



GREEN LAKE COUNTY

571 County Road A, Green Lake, WI 54941

The following documents are included in the packet for the Land Use Planning & Zoning Committee meeting on Thursday, December 1, 2022.

Packet Pages:

- 2 Agenda

- 3-4 Draft Meeting Minutes from November 3, 2022

- 5-7 Financial Reports for October 2022

- 8-10 Permit Reports for October 2022

- 11-12 Violation Reports

- 13-58 Public Hearing

Item I Owner: A.F Gelhar Co., Inc. **Agent:** Jim Rabideau **Site location:** N2402 Cty Rd A **General legal description:** Parcel 006-00679-0100, 010-00046-0000, 010-00047-0000, 010-00048-0000, 010-00053-0200 part of the SE1/4 of S34, T15N, R13E & NE1/4 of S3, T14N, R13E, Town of Green Lake & Mackford, ±100 acres **Request:** Nonmetallic Mining Reclamation Permit.

If you have questions or need additional information,
please contact the Land Use Planning & Zoning Department at (920) 294-4156.



GREEN LAKE COUNTY LAND USE PLANNING & ZONING

Matt Kirkman
Director

Office: 920-294-4156
FAX: 920-294-4198

Land Use Planning & Zoning Committee Meeting Notice

Date: December 1, 2022 Time: 4:00 PM
Location: Government Center, County Board Room #902, 571 County Road A, Green Lake WI

AGENDA

Committee Members

Curt Talma, Chair

*Chuck Buss
Vice Chair*

Bill Boutwell

Gene Thom

Harley Reabe

*Karen Werlein,
Secretary*

Virtual attendance at meetings is optional. If technical difficulties arise, there may be instances when remote access may be compromised. If there is a quorum attending in person, the meeting will proceed as scheduled.

1. Call to Order
2. Pledge of Allegiance
3. Certification of Open Meeting Law
4. Approval of Minutes: 11/03/22
5. Public Comments: 3 minute limit
6. Department Activity Reports
 - a. Financial reports
 - b. Land use & septic permits
 - c. Violation reports
7. Update on short term rental properties
8. Planning and Zoning Committee Training (±15 minutes)
9. Public Hearing: (Not to begin before 4:30 PM)

Item I Owner: A.F Gelhar Co., Inc. **Agent:** Jim Rabideau **Site location:** N2402 Cty Rd A **General legal description:** Parcel 006-00679-0100, 010-00046-0000, 010-00047-0000, 010-00048-0000, 010-00053-0200 part of the SE1/4 of S34, T15N, R13E & NE1/4 of S3, T14N, R13E, Town of Green Lake & Mackford, ±100 acres **Request:** Nonmetallic Mining Reclamation Permit.

10. Future committee activities
 - a. Future agenda items
 - b. Next meeting date: January 5, 2022
11. Adjourn

This meeting will be conducted through in person attendance or audio/visual communication. Remote access can be obtained through the following link:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_Y2M4ZWlZOWMtMGExMy00YmY3LTgwNmEtOTVIZTc1ZDl1ZDlh%40thread.v2/0?context=%7b%22Tid%22%3a%226e4bd50f-9266-4d14-8159-66cdd4fec978%22%2c%22Oid%22%3a%224e449f27-8574-4e1f-8898-c48d04181428%22%7d

Topic: Land Use Planning & Zoning Committee Meeting
Time: December 1, 2022, 04:00 PM Central Time (US and Canada)

Please note: Meeting area is accessible to the physically disabled. Anyone planning to attend who needs visual or audio assistance, should contact the Land Use Planning & Zoning office, no later than 3 days before date of the meeting.

**GREEN LAKE COUNTY
LAND USE PLANNING AND ZONING
COMMITTEE MEETING MINUTES
Thursday, November 3, 2022**

CALL TO ORDER

Planning & Zoning Chair Curt Talma called the meeting of the Land Use Planning and Zoning Committee to order at 4:00 p.m. in the Green Lake County Government Center, County Board Room #0902, Green Lake, WI. The requirements of the open meeting law were certified as being met. Public access was available via remote programming as well as in person.

Present: Curt Talma, Gene Thom, Harley Reabe, Chuck Buss, Bill Boutwell, Dawn Klockow,
Corporation Counsel

Absent:

Also Present: Matt Kirkman, Land Use Planning and Zoning Director, Karen Werlein, Land Use Coordinator

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

APPROVAL OF MINUTES

Motion/second (Buss/Boutwell) to approve the minutes of the October 6th meeting. Motion carried with no negative vote.

PUBLIC COMMENTS:

Margarete York: N5250 Skunk Hallow Rd, spoke against the proposed mine of the Kinas CUP approved at the July 7th meeting.

Pat Dobrinska: W1555 County Road J, spoke about their concerns for the proposed mine of the Kinas CUP approved at the July 7th meeting.

Travis Livingood: N4158 S Lakeshore Dr, spoke about the need for studies of the proposed mine that was conditionally approved at the July 7th meeting.

DEPARTMENT ACTIVITY REPORTS

a. **Financial reports**

P&Z Director Matt Kirkman gave an update on the September expenses and revenues.

b. **Permits**

Matt Kirkman stated there were 27 land use permits and 12 sanitary permits in September.

c. **Violations**

Matt Kirkman outlined the current land use violations as well as the POWTS violations.

RECESS 4:12: ***Motion/second (Buss/Boutwell)*** to recess at 4:12PM. Motion carried with no negative vote.

Motion/second (Thom/Buss) to come back into session at 4:30pm to conduct the public hearing. Motion carried with no negative vote.

PUBLIC HEARING – 4:30PM

Chair Talma read the rules for the Public Hearing

Item I Owner: Paul & Leetta Mast **Site location:** N3091 Cty. Rd. B/H **General legal description:** Parcel 014-00506-0000 part of the NE1/4 of S36, T15N, R11E, Town of Marquette, 40 acres **Request:** CUP to operate a woodworking business

- a. Public Testimony/Comment: Chair Talma called for public input.
None
Chair Talma closed the public comment.
- b. Committee Discussion & Deliberation: Matt Kirkman presented the Staff Report. The Town of Marquette took no action.
Deliberation was made from committee members regarding the Conditional Use Permit Criteria.
- a. Committee Decision: ***Motion/second (Buss/Boutwell)*** to approve the CUP request as presented with the following conditions:
 - 1. No additional expansion or addition of structures and/or uses relating to this conditional use permit shall occur without review and approval through future conditional use permit(s).
 - 2. Hours of operation / manufacturing shall occur between 6:00am and 5:00pm.
 - 3. All materials and other wood finishing equipment shall be stocked, piled, or stored in a building. No waste materials from the woodworking shop shall be stacked, piled or strewn about on the subject site.
 - 4. The total cumulative hours worked by paid employees, excluding the owner(s), shall not exceed 160 hours per week.
 - 5. The proposed shed addition must be completed within 1 year of this permit's issuance

Motion/second (Buss/Boutwell) to amend the original motion to add condition #6: Applicant to apply for a driveway permit through the County Highway Department.
Motion carried with no negative vote.

Motion/second (Thom/Boutwell) to amend the original motion to change condition #5: The proposed shed addition must be completed within 2 years of this permit's issuance.

Approve the motion as amended. Motion carried with no negative vote.

FUTURE COMMITTEE ACTIVITIES

- a. Future agenda items –
- b. Next meeting date – December 1st, 2022

ADJOURN

Chair Talma adjourned the meeting at 4:59pm.

Respectfully submitted,
Karen Werlein, Land Use Coordinator

**GREEN LAKE COUNTY
LAND USE PLANNING ZONING DEPARTMENT**

FEES RECEIVED	OCTOBER				YEAR-TO-DATE				BUDGET	
	2021		2022		2021		2022		2022	
	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT	NO.	AMOUNT		
LAND USE PERMITS										
Total Monthly Issued Permits	19	5,150	28	5,950	197	59,650	224	\$ 54,350	\$ 60,000	91%
SANITARY PERMITS (POWTS)										
Total Monthly Issued Permits	15	4,145	4	1,120	96	26,105	65	\$ 18,180	\$ 26,000	70%
NON-METALLIC MINING PERMITS										
Annual Permit Fees	-	-	-	\$ -	5	10,800	18	\$ 15,200	\$ 15,000	101%
BOARD OF ADJUSTMENT										
Special Exception	-	-	-	-	-	-	-	-	-	-
Variances	-	-	-	-	1	375	3	1,125	-	-
Appeals	-	-	-	-	-	-	1	375	-	-
Total	-	\$ -	-	\$ -	1	\$ 375	4	\$ 1,500	\$ 1,125	133%
PLANNING & ZONING COMMITTEE										
Zoning Change	-	-	1	375	18	6,750	8	3,000	-	-
Conditional Use Permits	1	375	1	375	11	4,125	15	5,625	-	-
Variance	-	-	1	450	-	-	2	900	-	-
Total	1	\$ 375	3	\$ 1,200	29	\$ 10,875	25	\$ 9,525	\$ 8,525	112%
MISC.										
Wisconsin Fund	-	-	-	-	-	-	-	-	-	-
Fines & Forfeitures	1	107	-	-	5	804	5	400	-	-
Total	1	\$ 107	-	\$ -	5	\$ 804	5	\$ 400	-	-
SURVEYOR										
Certified Survey Maps	4	675	1	180	37	6,705	33	5,775	6,500	-
Preliminary and Final Plats	-	-	-	-	-	-	-	-	-	-
Applied Funds: County Surveyor	-	-	-	-	1	9,500	-	-	9,500	-
Total	4	\$ 675	1	\$ 180	38	\$ 16,205	33	\$ 5,775	\$ 16,000	36%
GIS (Geographic Information System)										
Map Sales	-	-	-	-	1	30	1	15	-	-
Land Records Transfer	-	-	-	-	-	-	-	-	25,000	-
Land Information Grant	-	-	-	-	-	-	-	-	10,000	-
Total	-	\$ -	-	\$ -	1	\$ 30	1	\$ 15	\$ 35,000	0%
GRAND TOTAL	40	10,452	36	8,450	372	124,844	375	104,945	\$ 161,650	
									Total	69%

GREEN LAKE COUNTY

For 10/01/22 - 10/31/22

Revenue Summary Report

FJRES01A

Periods 10 - 10

Land Use & Zoning Month End Revenue

MER100-10-P&Z

<u>Account No/Description</u>	<u>Budget Amount</u>	<u>Period Amount</u>	<u>Y-T-D Amount</u>	<u>Balance</u>	<u>Percent Received</u>
10 Land Use Planning and Zoning					
22-100-10-44400-000-000 Land Use Permits	60,000.00	5,950.00	54,350.00	5,650.00	90.58
22-100-10-44400-001-000 BOA Public Hearing	1,125.00	.00	1,500.00	-375.00	133.33
22-100-10-44400-002-000 PZ Public Hearing	8,525.00	1,200.00	9,525.00	-1,000.00	111.73
22-100-10-44409-000-000 Non-Metallic Mining	15,000.00	.00	15,200.00	-200.00	101.33
22-100-10-44410-000-000 Sanitary Permits	26,000.00	1,045.00	18,180.00	7,820.00	69.92
22-100-10-45110-000-000 Fines & Forfeitures	.00	200.00	600.00	-600.00	.00
22-100-10-46131-002-000 Strategic Fund	10,000.00	.00	.00	10,000.00	.00
22-100-10-46762-000-000 Certified Survey Maps	6,500.00	180.00	5,775.00	725.00	88.85
22-100-10-47411-000-000 Interdepartment transfer/Land Records	25,000.00	.00	.00	25,000.00	.00
10 Land Use Planning and Zoning	152,150.00	8,575.00	105,130.00	47,020.00	69.10

For 10/01/22 - 10/31/22

Expenditure Summary Report

FJEXS01A

Periods 10 - 10

Land Use & Zoning Month End Expenses

MEE100-10-P&Z

<u>Account No/Description</u>	<u>Adjusted Budget</u>	<u>Y-T-D Encumb</u>	<u>Period Expended</u>	<u>Y-T-D Expended</u>	<u>Available Balance</u>	<u>Percent Used</u>
10 Land Use Planning and Zoning						
53610 Code Enforcement						
22-100-10-53610-110-000 Salaries	314,134.00	.00	24,228.80	228,867.63	85,266.37	72.86
22-100-10-53610-140-000 Meeting Payments	940.00	.00	355.29	435.29	504.71	46.31
22-100-10-53610-151-000 Social Security	24,034.00	.00	1,757.96	18,056.47	5,977.53	75.13
22-100-10-53610-153-000 Ret. Employer Share	20,422.00	.00	1,574.88	15,844.14	4,577.86	77.58
22-100-10-53610-154-000 Health Insurance	53,482.00	.00	4,194.02	50,879.60	2,602.40	95.13
22-100-10-53610-155-000 Life Insurance	321.00	.00	27.18	261.50	59.50	81.46
22-100-10-53610-210-002 Professional Services	9,500.00	.00	5,762.50	13,170.00	-3,670.00	138.63
22-100-10-53610-210-003 Miscellaneous Fees	300.00	.00	.00	.00	300.00	.00
22-100-10-53610-225-000 Phone Service	610.00	.00	86.24	1,001.38	-391.38	164.16
22-100-10-53610-242-000 Print Management	300.00	.00	32.35	150.08	149.92	50.03
22-100-10-53610-307-000 Training	300.00	.00	.00	.00	300.00	.00
22-100-10-53610-310-000 Office Supplies	790.00	.00	617.78	917.12	-127.12	116.09
22-100-10-53610-312-000 Field Supplies	600.00	.00	.00	79.96	520.04	13.33
22-100-10-53610-320-000 Publications-BOA Public Hearing	500.00	.00	200.00	976.00	-476.00	195.20
22-100-10-53610-320-001 Publications-PZ Public Hearing	3,000.00	.00	.00	2,341.25	658.75	78.04
22-100-10-53610-321-000 Seminars	930.00	.00	.00	350.00	580.00	37.63
22-100-10-53610-324-000 Member Dues	130.00	.00	.00	140.00	-10.00	107.69
22-100-10-53610-330-000 Travel	820.00	.00	.00	92.00	728.00	11.22
22-100-10-53610-352-000 Vehicle Maintenance	938.00	.00	72.39	656.52	281.48	69.99
53610 Code Enforcement	432,051.00	.00	38,909.39	334,218.94	97,832.06	77.36
10 Land Use Planning and Zoning	432,051.00	.00	38,909.39	334,218.94	97,832.06	77.36

13269	016012150000	N4172 S LAKESHORE DR	10/11/2022	MAUREENG BEILKE, MICHAELE BEILKE, STEPHENC BEILKE	\$235,000.00	Principal Structure - Single Family	1,938sqft 3 bedroom SFD	Land Disturbing Activity - Impervious Surface Treatment Device	2 Cultec Rechargers
13274	016012270000	N4122 S LAKESHORE DR	10/07/2022	MITCHELLT MELAN, SUZANNA MELAN	\$8,000.00	Accessory Structure	Replacement of attached deck		
13289	016013370000	N4181 N PARKWAY	10/21/2022	KEITHJ ABEL	\$2,800.00	Accessory Structure	4ft tall fence. Open style. Chain link.		
13291	016003980300	N4552 N LILL AVE	10/24/2022	PATRICK ALLEN KUIPER TRUST	\$150,000.00	Accessory Structure	North Retaining Wall	Accessory Structure	Walkway to lake
13295	016003430103	W3527 MEREDITH LN	10/28/2022	WILLIAMH COURNOYER TRUST	\$585,000.00	Addition/Alteration to Principal Structure	Addition to SFD		

Town of Saint Marie

Permit Number	Parcel Number	Site Address	Issued Date	Owner Name	Estimated Cost	Project_1 Type/SubType	Project_1 Description	Project_2 Type/SubType	Project_2 Description
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None

Town of Seneca

Permit Number	Parcel Number	Site Address	Issued Date	Owner Name	Estimated Cost	Project_1 Type/SubType	Project_1 Description	Project_2 Type/SubType	Project_2 Description
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None

October Estimated Cost: \$2,052,875.00

YTD Estimated Cost: \$44,359,448.00

Sanitary Permits: 10/1/2022 - 10/31/2022

Sanitary Permit	Parcel Number	Site Address	Owners	Date Issued	Permit Type	System Type	Plumber Name	Permit Fee \$ (County)	Permit Fee \$ (DPS)
202224062	016005600000	W5235 LOSINSKI RD	URBAN DIRT FARM LLC	10/05/2022	Replacement System	Conventional (Non-Pressurized In-Ground)	Jeremiah Storer	280	100
202224063	016005610000	N6504 STATE ROAD 73	MCI REAL ESTATE HOLDINGS LLC	10/06/2022	New System	Conventional (Non-Pressurized In-Ground)	Ben Kinas	280	100
202224064	006001000300	W2084 LAKEVIEW RD	BARTHOLOMYD KOOPMAN, DAWNM KOOPMAN	10/10/2022	New System	At-Grade	Ben Kinas	280	100
202224065	014004430000	N3205 OAK RD	ELEANOR J MANIKOWSKI	10/18/2022	Replacement System	Mound	Ben Kinas	280	100
Total:								1120	400

* There are additional properties associated with the permit

Land Use Violations Report

First Notice

Parcel Number	Site Address	Owner Name	Permit #	Violation Type	Violation Description	Violation Date
006005810101	N2730 Welk Rd.	Ricky & Ashley Ruck	13069	Zoning	Commercial sale of firewood on R-1 zoned property. Unoccupied outside storage of trailers without dwelling unit on parcel. No changes	2/28/2022
004003390201, 0204		Zodrow Properties	13086	Zoning/Vehicles	Trailers and RV on parcels that do not allow for it the way they currently sit. No permitted commercial use on C-2 parcel and no dwelling on R-4 parcel. Violation is happening between both parcels. C-2 & R-4 parcels involved and location is not 100% which equipment and materials are on each parcel. Need CUP	3/11/2022
004004440000	W2398 State RD	Philip Mirr	13152	Zoning	Operating a contractors yard in C2 Zoning. Ordinance passed. Need CUP	5/24/2022
020004240000	N8215 Hopp Rd	Petraszak Family Land Holding	13244	Floodplain	Chapter 300-18(A)(1) Obstruction to flow and no rise. Chapter 300-38.B. No land use permit for floodplain development. Working with WDNR.	9/7/2022
004016050100	W1971 Belle Mapps Ct	Brice & Katherine Alvord	13299	Zoning	Patio and retaining walls built without permit.	11/7/2022
006013840000, 006006140000	N2811 Park Rd	Roses Lakeside Properties LLC		Zoning	Improvements made without land use permit. Condition not met from 2005 CUP.	11/9/2022

Second Notice

Parcel Number	Site Address	Owner Name	Permit #	Violation Type	Violation Description	Violation Date
010003910200	W2194 Cty Rd X	David Cotterill	12995	Zoning/Vehicles	Three Structures built without permits (Barn/cabin, Shipping Container, Shed). Update 11/24/21: Spoke with David Cotterill regarding his violations. He said that he is on revision number 3 of his dwelling building plans. He intends to build a new house and a new shed in 2022. I instructed him to apply for a sanitary permit, and a land use permit by the end of the year. He is to include the ice shanty and storage barn structure on that application. The metal shipping container is not allowed on site once the shed is completed.	10/22/2021
014007690000	W4564 Cty Rd B	Keith Frederick	13175	Zoning	Failure to obtain a LUP for the placement of a structure. (Bunker Silo Concrete Wall) Construction of a Bunker Silo within the highway setback. BOA meeting 9/16/22. Denied. LUP Issued for code compliant location.	6/9/2022
014001780000	N4474 Pine Rd E	Sammie Smith	12964	Zoning	Camper on A-1 zoned property. Update 10/12/22: Camper unmoved	9/10/2021

Corporation Counsel

Parcel Number	Site Address	Owner Name	Permit #	Violation Type	Violation Description	Violation Date
012002580000	N1615 Madison St.	Donald & Nancy Darsch	13046	Junk/Vehicles	Garbage and Junk piles throughout the property. Unlicensed and/or inoperable vehicles. Update 2/15/22: Working with health department. Sent to Corporation counsel on 4/22/22.	1/20/2022

POWTS Violation Report

First Notice:

Parcel Number	Site Address	Owner Name	Permit #	Violation Type	Violation Description	Additional Information
016007980500	N5588 Lock Rd	THOMAS KUJAC	202024007	POWTS Failure	Not all wastewater is run into new septic system	On hold. House deemed uninhabitable by health

Second Notice:

Parcel Number	Site Address	Owner Name	Permit #	Violation Type	Violation Description	Additional Information
004009950000	N5552 Old Oak Ln.	PAFF FREDERICKA	10024391	POWTS Failure	System is a Cesspool Holding tank used when another type of	possibly working with Novak
006003320000	W2353 Center Rd	VALERIE & PAUL ALBRECHT	201624077	POWTS Violation	system could be used	Has new permit
006001980000	W591 Thomas Rd	Carl Wilke	624010	POWTS Failure	Tank not watertight	Working with Egbert
016000090000	N6123 Swamp Rd	James Hebbe	1624006	POWTS Failure	Tank not watertight	Working with Kinas
002002110000	N8725 WHITE RIDGE RD	BLOCK KELIE	131	POWTS Failure	Tank not watertight	
004008740000	N5533 LAWSON DR	AMERICAN BAPTIST ASSEMBLY	398126	POWTS Failure	Tank not watertight	
006010220701	W1740 SANDSTONE AVE	WOOD SIMON	159178	POWTS Failure	Tank not watertight	Working with Pollesch
014001720000	W5156 PINE RD N	HEINECKE RANDAL R ET AL	26724	POWTS Failure	Tank not watertight	Working with Contractor. Waiting on soil test
014008340000	W4052 COUNTY ROAD H	NOWATZSKI KATHY	1424052	POWTS Failure	Tank not watertight	
016002370000	N5549 COUNTY ROAD W	MILLIS NICHOLE	26761	POWTS Failure	Tank not watertight	Has new permit app
016002620600	N5193 COUNTY ROAD D	MARCOE ELYSE	1624026	POWTS Failure	Tank not watertight	Maybe working with Pollesch
016007700000	W5897 STATE ROAD 23	HAZELWOOD WANETTA ET AL	26752	POWTS Failure	Tank not watertight	
018000570000	W3602 PINE RD	BREWER DOUGLAS & SALLY	258	POWTS Failure	Tank not watertight	Has new permit app
154000890000	150 W 2nd St	KENNETH & JEAN KOERNER	593	POWTS Failure	probable surface discharge	Has new permit app
006001350000	N4474 LAKEVIEW RD	GREGORY ZIER	18201	POWTS Failure	Tank failure	Resent letter 7/22
008005940000	W6521 W North St	RHONDA BARKER	11	POWTS Failure	Tank failure	

Corp Counsel

Parcel Number	Site Address	Owner Name	Permit #	Violation Type	Violation Description	Additional Information
016009230000	W5880 WALTER WILLIAMS RD	PROG ROD-GUN CLUB	10024250	POWTS Failure	Tank unsound	Has new permit
016009230000	W5886 WALTER WILLIAMS RD	PROG ROD-GUN CLUB	10024249	POWTS Failure	Tank failure	Has new permit
016009230000	N4922 RAY SHORTER RD	PROG ROD-GUN CLUB	10024256	POWTS Failure	Tank failure	Resent letter 7/22
016009230000	N4914 RAY SHORTER RD	PROG ROD-GUN CLUB	10024257	POWTS Failure	Tank failure	Has new permit
016009230000	N4904 RAY SHORTER RD	PROG ROD-GUN CLUB	10024259	POWTS Failure	Tank compromised	Has new permit
016009230000	W5894 WALTER WILLIAMS RD	PROG ROD-GUN CLUB	10024095	POWTS Failure	Tank unsound	Has new permit
016009230000	N4939 RAY SHORTER RD	PROG ROD-GUN CLUB	10024253	POWTS Failure	Tank failure	Has new permit

NOTICE OF PUBLIC HEARING

The Green Lake County Land Use Planning and Zoning Committee will hold a public hearing in County Board Room #0902 of the Green Lake County Government Center, 571 County Road A, Green Lake, WI, on **Thursday, December 1, 2022, at 4:30 p.m.** to consider the following requests:

Item I Owner: A.F Gelhar Co., Inc. **Agent:** Jim Rabideau **Site location:** N2402 Cty Rd A **General legal description:** Parcel 006-00679-0100, 010-00046-0000, 010-00047-0000, 010-00048-0000, 010-00053-0200 part of the SE1/4 of S34, T15N, R13E & NE1/4 of S3, T14N, R13E, Town of Green Lake & Mackford, ±100 acres **Request:** Nonmetallic Mining Reclamation Permit.

All interested persons wishing to be heard at the public hearing are invited to attend. For further detailed information concerning this notice and for information related to the outcome of public hearing items, contact the Green Lake County **Land Use Planning and Zoning Department** at (920) 294-4156.

Publish: November 17, 2022

Land Use Planning and Zoning Committee Staff Report

Public Hearing

December 1, 2022

Item I: NMM Reclamation Plan

Owner:

Gelhar Real Estate Investments

Applicant:

James Gelhar
Jim Rabideau

Parcel Number/ Location:

The reclamation plan affects parcels 006-00679-0100, 010-00046-0000, 010-00047-0000, 010-00048-0000, and 010-00053-0200 (±117 acres total). These parcels are located in the NE ¼ of the NE ¼ of Section 3, T14N, R13E and the NE ¼ of the NW ¼ of Section 3, T14N, R13E Town of Mackford and the SW ¼ of the SE ¼ of Section 34, T15N, R13E Town of Green Lake. The site is located at N2402 County Road A.

Existing Zoning and Uses of Adjacent Area:

The parcel referenced above is zoned M-1, Mineral Extraction District. The property is currently being used as a non-metallic sand mine. All the surrounding lands are zoned as A-1, Farmland Preservation District. The surrounding lands appear to be predominantly used for farm crops and a couple of single-family residences to the north, south, and west while the lands to the east consist of an intermittent stream and wetlands that eventually lead into the Grand River.

Additional Information/Analysis:

AF Gelhar Co., Inc has been operating this non-metallic mine for approximately 29 years. On March 30, 1990, a conditional use permit was approved for AF Gelhar to mine limestone, silica sand, and process sand on the property. In 2000 NR 135 was passed which required any new or active mines to create a reclamation plan and obtain a reclamation permit. In 2001 AF Gelhar was granted a reclamation permit by the County. Green Lake County had jurisdiction of this mine until 2003. In 2003 the mine's regulatory authority was taken over by the DNR under Chapter 30 and NR 340 because of a proposed pond that would fall within 500' of a stream. Since 2003 the DNR has had complete regulatory authority over the entire mine. Recently some changes have been made where the DNR will now only regulate the areas of a mine that have a proposed pond. Due to this change the mine will now be covered under "split jurisdiction" where the DNR will have regulatory authority over the pond within 500' of the nearby stream and Green Lake County will have regulatory authority over the rest of the mine.

Due to the mine no longer having a current reclamation permit through the county a new updated permit has been applied for. The new permit application includes areas covered under the DNR, updated financial assurance, and an updated version of the previous reclamation plan.

Reclamation Plan Review Checklist

This checklist is based on a restatement of reclamation plan requirements of NR135.19 and the County's Non-Metallic Mining Ordinance # 323.

Applicant: AF Gelhar Co., Inc

Site Location: N2402 County Road A

 New Mine Automatic Permit # 2

 Yes No Does the plan provide adequate detail on how reclamation will be conducted?

 Yes No Does the plan meet the uniform statewide reclamation standards?

 Yes No Can the target post-mining land use(s) be achieved?

 Approve Plan

 Plan returned for additional information (See Checklist)

Reviewed by: Caleb Edwards Date: 10/11/2022

Reviewed by: _____ Date: _____

NR 135.19(1) PLAN REQUIRED. An operator who conducts or plans to conduct nonmetallic mining on or after August 1, 2001, shall submit to the regulatory authority a reclamation plan that meets the requirements of this section and complies with the standards of Subch. II. To avoid duplication, the reclamation plans may, by reference, incorporate existing plans and materials that meet the requirements of Chapter NR 135.

□ Site Information:

NR 135.19(2) SITE INFORMATION. The reclamation plan shall include information sufficient to describe the existing natural and physical conditions of the site, including, but not limited to:

□ Maps:

NR 135.19(2)(a) Maps of the nonmetallic mining site including the general location, property boundaries, the aerial extent, geologic composition and depth of the nonmetallic mineral deposit, the distribution, thickness and type of topsoil, the approximate elevation of ground water, the location of surface waters, and the existing drainage patterns.

Note: *Some of or all of the information required above may be shown on the same submittal, i.e. the site map required by par. (a) may also show topography required by par. (c).*

- ❑ **General Location:**
Found in Figure 1
- ❑ **Property Boundaries:**
Found in Figure 2
- ❑ **Aerial Extent:**
Found in Figure 2
- ❑ **Geologic Composition and Depth of the Mineral Deposit:**
Found in Figure 5
- ❑ **Distribution, Thickness, and Type of Topsoil:**
Found in Figure 5 and Figure 7
- ❑ **Approximate Elevation of Ground Water:**
Found in Figure 5
- ❑ **Location of Surface Waters:**
Found in Figure 1
- ❑ **Existing Drainage Patterns:**
Explained in Section 5.3 on Page 11
- ❑ **Existing Topography:**
Found in Figure 4

NR 135.19(2)(c) Existing topography as shown on contour maps of the site at intervals specified by the regulatory authority.

Note: Some of or all of the information required here may be combined to avoid duplication, e.g. a single map may show anticipated post-mining topography required by par.(c) as well as structures and roads as required by par. (d).

- ❑ **Location of Manmade Features:**

NR 135.19(2)(d) Location of manmade features on or near the site.

Features can be found on Figure 2. Explained in Section 2.6 on page 4

- ❑ **Previously Mined Areas: (IF APPLICABLE)**

NR 135.19(2)(e) For existing mines, a plan view drawing showing the location and extent of land previously affected by nonmetallic mining, including the location of stockpiles, wash ponds, and sediment basins.

Previously mined areas can be found in Figure 2a and Figure 3

- ❑ **Biological Information:**

NR 135. 19(2)(b) Information available to the mine operator on biological resources, plant communities, and wildlife use at and adjacent to the proposed or operating mine site.

Explained in Section 6 Pages 11 and 12

- ❑ **Post-mining Land Use:**

NR 135.19(3) POST-MINING LAND USE. (a) the reclamation plan shall specify a proposed post-mining land use for the nonmetallic mine site. The proposed post-mining land use shall be consistent with local land use plans and local zoning at the time the plan is submitted, unless a

change to the land use plan or zoning is proposed. The proposed post-mining land use shall also be consistent with any applicable state, local, or federal laws in effect at the time the plan is submitted.

Proposed Reclamation use is ponds and wildlife habitat. Explanation can be found in section 7.1 on page 12

Note: *A proposed post-mining land use is necessary to determine the type and degree of reclamation needed to correspond with that land use. The post-mining land use will be key in determining the reclamation plan. Final slopes, drainage patterns, site hydrology, seed mixes, and the degree of removal of mining-related structures, drainage structures and sediment control structures will be dictated by the approved post-mining land use.*

NR 135.19(3)(b) Land used for nonmetallic mineral extraction in areas zoned under an exclusive agricultural use ordinance pursuant to subch. III of ch. 91., Stats., shall be restored to agricultural use.

This land is not zoned agriculturally and does not need to restore the land to an agricultural use

Note: *Section 91.46 (6), Stats., contains this requirement. Section 91.01 (2), Stats., defines the term “agricultural use.”*

□ **Reclamation Measures**

NR 135.19(4) RECLAMATION MEASURES. The reclamation plan shall include a description of the proposed reclamation, including methods and procedures to be used and a proposed schedule and sequence for the completion of reclamation activities for various stages of reclamation of the nonmetallic mining site. The following shall be included:

□ **Earthwork and Grading:**

NR 135.19(4)(a) A description of the proposed earthwork and reclamation, including final slope angles, high wall reduction, benching, terracing, and other structural slope stabilization measures.

Explained in Section 7.2 on Page 12

□ **Topsoil:**

NR 135.19(4)(b) The methods of topsoil or topsoil substitute material removal, storage, stabilization, and conservation that will be used during reclamation.

Explained in Section 7.3 Pages 13 and 14

□ **Topography:**

NR 135.19(4)(c) A plan or map which shows anticipated topography of the reclaimed site and any water impoundments or artificial lakes needed to support the anticipated future land use of the site.

Found in Figure 6

□ **Structures:**

NR 135.19(4)(d) A plan or map which shows surface structures, roads, and related facilities after the cessation of mining.

Explained in section 7.5 on Page 14

❑ **Cost:**

NR 135.19(4)(e) The estimated cost of reclamation for each stage of the project or the entire site if reclamation staging is not planned.

Found on Page 2. Cost for reclamation would be \$4,775 per acre. Due to split jurisdiction County portion be 28.5 acres and total reclamation cost would be around \$136,087.50

❑ **Revegetation Plan:**

NR 135.19(4)(f) A revegetation plan which shall include timing and methods of seed bed preparation, rates and kinds of soil amendments, seed application timing, methods and rates, mulching, netting and any other techniques needed to accomplish solid and slope stabilization.

Explained in section 7.6 on pages 14-16

❑ **Revegetation Standards:**

NR 135.19(4)(g) Quantifiable standards for revegetation adequate to show that a sustainable stand of vegetation has been established which will support the approved post-mining land use. Standards for revegetation may be based on the present vegetative cover, productivity, plant density, diversity or other applicable measures.

Explained in section 7.8 on Page 16

❑ **Erosion Control:**

NR 135.19(4)(h) A plan and, if necessary, a narrative showing erosion control measures to be employed during reclamation activities. These shall address how reclamation activities will be conducted to minimize erosion and pollution of surface and groundwater.

Explained in section 7.9 on Pages 16 and 17

❑ **Interim Reclamation: (OPTIONAL)**

NR 135.19(4)(i) A description of any areas which will be reclaimed on an interim basis sufficient to qualify for the waiver of fees pursuant to s. NR 135.41 and which will be subsequently disturbed prior to final reclamation. Descriptions shall include an identification of the proposed areas involved, methods or reclamation to comply with the standards in Subch. II and timing of interim and final reclamation.

Explained in section 7.10 on Page 17

❑ **Criteria for Successful Reclamation**

NR 135. 19(5) The reclamation plan shall contain criteria for assuring successful reclamation in accordance with s. NR 135.13.

Explained in section 9.0 on Page 18

❑ **Certification of the Reclamation Plan**

NR 135.19(6) CERTIFICATION OF RECLAMATION PLAN. (a) The operator shall provide a signed certification that reclamation will be carried out in accordance with the reclamation plan. The landowner and lessee, if different from the operator, shall also provide signed certification that they concur with the reclamation plan and will allow its implementation, except as provided in par. (b).

NR 135.19(6)(b) For the following situations, the landowner and lessee, if different from the mine operator, are not required to submit a written certification in accordance with par. (a). For these

situations, the operator shall provide written evidence that the landowner and lessee, if different than the operator, have been provided with a written copy of the reclamation plan.

1. The mine operator has submitted a reclamation plan for an existing mine in accordance with s. NR 135.18 (1).
2. The operator has submitted a reclamation plan for a new or reopened mine in accordance with s. NR 135.18(2) which is located on land for which a lease agreement or memorandum of lease between the landowner and applicant was recorded prior to 8 months following December 1, 2000 (i.e. August 1, 2001).

Note: Please see the certification statement examples in Appendix G for more information.

Signature can be found towards beginning of reclamation plan

□ **Financial Assurance**

NR 135.40(1-13)

Financial Assurance must cover at least \$4,775 per active acre within the mine for areas under the county's jurisdiction. No Financial Assurance has been sent in yet

□ **Submitting the Plan**

NR 135.19(7) APPROVAL. The regulatory authority shall approve, approve conditionally, or deny the reclamation plan in writing in accordance with s. NR 135.21(1). Conditional approvals shall be issued according to s. NR 135.21(2), and denials of permit applications shall be made according to s. NR 135.22.

Please type or use black ink

Return to: Green Lake County
Planning & Zoning Department
571 County Road A
Green Lake, WI 54941

GENERAL APPLICATION

Fee \$450 (not refundable)
Zone Change from N/A to N/A
Conditional Use Permit for N/A
Other NMM Reclamation Permit

Date 9/8/2022 9/30/22 ^{KLW}

PROPERTY OWNER / APPLICANT

Name James Gelhar
Mailing Address N2402 County Highway A, Markesan, WI 53946
Phone Number 920-398-3566
Signature James Gelhar Date 09/27/2022

AGENT IF OTHER THAN OWNER

Name Jim Rabideau
Mailing Address 2920 S Webster Ave Suite C, Green Bay, WI 54301
Phone Number 920-347-2234
Signature _____ Date _____

PROPERTY INFORMATION

006-00679-0100, 010-00046-0000
010-00047-0000, 010-00048-0000

Town of Mackford + Green Lake Parcel Number 010-00053-0200 Acres 117

Lot N/A Block N/A Subdivision N/A

Section 3 Town 15N North Range 13E East

Location of Property The property is located east of County Highway A in the Towns of Mackford and Green Lake.

Legal Description COM 664.62' W OF THE NE COR SEC 3: S 1251.40; W 1993.59'; W 584. 13' TO TH "A"; N30*E 289.94';
N30*50'E 203.07'; N23*E 230.79'; E 1121.72'; N
625.01'; E 1102.71' TO BEG

Current Zoning Classification M1 Current Use of Property Non Metallic Mining

Detailed Description of Proposed Use The property is and will continue to be used for non metallic sand mining.
The mining operations consist of three distinct phases: the removal of surficial soils (overburden); limestone/dolomite
removal; followed by sandstone removal. Surficial soils will be stockpiled on site for future reclamation use. Sand washing,
processing, and hauling will also take place on the property.

PLEASE PROVIDE A DETAILED SITE PLAN WITH THE APPLICATION

Fees: Zone Change \$375
Conditional Use Permit \$375.00
Variance \$375.00
Special Exception \$375.00
NMM Reclamation Permit \$450

Nonmetallic Mining Reclamation & Operation Plan

A.F. Gelhar Co., Inc.
P.O. Box 126
Fairwater, Wisconsin 53931-0126

Prepared For

Markesan Facility
N2402 County Hwy A
Green Lake County
Markesan, Wisconsin

Prepared By

Bay Environmental Strategies, Inc
2920 S. Webster Avenue
Green Bay, Wisconsin 54301
(920) 347-2234

September 2003

Updated/Revised September 15, 2022 by Bay Environmental, Inc.

September 15, 2022

Mr. Caleb Edwards
Green Lake County
571 County Road A
Green Lake, WI 54941

Dear Mr. Edwards

RE: Nonmetallic Mining Reclamation and Operation Plan
A.F. Gelhar Co., Inc. Markesan Facility, N2402 County Hwy A, Markesan, Green Lake County,
Wisconsin

On behalf of A.F. Gelhar Co., Inc. (A.F. Gelhar), Bay Environmental Strategies, Inc. (BAY) is pleased to present the above-referenced Operation and Reclamation Plan. This plan has been designed to meet all related requirements of ch. NR 135 and the local Green Lake County Ordinance of Non-Metallic Mines. Due to mining activity that will result in pond creation within 500 feet of a navigable waterway, pursuant to current State of Wisconsin Statutes and *Wis. Adm. Code* ch. 340, the WDNR will have reclamation jurisdiction for a portion of the mine site.

The context of the permit application and plan covers approximately 117 acres of land and provides general site information, a description of mine operations, reclamation measures, and estimated funds required for final reclamation.

After review and approval of the plan by Green Lake County, A.F. Gelhar will secure the financial assurance required to complete the process.

If you have any questions regarding the contents of the plan or require additional information, please contact BAY at (920) 347-2234 or Mr. Jim Gelhar of A.F. Gelhar at (920) 398-3566.

Sincerely,

BAY ENVIRONMENTAL STRATEGIES, INC.

James Rabideau, P.G., P.S.
President and Senior Project Manager

Cc : Mr. Jim Gelhar, A.F. Gelhar Inc.

enclosure

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Appendix A

LIST OF FIGURES

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CERTIFICATION OF THE RECLAMATION PLAN – A.F. GELHAR CO., INC. MARKESAN FACILITY

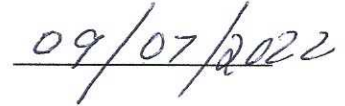
The following statement is required from the operator of the non-metallic mine:

“I hereby certify, as a duly authorized representative or agent, that A.F. Gelhar Co., Inc., will comply with the provisions of this reclamation plan as well as the statewide nonmetallic mining reclamation standards established in ss. NR 135.05 through NR 135.15, Wis. Adm. Code.”

Signature of Applicant or Duly Authorized Agent

Date Sign





Mr. James Gelhar – Owner and Operator
A.F. Gelhar Co., Inc.

1.0 OVERVIEW AND GENERAL SUMMARY OF THE PROPOSED MINING OPERATIONS

A.F. Gelhar Co., Inc. (A.F. Gelhar) currently operates the Markesan facility located at N2402 County Hwy A, Markesan, Wisconsin. The Markesan facility has had continuous operations for approximately 29 years; therefore, some of the historical mining activities were completed prior to implementation of ch. NR 135. Operations conducted or completed after August 1, 2001, were/are subject to ch. NR 135 and the county non-metallic mining ordinance. Historically, the mine operation was permitted under ch. NR 340, which gave reclamation oversight to the Wisconsin Department of Natural Resources.

Because the mining operations will result in the creation of a pond within 500 feet of a navigable waterway, a Chapter 30 permit is required and this plan is being prepared to comply with Chapter 30, Wis. Stats., and Wis. Adm. Code. ch. NR 340. This plan also includes information regarding the planned reclamation of the non-metallic mine site designed to comply with ch. NR 135 and the Green Lake County Ordinance of Non-Metallic Mines.

The Markesan facility is located in the Towns of Mackford and Green Lake, Green Lake County, Wisconsin. The majority of the non-metallic mine operations are in the Town of Mackford. The mine site encompasses approximately 117 acres, of which approximately 100 acres were available for mining. The property contains six separate aspects of the facility:

- 1) *Previously Mined Areas* (26.0 acres) – This includes 13.5 acres that were mined prior to ch. NR 135 regulation and inactive areas on the southern-most portion of the property.
- 2) *Processing Operations* (21.5 acres) – The actual facility operations consists of offices, trailer/office, processing plant, screen tower, garage, weigh station buildings, sand storage silo and settling ponds. Approximately 5.0 acres of this area, along the western property boundary, will be mined in the future.
- 3) *Active Mine Operations* (36 acres) – Those areas where active non-metallic mining and associated activities are being and will continue to be performed. This area is subject to financial assurance under *Wis. Adm. Code* ch. NR 135. Of the 36 acres, approximately 18.0 acres (Phases 6 through 11, and 13) currently have mineable material left.
- 4) *Future Mine Operations* (11.5 acres) – Those areas of future expansion of the active non-metallic mine. This includes Phase 12 and the western portion of what is currently processing operations.
- 5) *Reclaimed Areas* (12.0 acres) – Areas where interim reclamation activities have occurred on previously mined land. The reclaimed areas include the southern portions of Phases 1 and 2, the eastern portions of Phases 3 and 4, Phase 5, and the area southeast of processing operations.
- 6) *Inactive Areas* (10.0 acres) – This area consists of mining setbacks and areas not affected by any of the aspects described above. This area cannot and will not be mined.

These areas are illustrated on *Figure 2a – Current Site Areas and Operations* provided in Appendix A.

The mining operations consist of three distinct phases: the removal of surficial soils (top soil/overburden); limestone/dolomite removal; followed by sandstone removal and processing. The surficial soils are removed first and stockpiled to be used for reclamation. The thickness of this unit

varies across the mine from almost absent to several feet thick. The limestone/dolomite removal is conducted by an outside contractor, and this material is transported off-site.

Due to the dual jurisdiction between Green Lake County and the WDNR, a cooperative financial security arrangement may need to be developed. The active portion of the mine site that falls under WDNR jurisdiction is 34 acres in size, and includes the area where the pond is being created and will exist after final reclamation. The existence of the pond is part of the mine site's final reclamation. As open water pond, this area would not require topsoil, grading, and seeding with the exception of the perimeter of the pond. Based on information provided by the WDNR, the financial assurance requirements Per NR 340.055 are currently set at \$4,775 per acre. This per acre rate would apply to the 34-acre future pond area, all of which is currently active mine site. The portion of the mine site that falls under Green Lake County jurisdiction is the remaining portion of the active mine site and processing area, which totals approximately 28.5 acres. Based on information provided by Green Lake County zoning, they would utilize the same per acre financial assurance rate of \$4,775. The estimated financial assurance will be posted for a total of 62.5 acres, at the \$4,775 per acre rate, for a total of \$298,438.

The end land-use is anticipated to be a combination of wildlife habitat with passive recreation with no planned development. There will be one large pond created as part of final reclamation as groundwater is allowed to remain within the mine site. The pond will be an estimated 30 feet deep, and sloped to an approximate 3:1 slope to a water depth of 6 feet and allowed to naturally re-vegetate. Non-pond areas will be restored with native plant species as detailed in this plan, and sloped to reflect the natural topography.

Sand removal at the mine is expected to continue for approximately 25 or more years. Operation of the processing plant will continue after mining has been completed, as the plant may be used to process sand for other mining operations.

2.0 SITE INFORMATION

2.1 General Location

A majority of the 117-acre property is located in the NW¼ of the NE¼ of Section 3, T14N, R13E (Town of Mackford), with approximately 8.3 acres located within the SW¼ of the SE¼, Section 34, T15N, R13E (Town of Green Lake). The location of the property is shown in *Figure 1, Site Location Map*, which is provided in Appendix A along with all remaining report figures.

The property encompasses approximately 117 acres and is bordered to the west by County Highway A, to east by wetlands, and north and south by agricultural and undeveloped land. Land use in the local area comprises mainly of agricultural intermixed with single family residential.

2.2 Legal Description

The property is comprised of five separate parcels as detailed below:

<u>Parcel #</u>	<u>Acres</u>
Parcel #006-00679-0100	8.39
Parcel #010-00046-0000	53.00
Parcel #010-00047-0000	15.00
Parcel #010-00048-0000	40.00
Parcel #010-00053-0200	1.27

Legal descriptions for each of the parcels is provided in Appendix B.

2.3 Owner and Operator

Owner: Mr. James Gelhar
Gelhar Real Estate Investments, LLC
W2402 Cty Hwy A
Fairwater, Wisconsin 53931-0126

Operator: Mr. James Gelhar
A.F. Gelhar Co., Inc.
W2402 Cty Hwy A
Markesan, Wisconsin 53931-0126

2.4 Mine Boundaries

The property and mine site boundaries, along with the parcel lines are shown on *Figure 2 – Site Overview*. The mine site boundaries shown takes into account the applicable setbacks. The configuration of the specific mine areas or sequencing is illustrated on *Figure 3 – Site Detail Map*. This figure also shows the 500-foot navigable waterway setback that is being used to establish reclamation jurisdiction between Green Lake County and the WDNR.

2.5 Surrounding Property Owners

The following is a list of property owners immediately adjacent to the subject mine site. Names and addresses were obtained from Green Lake County online property records.

- Parcel #006-00680-000 (Adjoining Riparian)—Philip G. Adams; N2534 County Rd A, Markesan, WI 53946
- Parcel #010-00045-0000—Nelson Seymer Living Trust; W8359 Lincoln Avenue, Oakfield, WI 53065
- Parcel #010-00049-0000—Gelhar Real Estate Investments LLC; P.O. Box 187, Markesan, WI 53946
- Parcels #010-00050-000—Dale L Muehlenhaupt and Stephen J Meilahn; N718 State Road, Markesan, WI 53946
- Parcel #010-00061-0000—Roger & Shirley Seymer Living Trust; W8359 Lincoln Ave, Oakfield, WI 53065
- Parcel #010-00062-0000—Daniel R & Jane Seymer; N2135 County Road A, Markesan, WI 53946
- Parcel #010-00054-0000—City of Markesan; 150 S Bridge St P.O. Box 352, Markesan, WI 53956
- Parcel #010-00053-0000—John F & Diana M Werth Revocable Trust, N2347 County Rd A; Markesan, WI 53946
- Parcel #010-00050-0100—CTH A Properties LLC; P.O. Box 187, Markesan, WI 53946

2.6 Location of Manmade Features

Within the confines of the property there are nine structures; including, two office buildings, trailer/office, processing plant, garage, weigh station, screen tower, storage shed, and a sand storage silo. These structures are associated with the process operations. Locations of each of these structures are shown on the included figures. Access roads have been constructed throughout the property and are also shown on the included figures.

2.7 Previously Mined Areas

The area designated as previously mined includes approximately 26.0 acres located within the southern most section of A.F. Gelhar's property. This area is shown on *Figure 3 – Site Detail Map*.

3.0 MINE OPERATION

The mining operations consist of three distinct phases: the removal of surficial soils (overburden); limestone/dolomite removal; followed by sandstone removal. The surficial soils are removed first by A.F. Gelhar using scrapers and bulldozers, then stockpiled to be used for the reclamation. The thickness of the overburden unit varies across the mine from almost absent to several feet.

Within the majority of the property, dolomite/limestone is, or was, present beneath the surficial soil. Before A.F. Gelhar can effectively mine the sandstone deposit the dolomite/limestone must be removed. The limestone/dolomite removal is currently being conducted by Carew, with active operations taking place within the northwestern portion of the mine site. The limestone/dolomite is blasted to remove large pieces of the formation and then put through a portable crusher. The crushed rock (gravel) is stockpiled until being hauled offsite. The limestone/dolomite unit varies in thickness throughout the property. The unit was absent within the eastern portion and extends to thicknesses

greater than 60 feet in other areas—generally thicker in the west and northwest portions of the property.

Beneath the dolomite/limestone is poorly cemented sandstone—St. Peter Formation. This unit is mined by A.F. Gelhar using a backhoe to desegregate the formation, after which it is loaded into a conveyor hopper and conveyed to the processing area. The sand is then processed through a series of washers via conveyor system. The washed sand is stockpiled and then loaded into a second conveyor hopper and conveyed to the sand drying operation. The dried sand is sorted, blended and stored in elevated storage silos until it is transported offsite via trucks.

Approximately 36 acres are currently affected by active mining operations, including the dolomite/limestone mine. An additional 11.5 acres are anticipated to encompass future mining operations in the northwestern corner of the mine site, as well as, 5.5 acres in the current processing area where marketable sand is present.

Mine operations are separated into phases of varying sizes and stages (i.e. overburden removal, limestone/dolomite, and sandstone) of depletion throughout the life of the mine. Phasing operations have proceeded counterclockwise from the area that process operations is currently located. Mining operations are located within 500 feet of the navigable waterway in Phase 2 through Phase 8, as well as Phase 11.

A general description of each activity and conceptual phase is described below. Each description will be followed as closely as possible in principle and practice; however, deviations can be expected due to unforeseen circumstances and production schedules—all acreage is approximate. A.F. Gelhar expects to proceed at a rate of opening and reclaiming approximately 1.5 acre per year.

Previously Mined Area (26.0 acres)

This is the area of the site that was mined prior to regulation under ch. NR 135 and consists primarily of storm water ponds on the southern-most portion of the property.

Processing Operations (21.5 acres)

As described above, this area is used for processing the material mined by A.F. Gelhar. The size of the process operations is not expected to vary during the course on the mining operations at the site. With the exception of the settling ponds used for processing operations, material extraction has not occurred within this area. Financial assurance or reclamation is not required for this area.

Active Mine Area (36.0 acres)

Currently, sand removal is being conducted within Phases 6 and 7, as well as, the eastern portion of Phases 8, 11, and 13. Sand is being removed in this area down to an elevation of approximately 855 feet above msl, which is estimated to be about 30 feet below the groundwater table; therefore, the current mining area requires dewatering to facilitate sand removal. Water is pumped from the area being mined and piped into a series of existing settling ponds before discharging offsite. Limestone removal is also currently being conducted in Phases 9 and 10. The facility has a Wisconsin Pollution Discharge Elimination System (WPDES) permit for the discharge. Monitoring of the discharge has showed continuous compliance with the permit discharge limits.

Phase 1 (5.7 acres)

Mining in Phase 1 is complete and it is no longer active. This area contains settling ponds that are used for sand washing. Interim reclamation has been performed on approximately 1.3 acres of the southern portion of Phase 1.

Phase 2 (3.0 acres)

Mining in Phase 2 is complete and it is no longer active. This area now contains settling ponds that are used for sand washing. Interim reclamation has been performed on approximately 0.5 acres of the southern portion of Phase 2.

Phase 3 (2.9 acres)

Mining in Phase 3 is complete and it is no longer active. This area now contains settling ponds that are used for sand washing. Interim reclamation has been performed on approximately 0.6 acres of the western portion of Phase 3.

Phase 4 (3.2 acres)

Mining in Phase 4 is complete and it is no longer active. Interim reclamation has been performed on approximately 2.0 acres of the eastern portion of Phase 4.

Phase 5 (2.5 acres)

Phase 5 marks the northeast extent of the mine. Mining in Phase 5 is complete and it is no longer active. Overburden material is currently being placed in this area as part of the interim reclamation plan.

Phase 6 (2.2 acres)

Phase 6 is active and sand is currently being removed to an elevation of approximately 850 feet above msl. A highwall is being created along the northern and western boundaries of the phase. Any highwall will be graded and reclaimed as described within the plan. It is expected that overburden materials will be used for reclamation of the previously mined phase or stockpiled.

Phase 7 (3.0 acres)

Phase 7 is active and sand is currently being removed to an elevation of approximately 850 feet above msl. Any usable materials not mined from the northern section of Phase 1 will also be removed during this phase. It is expected that overburden materials will be used for reclamation of the previously mined phase or stockpiled.

Phase 8 (3.7 acres)

The eastern portion of Phase 8 is active and sand is being removed to an elevation of approximately 850 feet above msl. Overburden materials will be used for reclamation of the previously mined phase or stockpiled.

Phase 9 (3.2 acres)

Phase 9 marks the western boundary of the mine. Mining in Phase 9 is currently active and limestone is being removed.

Phase 10 (3.1 acres)

Phase 10 is currently active and limestone is being removed.

Phase 11 (3.1 acres)

The eastern portion of Phase 11 is active and sand is being removed to an elevation of approximately 850 feet above msl. Overburden materials will be used for reclamation of the previously mined phase or stockpiled.

Phase 12 (6.0 acres)

Phase 12 is not active and mining has not taken place in this area. Future mining will consist of limestone removal and subsequent sand removal.

Phase 13 (2.0 acres)

The eastern portion of Phase 13 is active and sand is being removed to an elevation of approximately 850 feet above msl. Overburden materials will be used for reclamation of the previously mined phase or stockpiled.

3.1 Mine Safety

The access road to the mine is posted and no unauthorized access is allowed. All employees and subcontractors associated with the mine operation will follow the Mine Safety & Health Administration (MSHA) regulations.

3.2 Transportation

Material is conveyed from the mine to the unwashed sand stockpile located within the process operations. The washed sand is then conveyed to the sand drying operation and, once dried and sorted, is stored in elevated storage tanks until it is transported offsite. The number of trucks entering and leaving the site varies depending on material sales.

3.3 Blasting

Within the majority of the property, dolomite/limestone is present beneath the surficial soil. Before A.F. Gelhar can effectively mine the sandstone deposit the dolomite/limestone must be removed. These operations are conducted by an outside contractor. The limestone/dolomite is blasted to remove large pieces of the formation, put through a portable crusher, stockpiled, and finally loaded into trucks with a front-end loader for transport offsite.

3.4 Mining Equipment

Typical equipment onsite includes off-road haul trucks, bulldozers, backhoes, and front-end loaders. The bulldozers are primarily used for removing topsoil/overburden and a backhoe and front-end loader are used for excavating and loading sand. Haul trucks are only used for loading and transport activities.

The mining equipment also includes the sand processing plant, which includes washing, drying, sorting, and storage equipment. All of this equipment is located with the processing area.

3.5 Dust Control

In accordance with WAC NR 415.04, the facility takes precautions to prevent or minimize particulate matter from becoming airborne during mining operations. The source of fugitive dust at the facility primarily consists of paved and unpaved roadways, sand processing in the dry plant, sand stockpiles, and truck loading and hauling activities.

A skid steer with a sweeper attachment is used to remove sand and sediment that collects on the paved driveway leading to the truck scale. Sweeping is conducted on an as needed basis based on daily site observations. A watering system is used to wet the surface of the haul roads, as needed, to minimize fugitive dust rising from these surfaces due to truck traffic. The facility has a dedicated sprinkler system which operates at least daily and more often when conditions warrant.

Sand processing inside the dry plant could result in fugitive dust that would escape from openings in the plant. An extensive dust collection system that taps into conveyors and screeners in the plant is used to minimize fugitive dust sources inside the plant. Wet scrubbers connected in line with the dryer, screening, and conveying operations also play an important role in minimizing fugitive dust inside the plant.

When conveyors are used to create stockpiles, the drop distance is minimized to control potential fugitive dust at the transfer point. A water cannon is used as needed for watering sand stockpiles and the dry plant yard. Watering will be conducted as needed based on site observations.

In an effort to prevent dust emissions during hauling activities, haul trucks are required to follow a posted speed limit of 10 MPH. Vehicle loads entering and exiting the plant are to be covered with end gates and sliding belly dump gates securely closed.

3.6 Storm Water Controls

The mine operation has a Wisconsin Pollution Discharge Elimination System (WPDES) General Nonmetallic Mine Permit from the WDNR per WAC NR 216, Subchapter II. A.F. Gelhar will follow the Best Management Practices (BMPs) outlined in the general permit to reduce impacts to storm water.

Surface water runoff with respect to the majority of the mine operation is internal. However, near the periphery of the operation including internal roadways, de-watering of the quarry, and discharge from the ponds, storm water does, or has the potential to, flow off the property boundaries.

BMPs include land grading and preservation of naturally vegetated buffers to control runoff. Berms, dikes, gravel roadways, and temporary BMPs, such as silt fencing, are utilized to prevent transport of sediment. Storm water conveyances are stabilized by maintaining grass lined ditches and installing

riprap if needed. Other BMPs include sediment removal via settling ponds, use of spill kits, performing maintenance activities within sheltered areas, and storing equipment that is clean and/or securely covered.

4.0 SITE FEATURES

The following section provides details regarding the geologic composition at the site, a description of top soils and subsoils, and topographical information. Supporting documentation pertaining to the following discussions are included with this plan. The existing topography is presented on *Figure 4* (Appendix A).

4.1 Geologic Composition and Depth of Mineral Deposit

Two soil map units are identified at the site by the *Soil Survey of Green Lake County, Wisconsin*: the Knowles silt loam (KwB), 2 to 6 percent slope and Kidder loam, 12 to 20 percent slope (KeD2). The KwB unit is described as well-drained soils on broad ridge tops and side slopes. The soils are loamy and are underlain by dolomite bedrock. The KeD2 soils are described as moderately steep on the moraines and along drainage-ways of till plains; runoff is rapid. Soil types present on site are shown in *Figure 7 – NRCS Soils Map*.

A total of 10 test holes were advanced by A.F. Gelhar at various locations on the property during May of 2002. Geology logs prepared during the drilling note overburden present predominately within the top 2 to 5 feet of surface overlying limestone to depths ranging from 16 to 65 feet below surface grade. Sandstone was noted at depths below the limestone deposit.

The depth of the deposit mined by A.F. Gelhar generally extends to approximately 886 feet in elevation as noted during past survey events.

4.2 Distribution, Thickness, and Type of Topsoil

Field observations made by BAY noted low quality top soil at the site generally ranging in depths from very little (2 to 3 inches) up to one foot. The top soil did not appear to be organic rich and is generally brownish in color and is similar in quality to underlying overburden. Subsoils generally consisting of sandy clay, range in depths of almost non-existent to several feet thick. Generally, overburden removal will consist of approximately 4 feet or more of soil.

The *Soil Survey of Green Lake, County* cites the suitability of the soil units at the site as fair where slope is 0 to 12 percent slope and poor where the slope is more than 12 percent. According to the *Soil Survey of Green Lake, County*, a thin layer of top soil is associated with the sites soil units.

4.3 Existing Topography

The local topography to the west of the facility is characterized by a relatively flat land surface, sloping to the east near the facility and regionally to the south-southwest. To the east of the facility, the Grand River Basin dominates the landscape, markedly lower in elevation. The surface elevation to the west of the facility ranges from 980 feet to greater than 1010 feet above mean sea level (MSL). The surface elevations of the Grand River Basin east of the quarry operation is about 890 feet MSL while the base of the lowest portion of the quarry operation is present at approximately 886 feet MSL. There is roughly

about 110 feet of vertical elevation difference between the base of the quarry and the overlying undisturbed area. The existing site topography based on a 2018 LiDAR survey of the mine site is provided as *Figure 4 – Site Topography Map*.

4.4 Extent of Deposit

Sand removal is currently being conducted within Phases 6 and 7, as well as, the eastern portion of Phases 8, 11, and 13.

Phases 9 and 10 have had the limestone bedrock removed, but little to no sandstone removal. Sand is being removed in this area down to an elevation of approximately 855 feet msl. Considering the approximate mine base elevation of 855 feet msl and the sites topography, the thickness of the sand to be removed ranges from approximately 40 to 105 feet. The remaining mineable area, excluding setbacks is approximately 18 acres (or 784,080 sq/ft).

We estimate that there is approximately 2,119,920 cubic yards of sand available for extraction as detailed below:

Mine Area = 784,080 sq/ft

Avg Material Thickness = 73 feet

Conversion - 27 ft³ = 1 cubic yard

$(609,840 \times 73) / 27 = 2,119,920$ cubic yards

However, due to elevations present and required 3:1 sloping along the perimeter of the mine, the volume of material removed may be less. In many areas, mineable material may remain in place to provide the needed sloping.

5.0 HYDROGEOLOGIC FEATURES

The following section includes on the sites water resources including groundwater, surface waters, drainageways, and floodplain analysis.

5.1 Information on Ground Water

Three high-capacity wells have been constructed at the mine site. The locations are noted on *Figure 2*. Based on operator information and observations, the current depth of the mine extends approximately 25 feet beyond the approximate groundwater table—near 880 feet msl. Groundwater collects within the base of the mine, and is pumped as needed into settling ponds located within the southern portion of the mine site. This water is eventually discharged offsite to the after passing through a series of settling ponds.

A.F. Gelhar does not anticipate advancing further into the groundwater table during the mining operations. Copies of *High Capacity Well Logs* in Appendix C.

5.2 Location of Surface Waters

Along the north and north-eastern portion of the property—north of the current operations—is an intermittent unnamed stream. Its headwaters form in the north-northwest portion of the property. This intermittent stream, along with other intermittent branches to the north of it, discharge to wetlands bordering the southeastern portion of the property. As stated earlier, mining operations are located within 500 feet of the intermittent stream near the beginning of Phase 2.

On a local scale, the Grand River basin is the most dominant hydrological feature. With respect to this plan, the Grand River Basin includes all tributaries (intermittent and perennial streams) and wetlands. The Grand River in the location of the A.F. Gelhar facility flows to the south-southwest. Regionally, the river tends to flow more westerly. The Grand River is a tributary to the Fox River.

5.3 Existing Drainage Patterns

A.F. Gelhar has a Storm Water Pollution Prevention Plan (SWPPP) that was last revised by Bay Environmental Strategies, Inc., in November 2019. The purpose of the SWPPP is to develop and implement practices which will reduce or eliminate exposure of materials to direct storm water contact or runoff. The SWPPP includes provisions for implementation of best management practices (BMPs), quarterly visual inspections, comprehensive annual facility compliance audits.

Surface water runoff with respect to the majority of the mine operation is internal. However, near the periphery of the operation, internal roadways, de-watering of the quarry, and discharge from the ponds, storm water does or has the potential to flow off the property boundaries.

Storm water runoff within and around the dolomite/limestone quarry drains into the sandstone quarry. Near the sand processing plant and along the roadway entering the facility, storm water that does not infiltrate, generally flows to the east. The remaining storm water would flow into the quarry. A storm water conveyance is located adjacent to an internal roadway which connects the processing plant to the quarry. The flow is in a southerly direction discharging to a storm water retention pond. The water within this pond, when full, overland flows to a storm water retention pond located to the east. Generally, given the infiltration capacity of the soils which line the ponds and the volume of water which they can hold, most of the storm water infiltrates to groundwater.

5.4 Flood Plain

A review of Federal Emergency Management Agency (FEMA) flood hazard maps determined all active and proposed mining occurs in Zone C, which is outside 500-year Floodplain.

6.0 BIOLOGICAL AND CULTURAL INFORMATION

Vegetative data for the property was determined through visual observation performed by BAY during numerous site visits, review of *The Soil Survey of Green Lake County, Wisconsin*, and *The Vegetation of Wisconsin* (Curtis 1987).

Plant communities in Green Lake County historically consist of oak savanna and prairie. Locally, the northwestern portion of the property had been used as a hay field for agricultural purposes and the

northeastern portion of the property contains mixed hardwoods. The surrounding property usage is predominately agriculture. A wetland marsh is located along a majority of the eastern mine site boundary.

In 2002 a review of rare species and natural communities recorded in the Wisconsin Natural Heritage Inventory (NHI) was completed. This review showed that there are no known occurrences within the area of the mining operations.

7.0 RECLAMATION MEASURES

The following sections describe the post-mining land use, final grading and slopes, seed selections, planting procedures, and erosion control measure. *Figure 6 – Final Site Contours* (Appendix A) shows anticipated final grading and sloping at the site following final reclamation. Reference locations available during the reclamation are contained in Appendix E. The references include where to find nurseries, laboratories, and guidance documents for planting.

7.1 Post-mining Land Use

A.F. Gelhar will return the site to a post-mining land use consisting of ponds and wildlife/passive reclamation.

7.2 Earthwork & Reclamation: Final Grading and Slopes

Throughout the majority of the site, the topsoil/overburden stockpiles removed during the initial mining activities will be redistributed at a depth of approximately 0.5 feet. This material will be subject to seed bed preparation.

Unconsolidated material and typically unstable materials (sandstone deposit) present within the final quarry walls will be reclaimed to at least a 3:1 (3 horizontal:1 vertical) slope. The slope will be accomplished through backfilling overburden material stripped during previous phases.

Actual experiences and observations concerning slope stability will be taken into account during final reclamation grading. These observations will consider the relative effects of the type, nature, thickness etc. of completed quarry wall materials. If slope stability appears to be compromised, A.F. Gelhar will perform selective blasting to create stable rock faces or increase the slope.

Consideration to the natural lines and contours of the surrounding natural topography will be given when reducing the highwalls. Natural occurring slopes ranging from 2:1 to 3:1 are present at the site and remain stable in the vegetative state.

Due to the progression of the mining operations, highwalls will generally not be present along the southern and eastern edges of the mine. If mining activities do expose a short highwall in these areas, they will be reduced to between a 2:1 and 3:1 slope.

In all areas where the highwalls are retained and in any area where a potential risk to safety exists, warning signs will be posted. In addition, a safety berm, fencing or both may be installed to restrict access to potentially unsafe areas. A.F. Gelhar may use any excess rock and other clean materials as backfill against vertical slopes to minimize the vertical drop and create more diverse site conditions.

7.3 Topsoil and Overburden

Due to the age of the mine, nearly all topsoil and overburden has been previously removed, with the exception of portions of mine phases 6, 8, 11, 12, and 13. Topsoil and subsoil reclamation following mining operations will consist of reapplying the stockpile created during each removal phase as described below.

7.3.1 Topsoil/Overburden Removal

Overburden removal will be accomplished by scrapers or bulldozers and haul trucks with the goal of recovering as much of the overburden as possible. When feasible, soil will be removed in a manner so as to minimize the surface area exposed to erosion at any one time.

7.3.2 Topsoil/Overburden Storage and Protection

All topsoil/overburden removed will be stored on the property in locations selected to minimize erosion and reduce product handling during the removal and reclamation stages. As a general practice, the majority of material removed will be stored in the opposite direction of the intermittent stream. Stockpile protection will be accomplished through re-vegetation using Mix 1 described below, silt fencing, and/or other protective measures. No stockpiles will be placed within any existing natural drainage ways. To lessen the likelihood of adverse dust impacts, topsoil stripping will be performed during times of average low wind speed, such as late fall to early spring when the ground is wet; or dust will be controlled by application of water.

7.3.3 Contemporaneous Use of Topsoil/Overburden

Whenever possible, the soil removed to prepare an area for the next sequential phase of mining will be immediately redistributed to initiate reclamation for the previously mined area—such as from Phase 2 to Phase 1. In these instances, contemporaneous reclamation may proceed. This will be done to avoid any unnecessary potential loss of topsoil and subsoil quality and quantity during storage. Contemporaneous use of topsoil and overburden has occurred in the southern portions of Phases 1 and 2, the western portion of Phase 3, the eastern portion of Phase 4, the majority of Phase 5, and along the northern edge of the previously mined area.

When topsoil/overburden cannot be used in contemporaneous reclamation, stockpiles will be placed approved storage locations following the above-described methods for stabilization and conservation (Section 7.3.2).

7.3.4 Topsoil Redistribution and Site Preparation

A.F. Gelhar will perform all necessary grading as soon as practicable to achieve the final topography and drainage patterns once mining has ceased in a portion or phase of the operation. This will be performed in order to prepare the site for final reclamation.

Before spreading top soil, the areas to be reclaimed will be scarified to eliminate slippage surfaces and promote root penetration. The topsoil will be spread in a manner that will insure that the position and thickness of each horizon is similar to the horizons in undisturbed areas; will prevent excess compaction

and permit the soil to support plant growth similar to that of surrounding undisturbed areas; and will protect the topsoil against wind and water erosion before it is seeded, planted, and a vegetative cover is established.

Topsoil redistribution will be performed only during dry conditions using appropriate equipment and in a manner so as to minimize compaction. Any clods and/or lumps present after topsoil redistribution will be broken down by the use of harrows, discs or other appropriate equipment in order to provide uniform textured soil. In addition, the surface will be dressed to present a uniform particle size to improve seed germination through good soil contact with the seed. The stockpiled topsoil and subsoil will be replaced in a manner that replicates the pre-mining soil conditions.

7.4 Final Topography

Figure 6 – Final Site Contours (Appendix A) delineates the anticipated final topography of the site following successful reclamation. The final topography will be designed to blend with the character of adjacent natural topography, allow for successful re-vegetation, and provide for successful end usage.

7.5 Structures

At this time, it is anticipated that all structures associated with the facility will remain after the end of the life of the mine. It is anticipated that the processing plant will receive sand from off-site mines in the future.

7.6 Re-vegetation Plan

The re-vegetation plan includes all activities in support of selecting, obtaining, handling and applying seed or otherwise installing plant materials to fulfill the reclamation plan. Seed and plant materials will be obtained from a licensed nursery that normally works with native plant materials. Seed shall be free of contamination by weedy species. Plant selection and planting procedures will follow guidance documents such as those available from the NRCS, USDA, WDNR, and/or local regulatory authority. A listing of resources and references are contained in Appendix E.

7.6.1 Seed Selection

A.F. Gelhar will use seed mixes to support each of specific land uses proposed in the reclamation plan and a site stabilization mix:

Mix 1: Basic Stabilization/Nurse Crop

- Mix 1 will consist of a nurse crop to protect areas needing erosion protection or when seed bed preparation is conducted in the year previous to permanent seeding and re-vegetation. Canada Rye (0.5 - 1.0 lbs. Pure Live Seed/Acre) is an easily established, fast growing native grass that may be used as a nurse crop. Vegetation can be attained quickly and inexpensively with Canada Rye while avoiding nonnative species.
- For stockpiled topsoil and subsoil, or if additional re-vegetation is needed for basic stabilization, annual rye (5 lbs/acre), oats (65 lbs/acre), or barley (70 lbs/acre) may be used.

Mix 2: Wildlife Mix

- The permanent vegetation mix will be chosen to maximize wildlife benefits and satisfy reclamation requirements. Native seeding mixtures will include grasses, sedges, and similar plants in addition to a variety of forms and legumes. The permanent re-vegetation will be designed to create a natural habitat transition between the edges of the anticipated pond and surrounding habitat unaffected by mining activities.
- The following is an example of mix that may be utilized:

<u>Species</u>	<u>Est. Quantity per acre</u>
Canada Wild Rye	3 lbs
Switchgrass	1 lb
Timothy	2 lbs
Blue Joint Grass	3.2 lbs
Annual oats	8 lbs
Alsike clover	1 lb
Red clover	1 lb
Culver's root	2 oz
Canada Tick-trefoil	5 oz
Blackeyed Susan	0.2 oz
Smooth Aster	2 oz
New England Aster	0.6 oz
Joe pye weed	1 oz
	= 17 lbs total

- Estimated quantities per acre are based on guidelines set forth by the WDNR. Alterations to these quantities will be based on desired mixes at the time of reclamation and recommendation from the nursery providing seed mixture. A list of nurseries and native-species are contained in Appendix E

7.6.2 Timing of Seed Application

For Mix 2, seed application will occur at any time during the growing season when soil conditions are suitable except between July 1 and August 15. Seeding activities will not be carried out immediately following rain, when the ground is too dry, or during windy periods.

7.6.3 General Seeding and Planting Methods

All plant materials will be handled with care during all phases of re-vegetation (transport, storage, preparation, and seeding) or other plant installation activities. Plant materials that show any evidence of injury, mold, rot or excessive drying will not be used. Seeding will occur after all physical seed bed preparation measures and, if necessary, chemical measures such as soil amendments (*Section 7.6.4 Soil Amendments*) will be done prior to performing seeding.

Seeding activities will be carried out following documented methods and using equipment designed to maximize the success rate.

7.6.4 Mulching

If necessary following seeding, mulch may be applied uniformly at a rate of between 1 and 1.5 tons per acre. Mulch may be wheat straw, marsh hay or equivalent weed-free mulch. Mulching operations will begin at the top of the slope and proceed downward and may be applied by hand, blower, or other suitable equipment. Additional mulching materials may include retention blankets, matting, wood chips, and/or sawdust.

7.7 Pond Creation

Approximate locations of post-reclamation ponds are included on *Figure 6 – Final Site Contours* (Appendix A). The existing basin and sediment ponds used for the process operations will be converted into permanent ponds. Additional construction will include sediment removal and vegetative stabilization. An additional pond will be constructed during the mining activities within the active and phased areas (see *Figure 6*). The ponds will be designed to complement and improve the quality of the habitat that exists naturally at the property. The shoreline of the ponds will be constructed to create an irregular shape that will attract a greater variety of wildlife. The bottom contour of the pond will be uneven and rolling allowing for more variable water depths throughout the basin. The various depths will allow for more diverse vegetation that will filter sediment, take up nutrients, and improve water quality.

Seeds and fragment brought in by the wind, waterfowl, and furbearing animals are expected to populate the pond with aquatic plants. A buffer area of upland grass (i.e. Mix 2) will be established and maintained around the perimeter of the pond to provide nesting habitat, cover, and sediment control. If mowing around the pond is necessary during the growing season, it should be delayed until after August 1st to avoid disturbing nesting of water fowl, upland game birds and other wildlife.

7.8 Re-vegetation

The re-vegetation success criteria will be used to verify that reclamation and re-vegetation of the site is complete, thus, releasing financial assurance. The re-vegetation standard will evaluate the stability of the site and degree of vegetative cover that will reduce erosion and sedimentation. The re-vegetation success criteria may be based upon reference areas surrounding the property and areas that have not been affected by the mining operations. Photo-documentation may provide vegetative growth. Additionally, percent cover (typically 70%) may be estimated and documented to represent the vegetative cover of the entire site. A reference copy of Wisconsin Technical Note (May 15, 1991) *Guidelines for Herbaceous Stand Evaluation* is contained in Appendix E.

7.9 Erosion Control

Erosion control will be implemented to minimize erosion and limit the potential for sediment run-off into surface water. BMPs contained within the SWPPP have been and will be implemented to address sediment run-off. The following principles are followed at the site to control erosion:

- Where runoff from undisturbed areas occurs, the runoff is diverted to the extent practical around any actively mined area that is not currently reclaimed on an interim basis. This may be

performed through grading to direct all surface water, protective ditches, straw bales, check dams, and/or buffer areas to encourage infiltration and percolation.

- Recently disturbed areas will be stabilized using best management practices such as quick-growing vegetation, mulch, straw bales, erosion control blankets, or equivalent methods. The best management practices will be implemented as quickly as possible.
- Top soil and overburden stockpiles will be placed in a location on-site that will reduce the potential for erosion. The selected location will be protected against wind and water erosion, unnecessary compaction, and contamination by undesirable materials. In necessary, an effective vegetative cover may be planted to provide adequate protection.

7.10 Interim Reclamation

A main element of the reclamation plan is conducting mine operations in a manner that is efficient. This approach, along with contemporaneous final and interim reclamation, will minimize the total area exposed to erosion in accordance with NR 135.06 (2). Sequential interim reclamation will be done so as to minimize the area impacted and to reduce the fees. At this time, interim reclamation has been performed in portions of Phases 1 through 5, as well as, the area southeast of processing operations.

Once the area is stabilized, A.F. Gelhar will request that the regulatory authority consider the increment temporarily reclaimed for the purposes of reduction of fees under NR 135.41.

7.11 Follow-up Inspections and Necessary Site Maintenance

Sediment and erosion control systems will be inspected on a regular basis. Periodic follow-up inspections of all reclaimed or otherwise stabilized surfaces will be conducted to ensure they are in a condition stable enough to control erosion and sedimentation. All reclaimed areas will be inspected and reclaimed.

When damage caused by traffic, wind, water or other cause is detected, all necessary maintenance and repair work to the erosion control system will be performed as soon as possible. Likewise, other work necessary to ensure long-term success of the vegetation including follow-up fertilization, other necessary soil amendments, as well as, any weed or pest control that may be needed to restore and maintain adequate vegetative cover will be accomplished.

Exotic species that occur on the site or are accidentally added through contaminants in the seed mixes or through the use of hay or other mulch products that are not weed free will be controlled through fire, mechanical means or with herbicides. This will continue until the regulatory authority issues the Certificate of Completion (COC).

8.0 ANNUAL REPORTING

Annual reports shall be submitted to the WDNR and/or Green Lake County within 60 days following the end of the calendar year. At a minimum, the annual report will include the following information:

- Name and mailing address of the operator.

- Location of site (legal description and tax key or parcel identification number).
- Permit identification number.
- Current acreage affected by operations and not yet reclaimed.
- Current acreage reclaimed to date on a permanent and interim basis.
- A plan and map showing the acreage described above.
- The following certification signed by the operator.

“I certify that this information is true and accurate, and that the nonmetallic mining site described herein complies with all conditions of the applicable nonmetallic mining reclamation permit and Chapter NR 135, Wisconsin Administrative Code.”

Annual reports shall be submitted by an operator for all active and intermittent mining sites for each calendar year until nonmetallic mining reclamation at the site is certified as completed or at the time of release of financial assurance.

9.0 CRITERIA FOR SUCCESSFUL RECLAMATION

Compliance with the re-vegetation success standards (performance standards) will be demonstrated for each post-mining land use contained in the approved reclamation plan. The techniques employed may include determining percent cover as total cover as measured by coverage of the canopy (vertical projection of plant parts) and will be recorded by species. Cover may be measured over the entire re-vegetated site at no less than 20 randomly placed square meter quadrants for each 10-acre area.

Success criteria will vary with the post-mining land use. In addition, both presence and frequency will be included. The re-vegetation standards described in Section 7.8 may be followed when determining successful reclamation.

10.0 PERMIT MODIFICATION

A request for modification of the permit may be made if changes occur to the area to be mined, the nature of the planned reclamation, or other aspects of mining required for approval by this reclamation plan. Any modifications will be acted using the standards and procedures identified in s. NR 135.24 and local ordinance.

11.0 FINAL SITE ACTIONS

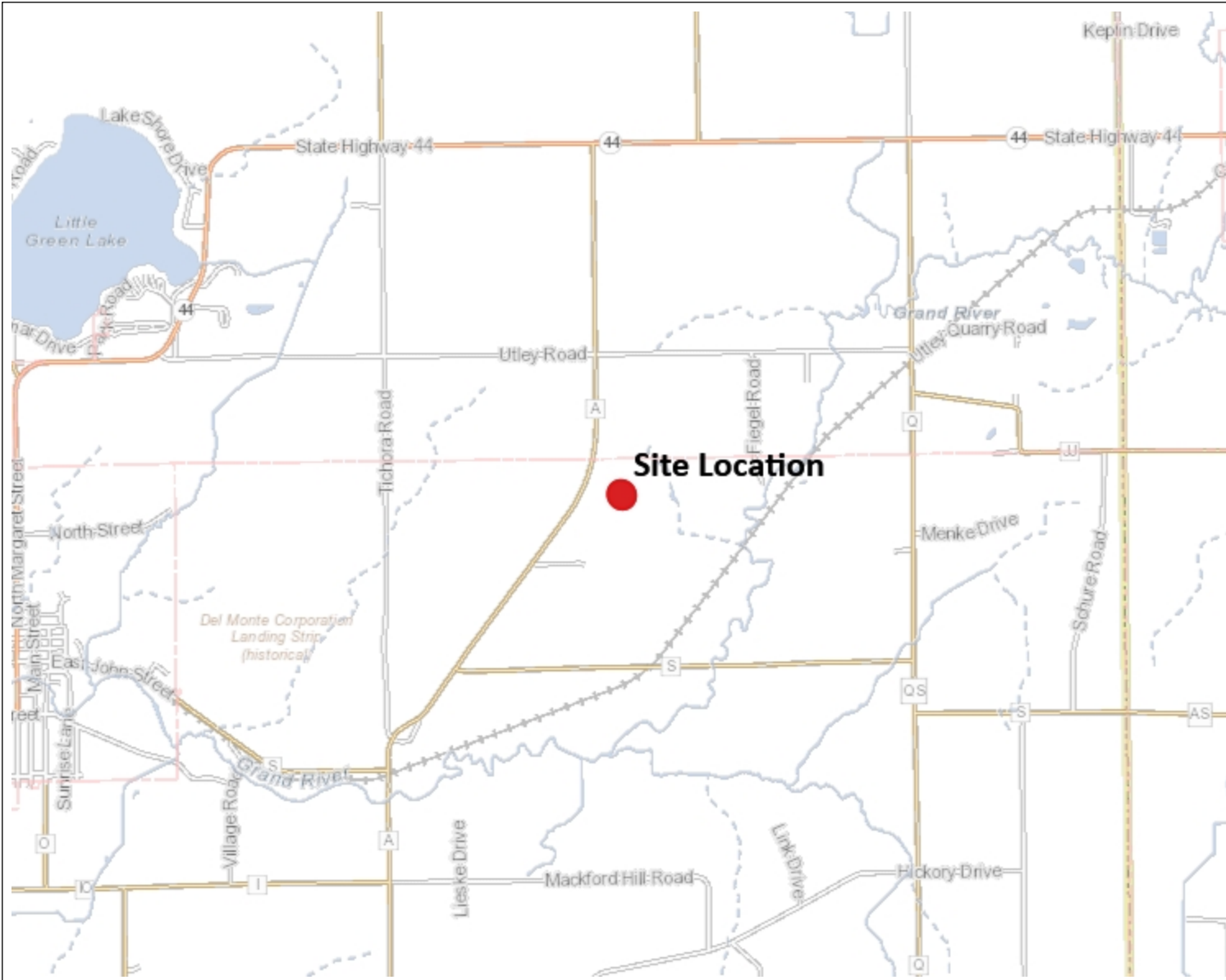
The final removal of mining-related structures, drainage structures and sediment control structures will be accomplished once the vegetative cover is robust enough to provide equivalent protection. At such time and in accordance with the approved reclamation plan those structures will be removed and the soils in such areas will be reclaimed as described in the reclamation plan. At this time the operator will request the Regulatory Authority to perform the necessary inspection and evaluation work to certify the reclamation as complete and to release the financial assurance.

12.0 FINANCIAL ASSURANCE

Financial assurance will be posted based on the number of active acres and current Green Lake County reclamation per acre rate.



Figure 1 Site Location



Legend

- Facility-wide Site



NAD_1983_HARN_Wisconsin_TM

1: 47,520



DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/org/legal/>

Note: Not all sites are mapped.

Notes



LEGEND

- Property Boundary
- - - Active Mine/Sand Removal Area
- - - - Parcel Boundary
- - - - 500' Navigable Waterway Setback
- - - - Previously Mined Area (Pre NR 135)

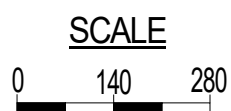


Figure:	Figure 2 - Site Overview	
Site Location:	A.F. Gelhar Company, Inc. Markesan Facility Town of Mackford, WI	Client: A.F. Gelhar Co., Inc.
Source:	2021 Aerial Photo Google Earth	Date: April 2022
		Scale: 1" = 280'
		Drawn By: EEV



LEGEND

- Property Boundary
- Previously Mined Area (Prior to NR 135)
- Processing Operations
- Active Mine Operations
- Future Mine Operations
- Reclaimed Areas

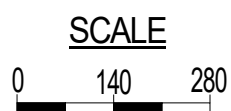
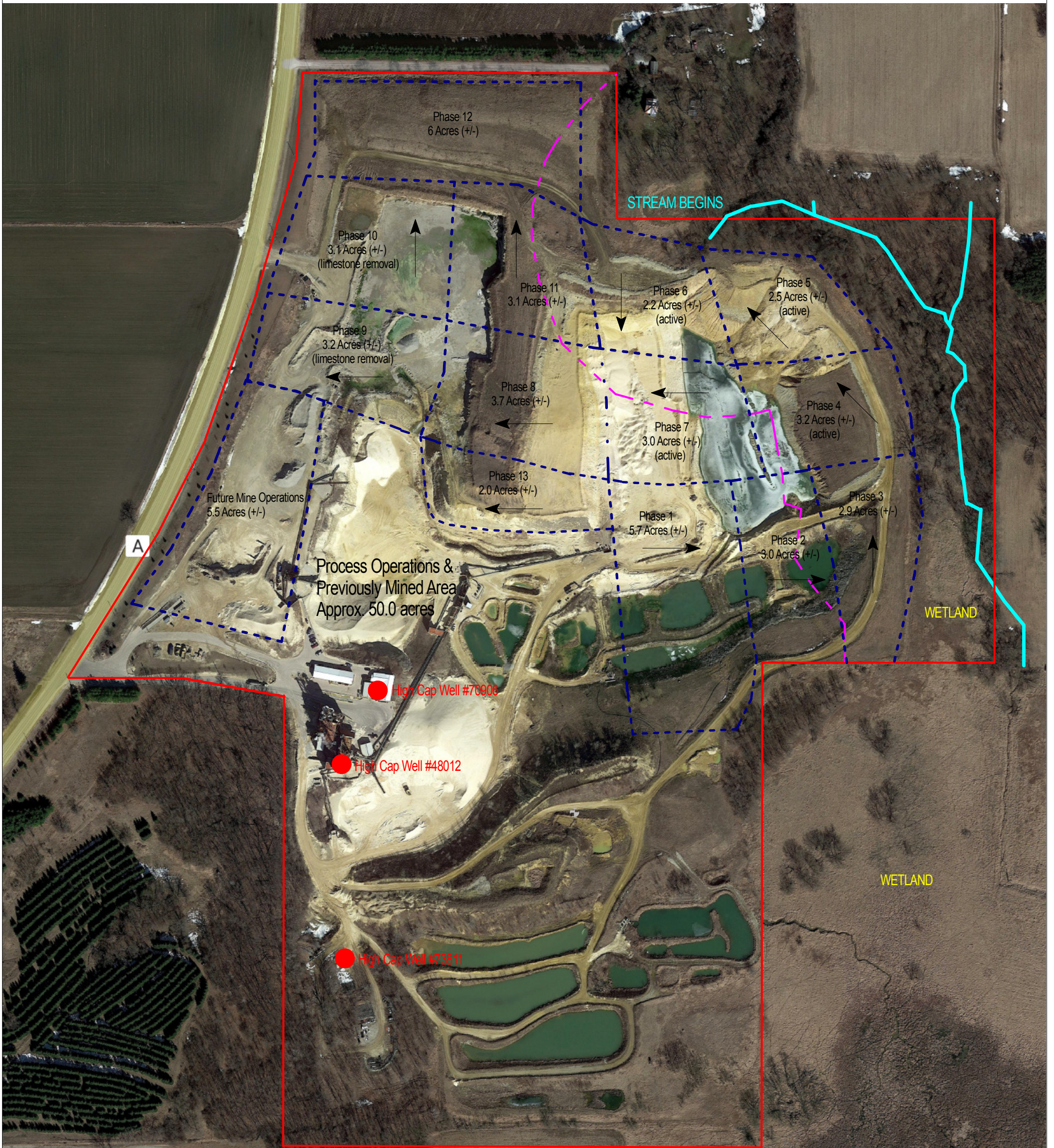


Figure:	Figure 2a - Current Site Areas and Operations	
Site Location:	A.F. Gelhar Company, Inc. Markesan Facility Town of Mackford, WI	Client: A.F. Gelhar Co., Inc.
Source:	2021 Aerial Photo Google Earth	Date: May 2022
		Scale: 1" = 280'
		Drawn By: EEV



LEGEND

- Property Boundary
- - - Mining Phase Boundary
- - - 500' Navigable Waterway Setback

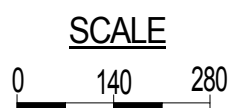


Figure:	Figure 3 - Site Detail Map	
Site Location:	A.F. Gelhar Company, Inc. Markesan Facility Town of Mackford, WI	
Source:	2021 Aerial Photo Google Earth	Client: A.F. Gelhar Co., Inc.
		Date: April 2022
		Scale: 1" = 280'
		Drawn By: EEV

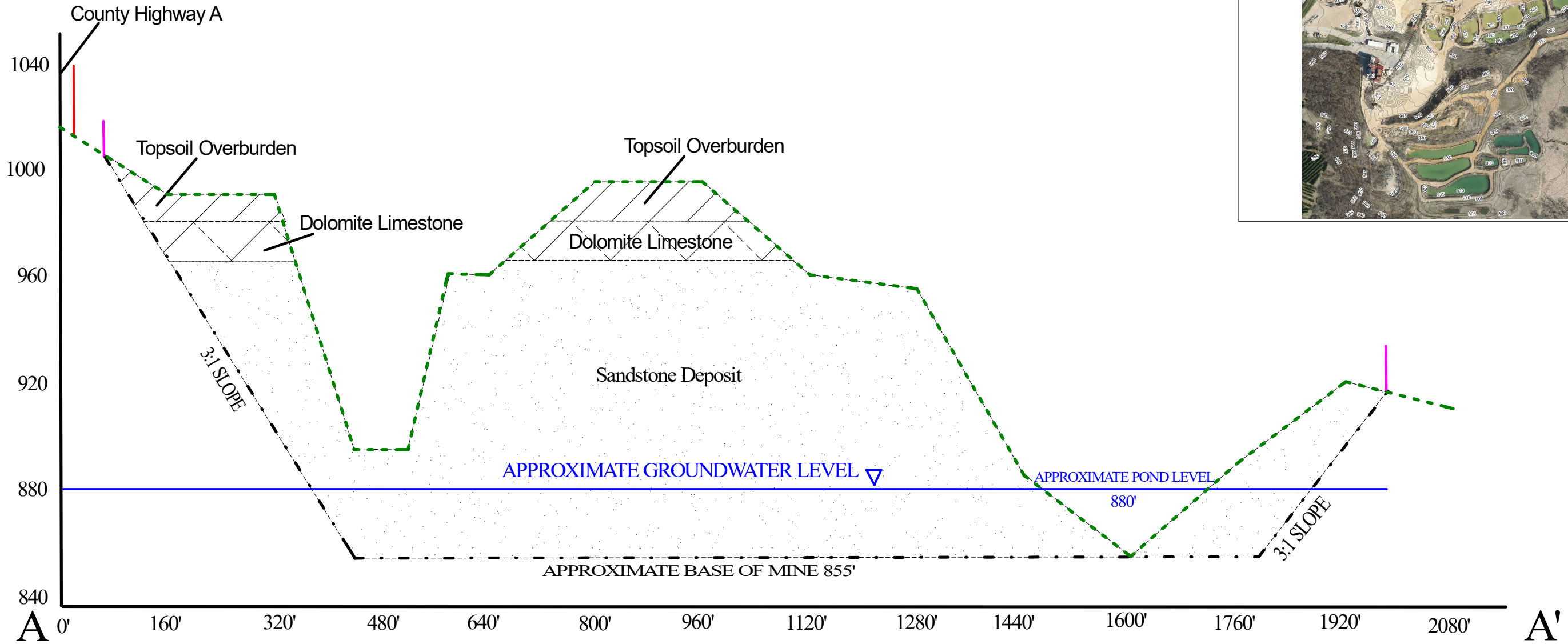
Figure 4 - Site Topography Map
AF Gelhar
N2402 County Road A, Green Lake County, WI
April 2022



Legend
—— 2018 5' Contours



OVERVIEW



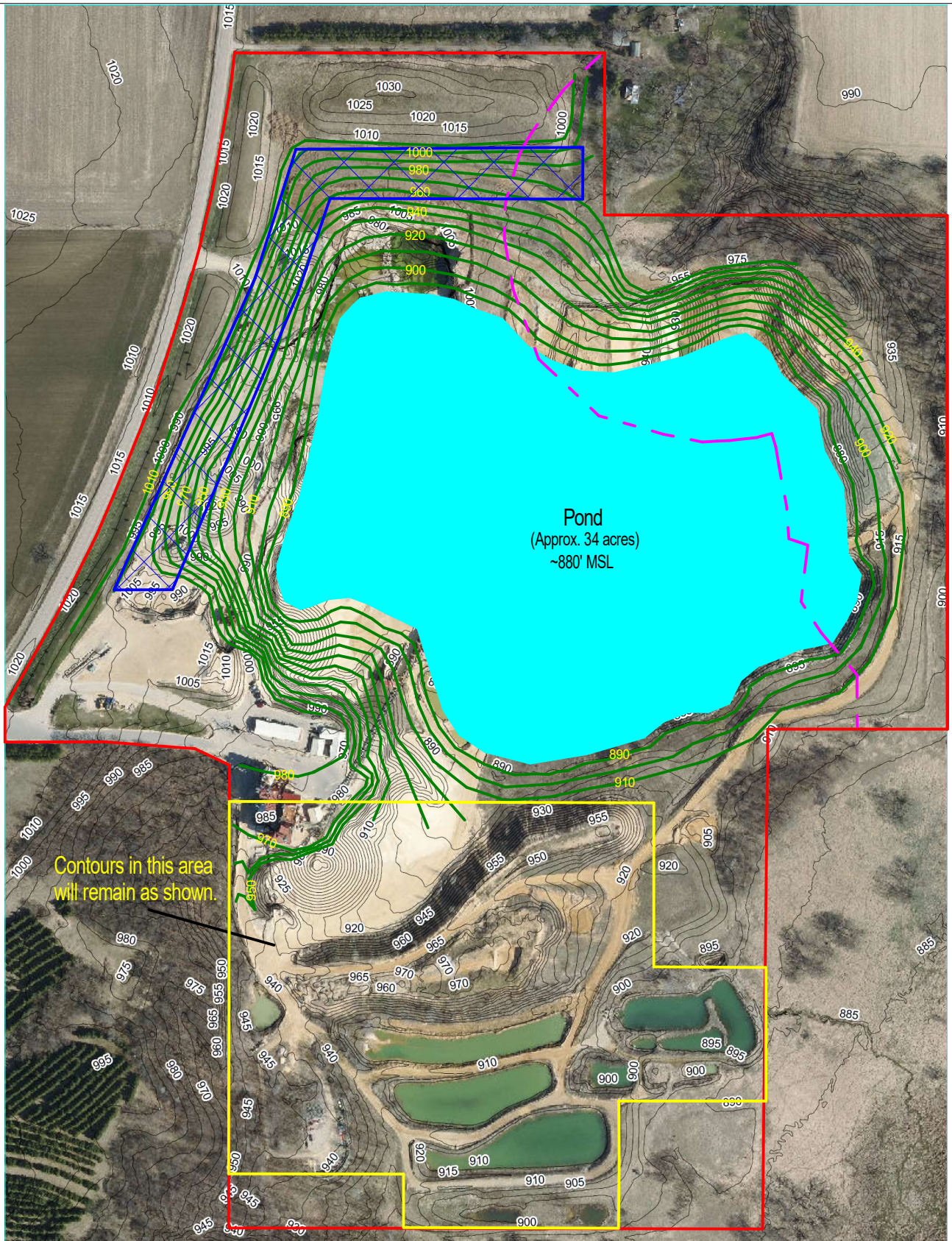
Vertical Scale - 1" = 40'
 Horizontal Scale - 1" = 160'

LEGEND

- Approximate Property Boundary
- Approximate Mine Site Boundary

Figure:	Figure 5 - Geologic Cross Section	
Site Location:	A.F. Gelhar Company, Inc. Markesan Facility Town of Mackford, Wisconsin	
Source:	2018 Contours/Site Survey	Client: A.F. Gelhar Co., Inc.
		Date: April 2022
		Scale: As Shown
		Drawn By: EEV







Contours in this area will remain as shown.

Legend

- 2018 5' Contours
- Approx. Final Site Contours
- Area of Potential High Wall
- - - 500' Navigable Waterway Setback
- Property Boundary

Figure:	Figure 6 - Final Site Contours	
Site Location:	A.F. Gelhar Company, Inc Markesan Facility Town of Mackford, Wisconsin	
Source:	Green Lake County GIS	Client: A.F. Gelhar Company, Inc
		Date: April 2022
		Scale: 1" = 400'
		Drawn By: EEV

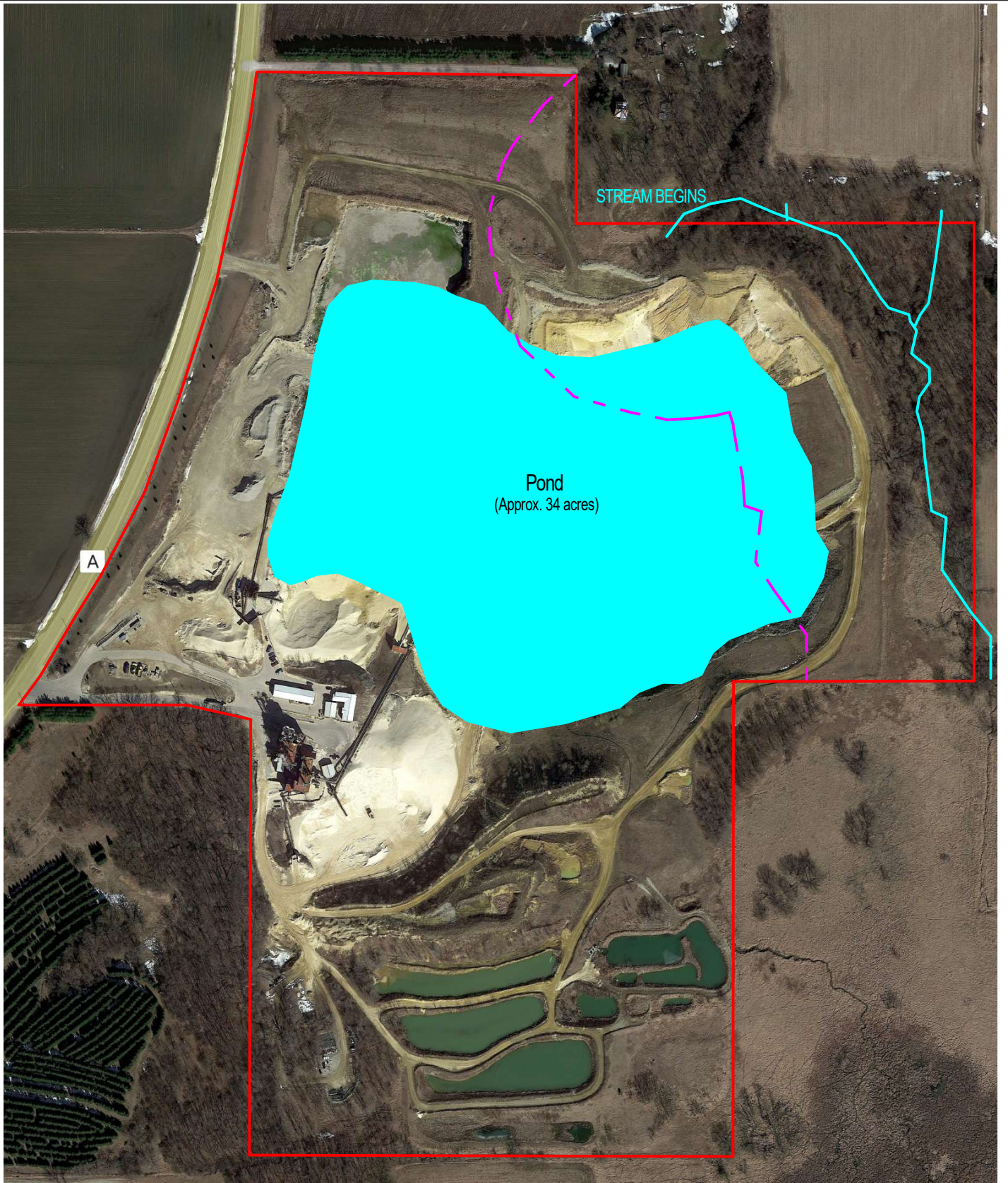


Legend

- Approx Site Boundary
- Soil Type Boundary

Map Unit Symbol	Map Unit Name
DdB	Dodge silt loam, 2 to 6 percent slopes
JoA	Joy silt loam, 0 to 3 percent slopes
KeD2	Kidder loam, 12 to 20 percent slopes, eroded
KwB	Knowles silt loam, 2 to 6 percent slopes
Os	Ossian silt loam
PnA	Plano silt loam, till substratum, 0 to 2 percent slopes
RhC2	Ritchey silt loam, 6 to 12 percent slopes, eroded
RhD2	Ritchey silt loam, 12 to 20 percent slopes, eroded
RkE	Rock land and Ritchey soils, 6 to 45 percent slopes
RsD	Rodman gravelly sandy loam, 6 to 20 percent slopes
ScB	St. Charles silt loam, 2 to 6 percent slopes

Figure:	Figure 7 - NRCS Soils Map	
	Site Location:	
Source:	USDA NRCS	Client: A.F. Gelhar Company, Inc
		Date: April 2022
		Scale: 1:500 43 Drawn By: EEV



Legend

- - - 500' Navigable Waterway Setback
- Property Boundary

DNR Regulated = 34 acres
 Green Lake County Regulated = 83 acres
 Total = 117 acres

Figure:	Figure 8 - Site Regulation	
Site Location:	A.F. Gelhar Company, Inc Markesan Facility Town of Mackford, Wisconsin	
Source:	2021 Aerial Photo Google Earth	Client: A.F. Gelhar Company, Inc
		Date: April 2022
		Scale: 1" = 375'
		Drawn By: EEV
		

Water Reuse Program

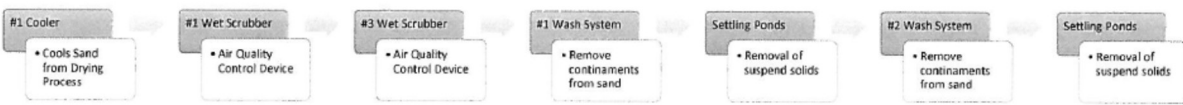
A.F. Gelhar Company is currently permitted with the State of Wisconsin to withdraw both surface water and groundwater. As per the permit, the facility has been evaluated and approved for both surface water and groundwater removal as part of the nonmetallic mining operation. Based on the permit limits and approval precedence has been established with respect to protection of surface and groundwater hydrology.

The facility has an established water management program to whenever possible to reuse water at least twice if not multiple times before it is finally returned to the Grand River system. The following summarizes the facility water usage:

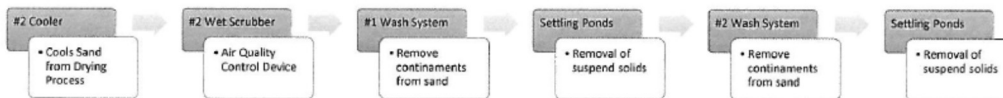
The facility currently uses onsite water to support two wash plants, coolers which are used to lower the temperature of sand after drying, and to control particulate matter emissions by using wet scrubbers and applying water to roadways and sand piles. All water is used at least twice through the various processes listed above. Small amounts of water are also used in the offices.

First use well water is used in the sand cooler and then again in the wet scrubbers. Water from the scrubbers is used in the wash system and then discharged to the settling ponds. The water from the settling ponds is also used again in the wash plants. Some of the water post use from the coolers is also used to suppress fugitive dust emissions from the haul roads, yard and stock piles, see water use diagram below.

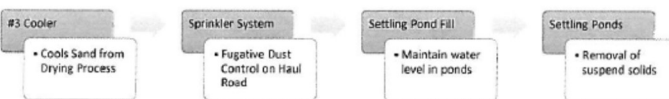
#1 Well South (48012)



#2 Well North (2387)



#3 Well Pond (73811)



Groundwater pumped from the quarry is discharged to the fore-mentioned settling ponds. The ponds are designed to reduce the suspended solids and reused again in the washing process.

Most of the water which is not reused is returned back to groundwater through seepage from the ponds or discharged from the settling ponds to the Grand River via an adjacent wetland. Only a small percentage is retained in the sand or evaporates.

October 24, 2022

Lane Loveland – Water Management Specialist
Wisconsin Department of Natural Resources
225051 Rib Mountain Dr.
Wausau, Wisconsin 54401
Lane.Loveland@Wisconsin.Gov

RE: A.F. Gelhar Co., Inc., N2402 County Highway A, Markesan, Wisconsin
Supplemental Information – Response to Public Comment

Dear Mr. Loveland;

It is our understanding that there was public comment on the subject draft Chapter 30 permit related to the intrusion of water from the dolomite/limestone formation into the subject Nonmetallic Mine (NMM). The specific area of question is present in the northeast portion of the active mine and can be referenced on the enclosed Figure 1 as Area 1.

Summary of Site Geology

In general, the stratigraphic position of the geology formations within the A.F. Gelhar County Hwy A mine site consists of unconsolidated glacial sediment overlying fractured dolomite/limestone with a thin shaley dolomite/limestone layer at the bottom, followed by sandstone. The unconsolidated overburden ranges in thickness from 4 to 20 feet while the underlying dolomite/limestone formation ranges in thickness from 8 to 50 feet. The relatively thin shaley dolomite/limestone layer is about 1 to 2 feet thick, and the sandstone formation is about 45 to 120 feet thick.

Local Ground Water and Surface Water

There are two separate groundwater systems in the area of the NMM. Limited water supply is present in the upper dolomite/limestone formation as described in the site geology. This is a very shallow system that is quickly depleted in absence of rainfall events. The water in this system quickly flows through natural fractures and openings in the bedrock. The fore-mentioned shaley dolomite/limestone unit acts as a barrier which impedes downward flow of water from the dolomite/limestone to the underlying sandstone formation.

The Grand River systems obtains its water from both overland flow and base flow. The intermittent stream near the NMM receives most of its flow from runoff events. The main local water source for this intermittent stream is from the farm fields located north of the subject NMM.

Water Intrusion into NMM

Most NMMs in Wisconsin must manage surface water and groundwater that flow into their mines. These water intrusions are effectively managed by pumping the water out of the mine and then directing the water to nearby receiving water bodies, post treatment. The A.F. Gelhar NMM manages the current water intrusion from the dolomite/limestone formation in the same manner through

pumping and then treating the water through a series of onsite settling ponds. The water is then directed to Grand River system post treatment.

Onsite Observations

On October 6, 2022, Jim Rabideau and Emily Vandersteen of BAY Environmental Strategies (BAY) inspected the fore-mentioned water intrusion from the upper dolomite/limestone formation at the A.F. Gelhar NMM, shown as Area 1 on the enclosed Figure 1. BAY staff observed water flow from the dolomite/limestone formation emanating from a vertical fracture in the bedrock. Associated photographs of this area are enclosed as Attachment 2. The vertical fracture is present from the top of the formation to an estimated 15 feet below grade terminating at the shaley dolomite/limestone layer.

It is our understanding that there had been a similar water intrusion previously located in the northwest portion of the NMM, shown as Area 2 on the enclosed Figure 1. Photographs documenting the former location are present in Attachment 2. According to the AF Gelhar staff, the discharge ceased at Area 2 and began in Area 1 after a scheduled blasting of the dolomite/limestone formation.

Conclusions

It is our opinion that the blasting activities redirected the Area 2 water intrusion to Area 1. Water takes the path of least resistance and, for many reasons, was then directed to its current location. It is also our opinion that surface water from agricultural fields located north of the NMM supply most of the water to the adjacent intermittent stream.

Closing

If you have any questions, please contact us at (920) 347-2234.

Sincerely,

BAY ENVIRONMENTAL STRATEGIES, INC.



James Rabideau, Professional Geologist #1143-013
President & Senior Project Manager

Enclosures:



Figure 1 – Water Intrusion Locations

Attachment 2 - Water Intrusion Site Photos



Legend

- Property Boundary
- Area 1 - Current Water Intrusion Location
- Area 2 - Prior Water Intrusion Location

Figure:	Figure 1 - Water Intrusion Locations	
Site Location:	A.F. Gelhar Company, Inc Markesan Facility Town of Mackford, Wisconsin	
Source:	2021 Aerial Photo Google Earth	Client: A.F. Gelhar Company, Inc
		Date: October 2022
		Scale: 1" = 375'
		Drawn By: EEV



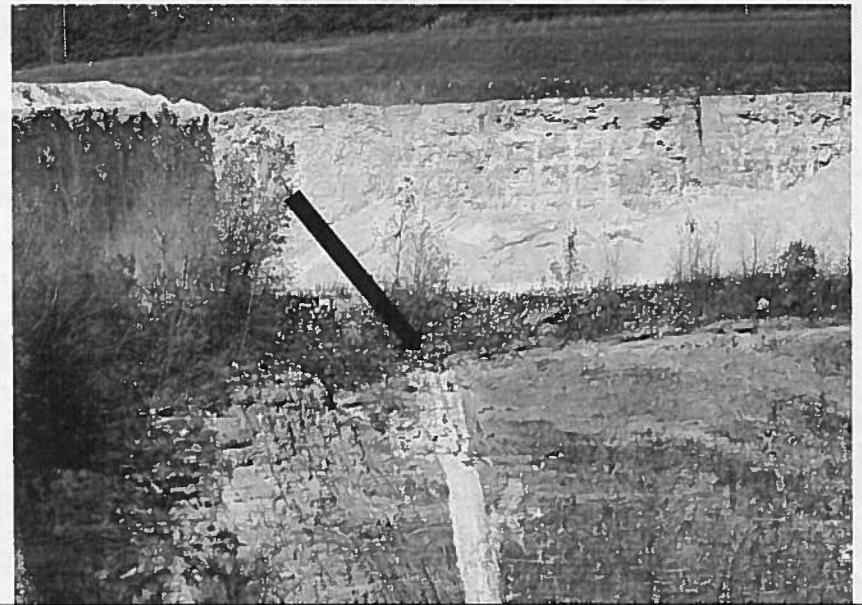
Area 1 current water intrusion location on mine wall



View of current water intrusion in Area 1



View of past water intrusion location in Area 2



Area 2 past water intrusion location on mine wall