eau Claire City/County Department of Public Health Ordinances and City of Eau Claire Water Ordinances, Under Review
Eau Claire Municipal Well Field Air Strippers	Prohibit interference except maintenance and protect integrity of the remedy	Eau Claire City/County Department of Public Health Ordinances and City of Eau Claire Water Ordinances, Under Review

Institutional controls in the form of local ordinances are currently in place, which require that city residents connect to the municipal water supply, and prohibit any cross connection between private wells and the municipal water supply. (See Attachment 7.) The City of Eau Claire recently discovered, however, 77 parcels of land which do not receive water bills. The City is concerned that the owners of these parcels may be using private water wells for drinking water purposes, and that the well water could be contaminated above drinking water standards. City personnel are going to physically inspect each of these parcels to determine whether the property is actually already hooked up to the municipal water supply; if the property has a groundwater well on-site; and whether, if it is not currently connected, the property should be connected to the City of Eau Claire municipal water system (if feasible).

The State of Wisconsin also has codes for Safe Drinking Water (NR 809) and Requirements for the Operation and Design of Community Water Systems (NR 811) which may act as institutional controls.

The City of Eau Claire is in the process of developing a well abandonment program. The City is working with WDNR on this ordinance, which is expected to be completed in the autumn of 2007.

An IC study has been requested from the PRPs and is in progress. (The PRPs agreed to conduct the IC study on December 28, 2006.) The IC Study will include an evaluation of the effectiveness of all current institutional controls to prevent the use of private wells for drinking water purposes. Once this IC study has been completed by the PRPs, an IC plan will be completed by U.S. EPA to evaluate the IC study and plan for appropriate actions to assure the long-term protectiveness of the remedy. Maps which depict the current conditions of the site and areas which do not allow for Unrestricted Use/Unlimited Exposure (UU/UE) will be developed as part of the IC Study.

To assure long term stewardship of the Site, compliance with the ICs is required. To ensure compliance with ICs, the O&M plan needs to be modified to assure effective ICs are monitored and maintained. This will be planned for in the IC Plan.

Institutional Controls relating to the Town of Hallie will be discussed in the NPI Five Year Review.

System Operations/Operation and Maintenance (O&M)

An operation and maintenance (O&M) plan was prepared for the air stripper at the ECMWF. The plan discusses the operation and monitoring requirements for the air stripper and the quality assurance/quality control (QA/QC) procedures. Monitoring requirements were established for both influent into and effluent from the packed column air stripper. These monitoring requirements include specific sample frequencies, analytical methods/parameters and QA/QC procedures. The plan also describes routine maintenance following manufacturers' recommended schedules and the sampling and analytical requirements for both the influent and effluent. The plan was designed to be consistent with applicable state regulations and the Safe Drinking Water Act. The City of Eau Claire also conducts monthly VOC analysis in its own laboratory of the influent to and the effluent from the air stripper. Samples are also sent to a laboratory certified by the State of Wisconsin for analyses in accordance with the Safe Drinking Water Act requirements. Groundwater monitoring data collected by Gannett Fleming (NPI Consultant) documents significant improvement in ground water quality as a result of the remediation work at NPI. The Five Year Review Inspection report (Attachment 4) provides information which depicts the decreasing concentrations of contamination in influent to the air strippers.

The O&M is performed by the City of Eau Claire. O&M cost records were provided after the site visit. The annual operations and maintenance costs for 2006 were $61,397.48. The total operations and maintenance costs since start-up of the air strippers were $1,225,476.03. National Presto Industries pays 90% of the cost for operation of the air strippers. There were no unanticipated or unusually high O&M costs.

The Consent Decree (CD), 93C 0610C, was filed on October 29, 1993. It required that NPI and NDC pay the United States $3,953,573.62 for Past Response Costs at the ECMWF. The CD also required that NPI and NDC be liable for all Operation and Maintenance Costs until such time that EPA determines, consistent with the final Record of Decision for the National Presto Industries Superfund site that the obligation shall cease. NPI's and NDC's obligation for O&M costs was satisfied by reimbursement to the City of Eau Claire of all such O&M costs incurred by the City of Eau Claire.

As mentioned above, the O&M plan needs to be modified to assure effective ICs are monitored and maintained.

V. Progress since Last Review

This is the third 5-Year Review for this site. The first 5-Year Review for this Site was completed on September 29, 1997. During that review, the U.S. EPA concluded that the remedy selected for the ECMWF continued to be "protective of human health and the environment." It recognized that the air stripper and alternate water supply have been implemented and that groundwater quality at/near the ECMWF continued to improve. The recommendation was "that the City of Eau Claire continues operation of the air stripper, as designed, until final groundwater cleanup levels set forth in the NPI ROD (below NR 140 PALs) are achieved." During the subsequent five years, the City has continued to operate the air stripper, and analytical data confirm that it remains effective in removing the very low and decreasing concentration of VOCs found in a few of the municipal wells. Additionally, the City continues to maintain its ordinance prohibiting cross connections between private wells and the municipal water supply system.

The data indicates that the levels of VOCs in Plumes 1/ 2 are declining. However, the data shows that the influent to the air stripper has exceeded the Preventative Action Limits (PALs) for trichloroethene (TCE) from groundwater monitoring wells EC-1 and EC-2. Furthermore, there have been exceedances of the Maximum Contaminant Levels (MCLs) for TCE in wells upgradient to the well field in 2006. Therefore, the system has not met the shut down criteria on a consistent basis. The data is presented in Attachment 3.

At least some improvement in the groundwater quality is attributable to the on-site pump and treat system (cascade aerators) implemented at the NPI site. These cascade aerators are located near the source of ground water contamination of TCE and remove and treat groundwater upgradient of the ECMWF. The groundwater removed and treated by the cascade aerator system is discharged to the sewer. (See NPI Five Year Review for more information.)

Although there are some concentrations of VOCs remaining in the groundwater, the vast majority of this residual contamination remains in approximately 6 of the original 14 municipal wells. Additionally, what may initially appear as a slight increase of contaminant concentrations of the less chlorinated compounds may be a result of the de-chlorination of more highly chlorinated compounds through natural chemical break down processes (i.e. natural attenuation). Groundwater from the municipal wells will continue to be monitored to assure that the progress is continuing. In accordance with the RODs, the groundwater clean up goals for the contaminants of concern is the PALs (which must be achieved within a reasonable period of time).

U.S. EPA has encouraged NPI to continue looking at possible upgrades to keep the ECMWF air stripping towers operational, whether it is as a result of EPA action or a result of necessity to modify the City water system due to changing needs of the City of Eau Claire.

During the 2002 Five Year Review, small containers of paint were observed in the treatment building near the air strippers' influent area. No paint containers were observed in the treatment building during this Five Year Review. No areas of concern were identified in the 1997 Five Year Review which would require follow-up.

VI. Five-Year Review Process

Administrative Components

Representatives of the WDNR and the City of Eau Claire were notified of the initiation of the Five-Year Review in December 2006 (Attachment 1). The review team included:

Howard Caine, U.S. EPA

Eileen Kramer, WDNR

Jeff Pippenger, City of Eau Claire
Brian Amundson, City of Eau Claire
Kathy White, City of Eau Claire
Tim Greene, City of Eau Claire

Dave Olig, Gannett Fleming
Cliff Wright, Gannett Fleming

Monitoring data and documents were reviewed. The site inspection was conducted on January 25, 2007. Representatives from the City of Eau Claire were interviewed. Gannett Fleming, NPI's consultant, participated in the site visit.

Community Notification and Involvement

The public was notified of this Five-Year Review on December 18, 2006 in the Eau Claire Leader Telegram newspaper (Attachment 6). Neighbors near the ECMWF were interviewed by U.S. EPA and WDNR. See, "Interviews," below.

Document Review

The RPM reviewed the RODs, Consent Decree and data generated for ECMWF and NPI Superfund sites.

Data Review

The data was reviewed from the 'Annual Interim Remedial Action Status Report,' prepared by Gannett Fleming consultant to NPI, beginning with the 2002 report. The data is provided in Attachment 3.

Site Inspection

An official Site inspection was conducted on January 25, 2007, hosted by the City of Eau Claire. The water plant equipment, air strippers and fencing were all intact. A follow-up inspection of the groundwater monitoring wells at ECMWF was done on June 21, 2007. All the groundwater monitoring wells were properly labeled and locked. They also appeared to be in good condition. A copy of the inspection report is included in Attachment 4.

Interviews

Neighbors of the ECMWF were interviewed. One neighbor complained about a sewer gas smell in his basement. The neighbor believed that it was tree roots in his sewer line causing the problem. The rest of the neighbors interviewed had no comments, questions or concerns with the ECMWF.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

Yes. A review of the relevant documents and the results of the site inspection indicate that the remedy is functioning as intended by the Interim Remedial Measure ROD and the final ROD, and quality of area groundwater has improved. The remedy has progressed because of on-going remedial work at NPI. Groundwater remediation measures are being taken upgradient at the NPI site and these measures have resulted in decreased groundwater contamination at the ECMWF. The air strippers are operating optimally and O&M costs do not indicate a problem with system operations. There have been no problems with the air strippers.

Local ordinances currently require that residents hook-up to municipal water, and prohibit cross connection between private wells and the municipal water supply. The effectiveness of these ordinances to restrict the use of private wells for drinking water purposes will be evaluated by the PRPs in the IC Study.

The PRPs for NPI are conducting an IC Study to ensure that the ICs that are in-place are adequate to prevent exposure to contaminants from NPI and ECMWF. This is documented in an email dated December 28, 2006.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Yes. There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. The Wisconsin PALs remain the cleanup goal for the groundwater quality.

Changes in Standards and To Be Considered (TBC)

There have been no changes in the Applicable or Relevant and Appropriate Requirements (ARARs) and TBCs.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

There have been no changes in the site conditions that would result in increased exposure to site contaminants. Exposure assumptions that were used in the risk assessment are still valid. U.S. EPA considers the assumptions in the risk assessment to be conservative and reasonable in evaluating risk-based cleanup levels. No changes to these assumptions or to the cleanup levels developed from them is warranted. There has been no change in the standardized risk assessment methodology that would affect the protectiveness of the remedy. There have been no changes in the toxicity factors for the COCs.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No. Analytical results from the groundwater monitoring have not indicated a concern of the protectiveness of the remedy. No weather-related events have affected the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy. There have been no newly identified ecological risks. The City of Eau Claire recently discovered that there were 77 parcels of land which did not receive water bills. The city personnel are going to be physically inspecting each of these parcels to determine whether the property is actually already hooked up to the municipal water supply; if the property has a groundwater well on-site; and whether, if it is not currently connected, the property should be connected to the City of Eau Claire municipal water system (if feasible). The Protectiveness of the Remedy will be reviewed again based on the results of the City of Eau Claire's inspections of these 77 parcels of land.

Technical Assessment Summary

According to the data reviewed, the site inspection, and the interviews, the remedy is functioning as intended by the Interim Remedial Measure ROD and the final ROD. There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

VIII. Issues

Until groundwater cleanup standards are achieved throughout the plume area, effective ICs must be in-place and maintained to assure that the remedy remains protective of human health and the environment. NPI has agreed to conduct the IC Study for this site.

The City of Eau Claire recently discovered that there were 77 parcels of land which did not receive water bills. The city personnel are going to be physically inspecting each of these parcels to determine whether the property is actually already hooked up to the municipal water supply; if the property has a groundwater well on-site; and whether, if it is not currently connected, the property should be connected to the City of Eau Claire municipal water system (if feasible).

IX. Recommendations and Follow-Up Actions

Issue	Recommend-ations /Follow-up Actions	Party Respons-ible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
					Current	Future
ICs- To determine if effective ICs are in place and maintained, an IC Study is underway	An IC Study needs to be performed and evaluated at the Site to determine if current ICs are protective of human health and the environment	PRPs	U.S. EPA	**Dec. 31, 2007**	N	Y
ICs- To evaluate the IC Study and plan for follow-up actions needed to assure long-term Site stewardship, and IC Plan will be prepared	An IC Plan will be prepared to evaluate ICs and implement any necessary follow-up activities	U.S. EPA	N/A	**April 30, 2008**	N	Y
An ESD for the 1988 ROD must be completed to document that groundwater extraction wells in Plume 2 will not be installed	An ESD will be prepared as an Administrative Matter	U.S. EPA	N/A	**July 31, 2008**	N	N
Seventy-seven parcels of land were found in the City of Eau Claire which could be on wells	Need to determine status of these parcels and determine if the ground water is being consumed by the tenants of these properties and if municipal water is available to these parcels	City of Eau Claire	U.S. EPA	**July 31, 2008**	N	Y

X. Protectiveness Statement(s)

The remedy at ECMWF currently protects human health and the environment in the short term because the operation of the air strippers effectively removes the contaminants from the drinking water used by the City of Eau Claire. In order for the remedy to be protective in the long-term, effective institutional controls must be in-place and maintained until the groundwater cleanup standards are achieved throughout the plume area. Institutional controls are also necessary to ensure that there continue to be no unacceptable exposures to the contaminated groundwater. Institutional controls in the form of local ordinances are currently in place, which require that city residents connect to the municipal water supply, and prohibit any cross connection between private wells and the municipal water supply. The City of Eau Claire recently discovered, however, 77 parcels of land which do not receive water bills. The City is concerned that the owners of these parcels may be using private water wells for drinking water purposes, and that the well water could be contaminated above drinking water standards. City personnel are going to physically inspect each of these parcels to determine whether the property is actually already hooked up to the municipal water supply; if the property has a groundwater well on-site; and whether, if it is not currently connected, the property should be connected to the City of Eau Claire municipal water system (if feasible). The City is also in the process of establishing a well abandonment program which will require the abandonment of all private water wells on properties connected to the municipal water supply. An evaluation of the effectiveness of these institutional controls will be included in the general IC Study currently underway in connection with this five-year review.

XI. Next Review

The next Five-Year Review for the ECMWF is required five years from the date of this review.

Attachments

- Attachment 1 - Five Year Review Kick-Off Letter
- Attachment 2 - Figures
- Attachment 3 - Groundwater Monitoring Data
- Attachment 4 - Five Year Review Inspection Report, April 5, 2007 & July 2, 2007
- Attachment 5 - IC Study Request and Response
- Attachment 6 - Public Notice of Five Year Review
- Attachment 7 – Local Ordinances

Attachments

Attachment 1 - Five Year Review Kick-Off Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SR-6J

December 13, 2006

Eileen Kramer
Hydrogeologist
West Central Region
Bureau of Remediation and Redevelopment
Wisconsin Department of Natural Resources
P.O. Box 4001
Eau Claire, WI 54702

Re: Notification of Five Year Review Start for the Eau Claire Municipal Well Field and National Presto Industries Superfund Sites

Dear Ms. Kramer:

This letter is to confirm that U.S. EPA and Wisconsin Department of Natural Resources (WDNR) has begun the process of the Five Year Reviews for the Eau Claire Municipal Well Field (ECMWF) and the National Presto Industries (NPI) Superfund sites. U.S. EPA will lead the ECMWF Five Year Review and WDNR will lead the NPI Five Year Review. Statutory Five Year Reviews for the Sites will be conducted at the site as required by Section 121 of CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

The Five Year Review for ECMWF and NPI are due on July 31, 2006 and since there are several topics to be covered in the Review, it is appropriate that U.S. EPA and WDNR provide key parties with at least a six month notification so that we can begin the necessary coordination activities. Necessary activities include such matters as notifying the public of the Five Year Review process and accepting public input, gathering data in order to summarize performance of site hazardous substance and key contaminant treatment devices, arranging for site visits and inspections to review remediation and operation and maintenance functions, develop any pertinent recommendations, etc. We are planning on conducting the site visits during the week of January 22, 2007.

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

I look forward to working with the WDNR, City of Eau Claire and NPI in compiling the Five Year Review reports for the ECMWF and NPI Superfund sites. If you have any questions, please feel free to call me at 312 353 9685 or email me at caine.howard@epa.gov.

Sincerely,

Howard Caine
Remedial Project Manager
U.S. EPA Region 5

cc: S. Linebaugh, Five Year Review Coordinator (SR-6J)
S. Bianchin, Institutional Control Coordinator (SR-6J)
J. Tanaka, Section Chief (SR-6J)
S. Pastor, Community Involvement Coordinator (P-19J)
L. Johnson, Associate Regional Counsel (C-14J)
Derrick Paul, National Presto Industries
Dennis Kugle, Gannet Fleming
Jeff Pippenger, City of Eau Claire

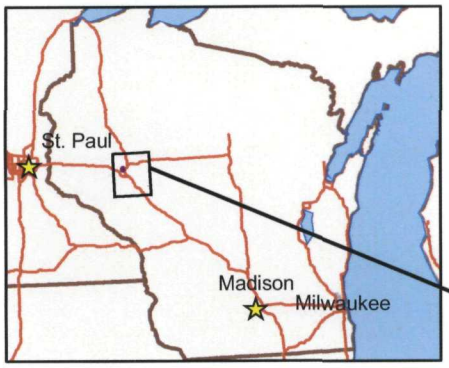
Attachment 2 - Figures

Site Location

Superfund
U.S. Environmental Protection Agency

Eau Claire Municipal Well Field
Eau Claire County, WI

WID980820054



State

County

Site

Figure 1

Produced by Sarah Backhouse
U.S. EPA Region 5 on 6/18/07
Image Date: 2005

N

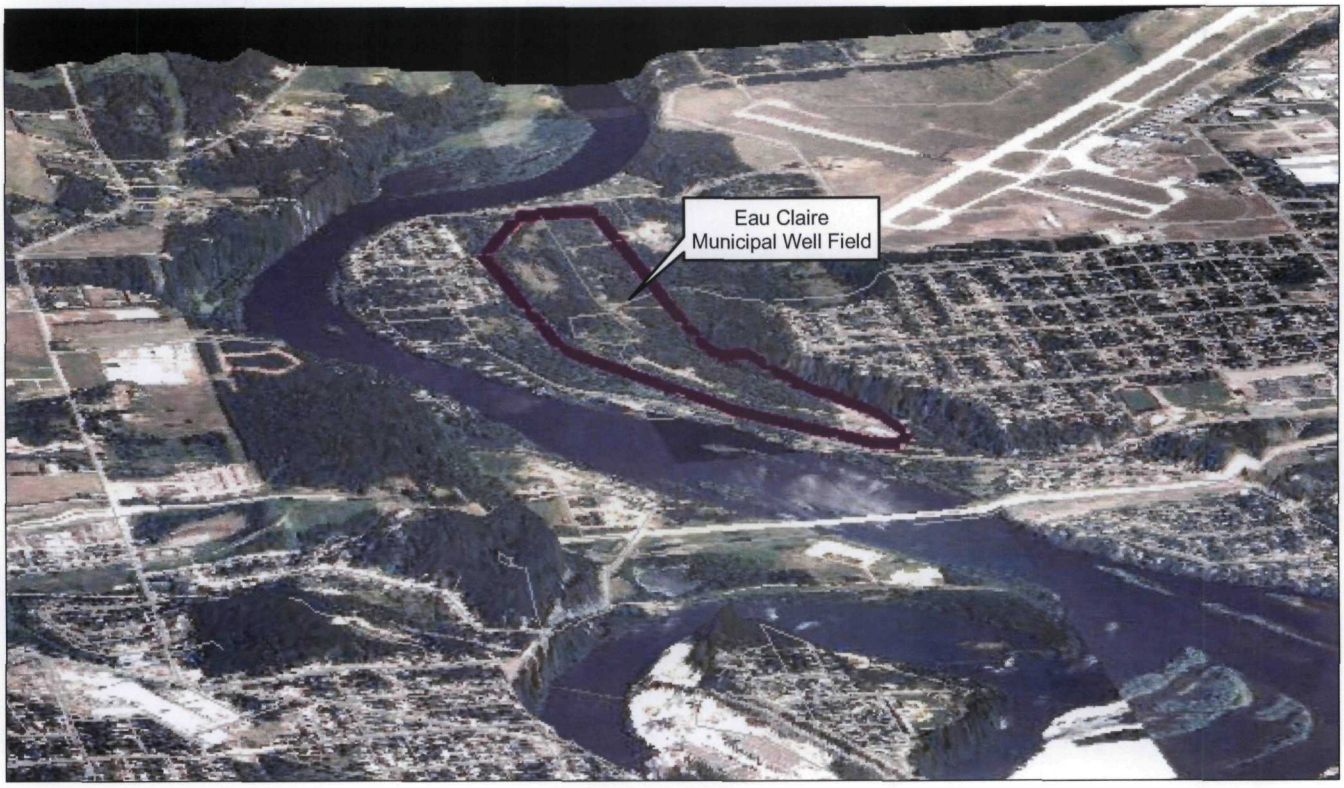
GEOS
Groundwater Evaluation and Optimization System

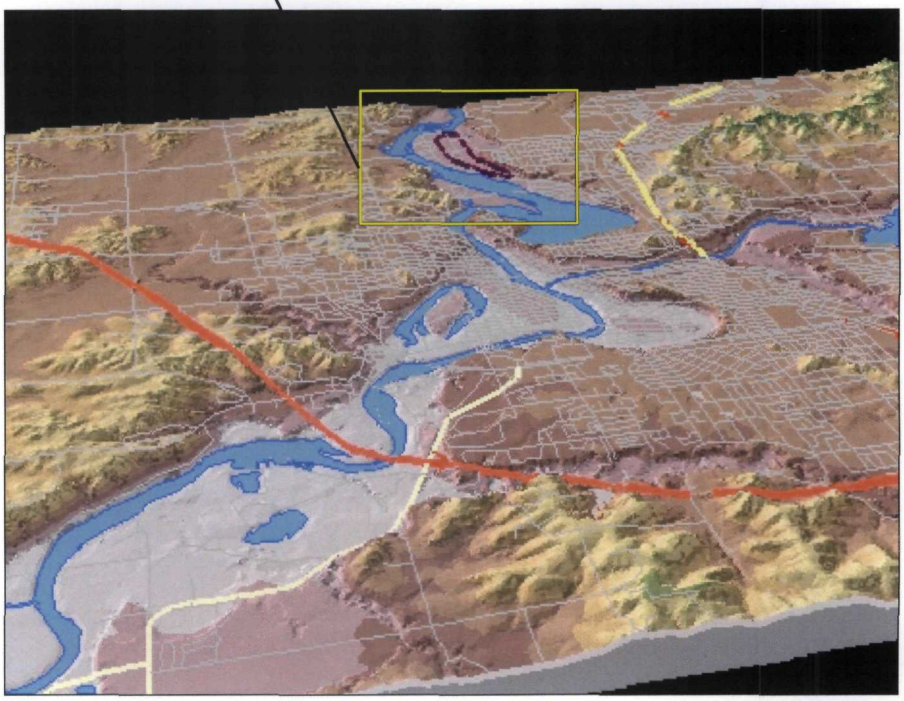
3D Surface Terrain Model

Superfund
U.S. Environmental Protection Agency

Eau Claire Municipal Well Field
Eau Claire County, WI

WID980820054





Elevation Feet

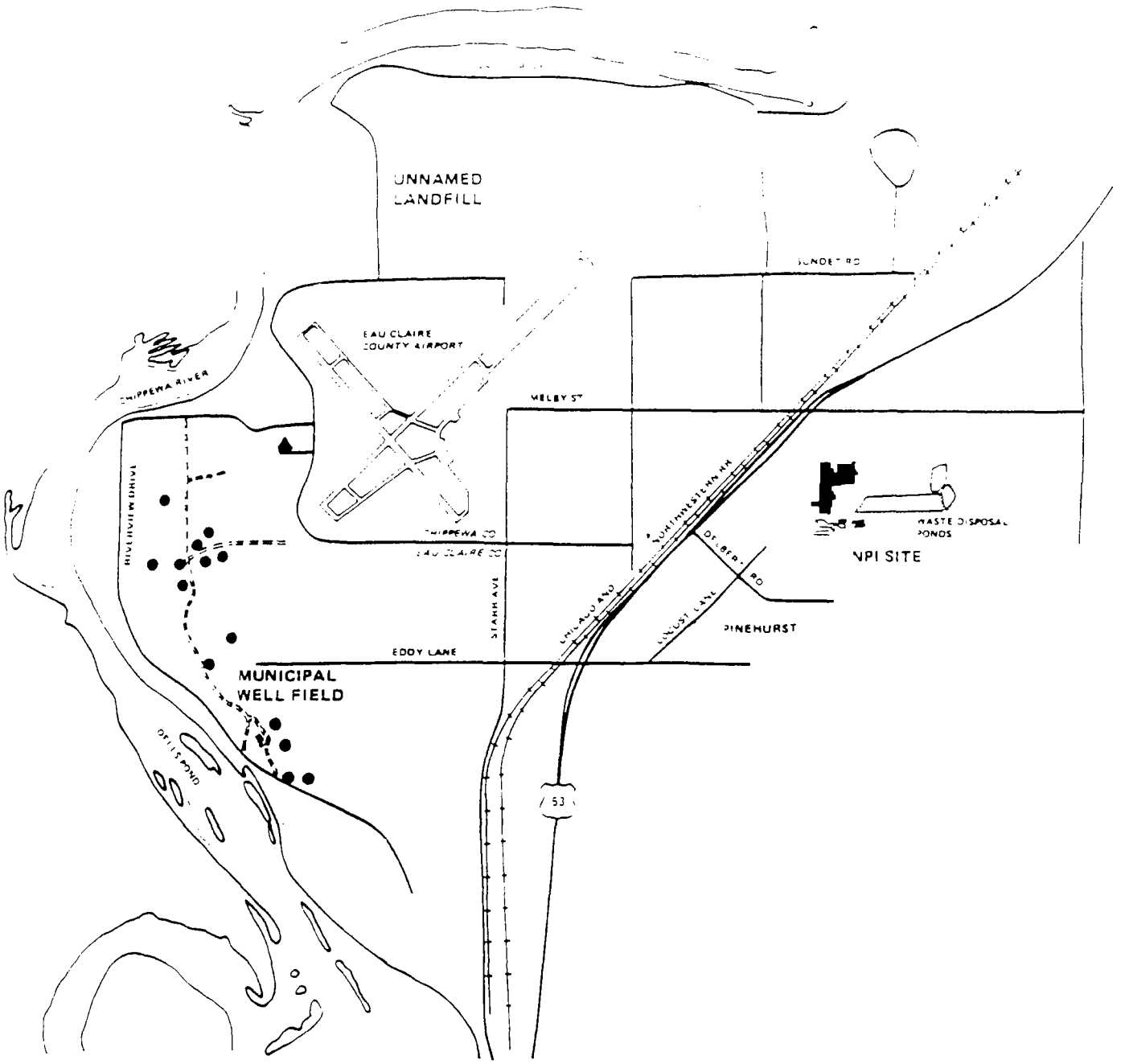
- 1097 - 1142
- 1053 - 1097
- 1008 - 1053
- 963 - 1008
- 919 - 963
- 874 - 919
- 829 - 874
- 785 - 829
- 740 - 785

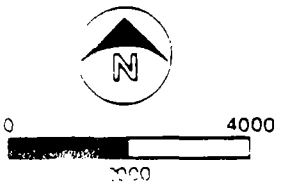
N

GEOS
Groundwater Evaluation and Optimization System

Figure 2

Produced by Sarah Backhouse
U.S. EPA Region 5 on 6/21/07
Image Date: 2005





LEGEND

- APPROXIMATE LOCATION OF ACTIVE CITY WELLS
- ▲ APPROXIMATE LOCATION OF HILLMAN WELL

FIGURE 1
LOCATION MAP
EAU CLAIRE MUNICPAL WELL FIELD

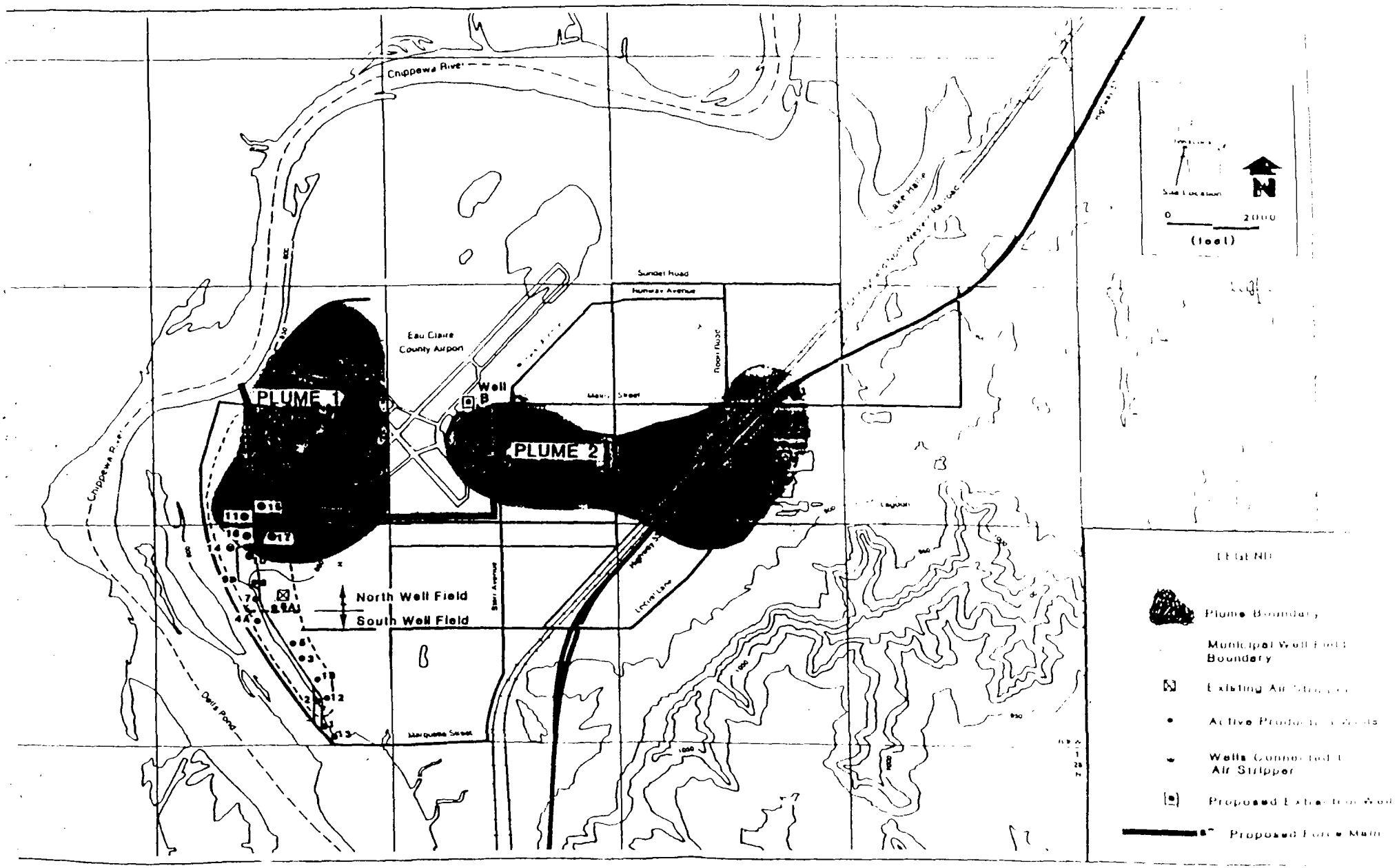
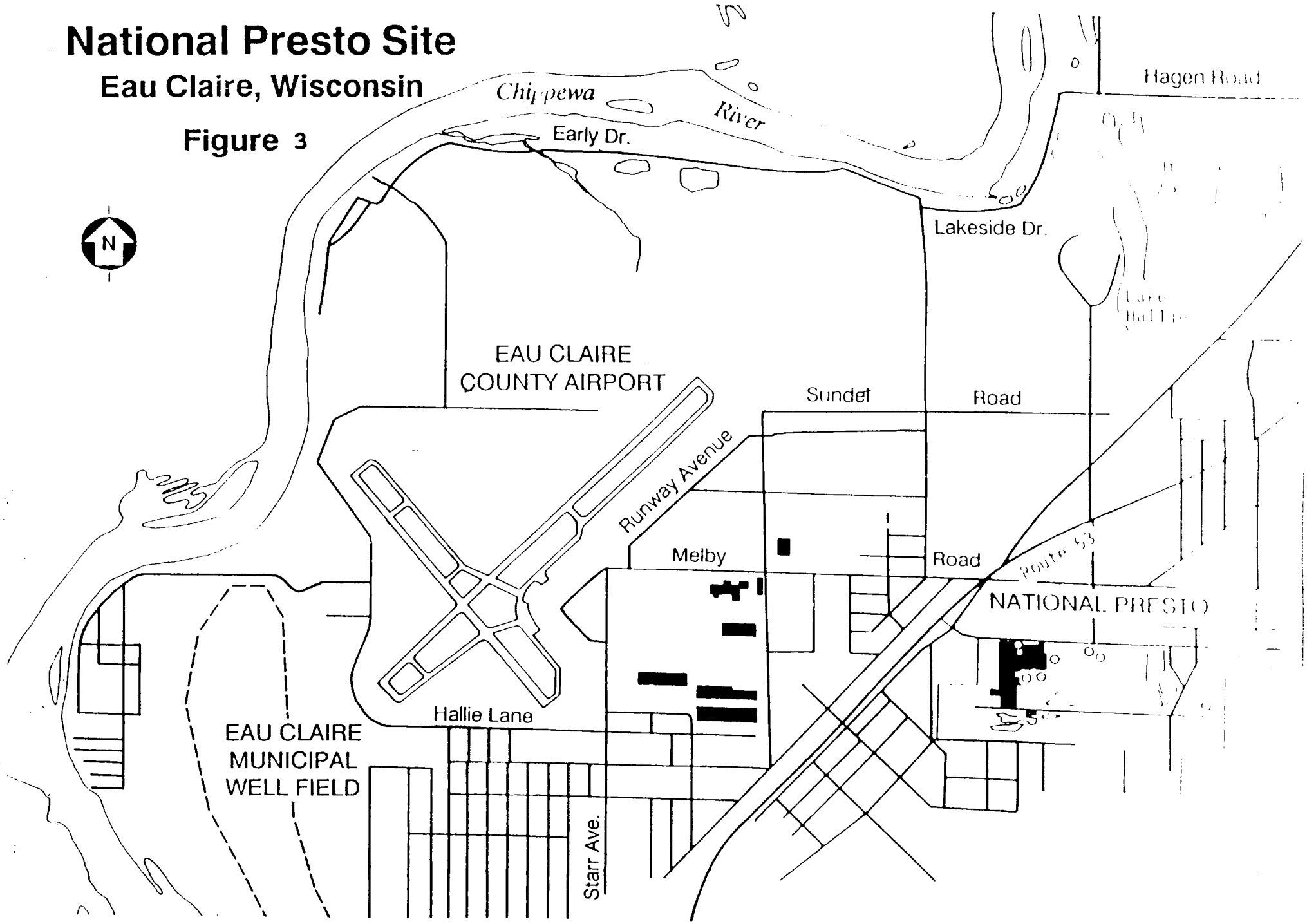


FIGURE 2
PLUMES 1 AND 2 - MARCH 1988

National Presto Site

Eau Claire, Wisconsin

Figure 3

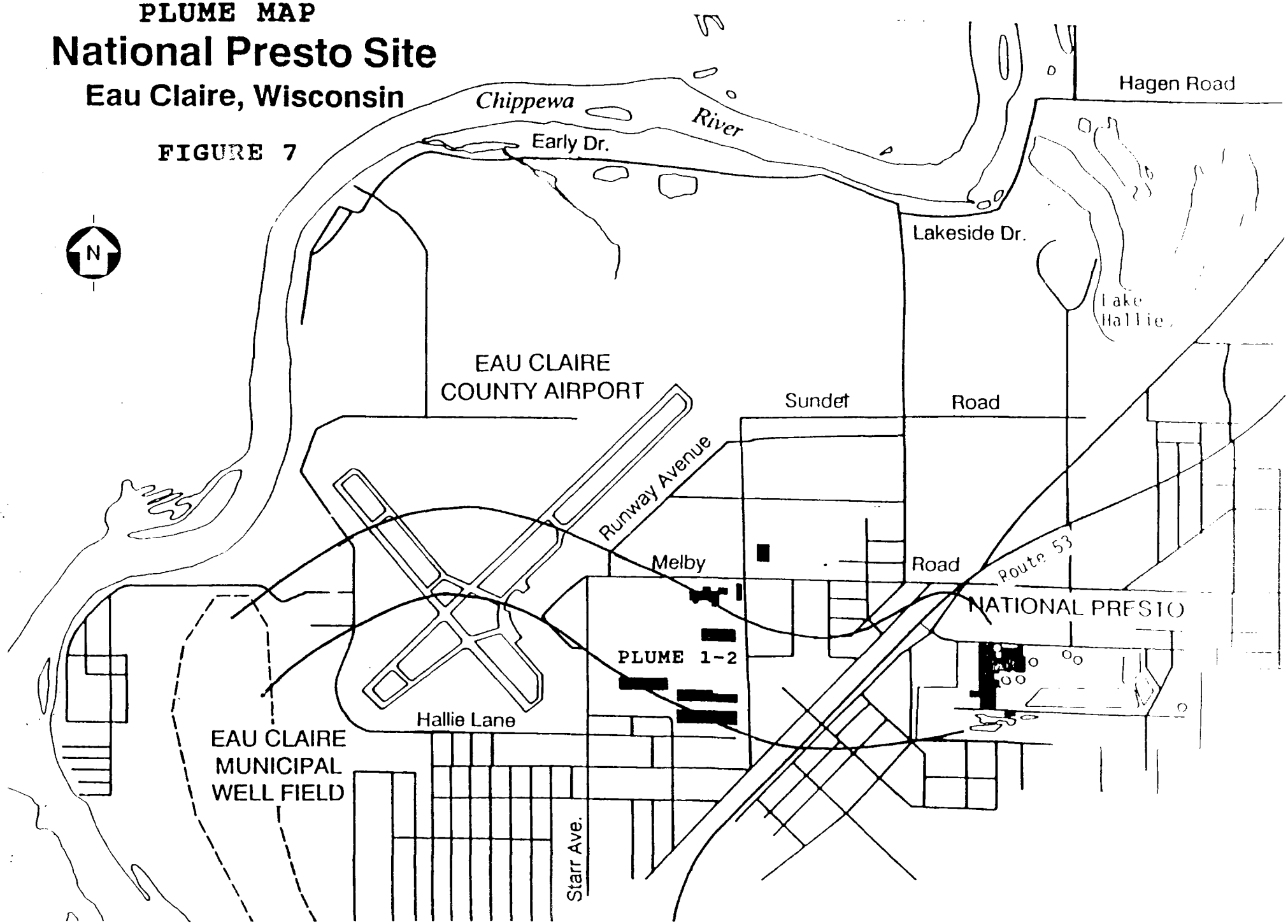


PLUME MAP

National Presto Site

Eau Claire, Wisconsin

FIGURE 7



Attachment 3 - Groundwater Monitoring Data

Gannett Fleming

NATIONAL PRESTO INDUSTRIES, INC.
EAU CLAIRE, WISCONSIN

TABLE 1

WELL DATA SUMMARY

Well ID	Plume	Grid Coord	Foot-note	Drilling Method	Completion Date	Screened Interval (bgs)	Screened In	Casing Diameter	Casing Material	TOC Elevation	Date of Abandonment
CW-10 (city production well)	1/2	B8	1	--	--	--	--	--	--	--	NA
CW-11	1/2	B8		--	--	--	--	--	--	--	NA
CW-14	1/2	B8		--	--	--	--	--	--	--	NA
CW-15	1/2	B8		--	--	--	--	--	--	--	NA
CW-16	1/2	B8		--	--	--	--	--	--	--	NA
CW-17	1/2	B8		--	--	--	--	--	--	--	NA
CW-19	1/2	B7		--	--	--	--	--	--	--	NA
EC-01 (city monitoring well)	1/2	C7		--	12/16/82	90-100'	--	4"	Steel	813.95	NA
EC-02	1/2	C7		--	12/20/82	18-28'	--	4"	Steel	814.44	NA
EC-03	1/2	A8		--	12/23/82	53-75'	--	6"	Steel	799.58	NA
EC-04	1/2	A8		--	01/31/83	9-19'	--	4"	Steel	800.84	NA
EC-05	1/2	C7		--	12/23/82	17-27'	--	4"	Steel	813.56	NA
EC-06	1/2	C7		--	01/04/83	15-25'	--	4"	Steel	813.19	NA
EC-07	1/2	B6		--	01/05/83	19-29'	--	4"	Steel	816.22	NA
EC-08	1/2	A7		--	01/07/83	20-30'	--	4"	Steel	812.93	NA
EW-1 (fka MW-14)	3/4	L6	2	AR	03/05/87	63-98'	Alluvium	5"	Steel	896.00	NA
EW-1R (replaced EW-1)	3/4	L6		HSA/CT	08/25/95	75-100'	Alluvium	6"	SS	900.14	NA
EW-2 (fka MW-15)	3/4	L6		AR	02/26/87	69-104'	Alluvium	5"	Steel	901.45	NA
EW-3	1/2	K7		--	--	--	Alluvium	--	--	897.22	NA
[illegible]	1/2	K7		--	--	--	Alluvium	--	--	898.23	NA
EW-5	1/2	K7		MR	07/10/03	70-90'	Alluvium	6"	PVC	886.93	NA
MW-1	3/4	M8	3	HSA	10/26/76	39.5-49.5'	Alluvium	2"	PVC	910.26	NA
MW-2A	3/4	M7	3, 5	HSA	10/27/76	45-55'	Bedrock	2"	PVC	905.19	07/15/88
MW-2B	3/4	M7	3	HSA	10/27/76	6-16'	Alluvium	2"	PVC	905.19	07/15/88
MW-3A	3/4	M8	3, 5	HSA	10/28/76	69-72'	Bedrock	2"	PVC	899.95	07/15/88
MW-3B	3/4	M8	3, 5	HSA	10/28/76	73-76'	Bedrock	2"	PVC	899.95	07/15/88
MW-3C	3/4	M8	3, 5	HSA	10/28/76	77-80'	Bedrock	2"	PVC	899.95	07/15/88
MW-4A	1/2	K7	3	HSA	10/28/76	70-80'	Alluvium	2"	PVC	898.94	NA
MW-4B	1/2	K7		MR	05/24/90	95-105'	Alluvium	2"	PVC	896.65	NA
MW-5A	3/4	L6	3	HSA	02/27/84	64-81'	Alluvium	2"	PVC	902.60	NA
MW-5B	3/4	L6	3	MR	12/05/86	87-97'	Alluvium	2"	PVC	902.39	NA
MW-6	3/4	L6	3	HSA	01/10/85	73.8-88.8'	Alluvium	2"	PVC	904.70	NA
MW-7	5	M6	3, 5	MR	01/08/85	62-77'	Bedrock	2"	PVC	897.73	NA
MW-8	5	M6	3	HSA	01/11/85	75-90'	Alluvium	2"	PVC	904.24	NA
MW-9A	3/4	L6	3	MR	03/28/85	80-90'	Alluvium	2"	PVC	905.30	NA
MW-9B	3/4	L6	3, 5	HSA	03/28/85	98-113'	Bedrock	2"	PVC	905.30	NA
MW-10A	1/2	K8		HSA	11/14/86	56-71'	Alluvium	2"	PVC	894.84	NA
MW-10B	1/2	K8	5	MR	11/14/86	90.5-100.5'	Bedrock	2"	PVC	894.91	NA
MW-11A	1/2	K7		HSA	11/15/86	58-73'	Alluvium	2"	PVC	896.03	NA
MW-11B	1/2	K7	5	MR	11/17/86	77-87'	Bedrock	2"	PVC	896.27	NA
MW-12A	1/2	L7		HSA	11/18/86	58-73'	Alluvium	2"	PVC	897.09	NA
MW-12B	1/2	L7	5	MR	11/18/86	77.5-87.5'	Bedrock	2"	PVC	897.20	NA
MW-13A	3/4	L7		HSA	11/21/86	58.5-73.5'	Alluvium	2"	PVC	896.86	NA
MW-13B	3/4	L7	5	HSA	11/21/86	81-91'	Bedrock	2"	PVC	896.81	NA
MW-14 (nka EW-1/EW-1R)	3/4	L6	2	AR	03/05/87	62.5-97.5'	Alluvium	2"	Steel	896.00	NA
MW-15 (nka EW-2)	3/4	L6		AR	02/26/87	69-104'	Alluvium	2"	Steel	895.81	NA
MW-16A	3/4	M7	5	HSA	11/25/86	58-73'	Bedrock	2"	PVC	896.62	08/21/98
MW-16B	3/4	M7	5	MR	11/24/86	83.5-93.5'	Bedrock	2"	PVC	896.51	08/21/98
MW-17A	5	N7	5	HSA	12/03/86	25-40'	Bedrock	2"	PVC	898.91	NA
MW-17B	5	N7	5	HSA	12/04/86	50-60'	Bedrock	2"	PVC	899.12	NA

TABLE 1

WELL DATA SUMMARY

Well ID	Plume	Grid Coord	Foot-note	Drilling Method	Completion Date	Screened Interval (bgs)	Screened In	Casing Diameter	Casing Material	TOC Elevation	Date of Abandonment
MW-17C	5	N7	5	MR	05/20/88	70-80'	Bedrock	2"	PVC	899.50	NA
MW-18	3/4	M7	5	HSA	05/19/88	58-73'	Bedrock	2"	PVC	898.38	NA
MW-19	5	N6	5	HSA	05/17/88	58-73'	Bedrock	2"	PVC	898.89	NA
MW-20A	3/4	K6		HSA	05/25/88	65.5-80.5'	Alluvium	2"	PVC	897.82	04/15/95
MW-20B	3/4	K6		HSA	06/01/88	92-102'	Alluvium	2"	PVC	896.74	04/15/95
MW-21A	3/4	K7		HSA	05/23/88	67-82'	Alluvium	2"	PVC	899.27	NA
MW-21B	3/4	K7		MR	05/20/88	92-102'	Alluvium	2"	PVC	898.95	NA
MW-22A	3/4	K6		HSA	06/03/88	66.5-81.5'	Alluvium	2"	PVC	900.79	NA
MW-22B	3/4	K6		HSA	06/01/88	91.5-101.5'	Alluvium	2"	PVC	900.71	NA
MW-23A	1/2	J7		HSA	06/04/88	65-80'	--	2"	PVC	895.99	NA
MW-23B	1/2	J7		HSA	06/03/88	90-100'	--	2"	PVC	895.95	NA
MW-24A	3/4	M7	5	MR	05/25/88	45-60'	Bedrock	2"	PVC	915.66	NA
MW-24B	3/4	M7	5	MR	05/23/88	70-80'	Bedrock	2"	PVC	915.57	NA
MW-25	3/4	M8	5	HSA	05/17/88	39-54'	Both	2"	PVC	930.35	NA
MW-26A	3/4	L5		HSA	06/22/89	63-78'	Alluvium	2"	PVC	890.17	NA
MW-26B	3/4	L5		MR	06/20/89	109-119'	Alluvium	2"	PVC	890.03	NA
MW-27A	3/4	L5		HSA	06/21/89	62-77'	Alluvium	2"	PVC	890.20	NA
MW-27B	3/4	L5		MR	06/20/89	85.3-95.3'	Alluvium	2"	PVC	890.15	NA
MW-28A	3/4	L4		HSA	06/08/89	65-80'	Alluvium	2"	PVC	892.86	06/15/99
MW-28B	3/4	L4		MR	06/08/89	113-123'	Alluvium	2"	PVC	893.16	06/15/99
MW-29A	3/4 & 5	L3		HSA	05/25/89	69-84'	Alluvium	2"	PVC	892.72	NA
MW-29B	3/4 & 5	L3		MR	05/31/89	124-134'	Alluvium	2"	PVC	892.49	NA
MW-30A	5	M5		HSA	06/12/89	66-81'	Alluvium	2"	PVC	898.69	NA
MW-30B	5	M5		MR	06/10/89	115-125'	Alluvium	2"	PVC	898.49	NA
MW-31	1/2	J6		HSA	06/02/89	56-71'	Alluvium	2"	PVC	887.65	NA
MW-32A	3/4	K6		HSA	06/23/89	59-74'	Alluvium	2"	PVC	887.83	04/08/95
MW-32B	3/4	K6		MR	06/21/89	90-100'	Alluvium	2"	PVC	887.77	04/08/95
MW-33A	1/2 & 3/4	J6		HSA	07/07/89	55-70'	Alluvium	2"	PVC	885.30	NA
MW-33B	1/2 & 3/4	J6		MR	07/07/89	100-110'	Alluvium	2"	PVC	885.25	NA
MW-34A	1/2	K8		HSA	06/08/90	?-74.3'	Alluvium	2"	PVC	895.36	NA
MW-34B	1/2	K8	5	MR	05/31/90	?-81'	Both	2"	PVC	895.28	NA
MW-34C	1/2	K8	5	--	--	?-102'	Bedrock	2"	PVC	895.25	NA
MW-35A	1/2	I7		HSA	05/31/90	59-74'	Alluvium	2"	PVC	888.28	NA
MW-35B	1/2	I7		MR	06/06/90	84-94'	Alluvium	2"	PVC	888.02	NA
MW-36A	1/2	I7		HSA	06/06/90	63.5-78.5'	Alluvium	2"	PVC	889.87	NA
MW-36B	1/2	I7		MR	06/07/90	88.5-98.5'	Alluvium	2"	PVC	889.89	NA
MW-37A	1/2	I7		HSA	12/18/90	55.7-70.7'	Alluvium	2"	PVC	885.55	NA
MW-37B	1/2	I7		HSA	02/12/91	68.5-73.5'	Alluvium	2"	PVC	885.27	NA
MW-38A	1/2	I8		HSA	12/16/90	54.5-69.5'	Alluvium	2"	PVC	884.89	NA
MW-38B	1/2	I8		HSA	02/05/91	97.5-107.5'	Alluvium	2"	PVC	884.82	NA
MW-38C	1/2	I8		MR	01/13/91	139.2-149.2'	Alluvium	2"	PVC	884.83	NA
MW-39A	1/2	J8		HSA	12/11/90	62.5-77.5'	Alluvium	2"	PVC	896.17	NA
MW-39B	1/2	J8		MR	01/26/91	114.8-124.8'	Alluvium	2"	PVC	896.38	NA
MW-40A	1/2	H7	4	HSA	12/20/90	58-73'	Alluvium	2"	PVC	886.57	2001
MW-40B	1/2	H7	4	MR	01/16/91	79-89'	Alluvium	2"	PVC	886.34	2001
MW-41A	1/2	H8		HSA	12/19/90	56-71'	Alluvium	2"	PVC	884.04	NA
MW-41B	1/2	H8		MR	01/23/91	102.5-112.5'	Alluvium	2"	PVC	883.84	NA
MW-42A	1/2	G7		HSA	01/31/91	65.5-75.5'	Alluvium	2"	PVC	891.83	NA
MW-42B	1/2	G7		MR	01/17/91	74.5-84.5'	Alluvium	2"	PVC	891.32	NA
MW-43A	1/2	H7		HSA	02/12/91	61-76'	Alluvium	2"	PVC	885.34	NA
MW-43B	1/2	H7		MR	02/11/91	107.5-117.5'	Alluvium	2"	PVC	885.35	NA
MW-44A	1/2	F6		HSA	08/20/91	62-67'	Alluvium	2"	PVC	885.35	NA
MW-44B	1/2	F6		HSA	08/24/91	114-124'	Alluvium	2"	PVC	885.34	NA

TABLE 1

WELL DATA SUMMARY

Well ID	Plume	Grid Coord	Foot-note	Drilling Method	Completion Date	Screened Interval (bgs)	Screened In	Casing Diameter	Casing Material	TOC Elevation	Date of Abandonment
MW-45A	1/2	F6		HSA	08/21/91	63-78'	Alluvium	2"	PVC	886.20	NA
MW-45B	1/2	F6		MR	09/11/91	101-111'	Alluvium	2"	PVC	886.26	NA
MW-45C	1/2	F6		MR	08/26/91	134-144'	Alluvium	2"	PVC	886.05	NA
MW-46A	1/2	G7		HSA	08/22/91	60-75'	Alluvium	2"	PVC	885.46	NA
MW-46B	1/2	G7		MR	09/12/91	99.5-109.5'	Alluvium	2"	PVC	885.42	NA
MW-46C	1/2	G7		MR	08/28/91	134.3-144.3'	Alluvium	2"	PVC	885.38	NA
MW-47A	1/2	G7		HSA	08/23/91	60-75'	Alluvium	2"	PVC	888.39	NA
MW-47B	1/2	G7		MR	09/04/91	100-110'	Alluvium	2"	PVC	888.24	NA
MW-48A	1/2	E6		HSA	09/07/91	66.5-81.5'	Alluvium	2"	PVC	885.15	NA
MW-48B	1/2	E6		MR	09/06/91	93-103'	Alluvium	2"	PVC	885.40	NA
MW-49A	1/2	D6		HSA	09/10/91	78.5-91.5'	Alluvium	2"	PVC	883.04	NA
MW-49B	1/2	D6		MR	09/09/91	107-117'	Alluvium	2"	PVC	883.02	NA
MW-50A	1/2	F6		HSA	09/16/91	63.4-78.4	Alluvium	2"	PVC	883.61	NA
MW-50B	1/2	F6		MR	09/15/91	95-105'	Alluvium	2"	PVC	883.57	NA
MW-51A	1/2	F6		HSA	09/17/91	63.5-78.5'	Alluvium	2"	PVC	884.02	NA
MW-51B	1/2	F6		MR	09/17/91	102-112'	Alluvium	2"	PVC	883.99	NA
MW-52A	1/2	F6		HSA	10/02/91	67.4-82.4'	Alluvium	2"	PVC	884.13	NA
MW-52B	1/2	F6		MR	10/02/91	113-123'	Alluvium	2"	PVC	884.12	NA
MW-53A	1/2	E6		HSA	10/05/91	76-91'	Alluvium	2"	PVC	887.93	NA
MW-53B	1/2	E6		MR	10/05/91	112-123'	Alluvium	2"	PVC	888.25	NA
MW-54A	1/2	D6		HSA	10/10/91	77-92'	Alluvium	2"	PVC	883.78	NA
[illegible]54B	1/2	D6		MR	10/11/91	112-122'	Alluvium	2"	PVC	883.87	NA
M[illegible]-54C	1/2	D6		MR	10/09/91	142-152'	Alluvium	2"	PVC	883.66	NA
MW-55A	1/2	D6		HSA	11/05/91	78-93'	Alluvium	2"	PVC	881.75	NA
MW-55B	1/2	D6		MR	11/26/91	118.5-128.5'	Alluvium	2"	PVC	882.08	NA
MW-55C	1/2	D6		MR	11/04/91	154-164'	Alluvium	2"	PVC	881.91	NA
MW-56A	1/2	E5		HSA	11/06/91	75.5-90.5'	Alluvium	2"	PVC	885.67	NA
MW-56B	1/2	E5		MR	11/11/91	150-160'	Alluvium	2"	PVC	885.89	NA
MW-57A	1/2	E6		HSA	11/23/91	76-91'	Alluvium	2"	PVC	886.31	NA
MW-57B	1/2	E6		MR	11/21/91	108-118'	Alluvium	2"	PVC	886.13	NA
MW-58A	1/2	D6		HSA	11/07/91	76-91'	Alluvium	2"	PVC	880.88	NA
MW-58B	1/2	D6		MR	11/13/91	112-122'	Alluvium	2"	PVC	880.96	NA
MW-59A	1/2	F6		HSA	11/08/91	62-77'	Alluvium	2"	PVC	882.00	NA
MW-59B	1/2	F6		MR	11/19/91	129-139'	Alluvium	2"	PVC	882.07	NA
MW-60A	1/2	D7		HSA	12/04/91	78.5-93.5'	Alluvium	2"	PVC	879.19	NA
MW-60B	1/2	D7		MR	12/08/91	104-114'	Alluvium	2"	PVC	879.09	NA
MW-61A	1/2	C6		HSA	12/05/91	78.5-93.5'	Alluvium	2"	PVC	879.37	NA
MW-61B	1/2	C6		MR	12/11/91	124-134'	Alluvium	2"	PVC	879.58	NA
MW-62A	3/4	L6		HSA	06/25/92	61-76'	Alluvium	2"	PVC	893.69	12/22/98
MW-62AR	3/4	L6		HSA	12/22/98	71-86'	Alluvium	2"	PVC	901.75	NA
MW-62B	3/4	L6		MR	06/30/92	96-106'	Alluvium	2"	PVC	901.79	NA
MW-62C	3/4	L6		MR	06/24/92	126.5-136.5'	Alluvium	2"	PVC	901.15	NA
MW-63A	3/4	M6		HSA	06/28/92	65-80'	Alluvium	2"	PVC	899.05	NA
MW-63B	3/4	M6		MR	06/27/92	95-105'	Alluvium	2"	PVC	899.13	NA
MW-64A	3/4	L6		HSA	07/08/92	63.5-78.5'	Alluvium	2"	PVC	894.89	NA
MW-64B	3/4	L6		MR	07/08/92	103.8-113.8'	Alluvium	2"	PVC	895.24	NA
MW-64C	3/4	L6		MR	07/01/92	139-149'	Alluvium	2"	PVC	894.75	NA
MW-65A	3/4	L6		HSA	07/02/92	60.4-75.4'	Alluvium	2"	PVC	891.68	NA
[illegible]5B	3/4	L6		MR	07/08/92	100-110'	Alluvium	2"	PVC	891.62	NA
M[illegible]65C	3/4	L6		MR	07/07/92	133.9-143.9'	Alluvium	2"	PVC	891.77	NA
MW-66A	3/4	L6		HSA	06/27/92	66.5-81.5'	Alluvium	2"	PVC	900.53	NA
MW-66B	3/4	L6		MR	07/01/92	111-121'	Alluvium	2"	PVC	900.26	NA
MW-66C	3/4	L6		MR	06/27/92	150-160'	Alluvium	2"	PVC	900.43	NA

TABLE 1

WELL DATA SUMMARY

Well ID	Plume	Grid Coord	Foot-note	Drilling Method	Completion Date	Screened Interval (bgs)	Screened In	Casing Diameter	Casing Material	TOC Elevation	Date of Abandonment
MW-67A	1/2	K7		HSA	06/22/92	61-76'	Alluvium	2"	PVC	895.96	NA
MW-67B	1/2	K7		MR	07/09/92	77.8-82.8'	Alluvium	2"	PVC	895.79	NA
MW-68A	1/2	J7		HSA	07/08/92	63.5-78.5'	Alluvium	2"	PVC	896.47	NA
MW-68B	1/2	J7		MR	06/19/92	97-107'	Alluvium	2"	PVC	896.77	NA
MW-69A	1/2	J8		HSA	07/09/92	65-80'	Alluvium	2"	PVC	898.02	NA
MW-69B	1/2	J8		MR	06/21/92	108.8-118.8'	Alluvium	2"	PVC	898.23	NA
MW-70A	1/2	K8		HSA	06/22/92	62-77'	Alluvium	2"	PVC	895.68	NA
MW-70B	1/2	K8		HSA	07/10/92	77-82'	Alluvium	2"	PVC	895.67	NA
MW-71A	1/2	K8		MR	06/17/92	57-72'	Alluvium	2"	PVC	984.70	NA
MW-71B	1/2	K8	5	MR	07/09/92	79-89'	Both	2"	PVC	894.89	NA
MW-72	5	N7		HSA	09/09/98	34-49'	Alluvium	2"	PVC	899.26	NA
MW-73	5	N7		HSA	09/09/98	32-47'	Alluvium	2"	PVC	899.71	NA
MW-74A	1/2	J8		HSA	07/08/03	66-76'	Alluvium	2"	PVC	896.08	NA
MW-74B	1/2	J8	5	MR	07/09/03	95-100'	Bedrock	2"	PVC	895.88	NA
MW-75	1/2	K8	5	HSA	07/11/03	54-64'	Bedrock	2"	PVC	890.61	NA
PW-1	1/2	K7		HSA	01/05/94	65-75'	Alluvium	2"	PVC	898.28	NA
PW-2	1/2	K7		HSA	01/03/94	66-76'	Alluvium	2"	PVC	894.71	NA
PW-3	1/2	K7		HSA	07/12/94	69-79'	Alluvium	2"	PVC	898.83	06/15/96
PW-3R	1/2	K7		HSA	11/22/96	69-79'	Alluvium	2"	PVC	896.21	NA
PW-4	1/2	K7		HSA	07/12/97	68-78'	Alluvium	2"	PVC	895.59	NA
PW-5	1/2	K7		HSA	07/13/94	67-77'	Alluvium	2"	PVC	886.93	01/15/04
PW-67 (Private well - Jules)	5	M4		--	--	--	--	--	--	--	N/
PW-218 (Private well - Martens	5	M4		--	--	--	--	--	--	--	NA
PW-230 (Private well - Ihlenfel	5	M4		--	--	--	--	--	--	--	NA
RW-1	1/2	F7		HSA	12/12/85	60.5-112.5'	Alluvium	2"	PVC	887.19	NA
RW-2A	1/2	J7		HSA	01/03/86	69-79'	Alluvium	2"	PVC	897.18	NA
RW-2B	1/2	J7		HSA	01/04/86	91-101'	Alluvium	2"	PVC	896.78	NA
RW-2C	1/2	J7		HSA	12/15/85	108-118'	Alluvium	2"	PVC	897.57	NA
RW-3A	1/2	C6		HSA	12/19/85	79-89'	Alluvium	2"	PVC	881.78	NA
RW-3B	1/2	C6		HSA	01/07/86	96-106'	Alluvium	2"	PVC	881.48	NA
RW-3C	1/2	C6		HSA	01/05/86	108.5-118.5'	Alluvium	2"	PVC	881.30	NA
RW-4	1/2	H9	5	HSA	02/04/86	53-78'	Both	2"	PVC	884.65	NA
RW-5	1/2	D8		HSA	01/18/86	82-112'	Alluvium	2"	PVC	882.19	NA
RW-6	1/2	D7	5	HSA	02/11/86	78.5-103.5'	Both	2"	PVC	883.89	NA
RW-7	1/2	H6		HSA	01/29/86	68-118'	Alluvium	2"	PVC	890.71	NA
RW-8	1/2	G5		HSA	02/05/86	64-109'	Alluvium	2"	PVC	889.12	NA
RW-9	1/2	D4		HSA	01/20/86	75.5-105.5'	Alluvium	2"	PVC	886.62	NA
RW-10	1/2	D6		HSA	07/21/87	70-120'	Alluvium	2"	PVC	888.28	NA
RW-11	1/2	E5		HSA	07/21/87	65-120'	Alluvium	2"	PVC	890.45	NA
RW-12	1/2	F6		HSA	07/22/87	60-120'	Alluvium	2"	PVC	891.01	NA
RW-13	1/2	F8	5	HSA	08/11/87	65-75'	Bedrock	2"	PVC	885.57	NA
RW-14	1/2	H7		HSA	07/24/87	54-114'	Alluvium	2"	PVC	888.06	NA
RW-15	1/2	J7		HSA	07/24/87	52-92'	Alluvium	2"	PVC	874.76	NA
RW-16	1/2	G7		HSA	07/28/87	63-73'	Alluvium	2"	SS	888.87	NA
RW-16B	1/2	G7		HSA	02/06/91	103-113'	Alluvium	2"	PVC	889.66	NA
RW-16C	1/2	G7		MR	01/31/91	142.5-152.5'	Alluvium	2"	PVC	890.01	NA
RW-17	1/2	G7		HSA	07/29/87	60-70'	Alluvium	2"	SS	890.24	NA
RW-18	--	--	4	HSA	07/29/87	62-72'	Alluvium	2"	SS	890.62	Unknown
RW-19	1/2	H7		HSA	07/30/87	60-70'	Alluvium	2"	SS	888.57	NA
RW-20	1/2	G7		HSA	07/30/87	64-74'	Alluvium	2"	SS	889.43	05/15/9_
RW-21	1/2	G6		HSA	07/31/87	63-73'	Alluvium	2"	SS	890.39	02/15/95
RW-22	1/2	G6		HSA	07/31/87	62-72'	Alluvium	2"	SS	887.42	NA
RW-23	1/2	H7		HSA	07/31/87	61-71'	Alluvium	2"	SS	890.30	NA

TABLE 1

WELL DATA SUMMARY

Well ID	Plume	Grid Coord	Foot-note	Drilling Method	Completion Date	Screened Interval (bgs)	Screened In	Casing Diameter	Casing Material	TOC Elevation	Date of Abandonment
RW-24	1/2	E6		HSA	08/01/87	66-76'	Alluvium	2"	SS	886.52	NA
RW-25	1/2	G3	5	HSA	08/13/87	55-65'	Bedrock	2"	PVC	926.22	NA
WW-1	--	--		HSA	08/08/85	30-40'	--	2"	PVC	945.05	10/16/01
WW-2	--	--		HSA	08/10/85	57.5-67.5'	--	2"	PVC	900.53	NA
WW-3	3/4	K5		HSA	07/27/85	63.2-73.2'	--	2"	PVC	891.45	12/12/91
WW-3B	3/4	K5		MR	06/19/89	138.5-148.5'	Alluvium	2"	PVC	888.98	12/12/91
WW-4	--	--		HSA	08/07/85	70-80'	--	2"	PVC	904.18	NA
WW-5	3/4	K4		HSA	08/01/85	69-79'	--	2"	PVC	892.55	NA
WW-5P	3/4	K4		HSA	10/01/85	104-109'	--	2"	PVC	892.69	NA
WW-6	1/2	I6		HSA	07/31/85	57.8-67.8'	--	2"	PVC	889.46	NA
WW-7	1/2	I4		HSA	08/08/85	15-25'	--	2"	PVC	893.19	NA
WW-8	3/4	J2		HSA	08/01/85	16.75-26.75'	--	2"	PVC	846.94	NA
WW-9	3/4	N3		HSA	08/06/85	74.9-84.9'	--	2"	PVC	901.71	08/19/99
WW-9P	3/4	N3		HSA	07/25/85	105-115'	--	2"	PVC	901.63	08/19/99
WW-10	3/4	J6		HSA	10/02/85	60-70'	--	2"	PVC	889.10	05/07/99
WW-10P	3/4	J6		HSA	10/02/85	91.3-96.3'	--	2"	PVC	889.19	05/07/99
WW-11	5	N6		HSA	09/26/85	36.5-46.5'	--	2"	PVC	901.36	NA
WW-11P	5	N6		HSA	09/30/85	72-77'	--	2"	PVC	901.16	NA
WW-12	3/4	J4		HSA	09/27/85	17-27'	--	2"	PVC	892.25	NA
WW-13	5	L5		HSA	10/01/85	67-77'	--	2"	PVC	905.45	NA
WW-14	5	O4		HSA	05/07/85	70-80'	--	2"	PVC	899.72	NA
[illegible]15	1/2	I8		HSA	10/03/85	53-63'	Alluvium	2"	PVC	882.61	NA
W[illegible]-15B	1/2	I8		HSA	02/06/91	95.6-105.6'	Alluvium	2"	PVC	879.97	NA
WW-15C	1/2	I8		MR	02/01/91	137-147'	Alluvium	2"	PVC	879.76	NA
WW-16	1/2	H8		HSA	10/02/86	57-67'	--	2"	PVC	885.63	NA
WW-17	1/2	H5		HSA	10/01/85	13-23'	--	2"	PVC	887.21	NA
WW-18	1/2	I5		HSA	10/01/85	16-26'	--	2"	PVC	890.84	NA
WW-19	3/4	J3		HSA	09/28/85	20-30'	--	2"	PVC	894.02	NA

NOTES:
EW = NPI extraction well.
MW = NPI monitoring well.
WW = WDNR monitoring well.
RW = EPA monitoring well.
CW = City production well.
EC = City monitoring well.
PW = NPI petroleum UST well.
Melby Rd. wells 62-B,C and 5-A,B and EDS wells 17-A, 72, and 73 were resurveyed by Ayres in December 1998.
NA = Not abandoned.
AR = air rotary.
CT = cable tool.
HSA = hollow stem auger.
MR = mud rotary.
SS = stainless steel.

FOOTNOTES:
(1) "--" indicates data not available/unknown, and "NA" indicates not applicable.
(2) Converted to/replaced by EW-1R in August 1995.
(e-remedial investigation monitoring well.
(4, Well was lost/destroyed in year shown in "Date of Abandonment" column.
(5) Denotes a well screened in sandstone bedrock or both bedrock and alluvium (i.e., sand and gravel glacial outwash).

240 total wells, 214 active (12/06)

Gannett Fleming

NATIONAL PRESTO INDUSTRIES, INC.
EAU CLAIRE, WISCONSIN

TABLE 2

2005 WATER LEVEL MEASUREMENTS

Well ID	Measuring Point Elevation (MSL)	01/17/05		04/11/05		07/11/05		10/10/05	
		Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)
Melby Road Disposal Area									
EW-1R	900.14	80.84	819.30	81.33	818.81	81.20	818.94	NM	NM
EW-2	901.46	86.11	815.35	87.30	814.16	87.85	813.61	NM	NM
MW-5A	902.60	frozen	frozen	80.66	821.94	80.60	822.00	NM	NM
MW-5B	902.39	(2)	(2)	80.50	821.89	80.41	821.98	NM	NM
MW-6	904.70	82.38	822.32	82.71	821.99	82.60	822.10	NM	NM
MW-7	897.73	frozen	frozen	71.54	826.19	71.40	826.33	NM	NM
MW-8	904.24	85.46	818.78	81.70	822.54	81.59	822.65	NM	NM
MW-9A	905.30	82.67	822.63	83.02	822.28	82.92	822.38	NM	NM
MW-9B	905.30	NM	NM	NM	NM	83.12	822.18	NM	NM
MW-12A	897.09	72.66	824.43	72.92	824.17	72.91	824.18	NM	NM
MW-12B	897.20	NM	NM	73.02	824.18	72.99	824.21	NM	NM
MW-13A	896.86	73.33	823.53	73.62	823.24	73.58	823.28	NM	NM
MW-13B	896.81	NM	NM	73.57	823.24	73.50	823.31	NM	NM
MW-18	898.38	66.04	832.34	71.41	826.97	66.06	832.32	NM	NM
MW-62AR	901.75	79.53	822.22	79.85	821.90	79.79	821.96	NM	NM
MW-62B	901.79	NM	NM	79.82	821.97	79.78	822.01	NM	NM
MW-62C	901.15	(2)	(2)	79.24	821.91	79.17	821.98	NM	NM
MW-63A	902.15	80.27	821.88	80.56	821.59	80.48	821.67	NM	NM
MW-63B	902.68	(2)	(2)	79.99	822.69	79.91	822.77	NM	NM
MW-64A	894.89	buried/wood	buried/wood	72.86	822.03	72.77	822.12	NM	NM
MW-64B	895.24	NM	NM	missing	missing	73.12	822.12	72.92	822.32
MW-64C	894.75	NM	NM	72.70	822.05	72.67	822.08	72.44	822.31
MW-65A	891.68	69.38	822.30	69.75	821.93	69.64	822.04	NM	NM
MW-65B	891.62	NM	NM	NM	NM	69.55	822.07	NM	NM
MW-65C	891.77	NM	NM	69.82	821.95	69.70	822.07	69.51	822.26
MW-66A	900.53	frozen	frozen	78.66	821.87	78.55	821.98	NM	NM
MW-66B	900.26	(2)	(2)	78.37	821.89	78.26	822.00	NM	NM
MW-66C	891.77	NM	NM	79.53	812.24	NM	NM	NM	NM

TABLE 2

2005 WATER LEVEL MEASUREMENTS

Well ID	Measuring Point Elevation (MSL)	01/17/05		04/11/05		07/11/05		10/10/05	
		Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)
East Disposal Site									
MW-17A	898.91	broken key in lock	broken key in lock	dry	dry	dry	dry	dry	dry
MW-17B	899.12	NM	NM	NM	NM	42.56	856.56	NM	NM
MW-17C	899.50	NM	NM	NM	NM	43.93	855.57	NM	NM
MW-19	898.89	61.12	837.77	61.33	837.56	60.80	838.09	NM	NM
MW-72	897.00	43.98	853.02	43.72	853.28	42.47	854.53	43.53	853.47
MW-73	897.20	41.32	855.88	39.75	857.45	35.51	861.69	NM	NM
WW-11	901.36	47.60	853.76	dry	dry	46.77	854.59	NM	NM
Southwest Corner									
EW-3	897.22	NM	NM	NM	NM	NM	NM	NM	NM
EW-4	898.23	79.59	818.64	80.00	818.23	79.80	818.43	NM	NM
EW-5	886.93	71.31	815.62	71.90	815.03	71.80	815.13	NM	NM
MW-4A	897.25	72.75	824.50	76.05	821.20	75.95	821.30	NM	NM
MW-4B	896.65	NM	NM	75.51	821.14	75.40	821.25	75.28	821.37
MW-10A	894.84	68.42	826.42	68.68	826.16	68.61	826.23	68.53	826.31
MW-10B	894.91	NM	NM	70.07	824.84	70.10	824.81	69.90	825.01
MW-11A	896.76	72.31	824.45	72.55	824.21	72.50	824.26	NM	NM
MW-11B	896.27	NM	NM	72.51	823.76	72.47	823.80	NM	NM
MW-21A	899.27	77.33	821.94	77.66	821.61	77.60	821.67	NM	NM
MW-23A	895.99	74.47	821.52	74.82	821.17	74.74	821.25	74.60	821.39
MW-23B	895.95	70.69	825.26	74.53	821.42	74.44	821.51	74.32	821.63
MW-33A	885.30	(1)	(1)	(1)	(1)	(1)	(1)	NM	NM
MW-33B	885.25	(1)	(1)	63.77	821.48	(1)	(1)	63.54	821.71
MW-34A	895.36	72.63	822.73	72.96	822.40	72.92	822.44	72.75	822.61
MW-34B	895.28	frozen	frozen	72.91	822.37	72.91	822.37	72.72	822.56
MW-34C	895.25	NM	NM	NM	NM	72.84	822.41	NM	NM
MW-38A	884.89	NM	NM	NM	NM	64.24	820.65	64.10	820.79
MW-38B	884.82	NM	NM	NM	NM	64.06	820.76	63.91	820.91
MW-38C	884.83	NM	NM	NM	NM	64.06	820.77	NM	NM
MW-39A	896.17	frozen	frozen	75.00	821.17	74.92	821.25	NM	NM
MW-39B	896.38	NM	NM	NM	NM	NM	NM	NM	NM
MW-67A	895.96	74.57	821.39	74.89	821.07	74.85	821.11	74.68	821.28

TABLE 2

2005 WATER LEVEL MEASUREMENTS

Well ID	Measuring Point Elevation (MSL)	01/17/05		04/11/05		07/11/05		10/10/05	
		Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)
MW-67B	895.79	NM	NM	NM	NM	74.62	821.17	NM	NM
MW-68A	896.47	75.11	821.36	75.41	821.06	75.33	821.14	NM	NM
MW-68B	896.77	92.11	804.66	75.70	821.07	75.65	821.12	75.45	821.32
MW-69A	898.02	76.57	821.45	76.90	821.12	76.81	821.21	NM	NM
MW-69B	898.23	(2)	(2)	(2)	(2)	77.04	821.19	(2)	(2)
MW-70A	895.68	73.63	822.05	74.01	821.67	73.96	821.72	73.78	821.90
MW-70B	895.57	79.51	816.06	73.88	821.69	73.84	821.73	73.66	821.91
MW-71A	894.70	71.63	823.07	72.00	822.70	71.97	822.73	NM	NM
MW-71B	894.89	NM	NM	NM	NM	NM	NM	NM	NM
MW-74A	896.08	74.47	821.61	74.82	821.26	74.75	821.33	74.58	821.50
MW-74B	895.88	74.21	821.67	74.57	821.31	74.52	821.36	74.34	821.54
MW-75	890.61	61.20	829.41	61.63	828.98	61.51	829.10	61.51	829.10
PW-1	898.28	74.88	823.40	75.13	823.15	75.08	823.20	NM	NM
PW-2	894.71	snow	buried by snow	73.96	820.75	72.75	821.96	NM	NM
PW-3R	896.21	snow	buried by snow	74.81	821.40	74.71	821.50	NM	NM
Eau Claire County Airport Area									
MW-40B	886.34	lost	lost	lost	lost	lost	lost	lost	lost
MW-41A	884.04	(1)	(1)	64.44	819.60	off	off	64.24	819.80
MW-41B	883.84	frozen	frozen	64.24	819.60	NM	NM	64.02	819.82
MW-43A	885.34	(1)	(1)	65.92	819.42	(1)	(1)	65.72	819.62
MW-43B	885.35	(1)	(1)	65.91	819.44	(1)	(1)	65.71	819.64
MW-45A	886.20	(1)	(1)	71.54	814.66	(1)	(1)	71.53	814.67
MW-45B	886.26	(1)	(1)	71.57	814.69	(1)	(1)	71.57	814.69
MW-45C	886.05	(1)	(1)	71.37	814.68	(1)	(1)	71.35	814.70
MW-53A	887.93	snow	buried by snow	83.04	804.89		0.00	83.52	804.41
MW-53B	888.25	buried	buried	83.26	804.99	83.40	804.85	83.74	804.51
RW-3A	881.78	(1)	(1)	86.47	795.31	(1)	(1)	87.79	793.99
RW-3B	881.48	86.46	795.02	85.78	795.70	86.76	794.72	87.48	794.00
RW-3C	881.30	86.22	795.08	85.96	795.34	86.58	794.72	87.27	794.03
Lake Hallie Area									
MW-29A	892.72	NM	NM	NM	NM	NM	NM	NM	NM
MW-29B	892.49	(1)	(1)	75.56	816.93	(1)	(1)	75.29	817.20

TABLE 2

2005 WATER LEVEL MEASUREMENTS

Well ID	Measuring Point Elevation (MSL)	01/17/05		04/11/05		07/11/05		10/10/05	
		Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)	Depth to Water (ft)	Water Level Elevation (MSL)
Miscellaneous Wells									
MW-27A	890.20	NM	NM	NM	NM	NM	NM	NM	NM
MW-27B	890.15	NM	NM	NM	NM	NM	NM	NM	NM
RW-16	888.87	(1)	(1)	71.02	817.85	(1)	(1)	70.88	817.99
RW-16B	889.66	71.53	818.13	71.81	817.85	NM	NM	71.67	817.99
RW-16C	890.01	(1)	(1)	72.11	817.90	(1)	(1)	71.98	818.03
City Well Field									
EC-1	813.95	23.34	790.61	22.97	790.98	24.24	789.71	24.82	789.13
EC-2	814.44	24.11	790.33	23.73	790.71	25.02	789.42	25.59	788.85
EC-3	799.58	NM	NM	NM	NM	NM	NM	NM	NM
EC-4	800.84	NM	NM	NM	NM	NM	NM	NM	NM
EC-5	813.56	(2)	(2)	(2)	(2)	24.56	789.00	(2)	(2)
EC-6	813.19	NM	NM	22.50	790.69	NM	NM	24.37	788.82
EC-7	816.22	NM	NM	NM	NM	NM	NM	NM	NM
EC-8	812.93	NM	NM	NM	NM	NM	NM	NM	NM

NOTES:

NM = Not measured.

NI = Not installed.

PW-4, WW-11P no longer measured.

FOOTNOTES:

(1) Water measured semi-annually.

(2) Water measured annually.

Gannett Fleming

TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

Date	EC-1									
	1, 1 - DCA		1, 1 - DCE		PCE		1, 1, 1 - TCA		TCE	
MCL/ES/PAL Limitations	None/850/85		7/7/0.7		5/5/0.5		200/200/40		5/5/0.5	
10/15/85		NA		NA		NA		NA	**11**	
12/18/91	2		**0.9**		0.2	J	21		**7**	
06/15/92		NA		NA		NA		NA	**7**	
06/20/92		NA		NA		NA		NA	**7**	
05/11/95	0.25	U	0.25	U	0.35	U	0.4	U	0.3	U
06/15/95		NA		NA		NA		NA	**5**	
04/30/96	1.6		0.2	U	0.2	U	0.2	U	**1.4**	
10/04/96	1.5		0.15	U	0.1	U	0.1	U	**1.5**	
05/05/97	1.4		0.15	U	0.1	U	0.4		**1.2**	
10/09/97	1.4		0.3		0.2		1		**2.2**	
05/01/98	1.1		0.15	U	0.1	U	0.5		**4.5**	
11/06/98	1.2		0.25	U	0.35	U	0.3	U	**1.8**	
04/20/99	0.93		0.1	U	0.1	U	0.355	J	**1.58**	CSH
05/20/99	0.8		0.25	U	0.35	U	0.35	U	**1.2**	
09/13/99	1.4		0.25	U	0.35	U	0.35	U	**1.2**	
10/08/99	1.47		0.075	U	0.075	U	0.982		**3.07**	
05/23/00	0.356	J, ISH	0.075	U, ISH	0.178	J, ISH	0.075	U, ISH	**0.59**	J, ISH
10/13/00	0.213	J	0.075	U	0.075	U	0.301	J	**1.27**	
05/10/01	0.379	J	0.075	U	0.075	U	1.3		**2.72**	
10/17/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
04/22/02	0.518	J	0.195	U	0.16	U	1.58		**3.21**	
11/18/02	0.18	U	0.195	U	0.16	U	0.872	J	**2.43**	
04/10/03	0.18	U	0.195	U	0.16	U	0.21	U	**2.86**	
07/23/03	0.18	U	0.195	U	0.16	U	0.639	J	**2.68**	
10/08/03	0.18	U	0.195	U	0.16	U	0.879	J	**2.62**	
02/25/04	0.25	U	0.25	U	0.225	U	0.955	J	**2.76**	
04/14/04	0.25	U	0.25	U	0.225	U	0.992	J	**3.11**	
07/13/04	0.25	U	0.25	U	0.225	U	0.958	J	**3.08**	
10/20/04	0.25	U	0.25	U	0.225	U	0.949	J	**3.40**	
01/18/05	0.25	U	0.25	U	0.225	U	0.601	J	**3.00**	
04/12/05	0.25	U	0.25	U	0.225	U	0.704	J	**3.12**	
07/13/05	0.25	U	0.25	U	0.225	U	0.625	J	**3.37**	
10/12/05	0.25	U	0.25	U	0.225	U	0.666	J	**3.38**	

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TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

Date	EC-2									
	1, 1 - DCA		1, 1 - DCE		PCE		1, 1, 1 - TCA		TCE	
MCL/ES/PAL Limitations	None/850/85		7/7/0.7		5/5/0.5		200/200/40		5/5/0.5	
10/15/85		NA		NA		NA		NA	**13**	
12/19/91	2		**0.9**		0.3		19		**8**	
06/15/92		NA		NA		NA		NA	**8**	
06/20/92		NA		NA		NA		NA	**8**	
05/11/95	3		**0.9**		**1.8**		9.9		**5.6**	
06/15/95		NA		NA		NA		NA	**5**	
04/30/96	1.4		0.4		0.5		7.8		**4.6**	
10/04/96	1.3		0.15	U	0.1	U	9.4		**5.4**	
05/05/97	1.3		0.15	U	0.1	U	7.6		**5**	
10/09/97	1.2		0.7		0.4		8.5		**5.4**	
05/01/98	1.2		0.5		0.3		8.4		**8**	
11/06/98	1.2		0.25	0.5 U	0.35	U	5.9		**5.2**	
04/20/99	0.947		0.285	J	0.235	J	6.03		**5.08**	CSH
05/20/99	1		0.25	U	0.35	U	6.8		**4.9**	
09/13/99	1.3		0.25	U	0.35	U	5.3		**4**	
10/08/99	1.18		0.296	J	0.199	J	5.54		**5.4**	
05/24/00	0.819		0.203	J	0.188	J	3.28		**4.43**	
10/13/00	0.782		0.165		0.225	J	3.74		**5.03**	
05/10/01	0.216	J	0.075	U	0.16	J	1.53		**3.05**	
10/17/01	0.19	U	0.19	U	0.13	U	0.878		**3.4**	
04/22/02	0.18	U	0.195	U	0.16	U	1.49		**4.02**	
11/18/02	0.18	U	0.195	U	0.16	U	0.965	J	**2.82**	
04/10/03	0.18	U	0.195	U	0.16	U	0.21	U	**2.82**	
07/23/03	0.18	U	0.195	U	0.16	U	0.21	U	**2.31**	
10/07/03	0.578	J	0.195	U	0.16	U	1.54		**3.62**	
02/25/04	0.25	U	0.25	U	0.225	U	0.819	J	**2.95**	
04/14/04	0.25	U	0.25	U	0.225	U	0.761	J	**3.33**	
07/13/04	0.25	U	0.25	U	0.225	U	0.591	J	**2.66**	
10/20/04	0.25	U	0.25	U	0.225	U	0.699	J	**3.71**	
01/18/05	0.25	U	0.25	U	0.225	U	0.528	J	**3.63**	
04/12/05	0.25	U	0.25	U	0.225	U	0.21	U	**2.74**	
07/13/05	0.25	U	0.25	U	0.225	U	0.427	J	**3.84**	
10/12/05	0.25	U	0.25	U	0.225	U	0.453	J	**3.68**	

TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

Date	EC-3									
	1, 1 - DCA		1, 1 - DCE		PCE		1, 1, 1 - TCA		TCE	
MCL/ES/PAL Limitations	None/850/85		7/7/0.7		5/5/0.5		200/200/40		5/5/0.5	
05/11/95	0.25	U	0.25	U	0.35	U	0.4	U	0.3	U
04/30/96	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
10/04/96	0.1	U	0.15	U	0.1	U	1.6		**2.6**	
05/05/97	0.1	U	0.15	U	0.1	U	0.3		0.1	U
10/09/97	0.1	U	0.1	U	0.1	U	0.15	U	0.1	U
05/01/98	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
11/06/98	0.1	U	0.25	U	0.35	U	0.3	U	0.3	U
04/19/99	0.1	U	0.1	U	0.1	U	0.1	U	0.18	U, CSH
05/20/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
09/13/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
10/08/99		NS		NS		NS		NS		NS
05/23/00		NS		NS		NS		NS		NS
07/19/00	0.075	U	0.075	U	0.075	U	0.075	U	0.2	U
07/18/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
04/22/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
11/18/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U

TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

Date	EC-4									
	1, 1 - DCA		1, 1 - DCE		PCE		1, 1, 1 - TCA		TCE	
MCL/ES/PAL Limitations	None/850/85		7/7/0.7		5/5/0.5		200/200/40		5/5/0.5	
05/11/95	0.25	U	0.25	U	0.35	U	0.4	U	0.3	U
04/30/96	0.2	U	0.2	U	0.2	U	0.1	U	0.1	U
10/04/96	0.1	U	0.15	U	0.1	U	0.5		**0.6**	
05/05/97	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
10/09/97	0.1	U	0.15	U	0.1	U	0.15	U	0.1	U
05/01/98	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
11/06/98	0.1	U	0.25	U	0.35	U	0.3	U	0.3	U
04/19/99	0.1	U	0.1	U	0.1	U	0.1	U	0.18	U, CSH
05/20/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
09/13/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
10/08/99		NS		NS		NS		NS		NS
05/23/00		NS		NS		NS		NS		NS
07/19/00	0.075	U	0.075	U	0.075	U	0.075	U	0.1	U
07/18/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
04/22/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
11/18/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U

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TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

Date	EC-5									
	1, 1 - DCA		1, 1 - DCE		PCE		1, 1, 1 - TCA		TCE	
MCL/ES/PAL Limitations	None/850/85		7/7/0.7		5/5/0.5		200/200/40		5/5/0.5	
10/15/85		NA		NA		NA		NA	0.5	U
12/18/91	0.1	U	0.1	U	0.1	U	0.1	U	0.4	
06/15/92		NA		NA		NA		NA	0.5	U
06/20/92		NA		NA		NA		NA	0.5	U
05/11/95	0.25	U	0.25	U	0.35	U	0.4	U	0.3	U
06/15/95		NA		NA		NA		NA	0.5	U
04/30/96	0.2	U	0.2	U	0.2	U	0.5		**0.7**	
10/04/96	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
05/05/97	0.3		0.15	U	0.1	U	0.4		0.4	
10/09/97	0.1	U	0.1	U	0.1	U	0.15	U	0.1	U
05/01/98	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
11/06/98	0.1	U	0.25	U	0.35	U	0.3	U	0.3	U
04/20/99	0.1	U	0.1	U	0.1	U	0.1	U	0.18	U, CSH
05/20/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
09/13/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
10/08/99		NS		NS		NS		NS		NS
05/23/00		NS		NS		NS		NS		NS
07/19/00	0.075	U	0.075	U	0.075	U	0.075	U	0.2	U
07/18/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
10/17/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
04/22/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
11/18/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
04/10/03	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
07/23/03	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
07/13/04	0.25	U	0.25	U	0.225	U	0.21	U	0.25	U
07/13/05	0.25	U	0.25	U	0.225	U	0.21	U	0.25	U

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TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

Date	EC-6									
	1, 1 - DCA		1, 1 - DCE		PCE		1, 1, 1 - TCA		TCE	
MCL/ES/PAL Limitations	None/850/85		7/7/0.7		5/5/0.5		200/200/40		5/5/0.5	
10/15/85		NA		NA		NA		NA	**4.9**	
12/18/91	0.6	J	0.1	U	0.1	U	3	J	**1**	J
06/15/92		NA		NA		NA		NA	**1**	
06/20/92		NA		NA		NA		NA	**1**	
05/11/95	0.25	U	0.25	0.5 U	0.35	U	0.4	U	0.3	U
06/15/95		NA		NA		NA		NA	**1**	
04/30/96	0.7		0.2	U	0.2	U	1.3		**1**	
10/04/96	0.1	U	0.15	U	0.1	U	0.5		**0.6**	
05/05/97	0.4		0.15	U	0.1	U	0.6		**0.6**	
10/09/97	0.1	U	0.1	U	0.1	U	0.15	U	0.2	
05/01/98	0.3		0.15	U	0.1	U	3.8		**2.6**	
11/06/98	0.1	U	0.25	U	0.35	U	0.7		**0.7**	
04/20/99	0.1	U	0.1	U	0.1	U	0.223	J	0.18	U, CSH
05/20/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
09/13/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
10/08/99	0.075	U	0.075	U	0.075	U	0.075	U	**0.589**	
05/24/00	0.075	U	0.075	U	0.075	U	0.075	U	0.2	U
10/13/00	0.075	U	0.075	U	0.075	U	0.075	U	0.243	J
05/10/01	0.159	J	0.075	U	0.075	U	0.424	J	0.2	U
10/16/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
04/22/02	0.18	U	0.195	U, SPL	0.16	U, SPL	0.483	J	0.18	U
11/18/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
04/10/03	0.18	U	0.195	U	0.16	U	0.21	U	0.42	J
07/23/03	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
07/13/04	0.25	U	0.25	U	0.225	U	0.21	U	0.25	U
04/12/05	0.25	U	0.25	U	0.225	U	0.21	U	0.25	U
10/12/05	0.25	U	0.25	U	0.225	U	0.21	U	0.25	U

TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

Date	EC-7									
	1, 1 - DCA		1, 1 - DCE		PCE		1, 1, 1 - TCA		TCE	
MCL/ES/PAL Limitations	None/850/85		7/7/0.7		5/5/0.5		200/200/40		5/5/0.5	
10/15/85		NA		NA		NA		NA	0.5	U
06/20/92		NA		NA		NA		NA	0.5	U
05/11/95	0.25	U	0.25	U	0.35	U	0.4	U	0.3	U
06/15/95		NA		NA		NA		NA	0.5	U
04/30/96	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
10/04/96	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
05/05/97	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
10/09/97	0.1	U	0.1	U	0.1	U	0.15	U	0.1	U
05/01/98	0.1	U	0.15	U	0.1	U	0.1	U	0.5	
11/06/98	0.1	U	0.25	U	0.35	U	0.3	U	0.3	U
04/20/99	0.1	U	0.1	U	0.1	U	0.1	U	0.18	U, CSH
05/20/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
09/13/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
07/19/00	0.075	U	0.075	U	0.075	U	0.075	U	0.2	U
07/17/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
10/17/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
04/22/02	0.18	U	0.195	U, SPL	0.16	U, SPL	0.21	U	0.18	U
11/18/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U

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TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

Date	EC-8									
	1, 1 - DCA		1, 1 - DCE		PCE		1, 1, 1 - TCA		TCE	
MCL/ES/PAL Limitations	None/850/85		7/7/0.7		5/5/0.5		200/200/40		5/5/0.5	
10/15/85		NA		NA		NA		NA	0.5	U
06/20/92		NA		NA		NA		NA	0.5	U
05/11/95	0.25	U	0.25	U	0.35	U	0.4	U	0.3	U
06/15/95		NA		NA		NA		NA	0.5	U
04/30/96	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
10/04/96	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
05/05/97	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
10/09/97	0.1	U	0.1	U	0.1	U	0.15	U	0.1	U
05/01/98	0.1	U	0.15	U	0.1	U	0.1	U	0.1	U
11/06/98	0.1	U	0.25	U	0.35	U	0.3	U	0.3	U
04/19/99	0.1	U	0.1	U	0.1	U	0.1	U	0.18	U, CSH
05/20/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
09/13/99	0.5	U	0.25	U	0.35	U	0.35	U	0.3	U
10/08/99		NS		NS		NS		NS		NS
07/19/00	0.075	U	0.075	U	0.075	U	0.075	U	0.2	U
07/18/01	0.19	U	0.19	U	0.13	U	0.1	U	0.13	U
04/22/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U
11/18/02	0.18	U	0.195	U	0.16	U	0.21	U	0.18	U

TABLE 3

ANALYTICAL RESULTS FROM PLUME 1/2 MONITORING WELLS

NOTES:

All concentrations are in µg/L (ppb).

U = Compound not detected at or above the detection limit, which is two times this value.

Concentration values shown in bold are above the NR 140 PAL.

Concentration values shown in bold and shaded are above the MCL/NR 140 ES.

ND = Not detected at or above the detection limit.

NS = Not sampled.

NA = Not analyzed

B = Compound detected in blank.

D = Indicates initial analysis exceeded the calibration range, was diluted and re-analyzed.

CSH = Check standard for this analyte exhibited a high bias. Sample results may also be biased high.

CSL = Check standard for this analyte exhibited a low bias. Sample results may also be biased low.

J = Estimated concentration below laboratory quantitation level.

SPH = Matrix spike recovery within analytical batch was high. Sample matrix appears similar to your sample; result may be biased high.

SPL = Matrix spike recovery within analytical batch was low. Sample matrix appears similar to your sample; result may be biased low.

MSH = Matrix spike recovery within analytical batch was high. Sample matrix appears similar to your sample; result may be biased high.

MSL = Matrix spike recovery within analytical batch was low. Sample matrix appears similar to your sample; result may be biased low.

ISH = Internal standard recovery exceeds normal limits. Sample results ma;y be biased low.

Dup = Result of duplicate analysis in this quality assurance batch exceeds the limits for precision.

Attachment 4 - Five Year Review Inspection Report, April 5, 2007 & June 21, 2007

United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Date: April 5, 2007

Site: Eau Claire Municipal Well Field, 2711 Riverview Drive, Eau Claire, Wisconsin (WID 980 820 0054)

From: Howard Caine, RPM

To: File

Introduction and Purpose

The United States Environmental Protection Agency (U.S. EPA) Region 5 and the Wisconsin Department of Natural Resources (WDNR) conducted a Site Visit as part of the Five-Year Review at the Eau Claire Municipal Well Field. The Site was toured, paperwork was reviewed and homeowners in the area of the Site were interviewed. The Site Visit took place on January 25, 2007.

Participants

Howard Caine, U.S. EPA

Eileen Kramer, WDNR

Jeff Pippenger, City of Eau Claire
Kathy White, City of Eau Claire
Brian Amundson, City of Eau Claire
Tim Greene, City of Eau Claire

Dave Olig, Gannett Fleming
Cliff Wright, Gannett Fleming

Inspection

On-Site Documents & Records Verified

The O&M Documents, Site Specific Health and Safety Plan, and O&M and OSHA Training Records were available on-site. Production well monitoring data is collected by both ECMWF staff and Gannett Fleming (GF) staff (consultant to National Presto Industries). According to GF, its data has a lower detection limit than the samples collected by the City of Eau Claire. The production well monitoring is done on a

monthly basis by the City and a quarterly basis by Gannett Fleming and submitted to U.S. EPA and WDNR in an annual report.

O&M Costs

The O&M is performed by the City of Eau Claire. O&M cost records were provided after the site visit. The annual operations and maintenance costs for 2006 were $61,397.48. The total operations and maintenance costs were $1,225,476.03. National Presto Industries pays 90% of the cost for operation of the air strippers. There were no unanticipated or unusually high O&M costs.

Access and Institutional Controls

Fencing around the Site appeared to be adequate and intact. The building by the air strippers is locked which would limit access to the air strippers. The building also has a telemetry system.

U.S. EPA has requested that the PRPs perform an Institutional Control (IC) Study at the Site and they have agreed to perform it. The purpose of this study is to ensure that the ICs in place are adequate to protect human health and the environment. The City of Eau Claire-County Health Department administers private wells in the city. A cross connection ordinance is in place, preventing cross connections from private water supply wells and the City public water supply. The City is in the process of developing an ordinance regarding well registration and testing. The City of Eau Claire also has an ordinance in place which prevents consumption of drinking groundwater. The groundwater can be used for irrigation and car washing. Homes are equipped with a T-line where a test is conducted every 5 years for bacteria by the Health Department.

There was no evidence of vandalism or trespassing; land use changes on-site; and land use changes off-site. The land is open to the public for recreation. City of Eau Claire representatives said that the public is very good about reporting suspicious activities to them.

There was an incident of vandalism several years ago where a teenager was throwing rocks at the gas chlorination system. After this incident, the City of Eau Claire switched to a liquid chlorination system.

General Site Conditions

The roads appeared to be maintained. The Site appeared to be in adequate shape.

Groundwater/Surface Water Remedies

Treatment System

The ECMWF has two air stripper towers. The air strippers and the air stripper building appeared to be in good condition.

There are numerous wells in the well field. Six wells go to the air strippers. They are: 10, 11, 15, 16, 17 and 19. Well 10 went off-line about 3 years ago and could go on-line, if necessary. Well 19 produces about 1000 gallons per minute and may act as an interceptor well, limiting the migration of contaminants to the production wells west of well 19. Wells 4, 6, 8, 9, 12, 13, 14, 18 and 21 are not impacted by the contaminated groundwater plume and do not go to the air strippers. Wells 18 and 19 were constructed in 1994. Well 20 was abandoned.

The water travels from the wells to the air strippers (where chlorination is done) and then goes to the water plant. The water passes through the settling basins where lime and permanganate are added. The water goes to the filter bay of gravel, sand and anthracite. Chlorine, fluorine and ammonia are added to the water and then it goes to the clear well where the water is distributed to the public.

The air strippers are 20 years old and are checked daily, weekly and monthly. A study was done in 1999 to check the operations of the air strippers and to see if would need replacing. The study found that the air strippers are still operating well, but a gel may need to be coated on the fiberglass tower to protect it from the ultraviolet rays.

The air stripper towers are 40 feet high. The water enters the system through a booster pump to overcome head. After air stripping, the water goes through 1 of 2 pumps to the water treatment plant. The media in the towers are checked annually. Chlorine is added to the water prior to air stripping to eliminate algae growth on the media. The quality of the water is tested prior to, and after, air stripping. One water line enters the air strippers and it splits to the two towers. Water enters the top of the towers and air enters the bottom of the towers to treat (air strip) the water. After air stripping, the water leaves the towers and goes to a manifold where the water travels to the water treatment plant. Each of the air strippers has its own exhaust stack.

The design capacity of the well field is 22-24 MMgal/day. The actual capacity is closer to 20 MMgal/day. The winter water usage is 8-9 MMgal/day and the summer usage is 20 MMgal/day. The City of Eau Claire is considering options to curb water usage or to increase capacity. The water demand has gone up due to new construction of homes and citizens watering their lawns. The City of Eau Claire is also evaluating whether to construct another well.

Monitoring wells could not be observed during the January 25, 2007 site visit. The wells are not readily accessible with conventional vehicles when there are several inches of snow on the ground.

Monitoring Data

The monitoring data is kept in-house and is submitted to GF. It is of acceptable quality. The groundwater suggests that the groundwater plume is effectively contained and that the contaminants, in general, are declining.

The City of Eau Claire inquired about seeing monitoring data of the NPI plume. GF volunteered to provide a copy of the NPI data to the City of Eau Claire.

Attachments

Eau Claire Municipal Well Field and National Presto Industries Schematic
Five-Year Review Site Inspection Checklist
Interview Documentation Forms
Air Stripper Information
City of Eau Claire Well Field VOC Averages
VOC Production and Test (Groundwater) Well Data
Public Notice for Five-Year Review

Photo 1: Wooden Pipe from Original Well Field

Photo 2: Manufacturer Plate on Wooden Pipe

Photo 3: Water In-take to the Air Strippers

Photo 4: Water Out-take from the Air Strippers

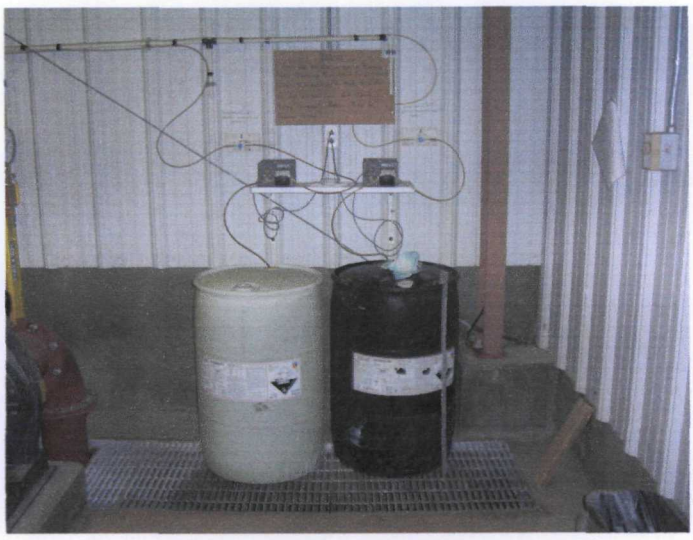


Photo 5: Chemical Treatment for the Drinking Water

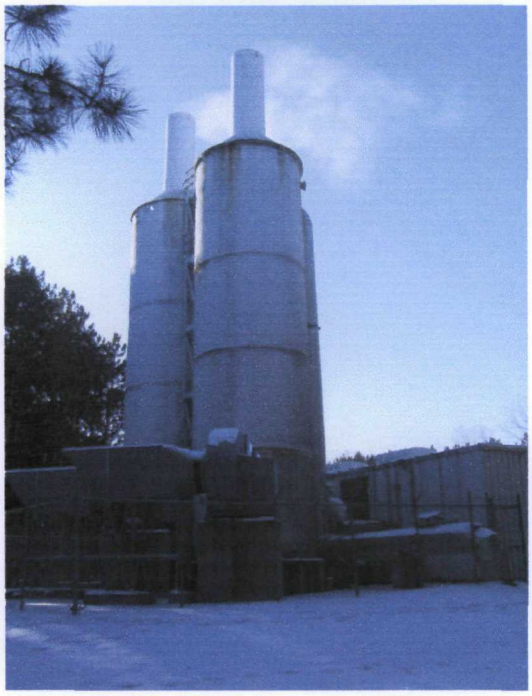


Photo 6: ECMWF Air Strippers

Photo 7: Well Head #11

Photo 8: Building for Well Head #11

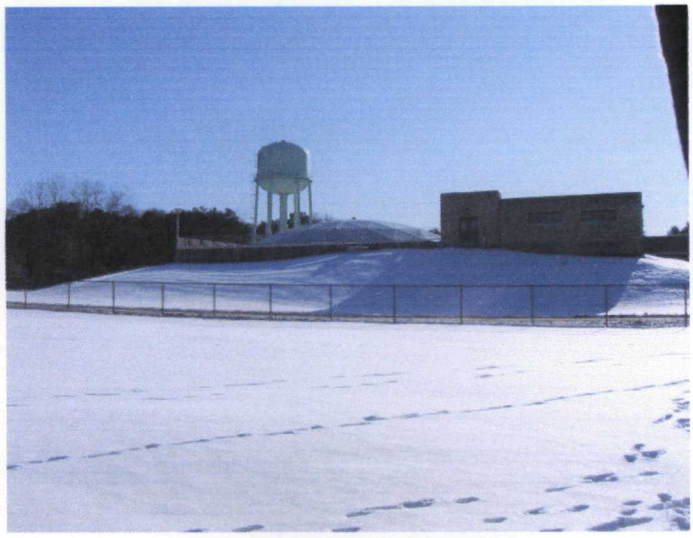


Photo 9: Water Treatment Plant

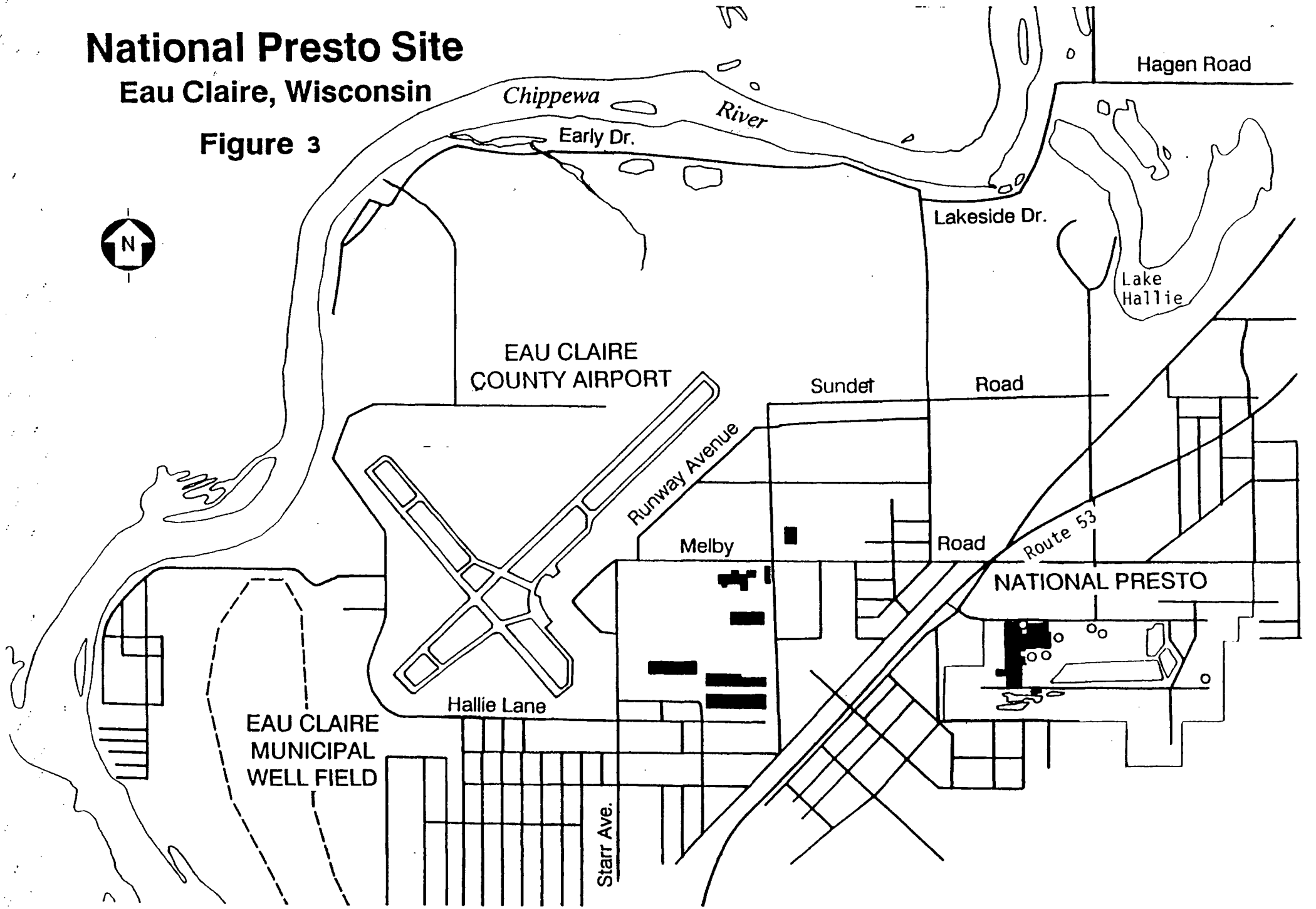
Photo 10: Water Treatment Plant

Eau Claire Municipal Well Field and National Presto Industries Schematic

National Presto Site

Eau Claire, Wisconsin

Figure 3



Five Year Review Inspection Checklist

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program.

Five-Year Review Site Inspection Checklist (Template)

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

I. SITE INFORMATION	
Site name: EAU CLAIRE MUN. WELL FIELD	**Date of inspection:** 1/25/07
Location and Region: EAU CLAIRE, WI	**EPA ID:**
Agency, office, or company leading the five-year review: US EPA REGION 5	**Weather/temperature:** SUNNY, 15-20°F
Remedy Includes: (Check all that apply) G Landfill cover/containment G Access controls G Institutional controls G Groundwater pump and treatment G Surface water collection and treatment G Other AIR STRIPPER G Monitored natural attenuation G Groundwater containment G Vertical barrier walls	
Attachments: G Inspection team roster attached G Site map attached	

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** JEFF PIPPENGER UTILITIES ADMIN. _____
   Name Title Date
   Interviewed G at site G at office G by phone Phone no. _____
   Problems, suggestions; G Report attached _____

2. **O&M staff** _____ _____ _____
   Name Title Date
   Interviewed G at site G at office G by phone Phone no. _____
   Problems, suggestions; G Report attached _____

BRIAN AMUNDSON, DIR OF PUB. WORKS
KATHRYN WHITE, INDUSTRIAL PRETREATMENT COORD.
TIM GREENE, WATER TREAT PLT SUPERINTENDENT

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency WDNR
Contact EILEEN KRAMER HYDROGEOLOGIST
Name Title Date Phone no.
Problems; suggestions; G Report attached

Agency
Contact
Name Title Date Phone no.
Problems; suggestions; G Report attached

Agency
Contact
Name Title Date Phone no.
Problems; suggestions; G Report attached

Agency
Contact
Name Title Date Phone no.
Problems; suggestions; G Report attached

4. **Other interviews** (optional) G Report attached.

DAVE OZIG, PROJ. MGR, GANNETT FLEMING
CLIFF WRIGHT, GEOLOGIST and GEOTECHNICAL & ENV. ENGINEER, GANNETT FLEMING

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. **O&M Documents**
   - G O&M manual — G Readily available — G Up to date — G N/A
   - G As-built drawings — G Readily available — G Up to date — G N/A
   - G Maintenance logs — G Readily available — G Up to date — G N/A

   Remarks

2. **Site-Specific Health and Safety Plan** — G Readily available — G Up to date — G N/A
   - G Contingency plan/emergency response plan — G Readily available — G Up to date — G N/A

   Remarks

3. **O&M and OSHA Training Records** — G Readily available — G Up to date — G N/A

   Remarks WATER & SEWER SYSTEM STAFF, WATER & WASTEWATER PLANT STAFF INCLUDES CONFINED SPACE, MSDS, LOCKOUT/TAGOUT, PPE

4. **Permits and Service Agreements**
   - G Air discharge permit – CHECK W/DNR — G Readily available — G Up to date — G N/A
   - G Effluent discharge — G Readily available — G Up to date — G N/A
   - G Waste disposal, POTW — G Readily available — G Up to date — G N/A
   - G Other permits ____ — G Readily available — G Up to date — G N/A

   Remarks

5. **Gas Generation Records** — G Readily available — G Up to date — G N/A

   Remarks

6. **Settlement Monument Records** — G Readily available — G Up to date — G N/A

   Remarks

7. **Groundwater Monitoring Records** — G Readily available — G Up to date — G N/A

   Remarks

8. **Leachate Extraction Records** — G Readily available — G Up to date — G N/A

   Remarks

9. **Discharge Compliance Records**
   - G Air — G Readily available — G Up to date — G N/A
   - G Water (effluent) — G Readily available — G Up to date — G N/A

   Remarks FOR DRINKING WATER

10. **Daily Access/Security Logs** — G Readily available — G Up to date — G N/A

    Remarks WILL CHECK THIS

STRIPPING TOWER RECORDS

MISSING

'02 Jan, Mar, Oc

'03 Ja, Au

'04

'05 Oc, No, Dec

'06 Ap, Ma, Jun, No

WORK DONE, BUT MISSING

IV. O&M COSTS

1. **O&M Organization**
G State in-house G Contractor for State
G PRP in-house G Contractor for PRP
G Federal Facility in-house G Contractor for Federal Facility
G Other CITY IN-HOUSE

2. **O&M Cost Records** WILL CHECK ON THIS
G Readily available G Up to date
G Funding mechanism/agreement in place
Original O&M cost estimate_____ G Breakdown attached

Total annual cost by year for review period if available

From_____ To_____ _____ G Breakdown attached
Date Date Total cost
From_____ To_____ _____ G Breakdown attached
Date Date Total cost
From_____ To_____ _____ G Breakdown attached
Date Date Total cost
From_____ To_____ _____ G Breakdown attached
Date Date Total cost
From_____ To_____ _____ G Breakdown attached
Date Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**
Describe costs and reasons: NONE

V. ACCESS AND INSTITUTIONAL CONTROLS G Applicable G N/A

A. Fencing

1. **Fencing damaged** G Location shown on site map G Gates secured G N/A
Remarks FENCING, GATES

B. Other Access Restrictions

1. **Signs and other security measures** G Location shown on site map G N/A
Remarks FENCE AROUND AIR STRIPPERS, BLDG IS LOCKED, TELEMETRY SYSTEM

NO SIGN, IS IT REQUIRED?

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented G Yes G No G N/A
Site conditions imply ICs not being fully enforced G Yes G No G N/A

Type of monitoring (*e.g.*, self-reporting, drive by) _____
Frequency _____
Responsible party/agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.

Reporting is up-to-date G Yes G No G N/A
Reports are verified by the lead agency G Yes G No G N/A

Specific requirements in deed or decision documents have been met G Yes G No G N/A
Violations have been reported G Yes G No G N/A
Other problems or suggestions: G Report attached
ORDINANCE, T-LINE WHERE TEST IS DONE EVERY 5 YR FOR BACTERIA W/ HEALTH DEPT.
IN PROCESS OF REGISTERING WATER WELLS

2. **Adequacy** G ICs are adequate G ICs are inadequate G N/A
Remarks _____

D. General

1. **Vandalism/trespassing** G Location shown on site map G No vandalism evident
Remarks NO PROBLEMS, LAND IS OPEN TO THE PUBLIC

2. **Land use changes on site** G (N/A)
Remarks _____

3. **Land use changes off site** G (N/A)
Remarks _____

VI. GENERAL SITE CONDITIONS

A. Roads G Applicable G N/A

1. **Roads damaged** G Location shown on site map G (Roads adequate) G N/A
Remarks _____

B. Other Site Conditions

Remarks_____

VII. LANDFILL COVERS G Applicable G N/A

A. Landfill Surface

1. **Settlement** (Low spots) G Location shown on site map G Settlement not evident
Areal extent_____ Depth_____
Remarks_____

2. **Cracks** G Location shown on site map G Cracking not evident
Lengths_____ Widths_____ Depths_____
Remarks_____

3. **Erosion** G Location shown on site map G Erosion not evident
Areal extent_____ Depth_____
Remarks_____

4. **Holes** G Location shown on site map G Holes not evident
Areal extent_____ Depth_____
Remarks_____

5. **Vegetative Cover** G Grass G Cover properly established G No signs of stress
G Trees/Shrubs (indicate size and locations on a diagram)
Remarks_____

6. **Alternative Cover (armored rock, concrete, etc.)** G N/A
Remarks_____

7. **Bulges** G Location shown on site map G Bulges not evident
Areal extent_____ Height_____
Remarks_____

8. **Wet Areas/Water Damage** G Wet areas/water damage not evident
G Wet areas G Location shown on site map Areal extent_____
G Ponding G Location shown on site map Areal extent_____
G Seeps G Location shown on site map Areal extent_____
G Soft subgrade G Location shown on site map Areal extent_____
Remarks_____

9. **Slope Instability** G Slides G Location shown on site map G No evidence of slope instability
Areal extent_____
Remarks_____

B. Benches G Applicable G N/A
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** G Location shown on site map G N/A or okay
Remarks_____

2. **Bench Breached** G Location shown on site map G N/A or okay
Remarks_____

3. **Bench Overtopped** G Location shown on site map G N/A or okay
Remarks_____

C. Letdown Channels G Applicable G N/A
(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** G Location shown on site map G No evidence of settlement
Areal extent_____ Depth_____
Remarks_____

2. **Material Degradation** G Location shown on site map G No evidence of degradation
Material type_____ Areal extent_____
Remarks_____

3. **Erosion** G Location shown on site map G No evidence of erosion
Areal extent_____ Depth_____
Remarks_____

4. **Undercutting** G Location shown on site map G No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ G No obstructions
G Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
G No evidence of excessive growth
G Vegetation in channels does not obstruct flow
G Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations G Applicable G N/A

1. **Gas Vents** G Active G Passive
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance
G N/A
Remarks_____

2. **Gas Monitoring Probes**
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

3. **Monitoring Wells** (within surface area of landfill)
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

4. **Leachate Extraction Wells**
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

5. **Settlement Monuments** G Located G Routinely surveyed G N/A
Remarks_____

E. Gas Collection and Treatment G Applicable G N/A

1. **Gas Treatment Facilities**
   G Flaring G Thermal destruction G Collection for reuse
   G Good condition G Needs Maintenance
   Remarks_____

2. **Gas Collection Wells, Manifolds and Piping**
   G Good condition G Needs Maintenance
   Remarks_____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   G Good condition G Needs Maintenance G N/A
   Remarks_____

F. Cover Drainage Layer G Applicable G N/A

1. **Outlet Pipes Inspected** G Functioning G N/A
   Remarks_____

2. **Outlet Rock Inspected** G Functioning G N/A
   Remarks_____

G. Detention/Sedimentation Ponds G Applicable G N/A

1. **Siltation** Areal extent_____ Depth_____ G N/A
   G Siltation not evident
   Remarks_____

2. **Erosion** Areal extent_____ Depth_____
   G Erosion not evident
   Remarks_____

3. **Outlet Works** G Functioning G N/A
   Remarks_____

4. **Dam** G Functioning G N/A
   Remarks_____

H. Retaining Walls G Applicable G N/A

1. **Deformations** G Location shown on site map G Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** G Location shown on site map G Degradation not evident
   Remarks_____

I. Perimeter Ditches/Off-Site Discharge G Applicable G N/A

1. **Siltation** G Location shown on site map G Siltation not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** G Location shown on site map G N/A
   G Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** G Location shown on site map G Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** G Functioning G N/A
   Remarks_____

VIII. VERTICAL BARRIER WALLS G Applicable G N/A

1. **Settlement** G Location shown on site map G Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring_____
   G Performance not monitored
   Frequency_____ G Evidence of breaching
   Head differential_____
   Remarks_____

IX. GROUNDWATER/SURFACE WATER REMEDIES G Applicable G N/A

A. Groundwater Extraction Wells, Pumps, and Pipelines G Applicable G N/A

N/A 2/7/07 MMC

1. **Pumps, Wellhead Plumbing, and Electrical**
   G Good condition MMC 1/25/07 G All required wells properly operating G Needs Maintenance G N/A
   Remarks

2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   G Good condition MMC 1/25/07 G Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   G Readily available G Good condition G Requires upgrade G Needs to be provided
   Remarks

B. Surface Water Collection Structures, Pumps, and Pipelines G Applicable G N/A

1. **Collection Structures, Pumps, and Electrical**
   G Good condition G Needs Maintenance
   Remarks

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   G Good condition G Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   G Readily available G Good condition G Requires upgrade G Needs to be provided
   Remarks

C. Treatment System G Applicable G N/A

1. **Treatment Train** (Check components that apply)
   G Metals removal G Oil/water separation G Bioremediation
   G Air stripping G Carbon adsorbers
   G Filters_____
   G Additive (*e.g.*, chelation agent, flocculent)_____
   G Others_____
   G Good condition G Needs Maintenance
   G Sampling ports properly marked and functional
   G Sampling/maintenance log displayed and up to date
   G Equipment properly identified
   G Quantity of groundwater treated annually_____
   G Quantity of surface water treated annually_____
   Remarks_____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   G N/A G Good condition G Needs Maintenance
   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   G N/A G Good condition G Proper secondary containment G Needs Maintenance
   Remarks_____

4. **Discharge Structure and Appurtenances**
   G N/A G Good condition G Needs Maintenance
   Remarks_____

5. **Treatment Building(s)**
   G N/A G Good condition (esp. roof and doorways) G Needs repair
   G Chemicals and equipment properly stored
   Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
   G Properly secured/locked G Functioning G Routinely sampled G Good condition
   G All required wells located G Needs Maintenance G N/A
   Remarks_____

D. Monitoring Data

1. Monitoring Data MOSTLY KEPT IN-HOUSE; SUBMITTED TO G-F (CHECK THIS)
   G Is routinely submitted on time G Is of acceptable quality

2. Monitoring data suggests:
   G Groundwater plume is effectively contained G Contaminant concentrations are declining

D. Monitored Natural Attenuation N/A

1. **Monitoring Wells** (natural attenuation remedy)
G Properly secured/lockedG Functioning G Routinely sampled G Good condition
G All required wells located G Needs Maintenance G N/A
Remarks

X. OTHER REMEDIES N/A

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

AIR STRIP VOCs IN GW WELL FIELD FROM NPT

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

O&M APPEARS TO BE ADEQUATE BASED ON SITE TOUR

C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future. N/A

D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. DID DISCUSS POSSIBILITY OF TAKING SOME WELLS OFF OF STRIPPER (NEED AT LEAST 2), BUT ARE NOT GOING TO DO IT.

Interview Documentation Forms

INTERVIEW DOCUMENTATION FORM

The following is a list of individual interviewed for this five-year review. See the attached contact record(s) for a detailed summary of the interviews.

Name	Title/Position	Organization	Date
JEFF PIPPENGER[1]	UTILITIES ADMINISTRATOR	CITY OF EAU CLAIRE	1/25/07
KATHY WATE[1]	IND. PRETRT. COORD.	CITY OF EAU CLAIRE	1/25/07
BRIAN AMUNDSON[1]	DIR. PUB. WORKS	CITY OF EAU CLAIRE	1/25/07
TIM GREENE[1]	WATER TRT. PLANT SUPR.	CITY OF EAU CLAIRE	1/25/07
DAVE OLIG[1]	PROJ. MGR	GANETT-FLEMING	1/25/07
CLIFF WRIGHT[1]	GEOL. & GEOTECHNICAL SENIOR ENGR.	GANETT-FLEMING	1/25/07
EILEEN VALAMOR[1]	HYDROGEOLOGIST	WDNR	1/25/07
AL NELSON[2]	CITIZEN		1/25/07
DOUG HARNESS[2]	CITIZEN		1/25/07
DENNIS DOCKRY[2]	CITIZEN		1/25/07

[1] PRESENT AT INSPECTION, SEE CHECKLIST

[2] CITIZENS INTERVIEWED, SEE INTERVIEW RECORD

INTERVIEW RECORD

Site Name: ECMWF		**EPA ID No.:**	
Subject: 5-YR REVIEW INTERVIEW		**Time:** 1:35P	**Date:** 1/25/07
Type: ☐ Telephone ☑ Visit ☐ Other **Location of Visit:** EAU CLAIRE		☐ Incoming ☐ Outgoing	

Contact Made By:

Name: H. CAINE / E. KRAMER	**Title:** RPM / HYDROGEOLOGIST	**Organization:** USEPA / WDNR

Individual Contacted:

Name: AL NELSON	**Title:**	**Organization:**

Telephone No: **Fax No:** **E-Mail Address:**	**Street Address:** 1123 MARQUETTE **City, State, Zip:** MARQUETTE, WI

Summary Of Conversation

NO COMMENTS

Page 1 of _____

INTERVIEW RECORD

Site Name: ECNWF		**EPA ID No.:**	
Subject: 5 YR REVIEW INTERVIEW		**Time:**	**Date:** 1/25/07
Type: ☐ Telephone ☑ Visit ☐ Other **Location of Visit:**		☐ Incoming ☐ Outgoing	

Contact Made By:

Name: H. CANE / E. KRAMER	**Title:** RPM / HYDROGEOLOGIST	**Organization:** USEPA / W DNR

Individual Contacted:

Name: DOUG HAGENUSS	**Title:**	**Organization:**

Telephone No: **Fax No:** **E-Mail Address:**	**Street Address:** 1110 MARQUETTE **City, State, Zip:** EAU CLAIRE

Summary Of Conversation

SEWER GAS SMELL IN HOUSE

WATER BACKED UP IN BASEMENT

TREE ROOTS?

Page 1 of _____

INTERVIEW RECORD

Site Name: ECMWF		**EPA ID No.:**	
Subject: 5 YR REVIEW INTERVIEW		**Time:**	**Date:** 1/25/07
Type: ☐ Telephone ☑ Visit ☐ Other **Location of Visit:**		☐ Incoming ☐ Outgoing	

Contact Made By:

Name: H. CAINE / E. KRAMER	**Title:** RPM / HYDROGEOLOGIST	**Organization:** USEPA / WDNR

Individual Contacted:

Name: DENNIS DOCKRY	**Title:**	**Organization:**

Telephone No: **Fax No:** **E-Mail Address:**	**Street Address:** 2609 RIVERVIEW **City, State, Zip:** EAU CLAIRE

Summary Of Conversation

NO COMPLAINTS

LOVES THE HIKING TRAILS AT THE ECMWF SITE

Page 1 of ____

Air Stripper Information

Table #1

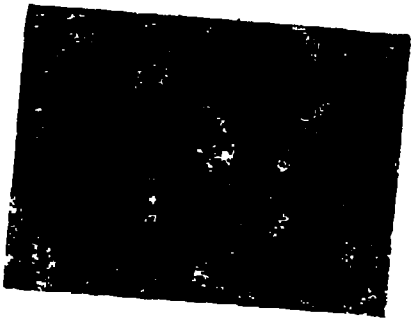
VOC REMOVAL PERFORMANCES
PRETREATMENT FACILITIES EVALUATION - VOC STRIPPING TOWERS
City Of Eau Claire, Wisconsin

Compound	Original Design Concentration (ppm)	Minimum Removal Efficiency	Target Level (ppb)	Well 11	Well 15	Well 16	Well 17	Well 19
1,1-DCE	0.020	99.3	0.14	ND	ND	ND	ND	0.8
TCE	0.035	99	0.35	ND	1.2	ND	ND	4.6
PCE	0.017	99	0.17	ND	ND	ND	ND	ND
1,1-DCA	0.010	98	0.2	ND	ND	ND	ND	1.2
1,1,1-TCA	0.88	97	5.6	ND	1.6	ND	ND	5.6

STRIPPING TOWER UPGRADES

variable frequency drive

1) Two new vfd"s - 2001
2) Rebuilt booster pump - 2006
3) Pressure washed towers-Sand blasted/Painted support steel - 2002
4) New soft start for booster pump - 2002
5) New chlorine feed pump system - 2001
6) New Tower water meters - 2006
7) New Tower controller - 2000
8) New Tower overflow pad - 1997
9) New chlorine booster pump - 1996
10) New communication system - 2000
11) Four new electric heaters - 1998-2005
12) New outside lighting - 1992-1999



CITY OF EAU CLAIRE
GRANT REPORT

AIR STRIPPING TOWERS

		1/1/2006 THROUGH 3/31/2006	4/1/2006 THROUGH 6/30/2006	7/1/2006 THROUGH 9/30/2006	10/1/2006 THROUGH 12/31/2006	YTD TOTAL 2006	TOTAL TO DATE
5023644-****							
6010	Payroll Wages	4,277.62	4,659.48	4,781.65	**5,561.53**	**$ 19,280.28**	335,582.18
6020	Payroll Overtime	137.40	0.00	31.65	**63.94**	**232.99**	34,498.55
6043	Health Ins (ER)	990.09	933.74	1,313.24	**1,145.61**	**4,382.68**	26,011.62
6050	Back Pay Contract Settlemt	0.00	0.00	0.00	**0.00**	**0.00**	3,729.86
	Benefit Exp - 3	0.00	0.00	0.00	**0.00**	**0.00**	9,630.31
6030	* Special Pays	17.01	131.67	0.00	**144.32**	**293.00**	79,299.89
6040	* Benefit 6040	852.72	920.20	926.98	**1,124.87**	**3,824.77**	121,429.31
6202	Electricity	6,263.34	7,905.00	10,599.46	**6,013.04**	**30,780.84**	514,856.34
6138	Equipment Rental	0.00	0.00	0.00	**0.00**	**0.00**	6,845.21
6426/6460/6498	Lab Supplies & Repair Parts	350.58	1,924.00	328.34	**0.00**	**2,602.92**	93,592.76
	** TOTAL **	12,888.76	16,474.09	17,981.32	**14,053.31**	**$ 61,397.48**	1,225,476.03
Grant reimbursement (90%)		**11,599.88**	**14,826.68**	16,183.19	**12,647.98**	**$ 55,257.73**	1,056,213.51

Year End Allocation of Expense @ 90%

5023644-			90%
6010	$19,280.28		17,352.25
6020	232.99		209.69
6030	293.00		263.70
6043	4,382.68		3,944.41
6040	3,824.77		3,442.29
6202	30,780.84		27,702.76
6460	1,924.00		1,731.60
6426	328.34		295.51
6498	350.58		315.52
	$61,397.48	$	55,257.73

YEAR END - 2006

City of Eau Claire Well Field VOC Averages

RAW WATER
BEFORE STRIPPING TOWER
SAMPLE MONTHLY

CITY OF EAU CLAIRE
WELL FIELD VOC ANNUAL AVGS.

DATE	WELL	DCE ppb	DCA ppb	TCA ppb	TCE ppb	PCE ppb
2000	11	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	ND	2.6	2.9	ND
2001	11	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	ND	1.4	1.7	ND
2002	11	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	ND	1.7	1.4	ND
2003	11	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	ND	1.7	1.8	ND
2004	11	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	ND	1.0	2.3	ND
2005	11	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	ND	1.1	2.6	ND
2006	11	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	ND	1.0	2.4	ND

	Det. Limit
DCA = 1,1 Dichloroethane	0.5
DCE = 1,1 Dichlorothylene	0.4
TCA = 1,1,1 Trichloroethane	1.0
TCE = 1,1,1 Trichlorethylene	0.7
PCE = Tetrachlorothylene	0.7

CITY OF EAU CLAIRE
WELL FIELD VOC ANNUAL AVGS.

DATE	WELL	DCE ppb	DCA ppb	TCA ppb	TCE ppb	PCE ppb
1992	11	ND	0.4	4.1	1.5	ND
	15	0.9	1.3	11	4.8	ND
	16	ND	ND	3.2	1.5	ND
	17	0.6	0.3	3.0	1.6	ND
1993	11	ND	ND	2.8	1.5	ND
	15	0.8	1.4	9.0	4.2	ND
	16	ND	ND	6.7	1.2	ND
	17	ND	0.5	3.0	1.5	ND
1994	11	ND	ND	1.2	0.9	ND
	15	ND	0.8	3.8	2.0	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	0.5	0.7	ND
	19	1.0	2.0	10.0	6.0	1.0
1995	11	ND	ND	0.5	ND	ND
	15	ND	ND	2.4	1.1	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	0.6	2.2	8.5	5.5	0.5
1996	11	ND	ND	ND	0.9	ND
	15	ND	ND	2.9	1.9	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	1.1	6.3	4.9	ND
1997	11	ND	ND	ND	ND	ND
	15	ND	ND	1.4	1.1	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	1.1	5.5	4.5	ND
1998	11	ND	ND	ND	ND	ND
	15	ND	ND	1.5	1.4	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	0.9	4.1	3.9	ND
1999	11	ND	ND	ND	1.1	ND
	15	ND	ND	0.8	0.9	ND
	16	ND	ND	ND	ND	ND
	17	ND	ND	ND	ND	ND
	19	ND	1.1	3.8	3.9	ND

CITY OF EAU CLAIRE
WELL FIELD VOC ANNUAL AVGS.

DATE	WELL	DCE ppb	DCA ppb	TCA ppb	TCE ppb	PCE ppb
1983	11	ND	1.1	9.4	2.6	ND
	15	0.4	ND	5.1	2.0	3.7
	16	1.2	1.1	12	2.9	ND
	17	4.3	2.8	23	6.0	ND
1984	11	1.1	1.5	28	6.7	ND
	15	NT	NT	NT	NT	NT
	16	1.0	0.6	12	2.8	ND
	17	1.2	1.5	18	6.0	ND
1985	11	3.3	0.4	9.2	4.4	ND
	15	3.3	0.7	12	4.7	ND
	16	ND	ND	4.6	1.5	ND
	17	1.4	0.7	8.0	4.0	ND
1986	11	1.6	2.0	14	6.8	ND
	15	2.5	2.4	19	9.6	ND
	16	1.3	2.2	15	7.3	ND
	17	ND	0.6	5.3	3.0	ND
1987	11	2.5	2.8	15	8.7	ND
	15	3.2	3.5	22	10	ND
	16	1.0	1.7	9.6	5.0	ND
	17	2.2	2.3	14	7.0	ND
1988	11	0.6	1.1	9.2	4.9	ND
	15	2.6	2.0	14	7.0	ND
	16	0.5	0.7	5.5	2.8	ND
	17	ND	0.3	3.8	1.9	ND
1989	11	0.2	0.8	5.7	2.8	ND
	15	ND	0.9	6.0	3.6	ND
	16	ND	0.6	8.9	2.3	ND
	17	ND	ND	3.4	1.9	ND
1990	11	0.3	0.7	4.7	2.5	ND
	15	ND	0.8	5.4	3.3	ND
	16	ND	ND	2.1	1.1	ND
	17	ND	ND	2.0	1.0	ND
1991	11	ND	ND	3.0	1.5	ND
	15	ND	0.9	10	5.5	ND
	16	ND	ND	2.3	1.4	ND
	17	ND	ND	2.0	1.4	ND

VOC Production and Test (Groundwater) Well Data

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
12/6/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	0.6	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	ND	ND	1.0	1.2	39	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.1	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS (GROUND WATER MONITORING WELLS)

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene									0.4
1,1-Dichloroethane									0.5
1,1,1-Trichlorothane									1.0
1,1,1-Trichlorothylene									0.7
Tetrachloroethylene									0.7

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
Date: 11/6/06

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene				ND	ND		ND	ND	ND	ND	0.4
1,1 Dichloroethane				ND	ND		ND	ND	ND	ND	0.5
1,1,1-Trichloroethane				ND	ND		ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene				ND	ND		ND	ND	ND	ND	0.7
Tetrachloroethylene				ND	ND		ND	ND	ND	ND	0.7
Chloroform				ND	ND		1.6	1.4	1.1	21	0.5
Bromodichloromethane				ND	ND		ND	ND	ND	2.3	0.6
Dibromochloromethane				ND	ND		ND	ND	ND	ND	0.5

wells 10, 11, 15, 19 down for repair

TEST WELLS

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene	ND								0.4
1,1-Dichloroethane	ND								0.5
1,1,1-Trichlorothane	1.2	0.6							1.0
1,1,1-Trichlorothylene	4.3	3.1							0.7
Tetrachloroethylene	ND								0.7

Test well samples taken 10/17/06
chloroform in TW2 0.9 ppb

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
10/3/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	2.7	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	ND	0.7	1.4	1.6	25	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.0	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene									0.4
1,1-Dichloroethane									0.5
1,1,1-Trichlorothane									1.0
1,1,1-Trichlorothylene									0.7
Tetrachloroethylene									0.7

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
9/5/2006

VOC's Existing Wells (ug/l)

Parameters	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	1.0	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	2.8	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	0.5	0.5	0.9	1.7	1.0	22	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1.7	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

Parameters	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene								0.4
1,1-Dichloroethane								0.5
1,1,1-Trichlorothane								1.0
1,1,1-Trichlorothylene								0.7
Tetrachloroethylene								0.7

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
8/7/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	0.5	0.8	0.7	ND	13	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

Test Wells
Samples taken 7/26/06

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene	ND	ND			ND				0.4
1,1-Dichloroethane	ND	ND			ND				0.5
1,1,1-Trichlorothane	0.8	ND			ND				1.0
1,1,1-Trichlorothylene	3.1	1.7			ND				0.7
Tetrachloroethylene	ND	ND			ND				0.7

1.0ppb chloroform reported in TW2

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
7/5/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	ND	1.2	0.9	1.6	20	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

Parameters	1	2*	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene									0.4
1,1-Dichloroethane									0.5
1,1,1-Trichlorothane									1.0
1,1,1-Trichlorothylene									0.7
Tetrachloroethylene									0.7

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
6/7/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	0.9*	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.8*	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	4.9*	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	ND	1.0	2.3	3.3	44	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	0.7	ND	0.9	3.5	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene									0.4
1,1-Dichloroethane									0.5
1,1,1-Trichlorothane									1.0
1,1,1-Trichlorothylene									0.7
Tetrachloroethylene									0.7

*. Do not use in averages
[illegible]

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
5/2/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.9	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	0.4	0.8	0.7	1.3	2.0	23	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

Parameters	1*	2*	3	4	5	6*	7	8	Det Limit
1,1-Dichloroethylene	ND	ND				ND			0.4
1,1-Dichloroethane	ND	ND				ND			0.5
1,1,1-Trichlorothane	0.6	0.7				ND			1.0
1,1,1-Trichlorothylene	2.2	2.5				ND			0.7
Tetrachloroethylene	ND	ND				ND			0.7

*Samples taken 4/18/06
chloroform 2.8 ppb in well #2

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
4/11/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	0.7	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	3.8	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	1.4	ND	ND	ND	43	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.7	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

samples collected: 4/18/06

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene									0.4
1,1-Dichloroethane									0.5
1,1,1-Trichlorothane									1.0
1,1,1-Trichlorothylene									0.7
Tetrachloroethylene									0.7

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
3/7/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	0.6	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	0.9	ND	ND	3	1.2	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	1.0	1.0	0.9	0.9	28	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene									0.4
1,1-Dichloroethane									0.5
1,1,1-Trichlorothane									1.0
1,1,1-Trichlorothylene									0.7
Tetrachloroethylene									0.7

CITY OF EAU CLAIRE
Department of Public Works Utlities Division

Collected by: Kathy White
1/18/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	0.8	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.6	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	0.5	ND	1.1	2.9	38	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene	ND	ND							0.4
1,1-Dichloroethane	ND	ND							0.5
1,1,1-Trichlorothane	0.9	0.8							1.0
1,1,1-Trichlorothylene	3.5	3.5							0.7
Tetrachloroethylene	ND	ND							0.7
chloroform	ND	7.0							0.5
bromodichloromethane	ND	0.9							0.6

CITY OF EAU CLAIRE

Department of Public Works Utlities Division

Collected by: Kathy White

1/3/2006

VOC's Existing Wells (ug/l)

Parameters	10	11	15	16	17	19	RAW	TOWER A	TOWER B	FINISHED PRODUCT	DETECTION LIMIT
1,1 Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4
1,1 Dichloroethane	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND	1.0
1,1,1-Trichoroethylene	ND	ND	ND	ND	ND	2.6	ND	ND	ND	ND	0.7
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7
Chloroform	ND	ND	ND	ND	ND	1.0	0.5	ND	ND	31	0.5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.6	0.6
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5

TEST WELLS

Parameters	1	2	3	4	5	6	7	8	Det Limit
1,1-Dichloroethylene									0.4
1,1-Dichloroethane									0.5
1,1,1-Trichlorothane									1.0
1,1,1-Trichlorothylene									0.7
Tetrachloroethylene									0.7
chloroform									0.5
bromodichloromethane									0.6

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Home Daily. Set Schedules. Dedicated Routes. No Touch. Willing to work weekends, if necessary.
BENEFITS AVAILABLE: Health, Dental, Vision and Life. Paid Vacations and Holidays, 401K. Paid Weekly.
Requirements:
Class A CDL with 2 years verifiable experience within the past 3 years.
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EPA Reviews
Eau Claire Municipal Well Field
Superfund Site
Eau Claire, Wisconsin

U.S. Environmental Protection Agency is conducting a status review of the Eau Claire Municipal Well Field Superfund site in Eau Claire, Wis. The Superfund law requires a review at least every five years at sites where a cleanup action has been completed and hazardous substances remain at the site. These reviews are done to ensure the cleanup continues to protect human health and the environment.

This review includes an evaluation of background information, cleanup requirements, sampling results, effectiveness of the cleanup and possible future actions.

Originally, EPA selected several cleanup actions for the site:

- Build an air stripper to treat contaminated municipal water
- Provide municipal water to private well users in or near the area of ground-water contamination
- Install ground-water extraction wells in the areas of contamination
- Discharge untreated ground water from the extraction wells into the Chippewa River.

This is the third review of the Eau Claire Municipal Well Field. The next one is scheduled for 2011.

To provide input or get more information, contact:

Susan Pastor
EPA Community Involvement Coordinator
(312) 353-1325
pastor.susan@epa.gov

or

Howard Caine
EPA Remedial Project Mgr.
(312) 353-9685
caine.howard@epa.gov

(800) 621-8431, 9 a.m. – 4:30 p.m., weekdays

The five-year-review report and other site-related documents will be available for review at:

L.E. Phillips Memorial Public Library
400 Eau Claire St., Eau Claire

The report will also be available at
www.epa.gov/R5Super/fiveyear/fyr_index.html

403023 • 12-18-06

Eau Claire Leader Telegram 12/18/06

United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Date: July 2, 2007

Site: Eau Claire Municipal Well Field, 2711 Riverview Drive, Eau Claire, Wisconsin (WID 980 820 0054)

From: Howard Caine, RPM

To: File

Introduction and Purpose

The United States Environmental Protection Agency (U.S. EPA) Region 5 and the Wisconsin Department of Natural Resources (WDNR) conducted a Site Visit as part of the Five-Year Review at the Eau Claire Municipal Well Field on January 25, 2007. At the time of this inspection, the ground was snow covered and inspecting the groundwater monitoring wells would be difficult. The groundwater monitoring wells were inspected on June 21, 2007. A discussion on the proposed supply well abandonment program was also discussed.

Participants

Howard Caine, U.S. EPA

Eileen Kramer, WDNR

Jeff Pippenger, City of Eau Claire
Kathy White, City of Eau Claire

Inspection

Well Abandonment Program

The City of Eau Claire is drafting an ordinance on abandoning supply water wells. The proposed ordinance will require that supply water wells in an area where municipal water is available will have to hook up to the municipal water system within a year and properly abandon the well or keep the well and obtain a permit and bacteria test it every five years. The wells will have to be inspected for public health issues by the Eau Claire County/City Public Health Department and determining if a cross connection exists will be done by the City of Eau Claire. The City of Eau Claire is working with Brad Henderson of the Wisconsin Department of Natural Resources and Dan Peterson of the Eau Claire County/City Public Health Department. The supply well abandonment

ordinance is expected to be finalized in the Fall of 2007. The City of Eau Claire also compared a database of properties in the City of Eau Claire and the properties that receive bills from the Water Department. Seventy-seven (77) properties were found which were not receiving water bills. The City of Eau Claire is in the process of determining if the property is vacant or if the property is receiving water via supply well. If the property is serviced by the City of Eau Claire, the City will have the property hook up to the municipal water system.

One property recently had a well break. This property was hooked up to the City. The City of Eau Claire also bought a park and abandoned the well and septic system that was at a park house located on the property. The City of Eau Claire is planning on doing visual inspections at the remaining 75 properties and seeing if municipal water is available to these properties.

The City of Eau Claire would like to receive the 2006 Annual Report from National Presto Industries via Gannett Fleming.

Groundwater Monitoring Data

There are 8 groundwater monitoring wells at the Eau Claire Municipal Well Field (ECMWF). Groundwater wells EC-1 and EC-2 are sampled quarterly and EC-5 and EC-6 are sampled occasionally by Gannett Fleming. Gannett Fleming also discussed Passive Diffusion Bag sampling of the wells with ECMWF personnel. U.S. EPA and WDNR need to determine if this type of sampling is appropriate or not.

Groundwater monitoring wells EC-1 through EC-8 were inspected. The eight wells were properly labeled and locked. EC-1 and EC-3 are deep wells, EC-5 and EC-6 are medium to shallow wells, and EC-2, EC-4, EC-7 and EC-8 are shallow wells. EC-8 is the shallowest at 25 feet deep.

This concluded the inspection.

Attachments

Updated Five-Year Review Site Inspection Checklist Cover Sheet

Photo 1: Groundwater Well EC-5

Photo 2: Groundwater Well EC-1

Photo 3: Groundwater Well EC-2

Photo 4: Groundwater Well EC-6

Photo 5: Groundwater Well EC-5

Photo 6: Groundwater Well EC-8

Photo 7: Groundwater Well EC-3

Photo 8: Groundwater Well EC-4

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program.

Five-Year Review Site Inspection Checklist (Template)

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

I. SITE INFORMATION	
Site name: EAU CLAIRE MUN. WELL FIELD	**Date of inspection:** 1/25/07, 6/21/07
Location and Region: EAU CLAIRE, WI	**EPA ID:**
Agency, office, or company leading the five-year review: US EPA REGION 5	**Weather/temperature:** SUNNY, 15-20°F 6/21/07 SUNNY, 80°F

Remedy Includes: (Check all that apply)

- G Landfill cover/containment
- G Access controls
- G Institutional controls
- G Groundwater pump and treatment
- G Surface water collection and treatment
- G Other AIR STRIPPER
- G Monitored natural attenuation
- G Groundwater containment
- G Vertical barrier walls

Attachments: G Inspection team roster attached G Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** JEFF PIPPENGER UTILITIES ADMIN. _____
   Name Title Date
   Interviewed G at site G at office G by phone Phone no. _____
   Problems, suggestions; G Report attached _____

2. **O&M staff** _____ _____ _____
   Name Title Date
   Interviewed G at site G at office G by phone Phone no. _____
   Problems, suggestions; G Report attached _____

BRIAN AMUNDSON, DIR. OF PUB. WORKS
KATHRYN WHITE, INDUSTRIAL PRETREATMENT COORD.
TIM GREENE, WATER TREAT PLT SUPERINTENDENT

Attachment 5 - IC Study Request and Response

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SR-6J

December 13, 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Derrick Paul
Project Coordinator
National Presto Industries, Inc.
3925 N. Hastings Way
Eau Claire, WI 54703

Re: National Presto Industries and Eau Claire Municipal Well Field Superfund Sites; Request for Institutional Control Study, Eau Claire, Wisconsin; Consent Decree 93C-0610C; Administrative Orders for Remedial Action: V-W-91-C-091, V-W-92-C-156 and V-W-96-C-363

Dear Mr. Paul:

The U.S. Environmental Protection Agency ("EPA") is undertaking an initiative to evaluate institutional controls ("ICs") at Superfund sites. ICs may be needed to restrict uses of sites where on-site hazardous substances remain above levels that allow for unlimited use and unrestricted exposure. ICs may be necessary to prevent interference with Superfund remedy components. A description of EPA's IC initiative may be found in "Strategy to Ensure Institutional Control Implementation at Superfund Site, "OSWER No. 9355.0-106 (2004), http://www.epa.gov/superfund/action/ic/strategy.htm.

EPA is seeking the cooperation of potentially responsible parties as part of this nationwide effort. The purpose of this letter is to seek your assistance in evaluating ICs for the National Presto Industries and Eau Claire Municipal Well Field Superfund Sites ("the Sites"), located at Eau Claire, Wisconsin. Specifically EPA is requesting that you submit an IC investigation/study to EPA within **45 days of receipt of this letter.** Please provide EPA with a notice of intent to comply with this request **within 10 days of the date of receipt of this letter.**

The IC investigation/study will be used by EPA in its current review of the remedial action for the Site pursuant to Section 121 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9621. Section 121 of CERCLA mandates that, no less often than every five years, EPA must review

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remedial actions where hazardous substances, pollutants or contaminants remain in place to assure that human health and the environment is being protected by the remedial action.

As you know, National Presto Industries, Inc. ("NPI") and National Defense Corporation ("NDC") has implemented remedial actions for the Sites pursuant to Consent Decree 93C 0610C and Administrative Orders for Remedial Action, V-W-91-C-091, V-W-92-C-156 and V-W-96-C-363 ("AO"). The Site remedy does not allow unlimited use and unrestricted exposure. The long term protectiveness, effectiveness and integrity of the remedy depend on compliance with ICs that implement the following land/groundwater restrictions:

Examples:

Restricted Areas (Areas that do not allow unlimited use or unrestricted exposure)	**Institutional Control Objective/ Restriction/Performance Standard**
Area of the Site where soil has been remediated to commercial/industrial cleanup levels	Prohibit residential use of the areas
Site remedial components: e.g., groundwater pump and treat system	Prohibit interference with the system
Area of the Site where the groundwater plume exceeds MCLs	Prohibit consumptive use of the groundwater plume area until MCLs are achieved
Area of Site with RCRA Subtitle C or D landfill cap	Prohibit interference with the cap

Under Paragraph 4.b. of Section V (Reimbursement of Response and Operation and Maintenance Costs) of 93C 0610C, National Presto Industries, Inc. and National Defense Corporation agreed to "be liable for all Operation and Maintenance Costs until such time that EPA determines, consistent with the final Record of Decision for the National Presto Industries, Inc. Superfund site, that the obligation shall cease."

Under paragraph 87 of Section XXII (Modification and Modification to Work) of V-W-91-C-091, EPA ordered National Presto Industries, Inc. and National Defense Corporation, "U.S. EPA may determine that modifications to the Work required by this Order and Appendices to this Order are necessary to complete the Remedial Action. If U.S. EPA determines that modifications to the Work are necessary, U.S. EPA may require Respondents to submit a Supplemental Work Plan for additional response activities. U.S. EPA may also require Respondents to modify any plan, design, other deliverable, or any element of Work required by this Order.

Under paragraph 59 of Section VIII (Additional Response Actions) of V-W-92-C-156, EPA ordered National Presto Industries, Inc. and National Defense Corporation, "In the event that EPA determines that additional work or modifications to Work are necessary to meet applicable Performance Standards or that modifications to Work are necessary to

maintain consistency with the final remedy, EPA will notify respondents that additional response actions are necessary." Paragraph 61 of Section VIII further states, "Under Section 121(c) of CERCLA, 42 U.S.C. 9621 (c), and any applicable regulations, EPA may review the site to assure that the work performed pursuant to this Order adequately protects human health and the environment. Until such time as EPA certifies completion of the Work, Respondents shall conduct the requisite studies, investigations, or other response actions as determined necessary by EPA in order to permit EPA to conduct the review under Section 121(c) of CERCLA. As a result of any review performed under this paragraph, Respondents may be required to perform additional Work or to modify Work previously performed."

Under paragraph 54 of Section IX (Additional Response Actions) of V-W-96-C-363, EPA ordered National Presto Industries, Inc. and National Defense Corporation, Inc., "In the event that U.S. EPA determines that additional Work or modifications to Work are necessary to meet Performance Standards, to maintain consistency with the final remedy, or to otherwise protect human health or the environment, U.S. EPA will notify Respondents that additional response actions are necessary. U.S. EPA may also require Respondents to modify any plan, design, or other deliverable required by this Order, including any approved modifications.

The IC investigation/study is necessary for EPA to conduct its review of whether the remedial action is protective of human health and the environment.

The goals of the IC investigation/study are: a) to evaluate whether institutional controls currently exist that adequately implement the objectives/performance standards described above; b) identify and recommend any corrective measures to existing ICs necessary for their effectiveness; and c) to recommend any new or additional ICs necessary to achieve and maintain the objectives/performance standards described above.

IC Study Report Requirements

Within 45 days of receipt of this letter, please submit a draft IC investigation/study report to EPA for review and approval that includes the following minimum requirements:

1. **Current Map of Restricted Areas:** Provide a map that identifies the current boundaries of the restricted areas (that do not allow unlimited use and unrestricted exposure), boundaries of the Site, streets, easements, property ownership, and assessor's parcel number or other recorded plat or survey information;

2. **GIS Information:** Provide Geographic Information System ("GIS") coordinates that show the current boundaries of restricted areas and boundaries of the Site. Identify the accuracy of the coordinates (i.e. within 0.01 feet). A licensed surveyor shall provide certification that all coordinates are accurate within 0.01 feet. Please format the coordinates of the restricted areas and boundaries into an ESRI polygon-shape file. The shape file shall be projected into the UTM, and

boundaries into an ESRI polygon-shape file. The shape file shall be projected into the UTM, NAD 83 projection system. Provide an attribute name in the shape file for each polygon submitted. For example: "site boundary", "no restrictions", "recreational only", "industrial only";

3. **Documentation on Existing Proprietary Controls:** Provide copies by the Recorder of Deeds (or other appropriate land records office) showing the clerk's recording stamps of existing proprietary controls (environmental restrictive covenants/easements etc.) for the restricted areas described above. Provide an aerial map that depicts the boundaries of the restricted area covered by the existing proprietary control, streets, easements, property ownership, and parcel numbers. Assess and discuss whether the boundaries of the area covered by existing proprietary controls match the boundaries of restricted areas based on current information;

4. **Assessment of Existing Proprietary Controls:**

   a. Title Evaluations:

      i) Obtain from a title company a title insurance commitment using ALTA Commitment Form 1982 as amended "for information only purposes" for the restricted areas. Include copies of documents referenced in the title commitment. Include copies of encumbrances, utility right of ways, leases, and subleases impacting restricted areas;

      ii) Discuss whether the title commitment identifies/exempts existing proprietary controls for restricted areas;

      iii) Provide an aerial map that identifies parcel numbers and boundaries of current encumbrances (such as utility easements) that impact restricted areas. Discuss efforts to obtain subrogation agreements for such encumbrances. Include copies of subrogation agreements that have or will be obtained for such encumbrances.

   b. Assess and discuss whether existing proprietary controls have been executed in a legally enforceable manner. Discuss whether a grantee or prior owner "holds" the proprietary controls. Discuss whether the current owner is under an obligation for compliance with the land and groundwater restriction described above. Discuss whether existing proprietary controls "run with the land" (i.e. restrictions are binding on subsequent property owners). Discuss whether existing proprietary controls implement the IC objectives/performance standards described above.

5. **Documentation on Government Controls:** Identify and provide a current, dated and official copy of existing governmental controls [ordinance, statutes, etc.] that implement the IC objectives/performance standards for the restricted areas described above. Discuss whether the governmental control restricts all areas of unlimited use and unrestricted exposure at the Site. Indicate whether the governmental control contains a figure showing the current boundaries of the unrestricted areas based on most recent information? Indicate where to obtain information about the governmental control [ordinance]? Explain how affected parties such as homeowners, contractors and resource users can obtain information about the governmental control? Indicate whether the governmental agency has up-to-date maps of restricted areas? If such map is available, secure and provide a copy. Discuss whether affected parties and resource users are aware of and understand the restrictions described above? Have there been breaches of the use restriction described above? If so, how were they addressed by the governmental agency?

6. **Discuss compliance with Institutional Controls:** Discuss whether the property is being used in a manner consistent with the restrictions in the Consent Decree. Conduct site inspections and interviews with owners, lessees and other holders of property interests, and summarize the results. Indicate whether owners, lessees and other holders of property interests aware of and complying with the restrictions? Indicate whether land use or expected land use on or near the site has changed since execution of the ROD, Explanation of Significant Differences ("ESD") and ROD Amendment? Indicate whether there are any new developments, either constructed or planned, in the area? Indicate whether there are any new construction permits pending? Indicate whether the property owner has any plans to sell or transfer the property?

7. **Assess monitoring:** Discuss how, when, and by whom compliance with the institutional controls is monitored. Discuss whether the results of the IC monitoring are routinely and promptly shared with EPA and the State. Discuss whether there are measures in place to ensure that modifications to the restriction require EPA and the State approval;

8. **Discuss effectiveness of Institutional Controls:** Discuss whether existing ICs are preventing exposure to hazardous wastes, pollutants or contaminants. Discuss whether there is potential human or ecological exposure. Discuss whether land and/or resource use has changed since execution of the ROD, ESD and ROD Amendment. If land or resource use has changed, discuss the plans regarding property's ICs. Discuss how the current land and resource uses relate to exposure assumptions and risk calculations. Discuss whether there are any unintended consequences resulting from the use of a particular restriction. Assess whether the controls (or lack of controls) are effective in the short term in maintaining land/groundwater restrictions above, maintaining performance standards and preventing exposure. Assess whether the control (or lack of controls) will be

effective in the long term in maintaining the land and groundwater restrictions above, maintaining remedy performance standards and preventing exposure;

9. **Recommendations:** Propose any corrections to existing institutional controls that are necessary to ensure that the land and groundwater use restrictions described, above, are implemented correctly, are maintained and will be protective in the short term and the long term. Propose controls for remaining areas that do not support unlimited use and unrestricted exposure, but are not covered by existing controls. Include a title commitment for any proposed proprietary control. Propose subrogation agreements for any encumbrance that negatively impacts restricted areas. Propose subrogation agreements for any encumbrance that negatively impacts restricted areas. Propose monitoring requirements and modifications to the Operation and Maintenance Plan to ensure that ICs are maintained and complied with in the short term and in the long term. The monitoring plan must include a schedule and an annual certification to EPA that ICs are in place and remain effective.

Please provide EPA with a notice of intent to comply with this request **within 10 days of the date of receipt of this letter.** If you have any questions concerning this request, please contact me at 312 353 9685 or by email at caine.howard@epa.gov. You may also contact Larry Johnson, Associate Regional Counsel, at 312 886 6609 or by email at johnson.larry@epa.gov.

Sincerely,

Howard Caine
Remedial Project Manager
Superfund Division

cc: Dennis F. Kugle, Gannet Fleming, Inc.
Eileen Kramer, WDNR

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Derrick Paul
Project Coordinator
National Presto Industries, Inc
3925 N. Hastings Way
Eau Claire, WI 54703

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* E BROWN

B. Date of Delivery 12-18-06

C. Signature

X E Brown

☒ Agent
☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
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☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

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"Kugle, Dennis F."
<dkugle@GFNET.com>
12/28/2006 01:57 PM

To Howard Caine/R5/USEPA/US@EPA

cc paul derrick <dpaul@gopresto.com>, "Olig, David J." <dolig@GFNET.com>, "Wright, Clifford C." <cwright@GFNET.com>, kramee@dnr.state.wi.us

bcc

Subject Dec. 13th Letter - Request for Institutional Control Study

History: This message has been replied to and forwarded.

Dear Howard,

On December 18th, Gannett Fleming received a copy of your December 13th letter to Derrick Paul requesting an Institutional Control (IC) Study for the National Presto Industries (NPI) site in Eau Claire, Wisconsin. In the letter you asked that NPI "provide EPA with a notice of intent to comply with this request **within 10 days of the date of receipt of this letter."**

By this email and on behalf of NPI, Gannett Fleming is providing notice to EPA that they intend to comply with the agencies request to submit an IC investigation/study. Please let me know if a letter to EPA stating this is required.

We do have a number of questions about the IC Study Report requirements that are listed in the letter and it is likely we will contact you to for clarification as we work on the study. One requirement that would be very difficult to complete within the 45 days that EPA has given NPI to complete the study is the "GIS Information" requested on pages 3 and 4 of the letter. Providing the required GIS coordinates for the current boundaries of the restricted areas and boundaries of the site to an accuracy of 0.01 feet would require a survey. Preparing a scope of work, retaining a surveyor and having a survey conducted by the end of January 2007 is not realistic. Also, before conducting what would likely be an expensive survey, NPI would want to reach agreement with EPA and WDNR on the list and boundaries of the restricted areas.

Gannett Fleming would ask that EPA consider waiving the GIS survey requirements and accept a site plan showing the boundaries of the restricted areas. This is all that is required for registry of a site on the WDNR's GIS public registry of sites where contaminated soils and/or groundwater remain.

As another point of clarification, it is not NPI's intent to survey the groundwater plume either on-site or off-site. We intend to provide a drawing/map with the IC Report showing the estimated on-site and off-site extent of impacted groundwater. Both the city of Eau Claire and the Town of Hallie have groundwater use ordinances in place that prohibit the use of private water supply wells and those ordinances will be provided with the IC report.

Sincerely,

Dennis Kugle
Gannett Fleming, Inc.
8025 Excelsior Drive
Madison, WI 53717
608-836-1500

Copy: Project File 34283.000

Attachment 6 - Public Notice of Five Year Review

qualified appli- work a flexible a Front Desk n (32-36 hrs/ nts are expect- excellent peo- lephone skills, ss competent skills. Benefits Send resume ces to: e Street Dental, homonie Street, ire, WI 54703 **. Resumes will pted through ry 2nd, 2007**

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388661 9-28-06

with people? Do you like to travel?
Local tour company looking for **tour managers**
Send resume to:
MP 224
Leader Telegram
P.O. Box 570
Eau Claire, WI 54702

Glassperson Needed

Local full service glass company seeking self motivated person for home/commercial/auto glass installation. Great pay & benefits, no weekends. Reply (in confidence) to: MP 246, Leader Telegram, P.O. Box 570, Eau Claire, WI 54702.

PAINTER AND STAINER

Sawdust City LLC is looking for full-time help in our shop. Positions available are in our Furniture Department. Call to apply. **715-552-8381.**

INTERNATIONAL

Inventory Service is NOW HIRING In the Eau Claire Area
Please join us for our Job Session On Tues, Wed, or Thurs at 1 pm. Located at 1101 W. Clairemont Ave. Ste. 1G in the Atrium Bldg. Or Apply on-line at **www.wisintl.com**

SERVICE TECHNICIAN and PARTS PERSON

Must be self-motivated,, ambitious, knowledgeable in plumbing and electronics. We are looking for a long-term addition to our team. Wages based on experience. Medical and 401K. Send resume or letter of interest to: MF 342591, Leader Telegram, PO Box 570 Eau Claire, WI 54702.

Home Daily. Set Schedules. Dedicated Routes. No Touch. Willing to work weekends, if necessary.
BENEFITS AVAILABLE: Health, Dental, Vision and Life. Paid Vacations and Holidays, 401K. Paid Weekly.
Requirements: Class A CDL with 2 years verifiable experience within the past 3 years.
If interested - Call Jim at 678-953-2893

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EPA Reviews
Eau Claire Municipal Well Field
Superfund Site
Eau Claire, Wisconsin

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Originally, EPA selected several cleanup actions for the site:

- Build an air stripper to treat contaminated municipal water
- Provide municipal water to private well users in or near the area of ground-water contamination
- Install ground-water extraction wells in the areas of contamination
- Discharge untreated ground water from the extraction wells into the Chippewa River.

This is the third review of the Eau Claire Municipal Well Field. The next one is scheduled for 2011.

To provide input or get more information, contact:

Susan Pastor
EPA Community Involvement Coordinator
(312) 353-1325
pastor.susan@epa.gov

or

Howard Caine
EPA Remedial Project Mgr.
(312) 353-9685
caine.howard@epa.gov

(800) 621-8431, 9 a.m. – 4:30 p.m., weekdays

The five-year-review report and other site-related documents will be available for review at:

L.E. Phillips Memorial Public Library
400 Eau Claire St., Eau Claire

The report will also be available at
www.epa.gov/R5Super/fiveyear/fyr_index.html

403023 • 12-18-06

Eau Claire Leader Telegram 12/18/06

Attachment 7 - Local Ordinances

City of Eau Claire's Waterworks Ordinances

Title 14

WATERWORKS

Chapters:

14.04 General Provisions
14.08 Connection and Installation
14.12 Meters
14.16 Special Services
14.20 Rates and Billing

Chapter 14.04

GENERAL PROVISIONS*

Sections:

14.04.010 Title.
14.04.020 Definitions.
14.04.025 Rules and regulations--General.
14.04.030 Water waste prohibited.
14.04.050 Connection and shutoff locations recorded.
14.04.060 Permits--Licensed plumbers only.
14.04.070 Violations--Penalty.
14.04.080 Damages--No claims.
14.04.090 Sprinkling ban authorized.

14.04.010 Title. This title shall be known as "an ordinance revising the water rates and rules and regulations of the municipal water utility, Eau Claire, Wisconsin." (Ord. 3197 §I(part), 1970; Prior code §17.01).

14.04.020 Definitions. Whenever in this title the following words, clauses or terms are used they shall be construed to have the meaning herein defined, unless specifically otherwise stated:

A. "Water department" means the organization and operation of each and every part of the water works system.

B. "Council" means the city council of the city of Eau Claire, Wisconsin.

C. "Mains" means all pipes used for carrying water in the streets.

---

* For provisions of general charter law regarding city utilities generally, see WSA 66.061; for provisions of general municipal law regarding city ownership of utilities, see WSA 66.065; for statutory provisions regarding regulation of water and sewers, see WSA 144; for provisions of general charter law regarding construction of sewers, see WSA 62.18; for provisions authorizing regulation of utilities, see WSA 196; for provisions authorizing cities to acquire utilities, see WSA 197.

D. "Services" means the pipe extending from the main to the premises served.

E. "Office" means the office of the water department in the City Hall.

F. "Owner" means any person, firm, corporation or association owning property or premises which is or can be supplied with water, or his or their authorized agent.

G. "Agent." In the absence of instructions from the owner of any property or his duly authorized agent to the contrary, the occupant of any premises shall be recognized as the owner's agent, insofar as his relations to the water department be concerned.

H. "Premises" means a single-family dwelling, a two family dwelling, an apartment house occupied by more than one family, a building occupied for business or other purposes, or any part of a building with the land appurtenant thereto when sold as a separate unit.

I. "Unit of service" shall consist of any residential or small commercial aggregation of space or area occupied for a distinct purpose such as a residence, apartment, flat, store or office which is equipped with one or more fixtures for rendering water service, separate and distinct from other users.

J. "Customer" shall be construed to mean the owner of the property.

K. "Customer service" means that portion of the service lateral that is between the curb box and the premises being served by the water utility.

L. "Utility service" means that portion of the service lateral from the public water main through the curb box which is the property of the utility, or to the property line if no curb box exists.

M. "Service lateral" means the combined utility and customer service which extends from the public water main through the meter, or to a point of 2 feet outside the building if no meter exists.

N. "Superintendent" means the city utilities administrator or his or her designee.

O. "Cross connection" shall be defined as any physical connection or arrangement between two otherwise separate systems, one of which contains potable water from the city of Eau Claire water system, and the other, water from a private source, water of unknown or questionable safety, or steam, gases, or chemicals, whereby there may be a flow from one system to the other, the direction of flow depending on the pressure differential between the two systems. (Ord. 4716, §1, 1987; Ord. 4423 §1, 1984; Ord. 3395 §I, 1973; Ord. 3197 §I(part), 1970).

14.04.025 Rules and regulations--General. A. All persons now receiving a water supply from the Eau Claire municipal water utility, or who may hereafter make application therefor, shall be considered as having agreed to be bound by the rules and regulations as filed with the Public Service Commission of Wisconsin.

B. Application for water service shall be made in writing on a form furnished by the water utility (utility's water service tap permit). The application will contain the legal description (parcel number) of the property to be served, the street number, name of owner, the exact use to be made of the service, and the size of the supply pipe. The meter size shall be determined by the water demand.

Service will be furnished only if:

1. Premises abut a designated street or public strip in which a cast iron or other long-life water main has been laid, or where property owner has agreed to and complied with the provisions of the utility's filed main extension rule;

2. Property owner has installed or agrees to install a service pipe from the utility service to the point of use and laid not less than 7½ feet below the surface of an established or proposed grade, or otherwise insulated in a manner approved by the utility;

3. Premises have adequate piping beyond metering point.

C. The owner of a multi-unit dwelling has the option of being served by individual metered water service to each unit. The owner, by selecting this option, is required to provide interior plumbing and meter settings to enable individual metered service to each unit and individual disconnection without affecting service to other units. Each meter and meter connection will be a separate water utility customer for the purpose of the filed rules and regulations.

D. Every building equipped with plumbing fixtures and used for human occupancy or habitation shall be provided with a potable supply of cold water. The owner of any such building within the jurisdiction of the city, wherein water service is readily available, is required, at the owner's expense, to connect such plumbing facilities directly to the public water distribution system in accordance with the provisions of this chapter within one (1) year after the water service is deemed available by the director of public works or designee. Such time may be extended upon specific written authorization from the director of public works or designee in the event of unfavorable weather conditions, except when an imminent health hazard exists.

E. If any person fails to connect to the municipal water distribution system within the time contained in the city code or in the manner prescribed by the plumbing code for more than 10 days after notice in writing, the city may cause connection to be made, and the expense thereof assessed as a special tax against the property in accordance with Wisconsin Statutes s. 281.45. The owner may, within 30 days after completion of the work, file a written option with the city clerk stating that he or she cannot pay the amount in one sum and asking that it be levied in not to exceed five (5) equal annual installments, and the amount shall be collected with interest at a rate of 6% per year from the completion of the work. The unpaid balance of the special tax shall be placed as a special tax lien on the property.

F. No water service shall pass under or through a building to serve another building.

G. The superintendent is hereby empowered to withhold approval of any application wherein full information of the purpose of such supply is not clearly indicated and set forth by the applicant property owner. (Ord. 6740, 2006; Ord. 6212 §1, 2001; Ord. 4423 §2, 1984).

14.04.030 Water waste prohibited. Excessive or unnecessary use of, or waste of water, whether caused by carelessness or defective or leaking plumbing, is strictly prohibited. (Ord. 3197 §I(part), 1970).

14.04.050 Connection and shutoff locations recorded. It shall be the duty of the plumbing inspector to locate by measurement each service connection and each curb shutoff, referring the same to some suitable permanent building or street line. This information shall be entered on the records of the department. (Ord. 3197 §I(part), 1970).

14.04.060 Permits--Licensed plumbers only. To protect the city and property owners, permits for laying of service laterals will be issued only to plumbers licensed in the State of Wisconsin, unless the work is done by the utility. It shall be the duty of the plumbing inspector to supervise the installation of laterals and require said work and materials to be in accordance with plumbing regulations in the city ordinance. It shall further be the duty of the plumbing inspector to locate by measurement each service lateral connection and each curb shutoff with reference to some suitable permanent building or street line. This information shall be entered on the records of the utility. (Ord. 4423 §3, 1984).

14.04.070 Violations--Penalty. The water department may at its discretion shut off the water from any premises where the owner or agent of the owner is found guilty of violating any of the provisions of this title, upon giving the owner or agent at least twenty-four hours' written notice of such intended action. In addition to this any person guilty of violating the provisions of this title shall be liable to a fine not exceeding one hundred dollars, and costs. In default of payment, imprisonment in county jail for a period not to exceed ninety days. Each day or part thereof during which such violation continues shall constitute a separate offense. (Ord. 3197 §I(part), 1970; Prior code §7.22).

14.04.080 Damages--No claims. A. No person using water shall enter a claim against the city as a water utility or any officer thereof, for damages to any fixtures or appurtenance by reason of interrupted water supply or variation of pressure, or for damage of any nature caused by turning off or on, either partially or entirely, of the water supply for any premises, either for the repairs or alterations of any water main, or for the discontinuance of the service to his or their premises for violation of any rule or regulation of the water department. No claims will be allowed against the utility or the city on account of interruption of supply caused by breaking of pipes or by stoppage for repairs or fire or other emergency.

B. In case of a probable stoppage of water supply when time of interruption can be forecast, every reasonable attempt will be made by the water department to acquaint the users with the action proposed.

C. The utility shall not be liable for failure to locate the curb box and to shut off the water in case of a leak on the customer's premises. (Ord. 4423 §4, 1984; Ord. 3197 §I(part), 1970).

14.04.090 Sprinkling ban authorized. A. Whenever, in the judgment of the city manager or the city manager's designee, an emergency exists due to a shortage of available water supplies for fire-fighting and other municipal purposes, or which may be detrimental to the water system or may cause damages thereto, or which may result in certain areas of the city being deprived of water, the city manager or designated individual may declare a temporary ban upon the watering or sprinkling of lawns, trees, shrubs or other similar vegetation until adequate water supplies are restored. Such ban may include the regulation or prohibition of all such watering or sprinkling throughout the entire city or within designated parts of the city, the regulation or prohibition of such watering or sprinkling during specified hours or on alternate sides of streets on specified days, or may include other prohibitions or regulations reasonably related to the conservation of water during the emergency.

B. Such ban shall become effective upon giving actual notice thereof to any person, or upon the giving of notice thereof to the official city newspaper and other local news media and the printing, broadcast or transmission thereof by any or all of said news media to the public.

C. Exceptions to such sprinkling ban may be granted, upon application, by the city manager or designated individual, for properties having newly seeded or sodded lawns or newly planted vegetation, upon a finding that failure to grant such an exception would jeopardize such lawn or vegetation. Appropriate conditions or limitations may be included in the granting of such exception, in keeping with the purpose of this section, and the grantee shall comply with all such conditions and limitations.

D. Any person violating any provision of this section shall, upon conviction thereof, forfeit not more than fifty dollars, together with costs of prosecution. Each day during which a violation continues shall be considered to be a separate offense. (Ord. 3641, 1976).

Chapter 14.08

CONNECTION AND INSTALLATION*

Sections:

14.08.010 Pipes and mains--Property of utility.
14.08.020 State statutes adopted.
14.08.030 Installation--Application.
14.08.040 Installation--General.
14.08.050 Installation--Cost assessment.
14.08.060 Single premises service connections.
14.08.065 Water service pipes--Depth.
14.08.070 Service alteration.
14.08.080 Discontinuance--Permanent or temporary.
14.08.085 Vacation of premises.
14.08.090 Repairs--Leaks and deteriorated connections.
14.08.095 Repairs to mains.
14.08.100 Shutoff valves--Required--Maintenance.
14.08.105 Protective devices.
14.08.110 Stop and waste.
14.08.115 Cross connections.

* For statutory provisions authorizing cities to construct sewer systems, see WSA 62.18; for statutory provisions authorizing cities to acquire utilities, see WSA 197.

14.08.120 Street repairs.
14.08.130 Private fire protection.
14.08.140 Service outside corporate limits.
14.08.150 Water main installation in platted subdivision.

14.08.010 Pipes and mains--Property of utility. The large pipes or mains which, in general, are laid in streets and alleys and distribute water throughout the city are the property of the utility and are maintained by the utility. No person except an authorized employee of the water department shall be permitted to operate any valves or hydrants in connection with the system, or to tap said main for connection purposes, except by permission of the superintendent of the department. Members of the fire department in discharge of their duties will use the hydrants. (Ord. 3179 §I(part), 1970; Prior code §7.03(a)).

14.08.020 State statutes adopted. Section 66.0701, et seq., Wisconsin Statutes, and acts amendatory thereto, relating to special assessments for laying of water mains is adopted and made a part of these regulations. (Ord. 6212 §2, 2001; Ord. 3179 §I(part), 1970; Prior code §7.03(b)).

14.08.030 Installation--Application. A. All applications for the installation of services for water must be made at the office of the water department prior to performance of work by the owner or a licensed plumber, who will be considered as the authorized agent of the owner.

B. The application shall state the ownership of the premises to be served, the legal description of the property, the street number, size or service and other pertinent data. (Ord. 3197 §I(part), 1970; Prior code §7.04(b)).

14.08.040 Installation--General. A. Services may be laid upon application of owner of premises by a licensed plumber, and the council may cause a service to be laid into every lot or parcel of land before the street is permanently improved. In the latter case, this improvement will be made and cost assessed against the property in accordance with Section 66.0701, et seq., Wisconsin Statutes, and acts amendatory thereto.

B. Water mains will be extended for new customers on the following basis:

1. Where the cost of the extension is to immediately be collected through assessment by the municipality against the abutting property, the procedure set forth under Section 66.60 of the Wisconsin Statutes will apply, and no additional customer contribution to the utility will be required.

2. Where the municipality is unwilling or unable to make a special assessment, then extension will be made on a customer-financed basis as follows:

a. The applicant or applicants will advance as a contribution in aid of construction the total amount equivalent to that which would have been assessed for all property under subdivision (1) of this subsection.

b. Part of the contribution required in paragraph (a) of this subdivision will be refundable. When additional customers are connected to the extended main within twenty years of the date of completion, contributions in aid of construction will be collected equal to the amount which would have been assessed under subdivision (1) for the abutting property being served. This amount will be refunded to the original contributor or contributors. In no case will the contributions received from additional customers exceed the proportionate amount which would have been required under subdivision (1) nor will it exceed the total assessable cost of the original extension.

3. When a new customer is connected to an existing main, not financed by customer contributions, it shall not be considered as a main extension and no contribution may be collected from the customer. This provision shall be applied to mains installed after the issuance of commission order dated July 27, 1977. (Ord. 6212 §3, 2001; Ord. 3793 §1, 1977; Ord. 3197 §I(part), 1970; Prior code §7.04(b)).

14.08.050 Installation--Cost assessment. The expense of laying service pipes, and connecting such service pipes to the main shall be charged to and made a lien upon the real estate or premises served by such service pipes. In case it may be proved necessary to replace the service pipe with a larger service, this cost shall also be an expense against the property served. (Ord. 3197 §I(part), 1970; Prior code §7.04(a)).

14.08.060 Single premises service connections. Any permit given for water service shall require that not more than one premises be served by one connection. Whenever a service has to be replaced, or where permanent street improvements are authorized and conditions contrary to above rule exist, they shall be corrected. (Ord. 3197 §I(part), 1970; Prior code §7.04(d)).

14.08.065 Water service pipes--Depth. Water service pipes shall be installed at a depth of not less than seven feet, unless otherwise approved by the city engineer. (Ord. 4173 §2, 1981).

14.08.070 Service alteration. No addition or alteration to service already laid shall be changed or added to, or meter moved without notification to the water department. (Ord. 3197 §I(part), 1970; Prior code §7.04(e)).

14.08.080 Discontinuance--Permanent or temporary. Whenever a building receiving water service is proposed to be razed or removed and the water superintendent finds that the property will not require water service after such razing and removal and within a reasonable period of time thereafter he shall require the permittee under the razing or removal permit to shut off water service to the property at the corporation shutoff at the main under Section 14.08.100, after first obtaining approval to do so under Section 14.08.100. Such requirement when made by the water superintendent shall be a condition of the razing or removal permit. (Ord. 3197 §I(part), 1970; Prior code §7.04(f)).

14.08.085 Vacation of premises. When premises are to be vacated, the utility shall be notified at once, so that it may remove the meter and shut off the supply at the curb stop. At the decision of the utility, the meter may or may not be removed from the premises.

The owner of the premises shall be liable to prosecution for any damage to the property of the water utility by reason of failure to notify the utility of vacancy.

When a tenant-customer vacates a premises, he or she shall notify the utility at least 10 working days prior to vacating. The tenant-customer must also notify the owner who is ultimately responsible for payment of all bills (Section 66.069 Wis. Statutes). (Ord. 4423 §5, 1984).

14.08.090 Repairs--Leaks and deteriorated connections. A. *If a customer fails to repair a leaking* or broken service pipe from the curb stop and/or property line to point of metering or use within 5 days after receiving notification from the water utility that his service requires repair, the water will be shut off and will not be turned on again until the repairs have been completed.

The water utility may disconnect without notice where a dangerous condition exists for as long as the condition exists.

B. In cases where the owner is ordered by the utility to replace or repair a damaged, deteriorated or malfunctioning service lateral and the owner fails to comply within 10 days of receiving notice, the utility may discontinue water service to his property, and the cost of such discontinuance shall be charged and assessed against said property. (Ord. 4423 §6, 1984; Ord. 3197 §I(part), 1970).

14.08.095 Repairs to mains. A. The utility reserves the right to shut off the water in the mains temporarily, to make repairs, alterations or additions to the plant or system. When circumstances will permit, the utility will give notification, by newspaper publication or otherwise, of the discontinuance of the supply.

B. No rebate will be allowed to customers for such temporary suspension of supply. Nor will any claims be allowed against the utility or the city for damages caused by the interruption of water supply, variation of pressure, or turning off or on (either partially or entirely) the water supply to any premises due to the use of water for fire-fighting or other emergency, the breaking of pipes or the repairs or alterations to the water plant or system. (Ord. 4423 §7, 1984).

14.08.100 Shutoff valves--Required--Maintenance. Each service lateral shall be controlled by a corporation shutoff at the main and, if the service is smaller than 3 inches, a curb shutoff at or near the curb is also required. These valves are under the sole and absolute control of the utility and must not be operated by others without permission of the utility, except that a plumber may turn on the water for testing purposes, but only with consent in each case. (Ord. 4423 §8, 1984; Ord. 3395 §II, 1970; Ord. 3197 §I(part), 1970).

14.08.105 Protective devices. A. In general. The owner or occupant of every premise receiving water supply shall apply and maintain suitable means of protection of the premise supply, and all appliances thereof, against damage arising in any manner from the use of the water supply, variation of water pressure, or any interruption of water supply. Particularly, such owner or occupant must protect water cooled compressors for refrigeration systems by means of high pressure safety cutout devices. There shall likewise be provided means for the prevention of the transmission of water ram or noise of operation of any valve or appliance through the piping of their own or adjacent premises.

B. Relief valves. On all "closed systems" (i.e., systems having a check valve, pressure regulator, or reducing valve, water filter or softener), an effective pressure relief valve shall be installed either in the top-tapping or the upper side tapping of the hot water tank, or on the hot water distributing pipe connection at the tank. No stop valve shall be placed between the hot water tank and the relief valve or on the drain pipe.

C. Air chambers. All water supply systems, water distribution systems and components connected thereto, subject to water hammer, shall be provided with approved shock absorbing devices located and sized to suppress water hammer. All appliances, devices, equipment, fixtures and appurtenances with quick closing valves or which may create water hammer, shall be provided with shock absorbing devices. When copper air chambers are used, the minimum size shall be ½" x 1" x 14".

The size and location of the mechanical suppressors shall be in accord with the hydraulic design of the piping system served and to the manufacturer's recommendations. All mechanical water hammer suppressors shall be accessible. (Ord. 4423 §9, 1984).

14.08.110 Stop and waste. All service connections shall be provided with an approved stop and waste where it enters the building, for use in draining the systems. All services shall have a shutoff valve on both sides of meter. All water meters two inches or more in diameter shall be provided with a suitable valved and sealed bypass, having a diameter or no less than one inch smaller than the service entrance, which can be utilized in the event of removal, repair or changing of such meter. (Ord. 3395 §III, 1973; Ord. 3197 §I(part), 1970).

14.08.115 Cross connections. A. No person shall establish or permit to be established or maintain or permit to be maintained any cross connection. No interconnection shall be established whereby potable water from a private, auxiliary or emergency water supply other than the regular public water supply of the city of Eau Claire may enter the supply or distribution system of said municipality, unless such private, auxiliary or emergency water supply and the method of connection and use of such supply has been approved by the city of Eau Claire water utility and by the Wisconsin Department of Natural Resources in accordance with s. NR 111.25(3), Wisconsin Administrative Code.

B. The inspection services division of the city of Eau Claire shall cause inspections to be made of all properties served by the public water system where cross connections with the public water system are deemed possible. The frequency of inspections and reinspections, based on potential health hazards involved, shall be as established by the utilities division of the city of Eau Claire and as approved by the Wisconsin Department of Natural Resources.

C. Upon presentation of credentials, the representative of the inspection services division shall have the right to request entry at any reasonable time to examine any property served by a connection to the public water system of the city of Eau Claire for cross connections. If entry is refused, such representative shall seek to obtain a special inspection warrant under s. 66.0119, Wisconsin Statutes. On request, the owner, lessee, or occupant of any property so served shall furnish to the city any pertinent information regarding the piping system or systems on such property.

D. The city of Eau Claire water utility is hereby authorized and directed to discontinue water service to any property wherein any connection in violation of this section exists, and to take such other precautionary measures deemed necessary to eliminate any danger of contamination of the public water system. Water service shall be discontinued only after reasonable notice and opportunity for hearing under Chapter 68, Wisconsin Statutes, except as provided in subsection E. Water service to such property shall not be restored until the cross connection or connections have been eliminated in compliance with the provisions of this section.

E. If it is determined by the city of Eau Claire water utility that a cross connection or an emergency endangers public health, safety, or welfare and requires immediate action, and a written finding to that effect is filed with the clerk of the city of Eau Claire and delivered to the customer's premises, service may be immediately discontinued. The customer shall have an opportunity for hearing under Chapter 68, Wisconsin Statutes, within 10 days of such emergency discontinuances.

F. That the city of Eau Claire adopts by reference the State Plumbing Code of Wisconsin being Chapters ILHR 82, 83 and 84, Wisconsin Administrative Code.

G. This section does not supersede, but is supplementary to, the State Plumbing Code and the city of Eau Claire plumbing ordinances contained in Title 14. (Ord. 6212 §4, 2001; Ord. 4716 §2, 1987; Ord. 4423 §10, 1984).

14.08.120 Street repairs. A. When services are laid on an improved street or highway, in addition to the regular charge the premises served shall pay the cost of repairing said opening in the street at rates established by the city council, and on file with the plumbing inspector.

B. Trenches in streets shall be refilled with earth and mechanically tamped in 12-inch lifts until the street grade is reached, and to the satisfaction of the utility. (Ord. 5903 §1, 1998; Ord. 4423 §11, 1984; Ord. 3197 §I(part), 1970).

14.08.130 Private fire protection. Private fire protection service laterals to supply water to sprinkler systems or private fire hydrants will be permitted only upon application of the owner after detailed plans showing sizes and location of all pipes, valves, hydrants and sprinkler heads have been filed with and approved by the superintendent. Owners and insurance inspectors may test private fire hydrants and apparatus in the presence of the superintendent or an inspector assigned for such purposes. No charge shall be made for water used for private charges for these services. (Ord. 4423 §12, 1984; Ord. 3197 §I(part), 1970).

14.08.140 Service outside corporate limits. A. In order to provide adequate fire protection for persons and property within the corporate limits of the city of Eau Claire and to ensure the public health and safety of the residents, and for conserving the available water supply, it is necessary to limit unincorporated areas served to those previously served, specifically:

1. 8 properties in the 2500 block of Paulina Street and;
2. 7 properties in the 2500 and 2600 blocks of Crescent Avenue;
3. Properties formerly part of the Washington Heights Sanitary District and located outside the City of Eau Claire, now part of the water utility of the City of Eau Claire, effective as of January 1, 1984, pursuant to Agreement of the Washington Heights Sanitary District and the water utility of the City of Eau Claire and Order of the State of Wisconsin Public Service Commission, dated October 27, 1983, copies of such documents being on file in the office of the city clerk and open to public inspection during normal business hours.

The foregoing shall apply to any other sites or locations already so served but not herein enumerated.

B. Although the city has heretofore provided service to the aforesaid areas and sites, such service shall not be construed as a holding out or an offer by the city to furnish water beyond its corporate limits.

The city reserves the right to further limit such areas, should such further action be necessary.

C. Only in exceptional cases and when authorized by the city council by ordinance, may water service be furnished to consumers outside the city limits. The applicant for such service shall state fully all of the conditions affecting such usage, shall fully comply with all the requirements as to plumbing, safeguarding and use applicable to users of water within the city limits, and shall, if required by the council, pay for service and water in advance.

D. In such cases the water rates given under Section 14.20.060 shall be applied.

E. Mains or services laid and the installation thereof outside the city limits shall be in accordance with the specifications of and under the supervision of the water department, and be approved thereby, and expense thereof shall be a part of the cost of such main. Maintenance of such mains or services shall conform to general city requirements. (Ord. 5903 §1, 1998; Ord. 4445, 1984; Ord. 4423 §15, 1984; Ord. 3179 §I(part), 1970).

14.08.150 Water main installation in platted subdivisions. A. Application for installation of water mains in regularly platted real estate development subdivisions shall be filed with the city clerk and shall set forth the following information:

1. Name of subdivision;
2. Legal description;
3. Map showing street, lots and sizes of proposed mains and hydrants, and street laterals;
4. Date of approval of subdivision plan by the state;
5. Date of approval of proposed mains by Department of Natural Resources;
6. Number of houses presently under construction.

B. Upon receipt of the application, The Public Works Department shall develop plans for the extension of mains together with the installation of service laterals and hydrants required to adequately serve the area and provide public fire protection. The water utility will prepare detailed estimates of the cost of extending water mains and hydrants of the size deemed necessary in the subdivision and submit the same to the city council for approval of the extension as it pertains to public fire-protection service requirements.

C. The applicant for water service to be supplied to a subdivision shall be required to advance to the utility, prior to the beginning of the construction, the total estimated assessable cost of the extension. In the event several property owners are involved, they shall confer so that the advance payment is properly distributed among them. If the final costs exceed estimated costs, an additional billing will be made for the balance of the cost due. This balance is to be paid within thirty days. If final costs are less than estimated, a refund of overpayment will be made by the water utility.

D. In a regularly platted subdivision, the subdivider or developer will already have graded the streets in the subdivision or have posted a bond stating that the streets will be graded within a two-year period. (Ord. 4423 §§16, 17, 1984; Ord. 3793 §2, 1977).

Chapter 14.12

METERS

Sections:

14.12.010 Meters--Installation.
14.12.015 Meters--Service piping.
14.12.020 Meters--Repairs to.
14.12.030 Removal.
14.12.035 Inspection of premises.
14.12.040 Meters--Failure to read.
14.12.050 Failure to register.
14.12.060 Leakage--Abnormal consumption registered.
14.12.070 Meters--Complaint tests.
14.12.080 Remote reading registers.
14.12.090 Surreptitious use of water.

14.12.010 Meters--Installation. Meters of proper size and type will be furnished by, remain the property of, and be placed by the utility and are not to be disconnected or tampered with by the consumer. All meters shall be so located that they are easily accessible, with a minimum of 5 feet of head room provided for reading, inspecting and servicing, and safe from freezing or breaking. They will not be installed in pits, coal cellars, or other undesirable locations.

All meters smaller than 3 inches shall be located with at least an area of 12 inches around, above and below the meter being free and unobstructed.

All meters 3 inches and larger shall be located:

(1) with an area of 18 inches around all sides and below the meter being free from obstructions;

(2) with an area of 36 inches above the meter being free from obstructions;

(3) with an unobstructed, functioning floor drain within 6 feet of a point directly below the meter; and

(4) near some access to the outside of the building in which they are located, such as an outside door or window, for the periodic repair and testing of the meter.

All piping within the building must be supplied by the customer. Inlet and outlet valves to and from each meter shall be maintained by the property owner and in satisfactory normal operating condition. (Ord. 4423 §18, 1984; Ord. 3395 §IV, 1973; Ord. 3179 §I(part), 1970).

14.12.015 Meters--Service piping. A. In cases where a new customer whose service is to be metered installs the original service piping or where an existing metered customer changes his service piping for his own convenience, or where an existing flat rate customer requests to be metered, the customer shall, at his or her expense, provide a suitable location and the proper connections for the meter. The water superintendent should be consulted as to the type and size of meter setting.

B. Where it is possible to set meters in the basement, or other suitable place within a building, the service connection shall be provided with an approved shutoff valve on either side of the meter. Proper length, with a minimum horizontal run of 18 inches, shall be provided for the inserting of the meter into the supply line.

C. All water meters 1½ inches and larger shall be provided with a suitable valved and sealed bypass, having a diameter of not less than 1 nominal size smaller than the service entrance, which can be utilized in the event of removal, repair or changing of such meter.

D. No permit will be given to change from metered to flat rate service.

E. The water cannot be turned on for a consumer except by a duly authorized employee of the water utility. When a plumber has completed a job, the plumber must leave the water turned off. This does not prevent the plumber from testing the work. (Ord. 4423 §19, 1984).

14.12.020 Meters--Repairs to. Meters will be repaired by the water utility and the cost of such repairs caused by ordinary wear and tear will be borne by the utility. Repair of any damage to a meter resulting from the carelessness of the owner of the premises, his agent or tenant, or from the negligence of any one of them to properly secure and protect same, including any damage that may result from allowing a water meter to become frozen or to be injured from the presence of hot water or steam in the meter, shall be paid for by the customer. (Ord. 4423 §20, 1984; Ord. 3179 §I(part), 1970).

14.12.030 Removal. No meter shall be removed or otherwise disturbed except by department employees or by parties authorized by the superintendent to do so. (Ord. 3179 §I(part), 1970).

14.12.035 Inspection of premises. During reasonable hours any officer or authorized employee of the utility shall have the right of access to the premises supplied with service, for the purpose of inspection or for the enforcement of the utility's rules and regulations. At least once every 12 months the utility will make a systematic inspection of all unmetered water taps for the purpose of checking waste and unnecessary use of water. (Ord. 4423 §21, 1984).

14.12.040 Meters--Failure to read. A. Authorized utility employees shall have access to premises at all reasonable hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, to read meters at least quarterly each year, which readings shall constitute the basis of charges for water used.

B. In case access cannot readily be made to premises, a card upon which the owner or agent shall mark the numerical meter reading shall be left at the premise or mailed to the owner or agent. This card shall be forwarded to the water utility office, and for the period involved, the usage shall be based on the marked card.

C. Where the utility is unable to read a meter, and the card was not marked and returned, charges will be estimated and a billing, indicating it is an estimated bill, will be mailed to the customer. Any differences shall be adjusted when the meter is again read. Only in unusual cases shall more than two consecutive estimated bills be rendered. (Ord. 5903 §2, 1998; Ord. 4423 §22, 1984; Ord. 3179 §I(part), 1970).

14.12.050 Failure to register. If the meter is damaged or fails to operate, the bill will be based on use during the same period of the previous year, unless there is some reason why the use was not normal. If the use cannot be properly employed, the bill will be based on three months use either before or after the failure of meter to register, whichever is deemed more equitable. (Ord. 5903 §2, 1998; Ord. 4423 §22, 1984; Ord. 3179 §I(part), 1970).

14.12.060 Leakage--Abnormal consumption registered. When a meter registers an abnormal consumption due to leaks, without the consumer's knowledge, which leak has been promptly repaired after notification, the water department may determine what the amount of the loss is by comparison with former bills, and the excess so accounted for may be billed at the lowest rate published. If, however, the consumer fails to have the leak repaired promptly, upon notification, the total consumption will be billed on regular rates. (Ord. 3179 §I(part), 1970; Prior code §7.08(f)).

14.12.070 Meters--Complaint tests. If a customer requests, the utility shall promptly make an accuracy test in addition to the periodic or installation test if 24 months or more have elapsed since the last complaint test of the same meter in the same location.

All meter and remote register testing shall be done in accordance with the standards as set forth in the Wisconsin Administrative Code, P.S.C. Sections 185.61 through 185.79.

If the meter and/or remote register has been tested within the last 24 months, an amount equal to one-half of the estimated cost of the meter test shall be advanced to the utility by the customer.

If the meter is found fast in excess of 2%, no charge will be made for the test and there will be an adjustment made for the over-charge on the past billing. (Ord. 5903 §2, 1998; Ord. 4438, 1984; Ord. 4423 §23, 1984; Ord. 3179 §I(part), 1970).

14.12.080 Remote reading registers. The water utility may install remote register water meter attachments as provided in this section, which shall be located outside of the premises and shall provide a reading of water consumption on the premises. The cost of such register installation shall be borne by the utility.

A. A remote register shall be installed in any existing premise at the discretion of the utility.

B. Any premise for which a building permit is issued after the effective date of the ordinance codified in this section (December 14, 1998), shall have installed a remote register water meter attachment. The property owner, at his or her expense, shall install a thin-wall or equivalent conduit (one-half inch in diameter) extended from a position flush with the exterior wall of the premise to a point below the basement ceiling line. The location and manner of such installation shall permit the installation of such a remote register which will be in compliance with subsection C.

C. The remote register water meter attachment shall be located as determined by the utility in an easily accessible place, along a walkway or driveway that is kept cleared throughout the year and as near the water meter as possible. The remote register shall be located forty to sixty inches above ground level. The water utility superintendent or the designee of the superintendent may approve other locations for such remote register for good cause shown. (Ord. 5903 §2, 1998; Ord. 3959, 1979).

14.12.090 Surreptitious use of water. When the utility has reasonable evidence that a consumer is obtaining his supply of water, in whole or in part, by means of devices or methods used to stop or interfere with the proper metering of the utility service being delivered to his equipment, the utility reserves the right to estimate and present immediately a bill for service unmetered as a result of such interference and such bill shall be payable subject to a 24-hour disconnection of service. When the utility shall have disconnected the customer for any such reason, the utility will reconnect the customer upon the following conditions:

1. the customer has no outstanding bills for water service owing to the utility,
2. the customer has paid the utility for any and all damages to its equipment on the customer's premises due to such stoppage or interference with its metering, and
3. the customer must agree to comply with reasonable requirements to protect the utility against further losses.

Sections 98.26 and 943.20, Wisconsin Statutes, as relating to water service, are hereby adopted and made part of these rules. (Ord. 4423 §24, 1984).

Chapter 14.16

SPECIAL SERVICES

Sections:

14.16.010 Thawing frozen services.
14.16.030 Frozen service--Prevention measures.
14.16.040 Hydrants--Opening for use.
14.16.050 Maintenance and replacement of service laterals.

14.16.010 Thawing frozen services. A. Frozen service laterals located between the water main and curb box shall be thawed by and at the entire expense of the water utility except where the customer has been notified in advance of a corrective measure to follow or the freezing was caused by contributory fault or negligence on the part of the customer, such as reduction of the cover or undue exposure of the piping in the building or on the customer's property, or failure to comply with water department specifications and requirements as to depth of service, sufficient backfill, or for other similar reason (see Section 14.16.030 for adjustment of bill where the water utility requests the customer to permit a stream of water to flow to prevent freezing). Notice published in the official city newspaper and given to other local news media of corrective measures to follow to prevent freezing shall be deemed to constitute adequate advance notice to customers within the meaning of this section.

B. The thawing of frozen services or other underground pipes electrically may introduce hazards if proper precautions are not taken. Damage to buildings and to electrical facilities may result from high current flow in grounding conductors and neutrals. The electric current may reach the grounding conductor and the neutral which can be in parallel with the pipe, or reach the conductor because of physical contact between the interior water piping and the metallic tubing or conduit of the interior wiring.

C. It is recommended that when service pipes are being thawed electrically, the water meters may be removed and that experienced personnel familiar with the above hazard be asked to disconnect the conductors used for thawing the pipe. (Ord. 3877 §1, 1978).

14.16.030 Frozen service--Prevention measures. If, in the opinion of the superintendent of the water department, it becomes necessary to allow water to run continuously for a certain period to prevent freezing of laterals, the owner or occupant may leave a valve open until corrective measures can be undertaken economically. For the period in which the water is so allowed to flow, he will be billed according to the average bill for this particular location over similar periods, or according to the average consumption for others of the same class, if he be a new customer, provided he notified the water department at the time the valve was opened for such precautionary purpose.

Corrections must be made as soon as conditions warrant, as he will not be given consideration more than once for the same condition. (Ord. 3179 §I(part), 1970; Prior code §7.09(part)).

14.16.040 Hydrants--Opening for use. A. Only persons authorized by the superintendent of the water department or the chief of the fire department are permitted to open fire hydrants for any purpose.

B. In case of temporary use of a hydrant, the hydrant valve will be set at proper opening by employees of the water department, and the flow of water shall be regulated by means of a valve set with a swing joint to facilitate quick disconnection from the hydrant. (Ord. 3179 §I(part), 1970; Prior code §7.10)

14.16.050 Maintenance and replacement of service laterals. A. The cost of maintaining and replacing that portion of the service lateral, and appurtenances, which is located between the water main up to and including the curb box shall be borne by the water utility, subject to the provisions of this section. Such maintenance or replacement shall be required only in the event of a leak, or in the event there is damage to, or deterioration or malfunction of such portion of the lateral so that the water service to the premises served is adversely affected thereby, as reasonably determined by the water superintendent, and which is not the result of the negligence or other fault of the owner, of the premises, or from the decision on the part of the owner, without more, to change from one size of service to another size of service. The water utility shall only be obligated for the cost of replacement of a service lateral of similar size as that portion of the service lateral which is replaced. The replacement lateral shall be of a type of material that conforms to current standards. The ordinance codified in this section shall take effect as of January 1, 1978.

B. The following percentage of the actual cost of such replacement shall be borne by the city according to the following schedule over the five years next following such effective date for replacement occurring during such year. The property owner shall be responsible for the remaining percentage of such replacement costs.

Year	City-paid percent of costs
1978	20%
1979	40%
1980	60%
1981	80%
1982	100%

C. Commencing in the year 1982 and thereafter, the entire cost of such replacement shall be borne by the water utility. The water utility shall be responsible for that percentage of costs for the year in which the damage or defect occurs or is discovered, except in those cases where repair or maintenance cannot be made due to weather or other similar reason beyond the control of the property owner, in which case the percentage of the next subsequent year shall be used.

D. 1. Any claim filed under this section may be authorized to be paid from the city treasury after the comptroller has audited and approved the claim as a proper charge against the treasury, and has indorsed approval thereon after having determined that the following conditions have been complied with:

a. That funds are available therefor pursuant to the budget approved by the city council;

b. That the item or service covered by such claim has been duly authorized by the proper official, department head, board, or commission;

c. That the item or service has been actually supplied or rendered in conformity with such authorization;

d. That the claim is just and valid pursuant to law. The comptroller may require the submission of such proof and evidence to support the foregoing as deemed necessary.

2. The comptroller shall file with the city council not less than monthly a list of the claims approved, showing the date paid, name of claimant, purpose and amount.

3. The city shall authorize an annual detailed audit of such financial transactions and accounts as required by Wisconsin Statutes, Section 66.044. (Ord. 4008, 1979; Ord. 3877 §3, 1978).

(Eau Claire)

Chapter 14.20

RATES AND BILLING

Sections:

14.20.010 Bills to customers.
14.20.015 Service contract.
14.20.020 Billing--Late payment charge.
14.20.025 Combined metering.
14.20.030 Unpaid charges--Lien on property.
14.20.040 Billing dates--Penalty dates.
14.20.050 Rates--Public fire protection service.
14.20.055 Utility service transfer fee.
14.20.060 Rates--Metered.
14.20.070 Reconnection charge.
14.20.080 Metered construction service.
14.20.090 Unmetered service.
14.20.095 Seasonal service.
14.20.100 Rates--Private fire protection service.
14.20.130 Service to other municipalities.
14.20.135 Public service.
14.20.140 Bulk water.
14.20.150 Water lateral installation charge.

14.20.010 Bills to customers. A. All water bills and notices of any nature relative to water supply shall be addressed to the customer. "Customer" shall be construed to mean the owner of the property. In the case of rental property, the owner may direct the utility to recognize a tenant as a customer subject to the following conditions:

1. Each rental unit shall be individually metered.
2. There is no more than 1 tenant designated as tenant-customer for each rental unit who agrees to be solely responsible for the prompt payment for services and for notifying the owner and utility of any change in occupancy.

Service may not be denied to any customer provided the above conditions are met and the customer is legally occupying the property.

B. Reasonable care will be exercised for delivery of water bills. The failure to receive such bills shall not relieve the owner of any premises from payment of bills within the prescribed period, nor exempt him from the responsibility imposed for delinquency of accounts. (Ord. 4423 §25, 1984; Ord. 3918 §1, 1978; Ord. 3179 §I(part), 1970).

14.20.015 Service contract. A. The request by a property owner to have a water meter set and the water supply turned on by the utility is interpreted as a service contract for continuous water service with the water utility.

B. For change in ownership of property requiring special billing by the utility, a service initiation fee shall apply to the new customer payable as a condition of receiving service. See Section 14.20.055 for applicable rates.

C. Where a customer, at his or her request, has been disconnected (shut off at curb stop or meter removed) and his or her account is not delinquent, and where thereafter he or she requests reconnection of service at the same location, a reconnection charge shall be billed. See Section 14.20.070.

D. A reconnection charge shall also be made to customers whose services are disconnected (shut off at curb stop or meter removed) because of non-payment of bills when due, (not including disconnection for failure to comply with deposit or guarantee rules). See Section 14.20.070 for applicable rate.

E. Where the property owner requests the utility to bill a tenant-customer, and the tenant-customer accepts this responsibility, a service initiation fee shall apply to the new customer payable as a condition of receiving service. See Section 14.20.055 for applicable rates. Service will not be denied to any tenant-customer provided he or she is legally occupying the property and has accepted responsibility for water service. (Ord. 4423 §26, 1984).

14.20.020 Billing--Late payment charge. Bills for water service are rendered quarterly and become due and payable on the first of the month following the period for which service is rendered. Regardless of any provision to the contrary in this chapter, wherever quarterly billing for water service is provided, the water utility may, at its option, render bills for water service on a monthly basis. A late payment charge of 3 percent will be added to bills not paid within 20 days of issuance. This one-time 3 percent late payment charge will be applied only to any unpaid balance for the current billing period's usage. This late payment charge is applicable to all customers. The utility customers may be given a written notice that the bill is overdue no sooner than 20 days after the bill is issued; and unless payment or satisfactory arrangement for payment is made within the next 8 days, service may be disconnected pursuant to Chapter PSC 185, Wisconsin Administrative Code. (Ord. 6212 §5, 2001; Ord. 5679 §1, 1997; Ord. 5149 §1, 1991; Ord. 4423 §27, 1984; Ord. 4230 §1, 1981).

14.20.025 Combined metering. A. Volumetric meter readings will be combined for billing if the utility, for its own convenience, places more than one meter on a single water service lateral. Multiple meters placed for the purpose of identifying water not discharged into the sanitary sewer are not considered for utility convenience and shall not be combined for billing. Meter readings from individually metered separate service laterals shall not be combined for billing purposes. This does not preclude buildings used in the same business and located on the same parcel from having the water supply piping installed to a central point by the customer so that the buildings can be served by a single water service lateral and metered in one place. (Ord. 5274 §1, 1992).

14.20.030 Unpaid charges--Lien on property. A. Except as provided in subsection B., all water bills and service charges shall be a lien on the parcel of land to which water service is supplied. All sums that have accrued during the preceding year and are not paid by the first of November in any year shall be certified to the city clerk, and shall be placed on the tax roll for collection as provided in Section 66.0809, Wisconsin Statutes.

B. If an arrearage is for utility service furnished and metered directly to a mobile home unit in a licensed mobile home park, notice of arrearage shall be given to the owner of the mobile home unit. Delinquent amounts shall become a lien on the mobile home unit rather than a lien on the parcel of real estate on which the mobile home unit is located. A lien on a mobile home unit may be enforced using the procedures under section 779.48(2), Wisconsin Statutes. (Ord. 6212 §6, 2001; Ord. 5679 §2, 1997; Ord. 3179 §I(part), 1970).

14.20.040 Billing dates--Penalty dates. For billing purposes, the city is divided into four groups. On the last day of each month a quantity bill will be rendered to one of the following groups:

Group 1 January, April, July, October;
Group 2 February, May, August, November;
Group 3 December, March, June, September;
Group 4 Every month. (Ord. 5460 §1, 1994; Ord. 3793 §5, 1977).

14.20.050 Rates--Public fire protection service. A. Public Fire Protection Service. Under Wisconsin Statute s. 196.03(3)(b), the city of Eau Claire has chosen to have the utility bill the retail general service customers for public fire-protection service. This service shall include the use of hydrants for fire protection service only and such quantities of water as may be demanded for the purposes of extinguishing fires within the service area. This service shall also include water used for testing equipment and training personnel. For all other purposes, the metered or other rates set forth, or as may be filed with the Public Service Commission, shall apply.

Meter Size	Adjusted Rate per Quarter
5/8 in.	$ 9.46
3/4 in.	9.46
1 in.	23.48
1 1/4 in.	34.92
1 1/2 in.	47.28
2 in.	75.71
3 in.	142.14
4 in.	234.84
6 in.	472.77
8 in.	753.96
10 in.	1,134.03
12 in.	1,511.01

This rate is in addition to the rates contained in sections 14.20.060, 14.20.080, 14.20.090 and 14.20.095. Billing shall be as is provided for general service.

B. To cover the use of mains and hydrants up to and including the terminal hydrant and connection on each main existing for the 2001 test year, the utility shall charge the following community annually, or at utility option, monthly, for public fire protection service:

City of Altoona: $2,892 annually or $241 per month.

1. An adjustment of $1.04 per foot of transmission and distribution main shall be made to the annual charge for the change in the feet of main added to the city of Altoona that is in excess of 3,500 feet.

2. This service shall include the use of hydrants for fire protection service only and such quantities of water as may be demanded for the purpose of extinguishing fires within the service area. This service shall also include water used for testing equipment and training personnel. For all other purposes, the metered or other rates set forth, or as may be filed with the Public Service Commission, shall apply. (Ord. 6421 §1, 2003; Ord. 6131 §1, 2001; Ord. 5903 §3, 1998; Ord. 5679 §3, 1997; Ord. 5522, 1995; Ord. 5460 §2, 1994; Ord. 5274 §2, 1992; Ord. 5149 §2, 1991; Ord. 4943, 1989; Ord. 4656 §1, 1986; Ord. 4423 §28, 1984; Ord. 4230 §2, 1981; Ord. 3793 §5, 1977; Ord. 3395 §V(part), 1973; Ord. 3179 §I(part), 1970; Prior code §7.15(a)(part)).

14.20.055 Utility service transfer fee. The following service initiation fees shall apply for changes in customer status payable by the new customer as a condition of receiving service to cover the meter reading expense and the administrative expenses associated with establishing service and providing special billing:

Meter reading charge	$25.00
Administrative and billing charge	15.00
Total service initiation fee	$40.00

The total service initiation fee ($40.00) shall apply to the new customer where a special meter reading and billing is required. The administrative and billing charge ($15.00) only shall apply to the new customer when the customer name and/or address is changed on the utility's billing records. Where a reading is provided by the customer on the service initiation form, a special billing will be processed.

The above-stated fees shall apply under the following circumstances:

1. Ownership of property transfers;
2. Owner of property assigns responsibility for service to a tenant-customer (and the tenant-customer accepts the responsibility);
3. Tenant-customer moves and billing address transfers back to owner;
4. Tenant changes and new tenant accepts responsibility for bill; or
5. Property management company or condominium association transfers and responsibility is accepted by new management.

A $25.00 charge will be billed by the utility if the customer schedules an appointment for a special meter reading with a utility serviceman and the customer fails to be present at such time to allow access to the meter. (Ord. 6711 §1, 2006; Ord. 6131 §2, 2001; Ord. 5679 §5, 1997; Ord. 4423 §29, 1984).

14.20.060 Rates--Metered. A. Service Charge. Quarterly service charges shall be:

5/8 in. meter	$15.60	3 in. meter	$ 99.00
3/4 in. meter	15.60	4 in. meter	129.00
1 in. meter	22.80	6 in. meter	225.00
1 1/4 in. meter	30.00	8 in. meter	339.00
1 1/2 in. meter	36.60	10 in. meter	489.00
1 in. meter	55.80	12 in. meter	639.00

B. Plus volume charges:

First 7,500 cu. ft. used each quarter, $1.31 per 100 cu. ft.;
Next 742,500 cu. ft. used each quarter, $1.13 per 100 cu. ft.;
Over 750,000 cu. ft. used per quarter, 79¢ per 100 cu. ft.

C. Unit of Service. A unit of service shall consist of any residential or small commercial aggregation of space or area occupied for a distinct purpose, such as a residence, apartment, flat, store or office which is equipped with one or more fixtures for rendering water service, separate and distinct from other users.

Suites in houses or apartments where complete housekeeping functions (such as cooking) are not exercised shall be classed as rooming houses. Thus, houses and apartments having suites of one, two or more rooms with toilet facilities, but without kitchen for cooking, are classed as rooming houses.

When a consumer's premises have several buildings each supplied with service and metered separately, the full service charge will be billed for each meter separately, and the readings will not be cumulated. If these buildings are all used in the same business and are connected by the consumer, they can be metered in one place. If the utility, for its own convenience, installs more than one meter, the readings will be cumulated for billing. (Ord. 6711 §2, 2006; Ord. 6421 §2, 2003; Ord. 6131 §3, 2001; Ord. 5903 §3, 1998; Ord. 5679 §6, 1997; Ord. 5460 §4, 1994; Ord. 5274 §4, 1992; Ord. 5149 §4, 1991; Ord. 4943, 1989; Ord. 4656 §3, 1986; Ord. 4423 §30, §31, 1984; Ord. 4230 §3, 1981; Ord. 3793 §5, 1977; Ord. 3395 §V(part), 1973: Ord. 3179 §I(part), 1970; Prior code §7.15(a)(part)).

14.20.070 Reconnection charge. The following reconnection charge shall apply:

	During Normal Business Hours	After Normal Business Hours
Reinstallation of meter, including valving at curb stop	$50.00	$70.00
Valve turned on at curb stop	$45.00	$65.00

Note: No charge for disconnection.

(Ord. 6711 §3, 2006; Ord. 5903 §3, 1998; Ord. 5679 §7, 1997; Ord. 5274 §5, 1992; Ord. 5149 §5, 1991; Ord. 4656, 1986; Ord. 4423, 1984; Ord. 4230 §4, 1981).

14.20.080 Metered construction service. A. When water is required for construction purposes, for filling tanks or other such uses, an application must be made at the water utility office. This request must give the location, purpose, size of meter required, and the name and address of the customer responsible for the bill.

B. On large projects the utility will install a meter on the service pipe or available hydrants which will be removed up when the work is completed.

The consumer will be required to pay for the water used, together with the cost of installing and removing the meter and special facilities required to make the connection.

Bills will be computed and invoiced upon the removal of the meter under the general service rates under Section 14.20.060, prorated for the number of days used, with a minimum charge of $16.00. (Ord. 5679 §8, 1997; Ord. 4943, 1989; Ord. 4423 §33, 1984; Ord. 3793 §6, 1977; Ord. 3395 §V(part), 1973; Ord. 3179 §I(part), 1970; Prior code §7.15(c)).

14.20.090 Unmetered service. Where the utility cannot immediately install its water meter, service may be supplied temporarily on an unmetered basis. Such service shall be billed at the rate of $40.49 each quarter. This rate shall be applied to only single-family residential and small commercial customers and approximates the cost of 1,900 cubic feet per quarter under Section 14.20.060. If it is determined by the utility that usage is in excess of 1,900 cubic feet per quarter, an additional charge per the general rates established under Section 14.20.060 will be made for the estimated additional usage. (Ord. 6711 §4, 2006; Ord. 6131 §4, 2001; Ord. 5903 §3, 1998; Ord. 5679 §10, 1997; Ord. 5460 §5, 1994; Ord. 5274 §7, 1992; Ord. 5149 §7, 1991; Ord. 4943, 1989; Ord. 4656 §5, 1986; Ord. 4423 §§34 & 35, 1984; Ord. 4230 §§5, 6, 1981; Ord. 3793 §7, 1977; Ord. 3395 §V(part), 1973: Ord. 3179 §I(part), 1970; Prior code §7.15(d)).

14.20.095 Seasonal service. A. Seasonal customers shall be served at the general service rate (Section 14.20.060) except that each customer served under this rate shall pay an annual seasonal bill equal to four times the applicable quarterly service charge. Water use in any quarter shall be billed at the applicable volume schedule contained in Section 14.20.060 and the charge added to the annual seasonal bill. For disconnections of service, not previously considered as seasonal, emergency or temporary, and service is resumed at the same premises by the same customer within a 12-month period, and if there has been no service to another customer during the intervening period, the customer shall be billed for the pro rata share of the quarterly service charge for the disconnection period. Further, if service has been disconnected, a charge under section 14.20.070 shall be applied at the time of reconnection. Seasonal customers are customers whose use of water is normally for recurring periods of less than one year.

B. Unmetered lawn sprinkling for private cemeteries shall be charged at the rate of $3.76 per 1,000 square feet of area for the season, and shall be billed on October 1st of each year. Unmetered water service to cemeteries that do not use water for general lawn sprinkling shall be billed at the same rate as specified in s. 14.20.090. (Ord. 6711 §5, 2006; Ord. 6131 §5, 2001; Ord. 5679 §12, 1997; Ord. 5460 §6, 1994; Ord. 5274 §9, 1992; Ord. 5149 §9, 1991; Ord. 4943, 1989; Ord. 4656 §6, 1986; Ord. 4423 §36, 1984).

14.20.100 Rates--Private fire protection service. A. This service shall consist of unmetered connections to the main for automatic sprinkler systems, standpipes (where same are connected permanently or continuously to the main(s)), and private hydrants.

B. Quarterly demand charges for private fire protection service shall be as follows:

Size of Connection	Quarterly Charge
2-inch	$ 10.50
3-inch	$ 18.00
4-inch	$ 30.00
6-inch	$ 48.00
8-inch	$ 75.00
10-inch	$102.00
12-inch	$132.00

Billing: Same provisions as for general service. (Ord. 5903 §3, 1998; Ord. 5679 §13, 1997; Ord. 5274 §10, 1992; Ord. 4943, 1989; Ord. 3793 §8, 1977; Ord. 3395 §VI(part), 1973: Ord. 3179 §I(part), 1970; Prior code §7.16).

14.20.130 Service to other municipalities. A. Water service may be furnished to other municipalities upon written application and upon approval thereof by the city council.

B. Upon filing of such application the council shall first ascertain from the superintendent of the water department that such service will not adversely affect the water requirements of the city.

C. Granting the application shall be upon the condition that the service will be available from the nearest point to the particular location from which applicant may desire service and that the capacity to serve will be based on the size of the city's then existing watermain with pressure limited accordingly. Any installation for increased service or pressure will be at the expense of applicant.

D. Payment for water used shall be made by applicant based upon the reading of the master meter, bills to be rendered quarterly and all ordinances, rules and regulations applicable to retail service governing the municipal water utility of the city shall apply.

E. The utility shall furnish facilities up to the city limits, and any investment in mains not subject to special assessment by the city shall be contributed by the customer. If a master meter is employed, the cost of the meter will be borne by the customer. Such master meter shall be installed in an approved meter pit at a site within the city limits, designated by the city. (Ord. 4423 §38, 1984; Ord. 3793 §§10, 11, 1977; Ord. 3395 §VIII, 1973; Ord. 3174 §I(part), 1970; Prior code §7.20).

14.20.135 Public service. A. Water service supplied to municipal buildings, schools and similar properties shall be metered and the regular service rates applied.

B. Water used on an intermittent basis for flushing sewers, street sprinkling, flooding skating rinks, drinking fountains, and similar activities shall be metered where meters can be set to measure the service. Where it is impossible to measure the service, the superintendent shall estimate the volume of water used based on the pressure, size of opening, and period of time water is allowed to be drawn. The estimated quantity used shall be billed at the rate of $1.13 per one hundred cubic feet. (Ord. 6711 §6, 2006; Ord. 6131 §6, 2001; Ord. 5903 §3, 1998; Ord. 5679 §15, 1997; Ord. 5460 §7, 1994; Ord. 5149 §10, 1991; Ord. 4943, 1989; Ord. 4656 §9, 1986; Ord. 4423 §39, 1984; Ord. 4230 §7, 1981; Ord. 3793 §12, 1977).

14.20.140 Bulk water. A. All bulk water supplied from the water system through hydrants or other connections shall be metered, or at the direction of the utility, estimated. Utility personnel or a utility-approved party shall supervise the delivery of water. Bulk water sales are:

1. Water supplied by tank truck or from a hydrant for the purpose of extinguishing fires outside the utility's immediate service area;

2. Water supplied by tank truck or from a hydrant for purposes other than extinguishing fires, such as irrigation or the filling of swimming pools; or

3. Water supplied from hydrants or other temporary connections for general service type applications.

B. A charge for the volume of water used will be billed to the party using the water at $1.31 per 100 cubic feet. A service charge, in addition to the volumetric charge, will be $50.00. A deposit for the meter and/or valve will be required. The deposit collected shall be $50.00 and will be refunded upon return of the utility's equipment. Damaged or lost equipment will be repaired or replaced at the customer's expense. (Ord. 6711 §7, 2006; Ord. 6131 §7, 2001; Ord. 5903 §3, 1998; Ord. 5679 §16, 1997; Ord. 5460 §8, 1994; Ord. 5274 §11, 1992; Ord. 5149 §11, 1991; Ord. 4943, 1989; Ord. 4656 §10, 1986; Ord. 4423 §40, 1984; Ord. 3793 §13, 1977; Ord. 3395 §IX, 1973; Ord. 3179 §I(part), 1970; Prior code §7.21).

14.20.150 Water lateral installation charge. Subdivision developers shall be responsible, where the main extension has been approved by the utility, for the water service lateral installation costs from the main through the curb stop and box. When the cost of a utility main extension is to be collected through assessment by the city, the actual average water lateral installation costs from the main through the curb stop and box shall be included in the assessment of the appropriate properties. The initial water lateral not installed as part of a subdivision development or an assessable utility extension shall be installed from the main through the curb stop and box by the utility, for which the actual cost shall be charged. (Ord. 5149 §12, 1991; Ord. 4656 §11, 1986; Ord. 4230 §8, 1981).

Eau Claire City/County Health Department's Sanitary Code

Chapter 8.12

SANITARY CODE*

Sections:

8.12.001	Authority and policy.
8.12.003	Application.
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* For statutory provisions authorizing counties to adopt sanitary codes, see WSA 59.70(l).

Prior history: Ord.141-03, Sec.1, 1997; Ords. 126-77, 224- 78, 80-81/91, 80-81/386, 83-84/389.

8.12.001 Authority and policy.

A. Wis. Stat. §§ 59.70(5), 59.70(6), 59.70(1), 59.69(4) and 280.21, grant to the county the authority to establish a sanitary ordinance to promote the public health, safety and general welfare of its residents, to make necessary rules and regulations in relation thereto, to specifically regulate private onsite wastewater treatment systems, private water systems as authorized in NR 845 Wis. Adm. Code and to provide for enforcement of such regulations. Such authority shall be exercised under the provisions of this chapter.

B. The sections of this ordinance applicable to regulating private water systems are subject to the provisions of Wis. Stat. §§ 59.70(6) and 280.21, and all rules promulgated thereunder regulating private water systems. This ordinance may not be more lenient nor more stringent than the rules promulgated pursuant to Wis. Stat. ch. 280. (Ord. 144-17, Sec. 1, 2000; Ord.139-119, Sec. 2, 1996 Ord.141-03, Sec.1, 1997; Ord. 131-20 Sec.1(part), 1987).

8.12.003 Application. The provisions of this chapter shall generally be applicable in all unincorporated areas of Eau Claire County, as well as in those incorporated areas of the county which have not adopted sanitary ordinances or resolutions. The specific regulations of this chapter governing private onsite wastewater treatment systems and private water systems shall apply throughout the entire county. (Ord. 144-17, Sec. 2, 2000; Ord. 131-20 Sec.1(part), 1987).

8.12.004 Purpose. The purpose of this ordinance is to promote the public health, safety and general welfare of county residents, to protect the drinking water and groundwater resources of the county by governing solid and liquid waste handling and disposal as well as the access to groundwater through regulating (1) private well location, and (2) existing private water systems. (Ord. 131-20 Sec.1(part), 1987).

8.12.005 Definitions.

A. "Administrator" or "health officer" means the Eau Claire City-County Health Department Director or his or her designee for the purpose of administering the provisions of this chapter and the rules and regulations adopted pursuant thereto.

B. "Board of Health" or "health department" means the Eau Claire City-County Health Department.

C. "Code" means the Wisconsin Administrative Code.

D. "Comm" means the Wisconsin Department of Commerce.

E. "Composting toilet system" means a method that collects, stores and converts by bacterial digestion non-liquid-carry human wastes or organic kitchen wastes, or both, into humus.

F. "Delegation level" means the program level, as set forth in NR 845.05, at which a county is authorized to administer and enforce NR 812.

G. "DNR" means the Wisconsin Department of Natural Resources.

H. "Existing building" for the purpose of enforcing 8.12.240 C. means any home that is new but is replacing a home on the same parcel of land which was constructed prior to May 23, 1984.

I. "Existing installation" has the meaning designated in NR 812.

J. "Garbage" means all discarded putrescible animal or vegetable matter, such as waste materials from kitchens, residences, grocery stores, restaurants, food processing plants and other similar deleterious substances.

K. "Hazardous substance" means any substance or combination of substances including any solid, semi-solid, liquid or gaseous form which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizers or explosives.

L. "Human health hazard" means substance, activity or condition that is known to have the potential to cause acute or chronic illness or death if exposure to the substance, activity or condition is not abated.

M. "Incinerating toilet" means a self-contained device for treatment of non-liquid carried wastes that deposits the wastes directly into a combustion chamber, reduces the solid portion to ash and evaporates the liquid portion.

N. "Mixed trash" means garbage and trash, placed and stored together.

O. "Noncommunity water systems" means a public water supply system that serves at least 25 people at least 60 days each year. A noncommunity water system commonly serves a transient population rather than permanent year-round residents. This is typically an individual well serving a restaurant, industry, service station, tavern, motel, campground or church.

P. "Noncomplying well or pump installation" means a private water system not in compliance with all provisions of NR 812 in effect at the time the well was constructed or the pump was installed.

Q. "Person" means an individual, corporation, company, association, cooperative, trust, institution, partnership, state, public utility, sanitary district, municipality or federal agency.

R. "Pit privy" means a privy that has a subsurface storage chamber that is not water tight.

S. "Primary drinking water standards" means those maximum contaminant levels which represent minimum public health standards set forth in NR 809.

T. "Private onsite wastewater treatment system" means a sewage treatment and disposal system serving a single structure with a septic tank and soil absorption field located on the same parcel as the structure; an alternative sewage system approved by the department including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure; and may be owned by the property owner or by a special purpose district.

U. "Private water system" means the water collection, storage and treatment facilities and all structures, piping and appurtenances by which water is provided for human consumption by other than community water systems. For the purpose of this ordinance, it includes noncommunity water systems.

V. "Private well" means, for the purpose of this ordinance, any drilled, driven point, dug, bored or jetted well constructed for the purpose of obtaining groundwater for potable use, including wells constructed in special well casing depth areas and noncommunity wells. It does not include springs or private or public wells that require written plan approval from the DNR.

W. "Privy" means an enclosed non-portable toilet into which non-water human wastes are deposited to a subsurface storage chamber.

X. "Public water system" has the meaning designed in NR 812.

Y. "Reconstruction" means modifying the original construction of a private well. It includes but is not limited to deepening, lining, installing or replacing a screen, under-reaming, hydrofracturing and blasting.

Z. "Recyclables" or "recyclable material" shall have the meaning as defined in 12.73.005 F.

AA. "Refuse" means all solid wastes, including but not limited to garbage, trash, recyclables, and yard waste.

BB. "Sludge" means any solid, semi-solid or liquid waste generated from a private sewage disposal system, a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility.

CC. "Sanitary permit" means a permit issued by the health department for the installation of a private onsite wastewater treatment system, privy, composting toilet or incinerating toilet.

DD. "Solid waste" means any garbage, refuse, sludge, and other discarded or salvageable material, including solid, liquid, industrial, commercial, mining, residential, agricultural or community activities.

EE. "Trash" means all nonputrescible solid wastes, consisting of both combustible and non-combustible wastes, such as feathers, rags, paper, boxes, glass, cans, ashes, discarded clothes, building materials, or any other similar discarded object or thing.

FF. "Variance" means an approval issued by the DNR under NR 812 requirements if DNR approved conditions are met.

GG. "Vault privy" means a privy that has a subsurface storage chamber that is water tight.

HH. "Water system" means the water collection, storage, treatment facilities and all structures, piping and appurtenances by which water is provided.

II. "Well" has the meaning designated in Wis. Stat ch. 162.

JJ. "Well construction" means the procedures, methods, materials and equipment used during the construction or reconstruction of a private well.

KK. "Well constructor" means any person who constructs a well.

LL. "Well location permit" means a permit, issued by the Health Department, which allows the construction or reconstruction of a private well.

MM. "Yard waste" means grass clippings, lawn rakings, leaves, and other refuse attending the care of lawns, shrubbery, vines and trees. (Ord. 144-17, Sec. 3, 2000; Ord.139-119, Sec.3, 1996)

<u>8.12.010 County ordinances - superseded.</u> All other county ordinances or parts of ordinances inconsistent or conflicting with this ordinance, to the extent of the inconsistency only, are repealed. (Ord. 131-20 Sec.1(part), 1987).

8.12.020 Enforcement.

A. The provisions of this chapter shall be administered by or under the direction of the health department director and, where applicable, by duly authorized representatives who shall have the right to enter upon premises affected by this chapter as provided in 1.12.010.

B. No person may interfere with the health department director or an authorized representative in the performance of his or her duties. Any person interfering shall be in violation of this ordinance and subject to penalty as provided by this ordinance. If consent to enter property for inspection purposes is denied, the health department director or his or her duly authorized representative may obtain a special inspection warrant under Wis. Stat. §§ 66.122 and 66.123. (Ord. 144-43, Sec. 12; 2000; Ord. 144-17, Sec. 4, 2000; Ord. 131-20 Sec.1(part), 1987).

8.12.030 Regulations, rules and laws adopted by reference. The applicable laws, rules, regulations set forth in Wis. Stat. chs. 144, 145, 146, 251.05, 251.06, and 254, NR102, NR105, NR 110, NR 809, NR 812, NR 113, NR 124, NR 140, NR 845, NR 500-555, Comm 81, Comm 82, Comm 83, Comm 84 and Comm 85 and Comm 91, are incorporated in this chapter by reference and they shall be construed, read and interpreted as though fully set forth herein. The express provisions of this chapter shall control where more restrictive except with respect to rules promulgated under Wis. Stat. ch. 145. (Ord. 144-17, Sec. 5, 2000; Ord.139-119, Sec.4, 1996; Ord.131-20, Sec.1 (part), 1987)

8.12.040 Private water systems. The intent of this section is to regulate the location of new or reconstructed private wells and to regulate existing private water systems and to regulate well and drill hole abandonment.

A. Delegation level - The health department shall comply with and enforce all provisions of NR 845 of the code applicable to delegation level one (private well location) and level three (existing private water systems), and leval five (well and drill hole abandonment).

B. Well location permits.

1. No person may install a private well or water system unless the owner of the property on which the private water supply system is to be installed holds a valid well location permit issued by the health department or has made arrangements to acquire a permit by notifying the administrator prior to construction. Notification shall include providing the administrator with the property owner's name, address, property legal description, proposed starting date and identification of the person who will be obtaining the permit. Unless other arrangements are made the permit shall be applied for on the first workday following initial construction.

2. No private water system may be located, installed or operated within the jurisdictional limits of Eau Claire County without the appropriate permit being obtained in compliance with 1. and without being in full compliance with provisions of this ordinance.

3. Well location permit applications:

a) Shall be on forms provided by the health department.

b) Shall be made by the property owner or the property owner's designated agent to the health department.

c) Shall be signed by the property owner or the property owner's designated agent.

d) Shall be submitted to the health department at least two working days prior to construction if the property owner or well constructor is interested in receiving information about potential contamination sources such as landfills; underground storage tanks; primary and replacement on site sewage disposal system areas on the development site and on adjacent properties; and special casing areas. Where a well location permit application is submitted less than 2 working days prior to construction the well constructor shall be responsible for maintaining full compliance with all provisions of Wis. Admin. Code ch. NR 812.

e) The administrator shall review applications and approve, disapprove, return the application for incompleteness or notify an applicant of the need to seek a variance or special approval from the DNR.

f) The administrator shall issue written notice to each applicant whose well location permit application is disapproved, stating the specific reasons for disapproval and setting forth such amendments to the application, if any, which would render it approvable.

g) When construction occurs on a weekend or holiday, notification shall be provided to the health department on the first workday following the weekend or holiday in the same manner as described in d. Unless other arrangements are made with the health department, the permit application shall be obtained on the first workday following the weekend or holiday. The well constructor shall be responsible for maintaining full compliance with all provisions of NR 812.

4. A permit transfer application shall be submitted to the health department when there is a change of property owner after the application is submitted but before well construction is completed. Failure to submit a transfer application shall invalidate a previously issued permit. The application shall be on a form made available by the health department.

5. As soon as the well location permit is received it shall be displayed conspicuously at the well site during construction and for a minimum of 7 days following completion or until the well has been inspected by health department staff, whichever occurs first.

6. A well location permit shall be valid for a period of one year or until construction is completed, whichever occurs first. If a permit expires, reapplications shall be evaluated so that construction will comply with the provisions of NR812 in effect at the time of reapplication.

7. A well location permit is not required nor shall it be issued by the health department for public water systems and for private water systems which require written plan approval from the DNR.

8. Any permit issued under this section shall be void if any false or inaccurate statement is made or if any inaccuracy is shown on any application for a permit.

C. Private water system - non-complying - unsafe. The health department may issue notices or orders requiring:

1. The abandonment of a private well not in service or that will be taken out of service if the well is unused, non-complying or bacteriologically unsafe. The health department may also order the abandonment of a private well with water exceeding a primary drinking water standard listed in NR 809 or other chemical compounds for which state health advisory limits have been issued including inorganic and organic compounds, after consultation and approval by the DNR.

2. The upgrading of a private water system not in compliance with the location or pump installation standards of NR 812.

3. Prohibiting the use of any new or existing private water system that is found to be installed, constructed, operated or maintained so as to be a health hazard to the users, neighbors or community.

4. The advising of owners not to drink or use water from private water systems confirmed bacteriologically unsafe, or, except for non-community wells, having a level of contamination exceeding a primary drinking water standard specified in NR 809 or having inorganic or organic compounds exceeding state health advisory limits in samples tested by a state certified or registered lab or by the State Laboratory of Hygiene.

5. Any person owning, operating or installing a private water system to abandon, modify, repair or replace a private water system in a complying, safe and sanitary condition if the system is found to be unused, non-complying with the drinking water standards in NR809 or not meeting state health advisory limits established for chemical compounds.

6. The suspension of work on a water system if it is determined that the well location or pump installation does not comply with NR 812 or this ordinance. Notification shall be made to the well constructor or pump installer and property owner in writing of the non-compliance and the nature of the work to be discontinued and corrected, identifying the location and the name of the person issuing the order. It shall be a violation of this ordinance to engage in work that conflicts with the terms of an order or to make an unauthorized removal of a posted order. Work may resume on the site only under the direction of the administrator. (Ord. 144-17, Sec. 6, 2000; Ord.139-119, Secs.5-7, 1996)

8.12.050 Refuse accumulation. Waste disposal shall be regulated pursuant to Wis. Stat. ch. 144, and NR 110, NR 113 and NR 500-555.

A. It is unlawful to throw, discard or discharge into any navigable water any garbage or refuse.

B. The accumulation or deposit of garbage, other waste or refuse or putrescible animal or vegetable matter in or upon any lot or land or any public or private place which causes the air or environment to become noxious or offensive or in such a state as to breed flies, mosquitoes or other insects or to provide a habitat or breeding place for rodents or otherwise become a human health hazard is forbidden and declared to be a nuisance. (Ord. 144-17, Sec. 7, 2000; Ord.129-119, Sec.8, 1996; Ord.137-11, Sec.14, 1993; Ord. 131-20 Sec.1(part), 1987).

8.12.060 Solid waste disposal sites prohibited without permits.

A. The establishment of solid waste disposal sites is prohibited unless the DNR authorizes the issuance of a permit pursuant to Wis. Stat. § 289.31, for such sites and a conditional use permit is granted by the county in conformance with Title 18.

B. It is unlawful for any person to dump or otherwise dispose of any solid waste such as garbage, refuse, recyclables, yard waste or sludge upon any public land or the property of another without the expressed permission of that property owner and be in compliance with all applicable state and local regulations.

C. No person shall burn any garbage or mixed trash other than in an incinerator which is approved by the health department based on its durability and suitability for use in accordance with applicable governmental regulations and standards. (Ord. 147-103, 2004; Ord. 144-17, Sec. 8, 2000; Ord.141-03, Sec.1, 1997; Ord.139-119, Sec.9, 1996; Ord. 137-11, Secs.15-16, 1993; Ord. 131-20 Sec.1(part), 1987).

8.12.065 Garbage, Trash and Recyclable containers.

A. It is unlawful for the agent, owner, tenant or occupant of any premises to have, maintain, or keep any garbage or mixed trash thereon except in containers as prescribed in this chapter. Such containers shall be watertight, have handles and be equipped with a tight-fitting cover and either be constructed from a galvanized metal or be of plastic that is weather resistant and resistant to cracking or breaking. Such containers, when placed out for collection, shall be easy to handle and load by one person onto a collection vehicle.

1. Garbage or mixed trash shall be placed in plastic bags or otherwise adequately wrapped before being placed in the garbage containers.

2. The total capacity of all provided garbage and mixed trash containers and all bulk storage containers shall be sufficient to meet the needs of the occupants of the premises or dwelling unit to which they relate.

3. It shall be unlawful to place any garbage or mixed trash into a container not meeting the standards of this section. All containers shall be easily filled, emptied and cleaned and shall be maintained at all times in a clean and sanitary condition.

B. Trash may be put in boxes, barrels or other containers which are easy to handle and load by one person onto a collection vehicle. Recyclable materials shall be placed for collection in receptacles which are adequate to prevent the blowing or scattering of materials therefrom.

C. Yard waste shall be stored and disposed of in a nuisance free manner and if placed out for collection shall be either placed in trash containers or plastic bags which are easy to handle by one person, or securely tied in bundles not greater than 4' in length, 30" in diameter, or 75 pounds in weight.

D. Bulk storage containers which are used for the storage of garbage or mixed trash for swellings containing multiple units or for commercial operations, shall be watertight, constructed of metal or other durable material impervious to rodents, capable of being serviced without creating unsanitary conditions, and equipped with doors or covers that are tight-fitting and kept closed when not in use or being serviced. Such containers shall be maintained in a clean and sanitary condition by the owner of such container.

E. Recyclable materials shall be stored or set out for collection in containers that comply with 12.73.140 A. and 12.73.240 A. (Ord. 144-17, Sec. 9, 2000; Ord.129-119, Sec.10, 1996; Ord.137-00, Sec.17, 1993)

8.12.070 Hazardous substance - control.

A. It is unlawful for any person to store, use, transport, or dispose of any hazardous substance in such quantity or manner that it is, or has, the potential to create a human health hazard.

B. It is unlawful to use or dispose a hazardous substance product other than as the label or labeling directs or as required by applicable federal, state, and local rules and regulations. (Ord.139-119, Sec.11, 1996; Ord. 131-20 Sec.1(part), 1987).

8.12.075 Human health hazard.

No person shall erect, construct, cause, continue, maintain, or permit any human health hazard within the county. Any person who shall cause, create or maintain a human health hazard or who shall in any way aid or contribute to the causing, creating or maintenance thereof shall be liable for all costs and expenses for removal and correction of such a human health hazard and to the penalty provided in 8.12.270.

A. Human health hazard is defined in 8.12.005. More specifically but not limited by enumeration the following are considered human health hazards:

1. Unburied carcasses - carcasses of animals, birds, or fowl not intended for human consumption or food which are not buried or otherwise disposed of in a sanitary manner within the time frame specified by the health officer or as required by Wis. Stat. § 95.50.

2. Housing or structure - any condition or situation which renders a house or structure or any part thereof dilapidated, unsanitary, unsafe, unhealthy and unfit for human habitation, occupancy or use or renders any property unsanitary or unhealthy.

3. Water supply

a. Any well that is constructed, abandoned or used and/or any pump installed in non-compliance with NR 812.

b. Any private or public well producing a chemically or bacteriologically unsafe water.

4. Holes or openings - any hole or opening caused by an improperly abandoned cistern, septic tank, dug well, etc.; or any improperly abandoned, barricaded or covered up excavation.

5. Wastewater - the presence of wastewater or sewage effluent from buildings on the ground surface, and/or backing up into the building and/or running into a surface water.

6. Sludge or septage - the disposal or storage of municipal sludge in non-compliance with NR110 and the disposal or storage of septage from any on-site waste disposal system(s) in non-compliance with this chapter or NR 113.

7. Noxious odors - any negligent use of property, or substance that causes the emitting of foul, offensive, noxious or disagreeable odor, or stenches extremely repulsive to the physical senses of ordinary persons or a neighborhood as a whole.

8. Surface water pollution - the pollution of any stream, lake, or other body of surface water within the county that renders it unsafe for swimming or that creates non-compliance with NR 102.

9. Animal waste - accumulation of the bodily waste from all domestic animals and fowl that are handled, stored, or disposed of in a manner that creates a human health hazard.

10. Non-functional public building fixtures - non-functioning water supply systems, toilets, urinals, lavatories, or other fixtures considered necessary to insure a sanitary condition in a public building.

11. Any other condition or situation determined to meet the definition of a human health hazard as defined in 8.12.005.

12. Accumulations of manure from domestic animals or fowl that is handled, stored or disposed of in a manner that creates a human health hazard.

B. If a human health hazard is found within the county, the health officer shall notify in writing the person committing or maintaining such hazard and require them to terminate and abate such hazard. Written notice shall be served upon the person committing or maintaining such hazard in person or by certified mail with return receipt requested. If the premises are not occupied, the address of the owner is unknown or the certified notice is not accepted, service on the owner may be had by posting a copy of the notice on the premises. Human health hazards shall be abated in a manner approved by the health officer. Housing or structures determined to be a human health hazard may be designated unfit for human habitation and required to be vacated by the health officer.

C. If the person responsible for a human health hazard refuses to abate and/or correct it within the time frame specified by the health officer in the written order, the local governing body or the county may cause to have the human health hazard abated and/or corrected with the cost of such abatement and/or correction to be recovered directly from the responsible person or as a special assessment on the property per Wis. Stat. § 254.59.

D. If an immediate human health hazard exists, the health officer may enter upon the property and abate or remove the human health hazard or may contract to have the work performed. (Ord. 144-17, Sec. 10, 2000; Ord.139-119, Sec.12, 1996)

8.12.080 Groundwater contamination - prevention. It is unlawful for any person to dispose of any material which contains hazardous substances and/or biological substance(s) that would cause groundwater to be unpalatable or unfit for human consumption. These substances include but are not limited to the chemical or biological substances listed in NR 109 and NR 140, as well as other compounds for which state or federal health advisory limits have been issued. (Ord. 131-20 Sec.1(part), 1987).

8.12.090 Size of lots not served by public sewer. Lot sizes shall be regulated pursuant to ILHR 85 of the code and applicable county ordinances. Such lot size shall be at least 20,000 square feet, the minimum of which to be established by soil boring or percolation tests conducted pursuant to the table or lot area requirements of ILHR 85. (Ord. 131-20 Sec.1(part), 1987).

8.12.100 Size of lots with public water supply. The size of lots served by a public water system shall be a minimum of 15,000 square feet or sized by the results of soil boring and percolation tests according to the table of the lot area requirements of ILHR 85, whichever provides for the largest area. (Ord. 131-20 Sec.1(part), 1987).

8.12.110 Private sewage system - sanitary permit.

A. Application. No person shall install, extend, enlarge, convert or structurally alter or reconnect to a private onsite wastewater treatment system, privy, composting toilet system, or incinerating toilet system unless the owner of the property on which the private system is to be located or altered holds a valid sanitary permit.

B. Sanitary permits shall be subject to the following:

1. No person shall sell at retail a septic tank for installation in Eau Claire County unless the purchaser holds a valid sanitary permit.

2. A sanitary permit shall be valid for 2 years from the date of issuance and is renewable for similar periods thereafter.

3. A sanitary permit may be transferred from the original holder to a subsequent owner of the land, except that the subsequent owner shall obtain a reissued sanitary permit from the health department.

4. The health department shall use its own sanitary permit forms, or forms provided by the state where they are required under state rule.

5. The applicant shall submit the completed sanitary permit application to the health department who shall review the certified soil tester report and all other information available about the proposed site, and proposed wastewater disposal method, upon which approval or denial or issuance of the sanitary permit may be based.

6. The administrator shall approve or disapprove applications for sanitary permits and assist applicants in preparing applications.

7. The administrator shall issue written notice to each applicant whose sanitary permit application is disapproved, stating the specific reasons for disapproval and setting forth such amendments to the application, if any, which would render it approvable. In addition, each applicant shall be informed of the right to appeal and the procedures for conducting an appeal under Wis. Stat. ch. 68.

C. No private onsite wastewater treatment system shall be physically covered until a final inspection has been made and approval has been given by the administrator. Upon request of the administrator, the master plumber in charge shall be present at the time of the final inspection.

D. Defective or unapproved material, poor workmanship, design or methods of installation shall be cause to revoke any permit granted and such deficiencies shall be corrected before approval to operate the system is granted.

E. No private onsite wastewater treatment system shall be used until an as-built plan for the system has been accepted by the health department.

F. The health department shall establish a filing system which provides a system for retrieval of the as-built plans.

G. The health department shall establish the requirements for the as-built plans, which plans shall meet the minimum requirements as provided for in the rules promulgated under Wis. Stat. ch. 145.

H. No person shall install, extend, enlarge, convert or structurally alter or reconnect to a private onsite wastewater treatment system unless the person is licensed as provided for in Wis. Stat. § 145.065.

I. No person shall construct or place a prebuilt unit intended for human occupancy unless the owner holds a valid sanitary permit. (Ord. 147-103, Sec. 2, 2004; Ord. 144-17, Sec. 12, 2000; Ord. 144-17, Sec. 11, 2000; Ord. 131-20 Sec.1(part), 1987).

8.12.120 Public building - sanitary permit.

A. The procedure for the approval of a sanitary permit for a public building shall be as specified in 8.12.110 and 8.12.120. A sanitary permit shall not be issued for any public building as defined in rules promulgated under Wis. Stat. ch. 145 until specifications for such a system have been submitted to the health department for approval. Work shall not commence on any public system until written approval is received and the sanitary permit has been issued and is posted on the property.

B. The health department shall establish examination procedures for reviewing plans submitted A. above. The procedures shall be in reasonable conformity with rules promulgated under Wis. Stat. ch. 145. Fees for plan examination shall be as established at 8.12.260. (Ord. 144-17, Sec. 13, 2000)

8.12.130 Privies--construction, maintenance and location.

A. Privies shall be constructed and maintained in the manner described in the Comm 91 specifications for a sanitary privy. Approval to construct a privy must be obtained from the health department, and the privy must be constructed and located in conformance with the instructions as specified by the same. The owner shall notify the health department upon completion of the privy. The privy must be inspected and approved prior to use. Privies shall be maintained in a clean condition.

B. Privies shall be located at the following minimum horizontal distances:

1. 25' from a dwelling or rainwater cistern;
2. 25' from a lot line;
3. 25' from a slope 12% or greater at the edge of a watercourse;

4. 50' from any well;

5. 50' from the high water mark of a watercourse.

C. The bottom of open pits shall be 3' above creviced bedrock and the high groundwater level. All privies in areas subject to periodic flooding shall be located and constructed to minimize health hazards by construction of a watertight vault.

D. The owner of any occupied dwelling served only by a privy shall file an affidavit with the health department stating that indoor plumbing including but not limited to a water closet, sink, shower or laundry will not be installed until a sanitary permit has been issued and an approved private onsite wastewater treatment system installed.

E. Temporary, portable toilets, are prohibited as the only means of human waste disposal for permanently constructed buildings. (Ord. 144-17, Sec. 15, 2000; Ord. 144-17, Sec. 14, 2000; Ord. 131-20 Sec.1(part), 1987).

8.12.150 Septic tank--location of installation.

A. No septic tank shall be located within the following distances measured horizontally;

1. 5' from any building or swimming pool;

2. 2' from a lot line;

3. 10' from any cistern, or underground water supply system, or the high water mark of any lake, stream, pond or flowage;

4. 25' from any well or reservoir.

B. Septic tanks shall be located downslope from wells and shall be flood proofed in any area subject to periodic flooding. (Ord. 144-17, Sec. 17, 2000; Ord.139-119, Sec.14, 1996; Ord. 131-20 Sec.1(part), 1987).

8.12.160 Private onsite wastewater treatment system--soil condition determination--appeal.

A. An applicant desiring to install a private onsite wastewater treatment system on a site, which is deemed to be unsuitable by the health department, shall present evidence contesting the suitability of the soil of the site at a public hearing before the board of health. The board of health may affirm, modify or reverse the order of the health department. To be deemed eligible for a permit under these circumstances, the applicant shall have additional on-site investigations performed, and must obtain the certification of a soil specialist that specific areas within the property are suitable for the proposed system and that it will comply with Comm 83 and other state regulations.

B. Upon consideration of the factors set forth in A., the board of health may attach conditions, without limitation, because of specific enumeration, such as requirements for larger minimum lot size, modified soil absorption systems, provisions for methods of sewage collection, adequate off-site disposal of wastes in a designed manner and other requirements it deems necessary to fulfill the purpose and intent of this chapter. Violation of any of these conditions shall be deemed a violation of this chapter. Such variances shall be in conformity with state law, the public health, safety and general welfare and the purposes of this chapter. (Ord. 144-17, Sec. 18, 2000; Ord. 131-20 Sec.1(part), 1987).

8.12.205 Soil absorption system--location specifications.

A. The surface grade of all soil absorption systems shall be located at a point lower than the surface grade of any nearby water, well, or reservoir on the same or adjoining property except that when this is not possible the site shall be so located that surface water drainage from the site is not directly toward a well or reservoir and will bypass the well or reservoir site by several feet. The soil absorption system shall be located at the following minimum horizontal distances:

1. 5' from any lot line;
2. 10' from a water service or an uninhabited slab construction building;
3. 15' from a swimming pool or habitable slab constructed building measured from the slab;
4. *10' from any building or private or public water main or cistern;*
5. 50' from any water well or reservoir;
6. 50' from the high water mark of any lake, stream or other watercourse.

B. Effluent disposal systems in compacted areas such as parking lots and driveways are prohibited. Surface water shall be diverted away from the soil absorption site. (Ord. 144-17, Sec. 22, 2000; Ord.139-119, Sec.17, 1996; Ord. 131-20 Sec.1(part), 1987).

8.12.210 Disposal site--sewage deposit--restrictions. Servicing of all private onsite wastewater treatment systems, privy, composting toilet or incinerating toilet shall be accomplished pursuant to NR 113 and Comm 83.

A. No disposal site shall be used for disposal of sludge, scum, liquid or any other material removed from any private onsite wastewater treatment systems until approved by the health department and property owner.

B. No disposal site shall be used for disposal of sludge, scum, liquid or any other material removed from industrial or commercial establishments or municipal or public waste-water treatment plants until approved by the health department and property owner. This shall not include disposal at a landfill licensed by the state. (Ord. 144-17, Sec. 23, 2000; Ord.139-119, Sec.18, 1996; Ord. 131-20 Sec.1(part), 1987).

8.12.220 Maintenance and sludge disposal.

A. All private onsite wastewater treatment systems (POWTS) shall be subject to a maintenance program. POWTS installed before January 1,1991, the effective date for the County's participation in the Wisconsin Fund Septic System Program, shall be phased into the required maintenance program over a three-year time period beginning January 1, 2008. Approximately one-third of the POWTS will be included each year in the maintenance program over this three-year time period.

1. An annual maintenance program fee is required to be paid by the owner of each POWTS included in this maintenance program. The annual maintenance fee will be based on the frequency of inspection as determined by the type of POWTS. The annual fee will be included on the owner's property tax bill beginning December 2007 for POWTS installed after January 1, 1991. Approximately 1/3 of the POWTS installed prior to January 1,1991 will be included each year on the December 2008, December 2009 and December 2010 property tax bills.

2. Every owner of a POWTS included in the maintenance program must have the POWTS inspected a minimum of once every three years or more frequently if stipulated by a management plan or as a condition of the sanitary permit. The inspector must provide the owner of the POWTS a fully completed and signed certificate of inspection on a form approved by the health department indicating whether the system is observed to be failing and whether the combined sludge and scum volume equals 1/3 or more of the tank volume. If the combined sludge and scum volume equals 1/3 or more of the tank volume, the owner must have the tank pumped. The owner must, within 60 days from the date of notification requiring a POWTS inspection, provide the health department with a copy of the certificate of inspection or submit electronically the required inspection information including pumping data and septage disposal site. Failure of a property owner to have a certificate of inspection submitted to the health department, within 30 days of when a second notice requiring a maintenance inspection is sent, will result in a late fee being assessed.

3. The maintenance inspection shall at a minimum include an evaluation of the POWTS for the following:

a. The existence of any outfall pipe, illegal pumping or any connection to a drain tile.
b. The presence of any ponding or surface discharge.
c. The presence and condition of any effluent filter.
d. Any observed failure, causing backup of wastewater into the home.

4. A health department inspection to verify any maintenance activity may be required.

5. The inspections required under 8.12.220 A. must be performed by one of the following:

a. A licensed master plumber.
b. A licensed master plumber-restricted service.
c. A certified POWTS inspector.
d. A certified septage servicing operator under NR 114.
e. A registered POWTS maintainer.

6. Circumstances such as inclement weather, road weight restrictions and site limitations may necessitate a delay in septic tank maintenance until conditions permit.

7. Each applicant for a sanitary permit at the time the permit is issued shall be provided with a written notice of the maintenance program. Records of this notification shall be maintained on file. Upon sale of the property, the owner shall provide written notification of the maintenance program to the buyer and a copy of this notification shall be submitted to the health department. (Ord. 151-6, Sec. 1, 2007; Ord. 144-43, Sec. 13, 2000; Ord. 144-17, Sec. 24, 2000; Ord. 134-63, 1991; Ord. 131-20 Sec.1(part), 1987).

8.12.230 Wastewater disposal facilities--required.

A. All premises intended for human occupancy shall be provided with an adequately functioning public sewer, privy, composting toilet system, incinerating toilet system, private onsite wastewater treatment system, or other approved method of wastewater disposal.

B. An adequately designed, located, constructed and maintained private onsite wastewater treatment system is one which does not cause or result in any of the following conditions:

1. Failure to accept sewage discharges or backing up into the structure served by the system;

2. A discharge of sewage to the surface of the ground or a drain tile or into zones of bedrock;

3. A discharge of sewage into the surface water or groundwater of the county, including zones of saturation;

4. The introduction of sewage into zones of saturation which adversely affects the operation of any private onsite wastewater treatment system.

C. For the purposes of this section, sewage shall include both raw and partially treated sewage. (Ord. 144-17, Sec. 25, 2000; Ord.139-119, Sec.19, 1996; Ord. 131-20 Sec.1(part), 1987).

8.12.235 Private onsite treatment systems - restrictions.

A. Installation of the following technologies, designs, or methods as private onsite wastewater treatment components are prohibited:

1. A surface flow constructed wetland as a private onsite wastewater treatment system component.

2. An evapotranspiration bed as a private onsite wastewater treatment system component. (Ord. 144-17, Sec. 26, 2000).

8.12.240 Holding tanks.

A. Holding tanks shall be regulated pursuant to Wis. Stat. ch. 145. A sanitary permit shall not be issued until complete plans and specifications for each request to install a holding tank have been approved.

B. Records of pumping dates and receipts of payment for servicing the holding tank shall be kept on file by the owner for a period of 2 years and shall be accessible for review to the health department by request. If servicing of the holding tank is done by the owner, the method of servicing and disposing of the contents shall meet the requirements of 8.12.220. A quarterly pumping report must be submitted, unless otherwise approved by the health department, by the owner or his or her agent to the health department. The pumping report shall state the owner's name, location of the property on which the holding tank is located, the pumper's name, the dates, volumes pumped and the disposal site. An annual maintenance fee is required to be paid by the owner of each holding tank. The annual fee will be included on the property tax bill beginning December 2007.

C. Installation or use of holding tanks for disposal of sanitary waste shall be allowed for existing buildings when the use of a holding tank is the only available alternative for the disposal of sanitary liquid waste based on soil conditions. Installation or use of holding tanks for new construction is prohibited. Granting of variances to this provision shall be set forth in the Board of Health Appeals Procedure.

D. All above grade manhole covers for holding tanks, septic tanks, or sewage system pump or treatment tanks shall be provided with an effective locking device. Covers shall be locked except during periods of actual removal of waste. Locks shall be openable only by key or numerical combination. (Ord. 151-6, Sec. 2, 2007; Ord. 144-17, Sec. 27, 2000; Ord.139-119, Sec.20, 1996; Ord. 131-20 Sec.1(part), 1987).

8.12.250 Appeals. Any person affected by an order or directive which has been issued in connection with the enforcement of any provisions of this chapter or any rule or regulation adopted pursuant thereto, may request and shall be granted a hearing on the matter pursuant to board of health policy adopted in conformance with the procedures for conducting appeals enumerated in Wis. Stat. ch. 68. Copies of appeal procedures shall be available at the health department. (Ord. 144-17, Sec. 28, 2000; Ord. 131-20 Sec.1(part), 1987).

8.12.260 Fee schedule.

A. The schedule of fees, as listed in this section, shall be payable to the health department. Said schedule of fees shall be reviewed periodically by the board of health, which may recommend adjustment of the fees to the county board for approval.

B. Plan examination fees for preliminary or completed plans shall accompany the plans and specifications when submitted. If the health department determines, upon review of the plans, that inadequate fees were provided, the necessary additional fees shall be provided prior to departmental approval. Written approval shall not be granted until all applicable fees have been paid. The sanitary permit fee includes $50, which is to be forwarded to the Department of Commerce for each sanitary permit issued in accordance with Wis. Stat. § 145.19.

1. Plan review fees for non-pressurized in-ground systems serving public or commercial facilities with design wastewater flow of:

a.	1,000 gpd or less	$175.00
b.	1,001 gpd – 2,000 gpd	225.00
c.	2,001 gpd – 5,000 gpd	275.00
2.	Well permit fee	70.00
3.	Transfer and renewal fee	25.00
4.	Sanitary permit fee	250.00

(with the following exceptions):

a. Privy, composting toilet system, incinerating toilet system $70.00.

b. Reconnection to existing complying sewage system $70.00.

c. The fees in this paragraph do not include the state required groundwater surcharge fee.

5. Plan review fee for mounds, at grades and pressurized in-ground systems that receive a design wastewater flow of 1,000 gpd or less $175.00.

6. Soil review and filing fee $50.00.

C. Any person submitting an owner's application for a Wisconsin Fund Private Sewage System Grant shall include a $120 application fee. The application fee is non-refundable with the following exceptions:

1. 100% refundable if state funding is discontinued.

2. 50% refundable if the applicant is fund ineligible.

D. Maintenance program fees:

1. POWTS annual fee requiring three year inspection $6

2. POWTS annual fee requiring inspections at less than three-year intervals $10

3. Holding tank annual fee $15

4. Late fee $25

(Ord. 151-6, Sec.3, 2007; Ord 150-45, Sec. 1, 2007; Ord. 148-59, 2004; Ord. 146-02, Sec. 7-8, 2002; Ord. 144-100, Secs. 1-2, 2001; Ord. 144-17, Sec. 29, 2000; Ord.142-07, 1998; Ord. 139-07, 1995; Ord. 138-73, 1994; Ord. 136-22, 1992; Ord. 134-63, 1991; Ord. 133-23, 1989; Ord. 131-20 Sec.1(part), 1987).

8.12.270 Violation--penalties. Any person who violates or refuses to comply with any of the provisions of this chapter or order issued under this chapter shall be subject to a forfeiture of not less than $100 nor more than $2,000. Each day a violation exists or continues shall be considered a separate offense. Where appropriate, injunctive relief may be sought by the health department against continuing violations. (Ord. 136-60, Sec. 2, 1992; Ord. 131-20 Sec.1(part), 1987).

8.12.280 Severability. If any section, provision or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected. (Ord. 131-20 Sec.1(part), 1987).