

EAST RANGE WATER BOARD
Regular Meeting
Wednesday, May 18, 2022
4:30 p.m. City/Town Government Center

Appointed Board Members for City of Aurora: Doug Gregor, Chairman of the Board; David Skelton; Dennis Schubbe;

Appointed Board Members for the Town of White: Jon Skelton, Vice Chairman of the Board; Clark Nemi;

Other Team Members: Stefanie Dickinson (COA); Jodi Kraus (TOW); Wayne Thuringer (COA); Jim Gentilini (COA); Mike Larson (SEH); Miles Jensen (SEH); Kevin Young (SEH); Mia Thibodeau (Fryberger Law); Shannon Sweeney (David Drown Associates);

AGENDA

1. Call to Order/Roll Call
2. Consent Agenda:
 - a. Approval of April 20, 2022 Meeting Minutes
 - b. Treasurer's Report – Fund Balances
 - c. Approval of Disbursements (Invoices for Approval as listed below)
 1. St. Louis County Access Authorization (for Tree Cutting) - \$936.52
 2. MN Department of Health – Plan Review Fee - \$150.00
 3. SEH - \$7,744.00
 4. East Range Shopper - \$72.45
 - d. Correspondence
 1. MN Department of Health – Plan Review Approval Report
3. Legal Matters –Updates including but not limited to:
 - a. Scenic Acres Land & Facility Title Clearance
 - b. St. Louis County Lease Status – Intake Site
4. Guests – No requests received
5. Engineering Updates - SEH
 - a. Funding Initiatives – Updates by Mike Larson
 - b. Engineering Work – Updates by Miles Jensen
 1. Review Status Report
 2. Scenic Questions
 3. Bat Nesting Sites – Tree Removal Update – Authorization Approved by St. Louis County
6. Community Outreach Plan – tabled last month – further discussion
7. Contingency Plans Discussion – David Skelton
8. Project Labor Agreement – David Skelton
9. Other Business
 - a. St. James Pit & Current Water Plant updates
 - b. Practicality of Project Phasing Discussion – Dennis Schubbe Memo
10. Next Meeting Date: Wednesday, June 15, 2022
11. Adjournment

East Range Water Board
Monthly Meeting Minutes
City/Town Government Center
Wednesday April 20, 2022
4:30 p.m.

PRESENT: Chairman, Doug Gregor; Secretary/Treasurer, David Skelton; Board Member Dennis Schubbe; Board Member, Clark Niemi;

ABSENT: Vice Chairman, Jon Skelton

ALSO PRESENT: Jodi Knaus, Town of White Clerk; Stefanie Dickinson, City of Aurora Clerk & Treasurer; Jim Gentilini, City of Aurora Water Supervisor; Robert Rutka, Bill Maki, Chad Skelton, Mike Larson (SE11), Miles Jensen (SE11 viz Zoom), Mia Thibodeau (Fryberger Law via Zoom)

1.) A board meeting was called to order by Chairman Gregor at 4:30 p.m.

2.) **Approval of Agenda & Minutes**
MOVED BY DAVID SKELTON, SUPPORTED BY DENNIS SCHUBBE APPROVING THE
MARCH 16, 2022 MEETING MINUTES AS PRESENTED. MOTION CARRIED

3.) **Legal Matters**

- a) Scenic Acres Land & Facility Title Clearance – Paul Kilgore, Fryberger Law continues to work on clearing the title and ownership of the existing infrastructure in Scenic Acres.
- b) St. Louis County Lease Status - a draft of the Tax-Forfeited Land Lease Agreement between the Town of White and St. Louis County was distributed for review.

4.) **Guests:** None

5.) **Engineering Updates**

- a) Funding Initiatives -- Mike Larson updated the Board the CDC application was successful as \$2.5 million will be received; Gregor & representatives of the Project will attend Klobuchar's ceremony in Chisholm on Friday; an application was also submitted for 2022; Gregor, Jon Skelton, & Larson met with representatives of the PFA in St. Paul on April 4, 2022 and local legislators to talk about the Project. The total cost of the Project was reviewed. Resolution 2022-001 was reviewed.
MOVED BY CLARK NIEMI, SUPPORTED BY DAVID SKELTON APPROVING
RESOLUTION 2022-001 AUTHORIZING THE EAST RANGE WATER BOARD TO
MAKE APPLICATION TO AND ACCEPT FUNDS FROM THE FEDERAL
CONGRESSIONALLY DIRECTED SPENDING PROGRAMS & ANY OTHER
FEDERAL, STATE, OR LOCAL COMPETITIVE INFRASTRUCTURE FUNDING
OPPORTUNITIES FOR 2022. MOTION CARRIED

- b) Engineering Work – Miles Jensen updated the Board he met with Chad Kohlstad; Status Report dated April 14, 2022 was reviewed. Tree cutting is necessary and must be conducted outside of June 1 through August 15 time frame due to potential presence of the Northern Long Eared Bat. SE11 will mark the corridor and area that needs to be cut. Consensus of Stefanie Dickinson & Jim Gentilini was Aurora Staff with Town of White's help can do this; Jensen indicated permission is needed from St. Louis County; this will be done in August. The executed Phase 1A Archaeological Assessment Agreement with Duluth Archaeology Center LLC was distributed for review. Response from Miles Jensen to Scenic Acres questions regarding emergency water flow

between Biwabik and Aurora is still pending – Biwabik would like this answer also: Natalie White response regarding wetland permits was distributed to the Board indicating MnDOT & St. Louis County will not require a formal determination be made for the temporary wetland impacts.

6.) Community Outreach Plan

A proposal was reviewed by Kristen Peterson with the Board at a cost of \$29,570.00. The dedicated website for the Project could be www.EastRangeWater.com. This cost is higher than anticipated. City/Town staff may be able to do some or all of these tasks to keep costs down. It was also asked what portions of these are already covered as part of the Agreement for Services with SEH. **MOVED BY DAVID SKELTON, SUPPORTED BY CLARK NIEMI TO TABLE TO NEXT MONTH. MOTION CARRIED**

7.) Contingency Plans

David Skelton has been working on the Contingency Plan with the City of Biwabik. The Biwabik bounce for the raft is ten to twelve feet. Once it is approved, then a meeting with Gians Ridge will take place.

8.) Treasurers Report

Treasurer Skelton shared the interim financing loan has an ending balance of \$365,156.22 and the Biwabik Fund has a balance of \$197,378.97 with a combined total funding balance of \$562,535.19 between the two accounts. Invoices were presented for payment. The invoice from NOS Automation LLC was discussed in detail. Treasurer Skelton wanted assurance this equipment would be transferrable to the new water plant and Gentilini confirmed it would be; this invoice is for the equipment only, not installation.

MOVED BY DAVID SKELTON, SUPPORTED BY CLARK NIEMI APPROVING PAYMENT OF INVOICE #1202203010 IN THE AMOUNT OF \$18,256.62 OUT OF THE INTERIM FINANCING ACCOUNT TO NOS AUTOMATION LLC BECAUSE THE EQUIPMENT WILL BE TRANSFERRED TO THE NEW WATER PLANT. MOTION CARRIED

MOVED BY DOUG GREGOR, SUPPORTED BY DENNIS SCHUBBE APPROVING PAYMENT OF INVOICE #423541 IN THE AMOUNT OF \$704.00 TO SEH FOR SERVICES PERFORMED TASKS 2 THROUGH 4. MOTION CARRIED

MOVED BY DENNIS SCHUBBE, SUPPORTED BY CLARK NIEMI APPROVING PAYMENT IN THE AMOUNT OF \$2,004.00 TO THE LEAGUE OF MINNESOTA CITIES INSURANCE TRUST FOR PROPERTY/CASUALTY COVERAGE FOR THE EAST RANGE WATER BOARD. MOTION CARRIED

MOVED BY DOUG GREGOR, SUPPORTED BY DENNIS SCHUBBE APPROVING PAYMENT OF INVOICE #22438.000001.12203 TO FRYBERGER LAW FIRM IN THE AMOUNT OF \$2,942.00 FOR LEGAL SERVICES PERFORMED. MOTION CARRIED

9.) Correspondence Received

The LMCIT Coverage Binder, a copy of the Thank You published in the East Range Shopper, and the PFA Update Briefing Session Handout were reviewed and are to be placed on file.

10.) Other Business

a.) St. James Pit & Current Water Plant Updates – Stefanie Dickinson & Jim Gentilini updated the water study is on-going and winter dewatering approval has been received by the State and will begin April 19, 2022. Pit levels have risen six inches. Study on sulfates is currently happening. Gentilini invited the Board to tour the water plant. This will take place at 3:30 prior to the next meeting on May 18, 2022. Dickinson & Gentilini would like to see the Project go out for bids very soon. A comfort level of cost needs to be found. Things are going to continue to increase in cost. A

contingency plan needs to be put in place in case this Project cannot be funded. Gregor indicated the City of Aurora needs to have discussions about what the comfort level is for gap funding.

- b.) Rate Analysis – There is nothing new to report.
- c.) A sample timesheet was distributed and reviewed to begin using to submit hours for payment by non-elected officials.
- d.) Consent Agenda will be used in the future to reduce the agenda items.

12.) **Adjournment**

MOVED BY CLARK NIEMI, SUPPORTED BY DAVID SKELTON TO ADJOURN THE MEETING AT 6:38 P.M. MOTION CARRIED

Next Regular East Range Water Board Meeting Date: May 18, 2022 at 4:30 p.m.

Respectfully Submitted, Jodi Knaus

May 19, 2022 Disbursements

COMPANY	AMOUNT PAID
EAST RANGE SHOPPER	\$ 72.45
MINNESOTA DEPARTMENT OF HEALTH (MDH)	\$ 150.00
SEH	\$ 7,744.00
ST. LOUIS COUNTY LAND & MINERALS	\$ 936.52
Grand Total	\$ 8,902.97



Saint Louis County

Land and Minerals Dept. • www.stlouiscountymn.gov • landdept@stlouiscountymn.gov

Julie Marinucci
Land Commissioner

4/29/2022

RECEIVED

MAY 09 2022

Town of White
For the East Range Water Board
16 West 2nd Ave. North
P.O. Box 146
Aurora, MN 55705

CITY OF AURORA

Access Authorization: A15220001

Type: Right of Way (05) Subtype: Other (99)

Expiration Date: 9/1/2022

This letter will serve as authorization for the above named and it's contractors to enter upon tax-forfeited land as described under Legal Description for the purpose of site preparation and clearing of timber for construction of water intake facility with limitations and restrictions as listed below.

This letter must be available on-site when working on State tax-forfeited lands.

Legal Description: SW¼ of NW¼ Section 5, Township 58N, Range 15W; SEE EXHIBIT B
Payment Amount: \$936.52

Limitations and Restrictions:

1. This authorization is limited to the established facility footprint on State tax-forfeited lands within the described sections as illustrated on the attached maps for the sole purpose described above.
2. Access to the project area must utilize authorized access routes.
3. Permittee must maintain or immediately repair any access that is located on an established road or trail.
4. Precautionary signs must be posted and maintained by the GRANTEE at both ends of any segment of the trail involved in this contract, at least 200 feet on either side of where logging or hauling operations are being conducted. The signs must be placed so that they are readily visible.
5. Permit may be extended with prior written consent from the Land and Minerals Department.
6. Permittee agrees to pay timber damages as assessed by the Land and Minerals Department for the removal of merchantable timber located on the authorization site. SEE EXHIBIT A
7. Permittee agrees to follow US Fish & Wildlife requirements regarding the Long-Eared Bat and potential nesting sites thereof.
8. Permittee agrees to indemnify, save, and hold harmless the County of St. Louis, its agents and employees, from any and all claims, demands, actions or causes of action of whatsoever nature or character arising out of or by reason of the execution or performance of the terms and conditions provided for in this authorization and

Land Commissioner's Office
320 West 2nd Street, GSC 302
Duluth, MN 55802
(218) 726-2606
Fax: (218) 726-2600

Pike Lake Area Office
5713 Old Miller Trunk Hwy
Duluth, MN 55811
(218) 625-3700
Fax: (218) 625-3733

Virginia Area Office
7820 Highway 135
Virginia, MN 55792
(218) 742-9898
Fax: (218) 742-9870

"Trust Lands, Managed For The People Of This County"

further agrees to defend at its own sole cost and expense, any actions or proceedings commenced for the purpose of asserting any claim of whatsoever character arising hereunder.

9. Additional Terms None if checked

Land Department Representative

Applicant

Date

Enc: Exhibit A, Exhibit B Map

cc: Green Screen, AO, FO, GIS

Extend Authorization to: _____

Approved by: _____

Date



Plan Review Fee Sheet

Office Use Only	
Plan No.	_____
Deposit No.	_____
Deposit Date	_____

- **Watermains**
 - 1 set of plan and specifications are required
- **Wells, storage, booster stations, and water treatment plants**
 - 2 sets of plans and specifications are required
- **Interconnections**
 - 1 interconnection plan and hydraulic analysis are required

RECEIVED
MAY 10 2022
CITY OF AURORA

Plans and Specifications Must Be Signed by a Professional Engineer registered in the State of Minnesota

How to Submit Plans

By U.S. Mail
Minnesota Department of Health
Drinking Water Protection-Plan Review
P.O. Box 64975
St. Paul, Minnesota 55164-0975

By Courier service, etc.
Minnesota Department of Health
Drinking Water Protection-Plan Review
625 North Robert Street
St. Paul, Minnesota 55155

This application must be completed and fee submitted before the plans will be reviewed.
Note: Multiple fees are required if more than one project type is included on one set of plans.

Review Fee by Project Type(s)

- | | |
|---|---|
| <input type="checkbox"/> Watermains \$150 | <input type="checkbox"/> Interconnection ----- |
| <input checked="" type="checkbox"/> Pumphouse \$150 | <input type="checkbox"/> Well \$250 |
| <input type="checkbox"/> Treatment Plant \$1,000 | <input type="checkbox"/> Chemical Feed \$150 |
| <input type="checkbox"/> Storage (Installation) \$300 | <input type="checkbox"/> Treatment Plant (Renovation) \$250 |
| <input type="checkbox"/> Booster Station \$150 | <input type="checkbox"/> Storage (Coating) \$100 |

Total Fee Submitted \$ 150.00 under separate mailing
(Payable to Minnesota Department of Health)

Required Information

Is this a drinking water revolving fund loan project? Yes No

Name of Project East Range Raw Water Intake and Pump Station

Project Location City of Aurora, MN, and Town of White, Minnesota St. Louis County
City (If not Incorporated, Township) _____ County _____

Owner's Name East Range Water Board

Owner's Address 16 West 2nd Avenue North Aurora MN 55705
Street _____ City _____ State _____ ZIP _____

Submitter's Name Miles Jensen, PE; Shore Elliott Hendrickson Inc.

Submitter's Address 3535 Vadnais Center Drive, St. Paul, MN 55110
Street _____ City _____ State _____ ZIP _____

Submitter's Telephone Number (651) 775.5031

Submitter's Email mjensen@sehinc.com

Minnesota Department of Health
PO Box 64975
St. Paul, MN 55164-0975
651-201-4700
Fax 651-201-4701
health.drinkingwater@state.mn.us
www.health.state.mn.us

11/27/2017

To obtain this information in a different format, call: 651-201-4700. Printed on recycled paper.



Invoice

Short Elliott Hendrickson, Inc. FEIN: 41-1251208 | 651.490.2000 | 800.325.2055

Invoice Number: 426171

RECEIVED

MAY 17 2022



BILL TO:
CITY OF AURORA

Attn: Accounts Payable
East Range Water Board
16 West 2nd Avenue North
AURORA MN 55705

REMIT PAYMENT TO:

Short Elliott Hendrickson, Inc.
PO Box 64780
Saint Paul, MN 55164-0780

Pay This Amount	\$7,744.00
Due Date	15-JUN-22
Invoice Date	16-MAY-22
Bill Through Date	30-APR-22
Terms	30 NET
SEH Customer Acct #	84463
Customer Project #	
Agreement / PO #	163450
Authorized Amount	\$562,968.00
Authorized Amount Remaining	\$63,815.00
Project Manager	Miles Jensen mjensen@sehinc.com 651.490.2000
Client Service Manager	Berlita Crow bcrow@sehinc.com 651.490.2000
Accounting Representative	Justin Oelischlager joelischlager@sehinc.com 651.490.2000

Project #	Project Name	Project Description
163450	ERWBD Tasks 2-4 East Range WTP	ERWBD Aurora Tasks 2-4 East Range WTP

Notes:

CC:

kimberly@ci.aurora.mn.us
cityclerk@ci.aurora.mn.us
lindsey@ci.aurora.mn.us

Fee
Description
(90% of \$70,400.00) less previously billed of \$55,616.00

Amount
\$7,744.00
\$7,744.00

Invoice total **\$7,744.00**

Project Billing Summary

	Current Amount	Previously Invoiced	Cumulative
Totals	\$7,744.00	\$491,409.00	\$499,153.00

EAST RANGE SHOPPER

BOX 206 AURORA, MINNESOTA 55705

PHONE 218-229-2245

RECEIVED

INVOICE NO. ERS 042210

MAY 01 2022

INVOICE DATE April 2022

TO: East Range Water Board
c/o City of Aurora
P O Box 160
Aurora, MN 55705
CITY OF AURORA

TERMS: This sale is not being financed. NET payment is due the 10th of the month following purchase. Payment is not received by the 30th day of the month following purchase will be in default and a charge of 1 1/2% per month (18% per annum) will be assessed against any delinquent account, \$2.50 per month minimum.

OUR JOBNO.	DATE	YOUR P.O. NO.	DESCRIPTION	AMOUNT
	4-11-22		10.5" Thank You	72.45

Please Pay From This Invoice - No Statements Sent Unless Requested



2.0.1.

Protecting, Maintaining and Improving the Health of All Minnesotans

Division of Environmental Health
PLAN REVIEW APPROVAL

Plans and specifications on treatment plant (new): East Range Raw Water Treatment Plant Improvements and Raw and Finished Watermain Improvements, Aurora, St. Louis County, Plan No. 220373, PWSID 1690002

OWNERSHIP: Aurora City Council, c/o City Clerk, Aurora City Hall, 16 West Second Avenue North, Aurora, Minnesota 55705

SUBMITTER(S): East Range Water Board, 16 West Second Avenue North, Aurora, Minnesota 55705
Short Elliott Hendrickson, Inc., c/o Mr. Miles B. Jensen, P.E., 3535 Vadnais Center Drive, St. Paul, Minnesota 55110

Date Received: February 1, 2022

Date Reviewed: April 15, 2022

APPROVAL: Based on the information provided to the Minnesota Department of Health (MDH) for review, this project is approved, contingent upon the project meeting all of the requirements listed below. Construction must be according to the plans and specifications provided to MDH.

LIMITED SCOPE: This review is limited to the project design's effect on the safety and sanitary quality of the drinking water and assumes the data on which the design is based are correct. Examination is based on MDH rules and applicable standards. This report applies to this project only, and not to any additional parts of the water system. The project designer is responsible for the project's features and equipment effectiveness.

ALTERATIONS: MDH must approve any changes that deviate from the approved plans before any changes are made. Otherwise, the construction will be considered installed without proper approval.

INSPECTIONS: It is the responsibility of the owner or owner's agent to arrange for any inspections that are listed in the requirements of this report. **The project owner must retain the plans at the project location.**

The project consists of the construction of a new 800,000 gallon per day surface water treatment plant for the City of Aurora and the Town of White. The plant consists of redundant treatment trains for coagulation/rapid mix, flocculation, sedimentation with plate settlers, and filtration through anthracite/silica sand media. Filtered water is then passed through a 73,200 gallon clearwell designed with a baffling factor 0.5. The clearwell is connected to a 41,000 gallon wet well where water is pumped to the distribution systems of Aurora and White Township. Chemical feeds include coagulant, polymer, powder activated carbon, gas chlorine and fluoride. Space is available for a future corrosion control inhibitor if needed. Sludge/drainage from the flocculation and sedimentation tanks as well as backwash water and filter-to-waste water are collected in a backwash holding tank before being pumped to the sanitary sewer through an air gap manhole. Backup power for the treatment plant will be provided by a natural gas generator.

Plumbing for the treatment plant includes water closets, urinals, and lavatory sinks for two single use restrooms; a shower and sink in the shower room; sinks in the control room and breakroom; a sink and washing machine hookup in the garage; mop sinks on each floor; multiple emergency eyewash/showers; miscellaneous floor and trench drains; a gray water sump; reduced pressure zone backflow preventer; miscellaneous hose bibbs and wall hydrants; roof drainage piping; and a natural gas fired water heater.

The project also consists of a new raw water transmission main from the Embarrass Pit to the treatment plant and a new finished water transmission main for Pineville and Scenic Acres in the Town of White. The total watermain project includes the installation of 18,852 lineal feet of 12-inch HDPE, 19,051 lineal feet of 16-inch HDPE, 15 hydrants, 17 valves and a pressure reducing manhole with a bypass line.

The raw water intake station is not covered in this review.

Requirement(s):

Treatment Plant

1. The exhaust system for the gas chlorine room must not be interconnected with the other chemical rooms. It is understood that the chlorine gas room will be individually vented.
2. Smooth-nosed sample taps must be provided before and after any chemical addition.
3. All vacuum/air release valves must discharge at least 18 inches above the floor and equipped with a non-corrodible insect screen. It is understood the vacuum/air release valves for the high service and booster pumps will discharge above the trench drain.
4. Chemical injection points must be located for ease of maintenance whenever possible.

5. All sanitary sewer piping located less than 50 feet from potable water storage must be constructed of piping meeting the Minnesota Plumbing Code requirements for both water distribution and drain, waste and vent usage.
6. The treatment plant must be disinfected in accordance with AWWA C653.
7. Since this project is participating in the Minnesota Drinking Water Revolving Fund (DWRf), we request that the project owner or owner's agent notify the MDH district engineer of any preconstruction meetings. In addition, the DWRf Program Coordinator must conduct a final inspection. Please contact Chad Kolstad, at 651-201-3972, when the project is ready for a final inspection.

Watermain

1. No additional requirements.

Plumbing

1. All plumbing shall be installed in accordance with Chapter 4714. All pipe, fittings, traps, fixtures, materials, and devices shall be listed or labeled by a third-party listing agency and comply with the applicable standards referenced in the code (see Sections 301.2 and 1701.1).
2. All floor drains except emergency floor drains, tell-tale floor drains, and floor drains not used as receptors must be individually vented. The trap to vent distance for individually vented floor drains must meet Table 1002.2. All other floor drains must be installed within 25 feet of a vented branch or main (see Sections 418.2 and 1002.2).
3. Pipe materials used in the plumbing system must meet the following:
 - a. Water distribution piping must comply with applicable standards in Table 604.1.
 - b. Drain, waste, and vent piping must comply with Table 701.2. If plastic pipe is used:
 - i. ABS must meet ASTM D2661, F628, or F1488.
 - ii. PVC must meet ASTM D1785, D2665, F891, F1488 or F1760.
 - iii. Support above-ground horizontal pipes at each horizontal branch connection and at least every 4 feet. Above-ground runs must use approved expansion joints every 30 feet per Table 313.3.1.
 - iv. PVC solvent weld joints must use ASTM F656 purple primer and ASTM D2564 solvent cement.

4. A cleanout is required near the connection of the building drain and building sewer (see Section 719.1).
5. If the water supply for the emergency eyewash extends through the bowl, the eyewash must discharge indirectly to the sanitary sewer.
6. Trench drains shall comply with ASME A112.6.3, ASME A112.3.1, or be constructed of watertight material and joints tested by filling with water to the flood level rim (see Section 423.1).
7. Equipment used for heating water or storing hot water shall be protected by approved safety devices in accordance with Sections 504.4, 504.5, and 504.6. Discharge piping shall be an approved temperature-rated material the same size as the valve outlet and must terminate within 18 inches of the floor or a safe place of disposal (see Section 608.5).
8. The installation of reduced pressure principle assemblies, double check valve assemblies, pressure vacuum breakers, spill-proof vacuum breakers, reduced pressure detector fire protection assemblies, or double check detector fire protection assemblies is permitted only when a testing and inspection program acceptable to the administrative authority is provided (see Section 603.5.23). The administrative authority must be notified prior to installation and the water purveyor within 30 days of installation. Devices must be tested upon initial installation and not less than annually, and records must be kept. Installations must be at least 12 inches and not more than 5 feet above the finished floor or ground level unless a permanent platform for access is provided. A backflow prevention fact sheet may be viewed at:
http://www.dli.mn.gov/sites/default/files/pdf/fs_backflow.pdf
9. Potable and nonpotable water distribution systems and outlets must be identified per Section 601.3.
10. The water distribution system shall be disinfected per Section 609.9.
11. A hose thread water outlet without listed integral backflow prevention must be provided with an ASSE 1052 non-removable hose bibb-type backflow preventer; an ASSE 1011 non-removable hose bibb type vacuum breaker; or an ASSE 1001 atmospheric vacuum breaker on the discharge side of the last control valve at least 6 inches above the highest point of usage (see Sections 603.5.7, 603.4.6, and [Table 603.2](#)).
12. Wall hydrants must meet ASSE Standard 1019 or ASSE 1053 (see [Table 603.2](#) and Section 603.5.7).

East Range Raw Water Treatment Plant
Improvements and Raw and Finished Watermain Improvements
PWSID 1690002
Treatment Plant (New)
Plan No. 220373
Page 5
April 18, 2022

13. The plumbing system shall be tested in accordance with Sections 609.4 and 712.0.
14. Please contact the Minnesota Department of Labor and Industry to schedule plumbing related inspections.

Note(s):

1. This plan currently appears to conform to the paperwork requirements for the DWRf related to Davis-Bacon and State of Minnesota prevailing wages rates and Disadvantaged Business Enterprise (Women and Minority Business). The project engineer should verify that the proper Minnesota prevailing wage schedule(s) and federal Davis-Bacon wage determination(s) are included in the project specification and identify which schedule(s) or determination(s) applies to each major project component.

The project engineer is responsible for updating the Minnesota prevailing wage schedule(s) and Davis-Bacon wage determination(s) as needed/required before lock-in dates. In addition, the Disadvantaged Business Enterprise documents that are included in the project specifications have not yet been completed. It is the project engineer's responsibility to make sure that all documents are satisfactorily completed.

2. All projects seeking funding through the DWRf must meet the requirements of the American Iron and Steel (AIS) provision established in the America's Water Infrastructure Act of 2018. It appears that the contract documents for this project address these provisions but it is ultimately the project owner's responsibility that these requirements are met. For further information about the AIS requirements, please visit:

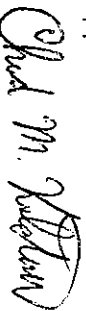
<http://mn.gov/deed/government/public-facilities/funds-programs/index.jsp>

The approval is valid for two years from the date of this letter. If project construction has not begun within the two-year period, plans and specifications must be resubmitted to MDH for approval before any construction takes place. While the project has been contingently approved, changed conditions or additional information may result in additional requirements.

East Range Raw Water Treatment Plant
Improvements and Raw and Finished Watermain Improvements
PWSID 1690002
Treatment Plant (New)
Plan No. 220373
Page 6
April 18, 2022

If you have any questions regarding information contained in this report, please contact me at 65-201-3972 or chad.kolstad@state.mn.us.

Approved:



Chad M. Kolstad, P.E.
DWRF Program Coordinator
Section of Drinking Water Protection
P.O. Box 64975
St. Paul, Minnesota 55164-0975

CMK:bcl

cc: Judy Tacheny, Minnesota Department of Labor and Industry
East Range Water Board
Mr. Miles B. Jensen, P.E., Short Elliott Hendrickson, Inc.
Michael Luhrsen, MDH Duluth

Jodi Knaus

From: Dan Hinzmann <dhinzmanna@sehinc.com>
Sent: Thursday, April 28, 2022 4:44 PM
To: Julie Marinucci, Miles Jensen
Cc: Jodi Knaus; Douglas Gregor (gregor@ci.aurora.mn.us); Mia Thibodeau (mthibodeau@fryberger.com); Clark Niemi; dschubbe@outlook.com; David Skelton (dps825@mchsi.com); Ellie Lemke
Subject: RE: East Range Water Project Tree Cutting Needs
Attachments: E Range Joint Water - Survey Exhibit for County Lease.pdf; E Range Joint Water - Aerial Exhibit for County Lease & Clearing Limits.pdf

Caution: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Julie,
Please see attached for an exhibit describing the lease as well as the anticipated clearing limits for the project. I have also included a signed survey exhibit formally describing the boundary. We are working with the DNR on securing a similar lease for their historic riverbed property.

Please let us know if this gets you moving on establishing the lease. For what it's worth, we only require a permanent lease for Parcel A on the survey exhibit. Parcel B is for temporary construction access and staging.

Dan Hinzmann, PE (MN, WI), LEED-AP
Associate
Professional Engineer
[SEH](#) - Building a Better World for All of Us®
218.260.0798 mobile
Follow [SEH on LinkedIn](#)

SEH's [Amazing Projects video](#) showcases the amazing things we can do when we come together as partners and collaborators.

From: Julie Marinucci <marinuccij@stlouiscountymn.gov>
Sent: Thursday, April 21, 2022 8:47 AM
To: Miles Jensen <mjensen@sehinc.com>
Cc: Jodi Knaus <jodi.knaus@townofwhite.com>; Dan Hinzmann <dhinzmanna@sehinc.com>; Douglas Gregor (gregor@ci.aurora.mn.us) <gregor@ci.aurora.mn.us>; Mia Thibodeau (mthibodeau@fryberger.com) <mthibodeau@fryberger.com>; Clark Niemi <clark.niemi@townofwhite.com>; dschubbe@outlook.com; David Skelton (dps825@mchsi.com) <dps825@mchsi.com>
Subject: RE: East Range Water Project Tree Cutting Needs

Miles-it would be cleanest to get the lease in place before we do any timber removal. If you need to get in there ahead of time, we would have to charge timber damages for any merchantable timber. Let me ask around on this one.

Julie (Varichak) Marinucci
Director | Land Commissioner
Land & Minerals
St. Louis County

marinuccij@stlouiscountymn.gov
o: 218-742-9885

From: Miles Jensen <mjensen@sehinc.com>
Sent: Thursday, April 21, 2022 5:59 AM
To: Julie Marinucci <marinuccij@stlouiscountymn.gov>
Cc: Jodi Knaus <jodi.knaus@townofwhite.com>; Dan Hinzmann <dhinzmnn@sehinc.com>; Douglas Gregor <gregor@ci.aurora.mn.us>; Gregor <gregor@ci.aurora.mn.us>; Mia Thibodeau <mthibodeau@fryberger.com>
<mthibodeau@fryberger.com>; Clark Niemi <clark.niemi@townofwhite.com>; dschubbe@outlook.com; David Skelton <dps825@mchsi.com> <dps825@mchsi.com>
Subject: East Range Water Project Tree Cutting Needs

WARNING: External email. Please verify sender before opening attachments or clicking on links.

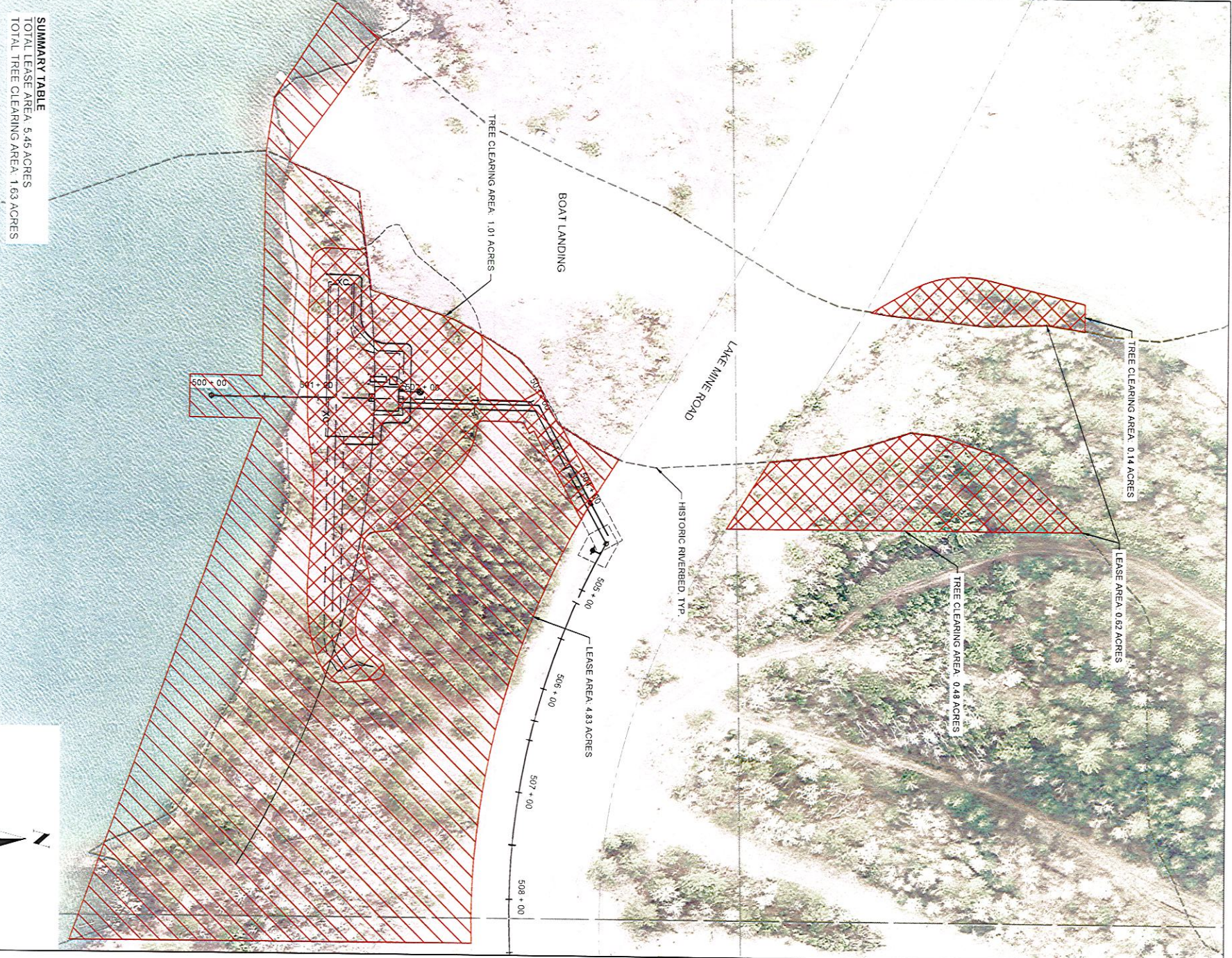
Hi Julie,

As the water project has moved along, we have been informed by the US Fish & Wildlife, via our environment review process, that no tree cutting can occur at the raw water intake site between June 1 and August 15 due to the potential for Long-Eared Bat nesting. Recognizing that the East Range Water Board (ERWB) may be in a position to start construction on that site prior to August 15, there would be a need to cut down the trees on the raw water intake site to make way for construction of the serving water mains and pump station prior to June 1. Our question to you then is, is there a process available where the ERWB could move forward with a tree-cutting process in the next month? I'm guessing that this work would come in advance of the final lease agreement being executed.

Thanks for your consideration of this matter.

Miles B. Jensen, PE
(AZ, CO, IA, IL, IN, KS, MD, MI, MN, MO, ND, NE, NM, OH, SD, TX, VA, WI)
Principal/Water Market Leader
SEH

Direct [651.490.2020](tel:651.490.2020) | Mobile [651.775.5031](tel:651.775.5031)
[3535 Vadnais Center Drive| St. Paul, MN 55110-5196](tel:3535.Vadnais.Center.Drive.St.Paul.MN.55110-5196)
main [651.490.2000](tel:651.490.2000) | fax [651.490.2150](tel:651.490.2150) | toll free [800.325.2055](tel:800.325.2055) | www.sehinc.com



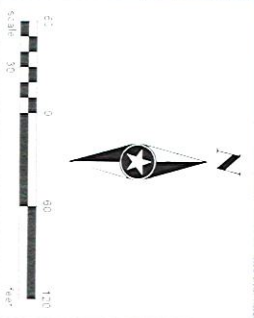
SUMMARY TABLE
TOTAL LEASE AREA: 5.45 ACRES
TOTAL TREE CLEARING AREA: 1.63 ACRES



FILE NO.
AUROR 159723
DATE:
3/16/2022

ST. LOUIS COUNTY LAND LEASE
AURORA, MINNESOTA

EXHIBIT
NO. 1



Proposed Lease Parcel A Description (St. Louis County):

That part of Government Lot 5, Section 5, Township 58 North, Range 15 West, St. Louis County, Minnesota, lying south of the south line of Lake Mine Road as described in Document Number 1263303, on file and of record in the office of the St. Louis County Recorder, and lying east of the east line of the Minnesota Department of Natural Resources tract according to the 6th Judicial District Order File C2-02-603159, and lying north of the following described line:

Commencing at the northeast corner of said Government Lot 5; thence South 00 degrees 00 minutes 54 seconds East, assigned bearing, along the east line of said Government Lot 5, a distance of 582.02 feet to the present shore of Sabin Lake; thence continue South 00 degrees 00 minutes 54 seconds East, along said east line, 51.69 feet to the point of beginning; thence North 68 degrees 51 minutes 43 seconds West, 501.39 feet; thence South 00 degrees 35 minutes 46 seconds West, 67.37 feet; thence North 89 degrees 24 minutes 14 seconds West, 40.00 feet; thence North 00 degrees 35 minutes 46 seconds East, 67.37 feet; thence North 89 degrees 24 minutes 14 seconds West, 209.48 feet, more or less, to said east line of said Minnesota Department of Natural Resources tract, and there terminating.

SEH Project	AUROR159723	Revision Issue Description	Date
Drawn By	brw		
Surveyed By	ts/mf		
Checked By	cal		

LEASE EXHIBIT
EAST RANGE
PROJECT
AURORA, MINN

Aprida Item 5.8.1



STATUS REPORT
EAST RANGE WATER PROJECT
TASK 2 & TASK 3
EAST RANGE WATER BOARD
CITY OF AURORA & TOWN OF WHITE
SEH Project No. 159723

DATE: Friday, May 13, 2022

DISCUSSION ITEMS

The following provides a brief discussion of the project status to date. The items in **BOLD** are new since the 4/14/2022 status report.

DECISIONS AND/OR DIRECTION FROM THE ERWB AT THIS MEETING:

1. Request Town of White to provide guidance for a response to 2.b.4. below.
2. If SEH should delineate the area of tree cutting to assist the ERWB (Town of White) prior to the June 1 deadline?
3. Review and direction on SEH's Public Outreach Plan (Item 11).

1) Task 2 – Final Design

- a) WTP and Raw and Finished Water Main:
 1. Received MDH plan approval letter, dated April 15, 2022, for these two (2) projects.
- b) Raw Water Intake Building:
 1. Two (2) sets of 100% signed construction documents for the Raw Water Intake and Pump Station (RWPS) were submitted to the MDH on Tuesday, May 10, 2022.
 2. Communications with Chad Kolstad indicate the project approval date will be set to match the April 15, 2022 date.
- c) Project Bid Dates:
 1. For the MDH submittals, the proposed project bid dates are just placeholders.
 2. SEH also understands that the final determination for project schedule and bid dates will be made after the funding matters are settled.

2) Appropriations Permit

- a) SEH has submitted the draft the permit application.
- b) 12/17/2021 SEH received the following questions and information request from the DNR that SEH will respond to following discussions with the ERWB:
 1. Amount of groundwater to be appropriated for constructing the caisson/water intake. Include dewatering details, such as proposed receiving water (will it be pumped directly into the Embarrass Pit?). SEH will respond in the final response packet by sharing the dewatering specification from the Raw Water Intake documents.
 2. Provide evidence of ownership, or control of, or a license to use, the riparian property where the water intake will be located. SEH will provide a copy of the SLC lease agreement in the final response packet once it is finalized with the County.
 3. Water Supply Contingency Plans (or other agreements) for the City of Biwabik and Giants Ridge that address potential impacts to their existing water supplies and mitigation for impacts. SEH still needs to update the draft contingency plan agreements for the City of Biwabik and the IRRRB.
 4. Details regarding impacts to the existing public access, such as if the plan is to alter/close the access and inform the public of changes. SEH would like to hear from the Town of White on a response that we can include in the final response packet.
 5. Changes that would be needed to the system if other municipalities are added on to the same system. SEH will respond in the final response packet by stating: There will be no physical changes needed to the Raw Water Pump Station should Biwabik and/or Hoyt Lakes request service in the future. The Raw Water Pump Station and Intake have been physically sized to support service to Biwabik and Hoyt Lakes.
 6. SEH will assemble the collection of responses in one (1) document as soon as all items are addressed.

- 3) Environmental Review:
 - a) Minnesota State Historic Preservation Office (SHPO):
 1. Received draft report from Duluth Archaeology Center, L.L.C. for the Phase Ia archaeological assessment. The draft report recommends further a Phase I archaeological investigation.
 2. SEH is not certain that a further Phase I archaeological investigation will encounter anything of archaeological significance and responded to Duluth Archaeology Center, L.L.C. with the following opinions for discussion:
 - (1) SEH Notes: Virtually all of the water main work is on public ROW that has been previously disturbed for construction of the roadways and utilities that lie in those ROWs. This is inclusive of all proposed water main work including that which passes through Pineville, on Lake Mine Road, on HWY 135 and on Scenic Acres Drive, south of HWY 135.
 - (2) SEH Notes: The site of the proposed Water Treatment Plant is located on the City of Aurora Public Works property that has seen a great deal of disturbance and manipulation over the years and not likely to possess undetected archaeological features.
 - (3) SEH Notes: The Raw Water Intake and Pump Station is proposed to be constructed on the north side of Lake Mine, east of the boat landing.
 - i. SEH Notes: Soil borings taken at the location determined there to be nine (9) feet of fill overlap of glacially deposited sands and gravels that extended to the 90-foot termination depth of the boring.
 - ii. SEH Notes: With that amount of fill being applied across the area, a Phase I archaeological investigation will not be able to pick up on archaeologically significant elements.
 - (4) SEH Notes: No portion of the proposed work will extend into the historic Embarrass River delineation.
 3. SEH's request for edits to draft report:
 - (1) SEH would like to see the contents of the report edited to include research on the historic mining activities associated with the Embarrass Mine.
 - (2) SEH would like to see a discussion provided in the report prior to the Recommendations Section that describes IF further investigations were to be made, just what could be gained if a Phase I archaeological investigation were performed on all of these areas that have previously been, and quite significantly, disturbed. Included in these discussions should be descriptions of the actual site survey activities that would be performed as part of a Phase I archaeological investigation, and finally
 - (3) SEH would like to see the recommendations changed to note that a further Phase I archaeological investigation would be an inefficient expense of time and money and would more closely resemble an effort of "looking for a needle in a haystack".
 - (4) SEH acknowledged that of course, through the execution of the project, should indications of burials are observed during any activities, the Minnesota Office of the State Archaeologist must be notified at 612/725-2411 or 612/725-2729. Local law enforcement must also be notified.
 4. Duluth Archaeology Center, L.L.C. responded to these comments
 - (1) The final report will clarify the lack of potential for buried artifacts in areas that were heavily disturbed for mining (like the 9' of fill at the pumping station area).
 - (2) The final report will be more specific about the Phase I archaeological investigation survey recommended to include a pedestrian walkover, near the south end of the water line in the Pineville area as apparently there's reason to think burial mounds might be present in that area because they're known from areas about that distance from other portions of the historic Embarrass Riverbed. SEH indicated again that this area will have the pipelines constructed within the roadways and so, no mounds exist.

and we have response back from the MDH.

10) Tree Cutting Needs:

- a) Tree cutting must be conducted outside of the June 1 – August 15 time frame due to the potential presence of the Northern Long Eared Bat long-eared bat.
- b) That means if the ERWB plans to move forward with construction of the water project this summer, all tree cutting should be completed before June 1.
- c) SEH will assist the ERWB with delineation of the area where construction is likely to impact trees.
- d) The ERWB should plan to move forward with the tree cutting before June 1, 2022. The trees do not have to be hauled out – just cut down.
- e) **The Town of White received documents on 5/6/2022 to sign for an agreement with St. Louis County to cut trees down in the area of the project.**

11) East Range Public Outreach

- a) **SEH awaiting direction from the ERWBD.**

END.

LETTER REPORT:
**PHASE IA PRE-FIELD ASSESSMENT OF EAST RANGE JOINT WATER
TREATMENT SYSTEM, CITIES OF AURORA AND WHITE, ST. LOUIS COUNTY,
MINNESOTA**

Susan C. Mutholland

April 28, 2022

Duluth Archaeology Center Report No. 22-11

INTRODUCTION

A Phase IA pre-field assessment was requested for the East Range Joint Water Treatment System (ERJWTS), consisting of a treatment plant, pump station, and water main in St. Louis County, Minnesota (Figure 1). The project is located in T58N R15W sections 4-7 and T58N R16W section 12 in the City of Aurora and the Town of White (Figure 2). The project includes 1200 feet of water main along existing roads and 3.75 acres for the new treatment plant (Figure 3). The general area topography is a mining landscape associated with the Embarrass Mine and includes the townsite associated with the Bangor and Embarrass Mines (Figure 4).

Pre-field assessment includes a request to the State Historic Preservation Office (MnSHPO) for review of the databases for previously recorded archaeological sites and historic structures. The site database at the Office of the State Archaeologist (OSA) was also reviewed for recorded archaeological sites in the vicinity. In addition, historic aerial photographs and historic land survey records were reviewed to indicate any unrecorded historic properties. Topography and water features were reviewed as well as for potential for unrecorded archaeological sites.

REVIEW OF PREVIOUSLY RECORDED HISTORIC PROPERTIES

No verified archaeological sites were previously recorded within the project boundaries, although the project is within an unverified site (Figure 4). Site 21SI. It is the “ghost town” of Pineville located in T58N R15W section 6. The site was not field verified, although the current streets within Pineville are assumed to be remnants from the historic townsite. The townsite lies between the Bangor and Embarrass Mines and was originally called Cotton (Lamppa 1962:78-109). It was platted in the early twentieth century; a few people still lived there in 1962. Early settlement was associated with development of the Bangor Mine to the west (1910-1918), as well as the short-

lived Syracuse Mine (with very deep deposits). In the 1940s the Embarrass River was diverted to the west and the Embarrass Mine (now Embarrass Mine Lake) excavated for the World War II effort (Lamppa 2004:224). The Embarrass Mine appears to be located on or near the earlier Syracuse Mine, subsuming those workings.

Pre-Contact archaeological sites recorded within the general vicinity are located on the shores of Esquagama Lake to the south (Table 1). All three sites are Native American mortuary sites with either human remains or surface mound features. Site 21SL0168 consists of remains from a single individual accidentally uncovered next to a house at the south side of the lake; the materials were reburied. Site 21SL0393 is a single burial mound maintained next to CSAM4 on the east side of the lake. Site 21SL0456 consists of two burial mounds about 1/8 mile apart, between the south side of Esquagama and Little Esquagama Lakes.

Table 1. Recorded Archaeological Sites in General Area

SITE # / NAME	TYPE	LOCATION
21SL0168 / Esquagama Lake	single burial	58 / 16 / 34
21SL0393 / Esquagama Lake II	burial mound(1)	58 / 16 / 35
21SL0456 / Esquagama Lake III	burial mounds (2)	58 / 16 / 34

The mid-1800s General Land Office (GLO) survey notes (www.glorerecords.blm.gov) were compiled into a series of maps that show trails/roads as well as structures/villages/homesteads at the time of the survey. The project area is in the vicinity of a major trail route (Trygg 1966:sheets 17, 18). The Duluth-Vermilion Trail is a travel/transportation route through the area, passing near the major lakes in this chain on the Embarrass River: Esquagama, Embarrass, Wymne-Sabin (Figures 5, 6). The trail crossed the Embarrass River between Embarrass and Wymne Lakes, in the vicinity of the current Embarrass Mine Lake (the former Embarrass Mine pit). An early dam is also reported on the river, possibly for logging activities (Lamppa 1962:86). A bridge on the dam was “part of the old road to Aurora.” It is not known if the Duluth-Vermilion Trail crossed on the same spot or elsewhere on this portion of the river.

Historic accounts of early water transportation routes indicate that the Embarrass River in the Wymne/Sabin Lake area had a portage route to the Pike River to the west/northwest (Luukkonen

2006). The Embarrass River is part of the St. Louis River drainage, connecting to Lake Superior at the east and via the Savannah Portage to the Mississippi River through Big Sandy Lake (Luukkonen 2006). The Pike River drains north into the Vermilion Lake complex and ultimately Crane Lake on the Border Route through the Vermilion River. The connection between three major water drainages is at the Height of Land Portage (21Slat) north of Sabin Lake. The potential for unrecorded archaeological sites along the Embarrass River and the lakes is very high as a consequence of the Duluth-Vermilion Trail.

The oldest historic aerial photographs on the MnDNR webpage are the 1940/1941 set (www.dnr.state.mn.us/maps/landview/index.html). Pineville is shown as settled in place by July 4, 1940; the Embarrass River is within its original channel (Figure 7). The original stream route is still present in 1941 but by 1948, the river has been rerouted through a diversion channel to the northwest (Figure 8). The Embarrass Mine is then well developed and visible in the area between Embarrass and Wynne Lakes, completely disturbing any remnants of a logging dam/road bridge across the original Embarrass River (and the earlier Duluth-Vermilion Trail) as well as the earlier Syracuse Mine.

REVIEW OF TOPOGRAPHY AND WATERWAYS

The project is partially within or adjacent to the original Embarrass River valley including Embarrass Lake in the south and Wynne Lake in the north. This segment of the Embarrass River drainage has good potential for unrecorded archaeological sites including burial mounds (as indicated by Esquagama Lake to the south). Several collections of artifacts have been reported in public media along the Wynne-Sabin Lake basin (William Latady, personal communication, XXXX). The Height of Land Portage north of Sabin Lake provides a connection to the Rainy Lake drainage, used in the Contact period and quite possibly the pre-Contact. Embarrass Mine Lake, adjacent to the western end of the eastern half of the project, is a man-made water feature formed by the flooding of the former Embarrass Mine pit. Although any archaeological features associated with the original Embarrass River would have been destroyed by mining activities, the Embarrass Mine is a potential historic property (post-Contact contexts).

The topography as mapped by LIDAR (www.dnr.state.mn.us/maps/mntopo/index.html) is at a finer contour interval (2 feet) than on the USGS topographic maps (10 feet). The topography of the area varies from rolling to steep hill slopes in some areas to flatter (possibly artificially) terrain

(Figures 9, 10). The eastern project area has flatter terrain east of Embarrass Mine Lake with more steep slopes north of the lake. The western portion has steep slopes north of Highway 135, except for Pineville townsite; the area south of the highway is more open although still with some sloping terrain. The project APE is not adjacent to original water features, so potential for pre-Contact archaeological sites is lower. However, the intense mining activities and associated settlement of townsites throughout this area of the Mesabi Range indicate that post-Contact sites could be anywhere.

CONCLUSIONS

One recorded archaeological site is located within the ERJWTS project in Aurora and White adjacent to Embarrass Mine Lake and the Embarrass River. The site is unverified, consisting of the “ghost town” of Pineville (21SL10); a portion of the water main will be along some of the streets within the townsite. In addition, the Embarrass Mine Lake is formed within the Embarrass Mine pit and part of the project is near the lakeshore. The Duluth Vermilion Lake Trail also was recorded in the mid-1800s in the vicinity of the project. The potential for unrecorded archaeological sites is high within the ERJWTS project, including Contact (travel/trading) and post-Contact (mining, settlement) historic contexts.

A significant water feature (Embarrass Lake) is located adjacent to part of the ERJWTS project, which indicates a high potential for unrecorded pre-Contact archaeological sites in the general vicinity. The Embarrass River was a major travel/transportation route as it leads to a portage between the St. Louis and Rainy River drainages. Original waterways are of high potential for historic and earlier occupations (Hudak et al. 2002). In contrast, Embarrass Mine Lake is an artificial water body formed by flooding the former Embarrass Mine pit. The area around the former mine has a high potential for unrecorded surface features from mining activities while the lake/pit is itself a major feature associated with mining.

Areas within the ERJWTS project appear to have significant potential for unrecorded surface and subsurface archaeological sites and site features. The Embarrass Mine has not been investigated or recorded (like the nearby Eric Mining Company as the Eric Mining Company Mining Landscape Historic District). Roads, railroad grades, ore dumps, pits, shafts, and other features associated with mining (including townsites) can be contributing elements to such a historic district. The Pineville townsite, although recorded, is not field verified or researched and appears to be

associated with both early mining (Bangor and Syracuse Mines) and the World War II mining (Embarrass Mine) periods. In addition, the portion of the water main south of Embarrass Lake has the potential to intersect pre-Contact Native American archaeological sites as well as possible historic sites such as farmsteads/homesteads.

A Phase I archaeological investigation is recommended prior to ground disturbance for the East Range Joint Water Treatment System in the City of Aurora and Town of White. The investigation should research the historic mining activities associated with the Embarrass Mine and associated settlement at Pineville. Field survey of suitable areas where ground disturbance is proposed should be conducted to identify surface features and subsurface deposits of archaeological sites. The investigation should consider where ground disturbance is proposed in relation to components of all types of archaeological sites.

If indications of burials are observed during any activities, the Minnesota Office of the State Archaeologist must be notified at 612/725-2411 or 612/725-2729. Local law enforcement must also be notified. Burial mounds are probable in areas adjacent to original water features, such as Embarrass Lake. Indications of burials also include but are not limited to graves, headstones/memorials, human remains, offerings, and coffin parts.

DRIVER

REFERENCES

- Hudak, G. J., E. Hobbs, A. Brooks, C. A. Serstand, and C. Phillips. 2002. *Predictive Model of Precontact Archaeological Site Location for the State of Minnesota*. Minnesota Department of Transportation, St. Paul.
- Lamppa, M. G. 1962. *Ghost Towns and Locations of the Vermilion and East Mesabi Mining Districts*. M.A. Plan B Paper, University of Minnesota.
- Lamppa, M. G. 2004. *Minnesota's Iron Country: Rich Ore, Rich Lives*. Lake Superior Port Cities, Inc.
- Laukkonen, L. 2006. *Between the Waters: Tracing the Northwest Trail from Lake Superior to the Mississippi*. Doveetailed Press, Duluth..
- Trygg, J. W. 1967. *Composite Map of the United States Land Surveyors' Original Plats and Field Notes*. Sheets 17, 18, Minnesota Series. Self published, Ely.
- Waters, T. F. 1977. *The Streams and Rivers of Minnesota*. University of Minnesota Press. Minneapolis.

Copies Sent To:

Natalie White, SEH, Inc., 418 West Superior Street Suite 200, Duluth MN 55802.
Amanda Gronhovd, State Archaeologist, 328 West Kellogg Boulevard, St. Paul MN 55102.

DRAFT

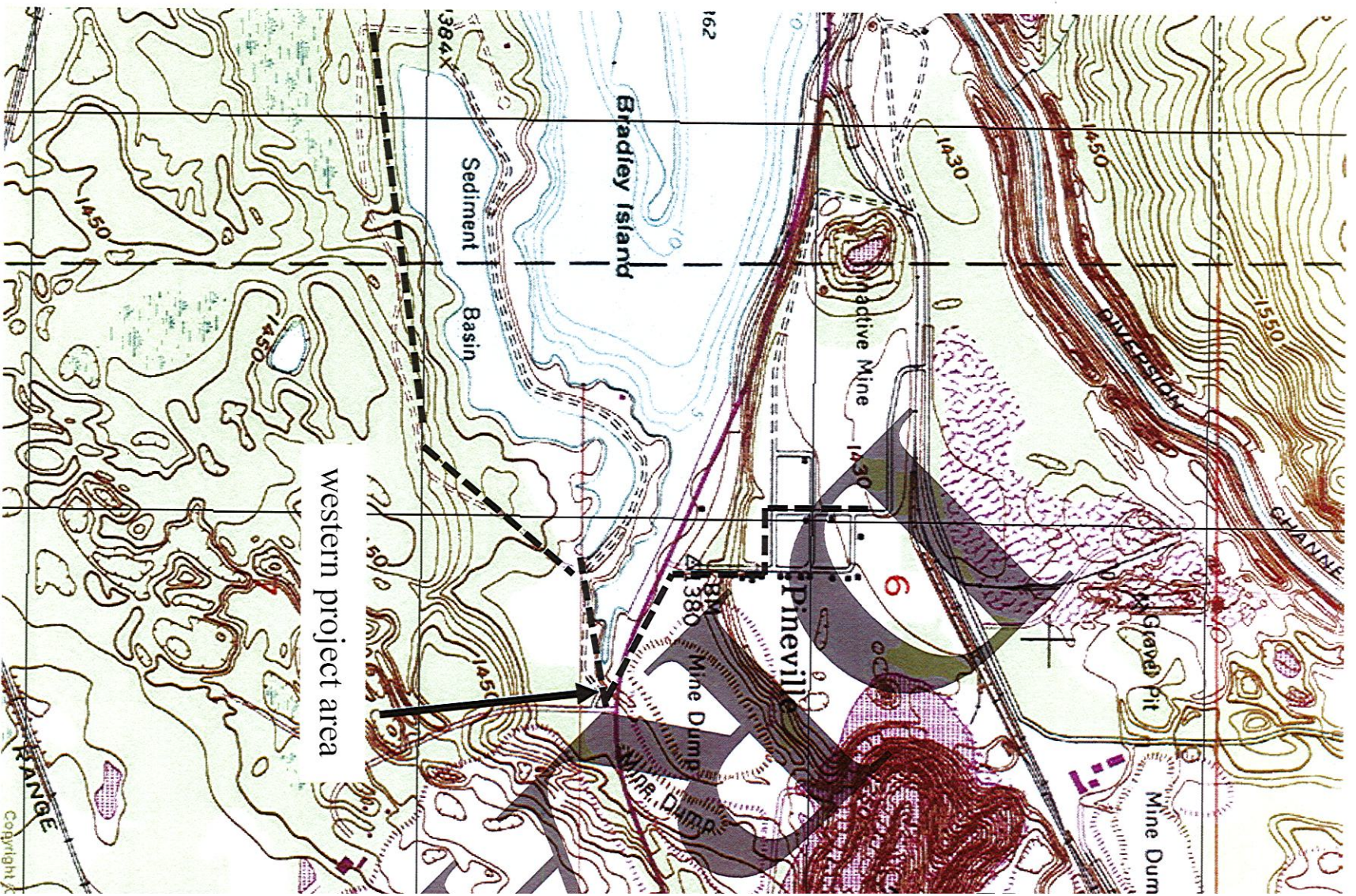
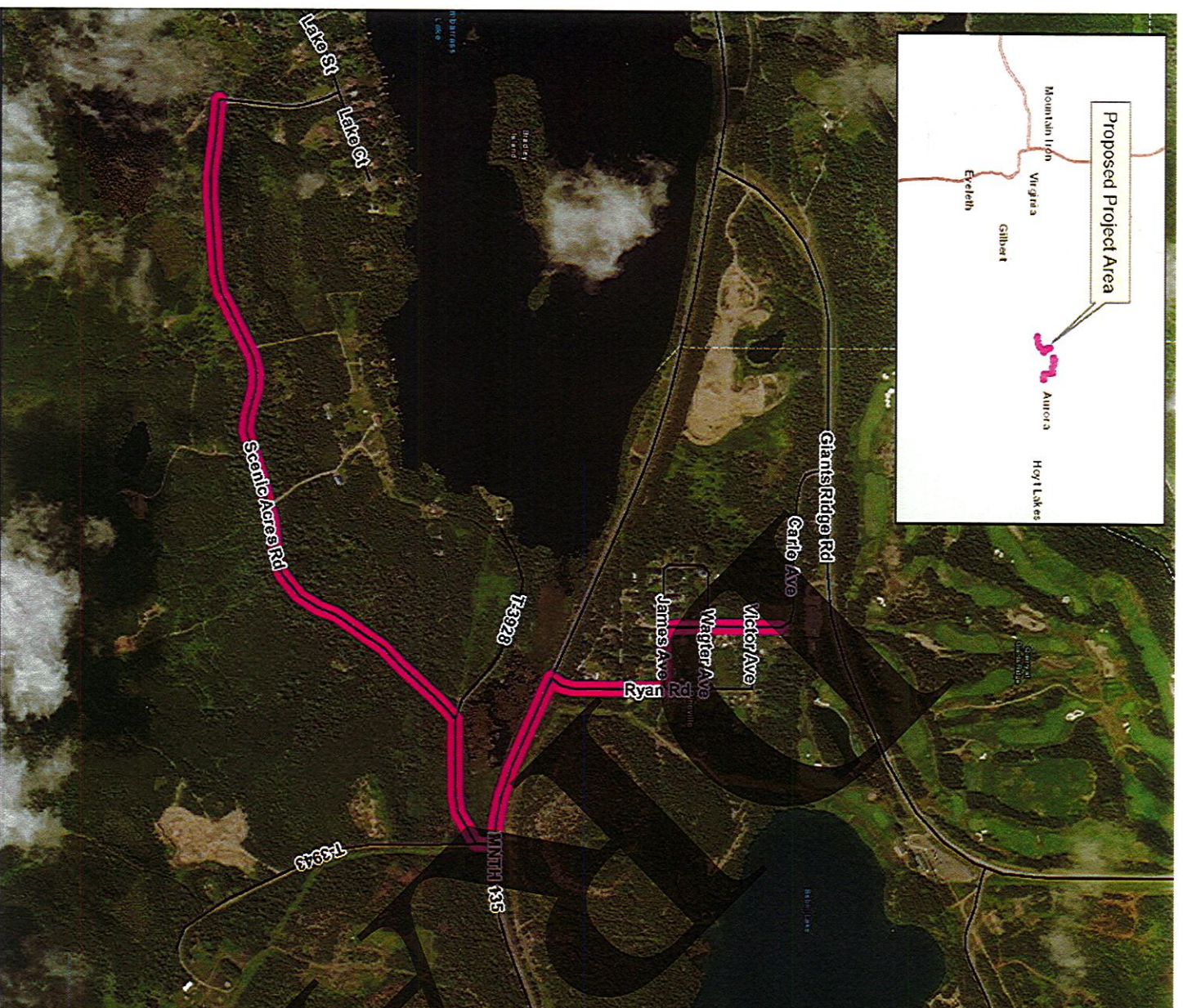


Figure 2. ERJWTS project areas, Biwabik quadrangle (19



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 TF: (800) 325-2055
 www.sehinc.com

Project: XXXXX 000000	Map by: Projection: SI, Loans Co Trans Merc
Print Date: 3/1/2022	Units: US Survey Feet
	Source: ESRI, SEH, DNR

P1

Figure 3. ERJWTS project areas (pi



Figure 4. Pineville archaeological site (21SLIt) in ERJWTS project area.

Figure 5. GLO cultural features in vicinity of project (Trygg 1966: sheet 18).

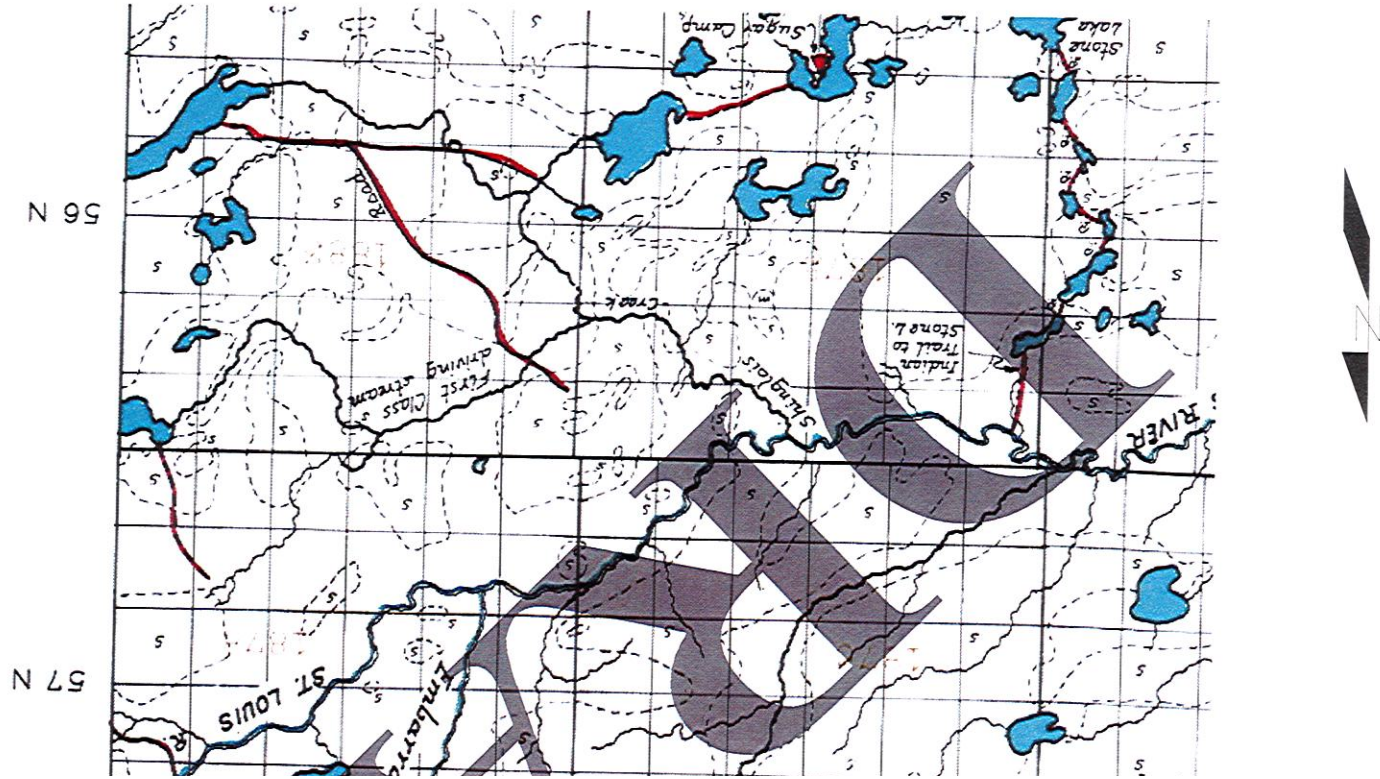
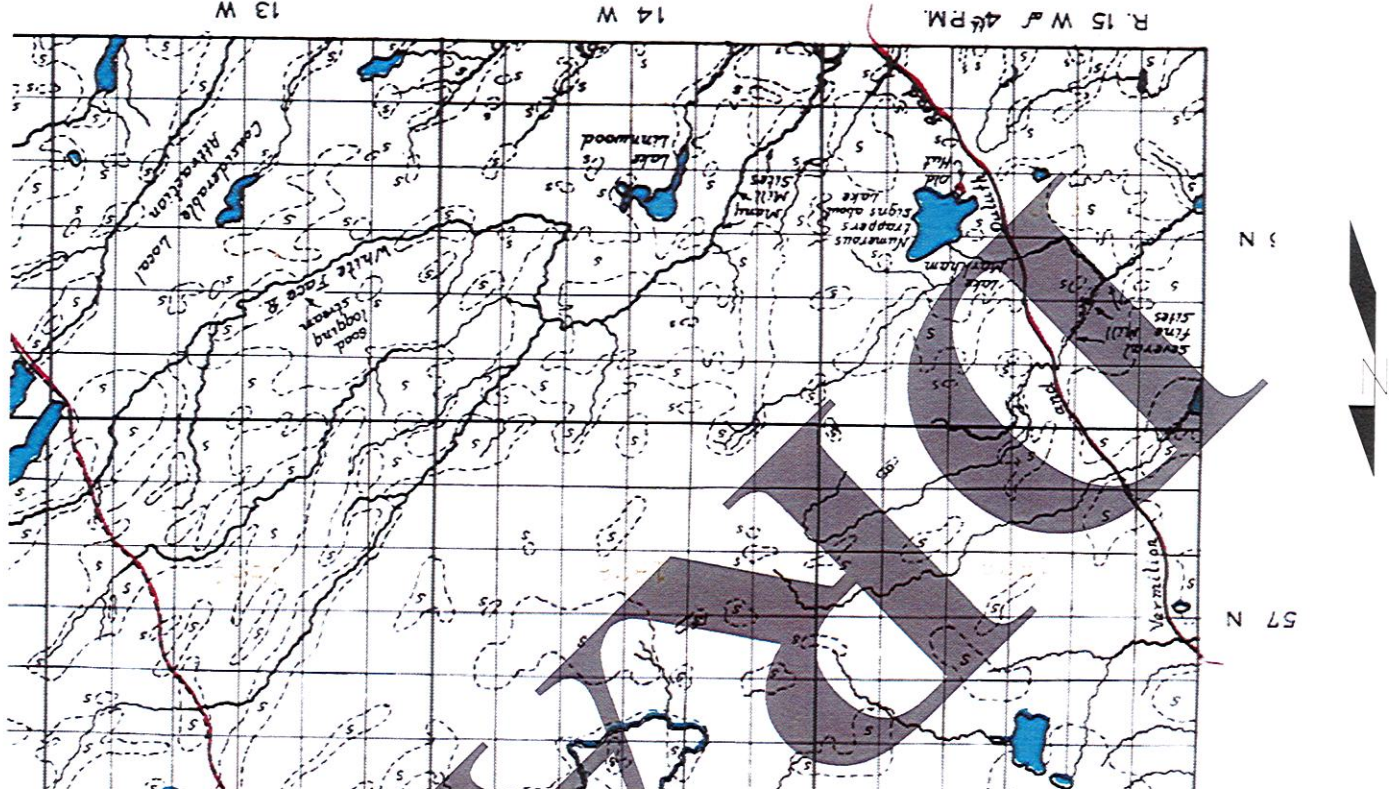


Figure 6. GLO cultural features in vicinity of project (Trygg 1966: sheet 17).



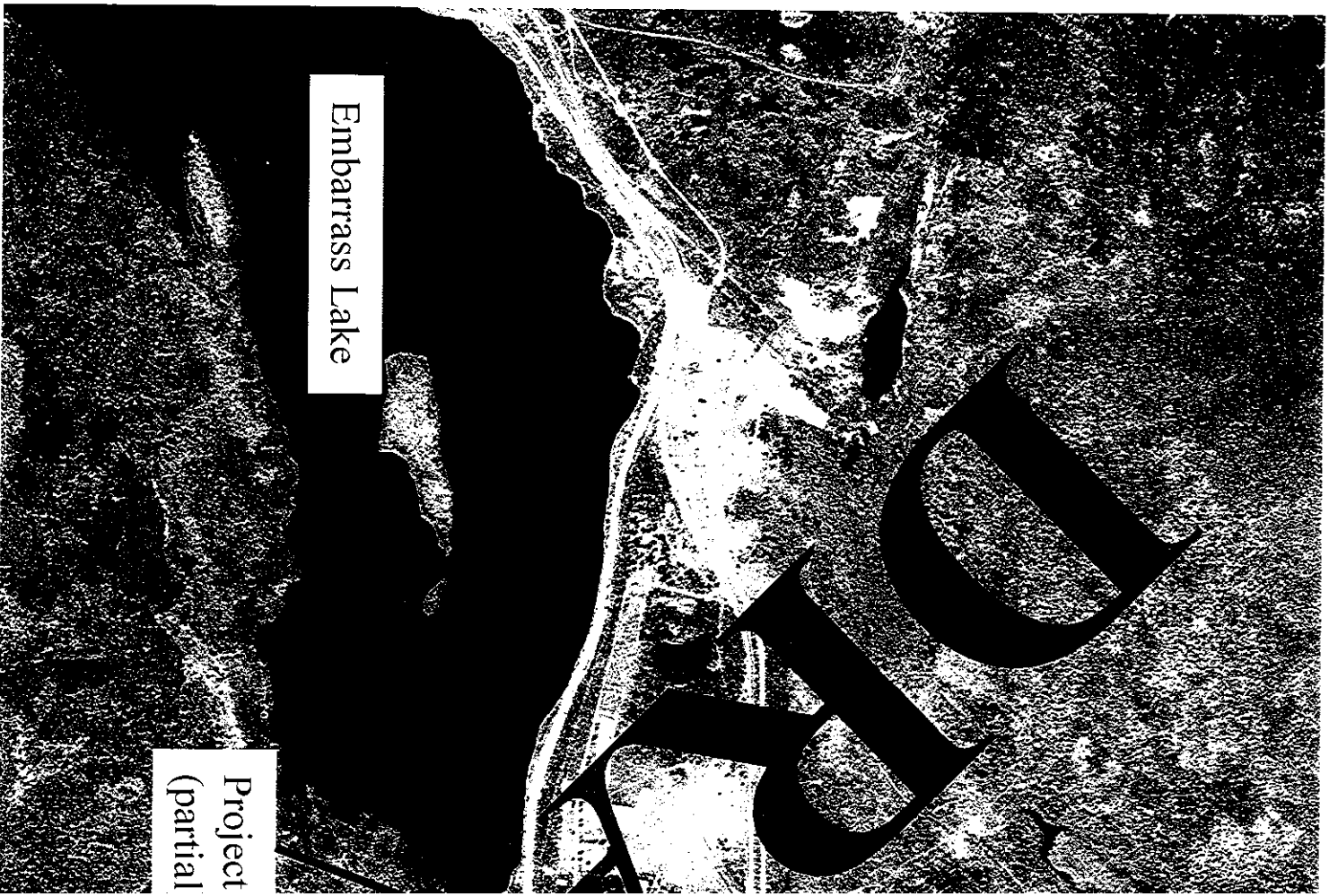


Figure 7. Historic aerial photograph
From www.dnr.state.mn.us/maps/

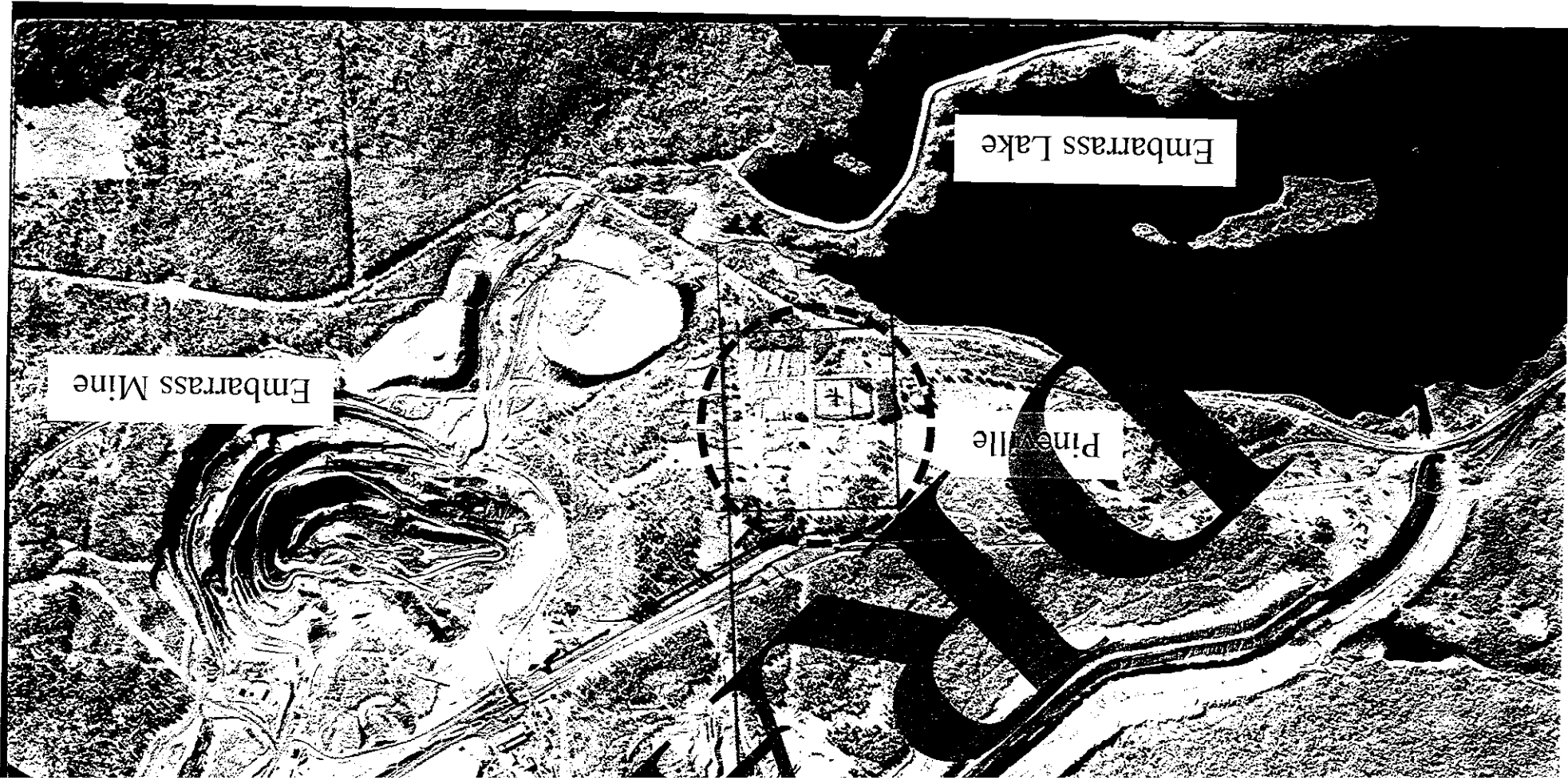


Figure 8. Historic aerial photograph SLC-40-44, September 22, 1948.
From www.dnr.state.mn.us/maps/landview/index.html.



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Figure 9. LIDAR topographic contours of ERJWTS project, east



Figure 10. LIDAR topographic contours of ERJWTS project, western

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5.8.2

-----Original Message-----

From: Patricia's X Phone <pluke@accessmn.com>
Sent: Thursday, March 10, 2022 10:10 AM
To: Jodi Knaus <jodi.knaus@townofwhite.com>
Cc: jimluke <jimluke@accessmn.com>
Subject: Scenic acres on agenda

Caution: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jodi,

Please add scenic acres to the agenda for the next water board meeting. The following are questions residents have come up with.

- 1.) flushing hydrants at each end of the cul-de-sac, as far as we observe, are not included in the SEH preliminary opinion of cost estimate (100%). Is this item still included in the project, and if so, can you show us the item on the estimate? Yes, there is a hydrant, with connecting pipe and valve planned at each of the two (2) cul de sacs.
 - 2.) Regarding meters that are to be installed... A.)What is the cost to consumer to be installed and purchased? Thus far, there are no customer service meters proposed to go with this project.
B.) what are usage fees once meters are installed? I.e. base fee to X amount of gallons, then what rate after base amount exceeded? The ERWB has not made a rate determination, yet and really depends on the level of grants ultimately received.
 - 3.) Will base water rate be the same for all users? The ERWB will need to decide this.
 - 4.) Hook up fee, need clarification. Is the hook up fee to all scenic acres homeowners being grandfathered in, (waived fee) or assessed fee? The ERWB will need to decide this.
 - 5.) we would like a comprehensive update on ownership/lease of the existing water system and infrastructure of Scenic Acres. The ERWB will need to address this.
 - 6.) emergency water flow, able to pump water from new White/Aurora water system to provide flow to Biwabik system if needed? Yes, I believe this is possible now, however, I am not certain of the transfer capacity. COA/TOW operations staff should address this..
- How about Biwabik system providing water to White/Aurora system if situation should arise? Emergency use both ways? COA/TOW operations staff should address this.
- 7.) What options would the Scenic Acres Homeowner's have if we determine that this opportunity to connect to the water system is not in our long-term interest? The ERWB will need to address this.
 - 8.) Q & A time if allowed. Discussion of above questions

Jim Luke
03/10/22

Sent from my iPhone

5.B.3



Saint Louis County

Land and Minerals Dept. • www.stlouiscountymn.gov • landdept@stlouiscountymn.gov

Julie Marinucci
Land Commissioner

4/29/2022

Town of White
For the East Range Water Board
16 West 2nd Ave. North
P.O. Box 146
Aurora, MN 55705

Access Authorization: A15220001
Type: Right of Way (05) **Subtype:** Other (99)
Expiration Date: 9/1/2022

This letter will serve as authorization for the above named and it's contractors to enter upon tax-forfeited land as described under Legal Description for the purpose of site preparation and clearing of timber for construction of water intake facility with limitations and restrictions as listed below.

This letter must be available on-site when working on State tax-forfeited lands.

Legal Description: SW¼ of NW¼ Section 5, Township 58N, Range 15W; SEE EXHIBIT B
Payment Amount: \$936.52

Limitations and Restrictions:

1. This authorization is limited to the established facility footprint on State tax-forfeited lands within the described sections as illustrated on the attached maps for the sole purpose described above.
2. Access to the project area must utilize authorized access routes.
3. Permittee must maintain or immediately repair any access that is located on an established road or trail.
4. Precautionary signs must be posted and maintained by the GRANTEE at both ends of any segment of the trail involved in this contract, at least 200 feet on either side of where logging or hauling operations are being conducted. The signs must be placed so that they are readily visible.
5. Permit may be extended with prior written consent from the Land and Minerals Department.
6. Permittee agrees to pay timber damages as assessed by the Land and Minerals Department for the removal of merchantable timber located on the authorization site. SEE EXHIBIT A
7. Permittee agrees to follow US Fish & Wildlife requirements regarding the Long-Eared Bat and potential nesting sites thereof.
8. Permittee agrees to indemnify, save, and hold harmless the County of St. Louis, its agents and employees, from any and all claims, demands, actions or causes of action of whatsoever nature or character arising out of or by reason of the execution or performance of the terms and conditions provided for in this authorization and

Land Commissioner's Office
320 West 2nd Street GSC 302
Duluth, MN 55802
(218) 726-2606
Fax: (218) 726-2600

Pike Lake Area Office
5713 Old Miller Trunk Hwy
Duluth, MN 55811
(218) 625-3700
Fax: (218) 625-3733

Virginia Area Office
7820 Highway 135
Virginia, MN 55792
(218) 742-9898
Fax: (218) 742-9870

"Trust Lands. Managed For The People Of This County"

further agrees to defend at its own sole cost and expense, any actions or proceedings commenced for the purpose of asserting any claim of whatsoever character arising hereunder.

9. **Additional Terms** None if checked

Land Department Representative

Applicant

Date

Enc: Exhibit A, Exhibit B Map

cc: Green Screen, AO, FO, GIS

Extend Authorization to: _____

Approved by: _____

Date

Resource Data Appraisal Form Sale: East Range Water

Appraisal Date: 4/28/2022

Expiration Date: 4/15/2025

Office: Virginia

Blocks: 1

Legal Description
 Sec Twp Rge
 5 58 15

Cruisers
 John Muhich %
 100

Stand Info				Sale Acres			Total Block Acres				
Stand	Type	Volume	BA	DBH	Stand Age	SI Sp	SI Age	SI	Block	Stand Acres	Block Acres
1	12	17	38	8.4					1	1	1.8
2	53	24	74	9.1					1	2	1.2
										<u>Total Acres</u> 3.0	

Species	No Bid	Prod	Unit	Unit Price	Volume	Value
12 ASPEN		1 PULP	1 Cds	\$33.40	6	\$200.40
13 BIRCH		1 PULP	1 Cds	\$8.92	3	\$26.76
14 BALM OF GILEAD		1 PULP	1 Cds	\$34.56	5	\$172.80
21 MAPLE-RED		1 PULP	1 Cds	\$5.84	0	\$0.00
51 PINE-WHITE		2 P/B	1 Cds	\$40.32	2	\$80.64
52 PINE-NORWAY		2 P/B	1 Cds	\$21.50	2	\$43.00
53 PINE-JACK		2 P/B	1 Cds	\$19.69	18	\$354.42
61 SPRUCE-WHITE		2 P/B	1 Cds	\$21.76	2	\$43.52
62 BALSAM FIR		1 PULP	1 Cds	\$7.49	2	\$14.98
					<u>Totals:</u>	40 \$936.52

Species	Prod	Block Volume									
		1	2	3	4	5	6	7	8	9	10
12 ASPEN	1 PULP	6	-	-	-	-	-	-	-	-	-
13 BIRCH	1 PULP	3	-	-	-	-	-	-	-	-	-
14 BALM OF GILEAD	1 PULP	5	-	-	-	-	-	-	-	-	-
21 MAPLE-RED	1 PULP	-	-	-	-	-	-	-	-	-	-
51 PINE-WHITE	2 P/B	2	-	-	-	-	-	-	-	-	-
52 PINE-NORWAY	2 P/B	2	-	-	-	-	-	-	-	-	-
53 PINE-JACK	2 P/B	18	-	-	-	-	-	-	-	-	-
61 SPRUCE-WHITE	2 P/B	2	-	-	-	-	-	-	-	-	-
62 BALSAM FIR	1 PULP	2	-	-	-	-	-	-	-	-	-
<u>Total Values</u>			\$936.52	-	-	-	-	-	-	-	-

		11	12	13	14	15	16	17	18	19	20
12 ASPEN	1 PULP	-	-	-	-	-	-	-	-	-	-
13 BIRCH	1 PULP	-	-	-	-	-	-	-	-	-	-
14 BALM OF GILEAD	1 PULP	-	-	-	-	-	-	-	-	-	-
21 MAPLE-RED	1 PULP	-	-	-	-	-	-	-	-	-	-
51 PINE-WHITE	2 P/B	-	-	-	-	-	-	-	-	-	-
52 PINE-NORWAY	2 P/B	-	-	-	-	-	-	-	-	-	-
53 PINE-JACK	2 P/B	-	-	-	-	-	-	-	-	-	-
61 SPRUCE-WHITE	2 P/B	-	-	-	-	-	-	-	-	-	-
62 BALSAM FIR	1 PULP	-	-	-	-	-	-	-	-	-	-
Total Values		-	-	-	-	-	-	-	-	-	-

Slumpage Price Adjustment Factor: 1.00

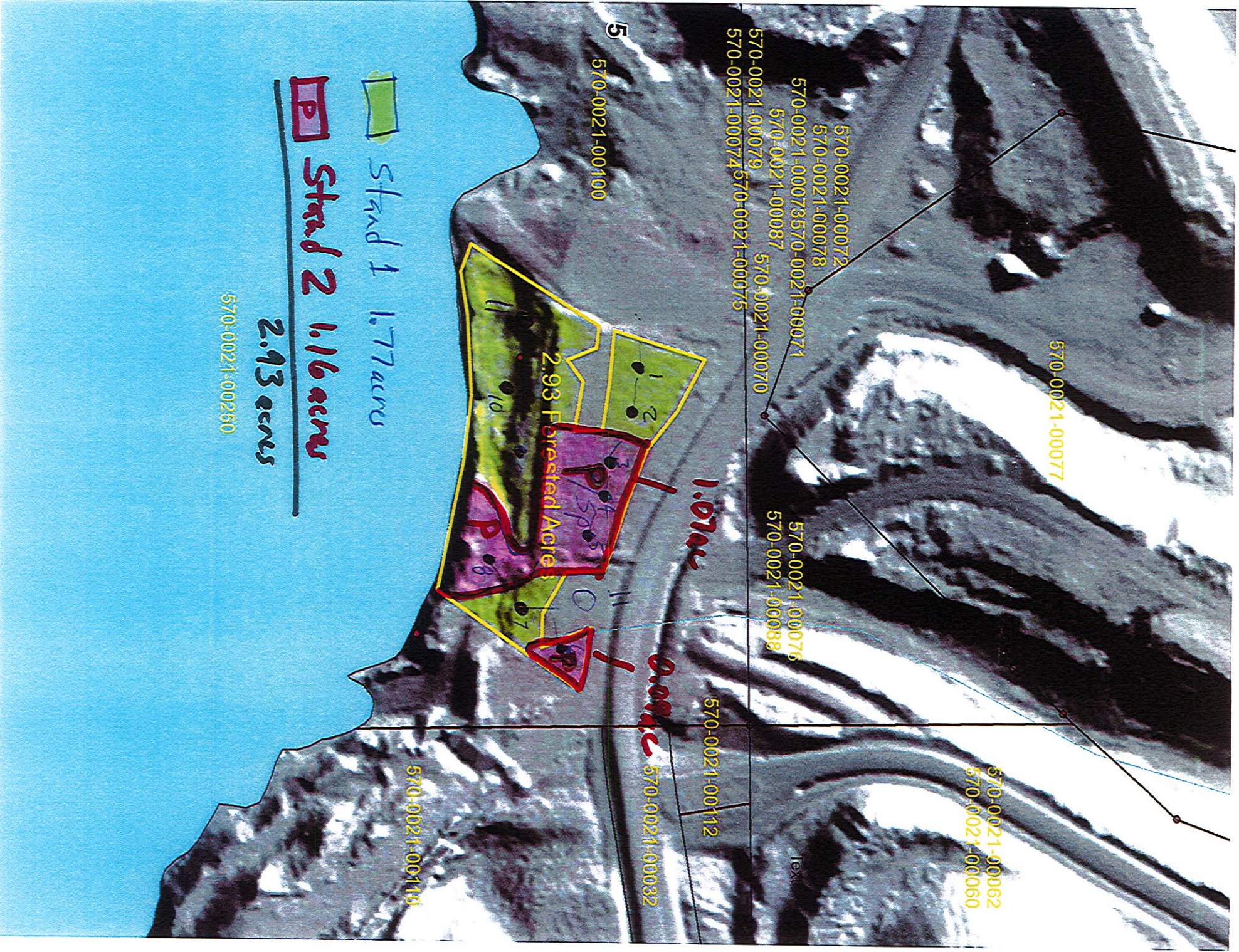
Base Market Prices

For 1/1/2021 to 12/31/2021

Species	Volume (crds)	Value	Base Price
ASH	2007	\$10,874.24	\$5.42
ASPEN	76138	\$2,543,017.59	\$33.40
ASPEN-LARGETOOTH	178	\$3,970.00	\$22.30
BALM OF GILEAD	942	\$32,554.57	\$34.56
BALSAM FIR	8385	\$62,797.18	\$7.49
BASSWOOD	412	\$4,455.35	\$10.81
BIRCH	9668	\$86,243.19	\$8.92
MAPLE-RED	5297	\$30,926.98	\$5.84
MAPLE-SUGAR	737	\$5,300.67	\$7.19
MIXED PINE	386	\$1,930.00	\$5.00
OAK-RED	596	\$9,238.00	\$15.50
PINE-JACK	3106	\$61,167.08	\$19.69
PINE-NORWAY	8530	\$183,421.35	\$21.50
PINE-WHITE	1631	\$65,767.09	\$40.32
RESIDUALS	91	\$91.20	\$1.00
SPRUCE-BLACK	13079	\$322,042.10	\$24.62
SPRUCE-WHITE	3867	\$84,130.08	\$21.76
TAMARACK	3460	\$17,053.19	\$4.93
Total	138510	\$3,524,979.85	\$25.45

1/5/2022 1:40:31 PM

Base Market Prices



5

570-0021-00100

Stand 1 1.77acres

Stand 2 1.16acres

2.93 acres

570-0021-00250

2.93 Forested Acres

1.07ac

0.08ac

570-0021-00072

570-0021-00078

570-0021-00073

570-0021-00087

570-0021-00079

570-0021-00074

570-0021-00075

570-0021-00070

570-0021-00077

570-0021-00076

570-0021-00089

570-0021-00112

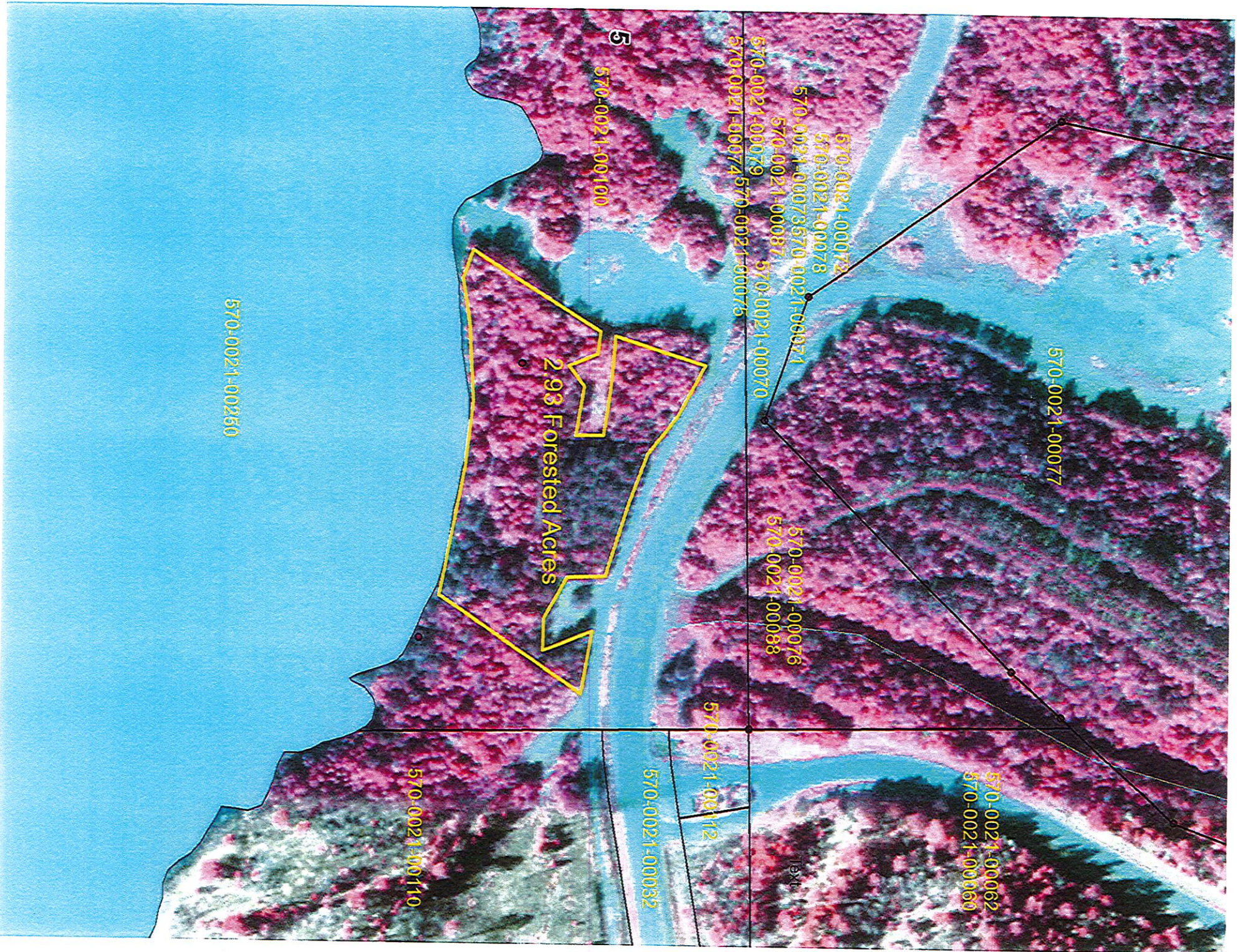
570-0021-00062

570-0021-00060

570-0021-00113

570-0021-00032

Lex



570-0021-00077

570-0021-00062
570-0021-00060

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570-0021-00088

570-0021-00072
570-0021-00078
570-0021-00071
570-0021-00070

570-0021-00079
570-0021-00087
570-0021-00074
570-0021-00075

570-0021-00112

570-0021-00032

570-0021-00100

2.93 Forested Acres

570-0021-00260

570-0021-00110

5

Text

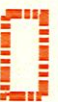


St. Louis County Land and Minerals Department - Exhibit B



This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. This drawing is a compilation of recorded information and data located in various city, county, state and federal offices. St. Louis County is not responsible for any inaccuracy herein.

**St. Louis County
Tax Forfeited Lands**



Proposed Water Intake Lease

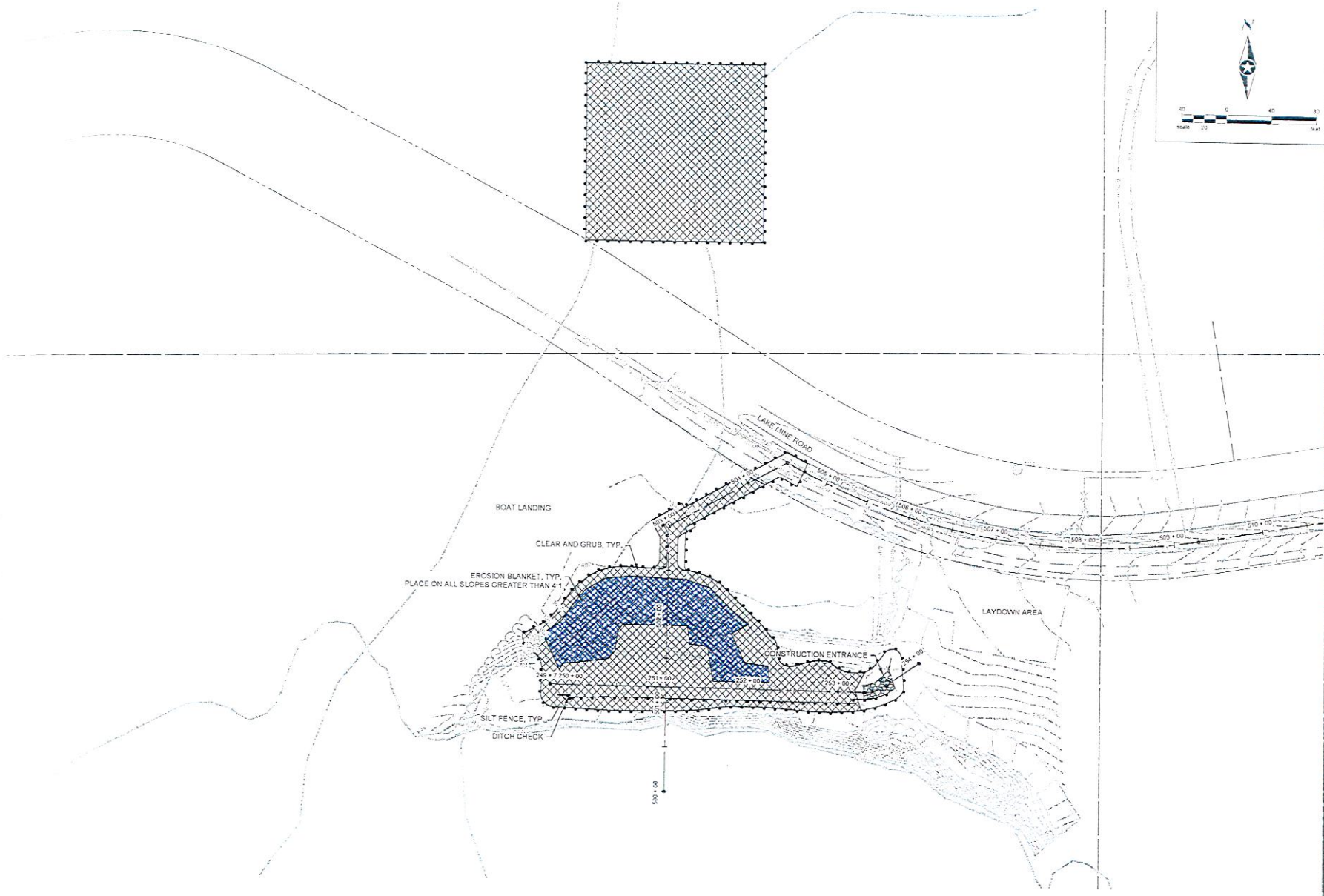
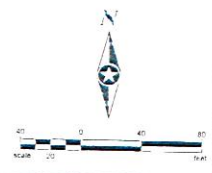
Tax Forfeited Lands

Full Interest

Undivided Interest



NOT FOR CONSTRUCTION



EAST RANGE WATER BOARD
EAST RANGE RAW WATER INTAKE AND PUMP STATION

SEH Project	2008-04-01
Checked By	100
Drawn By	101
Project Title	100
Scale	1:1
Drawn Date	100
Project No.	100

REVISIONS		
REV #	DESCRIPTION	DATE

REMOVALS AND EROSION CONTROL

C100

Agenda Item 6

East Range Public Outreach Proposal

3/27/2022

SEH P#: 159723 - Aurora

Understanding:

The East Range Water Board along with the City of Aurora and Town of White are seeking a consultant to assist with developing and implementing a public outreach strategy that is informative and builds community support for a new drinking water supply and treatment system facility.

Background:

The new system's raw water intake facility will be located on the north side of the Embarrass Mine Pit Lake. Raw water will be piped from there to a new water treatment plant to be located next to the Aurora water tower. The treated water will be distributed over the existing water distribution lines of the City and the Town of White and also will be extended to serve some Scenic Acres homes on Embarrass Lake. The current Project cost estimate is \$ 24.4 million. State bond funds in the amount of \$ 7.5 million have been approved for the Project and an additional \$ 5 million grant of State Water Infrastructure Fund is anticipated to help pay costs. Community Development Block grant funds also have been awarded. Additional funding is being sought from Congress, the U.S. Army Corps of Engineers, and the DLRRR. Water rates will increase over time to provide funds needed to pay off local municipal bonds issued in the amount of between \$4 to \$5 million which will be repayable over a 30-year team to finance the local share of the Project costs. Major system components have been engineered to anticipate accommodating the future treated water needs of both Biwabik and Hoyt Lakes, if so requested. Additional information and Project updates are available on the Township's website: <https://www.townofwhite.com/east-range-water-board.html>

Approach:

The public outreach process will include:

- A series of educational communications – starting at a high level, then increasing in detail that describes the needs for the project.
- Empathetic messaging that recognizes the concerns of fixed-income and budget-sensitive families. Open dialogue with the community on funding, costs, and effect on customer rates.
- Periodic updates on schedule and project development

Outreach Strategies/Phases

- **Phase 1: Raising Awareness**
 - ✓ Develop a **Dedicated Project Website** – this will be the central hub for information and updates throughout the process. All communications will include a link to the custom URL (www.EastRangeWater.com) and a QR Code to easily direct community members to the site. Website information will initially include:

- History, Background and Needs: Water Quality, Lowering Sulfate, Existing Aged Facilities, Zebra Mussels & Rising Water in St. James Pit
 - ✓ Create, build and maintain an email update **contact list**
 - ✓ **City of Aurora Snapshot** updates
 - ✓ **Informative ad(s) in The Shopper**
 - ✓ **Lawn Signs and/or Sidewalk Decals** with website address/QR code in high-traffic community locations
 - ✓ **School's Electronic Messaging Sign**
 - ✓ **Legislative 1-Pager**
 - ✓ Additional tools may also be considered, including
 - Postcard mailing
 - Water bill inserts
 - Social media posts, as available
- **Phase 2: Pre-project bids, Funding & Costs Updates**
 - ✓ Update Website and Communications with
 - Project Schedule and "Blue" Thermometer
 - Project Costs
 - Project Funding & Water Rates
 - Share grant funds and bonding money awards
 - Rate Survey of Iron Range Communities
 - Share "Good News" revelations as they come, such as Earmark success event/communications
 - ✓ Additional service: Construction Kick Off Event/Groundbreaking Open House
 - **Phase 3: Construction Updates and System Start-Up Communications**
 - ✓ Update Website and Communications with
 - Periodic construction progress updates
 - Emergency water quality communications
 - What to Expect during System Start-Up
 - Photos
 - ✓ Additional service: Ribbon Cutting Event/Open House

Estimated Hours, Fees, and Expenses

	<i>Hourly rate</i>
Project Management, Invoicing (24 months)	
Develop, host, and maintain www.EastRangeWater.com website, 8 quarterly updates	
Develop content and graphics for (8) quarterly communication updates (email, COA snapshot, Shopper, etc.)	
Special communication materials (Lawn signs, sidewalk decals, EMS coord, legislative 1-pager)	
Misc. Communications support as requested by ERWB	
Hours by Staffperson Subtotal	
Fee by Staffperson Subtotal	
Total Project Hours	
Total Project Fees	
Expenses:	
Mileage (2 trips at 400 miles each)	
Website (Annual hosting and domain) 2 years	
Sidewalk Decals and Lawn Signs	
Printings and mailings covered by City of Aurora and Town of White	
Total Expenses	
Fees and Expenses	

Miles \$225	Kristin \$155	Adrian \$95
2	24	0
2	44	8
2	24	16
2	12	4
2	24	16
10	128	44
\$2,250.00	\$19,840.00	\$4,180.00
182		
\$26,270.00		
\$468.00		
\$332.00		
\$2,500.00		
\$0.00		
\$3,300.00		
\$29,570.00		



Building a Better World
for All of Us[®]

TO: City of Biwabik

FROM: East Range Water Board

DATE: March 21, 2022

RE: Water Supply Contingency Plan Agreement
SEH No. 163450 14.00

Water Supply Contingency Plan Agreement
Water Appropriations Permit _____ - _____

This Water Supply Contingency Plan Agreement ("Agreement") is being entered into the East Range Water Board ("ERWB"), and the City of Biwabik ("City"), and shall become an addendum to Water Appropriations Permit Number _____.

Whereas the East Range Water Board is being issued a Minnesota Department of Natural Resources ("DNR") Water Appropriations Permit to appropriate water from the Embarrass Pit (a.k.a. Lake Mine) for its municipal water source as a replacement for Water Appropriations Permit _____.

The ERWB and the City agree that ERWB will be responsible for the reasonable costs associated with mitigating adverse impacts to the City's water intake that directly result from the ERWB's use of Embarrass Pit as a water source.

Now, therefore, in consideration of the premises and covenants herein contained, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the ERWB and the City agree as follows:

TERMS

1. This Agreement will become effective upon the DNR's issuance of Water Appropriations Permit _____.
2. The ERWB and the City agree that the following steps and measures will be taken to monitor and, if need be, execute the described mitigation plan:
 - a. The ERWB and City will independently monitor and mutually report to each party and the Minnesota Department of Natural Resources (as they may require) the water level of Lake Mine on a weekly basis, beginning on _____.
 - b. The ERWB and City will independently monitor and mutually report to each party and the Minnesota Department of Natural Resources (as they may require) their respective withdrawal of water from Lake Mine on a weekly basis, beginning on _____.
 - c. The City of Biwabik will use the time prior to the start-up of the ERWB raw water pump station as the time to establish Biwabik's effect on water level in Lake Mine.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 3535 Vadrais Center Drive, St. Paul, MN 55110-3507
651.490.2000 | 800.325.2055 | 888.908.8166 fax | sehinc.com

SEH is 100% employee-owned | Affirmative Action-Equal Opportunity Employer

- d. The ERWB and City will meet quarterly to:
 - i. Review lake level, water withdrawal data – including that of the JRRR's Quarry Golf Course's water intake, and weather data to mutually conclude on the current status and any apparent changes in lake level.
 - ii. Mutually conclude on the adequacy of the lake level for suitable operation of the Biwabik raw water pumping station.
 - iii. Mutually review and conclude on water level projections for the next 5-years.
- e. In the event that the level of Lake Mine is determined to be lowering to a point where the City of Biwabik's raw water pump station will lose its ability to convey water to the City of Biwabik within a projecting period of 1 year, solely due to the lowering of the level in Lake Mine:
 - i. the ERWB will consult directly with City personnel, or its representatives, to determine and agree upon a mitigation plan as described below which shall be based on the direct impact of the ERWB's Permit on the City's water intake.
 - ii. As part of that plan, ERWB shall be responsible for the reasonable costs associated with implementation of a mitigation plan for the Cities' water intake system that either:
 1. The Biwabik raw water pump station is moved to a position where proper pumping is feasible, or
 2. Redundant raw water pumps to serve the City of Biwabik's demands are installed in the ERWB raw water pump station and a new and separate raw water line is extended from the ERWB raw water pump station to the existing City of Biwabik raw water line.
 - iii. Selection of the specific implementation plan to execute for the mitigation plan shall solely be at the discretion of the ERWB so long as the outcome provides the City with an equivalent supply of raw water from Lake Mine.
3. The ERWB and the City agree that ERWB's obligations under this Agreement are only for those impacts to the Cities' water intake caused directly by the ERWB's water appropriations under the rate and volume authorized under Water Appropriations Permit _____. ERWB shall not be responsible for any impacts caused by any other water appropriations from the Embarrass Pit. Any impacts that result from any amendment to Permit _____ that increases the appropriation rate and/or volume allowed under the existing Permit are specifically excluded from this Agreement.
4. Each Party shall bear its own expenses, including but not limited to legal fees, in connection with the negotiation, execution and performance of this Agreement.
5. No Party may assign or transfer, in whole or in part, any of its binding rights, obligations, duties or responsibilities provided for herein without written consent of the other party.
6. This Agreement shall be governed by the laws of the State of Minnesota, excluded its conflict of laws provisions. Any dispute that cannot be amicably resolved through consultation of the parties shall be brought in a court of competent jurisdiction in Minnesota. Nothing in this agreement shall prevent the parties from utilizing the DNR dispute process provided in MN Rules 6115.0730 – Well Interference Problems Involving Appropriation.
7. This Agreement constitutes the entire agreement between the Parties and supersedes all prior or simultaneous representations, discussions, negotiations, letters, proposals, agreements and

understandings, whether written or oral with respect to the matters discussed herein. No change in or addition to any of the terms or conditions of this Agreement shall be binding upon a Party unless in a writing signed and delivered by an officer of each Party intending to be bound by such change or addition. The ERWB acknowledges and agrees that it has undertaken the necessary approval process including obtaining authority by any representative body of the ERWB to execute this agreement and agree to have the ERWB bound by its terms. Each Party acknowledges and agrees that in entering into this Agreement it has not relied and is not relying on any representation, warranties, or other statements whatsoever, whether written or oral other than those expressly set out in this Agreement and that it will not have any right or remedy arising out of any representation, warranty, or other statement not expressly set out in this Agreement.

8. This agreement may be terminated at any time by the written agreement of all Parties. Upon approval by the DNR, ERWB shall have the right to terminate this agreement after drawdown occurs and water levels in the Embarrass Pit have stabilized, for a period of not less than three years as shown by Embarrass Pit water level data.

East Range Water Board

By: _____

Name: _____

Title: _____

City of Biwabik

By: _____

Name: _____

Title: _____

9.8.

PRACTICALITY OF EAST RANGE JOINT WATER PROJECT PHASING

Dennis Schubbe 5/11/2022

During the April 20, 2022 East Range Water Board (the Board) meeting, Stefanie Dickinson and Jim Gentilini updated the Board with regard to the City of Aurora's (Aurora's) current water plant. A sense of urgency was expressed given the poor condition of the current water plant and it's ability to continue to provide Aurora with water until the East Range Joint Water Project (the Project) is complete. Both Stefanie and Jim indicated they would like to see the Project go out for bids as soon as possible.

Prior to my being appointed to the Board, the question of whether or not to proceed with a phased Project (i.e., breaking up the Project scope of work into phases) or to present the entire Project scope for funding was discussed. Presenting the entire Project scope was decided as the best option for obtaining the Project funding. It should be noted that at a minimum, the Project scope of work that would need to be completed for Aurora to be provided with water via the Project includes the following tasks: 1) construction new water treatment plant; 2) construction of the raw water intake; and, 3) construction of the raw water transmission main. The cost of of these three tasks is almost 93% of total Project costs (i.e., according to SEH's "Summary of Opinion of Probable Cost" dated January 10, 2022).

Given the urgency with regard to the Aurora's current water plant, the question as to whether or not a phased Project approach could expedite Project completion has been considered. A City of Ely (Ely) project that was completed in phases has been used as an example of using phasing of a scope of work to help expedite the Project. I contacted Harold Langowski, City of Ely Clerk/Treasurer, to discuss project phasing. Harold and I discussed an Ely project which was partially completed (e.g., defined here as phase 1) and subsequently completed (e.g., phase 2) upon additional funding being obtained. Ely had access to funding to initiate their project (phase 1), but State Bonding funds could not be accessed until their project was completely funded. Ely subsequently obtained additional funding which allowed for State Bonding funds to be released and their project (phase 2) to be completed. It should be noted that State Bonding funds currently earmarked for the East Range Joint Water Project (\$7.5 million) and additional/requested State Bonding funds (hopefully \$8 vs \$5 million) are based on the **entire** East Range Joint Water Project scope (not a phased project). Harold indicated that an Amendment of State Law would most likely be necessary to change the Project scope (i.e., State Bonding scope) to allow for a phased project.

The Project could proceed similar to Ely's example if funding were available (e.g., Aurora had funds available to expedite the Project) and funding source requirements are met (e.g., U.S. products/steel required). However, 93% of Project scope or over \$20 million of estimated Project costs (i.e., including Construction Admin/Observation costs) would need to be completed/spent in order for Aurora to be provided water via the Project. Note that State Bonding funds cannot be accessed/released until the Project is fully funded. Project phasing is not practicable given that 93% of the Project would need to be completed to provide Aurora with water via the Project and associated Project funding is dependent upon State Bonding funds.

The sense of urgency given the poor condition of the Aurora's water plant and it's ability to continue to provide Aurora with water until the Project is a concern. As indicated during the April 20, 2022 Board meeting, a contingency plan needs to be put in place in case the Project cannot be funded. I believe a contingency plan should be put in place even if the Project moves forward because it could take as long as three (3) years to obtain funding, bid the Project, and complete construction. In addition, current inflation rates and supply chain issues will most likely negatively impact the Project, possibly increasing Project costs (i.e., bid amounts may be greater than estimated costs) and causing Project construction delays due to materials and equipment availability. Aurora's contingency planning is critical and may help support the need/urgency for obtaining additional funding assuming Project bid costs are greater than Project estimated costs. Again, Aurora's contingency planning is critical given the urgency expressed to the Board and to ensure that water can be provided to Aurora until the Project is complete.