
APPENDIX B

REGULATORY CORRESPONDENCE

Section B-1 Archaeological/Historical Correspondence

March 25, 2002

Letter from Victoria Dirst, DNR Archeologist

To Mr. Daryl R. Peterson/CWE

Re: No Further Review Needed for Compliance with Historic Preservation Statutes
For Vernon County Landfill Vertical Expansion Project

May 1, 2002

Letter from Jennifer Bardeen, WDNR Bureau of Endangered Resources

To Mr. Daryl Peterson/CWE

Re: No Further Surveys Needed for Endangered Resources Approval for Vernon
County Landfill Vertical Expansion Project

July 12, 2005

Letter from Peter Arntsen/CWE

To Ms. Jennifer Bardeen, WDNR Bureau of Endangered Resources

Re: Request for Endangered Resources Review

July 13, 2005

Letter from Peter Arntsen/CWE

To Ms. Victoria Dirst, DNR Archeologist

Re: Request for Archeological and Historical Sites Review

July 15, 2005

Letter from Victoria Dirst, DNR Archeologist

To Mr. Peter Arntsen/CWE

Re: Cultural Resource Clearance for Archeological and Historical Sites

April 7, 2011

Email from Lori Steckervetz, WDNR Bureau of Endangered Resources

To Ms. Cindy Zelenka/CWE

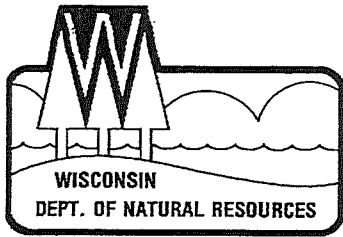
Re: Updated Project Review Request Needed for Site Using Current Form

April 14, 2011

Letter from Cindy Zelenka/CWE (and Permit)

To Ms. Lori Steckervetz, WDNR Endangered Resources

Re: Request for WDNR Endangered Resources Approval for Clay Borrow Site

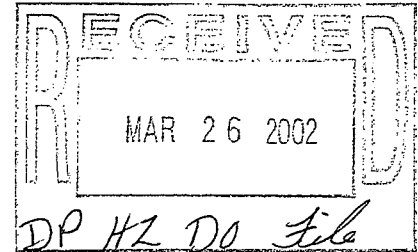
State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor
Darrell Bazzell, Secretary

Archaeology Office
952 Tacoma Beach Rd.
Sturgeon Bay, WI 54235
Telephone: 920-743-2083

FILE COPY

March 25, 2002



Daryl R. Peterson
Central Wis. Eng. & Architects
5707 Schofield Avenue
Weston, WI 54476-0107

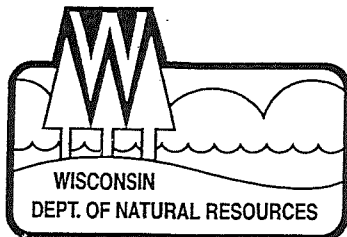
SUBJECT: Vernon County Sanitary Landfill, WDNR License #03268

Dear Mr. Peterson:

I have reviewed the proposal for the vertical expansion of the Vernon County Sanitary Landfill (T13N, R4W, sec. 15), and I have determined that there are no known archaeological sites or historic structures in the project area. No further review is needed for compliance with state historic preservation statutes.

Sincerely,

Victoria Dirst, Ph.D.
DNR Archaeologist



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor
Darrell Bazzell, Secretary

101 S. Webster St.
Box 7921
Madison, Wisconsin 53707-7921
Telephone 608-266-2621
FAX 608-267-3579
TTY 608-267-6897

May 1, 2002

Mr. Daryl Peterson P.E.
Central Wisconsin Engineers and Architects Inc.
5707 Schofield Avenue
Weston, WI 54476

SUBJECT: Endangered Resources Review (Log # 02-051)
Vertical Expansion of Existing Sanitary Solid Waste Landfill

Dear Mr. Peterson:

The Bureau of Endangered Resources has reviewed the project area described in your letter of March 4, 2002 for the proposed vertical expansion of an existing sanitary landfill in Vernon County.

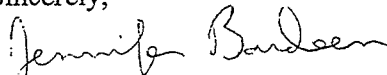
Our Natural Heritage Inventory (NHI) data files contain no occurrence records of Endangered, Threatened, or Special Concern species, natural communities, or State Natural Areas that we believe would be impacted by the project as currently proposed, nor for the actual project areas in T13N R4W, Section 15 Vernon County.

Although there are no records in the NHI database of endangered resources occurring at the project site, comprehensive endangered resource surveys have not been completed for the project area. As a result, our data files may be incomplete. Given your description of the project site and the nature of the proposed project we do not believe that further surveys are warranted.

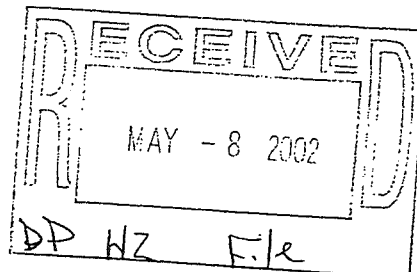
This letter is for informational purposes and solely addresses endangered resource issues. This letter does not constitute Department of Natural Resources authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the Department.

Please contact me at (608) 266-8736 if you have any questions about this information.

Sincerely,


Jennifer Bardeen
Bureau of Endangered Resources

CC: Jim Doperalski-WCR-LaCrosse
Martin Herrick-WCR-LaCrosse



swlfvern.doc.



Engineers • Architects • Scientists • Surveyors

5707 Schofield Avenue
P.O. Box 107
Weston, WI 54476-0107
www.cwengineers.com

Tel 715.359.9400
Fax 715.355.4199
Toll-free 800.261.5707
general@cwengineers.com

July 12, 2005

Ms. Jennifer Bardeen
Bureau of Endangered Resources
Department of Natural Resources,
101 South Webster Street
P.O. Box 7921
Madison, WI 53707-7921

Re: Proposed Clay Borrow Site
Vernon County Balefill, License No. 03268
CWEA Project No. 94602000

Subject: Endangered Resources Review

Dear Ms. Bardeen:

Vernon County intends to construct a vertical expansion to its sanitary balefill once the plan of operation for this expansion is approved. To insure that a sufficient volume of clay is available for construction, the County desires to use an undeveloped portion of its balefill property as a clay borrow site (a map showing the proposed borrow site location is included with this letter). This land has most recently been used as an agricultural field.

On behalf of the County, Central Wisconsin Engineers & Architects, Inc. is submitting a request for a review and identification of any critical habitat areas and state or local natural areas within one mile of this proposed borrow site, in accordance with s. NR 512.15 (1), Wis. Adm. Code. The property is located in T13N, R4W, Section 22, Town of Viroqua, Vernon County.

I appreciate your efforts in assisting us in this project. If you have any questions, please contact me at 715-359-9400.

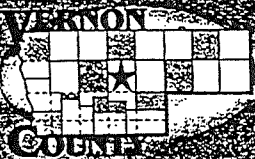
Sincerely,
Central Wisconsin Engineers & Architects, Inc.

Peter D. Arntsen, M.S., P.H.
Hydrogeologist

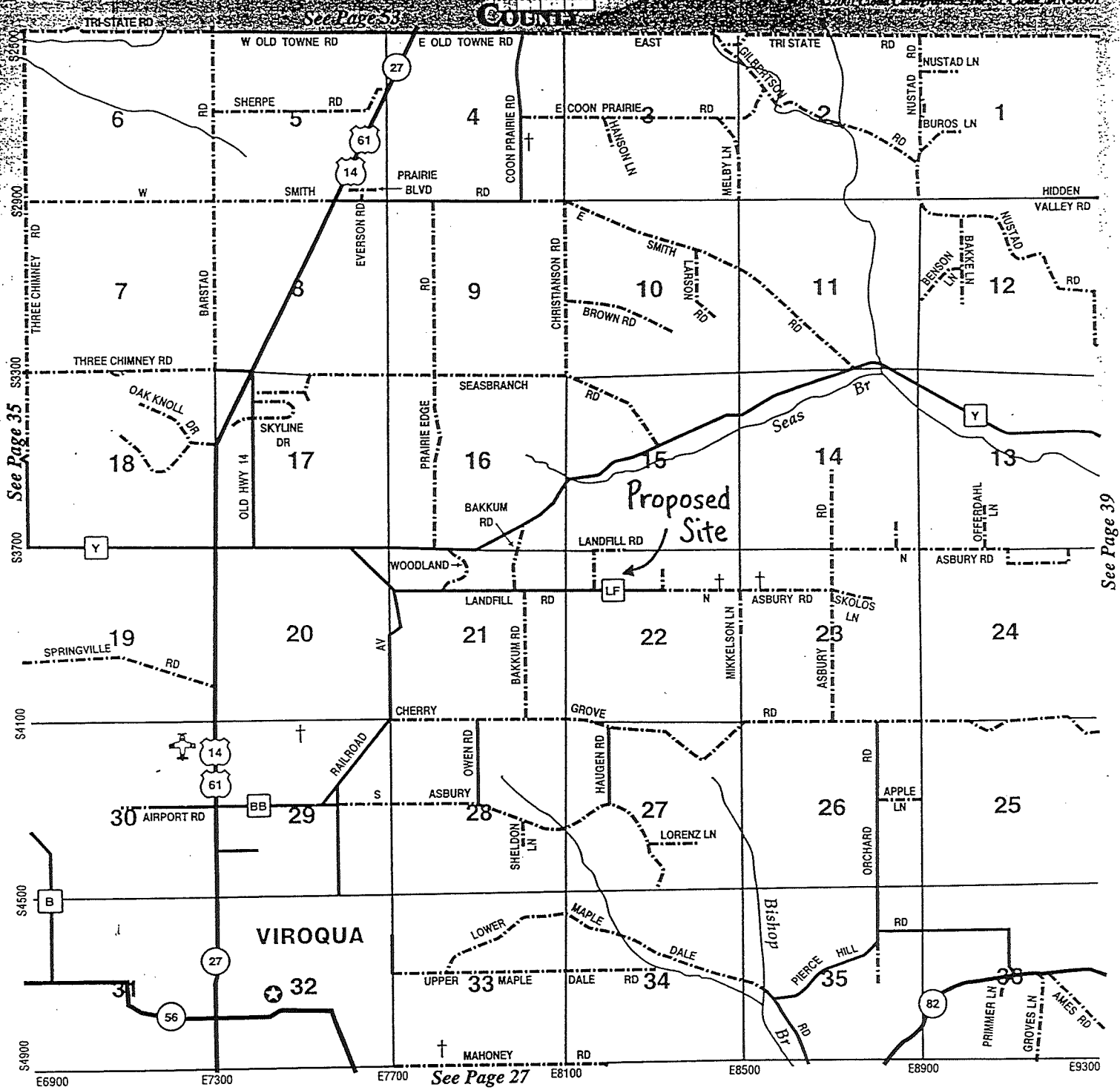
Enclosures

cc: Mr. Gail Frie, Box 247-B, Route 3, Viroqua

Viroqua (N)



T.13N. - R.4W.



frontier
COMMUNICATIONS™

A Global Crossing Company

Business Phone Systems

What ever your telecommunications needs are, let us assist you.

114 E Court St., Viroqua WI
Phone: 608/637-2111



Calling Features



Engineers • Architects • Scientists • Surveyors

5707 Schofield Avenue
P.O. Box 107
Weston, WI 54476-0107
www.cwengineers.com

Tel 715.359.9400
Fax 715.355.4199
Toll-free 800.261.5707
general@cwengineers.com

July 13, 2005

Ms. Victoria Dirst, Ph.D.
DNR Archaeologist
Department of Natural Resources
Archaeology Office
952 Tacoma Beach Road
Sturgeon Bay, WI 54235

Re: Proposed Clay Borrow Site
Vernon County Balefill, License No. 03268
CWEA Project No. 94602000

Subject: Archaeological and Historical Sites Review

Dirst
Dear Ms. Bardeen:

Vernon County intends to construct a vertical expansion to its sanitary balefill once the plan of operation for this expansion is approved. To insure that a sufficient volume of clay is available for construction, the County desires to use an undeveloped portion of its balefill property as a clay borrow site (a map showing the proposed borrow site location is included with this letter). This land has most recently been used as an agricultural field.

On behalf of the County, Central Wisconsin Engineers & Architects, Inc. is submitting a request for a review and identification of any historical or archaeological areas within the vicinity of this proposed borrow site, in accordance with s. NR 512.15 (1), Wis. Adm. Code. The property is located in T13N, R4W, Section 22, Town of Viroqua, Vernon County.

I appreciate your efforts in assisting us in this project. If you have any questions, please contact me at 715-359-9400.

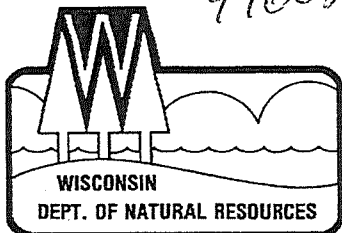
Sincerely,
Central Wisconsin Engineers & Architects, Inc.

Peter D. Arntsen, M.S., P.H.
Hydrogeologist

Enclosures

cc: Mr. Gail Frie, Box 247-B, Route 3, Viroqua

94602000, Vernon Co LF



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Archaeology Office
952 Tacoma Beach Rd.
Sturgeon Bay, WI 54235
Telephone: 920-743-2083

Jim Doyle, Governor
Scott Hassett, Secretary

RECEIVED
JUL 18 2005

July 15, 2005

Peter D. Arntsen
Central Wisconsin Engineers & Architects
5707 Schofield Ave., Box 107
Weston, WI 54476-0107

SUBJECT: Clay Borrow Site for Vernon County Balefill

Dear Mr. Arntsen:

I have reviewed Wisconsin Historical Society files and have determined that the proposed clay borrow site for the Vernon County Balefill will not impact any known archaeological sites or historic structures. This project, located in T13N, R4W, section 22, has cultural resource clearance.

Sincerely,

Victoria Dirst

Victoria Dirst, Ph.D.
DNR Archaeologist

Cindy Zelenka

From: Cindy Zelenka [czelenka@cwengineers.com]
Sent: Thursday, April 07, 2011 3:31 PM
To: 'Steckervetz, Lori L - DNR'
Subject: RE: Clay Borrow Site for Vernon Co. Landfill

Hi Lori –

Thank you so much for your prompt response in this matter – it is greatly appreciated!!
Have a great day! ☺

Cindy L. Zelenka

Environmental Specialist

CWE, Inc.

5707 Schofield Avenue

PO Box 107

Weston, WI 54476-0107

Phone: (715) 359-9400

Toll Free: (800) 261-5707

Fax: (715) 355-4199

Email: czelenka@cwengineers.com

From: Steckervetz, Lori L - DNR [<mailto:Lori.Steckervetz@Wisconsin.gov>]
Sent: Thursday, April 07, 2011 3:01 PM
To: Cindy Zelenka
Subject: RE: Clay Borrow Site for Vernon Co. Landfill

Hi Cindy,

So, I never found an actual record or response letter to the 2005 review request. I am going to make the assumption that it was decided at the time to use the same response in the 2002 letter, though I would still expect there to be a record of that. In moving forward, I would recommend that for a future project that a new review should be conducted, as our data collection on E/T species has vastly improved and increased in the nine years since this last letter was issued and as such there may be different recommendations made for a project. I've attached the pdf of our new ER Review request form. You can send it back to me directly, just make sure it is signed on the back, as well as any maps/aerial photos related to the project.

Thanks!

Lori

Lori Steckervetz, ER Review Assistant
Wisconsin Department of Natural Resources
Bureau of Endangered Resources
101 S. Webster St. PO Box 7921
Madison, WI 53707-7921
Phone: 608-264-6057
Fax: 608-266-2925
Email: lori.steckervetz@wisconsin.gov
Website: www.dnr.wi.gov/org/land/er/review



CWE, Inc. 5707 Schofield Avenue, P.O. Box 107, Weston, WI 54476-0107 Toll Free: (800) 261-5707
Phone: (715)359-9400 Fax: (715)355-4199 Email: general@cwengineers.com Web: www.cwengineers.com

April 14, 2011

Ms. Lori Steckervetz, ER Review Assistant
Wisconsin Department of Natural Resources
Bureau of Endangered Resources
101 S. Webster Street, PO Box 7921
Madison, WI 53707-7921

Re: **Vernon County Landfill Clay Borrow Site**
Viroqua, WI
CWE Project # 946-1100

Subject: **Submittal of Endangered Resources Review Request (Form 1700-047)**

Dear Ms. Steckervetz:

In accordance with our previous conversations, CWE, Inc. is submitting the *Endangered Resources Review Request* document (Form 1700-047) to the Department for approval. The project involves the extraction of clay (to be used for landfill construction purposes) from a parcel of property located adjacent to the Vernon County Landfill (Balefill) site in Viroqua, Wisconsin. The proposed clay borrow site is located within the same 253-acre parcel where the landfill is located and is also owned by Vernon County.

Should you have any questions, please feel free to contact me at (715) 359-9400 or toll free at (800) 261-5707 or via email at czelenka@cwengineers.com.

Sincerely,
CWE, Inc.

Cindy L. Zelenka
Environmental Specialist

Enclosures

Cc: Mr. Gene Edwards, Solid Waste Manager, Vernon County Landfill, Box 247-B, Route 3, Viroqua, WI 54665

Notice: An Endangered Resources (ER) Review of a proposed land development, management, planning, or similar type of project provides the requester with information from Wisconsin's Natural Heritage Inventory (NHI) database and other sources on rare plants and animals, high quality natural communities, and other endangered resources that may be impacted by the proposed project. The ER Review will also include specific recommendations to help projects comply with Wisconsin's Endangered Species Law (s. 29.604, Wis. Stats.) and other laws and regulations protecting endangered resources. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.).

Instructions: The following materials are required to process this request. Submit all materials by mail to the address above or by fax (608-266-2925) or email (DNRERReview@wisconsin.gov). Do not include payment with this form.

- ☒ Completed, signed form
☒ Map(s) delineating the project area, preferably a topographic map and digital orthophoto (aerial photo)
Submission of the following materials are strongly encouraged and will facilitate review of your project:
☒ Photographs that clearly show the project area, including natural features and vegetation present on site
☒ Additional relevant information and reports (e.g., detailed project and habitat descriptions, wetland delineation, and site plans)

Section 1: Requester Information (ER Review, correspondence and invoice will be sent to this person)

Name		Organization	
Cindy Zelenka		CWE, Inc.	
Mailing Address		City	State ZIP Code
PO Box 107		Weston	WI 54476-0107
Telephone Number	FAX Number	Email Address	
(715) 359-9400	(715) 355-4199	czelenka@cwengineers.com	

Section 2: Landowner Information (if different than Section 1)

Name		Organization	
Gene Edwards, Solid Waste Manager		Vernon Co. Solid Waste Committee	
Mailing Address		City	State ZIP Code
Box 247-B, Route 3		Viroqua	WI 54665
Telephone Number	FAX Number	Email Address	
(608) 634-2900		gedwards@vernoncounty.org	

Section 3: Project Information

Project Name		Project Address (if applicable)	
Proposed Clay Borrow Site (for Vernon Co. Balefill)		see legal description below	
Project Types: ☐ Residential ☐ Commercial ☐ Industrial ☐ Utility ☐ Transportation (roads, railroads, trails) ☒ Other: <u>clay borrow site for landfill construction purposes</u>			

Start Date (on-site disturbance)	End Date (on-site disturbance)	Total Acreage
2011	2017	11 acres within 253-acre parcel

County	☐ City ☒ Town ☐ Village of:
Vernon	Viroqua

Township	Range	Direction	Section	Quarter Section	Quarter-Quarter Section	Additional Comments on TRS Location (attach additional information if necessary)
13 N	04	☐ E ☒ W	22	☒ NW ☐ NE ☐ SW ☐ SE	☒ NW ☐ NE ☐ SW ☐ SE	E 1/2 of NW 1/4 of NW 1/4
N		☐ E ☐ W		☐ NW ☐ NE ☐ SW ☐ SE	☐ NW ☐ NE ☐ SW ☐ SE	

Provide a detailed description of the proposed project and associated disturbance, including acres to be disturbed. Attach additional pages as needed.

The proposed project includes the excavation of clay soils (11 acres) from a borrow site to be used for construction purposes for the Vernon County Balefill (landfill.) The clay borrow site is located on an irregularly shaped 253-acre parcel owned by Vernon County. Both the landfill and proposed borrow site are located within this 253-acre parcel. The landfill will need approximately 55,000 cubic yards of clay to complete future construction activities. Approximately 69,750 cubic yards of acceptable clay are estimated to be available at the borrow site based on test pits and lab testing conducted on the clay samples. The clay will be excavated and hauled directly to the nearby landfill during clay mining activities, with no stockpiling of the clay anticipated at this time.

Section 3: Project Information, *continued*

Provide a detailed description of the habitat types and current land use within the project area (e.g., 50% in active agriculture-currently corn, 20% floodplain forest, 15% industrial area, 10% hardwood swamp dominated by black ash, 5% fallow field - in active agriculture until one year ago). Attach additional pages as needed.

Current land use within 1 mile of the project area is primarily agricultural, either as cropland or pasture. Sloping land to the northeast is wooded and used for private hunting. The Vernon Co. Solid Waste Plan (2002) indicates that there are no scientific or natural areas, state parks, or county forest lands within several miles of the proposed project site.

List all wetlands and waterbodies (e.g., rivers, intermittent streams, lakes, marshes) within one mile of the project area. List any known or suspected impacts of the proposed project to these wetlands and waterbodies. Indicate the location(s) of any point source discharge(s) into wetlands or waterbodies.

The project site is situated near the top of a ridge that separates Seas Branch from an intermittent tributary stream. There are no permanent surface water features at the site. Natural topography directs runoff to the east towards the intermittent tributary to Seas Branch. Ultimately, runoff from the site enters Seas Branch, which is impounded by an earthen dam located about 1 mile northeast of the site. Seas Branch valley also contains an area of wetlands and wetland indicator soils, some of which occur within 1/2 mile of the project. The excavation of clay at the project site is not expected to have any impact on these wetlands.

List any reports that have been prepared to describe habitat that may be impacted by the proposed project (e.g., wetland delineation, habitat assessments, and rare species surveys). Attach copies if available.

There are no anticipated impacts to wetlands, habitats or rare species associated with the clay borrow site project.

List any other project reports or correspondence concerning endangered resources. Include endangered resources reviews conducted by this or another agency (list log # and/or date issued) for this or a different phase of or alternative to the proposed project. Attach copies if available.

On May 1, 2002, the WDNR Bureau of Endangered Resources issued an approval letter for the existing sanitary solid waste landfill vertical expansion project (Log #02-051.) The landfill and the proposed clay borrow site are both part of the 253-acre parcel owned by Vernon County.

Section 4: Related Permits, Licenses or Regulatory Approvals

Permit, License or Approval	Issuing Agency, Program or Municipality	Contact Person	Status
Initial Site Inspection (ISI)	WDNR Solid Waste (for clay borrow site)	Martin Herrick (608) 789-5518	☐ will be applying for ☐ have applied for ☒ have received
Cultural Resource Clearance	DNR Archaeologist (for clay borrow site)	Victoria Dirst (920) 743-2083	☐ will be applying for ☐ have applied for ☒ have received
Plan of Operation	WDNR Solid Waste (for LF and clay site)	David Lundberg (715) 839-3708	☐ will be applying for ☐ have applied for ☒ have received

Section 5: Certification by Requester

I am the owner, authorized representative of the owner, or utility representative of the property for which I am requesting an Endangered Resources (ER) Review. To the best of my knowledge, the information I have provided is complete and accurate.

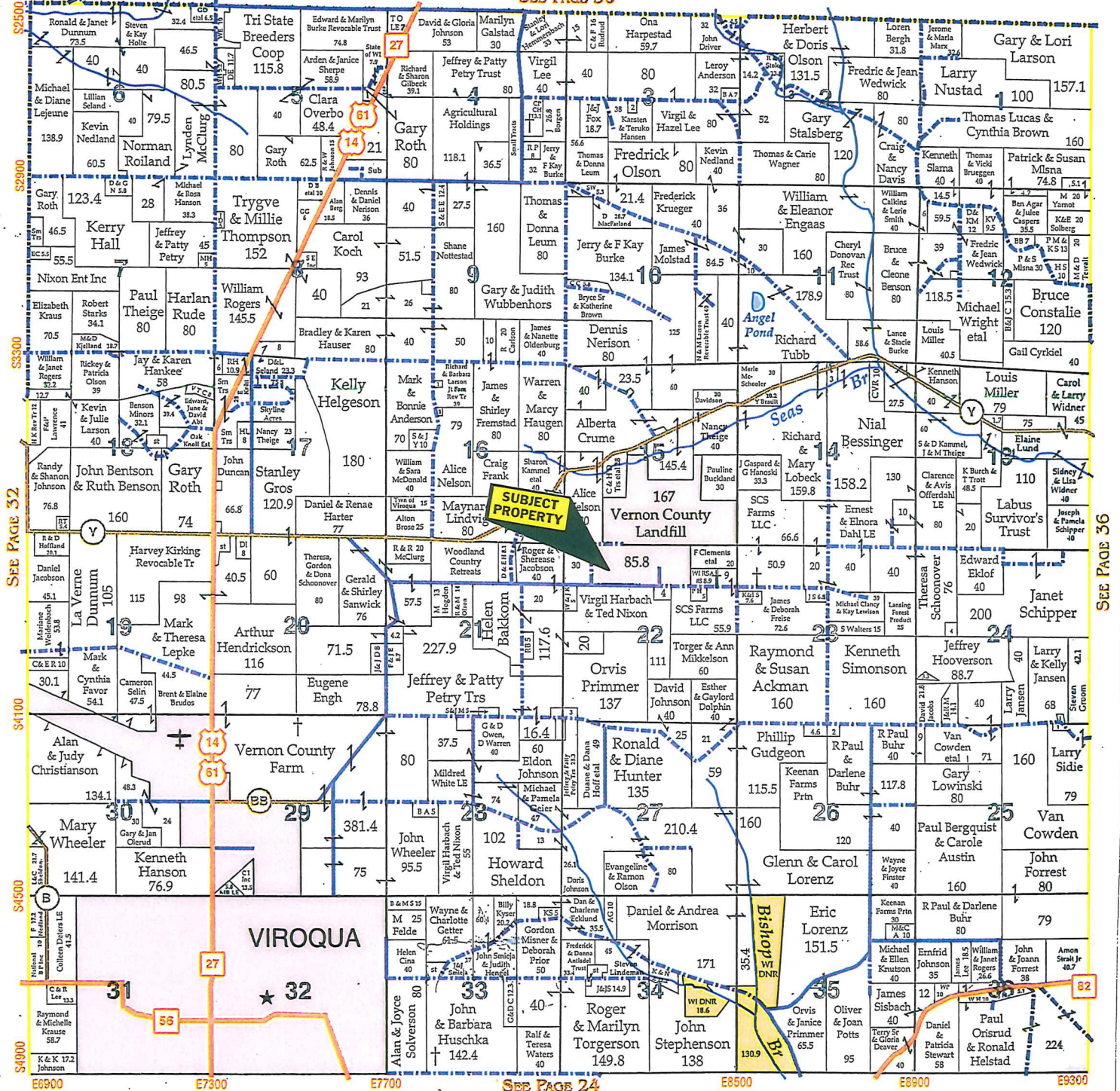
I understand that the requested ER Review may contain NHI data and information (including specific locations of endangered resources) which are considered sensitive and are not subject to Wisconsin's Open Records Law (per s. 23.27, Wis. Stats.). I agree to use the information contained in the ER Review solely for planning and implementation of the proposed project. As such, I agree to share information contained in the ER Review only with individuals who need this information to carry out specific roles in planning and implementation of the proposed project. I agree to not reproduce or disseminate the ER Review or the specific locations of endangered resources contained in the ER Review to any other parties or individuals without prior written permission from the Bureau of Endangered Resources. (Please contact the Endangered Resources Review Program at 608-264-6057 if you have any questions about sharing information contained in the ER Review.)

I agree to pay, within 30 days of receipt of an invoice, the fee charged by the Department for this ER Review (see Page 1 for details).

Signature of Requester <i>Cindy L. Zelenka</i>	Date Signed <i>4-12-2011</i>	Name of Requester (<i>Please Print</i>) Cindy L. Zelenka, CWE, Inc.
---	---------------------------------	--



SEE PAGE 50



North

SITE LOCATION MAP
PROPOSED CLAY BORROW SITE
VERNON COUNTY, WI

CWE
CWE, Inc.
5707 SCHOFIELD AVE.
WESTON, WISCONSIN
54786
PHONE: (715) 339-9400
FAX: (715) 335-4199
general@cwingineers.com
www.cwingineers.com

PROJECT:

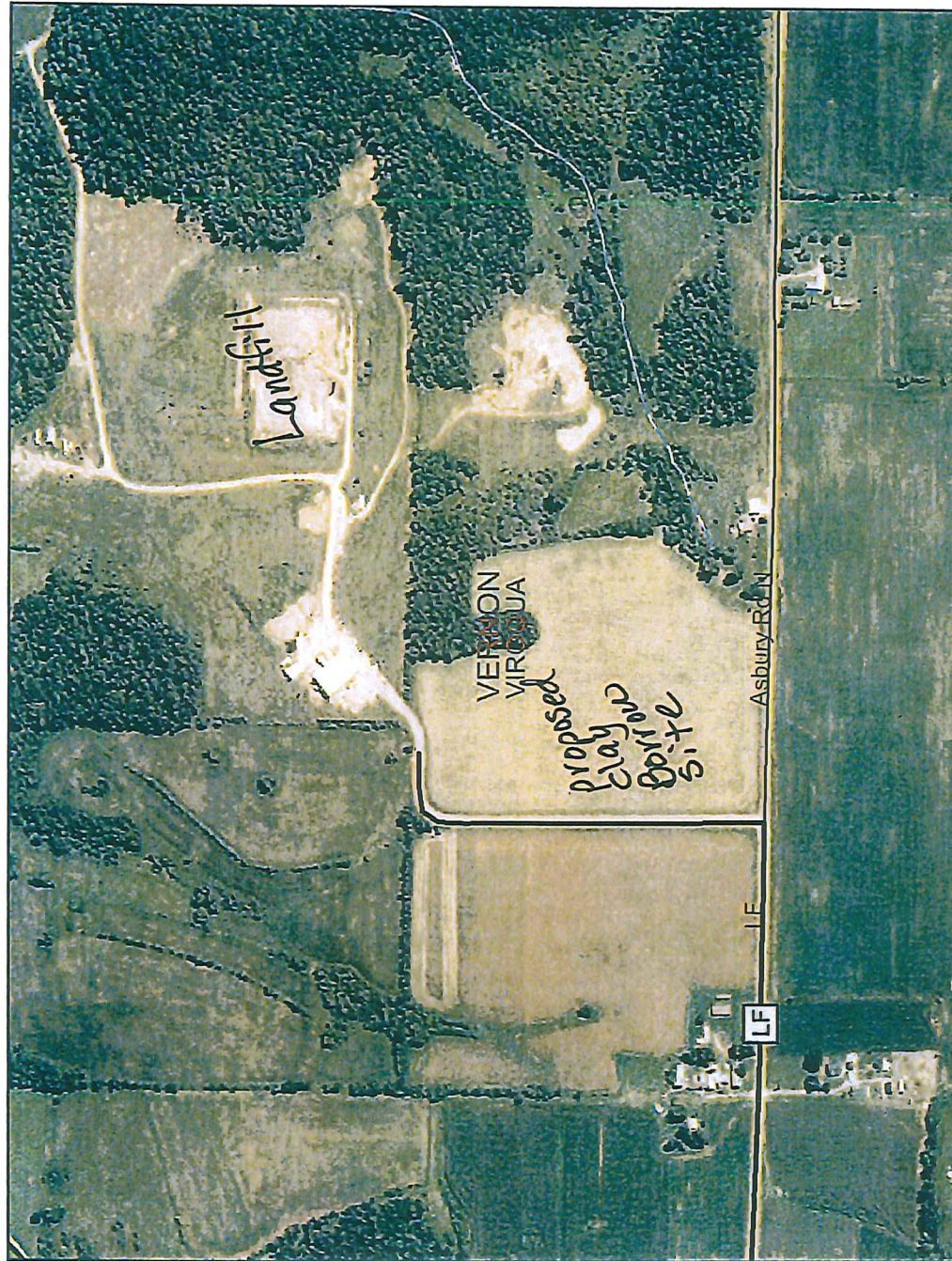
CWE Project No.:

94611000

SOURCE: VERNON
COUNTY LAND
ATLAS/PLAT BOOK

FIGURE 1

Map Created on Apr 04, 2011



2250 ft.

1500

750

Map created on Apr 4, 2011

[illegible]

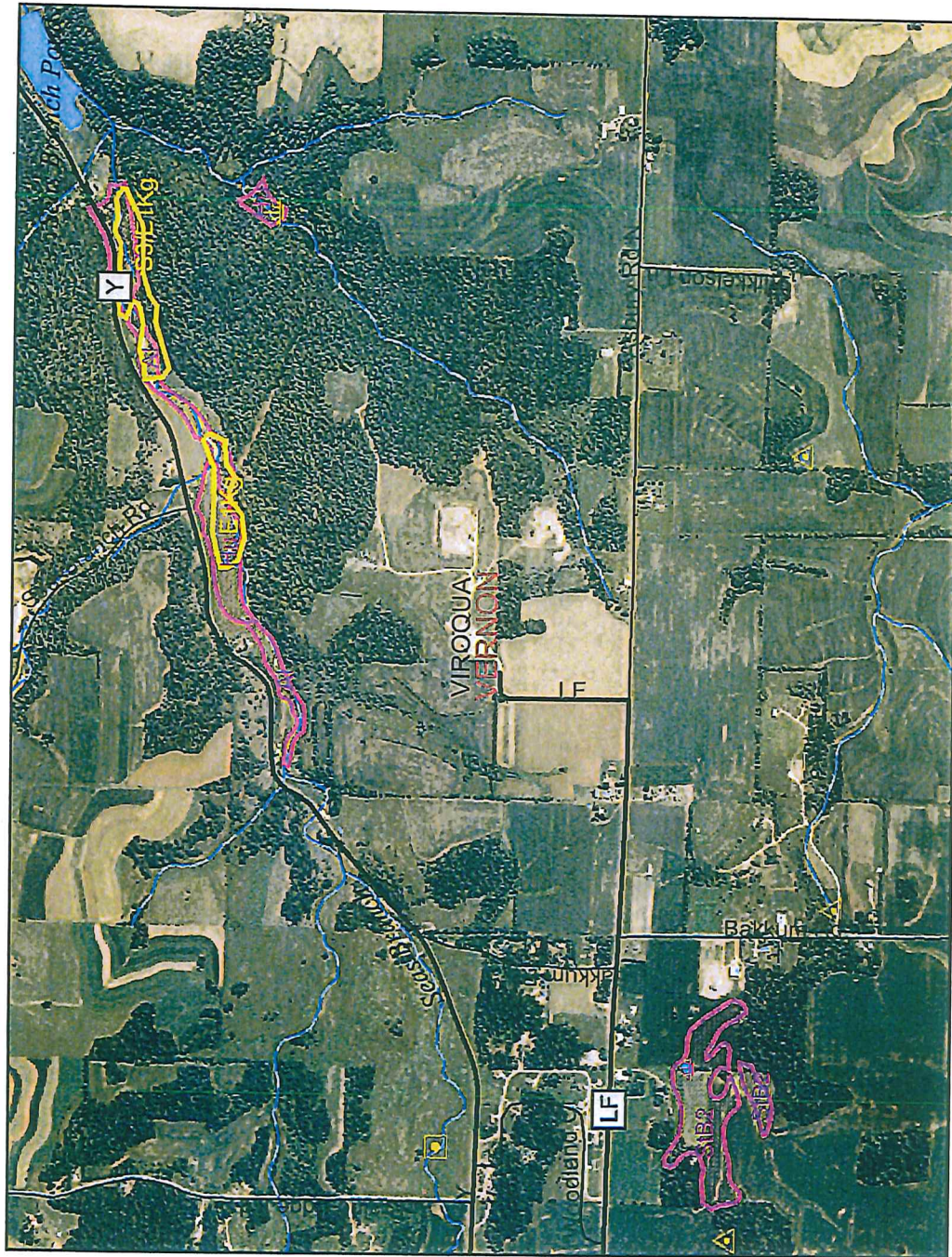
Legend

- Major Highways**
- Interstate
 - State Highway
 - U.S. Highways
 - County Roads
- Local Roads**
- 24K County Boundaries
 - Civil Towns
 - Civil Town
- USDA Wetspots**
- DNR Wetland Points
 - Excavated Pond
 - Dammed Pond
 - Wetland Too Small to Delineate
 - Filled Excavated Pond
 - Filled Dammed Pond
 - Filled Wetland Too Small to Delineate
 - Filled or Drained Wetland
- DNR Wetland Areas**
- Upland
 - Wetland
 - Filled or Drained Wetland
 - Wetland Indicator Soils
 - 24K Open Water
 - 24K Rivers and Shorelines
- Intermittent**
- Fluctuating
 - Perennial

Scale: 1:7,496

Figure 2 – Clay Borrow Site - WDNR Aerial Project Location Map

Map Created on Apr 04, 2011



0 2000 4000 6000 ft.

Map created on Apr 4, 2011

Wisconsin Wetland Inventory (WNI) maps show the approximate location of wetlands in Wisconsin. These maps have been prepared from the analysis of high altitude imagery in conjunction with soil surveys, topographic maps, previous wetland inventories and field work. State statutes define a wetland as "an area where water is at, or near, or above the surface of the ground for a substantial period of time." The purpose of the WNI is to provide reconnaissance level information on the location, type, size of these habitats such that they can be used for planning purposes. There is no attempt, in either the design or products of this inventory, to define the limits of jurisdiction of any Federal, State, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving wetlands should consult with the appropriate regulatory agency to determine the legal extent of a wetland for federal or state regulations is a field delineation of the wetland boundary by a professional trained in wetland delineation techniques. The most



Legend

- Major Highways
 - Interstate
 - State Highway
 - U.S. Highways
 - County Roads
 - Local Roads
- 24K County Boundaries
- Civil Towns
- Civil Town
- USDA Wetspots
- DNR Wetland Points
 - Excavated Pond
 - Dammed Pond
 - Wetland Too Small to Delineate
 - Filled Excavated Pond
 - Filled Dammed Pond
 - Filled Wetland Too Small to Delineate
 - Filled or Drained Wetland
- DNR Wetland Areas
 - Upland
 - Wetland
 - Filled or Drained Wetland
 - Wetland Indicator Soils
 - 24K Open Water
 - 24K Rivers and Shorelines
- Intermittent
- Fluctuating
- Perennial

Scale: 1:19,959

Figure 3 – Clay Borrow Site – WDNR Aerial Vicinity and Wetland Locator Map

WDNR Map of Seas Branch Earthen Dam

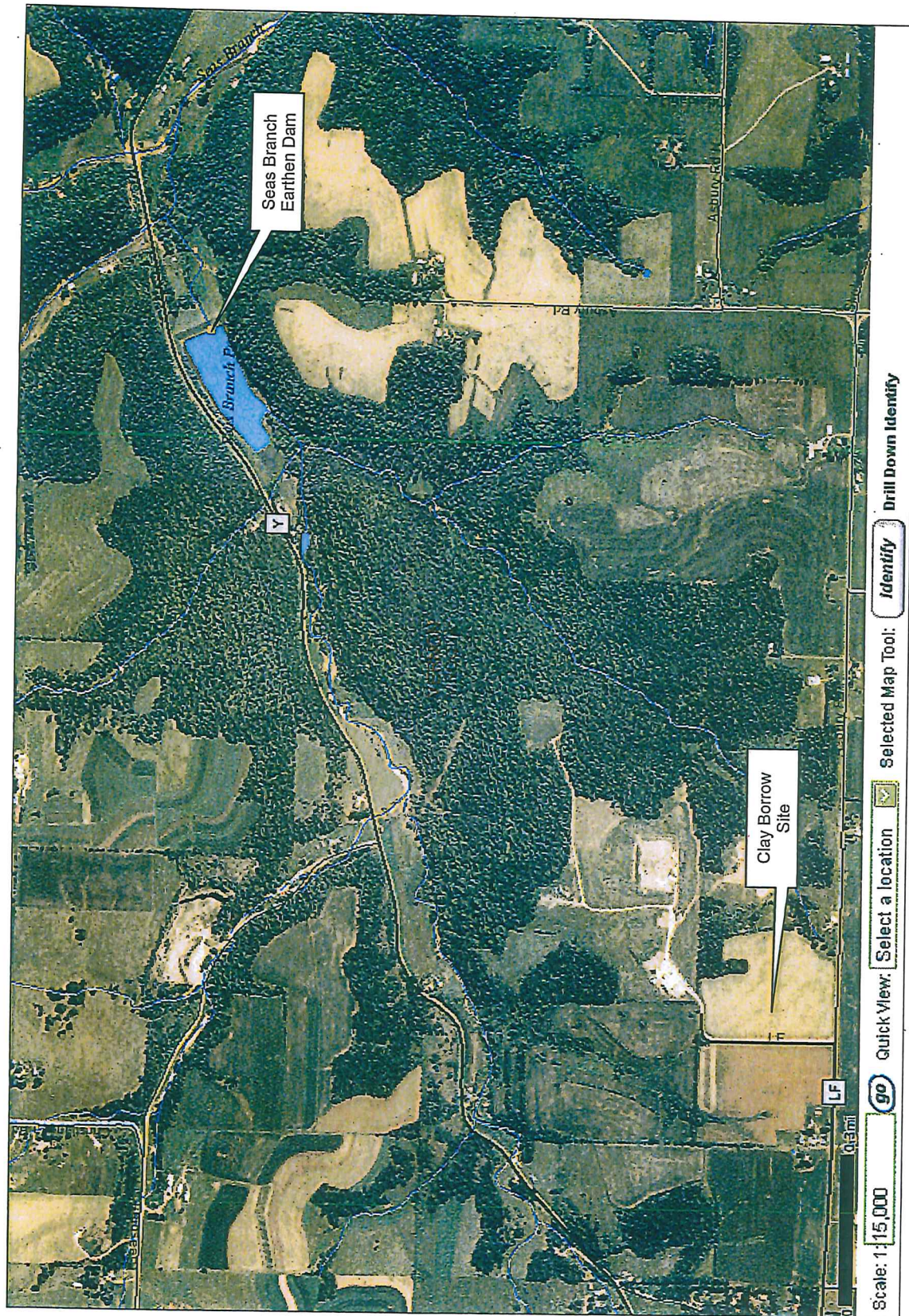
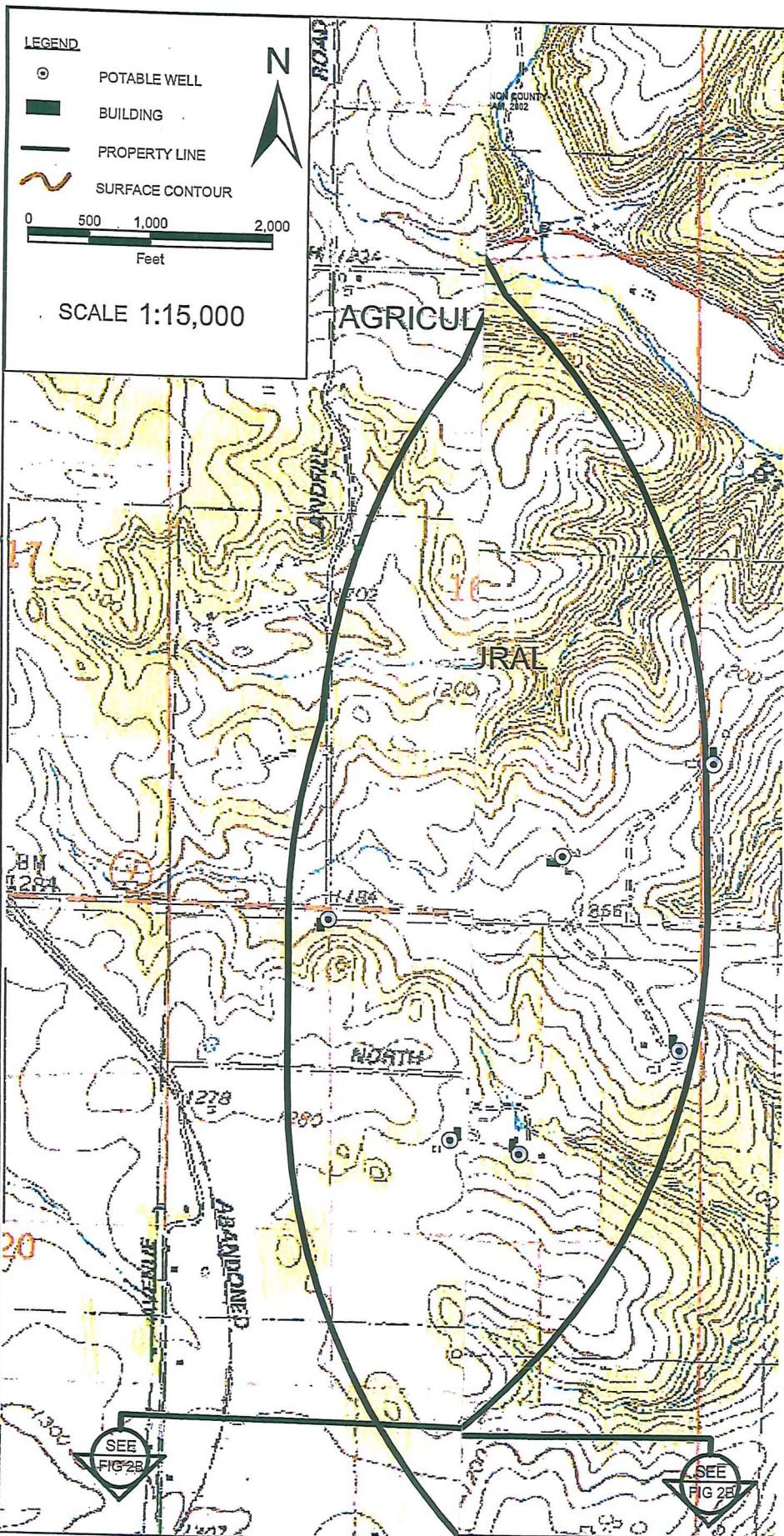


Figure 4
Vernon County Landfill - Clay Borrow Site
WDNR Map of Seas Branch Earthen Dam





CWE, Inc.

5707 SCHOFIELD AVE.
WESTON, WISCONSIN
54476
PHONE: (715) 359-9400
FAX: (715) 355-4199
general@cweengineers.com
www.cweengineers.com

PROJECT:

USGS TOPOGRAPHIC MAP

VERNON COUNTY SANITARY BAFFLE FILL

CLAY BORROW SITE INITIAL SITE INSPECTION

REVISIONS:

Drawn By: H.S. / S.F.

Checked By: D.O.

Approved By: D.O.

Date: 07.18.02
REV. 03.15.10

Figure 5



CWE, Inc.

5707 SCHOFIELD AVE.
WESTON, WISCONSIN
54476

PHONE: (715) 359-9400
FAX: (715) 355-4199

general@cwengineers.com
www.cwengineers.com

PROJECT:

SITE LOCATION MAP
VERNON COUNTY SANITARY BAILEFILL
CLAY BORROW SITE
PLAN MODIFICATION

REVISIONS:

PROJECT NO:

94602000

DRAWN BY:

D.H.

CHECKED BY:

S.T.

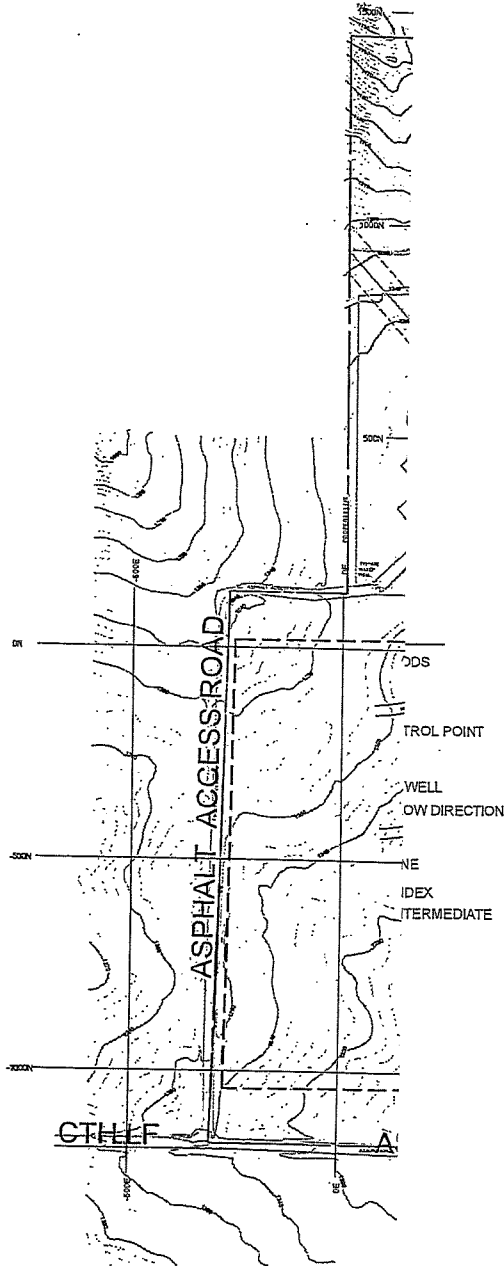
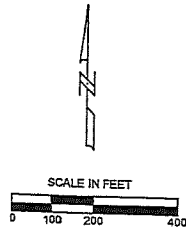
APPROVED BY:

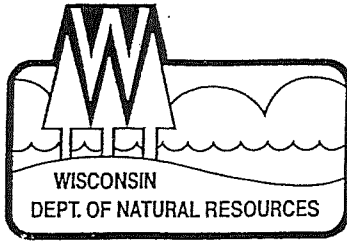
H.Z.

DATE:

8/09

Figure 6





State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor
Darrell Bazzell, Secretary

101 S. Webster St.
Box 7921
Madison, Wisconsin 53707-7921
Telephone 608-266-2621
FAX 608-267-3579
TTY 608-267-6897

May 1, 2002

Mr. Daryl Peterson P.E.
Central Wisconsin Engineers and Architects Inc.
5707 Schofield Avenue
Weston, WI 54476

SUBJECT: Endangered Resources Review (Log # 02-051)
Vertical Expansion of Existing Sanitary Solid Waste Landfill

Dear Mr. Peterson:

The Bureau of Endangered Resources has reviewed the project area described in your letter of March 4, 2002 for the proposed vertical expansion of an existing sanitary landfill in Vernon County.

Our Natural Heritage Inventory (NHI) data files contain no occurrence records of Endangered, Threatened, or Special Concern species, natural communities, or State Natural Areas that we believe would be impacted by the project as currently proposed, nor for the actual project areas in T13N R4W, Section 15 Vernon County.

Although there are no records in the NHI database of endangered resources occurring at the project site, comprehensive endangered resource surveys have not been completed for the project area. As a result, our data files may be incomplete. Given your description of the project site and the nature of the proposed project we do not believe that further surveys are warranted.

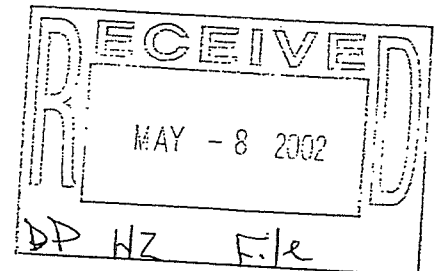
This letter is for informational purposes and solely addresses endangered resource issues. This letter does not constitute Department of Natural Resources authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the Department.

Please contact me at (608) 266-8736 if you have any questions about this information.

Sincerely,

Jennifer Bardeen
Bureau of Endangered Resources

CC: Jim Doperalski-WCR-LaCrosse
Martin Herrick-WCR-LaCrosse



swlfvern.doc.



Engineers • Architects • Scientists • Surveyors

5707 Schofield Avenue
P.O. Box 107
Weston, WI 54476-0107
www.cwengineers.com

Tel 715.359.9400
Fax 715.355.4199
Toll-free 800.261.5707
general@cwengineers.com

July 12, 2005

Ms. Jennifer Bardeen
Bureau of Endangered Resources
Department of Natural Resources,
101 South Webster Street
P.O. Box 7921
Madison, WI 53707-7921

Re: Proposed Clay Borrow Site
Vernon County Balefill, License No. 03268
CWEA Project No. 94602000

Subject: Endangered Resources Review

Dear Ms. Bardeen:

Vernon County intends to construct a vertical expansion to its sanitary balefill once the plan of operation for this expansion is approved. To insure that a sufficient volume of clay is available for construction, the County desires to use an undeveloped portion of its balefill property as a clay borrow site (a map showing the proposed borrow site location is included with this letter). This land has most recently been used as an agricultural field.

On behalf of the County, Central Wisconsin Engineers & Architects, Inc. is submitting a request for a review and identification of any critical habitat areas and state or local natural areas within one mile of this proposed borrow site, in accordance with s. NR 512.15 (1), Wis. Adm. Code. The property is located in T13N, R4W, Section 22, Town of Viroqua, Vernon County.

I appreciate your efforts in assisting us in this project. If you have any questions, please contact me at 715-359-9400.

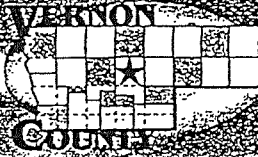
Sincerely,
Central Wisconsin Engineers & Architects, Inc.

Peter D. Arntsen, M.S., P.H.
Hydrogeologist

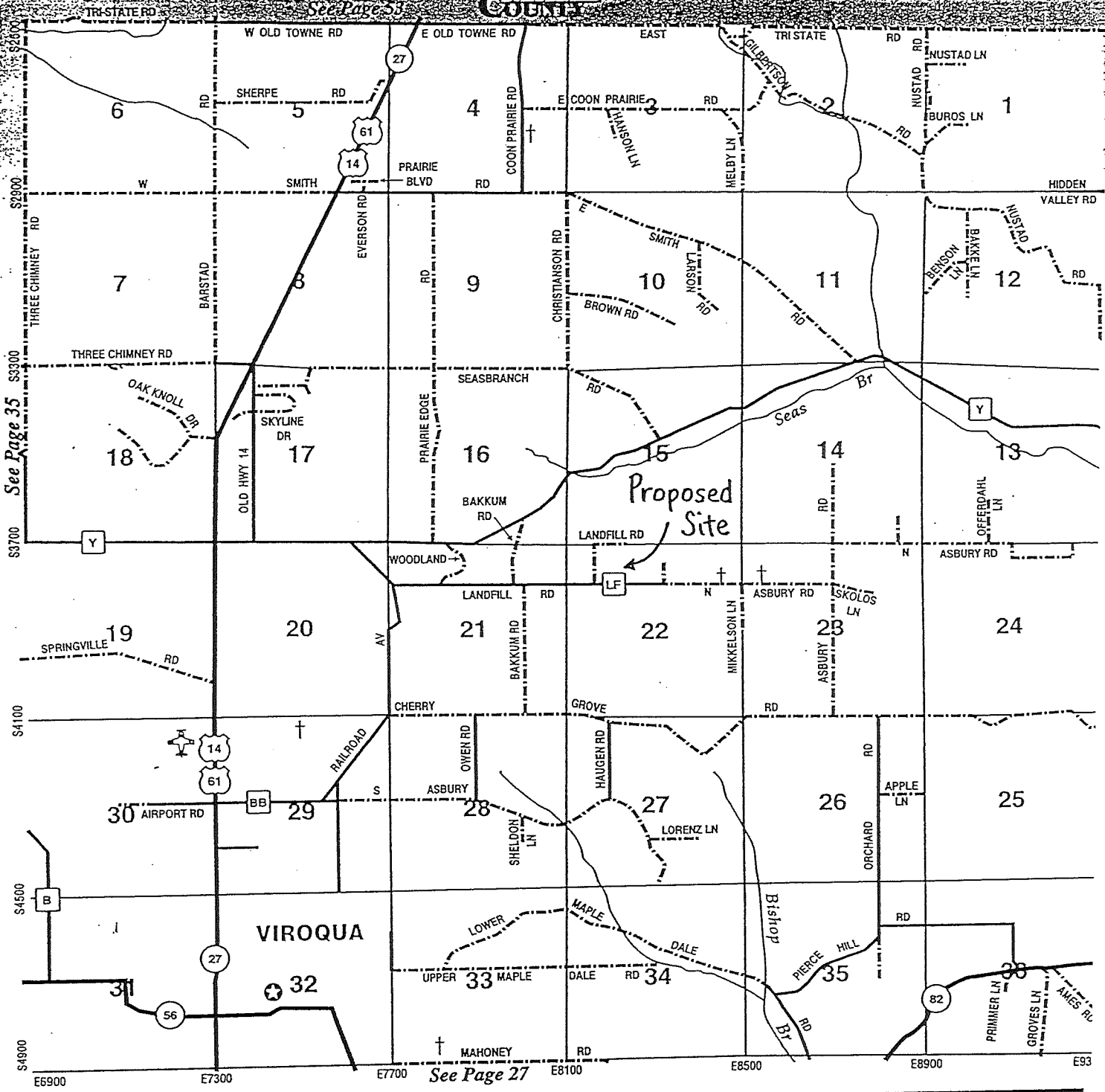
Enclosures

cc: Mr. Gail Frie, Box 247-B, Route 3, Viroqua

Viroqua (N)



T.13N. - R.4W.



frontier
COMMUNICATIONS™

A Global Crossing Company

Business Phone Systems

What ever your telecommunications needs are, let us assist you.

114 E Court St., Viroqua WI
Phone: 608/637-2111



Calling Features





Engineers • Architects • Scientists • Surveyors

5707 Schofield Avenue
P.O. Box 107
Weston, WI 54476-0107
www.cwengineers.com

Tel 715.359.9400
Fax 715.355.4199
Toll-free 800.261.5707
general@cwengineers.com

July 13, 2005

Ms. Victoria Dirst, Ph.D.
DNR Archaeologist
Department of Natural Resources
Archaeology Office
952 Tacoma Beach Road
Sturgeon Bay, WI 54235

Re: Proposed Clay Borrow Site
Vernon County Balefill, License No. 03268
CWEA Project No. 94602000

Subject: Archaeological and Historical Sites Review

Dirst
Dear Ms. ~~Bardeen~~ *Dirst*:

Vernon County intends to construct a vertical expansion to its sanitary balefill once the plan of operation for this expansion is approved. To insure that a sufficient volume of clay is available for construction, the County desires to use an undeveloped portion of its balefill property as a clay borrow site (a map showing the proposed borrow site location is included with this letter). This land has most recently been used as an agricultural field.

On behalf of the County, Central Wisconsin Engineers & Architects, Inc. is submitting a request for a review and identification of any historical or archaeological areas within the vicinity of this proposed borrow site, in accordance with s. NR 512.15 (1), Wis. Adm. Code. The property is located in T13N, R4W, Section 22, Town of Viroqua, Vernon County.

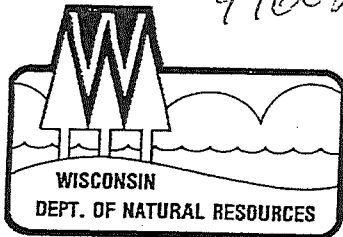
I appreciate your efforts in assisting us in this project. If you have any questions, please contact me at 715-359-9400.

Sincerely,
Central Wisconsin Engineers & Architects, Inc.

Peter D. Arntsen, M.S., P.H.
Hydrogeologist

Enclosures

cc: Mr. Gail Frie, Box 247-B, Route 3, Viroqua



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary

Archaeology Office
962 Tacoma Beach Rd.
Sturgeon Bay, WI 54235
Telephone: 920-743-2083

RECEIVED
JUL 18 2005

July 15, 2005

Peter D. Arntsen
Central Wisconsin Engineers & Architects
5707 Schofield Ave., Box 107
Weston, WI 54476-0107

SUBJECT: Clay Borrow Site for Vernon County Balefill

Dear Mr. Arntsen:

I have reviewed Wisconsin Historical Society files and have determined that the proposed clay borrow site for the Vernon County Balefill will not impact any known archaeological sites or historic structures. This project, located in T13N, R4W, section 22, has cultural resource clearance.

Sincerely,

Victoria Dirst, Ph.D.
DNR Archaeologist

**PLAN OF OPERATION
FOR
VERTICAL EXPANSION
VERNON COUNTY SANITARY BALEFILL
LICENSE NO. 3268
FID NO. 663038310
CWEA PROJECT # 94602000**

January 2005

east corner will also force the current site access road slightly to the north (see Plan Sheet 10). The only other clearing that might be necessary is associated with the clay borrow source area (see Plan Sheet 23).

Where clearing and grubbing are required, the work shall be performed by a private contractor. Existing trees and brush will be removed, and any stumps will be excavated, burned and buried. Details concerning the clearing and grubbing process are described in Section 2.12.1.

2.3.2 Excavations

2.3.2.1 Topsoil Stripping

During the initial phase of construction, roughly 19,500 cubic yards of topsoil were stripped from (1) the area under the balefill's south berm, (2) the area under the south half of the balefill's east berm, (3) the area developed as Phase I, Module I, (4) the area north of the south berm where leachate lines were installed, (5) all road areas, (6) the building and parking areas, and (7) the sedimentation basin. Additional topsoil was stripped as operations expanded first into Phase II, Modules 1 and 2, and Phase III, Modules 1 and 2. Topsoil stripping will again be required when the sedimentation basin is enlarged in 2005, when Phase II, Module 3 and Phase III, Modules 3 and 4 are developed, and whenever clay is excavated from the on-site borrow source.

2.3.2.2 Base Grade Excavations

Base grade excavations have already been made for Phase I, two modules of Phase II, and two modules of Phase III construction (see Plan Sheet 4). Additional excavations will be needed as development expands horizontally into Phase II, Module 3 and Phase III, Modules 3 and 4, but no excavation is required to construct the vertical expansion. The excavation quantities for each remaining phase of construction are included in Appendix I. It should be noted that Module 1 of Phase III required fill in its southeast corner to achieve the desired base-grades; therefore, the net amount of excavated material from this module was 18,732 cubic yards.

2.3.2.3 Sedimentation Basin

A sedimentation basin was excavated during initial construction activities for the existing balefill; however, the vertical expansion feasibility study concluded that a larger basin is needed to store runoff from this site. Therefore, additional excavation will occur to enlarge this basin in 2005, as shown on Plan Sheet 9. Approximately 0.5 acres will be disturbed by this excavation.

2.3.2.4 Clay Borrow Source

Approximately 66,400 cubic yards of clay meeting the specifications of s. NR 504.06 (2) are still required to construct and close this facility (see Section 2.13.2). 26,000 cubic yards of clay will come from excavations during construction of the enlarged sedimentation basin in 2005 and the development of Phase II, Module 3 plus Phase III, Modules 3 and 4 in 2008 (see Plan Sheets 9 and 10). Thus, the remaining 40,400 cubic yards must come from the on-site borrow source.

The first step in clay excavation is the stripping of topsoil, which is then stockpiled as described in Section 2.3.2.1. Clay is excavated using a backhoe or scraper. When a backhoe is used, the clay is placed in a dump truck for transport to the construction area; when a scraper is used, the excavated material is taken directly to the construction area. In either case, any material that

does not meet the specifications of s. NR 504.06 (2) is separated from the acceptable clay and stockpiled for other uses (i.e., backfill, daily cover, or sand).

Whenever clay is excavated from the borrow site, a qualified representative of the engineering firm overseeing construction will be present to inspect the material and collect samples for verification testing. The procedures used to separate acceptable from unacceptable clay and the sampling and testing procedures are described in Section 2.12.3.2.

When excavation from the clay borrow source is completed, the borrow area will be graded as shown on Plan Sheet 23, covered with topsoil, and seeded. More details on the reclamation of this area are included in Section 2.9.3.

2.3.3 Soil Storage and Screening

Topsoil stripped in the past has been stockpiled both to the north and west of the waste fill area, as shown on Plan Sheet 4, and the topsoil stripped for future construction activities will also be placed in these locations. Because of natural screening, this stockpile is not visible from public roadways; therefore, additional screening measures are not necessary.

2.3.4 Daily Cover

Material used for daily cover material has been excavated from a small borrow site on the south side of the facility property on as-needed basis. This procedure will continue throughout the life of the balefill; thus no stockpiling of this material will be necessary.

2.3.4.1 Topsoil

Topsoil has been salvaged and stockpiled in the area shown on Plan Sheet 4 as each phase of construction has proceeded. This area is large enough to hold approximately 24,000 cubic yards of material with 3:1 side slopes, which is more than adequate to handle the topsoil volumes that are generated. Topsoil stockpiled for more than six months is seeded to prevent erosion.

2.3.4.2 Clay

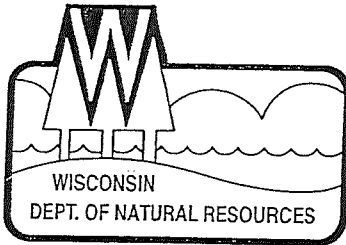
During 2005 and 2008 construction activities, roughly 26,000 cubic yards of excess clay will be excavated and stockpiled in the area west of the balefill that is shown on Plan Sheet 10. After 2008, the volume of clay needed for construction purposes will exceed the amount excavated, so the additional clay required will be taken from the stockpile. Once the stockpile is exhausted (during 2011 construction activities), clay will be excavated from the on-site borrow source on an as-needed basis, and no further stockpiling will be required.

2.3.4.3 Sand

Sand for use in the drainage layer of the composite liner system has come from a commercial, off-site source, and this will continue for all future liner and cover system construction.

2.3.4.4 Screening

Soil storage for the purpose of creating a visual screen has not been necessary at this site. The combination of natural topography, pre-existing woodlands, and the planting of trees in selected



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Scott Humrickhouse, Regional Director

West Central Region Headquarters
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, Wisconsin 54702-4001
Telephone 715-839-3700
FAX 715-839-6076
TTY Access via relay - 711

RECEIVED

AUG 01 2005

July 29, 2005

Mr. Gail Frie, Solid Waste Manager
Vernon County Solid Waste/Recycling Facility
S3705 County Road LF
Viroqua, WI 54665

FID # 663038310
Vernon County
SW/Approvals

Subject: Conditional Plan of Operation for the Proposed Vertical Expansion of
the Vernon County Balefill (Landfill), Vernon County, Wisconsin, WDNR
License # 3268

Dear Mr. Frie:

We have completed our review of your plan of operation for the proposed vertical expansion of the Vernon County Balefill (Landfill) and determined that it is consistent with Wisconsin's solid waste regulations. Therefore, the plan of operation is approved and you can begin construction of the landfill, subject to compliance with chs. NR 500-590, Wis. Adm. Code, the conditions in the attached approval and the July 20, 1992 Plan of Operation Approval and subsequent plan modifications. This approval should be maintained with the July 20, 1992 Plan of Operation Approval. Please note that this vertical expansion approval does not replace many of the landfill's approved features, with the exception of the volume, final grades, leachate collection system and surface water management features.

Conditions for construction, operation, groundwater monitoring and reporting has been included in the approval. Note that we have approved all of your variance requests in the feasibility portion of the approval process with the exception of your exemption request for placing interim cover on areas which have reached final grade. The request was rescinded in a June 8, 2004 electronic mail from Peter Arntsen of Central Wisconsin Engineers to Brian Kalvelage of the Department.

The proposed vertical expansion includes removal of portions of the temporary cap system. We are concerned that this may result in release of odors, and this approval requires that additional control measures be developed and that exposure of waste be limited by using interim cover if necessary.

A number of design and construction enhancements are required by this approval. Details are included in the attached conditions.

Environmental monitoring in this approval has been slightly modified from the monitoring proposed in the plan of operation report (January 2005). For example, the "COD" parameter has been eliminated from the lysimeter monitoring but is being retained in leachate monitoring. In addition, lysimeter monitoring parameters, "liquid volume removed" and "depth to liquid" have been changed to monthly monitoring with corresponding data submittals attached to the semi-annual sampling results. Please be aware of any other changes to the environmental monitoring summary.

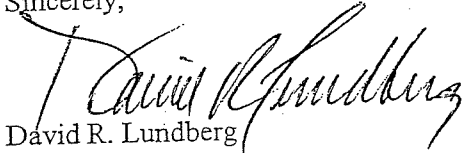
07/29/2005

Mr. Gail Frie
Vernon County Balefill Landfill
Plan of Operation Approval

You are reminded this approval does not relieve you of obligations to meet all other applicable federal, state and local permits, as well as zoning and regulatory requirements.

If you have questions regarding this approval, please contact Brian Kalvelage, Hydrogeologist at (608) 785-9983, Marty Herrick, Environmental Engineer at (608) 789-5518, or Dave Lundberg, Waste Program Manager at (715) 839-3708.

Sincerely,



David R. Lundberg
Waste Program Manager
West Central Region

CC: Brian Kalvelage/ Marty Herrick-La Crosse
Mike Ross- La Crosse
Jack Connelly-SW/3
Ron Hoff, Clerk, Vernon County, Room 108 Courthouse Annex, Viroqua, WI 54665
Patricia Olson, Clerk, Town of Viroqua, S5117 County Rd. NN, Viroqua, WI 54665
Hoohsang Zeyghami, Central Wisconsin Engineers, 5707 Schofield Avenue, Weston, WI
544476-0107

**PROJECT SUMMARY
VERNON COUNTY BALEFILL (LANDFILL)
VERTICAL EXPANSION**

GENERAL INFORMATION

AUTHORIZED CONTACT:

Gail Frie, Solid Waste Manager
Vernon County Solid Waste/Recycling Facility
S3705 County Road LF
Viroqua, WI 54665
Phone Number (608) 634-2900

LICENSEE AND PROPERTY OWNER: Vernon County Solid Waste Department

SITE LOCATION: Vernon County Solid Waste Department has proposed a vertical expansion of its existing Balefill (MSW) facility located in NW 1/4 of the SE 1/4, NE 1/4 of SW 1/4, SE 1/4 of the SW 1/4 and the SW 1/4 of the SE 1/4 in Section 15, T13N, R 4W, Town of Viroqua, Vernon County, Wisconsin.

PROPOSED CAPACITY AND SITE LIFE: The existing balefill landfill has a design capacity of 315,000 yd³ and the vertical expansion will add 275,000 yd³ for a total waste capacity of 590,000 yd³. The footprint for the balefill occupies approximately 10 acres of the 253-acre site. The vertical expansion will add approximately eight years of site life with an expected closing date of 2017. The projected landfill closing date is based on a 5% yearly increase of filling for MSW waste, an estimated waste density of .584 tons/yd³ and the addition of the Construction & Demolition (C&D) waste, which will be diverted to the balefill landfill when the C&D landfill closes in approximately 2007.

WASTE TYPES AND GENERATORS SERVED: The facility will continue to accept non-hazardous municipal, industrial and approved special wastes generated exclusively in Vernon County. Additionally in 2007 the onsite C&D landfill is projected to close. For Vernon County C&D waste makes up approximately 25% of the waste stream. After the C&D landfill closes, the wastes will be diverted to the balefill. Waste composition and leaching behavior in the expansion are not expected to be substantially different from those in the current landfill based on the less leachable composition of C&D wastes. However the chemical characteristics of the leachate generated from this expansion may change based on the amount of gypsum wallboard received and the potential exists for fugitive odors from reduced sulfur compounds.

PRESENT LAND USE AND ZONING: Land uses adjacent to the balefill include rural residential, agricultural, private hunting lands and areas harvested for timber. Vernon County currently has no zoning ordinances. The Vernon County Solid Waste Management Plan indicates that there are no scientific or natural areas, State Parks, or County forest lands within several miles of the facility. The Department's Bureau of Endangered Resources determined that no environmentally unique areas are located near the facility. Additionally correspondence with the Department's Archaeologists indicates that there are no known archaeological or historical sites on the property.

Approximately 10 acres of the site is used for the footprint of the balefill landfill with another 4 acres of associated facilities. The Vernon County recycling facility occupies about 4 acres and the C&D landfill occupies approximately 3.7 acres. The recycling facility and the C&D landfill are located approximately 660 feet west and 960 feet north east of the balefill landfill respectively. The balefill landfill is located down gradient of the recycling facility and up gradient of the C&D landfill.

Mr. Gail Frie
 Vernon County Balefill Landfill
 Plan of Operation Approval

The balefill has an approved on site borrow source with part of it overlapping the landfill footprint. The vertical expansion will require minimal additional clay soils and the site has adequate quantities of material meeting the performance standards in NR 504, Wis. Adm. Code for both liner and cap applications.

SITE CHARACTERISTICS: The site geology and hydrogeology has been previously described in the feasibility report for the Balefill Landfill. Generally, the geology in the vicinity of the landfill consists of clayey silt surficial deposits approximately 4 to 8 feet thick. Below this is a residuum unit approximately 7 to 36 feet thick deposited from weathered bedrock. This unit's fine-grained soils are classified under the Unified Soil Classification System (USCS) as CL clay and typically meet the performance standards in NR 504.06(2)(a), Wis. Adm. Code for landfill liner and capping applications. This unit also contains sandy horizons. Below the residuum the unconsolidated material transitions from silt, sand and gravel deposits to weathered bedrock. The uppermost bedrock unit is approximately 35 feet below the surface but varies with the surface topography. This dolomite unit is part of the Prairie du Chien group. With depth the dolomite becomes more competent and ultimately transitions to Jordan sandstone.

There is a perched water table in the Prairie du Chien group which is encountered at depths of 80 to 120 feet below the ground surface. The second water table is encountered at depths of 135 to 195 feet below the ground surface and varies with topography and seasonal recharge. Based on the site variability the sites' water table can flow in the opposite direction of the regional water table, which flows north-northeast.

FACILITY DESIGN: The overall design for the balefill will not change for the vertical expansion appreciably, with the exception of the final grades, the leachate collection tank, the sedimentation basin and the phasing for filling the facility. The proposed vertical expansion would not change the currently approved liner design.

The landfill is designed with a composite liner system. The clay component of the liner is 5 feet thick and, above the clay, the design includes a 60-mil High-Density Polyethylene (HDPE) geomembrane. The proposed leachate collection layer above the geomembrane is an 18-inch granular drainage layer with a minimum hydraulic conductivity of 1×10^{-2} cm/s. Eighteen inches of washed 3/4 inch gravel is placed above the v-shaped collection trenches.

The landfill is designed with sideslope risers that route the collected leachate to the below grade leachate collection tank. From the sideslope risers the leachate gravity drains to the existing leachate collection tank and then a lift station is used to pump it to the load out area. As part of this approval an aboveground leachate collection tank will be added to the system and all associated pumps and mechanical controls will be protected in weatherproof enclosures. Ultimately the collected leachate is sent to the City of Viroqua, WI Wastewater Treatment Plant for treatment and discharge. The Cities of LaFarge, WI and Stoddard, WI Wastewater Treatment Plants are also available to treat leachate. Leachate headwells are used to monitor the head elevations in the waste mass.

The landfill has an active gas extraction system, which incorporates a series of vertical extraction wells, laterals, a header system, blower and flare. Gas will be collected from the extraction wells and routed through the headers to the flare. Gas will be burned with a propane assisted 60,000 BTU/HR flare and a 140 CFM blower, which maintains 40 inches of water column on the system. Gas probes are located beyond the landfill footprint to check for gas migration. Under NR 506.08(6), Wis. Adm. Code all landfills with greater than 500,000 cubic yards shall collect and combust hazardous air contaminants. The Vernon County Balefill Landfill capacity with the vertical expansion is 590,000 cubic yards.

Final cover for the landfill includes from the top of the waste up a 12 inch soil grading layer, a 24 inch clay layer, a 40 mil LLDPE geomembrane, a 12 inch granular drainage layer, a 24 inch rooting zone for protective cover and 6 inches of topsoil. The topsoil will be seeded, mulched and measures will be implemented to prevent erosion.

Surface water management features include riprapped waterways, diversion berms, culverts and a sedimentation basin. As part of this approval two additional retention structures will be required upstream of the existing sedimentation basin to reduce its flow and loading. Measures will be also be implemented for erosion control during construction including silt fencing, straw bales, and erosion blankets. During the vertical expansion the amount of non-contact water will vary depending on the lateral extent of the final cover. The vertical expansion will be phased to minimize the quantity of leachate generated. As more phases of the landfill are completed the volume of non-contact surface water to be managed will increase accordingly.

The final use for the landfill is green space.

ENVIRONMENTAL MONITORING: Environmental and performance monitoring will extend through the period of active site operation and perpetual long-term care. Monitoring data will be reported to the Department electronically in a format supplied by the Department, as specified in s. NR 507.26(3), Wis. Adm. Code. To determine exceedances of groundwater standards, analytical results shall be compared to the indicator Preventive Action Levels (PALs) in Table A and the Alternate Concentration Limits (ACLs) in Table B of the attached approval, or the standards in ch. NR 140, Wis. Adm. Code. Environmental monitoring shall be conducted in accordance with the attached Environmental Monitoring Summary.

Vernon County Balefill will be issued a permit from the Department's Air Management Program. On February 16, 2005 Central Wisconsin Engineers on behalf of Vernon County submitted an Air Pollution Control Construction Permit Application to the Department. On April 26, 2005 the Department issued Vernon County a Notice of Incompleteness for the air permit application. On July 18, 2005 Central Wisconsin Engineers submitted additional information for the air permit application.

CLOSURE AND LONG TERM CARE COSTS: All landfill phases are required to complete closure in accordance with NR 506.08, Wis. Adm. Code. Closure costs are based on a worst case closure scenario where the highest cost would be incurred if the landfill had to prematurely close. Because this is a vertical expansion, worst case closure moneys are already in place. As part of this approval, Vernon County has revised the worst case closure costs to reflect the new construction conditions with the vertical expansion. Vernon County will use a cash deposit as a financial assurance instrument for the closure costs.

The premature closure would entail site grading to maintain positive drainage if needed, installing the final cover system, seeding the final cover system, completing construction of the gas extraction system and preparing a closure documentation report. The final cover system is composed of a 1 foot grading layer, 2 feet of clay soils, the 40 mil LLDPE geomembrane, 1 foot sand drainage layer, 2 feet of rooting zone soils, 6 inches of topsoil, vegetative cover and the surface water management features.

CLOSURE COSTS:

Item	Quantity	Unit Cost	Estimated Cost
Composite Cover (7.6 Acre)			
.6" Grading Layer	6131 CY	\$ 3.00 CY	\$18392.00

Mr. Gail Frie
 Vernon County Balefill Landfill
 Plan of Operation Approval

Clay Liner (24")	24523 CY	\$ 4.05 CY	\$99316.80
Drainage System (12"& Drains)	12261 CY	\$ 6.75 CY	\$82764.00
Geomembrane (40mil LLDPE)	331056 SF	\$ 0.40 SF	\$132422.40
Rooting Zone Layer (24")	12261 CY	\$ 5.00 CY	\$61306.67
Topsoil (6 in)	6131 CY	\$ 4.50 CY	\$27588.00
Erosion Control	36784 SY	\$1.20 SY	\$44140.80
Seed, Fertilizer, Lime, Mulch	7.6 Acre	\$ 5904 Acre	\$44870.40
Construction			\$76620.16
Documentation & Administration			\$587421.23
Total Composite Cover Cost			
Gas Extraction System			\$90000.00
Blower & Flare			\$17300.00
Gas Extraction Wells (36")	173 VF	\$100 VF	\$8750.00
Gas Extraction Well Head	7	\$1250/Well	\$29386.14
Gas Piping	1554 LF	\$18.91 LF	\$21815.42
Construction			\$167251.56
Documentation & Administration			
Total Landfill Gas Extraction System			
Subtotal			\$754672.79
Contingency (10%)	1	%	\$75467.28
Total Worst Case Closure Cost			\$830140.07
Cost/Acre			\$109228.96

LONG TERM CARE COSTS:

Although Vernon County will be perpetually responsible for the long term care of the landfill, proof of owner financial responsibility for a long-term care period of 40 years is required. Actions to be taken after closure and during the 40 year owner financial responsibility period, along with the associated cost estimates, are summarized below.

The long term care costs are itemized below and reflect the estimated yearly expenses for:

Item	Quantity	Unit Cost	Estimated Cost/40Year
Cover Vegetation & Surface Settlement	As Required	\$800	\$32000
Drainageways, Sedimentation Basin, Erosion Control Leachate Control System	As Required	\$1260	\$50400
Coordination, Administration, Evaluation	1	\$40	\$40000
Transport & Disposal	As Required	\$7200	\$288000
Line Cleaning	Annual	\$1500	\$60000
Monitoring	As Required	\$2109	\$84360
Equipment	As Required	\$750	\$30000
Replacement/Repair	Including 1 Leachate Collection Tank Replacement		
Electricity	Monthly		
Engineering	1	\$1000	\$40000
Gas Control System			
Coordination, Administration, Evaluation	1	\$1000	\$40000
Maintenance	Annual	\$1040	\$41600
Monitoring	As Required	\$5913	\$236520
Equipment	As Required	\$500	\$20000
Replacement/Repair			
Engineering	1	\$1000	\$40000
Environmental Monitoring			
Coordination, Administration, Evaluation	1	\$1000	\$40000
Gas	As Required	\$65	\$2600
Groundwater	As Required	\$7509	\$300360
Water Supply	As Required	\$486	\$19440
Surface Water	As Required	\$44	\$1760
Unsaturated Zone	As Required	\$462	\$18480
Reporting	As Required	\$2600	\$104000
Subtotal			\$1489520
Contingency (10%)		10%	\$148952
Total			\$1638472

PERIOD OF LONG TERM CARE RESPONSIBILITY: Vernon County has, by law, a 40 year proof of financial responsibility period for long term care following landfill closure. However, Vernon County will be responsible for the long term care of the facility in perpetuity. Because this is a vertical expansion, Vernon County will continue with in-payments to the long-term care account in accordance with the long term care requirements in NR 520.06(6), Wis. Adm. Code.

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL PLAN OF OPERATION APPROVAL
FOR
VERNON COUNTY BALEFILL LANDFILL
VERTICAL EXPANSION,

VERNON COUNTY, WISCONSIN
LICENSE # 3268

FINDINGS OF FACT

The Department finds that:

1. On July 20, 1992 the Department issued a Conditional Plan of Operation Approval for the active Vernon County Balefill Landfill.
2. Vernon County has proposed to construct a vertical expansion of their Municipal Solid Waste (MSW) Balefill landfill. The facility would be located in the NW ¼ of the SE ¼, NE ¼ of SW ¼, SE ¼ of SW ¼ and the SW ¼ of SE ¼ in Section 15, T 13N, R4W, Town of Viroqua, Vernon County, Wisconsin.
3. The proposed vertical expansion of the facility is intended to serve the needs of Vernon County exclusively. Materials disposed at this site will consist of municipal solid waste from residential and commercial sources and non-hazardous industrial waste. The vertical expansion of the landfill would have a design capacity of 275,000 cubic yards with a total capacity of 590,000 cubic yards. The proposed expansion will add approximately eight years of operational life for the facility. The anticipated closing date for the facility is approximately 2017.
4. The Department made an initial site inspection of the proposed vertical expansion site on May 22, 2002.
5. On June 28, 2004 the Department made a favorable feasibility determination for the proposed vertical expansion of the Vernon County Balefill Landfill. As part of the determination exemptions were given for the following items:
 - a. 1200 ft setback for private wells,
 - b. PAL or Enforcement Standard exceedances at a MSW landfill,
 - c. The required number of piezometers,
 - d. Required number of hydraulic conductivity tests,
 - e. Required number of monitoring wells,
 - f. Required number of gas probes,
 - g. Required number of soil borings.
6. On February 11, 2005 the Department's La Crosse Service Center received the report titled "Plan of Operation for Vertical Expansion Vernon County Sanitary Balefill License No 3268." On February 22, 2005 the Department received a payment of \$7700 for invoice #7609, which is the Plan of Operation review fee. The report was prepared by Central Wisconsin Engineers and included 31 plan sheets.

7. On March 14, 2005 the Department issued a notice of incompleteness for the February 11, 2005 Plan of Operation submittal
8. On April 1, 2005 the Department received a response to the Notice of Incompleteness from Central Wisconsin Engineer which was dated March 25, 2005.
9. The information submitted in connection with the plan of operation review includes the following:
 - a. A report entitled "Plan of Operation for Vertical Expansion Landfill, Vernon County Sanitary Balefill." The report, which was prepared by Central Wisconsin Engineers, included 31 plan sheets and was dated January 2005.
 - b. An August 13, 2004 electronic mail from Peter Arntsen of Central Wisconsin Engineers regarding gas monitoring wells at the Vernon County Balefill facility.
 - c. A memorandum, dated March 9, 2005 from Brian Kalvelage to Marty Herrick and Dave Lundberg regarding additional information that should be provided with respect to environmental monitoring and the Plan of Operation Report.
 - d. On March 14, 2005 the Department requested additional information for the review of the plan of operation for the proposed vertical expansion of the Vernon County Balefill Landfill. On April 1, 2005, on behalf of Vernon County, Central Wisconsin Engineers provided a response to the Department's letter. The response included a narrative, additional groundwater data and revised plan sheets.
 - e. On June 10, 2005 Brian Kalvelage and Martin Herrick of the Department inspected the Vernon County Balefill facility.
 - f. On June 21, 2005 Martin Herrick of the Department notified Gail Frie, the Vernon County Solid Waste Manager that if the facility were to use total closure costs for the worst case closure requirement, they will have to add additional funds to the account.
 - g. On June 30, 2005 the Department sent an electronic mail rough draft of the proposed plan of operation approval to Gail Frie of Vernon County.
 - h. On June 30, 2005 Gail Frie of Vernon County sent a letter to the Department requesting the review time for the Plan of Operation Submittal be extended until August 1, 2005.
 - i. On July 14, 2005 Central Wisconsin Engineers submitted revised worst case closure costs to the Department.
 - j. On July 21, 2005 a conference call was held between Vernon County, the Department and Central Wisconsin Engineers to discuss the draft plan of operation approval.
 - k. On July 21, 2005 Central Wisconsin Engineers submitted a spreadsheet via email which contained revised ACL calculations. No revised PAL calculations were provided.

1. On July 27, 2005 Central Wisconsin Engineers on behalf of Vernon County submitted additional information in response to the July 21, 2005 conference call discussing the facility's proposed plan of operation.
10. Additional documents considered in the review of the Plan of Operation include the following:
 - a. Quarterly monitoring results for the Vernon County Balefill facility
 - b. The June 28, 2004 WDNR Feasibility Determination for the Proposed Vertical Expansion of the Vernon County Balefill Landfill.
 - c. The application materials for the Vernon County Balefill permit for the Department's Air Management Program.
 - d. WDNR internal guidance document number # Wa47.doc dated February 2, 2004. This written guidance is entitled, "Interim Guidance Addressing the 1200-foot Setback Between Proposed Landfills and Existing Water Supply Wells."
 - e. WDNR internal guidance document number #Wa026.doc dated September 9, 2002. This written guidance is entitled, "Solid Waste Technical Guidance-PAL/ACL Calculations."
 - f. A June 3, 2005 a facsimile from Central Wisconsin Engineers to Brian Kalvelage of the Department regarding leachate generation data.
 - g. An internal WDNR memo dated June 8, 2004 from Mike Lemcke of the Drinking and Groundwater Program to Dave Lundberg of the Waste Management Program regarding concurrence with proposed exemptions to NR 140.28, Wis. Adm. Code, for construction of a landfill (expansion) in a location where NR 140, Wis. Adm. Code, groundwater standards have been exceeded.
 - h. Internal WDNR memo dated June 9, 2004 from Randell Clark of the Drinking and Groundwater Program to Brian Kalvelage of the Waste Management Program regarding concurrence with the proposed exemption to NR 504.04(3)(f), Wis. Adm. Code, for placement of waste within 1,200 feet of a public or private water supply well.
 - i. Information provided by the Department's Drinking and Groundwater Program on March 10, 2004 informing other WDNR programs that NR 140 Wis. Adm. Code has been revised to include lower groundwater standards for Arsenic. This information indicated that the preventive action limit (PAL) and enforcement standard (ES) for Arsenic has been lowered to 1 ug/l and 10 ug/l respectively. According to this information the effective date for these new standards was March 1, 2004.
 - j. Internal WDNR guidance document entitled, "Reducing or Terminating Groundwater Monitoring at Solid Waste Facilities", dated January 8, 2003. This guidance was used to eliminate COD sampling from the environmental monitoring plan.
11. Additional facts relevant to the review of the plan of operation include:

- a. The proposed alignment of the leachate collection lines minimizes friction and other impediments to complete insertion of cleanout hoses and video inspection hardware.
 - b. The potential effects of a landfill on groundwater quality are minimized by use of efficient leachate collection designs, where highly permeable drain layers reduce the head of leachate on the liner and, in consequence, significantly reduce leakage rates though any potential defects in geomembrane components of liners.
12. The Plan of Operation Report did not include PALs for indicator parameters to groundwater standards. Instead, Department staff calculated specific PAL values for certain parameters at specific monitoring points. Only electronic data from WDNR's GEMs Database was used to calculate these values. Vernon County is required to submit all monitoring data in an electronic format that is uploadable to the GEMs database. Table 1A (attached) contains these respective PAL calculations. Vernon County may submit additional electronic data to support additional PAL calculations (or changes to existing calculated values). This data shall be submitted and reviewed using the plan modification process.
13. The Plan of Operation Report did not include Alternative Concentration Limits (ACLs) to groundwater standards. However, the March 25, 2005 additional information submittal contained ACL calculations for two parameters (Manganese and Nitrate+Nitrite) at six monitoring wells. Department staff calculated specific ACL values for certain parameters at specific monitoring points. Only electronic data from WDNR's GEMs Database was used to calculate these values. Vernon County is required to submit all monitoring data in an electronic format that is uploadable to the GEMs database. Table 1B (attached) contains these respective ACL calculations. Vernon County may submit additional electronic data to support additional ACL calculations (or changes to existing calculated values). This data shall be submitted and reviewed using the plan modification process.
14. The Department considered the following information while reviewing the need for exemptions to groundwater standards at this facility:
 - a. Baseline groundwater monitoring data provided in the Feasibility Report, Addenda to the Feasibility Report, the Plan of Operation Report (and addenda).
 - b. Information provided to the Department indicating regional groundwater flow beneath the site is in a North/Northeast direction towards Seas Branch Creek. A perched water table also exists across the site and generally flows south.
 - c. Information provided by the Department's Drinking and Groundwater Program on March 10, 2004 informing other WDNR programs that NR 140; Wis. Adm. Code had been revised to include lower groundwater standards for Arsenic. This information indicated that the PAL and ES for Arsenic have been lowered to 1 ug/l and 10 ug/l respectively. According to this information the effective date for these new standards was March 1, 2004.
 - d. Internal WDNR memo dated May 17, 2004 from Mike Lemcke of the Drinking and Groundwater Program to Dave Lundberg of the Waste Management Program regarding concurrence with the proposed exemptions to NR 140.28, Wis. Adm. Code, for construction of a landfill in a location where groundwater standards have been exceeded.

- e. Well construction details and boring logs provided in the Feasibility Report and Plan of Operation Reports.
 - f. Well location plan sheets and water table maps provided in the Plan of Operation Report and March 25, 2005 submittal.
 - g. The landfill design specifications provided in the Plan of Operation Report as conditioned herein.
15. Neither the applicant, nor any person owning a 10% or greater legal or equitable interest in the applicant or in the assets of the applicant:
- a. Is in noncompliance with a plan approval or order issued by the Department for a solid or hazardous waste facility in Wisconsin,
 - b. Owns or previously owned a 10% or greater legal or equitable interest in a person, or in the assets of a person, who is not in compliance with a plan approval or order issued by the Department for a solid or hazardous waste facility in Wisconsin.
16. The Department has complied with the requirements of NR 150, Wis. Adm. Code, and s. 1.11, Stats., and has adopted all practical means to avoid or minimize environmental harm consistent with social, economic and other essential considerations.
17. The conditions set forth below are needed to assure that construction, operation, closure, and monitoring of the Vernon County Balefill are conducted in conformance with NR 500 to 590, Wis. Adm. Code, and modern landfill practice.

CONCLUSIONS OF LAW

- 1. The Department has authority under s. 289.30, Stats. to approve a plan of operation with special conditions if the conditions are needed to ensure compliance with chs. NR 500 to 590, Wis. Adm. Code.
- 2. The Department has authority under NR 507.18(1) Wis. Adm. Code, to approve and allow certain baseline monitoring results and corresponding PAL/ACL calculations to be submitted in a separate report. This data is normally required in the Plan of Operation Report.
- 3. The Department has authority under NR 500.08(4), Wis. Adm. Code, to approve exemptions to the requirements of chs NR 500 to 590, Wis. Adm. Code in special cases except as otherwise provided.
- 4. The Department has the authority under s. NR 140.28, Wis. Adm. Code and ss. 160.19 (8) and (9), Stats., to grant exemptions to groundwater standards and to specify terms and conditions under which the Department may seek remedial action relating to standards for which an exemption has been granted. This may include establishing alternative concentration limits.
- 5. The Department has the authority under s. 160.15(3), Stats., and s. NR 140.20, Wis. Adm. Code, to establish PALS for indicator parameters.

6. The conditions of approval set forth below are needed to ensure compliance with chs. NR 500 to 590, Wis. Adm. Code.
7. In accordance with foregoing, the Department has the authority under ch. 289, Stats., to issue the following conditional approval.

CONDITIONAL PLAN OF OPERATION APPROVAL

The Department hereby approves the Plan of Operation for the vertical expansion of the Vernon County Balefill Landfill subject to compliance with chs. NR 500 to 590 Wis. Adm. Code and the following conditions:

General

1. All aspects of construction, operation, monitoring and closure of the landfill shall be performed in accordance with the July 20, 1992 Plan of Operation, subsequent plan modification to the July 20, 1992 Plan of Operation Approval, this plan of operation approval and the requirements in the NR 500 to 590, Wis. Adm. Code. Where discrepancies arise between Department approval conditions and the respective Plan of Operations and their associated plan sheets occur, this approval's conditions shall take precedence.
2. Any proposed changes to the plan of operation report or this approval shall be proposed to the Department for review and approval. If the changes are compatible with the desired performance of this landfill, as determined by the Department, a plan modification will be approved accepting those changes. Written Department approval is necessary prior to implementing any changes with the exception of minor field modifications that are documented in accordance with NR 516.04(3)(d), Wis. Adm. Code. All field modifications shall be discussed with the Department prior to implementation. Certain specific changes may be handled as expedited plan modifications under s. NR 514.09, Wis. Adm. Code as appropriate.
3. The Department shall have the right of unannounced entry to the Vernon County Balefill facility for inspection purposes.

Design, Construction, and Operations

4. The design and specifications for the proposed aboveground leachate collection tank shall be submitted for review and approval prior to construction. The design shall include details on proposed capacity, interconnecting to the existing leachate collection system, additional pumps and weather proofing for the existing leachate pumps, and secondary containment. The design shall specify measures to be taken to prevent or contain leakage from the tank and prevent uncontrolled introduction of leachate into the waste mass. The aboveground leachate collection tank and associated equipment design shall be submitted to the Department within 90 days from the date of this approval.
5. Prior to the initial acceptance of demolition waste at the Balefill Landfill, a hot load inspection/storage pad shall be constructed near the active filling area as close as possible but not physically in the waste mass. The design shall include a clay lining and berms to allow for water to be applied to hot load in order to extinguish fires. The design shall also capture the water prior

- to being discharged to the site. Details for this design shall be provided to the Department for approval within 90 days from the date of this approval.
6. In addition to the annual leachate collection cleaning required by NR 506.07(5)(c), the following actions shall be taken for leachate collection pipe inspection:
- a. Pipe cleaning shall be conducted after any construction events where the liner or alterations to the leachate collection system have occurred.
 - b. All leachate collection lines shall be cleaned with water jet cleanout devices initially after placement of the leachate drain layer using pipe cleaning procedures that insert cleanout devices from each access point to, at a minimum, the toe of the opposite sideslope.
 - c. A video camera inspection shall be conducted on all leachate collection pipes after the initial pipe cleaning activities and at 5 year intervals, following the annual pipe cleaning. The video camera inspection shall extend a minimum of 300 feet onto the base grades of each new leachate collection line and as practicable for existing leachate lines.
 - d. All blockages of leachate collection pipes, pipe breaks or any impedance to passage of pipe cleaning equipment shall be investigated, defined and a remediation proposed for review and approval by the Department.
7. The secondary containment system for the leachate collection tanks shall be checked monthly.
8. Vernon County shall notify the Department's environmental engineer assigned to this site a minimum of one week prior to beginning each of the construction events listed below, for the purpose of allowing the Department to inspect the work. A construction documentation report shall be submitted in accordance with the requirements in NR 516, Wis. Adm. Code for the liner and final cover construction in the respective cells as noted below. Fees shall be paid to the Department in accordance with s. NR 520.04(5), Wis. Adm. Code for each of the inspections and associated construction documentation reports as noted below.

Construction Events	<u>(Liner)</u>	<u>(Capping)</u>
Inspections	(1.) Subbase & Clay Soil Placement (2.) Geomembrane Installation (3.) Leachate Collection System Components (4.) Drainage Blanket	(1.) Grading Layer & Clay Soil Soil Placement (2.) Geomembrane Installation (3.) Drainage Layer Installation (4.) Rooting Zone & Topsoil Placement

9. If a partial clay liner is constructed prior to freeze up, the completed and tested part of the clay liner shall be covered by a minimum one foot of compacted protective clay, compacted at required density and moisture content but without testing of the protective clay. The following spring, at least the upper six inches of the protective clay layer shall be removed and the upper

07/29/2005

to being discharged to the site. Details for this design shall be provided to the Department for approval within 90 days from the date of this approval.

6. In addition to the annual leachate collection cleaning required by NR 506.07(5)(c), the following actions shall be taken for leachate collection pipe inspection:
 - a. Pipe cleaning shall be conducted after any construction events where the liner or alterations to the leachate collection system have occurred.
 - b. All leachate collection lines shall be cleaned with water jet cleanout devices initially after placement of the leachate drain layer using pipe cleaning procedures that insert cleanout devices from each access point to, at a minimum, the toe of the opposite sideslope.
 - c. A video camera inspection shall be conducted on all leachate collection pipes after the initial pipe cleaning activities and at 5 year intervals, following the annual pipe cleaning. The video camera inspection shall extend a minimum of 300 feet onto the base grades of each new leachate collection line and as practicable for existing leachate lines.
 - d. All blockages of leachate collection pipes, pipe breaks or any impedance to passage of pipe cleaning equipment shall be investigated, defined and a remediation proposed for review and approval by the Department.
7. The secondary containment system for the leachate collection tanks shall be checked monthly.
8. Vernon County shall notify the Department's environmental engineer assigned to this site a minimum of one week prior to beginning each of the construction events listed below, for the purpose of allowing the Department to inspect the work. A construction documentation report shall be submitted in accordance with the requirements in NR 516, Wis. Adm. Code for the liner and final cover construction in the respective cells as noted below. Fees shall be paid to the Department in accordance with s. NR 520.04(5), Wis. Adm. Code for each of the inspections and associated construction documentation reports as noted below.

Construction Events	<u>(Liner)</u>	<u>(Capping)</u>
Inspections	(1.) Subbase & Clay Soil Placement (2.) Geomembrane Installation (3.) Leachate Collection System Components (4.) Drainage Blanket	(1.) Grading Layer & Clay Soil Soil Placement (2.) Geomembrane Installation (3.) Drainage Layer Installation (4.) Rooting Zone & Topsoil Placement

9. If a partial clay liner is constructed prior to freeze up, the completed and tested part of the clay liner shall be covered by a minimum one foot of compacted protective clay, compacted at required density and moisture content but without testing of the protective clay. The following spring, at least the upper six inches of the protective clay layer shall be removed and the upper

foot of the completed clay liner shall be re-tested for density and moisture at the same locations previously tested. If the tests meet compaction specifications, the upper three inches of the completed clay liner and the remaining protective clay layer shall be scarified and re-compacted. If the tests do not meet compaction specification then the entire lift of protective clay and at least the upper four inches of the clay liner shall be removed and the second foot of the clay liner shall be re-tested for density and moisture at the same locations previously tested. If the tests meet compaction specifications, the remaining eight inches of the upper foot of the clay liner shall be scarified and re-compacted. If the tests do not meet compaction specifications, then the procedure shall be repeated for the remaining depth of clay liner until compaction specifications are met.

10. Written Department approval shall be obtained prior to the disposal of fertilizers containing oxidizing agents at the Vernon County Balefill Landfill.
11. Construction and demolition waste shall not be placed below any baled waste.
12. The proposed surface water management system shall be revised to include the following additional items:
 - a. Two additional water retention/check structures up gradient of the exiting sedimentation basin shall be included in the design and submitted to the Department for approval prior to construction.
 - b. All of the sedimentation basins shall be dredged every three years or sooner if needed or if required by the Department. If sediment in the basins has collected contact water from the landfill the material shall be characterized and managed accordingly.
13. Vernon County shall implement measures to abate odors from waste exhumed below the interim cover areas.

Environmental Monitoring

14. Vernon County shall perform environmental monitoring during the active site life and following closure in accordance with the attached Environmental Monitoring Summary, Tables 1A, 1B, and 2A-2E. All environmental monitoring data shall be reported as required in the Department's electronic format. Monitoring schedules shall comply with the following:
 - a. Quarterly monitoring shall be conducted in March, June, September and December.
 - b. Semi-annual environmental monitoring shall be conducted in March and September.
 - c. Annual monitoring shall be conducted in September.
 - d. Monthly monitoring results shall be submitted with semi-annual monitoring data.
15. Vernon County shall conduct environmental monitoring for groundwater quality as specified in the attached Environmental Monitoring Summary in Tables 1A, 1B and 2A-2E and using the PALs and ACLs which are established in Tables 1A and 1B, respectively. PALs and ES (Enforcement Standards) for all other substances shall be as specified in ch. NR 140, Wis. Adm.

Code. When submitting monitoring data to the Department, Vernon County shall compare the groundwater sampling results with the aforementioned standards to determine whether exceedances have occurred.

16. For new or replacement wells for groundwater quality monitoring, eight baseline monitoring samples shall be collected at least 30 days apart, but no more than 90 days apart, for the first two years following installation.
17. Vernon County shall collect water supply well samples in accordance with s. NR 507.20(1), Wis. Adm. Code and the Waste Management program guidance document entitled "Monitoring Water Supply Wells For VOCs Around Solid Waste Disposal Facilities [chs.]NR 507.19 and NR 507.20., Wis. Adm. Code." Vernon County shall collect samples at any private well that is required to be sampled as part of the monitoring schedule and analyze them for the compounds listed in Appendix 1. The maximum detection limits for SDWA compounds included in Appendix 1 and identified in the column labeled "NR 809 Status" shall be:

Vinyl Chloride	0.3 ug/L
EDB	0.1 ug/L
DBCP	0.3 ug/L
All other SDWA VOCs	0.5 ug/L

If the following VOCs are not detected, their Limits of Quantitation shall not exceed their respective Preventive Action Limits (listed in Appendix 1):

Acetone
Carbon Disulfide
Fluorotrichloromethane
Tetrahydrofuran
1,2 - Dichlorobenzene
Methyl ethyl ketone
Methyl isobutyl ketone

18. Vernon County shall submit a report to the Department on the construction and sampling history of MW-1P and MW-5. This report shall evaluate the usefulness of these monitoring points and propose abandonment and/or replacement and for these two monitoring points. At a minimum, the report shall include well construction details, geology and hydrogeology, sampling history and results, applicable correspondence, and any other supporting documentation. This report shall be submitted to the Department within 90 days from the date of this approval. Written Department approval must be obtained prior to any monitoring well abandonment.
19. Vernon County and its successors and assigns shall be responsible for site maintenance, monitoring, and any necessary remedial activities identified by the Department.
20. A laboratory certified or registered under s. 299.11 Stats shall conduct all chemical and physical analysis required by the above conditions and Ch. NR 149, Wis. Adm. Code where applicable.

The Department reserves the right to require the submittal of additional information and to modify this approval at any time, if in the Department's opinion, modifications are necessary. Unless specifically noted, the conditions of this approval do not supersede or replace any previous conditions of approval for this facility.

07/29/2005

Code. When submitting monitoring data to the Department, Vernon County shall compare the groundwater sampling results with the aforementioned standards to determine whether exceedances have occurred.

16. For new or replacement wells for groundwater quality monitoring, eight baseline monitoring samples shall be collected at least 30 days apart, but no more than 90 days apart, for the first two years following installation.
17. Vernon County shall collect water supply well samples in accordance with s. NR 507.20(1), Wis. Adm. Code and the Waste Management program guidance document entitled "Monitoring Water Supply Wells For VOCs Around Solid Waste Disposal Facilities [chs.]NR 507.19 and NR 507.20., Wis. Adm. Code." Vernon County shall collect samples at any private well that is required to be sampled as part of the monitoring schedule and analyze them for the compounds listed in Appendix 1. The maximum detection limits for SDWA compounds included in Appendix 1 and identified in the column labeled "NR 809 Status" shall be:

Vinyl Chloride	0.3 ug/L
EDB	0.1 ug/L
DBCP	0.3 ug/L
All other SDWA VOCs	0.5 ug/L

If the following VOCs are not detected, their Limits of Quantitation shall not exceed their respective Preventive Action Limits (listed in Appendix 1):

Acetone
Carbon Disulfide
Fluorotrichloromethane
Tetrahydrofuran
1,2 - Dichlorobenzene
Methyl ethyl ketone
Methyl isobutyl ketone

18. Vernon County shall submit a report to the Department on the construction and sampling history of MW-1P and MW-5. This report shall evaluate the usefulness of these monitoring points and propose abandonment and/or replacement and for these two monitoring points. At a minimum, the report shall include well construction details, geology and hydrogeology, sampling history and results, applicable correspondence, and any other supporting documentation. This report shall be submitted to the Department within 90 days from the date of this approval. Written Department approval must be obtained prior to any monitoring well abandonment.
19. Vernon County and its successors and assigns shall be responsible for site maintenance, monitoring, and any necessary remedial activities identified by the Department.
20. A laboratory certified or registered under s. 299.11 Stats shall conduct all chemical and physical analysis required by the above conditions and Ch. NR 149, Wis. Adm. Code where applicable.

The Department reserves the right to require the submittal of additional information and to modify this approval at any time, if in the Department's opinion, modifications are necessary. Unless specifically noted, the conditions of this approval do not supersede or replace any previous conditions of approval for this facility.

07/29/2005

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes, administrative codes and case law establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats. establish criteria for filing a petition for judicial review. Such a petition shall be filed with the appropriate circuit court and shall be served on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated: _____

July 29, 2005

DEPARTMENT OF NATURAL RESOURCES
For the Secretary

David R. Lundberg

David R. Lundberg
Waste Program Manager
West Central Region

Brian Kalvelage / sc

Brian Kalvelage
Hydrogeologist
West Central Region

Martin Herrick / sc

Martin Herrick, P.E.
Environmental Engineer
West Central Region

ENVIRONMENTAL MONITORING SUMMARY
VERNON COUNTY BALEFILL – LICENSE # 3268

Table 1A
(Preventive Action Limits (PALs)-Indicator Parameters)**

Substance/Parameter	Monitoring Point/Well	PAL value (mg/l)
Alkalinity	MW-1RZ	310
	MW-13P	300
	MW-14	320
	MW-14Z	330
COD	Not applicable	Not applicable
Field Conductivity (specific conductance, umho/cm)	MW-1RZ	720
	MW-13P	630
	MW-14	use NR 140.20 value
	MW-14Z	760
Hardness	MW-1RZ	350
	MW-13P	310
	MW-14	330
	MW-14Z	380

Table 1B
(Alternative Concentration Limits (ACLs)-Public Health and Welfare Parameters)**

Substance/Parameter	Monitoring Point/Well	ACL value (mg/l)
Iron	MW-1PR	.34
	MW-1R	.13
	MW-3	.6
	MW-5A	.52
	MW-7	.37
	MW-9	1.2
	MW-12	.34
	P-1	.76
Chloride	MW-1RZ	Baseline sampling indicated no results greater than the NR 140 PAL value.
	MW-13P	
	MW-14	
	MW-14Z	
Fluoride	MW-2	2.1
	MW-2P	1.5
	MW-3	1.5
	MW-4P	1.8
	MW-5A	1.6
	MW-6	1.4
	MW-8R	1.5
	MW-11	2.5
	MW-12	1.6
Manganese	MW-5A	70 ug/L
	MW-6	56 ug/l
	MW-7	49 ug/L

**ENVIRONMENTAL MONITORING SUMMARY
VERNON COUNTY BALEFILL – LICENSE # 3268**

**Table 1A
(Preventive Action Limits (PALs)-Indicator Parameters)****

Substance/Parameter	Monitoring Point/Well	PAL value (mg/l)
Alkalinity	MW-1RZ	310
	MW-13P	300
	MW-14	320
	MW-14Z	330
COD	Not applicable	Not applicable
Field Conductivity (specific conductance, umho/cm)	MW-1RZ	720
	MW-13P	630
	MW-14	use NR 140.20 value
	MW-14Z	760
Hardness	MW-1RZ	350
	MW-13P	310
	MW-14	330
	MW-14Z	380

**Table 1B
(Alternative Concentration Limits (ACLs)-Public Health and Welfare Parameters)****

Substance/Parameter	Monitoring Point/Well	ACL value (mg/l)
Iron	MW-1PR	.34
	MW-1R	.13
	MW-3	.6
	MW-5A	.52
	MW-7	.37
	MW-9	1.2
	MW-12	.34
	P-1	.76
Chloride	MW-1RZ MW-13P MW-14 MW-14Z	Baseline sampling indicated no results greater than the NR 140 PAL value.
Fluoride	MW-2	2.1
	MW-2P	1.5
	MW-3	1.5
	MW-4P	1.8
	MW-5A	1.6
	MW-6	1.4
	MW-8R	1.5
	MW-11	2.5
Manganese	MW-12	1.6
	MW-5A	70 ug/L
	MW-6	56 ug/l
	MW-7	49 ug/L



CWE, Inc. 5707 Schofield Avenue, P.O. Box 107, Weston, WI 54476-0107 Toll Free: (800) 261-5707
Phone: (715)359-9400 Fax: (715)355-4199 Email: general@cwengineers.com Web: www.cwengineers.com

September 3, 2009

COPY: Dave D.

Mr. Martin Herrick, P.E.
Environmental Engineer
WDNR West Central Region
La Crosse Service Center
3350 Mormon Coulee Road
La Crosse, WI 54601

Re: **Vernon County Balefill**
FID 663038310
License No. 3268
CWE Project # 94602000

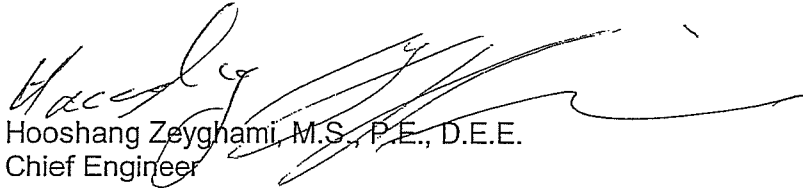
Subject: **Initial Site Inspection for Proposed Clay Borrow Source**

Dear Mr. Herrick:

The Vernon County Balefill (License No. 3268) will eventually require additional clay material to complete the construction of its vertical expansion. In anticipation of that need, CWE, Inc., has identified a potential clay borrow source on the same property where the balefill is located (see enclosed Site Location Map). The purpose of this letter is to request an initial site inspection of this property to evaluate its potential for use as a borrow source. We would appreciate knowing the date on which this inspection will take place, once you have scheduled it.

If you have any questions about this project, please contact Gene Edwards, the Vernon County Balefill Manager, at 608-634-2900 or me at 715-359-9400.

Sincerely,
CWE, Inc.


Hooshang Zeyghami, M.S., P.E., D.E.E.
Chief Engineer

Enclosure: Site Location Map

cc: Mr. Gene Edwards, Solid Waste Manager, Vernon County Solid Waste/Recycling
Facility, S3705 CTH LF, Viroqua, WI 54665





CWE, Inc. 5707 Schofield Avenue, P.O. Box 107, Weston, WI 54476-0107 Toll Free: (800) 261-5707
Phone: (715)359-9400 Fax: (715)355-4199 Email: general@cwengineers.com Web: www.cwengineers.com

March 15, 2010

COPY

Mr. Martin Herrick, P.E.
Environmental Engineer
WDNR West Central Region
LaCrosse Service Center
3350 Mormom Coulee Road
LaCrosse, WI 54601

Re: **Vernon County Balefill**
 FID 663038310
 License No. 3268
 CWE Project 94602000

Subject: **Additional Information for the Initial Site Inspection for Proposed Clay Borrow Source**

Dear Mr. Herrick:

The Vernon County Balefill (License No. 3268) will eventually require additional clay material to complete the construction of its vertical expansion. In anticipation of that need, CWE, Inc., has identified a potential clay borrow source on the same property where the balefill is located (see enclosed Site Location Map). The process governing the development of clay borrow sources specified in s. NR 504.075 requires the Department first conduct an initial site inspection. CWE, Inc. requested an initial site inspection in September 2009, and that inspection was performed on October 15, 2009. However, the initial site inspection request letter did not include some of the items listed under s. 509.04(4) as is required by s. NR 509.04(5). The purpose of this letter is to provide that information so that the Department can render a preliminary decision on the suitability of this proposed borrow site.

s. NR 509.04(4)(a)

The proposed clay borrow source is located on the same property as the balefill (see Figure 1). The portion of the property under consideration encompasses roughly 18 acres along the balefill entrance road from CTH LF. The legal description for this proposed borrow site is as follows:

The E ½ of the NW ¼ of the NW ¼ all in Section 22 of Township 13 North,
Range 4 West, in the Town of Viroqua, Vernon County, Wisconsin.

At present the proposed borrow site is used for agriculture, and land use within one mile of this property is also primarily agricultural, either as crop land or pasture. Land immediately to the northeast is used for the disposal of municipal solid waste, and land farther to the northeast is wooded and used for timber and private hunting.

s. NR 509.04(4)(b)

When feasibility studies were undertaken for the Vernon County Sanitary Bafefill (1990) and its vertical expansion (2003), the Department's Bureau of Endangered Resources reported that no endangered resources or environmentally unique areas occur within Section 22, T13N, R4W, and the State Archaeologist indicated that there are no archaeological or historical sites known to occur on or near this property. The Vernon County Solid Waste Management Plan (2002) states that there are no scientific or natural areas, State parks, or County forest lands within several miles of the property under consideration.

s. NR 509.04(4)(d)

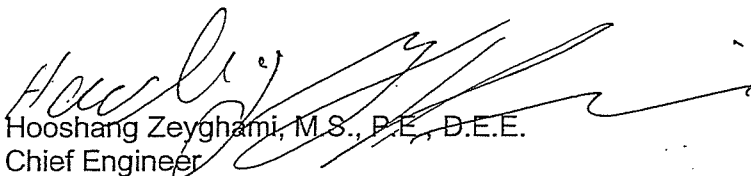
The proposed clay borrow source is situated near the top of a ridge that separates Seas Branch from an intermittent tributary stream (see Figure 2). There are no permanent surface water features at the site. The natural topography directs runoff to the east towards an intermittent stream that ultimately enters Seas Branch. Seas Branch is the only stream within one mile of the site that has a floodplain (see Figure 3).

There are no wetlands within one mile of the proposed site, but springs sometimes occur along valley walls of the larger streams. One such spring (Crume Spring) occurs less than 1,500 feet north of the northernmost property boundary, across the Seas Branch valley. These springs are a result of perched groundwater reaching the land surface along permeable shale beds that occur within the Prairie du Chien Group, a primarily dolomitic bedrock.

Figure 2 also shows the existing residences and water supply wells that are located within one mile of the site.

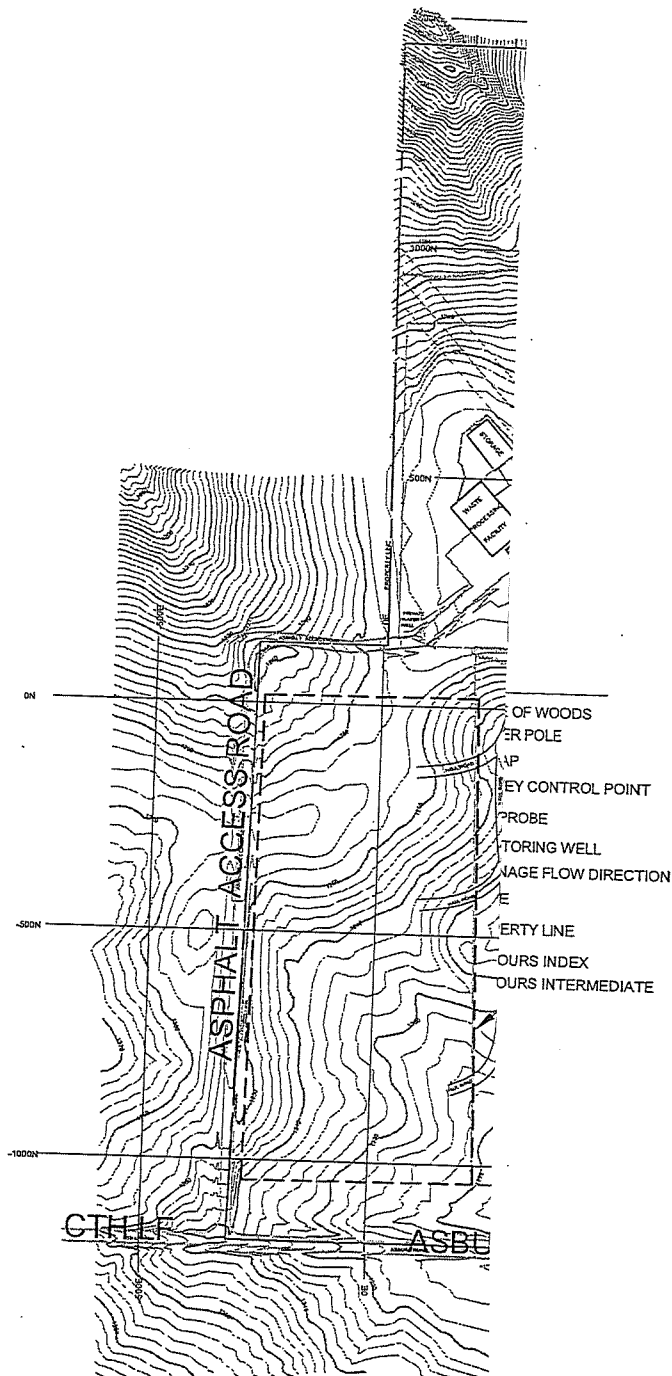
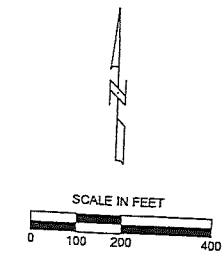
I trust that the information provided in this letter will allow the Department to render a preliminary decision on the suitability of this proposed clay borrow site. If you have any questions about this project, please contact Gene Edwards, the Vernon County Bafefill Manager, at 608-634-2900 or me at 715-359-9400.

Sincerely,
CWE, Inc.


Hooshang Zeyghami, M.S., P.E., D.E.E.
Chief Engineer

Enclosures: Figure 1: Site Location Map
Figure 2A, 2B: USGS Topographic Map
Figure 3: FEMA FIRM

cc: Mr. Gene Edwards, Solid Waste Manager, Vernon County Solid Waste/Recycling Facility, S3705 CTH LF, Viroqua, WI 54665



CWE, Inc.
5707 SCHOFIELD AVE.
WESTON, WISCONSIN
54476

PHONE: (715) 359-9400
FAX: (715) 355-4199

general@cwengineers.com
www.cwengineers.com

PROJECT:

SITE LOCATION MAP
VERNON COUNTY SANITARY BAILEFILL
CLAY BORROW SITE
PLAN MODIFICATION

REVISIONS:

PROJECT NO:

94602000

DRAWN BY:

D.H.

CHECKED BY:

S.T.

APPROVED BY:

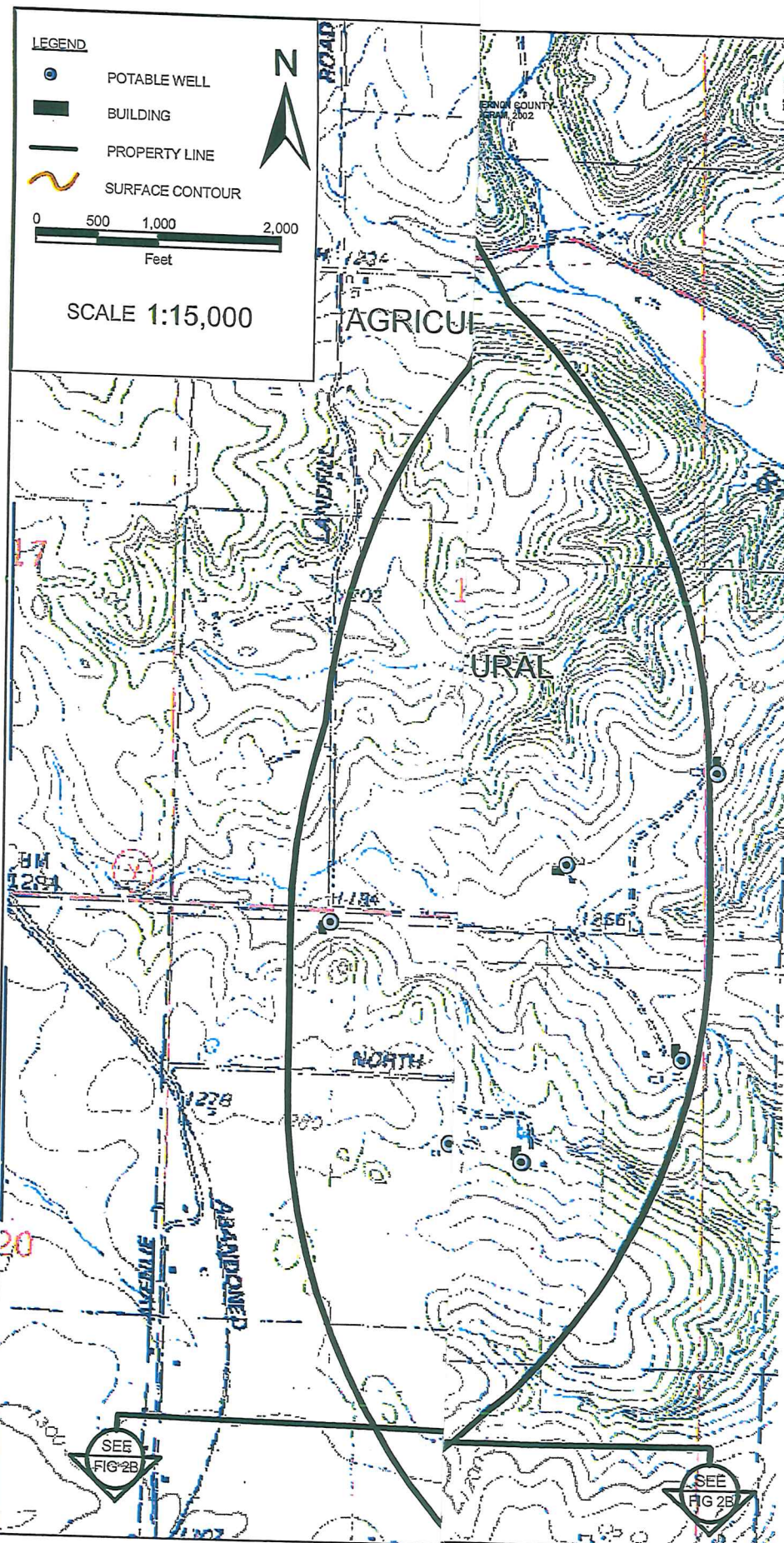
H.Z.

DATE:

8/09

SHEET:
Figure 1

J:\DRAFT\VERNON\CLAY BORROW SITE\GIS Map\Vernon Clay Base Map (USGSFinalMap01).mxd



CWE, Inc.

5707 SCHOFIELD AVE.
WESTON, WISCONSIN
54476
PHONE: (715) 359-9400
FAX: (715) 355-4199
general@cweengineers.com
www.cweengineers.com

PROJECT:

USGS TOPOGRAPHIC MAP
VERNON COUNTY SANITARY BAILEFILL
CLAY BORROW SITE INITIAL SITE INSPECTION

REVISIONS:

Drawn By: H.S./S.F.

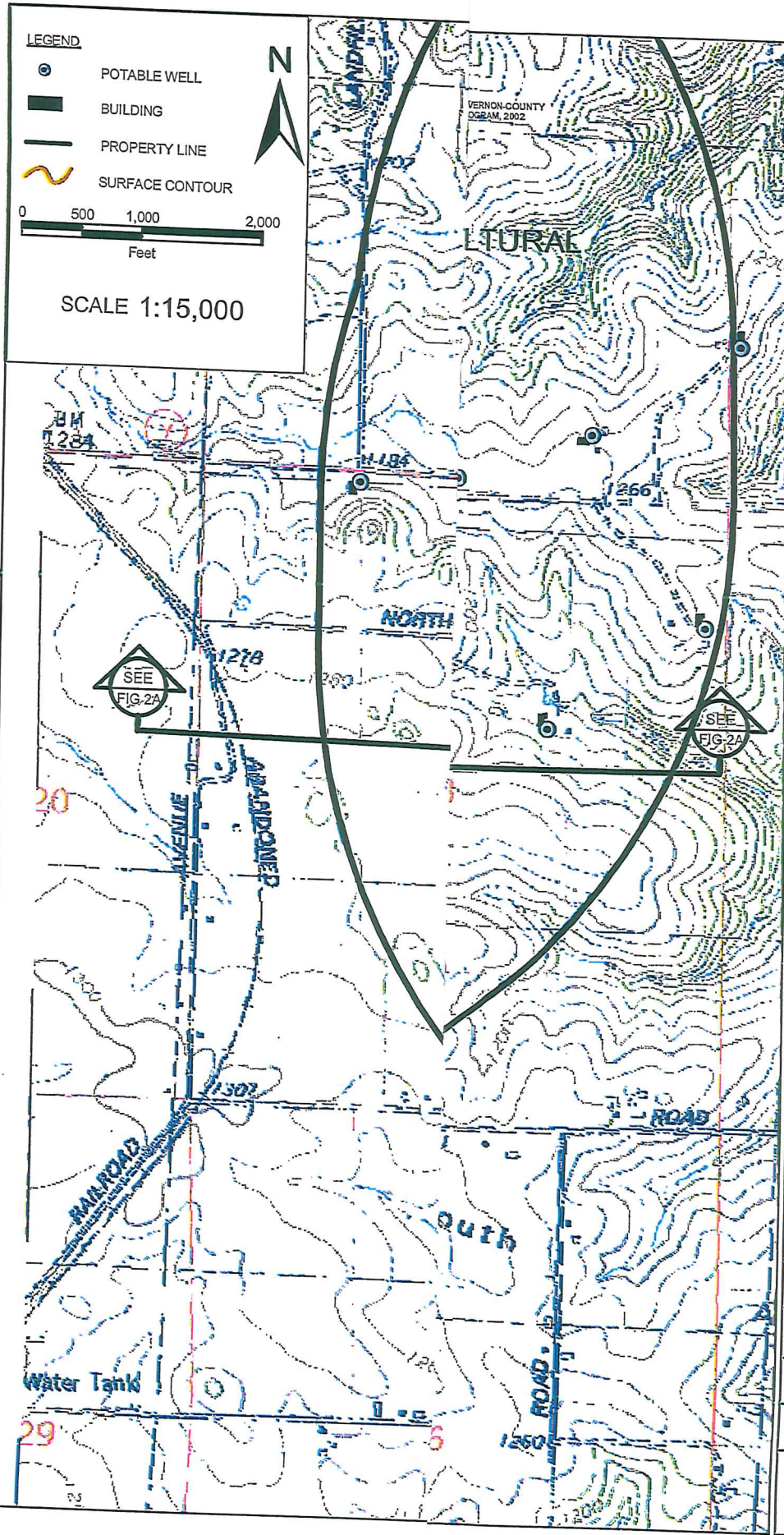
Checked By: D.O.

Approved By: D.O.

Date: 07.18.02
REV. 03.15.10

FIGURE 2A

J:\DRAFT\VERNON\CLAY BORROW SITE\GIS Map\Vernon Clay Base Map (USGS\FinalMap02).mxd



CWE, Inc.
5707 SCHOFIELD AVE.
WESTON, WISCONSIN 54476
PHONE: (715) 359-9400
FAX: (715) 355-4199
general@cwengineers.com
www.cwengineers.com

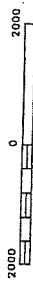
PROJECT:
**USGS TOPOGRAPHIC MAP
VERNON COUNTY SANITARY BALEFILL
CLAY BORROW SITE INITIAL SITE INSPECTION**

REVISIONS:	
Drawn By:	H.S./S.F.
Checked By:	D.O.
Approved By:	D.O.
Date:	07.18.02 REV. 03.15.10

FIGURE 2B



APPROXIMATE SCALE IN FEET



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

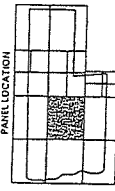
FLOOD INSURANCE RATE MAP

VERNON COUNTY,
WISCONSIN
(UNINCORPORATED AREAS)

PANEL 150 OF 265

(SEE MAP INDEX FOR PANELS NOT PRINTED)

PANEL LOCATION



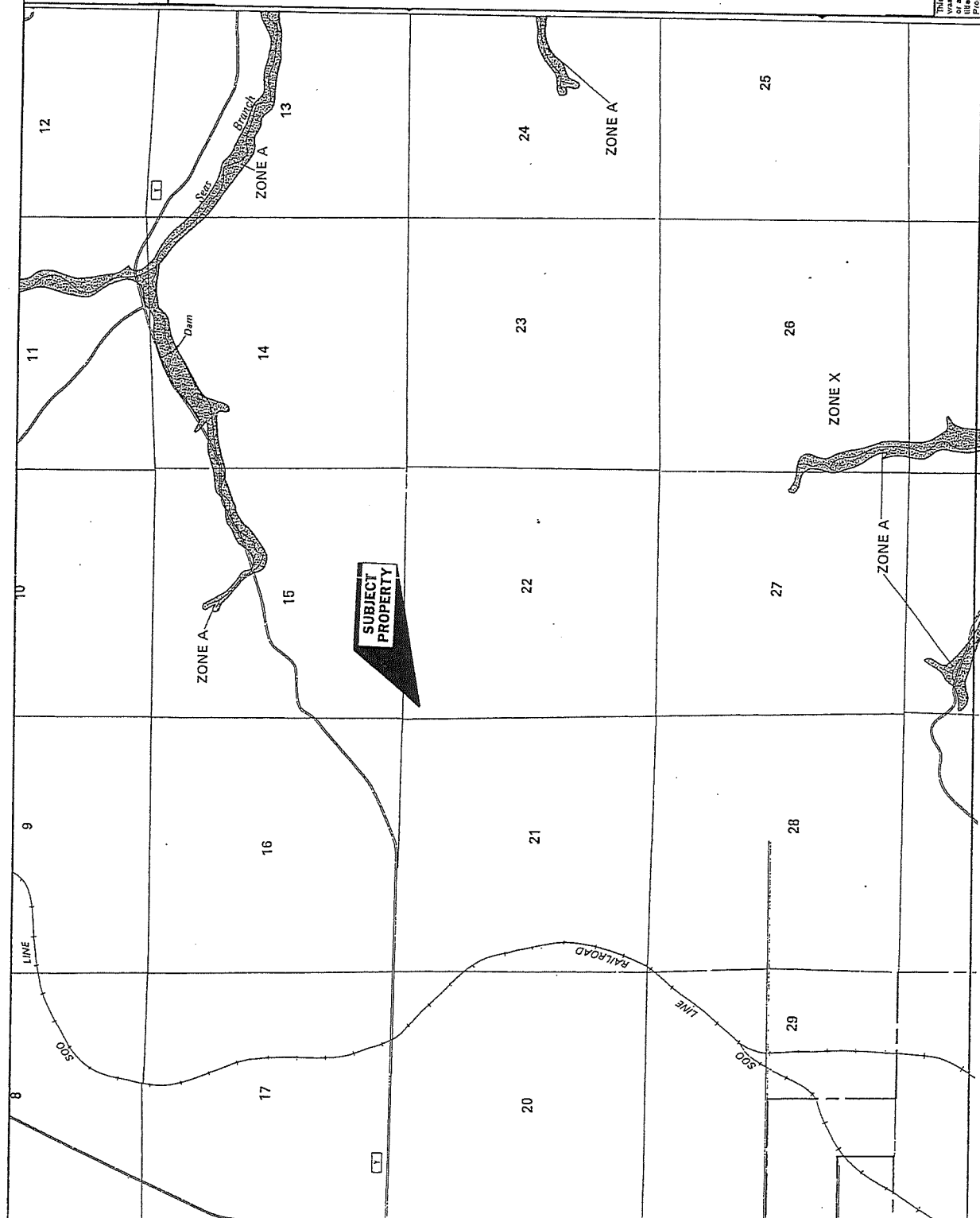
COMMUNITY—PANEL NUMBER:
550450 0150 B

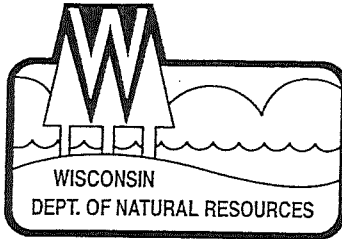
MAP REVISED:
NOVEMBER 16, 1990



Federal Emergency Management Agency

This is an official copy of a section of the above referenced flood map. It was extracted using F-4111 On-Line. This map does not reflect changes in flood insurance rates which may have been made subsequent to the date on the map. For the most current flood insurance rates, please refer to the National Flood Insurance Program flood maps. Check the FEMA Flood Map Site in www.fema.gov.





State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCE

Jim Doyle, Governor
Matthew J. Frank, Secretary
Scott A. Humrickhouse, Regional Director

LaCrosse Service Cent
State Office Building Room 10
3550 Mormon Coulee Roa
LaCrosse, Wisconsin 54601
Telephone 608-785-9000
FAX 608-785-9900

May 28, 2010

Mr. Gene Edwards
Vernon County Solid Waste/Recycling Facility
S3705 County Road LF
Viroqua, WI 54601

FID 663038310
APPR File
Vernon Co.

Subject: Initial Site Inspection (ISI), for Soil Borrow Site for Vernon County Sanitary Balefill
Landfill, Vernon County, Viroqua Wisconsin, License No. 3268

Dear Mr. Edwards:

This letter is to document the above referenced inspection I performed on October 15, 2009. The purpose of the inspection was to provide the Department's preliminary evaluation of the proposed parcel for location and performance standards under NR 504.04, Wisconsin Administrative Code.

On September 3, 2009 Central Wisconsin Engineer (CWE) submitted a request to the Department to perform an ISI for the Vernon County Sanitary Balefill Site which will be used for the municipal solid waste landfill. On October 15, 2009, Gene Edwards from Vernon County and I met at the proposed site to perform the ISI and review the information included with the ISI request. Vernon County has identified the property located in the Eastern ½ of the NW ¼ of Section 22, Township 13 North, Range 4 West., Town of Viroqua, Vernon County, Wisconsin as a non commercial soil borrow source. During the inspection we also reviewed the information submitted with the ISI request and discussed additional items to be addressed.

Existing land use for the proposed borrow site is agricultural with other agricultural and wooded areas used for timber and private hunting on adjoining properties. As part of the landfill's initial development and subsequent expansion this area was evaluated for endangered resources, wetlands, surface water and environmentally unique areas with none being noted.

On March 2, 2010 the Department requested additional information in order to continue the ISI review. On March 15, 2010 CWE submitted the requested information and an ISI opinion can be rendered.

Based on this information it is the Department's opinion that the soil borrow source meets the locational requirements in NR 504.04, Wis. Adm. Code with the following items being noted:

1. The proposed facility will not be considered to be a commercial borrow source,
2. There will be multiple borrow events at the site.

If you have any questions regarding this letter, please feel free to contact me at (608) 789-5518.

Sincerely,

Martin Herrick, P.E.
Environmental Engineer
West Central Region

CC: Tom Woletz-WCR
Brian Kalvelage-LAX

MEMO

TO: CWE Project File

FROM: Scott Turner, PE, CWE, Inc

DATE: April 6, 2011

RE: Section 7 Endangered Species Act Consultation – Vernon County Sanitary Landfill, Vernon County, WI
Sample Documentation Memos are at:
<http://www.fws.gov/midwest/endangered/section7/s7process/letters.html>

The Vernon County Landfill is proposing to extract clay from a borrow source for use in future landfill construction including liner, intermediate cover, and closure projects. The borrow site is presently farm land and is approximately one quarter of a mile from the active landfill. The location of the borrow site is located in the E ½ of the NW ¼ of the NW ¼ all in Section 22 of Township 13 North, Range 4 West, in the Town of Viroqua, Vernon County, Wisconsin.

The U.S. Fish and Wildlife technical assistance website was carefully reviewed by CWE, Inc. on April 6, 2011, for federally listed threatened and endangered species in Vernon, WI. According to the website, there were three species listed that may be present in Vernon County:

Species	Habitat
1. Higgins Eye Pearly Mussel	Freshwater mussel of larger rivers – Mississippi River
2. Northern Monkshood (flower)	Shaded to partially shaded cliffs, algific talus slopes, or on cool, streamside sites.

The action area for the proposed project is made up of an active landfill and farm field and does not contain any of the habitats of the candidate and endangered species listed above. For these reasons, it is concluded that the Vernon County Sanitary Landfill Projects will have “no effect” on listed species, their habitats, or proposed or designated critical habitat.

Section 7 Endangered Species Act Consultation

County Distribution of Wisconsin's Federally Threatened, Endangered, Proposed, and Candidate Species

For more information about threatened and endangered species in Wisconsin, please contact:
U.S. Fish & Wildlife Service, 2661 Scott Tower Drive, New Franken, WI 54229 Phone: (920) 866-1717

Wisconsin	Vernon	Higgins' eye pearly mussel (<i>Lampsilis Higginsii</i>)	Endangered	Mississippi River
Wisconsin	Vernon	Northern monkshood (<i>Aconitum noveboracense</i>)	Threatened	North facing slopes
Wisconsin	Vilas	Canada lynx (<i>Lynx canadensis</i>)	Threatened	While no resident populations are known from Wisconsin, the species occasionally occurs in northern forested areas, and counties listed are those with the highest likelihood of occurrence.
Wisconsin	Vilas	Gray wolf (<i>Canis lupus</i>)	Endangered	Northern forested areas
Wisconsin	Vilas	Kirtland's warbler (<i>Dendroica kirtlandii</i>)	Endangered	Potential breeding in jack pine (5 to 25 years old)
Wisconsin	Walworth	Whooping crane (<i>Grus americanus</i>)	Non-essential Experimental Population	Open wetlands and lakeshores
Wisconsin	Walworth	Eastern massasauga (<i>Sistrurus catenatus catenatus</i>)	Candidate	Open to forested wetlands and adjacent uplands
Wisconsin	Walworth	Eastern prairie fringed orchid (<i>Platanthera leucophaea</i>)	Threatened	Wet grasslands
Wisconsin	Washburn	Canada lynx (<i>Lynx canadensis</i>)	Threatened	While no resident populations are known from Wisconsin, the species occasionally occurs in northern forested areas, and counties listed are those with the highest likelihood of occurrence.

Printed 4/6/11

PHOTOS OF VERNON COUNTY LANDFILL
PROPOSED CLAY BORROW SITE



(1) View of landfill (center) and proposed clay borrow site looking southwest



(2) View toward northeast - clay borrow site in foreground and landfill in center



(3) View toward northeast showing access roads (to be used for clay haul)



(4) View toward east of landfill area and vicinity of borrow site

Section B-2 WDNR Initial Site Inspection for Clay Borrow Site

September 3, 2009

Letter from Hooshang Zeyghami/CWE

To Mr. Martin Herrick/ WDNR Environmental Engineer

Re: Request for Initial Site Inspection for Proposed Clay Borrow Source

March 2, 2010

Letter from Martin Herrick/WDNR Environmental Engineer

To Mr. Gene Edwards/Vernon County Solid Waste

Re: Request for Information for the Initial Site Inspection for Proposed Clay Borrow Source

March 15, 2010

Letter from Hooshang Zeyghami/CWE

To Mr. Martin Herrick/ WDNR Environmental Engineer

Re: Submittal of Additional Information for the Initial Site Inspection for Proposed Clay Borrow Source

May 28, 2010

Letter from Martin Herrick/WDNR Environmental Engineer

To Mr. Gene Edwards/Vernon County Solid Waste

Re: Compliance Approval of Proposed Clay Borrow Site with Locational Requirements in NR 504.04 Wis. Adm. Code



CWE, Inc. 5707 Schofield Avenue, P.O. Box 107, Weston, WI 54476-0107 Toll Free: (800) 261-5707
Phone: (715)359-9400 Fax: (715)355-4199 Email: general@cwengineers.com Web: www.cwengineers.com

September 3, 2009

COPY: Dave D.

Mr. Martin Herrick, P.E.
Environmental Engineer
WDNR West Central Region
La Crosse Service Center
3350 Mormon Coulee Road
La Crosse, WI 54601

Re: **Vernon County Balefill**
FID 663038310
License No. 3268
CWE Project # 94602000

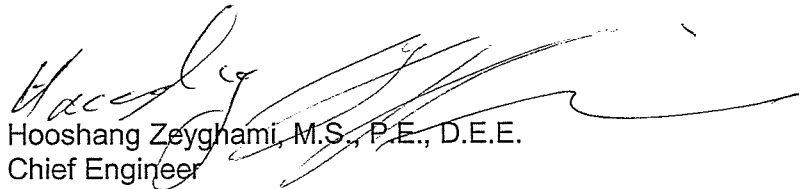
Subject: **Initial Site Inspection for Proposed Clay Borrow Source**

Dear Mr. Herrick:

The Vernon County Balefill (License No. 3268) will eventually require additional clay material to complete the construction of its vertical expansion. In anticipation of that need, CWE, Inc., has identified a potential clay borrow source on the same property where the balefill is located (see enclosed Site Location Map). The purpose of this letter is to request an initial site inspection of this property to evaluate its potential for use as a borrow source. We would appreciate knowing the date on which this inspection will take place, once you have scheduled it.

If you have any questions about this project, please contact Gene Edwards, the Vernon County Balefill Manager, at 608-634-2900 or me at 715-359-9400.

Sincerely,
CWE, Inc.


Hooshang Zeyghami, M.S., P.E., D.E.E.
Chief Engineer

Enclosure: Site Location Map

cc: Mr. Gene Edwards, Solid Waste Manager, Vernon County Solid Waste/Recycling
Facility, S3705 CTH LF, Viroqua, WI 54665

I:\LB\Projects\94602000 Vernon County Balefill Vertical Expansion\Corres\ISI Request.doc





CWE, Inc.

5707 SCHOFIELD AVE.
WESTON, WISCONSIN
54476

PHONE: (715) 359-9400
FAX: (715) 355-4199

general@cwengineers.com
www.cwengineers.com

PROJECT:

SITE LOCATION MAP
VERNON COUNTY SANITARY BAILEFILL
CLAY BORROW SITE
PLAN MODIFICATION

REVISIONS:

PROJECT NO:

94602000

DRAWN BY:

D.H.

CHECKED BY:

S.T.

APPROVED BY:

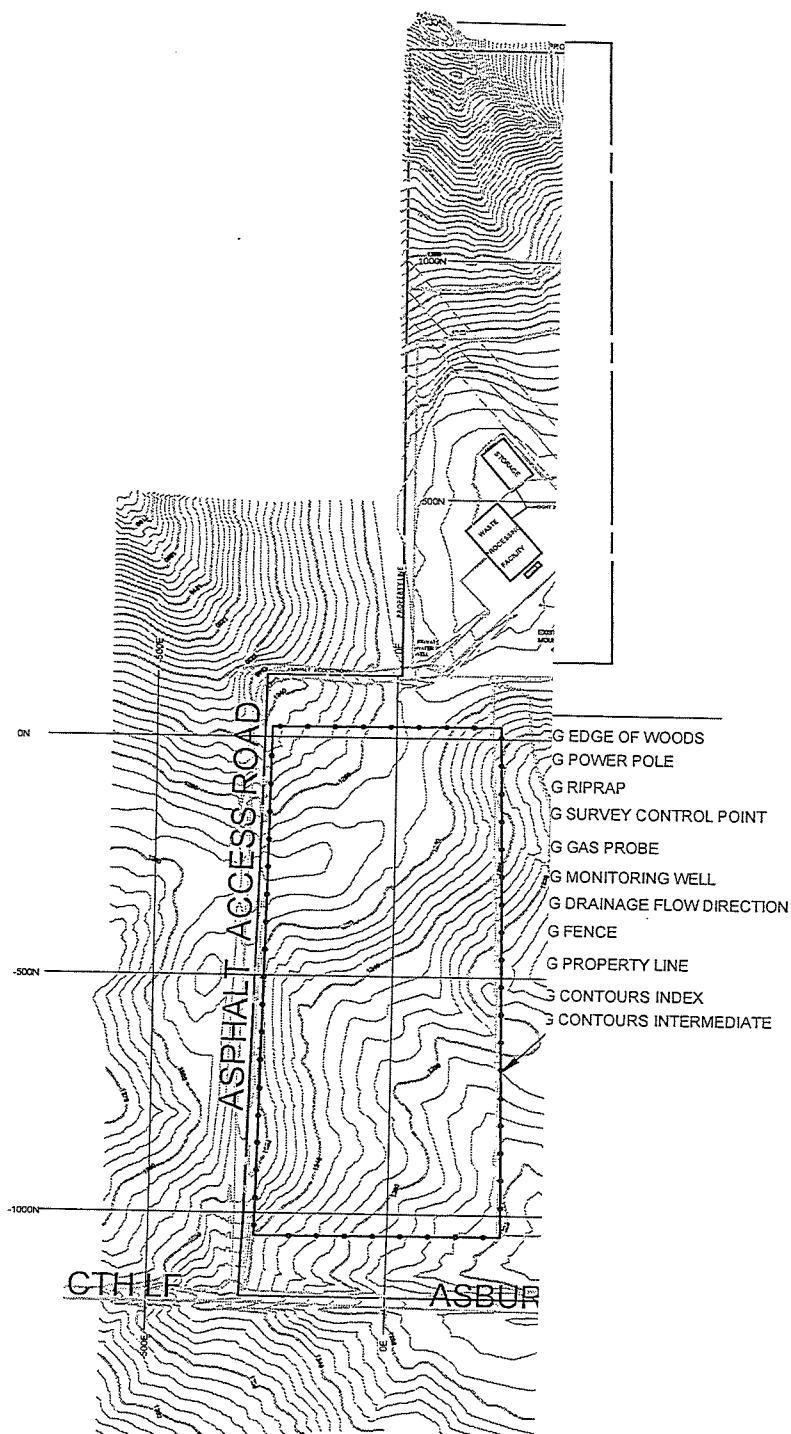
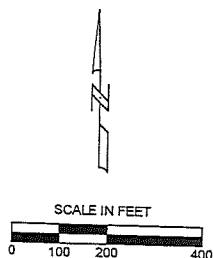
H.Z.

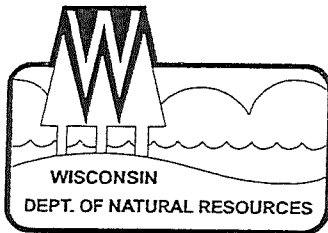
DATE:

8/09

SHEET:

1 OF 1





State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

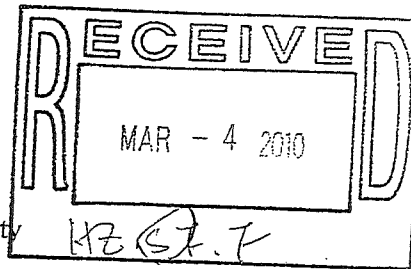
Jim Doyle, Governor
Matthew Frank, Secretary
Scott A. Humrickhouse, Regional Director

West Central Region
3550 Mormon Coulee Road
LaCrosse, Wisconsin 54601

COPY

March 2, 2010

Mr. Gene Edwards
Vernon County Solid Waste/Recycling Facility
S3705 County Road LF
Viroqua, WI. 54665



File Ref: 663038310
Vernon County
SW/CORR FILE

Subject: Request for information for the Initial Site Inspection (ISI) for proposed clay borrow source for the Vernon County Sanitary Balefill, License No. 3268, Vernon County, Viroqua Wisconsin.

Dear Mr. Edwards:

On September 3, 2009 the Department received a request for an initial site inspection for the proposed clay borrow source referenced above. The request was prepared by Central Wisconsin Engineers for the Vernon County Sanitary Balefill Landfill and contained one plan sheet. I performed an initial site inspection for the borrow site on October 15, 2009. In reviewing the request the following items under NR 509.04(5), Wis. Adm.Code, are needed to continue with the review:

- a.) The cover letter has to identify the current land use of the proposed borrow site its location by quarter-quarter section.
- b.) Identify any known potential impacts to endangered or threatened species, historical or archaeological sites and any prior reviews for the initial landfill and its vertical expansion.
- d.) A map identifying surface waters, land use, wetlands, flood plains, water supply wells and residences within 1 mile of the site. A larger scale existing conditions map can be used to present the requested information.

Once this information is submitted the Department can render a preliminary opinion on the suitability of the soil borrow site for compliance with the applicable locational criteria and performance standards of s. NR 504.04, Wis. Adm. Code. If you have any questions regarding this request please contact me at (608) 789-5518.

Sincerely,

Martin Herrick, P.E.
Environmental Engineer
West Central Region

CC: Tom Woletz -WCR.

Hooshang Zeyghami, Central Wisconsin Engineers, 5707 Schofield Avenue, PO Box 107, Weston
WI 54476-0107



March 15, 2010

COPY

Mr. Martin Herrick, P.E.
Environmental Engineer
WDNR West Central Region
LaCrosse Service Center
3350 Mormom Coulee Road
LaCrosse, WI 54601

Re: Vernon County Balefill
FID 663038310
License No. 3268
CWE Project 94602000

Subject: Additional Information for the Initial Site Inspection for Proposed Clay Borrow Source

Dear Mr. Herrick:

The Vernon County Balefill (License No. 3268) will eventually require additional clay material to complete the construction of its vertical expansion. In anticipation of that need, CWE, Inc., has identified a potential clay borrow source on the same property where the balefill is located (see enclosed Site Location Map). The process governing the development of clay borrow sources specified in s. NR 504.075 requires the Department first conduct an initial site inspection. CWE, Inc. requested an initial site inspection in September 2009, and that inspection was performed on October 15, 2009. However, the initial site inspection request letter did not include some of the items listed under s. 509.04(4) as is required by s. NR 509.04(5). The purpose of this letter is to provide that information so that the Department can render a preliminary decision on the suitability of this proposed borrow site.

s. NR 509.04(4)(a)

The proposed clay borrow source is located on the same property as the balefill (see Figure 1). The portion of the property under consideration encompasses roughly 18 acres along the balefill entrance road from CTH LF. The legal description for this proposed borrow site is as follows:

The E ½ of the NW ¼ of the NW ¼ all in Section 22 of Township 13 North,
Range 4 West, in the Town of Viroqua, Vernon County, Wisconsin.

At present the proposed borrow site is used for agriculture, and land use within one mile of this property is also primarily agricultural, either as crop land or pasture. Land immediately to the northeast is used for the disposal of municipal solid waste, and land farther to the northeast is wooded and used for timber and private hunting.

s. NR 509.04(4)(b)

When feasibility studies were undertaken for the Vernon County Sanitary Bafefill (1990) and its vertical expansion (2003), the Department's Bureau of Endangered Resources reported that no endangered resources or environmentally unique areas occur within Section 22, T13N, R4W, and the State Archaeologist indicated that there are no archaeological or historical sites known to occur on or near this property. The Vernon County Solid Waste Management Plan (2002) states that there are no scientific or natural areas, State parks, or County forest lands within several miles of the property under consideration.

s. NR 509.04(4)(d)

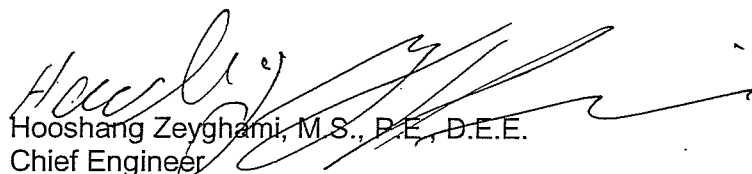
The proposed clay borrow source is situated near the top of a ridge that separates Seas Branch from an intermittent tributary stream (see Figure 2). There are no permanent surface water features at the site. The natural topography directs runoff to the east towards an intermittent stream that ultimately enters Seas Branch. Seas Branch is the only stream within one mile of the site that has a floodplain (see Figure 3).

There are no wetlands within one mile of the proposed site, but springs sometimes occur along valley walls of the larger streams. One such spring (Crume Spring) occurs less than 1,500 feet north of the northernmost property boundary, across the Seas Branch valley. These springs are a result of perched groundwater reaching the land surface along permeable shale beds that occur within the Prairie du Chien Group, a primarily dolomitic bedrock.

Figure 2 also shows the existing residences and water supply wells that are located within one mile of the site.

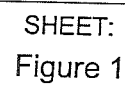
I trust that the information provided in this letter will allow the Department to render a preliminary decision on the suitability of this proposed clay borrow site. If you have any questions about this project, please contact Gene Edwards, the Vernon County Bafefill Manager, at 608-634-2900 or me at 715-359-9400.

Sincerely,
CWE, Inc.

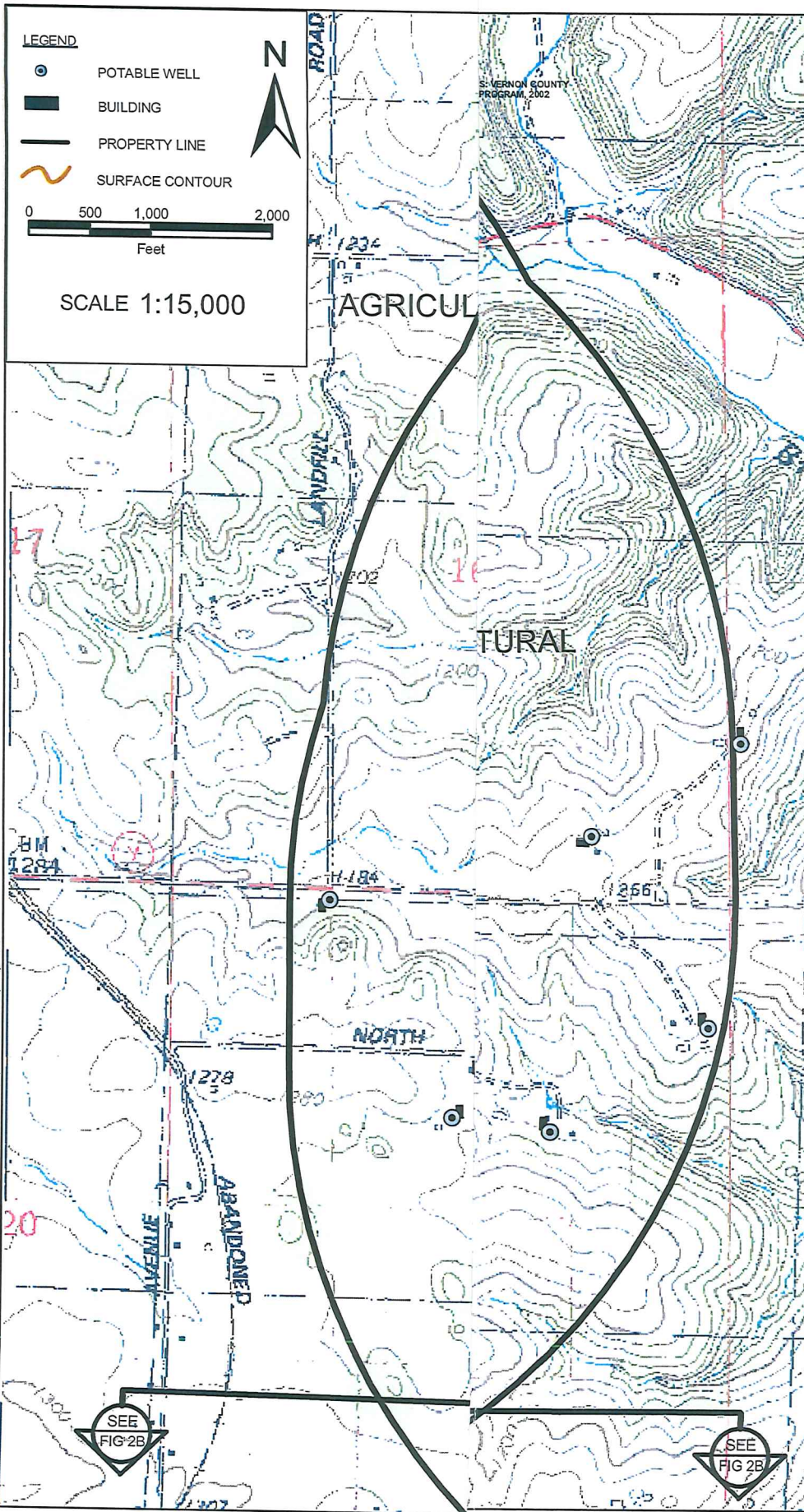

Hooshang Zeyghami, M.S., P.E., D.E.E.
Chief Engineer

Enclosures: Figure 1: Site Location Map
Figure 2A, 2B: USGS Topographic Map
Figure 3: FEMA FIRM

cc: Mr. Gene Edwards, Solid Waste Manager, Vernon County Solid Waste/Recycling
Facility, S3705 CTH LF, Viroqua, WI 54665



J:\DRAFT\VERNON\CLAY BORROW SITE\GIS Map\Veron Clay Base Map (USGSFinalMap01).mxd



CWE, Inc.

5707 SCHOFIELD AVE.
WESTON, WISCONSIN
54476
PHONE: (715) 359-9400
FAX: (715) 355-4199

general@cwengineers.com
www.cwengineers.com

PROJECT:

USGS TOPOGRAPHIC MAP
VERNON COUNTY SANITARY BALEFILL
CLAY BORROW SITE INITIAL SITE INSPECTION

REVISIONS:

Drawn By: H.S./S.F.

Checked By: D.O.

Approved By: D.O.

Date: 07.18.02
REV. 03.15.10

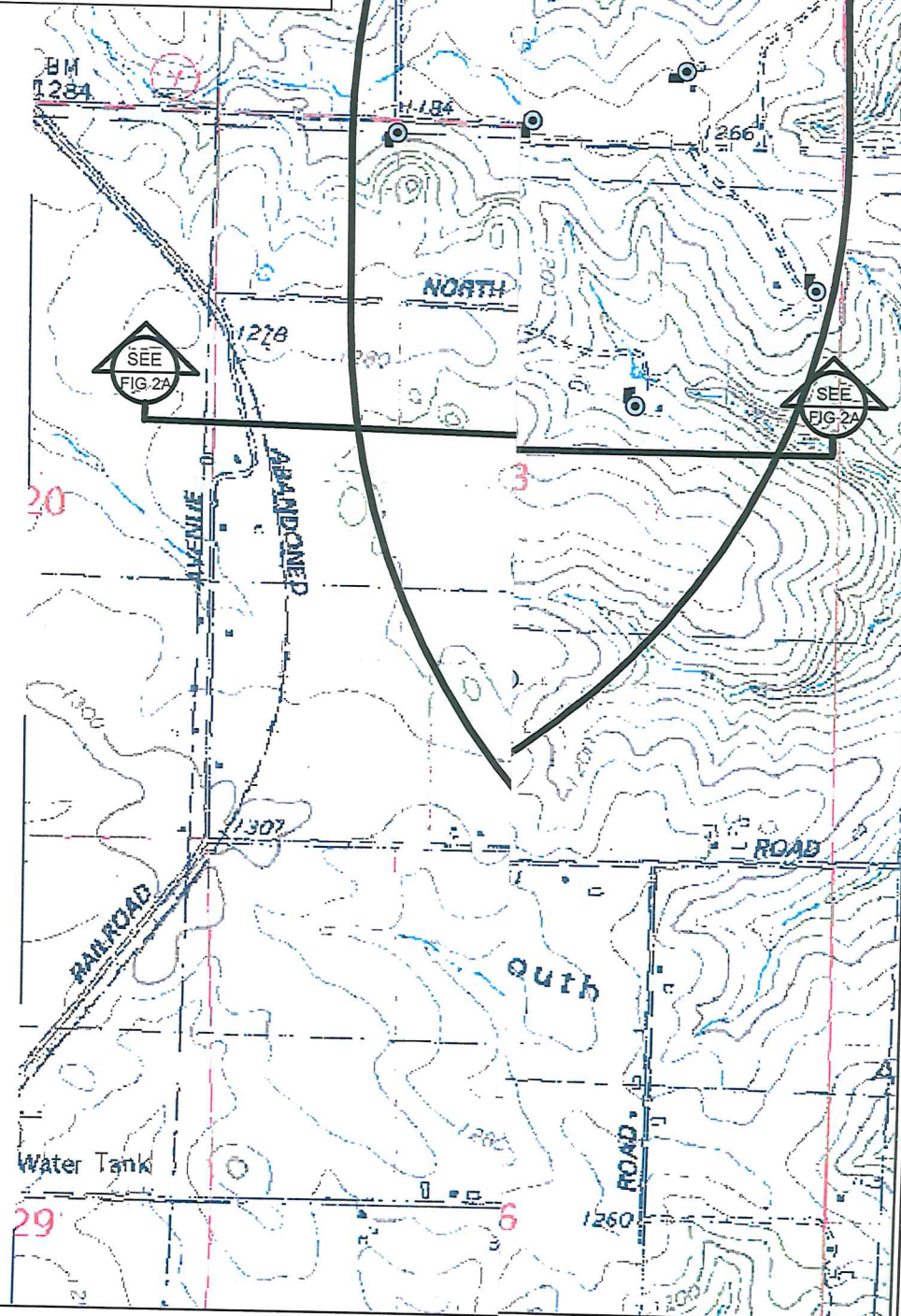
FIGURE 2A

LEGEND

-  POTABLE WELL
-  BUILDING
-  PROPERTY LINE
-  SURFACE CONTOUR

0 500 1,000 2,000
Feet

SCALE 1:15,000



CWE, Inc.

5707 SCHOFIELD AVE.
WESTON, WISCONSIN
54476
PHONE: (715) 359-9400
FAX: (715) 355-4199
general@cwengineers.com
www.cwengineers.com

PROJECT:

USGS TOPOGRAPHIC MAP
VERNON COUNTY SANITARY BAILEFILL
CLAY BORROW SITE INITIAL SITE INSPECTION

REVISIONS:

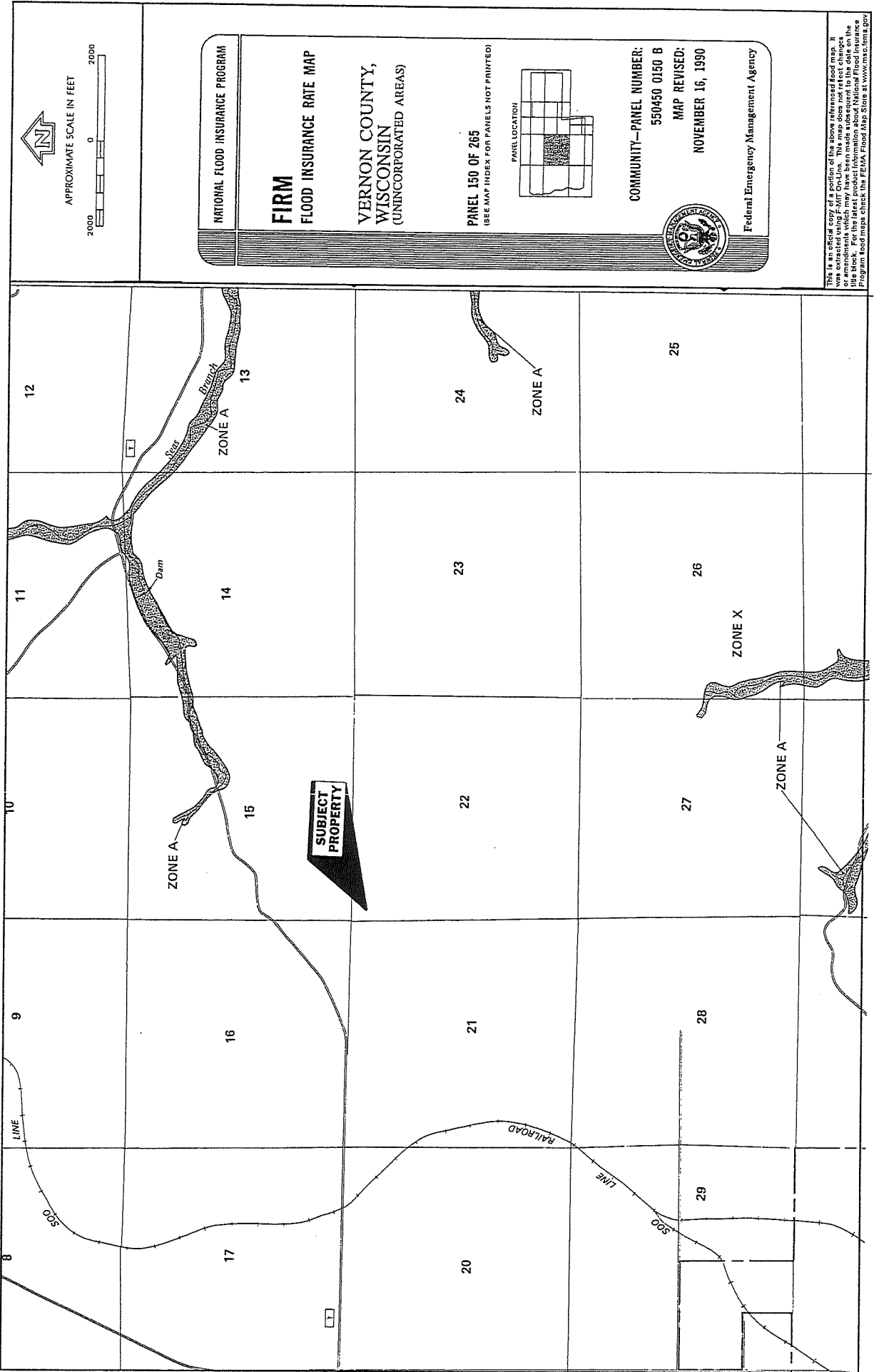
Drawn By: H.S./S.F.

Checked By: D.O.

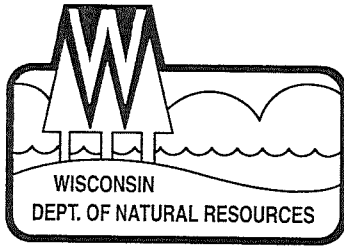
Approved By: D.O.

Date: 07.18.02
REV. 03.15.10

FIGURE 2B



This is an official copy of a portion of the above referenced flood map. It was extracted using FIRM On-Line. This map does not reflect changes or updates to the original map. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.msc.fema.gov



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Scott A. Humrickhouse, Regional Director

LaCrosse Service Center
State Office Building Room 104
3550 Mormon Coulee Road
LaCrosse, Wisconsin 54601
Telephone 608-785-9000
FAX 608-785-9990

May 28, 2010

Mr. Gene Edwards
Vernon County Solid Waste/Recycling Facility
S3705 County Road LF
Viroqua, WI 54601

FID 663038310
APPR File
Vernon Co.

Subject: Initial Site Inspection (ISI), for Soil Borrow Site for Vernon County Sanitary Bafill
Landfill, Vernon County, Viroqua Wisconsin, License No. 3268

Dear Mr. Edwards:

This letter is to document the above referenced inspection I performed on October 15, 2009. The purpose of the inspection was to provide the Department's preliminary evaluation of the proposed parcel for location and performance standards under NR 504.04, Wisconsin Administrative Code.

On September 3, 2009 Central Wisconsin Engineer (CWE) submitted a request to the Department to perform an ISI for the Vernon County Sanitary Bafill Site which will be used for the municipal solid waste landfill. On October 15, 2009, Gene Edwards from Vernon County and I met at the proposed site to perform the ISI and review the information included with the ISI request. Vernon County has identified the property located in the Eastern ½ of the NW ¼ of Section 22, Township 13 North, Range 4 West., Town of Viroqua, Vernon County, Wisconsin as a non commercial soil borrow source. During the inspection we also reviewed the information submitted with the ISI request and discussed additional items to be addressed.

Existing land use for the proposed borrow site is agricultural with other agricultural and wooded areas used for timber and private hunting on adjoining properties. As part of the landfill's initial development and subsequent expansion this area was evaluated for endangered resources, wetlands, surface water and environmentally unique areas with none being noted.

On March 2, 2010 the Department requested additional information in order to continue the ISI review. On March 15, 2010 CWE submitted the requested information and an ISI opinion can be rendered.

Based on this information it is the Department's opinion that the soil borrow source meets the locational requirements in NR 504.04, Wis. Adm. Code with the following items being noted:

1. The proposed facility will not be considered to be a commercial borrow source,
2. Their will be multiple borrow events at the site.

If you have any questions regarding this letter, please feel free to contact me at (608) 789-5518.

Sincerely,

Martin Herrick, P.E.
Environmental Engineer
West Central Region

CC: Tom Woletz-WCR
Brian Kalvelage-LAX