

**EAST RANGE WATER BOARD**  
**Regular Meeting**  
**Wednesday, October 19, 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 Niemi;

**Other Team Members:** Stefanie Dickinson (COA); Jodi Knaus (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 September 21, 2022 Meeting Minutes
  - b. Treasurer's Report – Fund Balances
  - c. Approval of Disbursements – None submitted/paid
  - d. Correspondence – None received
3. Legal Matters – Updates Including but not limited to:
  - a. Scenic Acres Land & Facility Title Clearance
  - b. Rosa Easement Status
4. Guests – No requests received
5. Engineering Updates - SEH
  - a. Funding Initiatives & Cumulative Accounting – Updates by Mike Larson
    1. Congressionally Direct Spending/Grant Funding Telephone Conference Held 10/12/2022
    2. Army Corps of Engineers – Calling for Projects for 2023
  - b. Engineering Work – Updates by Miles Jensen
    1. October Status Report
      - i. Archaeological Assessment Update
      - ii. Bat Nesting Sites – Tree Removal – Is area marked?
      - iii. Technical Committee Meeting Updates
      - iv. Review & Direction on Voyageur Trail Booster Station Improvements Needed (see memorandum dated 10/14/2022)
6. Community Outreach Plan – see Draft Public Information Sheet
  - a. Determine Next Steps for bulk mailing, advertising etc. – Timeline, Where, When
7. Other Business
  - a. St. James Pit & Current Water Plant updates – Jim Gentilini
10. Next Meeting Date: Wednesday, November 16, 2022
11. Adjournment

**East Range Water Board  
Monthly Meeting Minutes  
City/Town Government Center  
Wednesday, September 21, 2022  
4:30 p.m.**

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

ABSENT: Board Member, Clark Niemi

ALSO PRESENT: Stefanie Dickinson, City of Aurora Clerk; Kevin Young (SEH via Zoom), Mike Larson, SEH; Robert Rutka, John Baxter

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

2.) **Consent Agenda:**

**MOVED BY DAVID SKELTON, SUPPORTED BY JON SKELTON APPROVING THE  
CONSENT AGENDA AS PRESENTED. MOTION CARRIED**

3.) **Legal Matters**

- a) Scenic Acres Land & Facility Title Clearance – Mia is waiting for the green light from the Board on when to execute the Scenic Acres land transfer.
- b) An easement is in progress with Mr. Rosa. A proposal from Mr. Rosa will be presented to the Town of White Board at their next meeting.

4.) **Guests:** None

5.) **Engineering Updates**

- a) Funding Initiatives – Mike Larson from SEH gave an update on funding initiatives. He and Board Chair Gregor met with IRRR, and the commissioner indicated there would be an opportunity for multi-year funding. Aurora Clerk Stefanie Dickinson confirmed the CDBG contract was received, and funding is now available for engineering fees and construction at the water treatment plant site.
- b) Engineering Work – Kevin Young updated the board that the archeological assessment will be complete next week, and a full report could be available for the October board meeting. Tree clearing can start now at the intake site and it was requested that SEH flag the area and Town of White staff will begin work.
- c) A tech meeting will take place on September 28. The technical committee will discuss flow test results regarding a booster station that could move water to Biwabik and Aurora. If there is a feasible option, the committee will present to the East Range Water Board next month.

6.) **Community Outreach Plan**

Aurora Clerk Stefanie Dickinson shared that there is a template started outlining funding, milestones reached to date and inquired what else would the board like to see included. A draft will be prepared for board review next month.

7.) **Contingency Plans**

The Giants Ridge Contingency Plan was signed by East Range Water Board Chair Doug Gregor and will be sent over to IRRR for signature.

**8.) Other Business**

a.) St. James Pit & Current Water Plant Updates – Board Member Schubbe and Aurora Clerk Dickinson updated the board on continued dewatering efforts at St. James Pit. City staff continue to meet regularly with MNDNR staff and have a site visit scheduled with IRRR staff next week.

**10.) Adjournment**

**MOVED BY DAVID SKELTON, SUPPORTED BY JON SKELTON TO ADJOURN THE MEETING AT 5:34 P.M. MOTION CARRIED**

**Next Regular East Range Water Board Meeting Date: October 19, 2022 at 4:30 p.m.;**

**Respectfully Submitted, Stefanie Dickinson**

3.B

**Jodi Knaus**

**From:** Jon Skelton <zlgskelton@gmail.com>  
**Sent:** Friday, September 16, 2022 10:12 AM  
**To:** Jodi Knaus  
**Subject:** Fwd: Rosa Matter  
**Attachments:** Creation and Extinguishment of.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.

FYI

Sent from my iPhone

Begin forwarded message:

**From:** "Mia E. Thibodeau" <mthibodeau@fryberger.com>  
**Date:** September 15, 2022 at 2:59:52 PM CDT  
**To:** Jon Skelton <zlgskelton@gmail.com>  
**Subject:** RE: Rosa Matter

Jon:

I just spoke with Doug Gregor to let him know I will not be at the ERWB meeting next week, and wanted to let you know as well and provide a brief update on the Rosa matter. SEH will also give an update at the meeting next week. My understanding from Dan Hintzman is that the Rosas, as additional compensation for the easement, would also like to have conveyed to them the alley/road that runs between the two parcels. To extinguish a town road is a process (see attached discussion on page 10 from MAT). This could result in a not insignificant amount of work and cost for the Town. Also, it would mean some re-engineering work. The Town should consider what the response to Rosas should be.

I do have drafted an Easement Purchase Agreement which is mostly ready and that, upon finalization of terms, can be ready to go.

Regards,  
Mia

**Mia Thibodeau**  
Attorney

**Fryberger, Buchanan, Smith & Frederick, P.A.**  
302 West Superior Street, Suite 700 | Duluth, MN 55802  
ph: 218-725-6873 | fx: 218-725-6800  
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10/6/22  
Town Board mtg  
JS, EK no change  
to offer - "no" to  
Road abandonment  
Notify SEH. M.C.

B.A.2

## Jodi Knaus

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**From:** Stefanie Dickinson <stefanie@ci.aurora.mn.us>  
**Sent:** Friday, October 14, 2022 9:56 AM  
**To:** Mike Larson; Jodi Knaus  
**Subject:** FW: FY23 Section 569 Northeastern Minnesota Environmental Infrastructure Program Project Funding

**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.

I do not recall getting this since I've worked for the city. Is this something that we should follow up with for the water project?

Stef

**From:** Powell, Paul A CIV USARMY CELRE (USA) <Paul.A.Powell@usace.army.mil>  
**Sent:** Thursday, October 13, 2022 10:34 AM  
**To:** Stefanie Dickinson <stefanie@ci.aurora.mn.us>; administrator@cityofbiwabik.com; tpeterson@cloquetmn.gov; chelmer@duluthmn.gov; jrich@proctormn.gov; cityofironjunction@mchsi.com; midwaytwp@msn.com; clerk@cityofcarlton.com; shagen@scicable.com; cityhall@grandmarais.city; jmulder@hermantownmn.com; rpeleski@townofthomson.com; Jodi Knaus <jodi.knaus@townofwhite.com>; dwalker@twoharborsmn.gov; info@wlssd.com; britts@virginiamn.us; Carol Andrews <AndrewsC@StLouisCountyMN.gov>; clerk@biwabiktownship.com  
**Cc:** Sheppard, Catherine M CIV USARMY CELRE (USA) <Catherine.Sheppard@usace.army.mil>  
**Subject:** FY23 Section 569 Northeastern Minnesota Environmental Infrastructure Program Project Funding

**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.

Good morning,

That time of year again for our early call for projects for the FY23 Workplan. We do not require a lot of backup – project name, problem statement detailing benefits of the project (cost savings over project life, reduced infiltration, increased reliability etc) and estimated costs of design/construction. We've noted significant cost increases over the last couple of years so please include an appropriate amount of contingency.

Let me know which projects you would like to get into our database for inclusion. Assuming a normal appropriation year, we should hear about any projects selected for funding in the spring.

Please submit your requests by late October/early November.

Let me know if you have any questions.

Thanks

Paul Powell  
Project Manager  
Detroit District  
313-226-2094



5.B.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, October 14, 2022

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

1. Review and direction on Voyager Trail Booster Station improvements for emergency water capacity.

**ATTACHMENTS**

1. SEH updated memorandum reviewing options for the Voyager Trail Booster Station improvements

**DISCUSSION ITEMS**

The following provides a brief discussion of the items that remain to being able to bid the project.

- 1) Final Design
  - a) Awaiting MDH approval of the P&S for the raw water pump station and intake.
  - b) Update P&S for the whole project with MDH comments once MDH approval is received.
- 2) Appropriations Permit
  - a) SEH follow-up with final response to DNR questions will be completed once IRRRB-ERWB Contingency Plan is signed.
- 3) Environmental Review:
  - a) Minnesota State Historic Preservation Office (SHPO):
    1. Completion of follow-up on-site Phase I archaeological investigation.
    2. SEH responded to questions from archaeological investigation team.
    3. Subsequent approval by SHPO
- 4) MDH Project Certification
  - a) SEH/ERWB prepare notice of, and holds public hearing for, completed environmental review.
  - b) MDH certifies project.
- 5) Scenic Acres:
  - a) Service agreement and connection fees between East Range Water Board and Scenic Acres yet to be determined.
- 6) Pineville and Scenic Acres Water Main
  - a) Final Rosa easement.
- 7) Tree Cutting Needs:
  - a) The ERWB determined that tree cutting will occur after August 15, 2022.

END.



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5.B.7. IV

## MEMORANDUM

TO: East Range Water Board

FROM: Miles Jensen, PE (Lic. AZ, CO, IA, IL, IN, KS, MD, MI, MO, MN, ND, NE, NM, OH, SD, TX, VA, WI)

DATE: October 14, 2022

RE: Biwabik Emergency Water Supply Interconnect Capacity  
SEH No. AUROR 159723 14.00

This memorandum is an update to the August 15, 2022 memorandum concerning information on improving the Voyager Trail Booster Station in order to serve the Aurora water system from Biwabik and visa versa. For convenience, text from the original memorandum follows the update discussion.

### Update

- On Wednesday, 9/28/2022, Aurora and Biwabik personnel held a virtual meeting to discuss feasible improvements to the Voyager Trail Booster Station. This meeting included presentation of cost estimates for a varied level of improvements to the current facility features and conditions.
- Alternate for Minimal Improvements:
  - PRV and connected piping to allow flow from Aurora to Biwabik (Hydraulic Settings)
  - New 10" Flow Meter with reversible read capability
  - Rehabilitate process piping coatings
  - Automation - Monitor Aurora Tank Level
  - Operation:
    - Manually open interconnect valve,
    - Manually initiate system interconnect operation
    - Auto start/stop existing pumps in response to Aurora tank and pump station pressure settings for flow from Biwabik system to Aurora system.
    - PRV will be set to maintain Biwabik hydraulic grade line on flow from Aurora system to Biwabik.
  - Redundancy: With only one (1) large pump, the redundancy (largest pump out of service) is reduced to the capacity of both small pumps running, which is approximately 100 gpm.
  - Opinion of Probable Project Cost: approximately \$119,980
  - Assumed cost split between Biwabik and Aurora: 50/50, or approximately \$59,990 each.
- Alternate for Improvements that include Higher Pumping Capacity and Greater Automation:
  - PRV and connected piping to allow flow from Aurora to Biwabik (On/Off Automation)
  - New 10" Flow Meter with reversible read capability
  - Rehabilitate process piping coatings
  - SCADA RTU for communication with Aurora Water Tower
  - Programming and Instrumentation to control operation of pumps based on Aurora Water Tower Level
  - New 300 gpm pump with VFD (one existing Jockey pump)
  - Pressure Sustaining Valve Circuit (Operation of large pumps as jockey pumps as needed)
  - Operation:

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 3535 Vadnais Center Drive, St. Paul, MN 55110-3507

651.490.2000 | 800.325.2055 | 888.908.8166 fax | [sehinc.com](http://sehinc.com)

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- Manually open interconnect valve,
- Manually initiate system interconnect operation
- Auto start/stop pumps in response to Aurora tank and pump station pressure settings for flow from Biwabik system to Aurora system.
- PRV will be set to maintain Biwabik hydraulic grade line on flow from Aurora system to Biwabik.
- Redundancy:
  - The existing large pump operates at approximately 550 gpm.
  - This option provides for a new larger pump that can be dialed down to a flow that is between the existing small and large pump capacities.
  - As such, the redundancy (largest pump out of service) will be 300 gpm of the new proposed pump.
- Opinion of Probable Project Cost: approximately \$229,930
- Assumed cost split between Biwabik and Aurora:
  - Aurora pays for the new larger pump
  - The remaining costs are split 50/50.
  - Aurora approximately \$163,715, and
  - Biwabik approximately \$66,215.
- Alternate for New Booster Station:
  - This alternative was discounted by the group due to the estimated cost of approximately \$1,000,000 or more to site and build a new booster station.

#### **Recommendations**

- SEH recommends that the Alternate for Improvements that include Higher Pumping Capacity and Greater Automation be selected for the benefits of higher redundant pumping rate to Biwabik and more sophisticated monitoring and control of the system.

#### **Next Steps – If directed by the ERWB**

- SEH will prepare a contract amendment for design of the proposed improvements. This design would be collaboratively executed with ERWB and Biwabik water system staff input.



## **Text from August 15, 2022 Memorandum**

### **Background**

- On Tuesday 8/9/2022 Aurora and Biwabik personnel met on site at the Voyager Trail Booster Station to review current facility features and conditions.
- In addition to East Range/Aurora representatives joining the meeting, Biwabik lead water system operator was on site to open and operate the pump station and answer questions.
- The purpose of the meeting was to review the potential capabilities of the booster station to deliver water between the East Range/Aurora Water System and the Biwabik Water System.

### **Existing Conditions**

- Since the Water Tower elevation in Aurora is 55' higher than that of the Biwabik/Giant Ridge Tank, pumping would be required to transfer water to the East Range water system.
- There is currently a booster pumping station located in the Biwabik water system along Voyagers Trail.
- The current purpose of this pump station is to feed a series of homes at higher elevations at the south end of Voyagers Trail.
- The pump station includes two smaller 2 HP pumps that run one at a time for normal water service to the homes and one large 30 HP pump that operates sparingly for larger flow events (Fire fighting, hydrant flushing etc.)
- The existing larger pump has only operated about 30 hours in total since its original installation.

### **On Site Observations**

- The existing booster station is undergoing technology upgrades as the original control system is dated and has issues which require frequent hard restarts.
- The City has recently installed a new variable frequency drive on the larger 30 HP pump.
- Typical operation involves one of the two 2 HP pumps to run and sustain pressure in the small boosted pressure zone to the south of the pump station.
- When demand exceeds the available pressure, the second pump operates to add more flow and sustain pressure.
- In the event that a larger flow is demanded than what the small pumps can sustain, the larger pump will cycle on to sustain a minimum discharge pressure of 84 psi at the pump station. While the smaller pumps are set to sustain +/- 100 psi.
- While on site, two separate flow tests were conducted to evaluate the operate of the 30 HP pump, which has a design point of 550 gpm @ 160'
- Both tests involved opening a downstream hydrant to activate the 30 HP pump.
- Flows in the range of 300-600 gpm were observed through the station while flowing from the hydrants and observing the activation of the 30 HP pump.
- The flows produced were consistent with what would be expected for the pump when reviewing the available pump curve provided by the pump station manufacturer.
- The flows produced and observed varied according to the degree at which each hydrant was opened as well as to the speed at which the VFD operated the pump motor to sustain the desired pressure.

### **Conclusions**

- The existing 30 HP pump has the hydraulic capacity to move water from the Biwabik water system to the East Range/Aurora water system at a minimum rate of 300 gpm.
- This minimum rate would be sufficient to sustain a typical average day demand (+/- 230,000 GPD, Estimated AD Demand with Scenic Acres)
- Supply production would need to be coordinated with Biwabik to increase treatment production to produce the additional water required.

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October 14, 2022  
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- Some changes to the pump station operation would be recommended to increase the reliability of the pump station -- such as additional pressure monitoring, pump control and communication integration with the Aurora water tower.
- For water to be supplied from the East Range/Aurora Water system to Biwabik, a bypass route within the booster station with control valve would need to be added if automated system control were desired.
- Flow by gravity from the higher Aurora water tower to the lower giants ridge tank could be achieved by controlled gravity flow, however the primary Biwabik tank would float at a lower elevation as the Giants ridge tank is 10' lower.

mbj

[https://sehincazure-my.sharepoint.com/personal/mjensen\\_sehinc\\_com/documents/documents/mbj/aurora/voyagers pump station/voyagers booster station memorandum 10.14.2022.docx](https://sehincazure-my.sharepoint.com/personal/mjensen_sehinc_com/documents/documents/mbj/aurora/voyagers%20pump%20station/voyagers%20booster%20station%20memorandum%2010.14.2022.docx)



Project Name: East Range Water Project - Voyagers Booster Station Improvements

SEH Project No: 159723

Date: October 17, 2022

Estimator: MBJ

Description: Options for Scope of Improvements

DIVISION 1 - GENERAL REQUIREMENTS	UNIT	EST. QUANTITY	UNIT PRICE	LABOR/MULTIPLIER	AMOUNT
GENERAL CONDITIONS	LUMP SUM	1	\$ 11,200.00	1.0	\$ 11,200.00
<i>SUBTOTAL DIVISION 0 AND 01</i>					\$ 11,200.00
DIVISION 2 - EXISTING CONDITIONS	UNIT	EST. QUANTITY	UNIT PRICE	LABOR/MULTIPLIER	AMOUNT
DEMOLITION	LUMP SUM	1	\$ 7,500.00	1.0	\$ 7,500.00
<i>SUBTOTAL DIVISION 2</i>					\$ 7,500.00
DIVISION 9 - FINISHES	UNIT	EST. QUANTITY	UNIT PRICE	LABOR/MULTIPLIER	AMOUNT
EQUIPMENT/PROCESS PIPING PAINTING	LUMP SUM	1	\$ 5,000.00	1.0	\$ 5,000.00
<i>SUBTOTAL DIVISION 9</i>					\$ 5,000.00
DIVISION 26 - ELECTRICAL	UNIT	EST. QUANTITY	UNIT PRICE	LABOR/MULTIPLIER	AMOUNT
ELECTRICAL	LUMP SUM	1	\$ 10,000.00	1.5	\$ 15,000.00
PROGRAMMING	LUMP SUM	2	\$ 15,000.00	1.0	\$ 30,000.00
<i>SUBTOTAL DIVISION 26</i>					\$ 15,000.00
DIVISION 40 - PROCESS INTEGRATION (VALVES, PIPING)	UNIT	EST. QUANTITY	UNIT PRICE	LABOR/MULTIPLIER	AMOUNT
4-INCH PRV, ISO VALVES & PIPING (FLOW FROM AURORA TO BIWABIK)	EACH	1	\$ 8,000.00	1.5	\$ 12,000.00
10" MAGNETIC FLOW METER (w/Reversible read)	EACH	1	\$ 11,000.00	1.5	\$ 16,500.00
<i>SUBTOTAL DIVISION 40</i>					\$ 28,500.00
<b>SUBTOTAL CONSTRUCTION</b>					<b>\$ 67,200.00</b>
CONTINGENCY (20%)				20%	\$ 13,440.00
<b>SUBTOTAL CONSTRUCTION</b>					<b>\$ 80,640.00</b>
PRELIMINARY AND FINAL DESIGN	LUMP SUM	1	\$ 20,000.00	1.0	\$ 20,000.00
REGULATORY APPROVAL	LUMP SUM	1	\$ 4,000.00	1.0	\$ 4,000.00
BIDDING	LUMP SUM	1	\$ 6,000.00	1.0	\$ 6,000.00
CONSTRUCTION ADMINISTRATION & OBSERVATION	LUMP SUM	1	\$ 8,000.00	1.0	\$ 8,000.00
ADMINISTRATIVE COSTS (10%)				10%	\$ 1,344.00
<i>SUBTOTAL ENGINEERING &amp; ADMIN</i>					\$ 39,344.00
<b>TOTAL CONSTRUCTION COST</b>					<b>\$ 119,980.00</b>



Project Name: East Range Water Project - Voyagers Booster Station Improvements

SEH Project No: 159723

Date: October 17, 2022

Estimator: MBJ

Description: Options for Scope of Improvements

DIVISION 1 - GENERAL REQUIREMENTS	UNIT	EST. QUANTITY	UNIT PRICE	LABOR/MULTIPLIER	AMOUNT
GENERAL CONDITIONS	LUMP SUM	1	\$ 23,800.00	1.0	\$ 23,800.00
<i>SUBTOTAL DIVISION 0 AND 01</i>					\$ 23,800.00
<b>DIVISION 2 - EXISTING CONDITIONS</b>	<b>UNIT</b>	<b>EST. QUANTITY</b>	<b>UNIT PRICE</b>	<b>LABOR/MULTIPLIER</b>	<b>AMOUNT</b>
DEMOLITION	LUMP SUM	1	\$ 7,500.00	1.0	\$ 7,500.00
<i>SUBTOTAL DIVISION 2</i>					\$ 7,500.00
<b>DIVISION 9 - FINISHES</b>	<b>UNIT</b>	<b>EST. QUANTITY</b>	<b>UNIT PRICE</b>	<b>LABOR/MULTIPLIER</b>	<b>AMOUNT</b>
EQUIPMENT/PROCESS PIPING PAINTING	LUMP SUM	1	\$ 8,000.00	1.0	\$ 8,000.00
<i>SUBTOTAL DIVISION 9</i>					\$ 8,000.00
<b>DIVISION 26 - ELECTRICAL</b>	<b>UNIT</b>	<b>EST. QUANTITY</b>	<b>UNIT PRICE</b>	<b>LABOR/MULTIPLIER</b>	<b>AMOUNT</b>
ELECTRICAL	LUMP SUM	1	\$ 30,000.00	1.5	\$ 45,000.00
PROGRAMMING	LUMP SUM	2	\$ 20,000.00	1.0	\$ 40,000.00
<i>SUBTOTAL DIVISION 26</i>					\$ 45,000.00
<b>DIVISION 40 - PROCESS INTEGRATION (VALVES, PIPING)</b>	<b>UNIT</b>	<b>EST. QUANTITY</b>	<b>UNIT PRICE</b>	<b>LABOR/MULTIPLIER</b>	<b>AMOUNT</b>
4-INCH PRV, ISO VALVES & PIPING (FLOW FROM AURORA TO BIWABIK)	EACH	1	\$ 8,000.00	1.5	\$ 12,000.00
4-INCH PSV, HIGH FLOW RECIRCULATION (CONVERT JOCKEY TO LARGER PUMP)	EACH	2	\$ 10,000.00	1.5	\$ 30,000.00
10" MAGNETIC FLOW METER (MOUNT ANYWHERE)	EACH	1	\$ 11,000.00	1.5	\$ 16,500.00
300 GPM BOOSTER PUMP, PIPING & FITTINGS	EACH	1	\$ 65,000.00	1.5	\$ 97,500.00
<i>SUBTOTAL DIVISION 40</i>					\$ 58,500.00
<b>SUBTOTAL CONSTRUCTION</b>					\$ 142,800.00
CONTINGENCY (20%)				20%	\$ 28,560.00
<b>SUBTOTAL CONSTRUCTION</b>					\$ 171,360.00
<b>ENGINEERING AND ADMIN (20%)</b>	<b>UNIT</b>	<b>EST. QUANTITY</b>	<b>UNIT PRICE</b>	<b>LABOR/MULTIPLIER</b>	<b>AMOUNT</b>
PRELIMINARY AND FINAL DESIGN	LUMP SUM	1	\$ 30,000.00	1.0	\$ 30,000.00
REGULATORY APPROVAL	LUMP SUM	1	\$ 4,000.00	1.0	\$ 4,000.00
BIDDING	LUMP SUM	1	\$ 6,000.00	1.0	\$ 6,000.00
CONSTRUCTION ADMINISTRATION & OBSERVATION	LUMP SUM	1	\$ 10,000.00	1.0	\$ 10,000.00
ADMINISTRATIVE COSTS (5%)				5%	\$ 8,568.00
<i>SUBTOTAL ENGINEERING &amp; ADMIN</i>					\$ 58,568.00
<b>TOTAL ESTIMATED PROJECT COST</b>					\$ 229,930.00

## EAST RANGE WATER BOARD MISSION

*To provide a safe and reliable water supply to the City of Aurora and Town of White residents ... (finish with board input)*

*(Points for consideration while creating a mission ~ Scenic Acres upgrades, modernization of water system operations, looping or redundancies that will provide backups or contingencies, regional approach vs. local etc.)*

## PROJECT HISTORY

**2011** - The cities of Aurora, Biwabik, Gilbert, Hoyt Lakes, and the Town of White began discussions for a Joint Water Facility and public meetings were held. The East Range Joint Powers Board received a \$30,000.00 grant for preliminary planning and design for this new system. SEH conducted the first study resulting in a Preliminary Engineering Report for a Joint Water Supply dated September 8, 2011.

**2012 – 2015** – Planning and modeling took place using the \$1 million in funding allocated for Biwabik's critical need for a new water source. The Project was presented to the legislature multiple times to secure additional funding over the next four years. Community elected officials and representatives continued to meet to determine the best course of action and multiple engineering studies were conducted to determine the best joint plant location;

**2016 – 2018** - Project scope would serve over 6000 residents covering 12 miles; SEH continued design work based on existing facility demands and projected future water demands, water quality, and estimated costs for new facilities. Estimated project cost is \$30 million. Water Pilot Studies were conducted on Embarrass Pit (Lake Mine); Project will be completed in phases.

**2019** – Project gains momentum; Costin Group and Todd Koneczny were hired as consultants to help facilitate the project and secure additional funding; financial estimates and rate studies were conducted; permitting began;

**2020** - Preliminary Design was completed

- The location for the raw water intake and the water treatment facility was selected
- A financial advisor, Shannon Sweeney from David Drown Associates was hired

**2021** – East Range Water Board was created

- A new legal entity governing the East Range Water Project with elected officials from both Aurora and Town of White and community members at large serve on the five-member Board. A Joint Powers Agreement was entered into between the Town of White and the City of Aurora for the purpose of operating a joint water system. Legal work began for leases, easements, and land purchases.

**2022** - Final Design and Permitting completed

- The Embarrass Mine Pit also known as Lake Mine was selected as the raw water intake site and the Water Treatment facility will be in City of Aurora adjacent to the city's water tower and Public Works garage. The Water Treatment facility was designed for future expansion to accommodate neighboring cities who may want to tie into the system at a future date.

- Environmental review and permitting is in progress until late 2022. The final review and an archaeological assessment is anticipated to be completed by October 2022.

## PROJECT FUNDING

- Below is a summary of Project Components and estimated costs:

Project Component	Estimated Cost
Water Treatment Plant	\$11,362,914
Water Main – Scenic Acres	\$985,220
Water Main – Pineville	\$505,730
Raw Water Intake Facility	\$5,688,931
Raw Water Transmission Main	\$1,852,720
<b>Construction Subtotal</b>	<b>\$20,395,515</b>
Contingencies & Market Conditions	\$2,039,552
Geotechnical Borings & Testing	\$163,895
Legal	\$101,978
Fiscal	\$101,978
Administrative	\$101,978
Engineering	\$1,278,680-\$1,394,950
<b>Estimated Total Project Cost</b>	<b>\$24,183,574-\$24,299,844</b>

- Below is a summary of Funding Opportunities and their status:

Funding Opportunity	Status	Amount
State Bonding Bill	Secured	\$7,500,000
Directed Community Spending (Earmarks)	Secured	\$2,500,000
Public Facilities Authority (WIF)	Committed	\$8,000,000
IRRRB	Committed	\$2,000,000
Army Corps 569	Applied	\$1,000,000
Directed Community Spending (Earmarks)	Applied	\$4,000,000
	<b>Total</b>	<b>\$25,000,000</b>

## WHAT'S NEXT

- Project bidding could potentially begin in Spring of 2023. The Town of White Board and City of Aurora Council Members adopted a Resolution in July of 2022 supporting the project and authorizing supplemental funding.
- Once the project bids are received and awarded, that estimated project cost and project financing gap at that time will be used to create user rates.

- Once construction begins it will take approximately 2 years to complete the project.
- The existing water treatment facility in City of Aurora will need to be decommissioned. Engineering and cost estimates have not been requested at this time.

