

**CITY OF EAGLE LAKE
FEBRUARY 16, 2022
SPECIAL CITY COUNCIL MEETING
7:00 P.M.
CITY HALL, 705 PARKWAY AVENUE
AGENDA**

City Council meetings are held the first Monday of every month at 6 p.m. All meetings are open to the public. If you wish to address the City Council in person, please contact City Hall at 507-257-3218 or email krausch@eaglelakemn.com or jbromeland@eaglelakemn.com. Written comments or questions for the City Council can be submitted via USPS, email, or dropped off at City Hall to be read at the meeting. City Council meetings are now live streamed to the City of Eagle Lake's official YouTube Channel. If you are unable to attend a meeting, you can view meetings by visiting the City of Eagle Lake website at eaglelakemn.com and click on the "City of Eagle Lake MN City Council Meetings" icon on the home page of the website.

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

_____ **Auringer** _____ **White** _____ **Steinberg** _____ **Rohrich** _____ **Whittington**

NEW BUSINESS

1. Letter from the MN Department of Health for Manganese at Well Nos. 2 and 3
2. Planning for Water Treatment Plant and Next Steps

OTHER

ANNOUNCEMENT

ADJOURNMENT



705 Parkway Ave, PO Box 159, Eagle Lake, MN 56024
(507) 257-3218 Phone (507) 257-3220 Fax

February 16, 2022

To: Honorable Mayor Auringer and City Council
From: Jennifer J. Bromeland, City Administrator
Re: Health Risk Advisory Letter from MDH for Manganese at Well Nos. 2 and 3

Enclosed is a letter that was received from the Minnesota Department of Health (MDH) on Wednesday, February 9th informing that a Health Risk Advisory has been issued for manganese at Eagle Lake Well Nos. 2 and 3.

For purposes of providing background, we received a request from MDH Drinking Water Protection on October 25, 2021, asking permission to collect water samples for manganese from each water supply entry in the water system. To learn more about our drinking water and to better protect public health, we consented to samples being collected.

According to MDH, the average level of manganese at each sample location exceeds the Health Based-Value (HBV) in the drinking water supply. MDH recommends that the City notify its water customers as soon as possible about manganese in the drinking water supply. Attached is a mailer that will be sent to all water customers. In addition, MDH recommends that the City take action to reduce exposure to manganese to below the HBV in the drinking water supply.

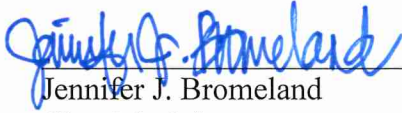
It should be noted that manganese in the water supply is not new. It occurs naturally in rocks and soil and is usually present in Minnesota's ground and surface waters. This is not a new change in water quality, but it is now being recognized as a potential health concern. According to a phone call with an MDH rep, to date, some seventy (70) health risk advisory letters like the one Eagle Lake received have been sent to MN drinking water systems for this most recent study. There are around 1,000 community public water systems in MN.

A remote meeting will be held on Wednesday afternoon with area legislators to talk about the possibility of requesting an appropriation from the current bonding bill to make the necessary improvements to Eagle Lake's water treatment system to address high levels of manganese in the drinking water supply. An update will be provided.

The public works department is currently in the process of coordinating random samples being collected from residences in the community to send to UC Laboratory in Janesville. Random sampling may help provide an indication of manganese levels at different locations in the community. If residents wish to test their water through UC Laboratory, test kits are available through UC Laboratory for approximately \$50 per kit. Another option is for the City to consider

purchasing a handheld testing device to test manganese in drinking water when requested. City staff will need to research costs associated with obtaining a testing device and bring back pricing at an upcoming meeting if that is an avenue that the City would like to explore further.

Discussion should ensue about both short-term and long-term options.



Jennifer J. Bromeland
City Administrator



Protecting, Maintaining and Improving the Health of All Minnesotans

February 9, 2022

Eagle Lake City Council
c/o Ms. Jennifer Bromeland, Administrator
Eagle Lake City Hall
P.O. Box 159
Eagle Lake, MN 56024-0159

Subject: Health Risk Advisory for Manganese in Eagle Lake Drinking Water System (PWSID# 1070002)

Dear Council Members:

This letter is to notify you that the Minnesota Department of Health (MDH) is issuing a Health Risk Advisory for manganese at Well Nos. 2 and 3.

MDH recommends that the city of Eagle Lake notify its customers as soon as possible about manganese in their drinking water supply. It is important that people consuming the water be informed about any potential health risks and actions they can take to reduce exposure to manganese within their own home, as well as any actions the water system is taking. We encourage the water system to lead this messaging.

In addition, MDH recommends that the city of Eagle Lake take action to reduce exposure to manganese to below the Health-Based Value (HBV) of 100 µg/L in the drinking water supply. Examples of actions to reduce exposure may include reducing the use of wells with manganese above the HBV, adding treatment to remove manganese, or optimizing existing manganese treatment.

Sample Results

MDH has collected samples for manganese and the results are shown in the table below. The average level of manganese at each sample location exceeds the HBV of 100 µg/L, so MDH is issuing this Health Risk Advisory.

Eagle Lake Sample Results

Table with 4 columns: Sample Location, Mn (µg/L) 11/4/2021, Mn (µg/L) 11/30/2021, Average Mn (µg/L). Rows include Well #2 Entry Point and Well #3 Entry Point.

µg/L = micrograms per liter

Bold means that the concentration exceeds a MDH Health-Based Value or Health Risk Limit

HBV and Health Effects for Manganese

MDH has set a HBV for manganese of 100 µg/L for formula-fed infants and infants that drink tap water. For children over one year old and adults, MDH supports the EPA lifetime Health Advisory Level of 300

µg/L. Results for manganese in samples collected from your water system were higher than the HBV for formula-fed infants and infants that drink tap water. Therefore, it is recommended that you communicate to residents about the health risks to infants that drink the water.

Health-based guidance values are set at levels which pose little or no health risk to people, including the most sensitive populations like a fetus, infants, children, elderly, and people with impaired immunity. Although the potential for harm increases as the level of a contaminant increases above the health based guidance value, health scientists may not be able to precisely estimate the change in risk. These guidance values apply to short periods of time as well as over a lifetime of exposure.

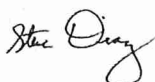
Manganese occurs naturally in rocks and soil across Minnesota and is commonly found in Minnesota ground and surface water. People need some manganese to stay healthy, but too much can be harmful to the nervous system. Infants may develop learning and behavior problems if they drink water or formula made with water that has too much manganese in it.

For More Information

As a standard practice, MDH notifies the governor's office and area legislators when health risk advisory letters are issued. In addition, MDH is sending a copy of this letter to your local public health department.

MDH intends to meet with you to discuss future actions related to manganese and will be contacting you soon to discuss such a meeting. In the interim, if you have any questions about health concerns or would like more information about manganese, contact the MDH Health Risk Assessment Unit at 651-201-4899 or health.risk@state.mn.us. For technical assistance related to drinking water, please contact Amy Lynch, District Engineer, at 507-344-2713 or amy.lynch@state.mn.us. More information about manganese is also available on our website at [Manganese in Drinking Water](https://www.health.state.mn.us/communities/environment/water/contaminants/manganese.html) (<https://www.health.state.mn.us/communities/environment/water/contaminants/manganese.html>)

Sincerely,



Steven Diaz
Assistant Division Director, Environmental Health Division
Minnesota Department of Health
PO Box 64975
St. Paul, MN 55164-0975
www.health.state.mn.us

cc: Amy Lynch, District Engineer, MDH Mankato District Office
Chad Kolstad, MDH DWRP Program Coordinator
Sarah Fossen-Johnson, Supervisor, MDH Health Risk Assessment Unit
Kris Klos, Research Scientist, MDH Health Risk Assessment Unit
Kelley Haeder, Supervisor, Blue Earth County Public Health
Water Superintendent, City of Eagle Lake



**NAME: Health Risk Advisories for Manganese in Drinking Water
January 27, 2022**

Situation Briefing

- MDH is issuing Health Risk Advisory (HRA) letters to the public water systems (PWS) listed in the table below because the manganese levels exceed the Health-based Value (HBV) of 100 µg/L (micrograms per liter):

PWS Name	PWS Type	County	Leg. District	Advisory Level	PWS Contact
Eagle Lake	Municipal	Blue Earth	19B/19/1	>100	City Admin: 507-257-3218 jbromeland@eaglelakemn.com

- Advisory Level “>100”: The HBV of 100 µg/L is based on short-term exposure (between one and 30 days) for formula-fed infants (under 1 year old) and infants that drink tap water.
- Advisory Level “>300”: EPA has a lifetime Health Advisory Level of 300 µg/L, which is the maximum concentration of manganese that is not expected to cause any adverse health effects for a lifetime of exposure. MDH supports this guidance value for children over one year old and adults.
- Advisory Level “>1,000”: EPA also has a one-day Health Advisory Level for adults and older children of 1,000 µg/L (or 1 mg/L), which is the maximum concentration of manganese that is not expected to cause any adverse health effects for one day of exposure.
- Manganese does not have a Maximum Contaminant Level (MCL) required by the Safe Drinking Water Act.
- The HRA letter recommends that the water system:
 - Notify residents about manganese as soon as possible.
 - Take actions to reduce manganese in the drinking water supply.
- The PWS is informed about notification of the governor’s office and legislators when the HRA letter is sent and provided a copy of this notification.
- MDH will schedule a meeting with the PWS following the HRA letter to discuss public notification and actions to reduce exposure.
- Ultimately, since manganese is not regulated, decision on what to do, if anything, is up to the system. MDH will offer technical assistance to the maximum extent possible for all aspects of reducing exposure.

MDH CONTACTS:

- DWP Section Manager: Sandeep Burman, 651.201.4667, sandeep.burman@state.mn.us
- CWS Unit Manager: Karla Peterson, 651.201.4679, karla.peterson@state.mn.us
- CEC Engineer: Lucas Martin, 651.201.4144, lucas.martin@state.mn.us

Drinking Water Notice

Health Risk Advisory for Manganese in Drinking Water

City of Eagle Lake
PO Box 159
705 Parkway Avenue
Eagle Lake, MN 56024

PRST STD
ECRWSS
US POSTAGE PD
EAGLE LAKE MN
PERMIT NO. 10

Postal Patron
Eagle Lake, MN 56024



February 16, 2022

RE: Manganese in Drinking Water

Dear Eagle Lake Municipal Water Customers,

The City of Eagle Lake and the Minnesota Department of Health (MDH) routinely conduct water analysis testing to monitor water quality. Recent testing indicated that the City's drinking water supply complies with the Safe Drinking Water Act standards. However, the testing also indicated that the City's water has elevated levels of manganese greater than the MDH recommended Health-Based Value (HBV).

Manganese in the water supply is not new. It occurs naturally in rocks and soil and is usually present in Minnesota's ground and surface waters. In other words – this is not a recent change in water quality, but it is now being recognized as a potential health concern.

Manganese:

Manganese is a naturally occurring element found in rocks and soil and is usually present in Minnesota ground and surface water. Manganese concentrations in groundwater varies throughout the state based on different aquifer characteristics. It is a natural part of Eagle Lake's groundwater and is not caused by pollution or human activities. Elevated levels of manganese can contribute to black staining of plumbing fixtures, laundry discoloration, and a metallic sheen on coffee and beverages.

People need manganese to stay healthy, but too much can be harmful to the nervous system. Infants may develop learning and behavior problems if they drink water or formula with water with too much manganese. In addition, children and adults who drink water with high levels of manganese may have problems with memory, attention, and motor skills.

The City has two wells and both have tested above the MDH health guidelines of 100 parts per billion (ppb) for infants. Manganese concentration in the City of Eagle Lake's water averages 220 ppb.

Minnesota Department of Health Guidelines for Manganese:

Manganese is an unregulated element and does not currently have an enforceable standard. However, the MDH recommended health guidelines are:

- If you have an infant who drinks tap water or drinks formula made with tap water, a safe level of manganese in your water is 100 ppb of manganese or less.
- If you have an infant who never drinks tap water or formula made with tap water, a safe level of manganese in your water is 300 ppb or less.
- If everyone in your household is more than one year old, a safe level of manganese in your water is 300 ppb or less.

City Solution:

The City is currently working with consultants and MDH to determine possible short-term and long-term treatment options to reduce the manganese levels in the City's drinking water. Eagle Lake's current water system consists of two active wells, one elevated storage tank, and a distribution system serving the community. There are two active wells and one emergency well. There is not a centralized treatment facility currently. The City is actively seeking funding for a possible new water treatment facility which would include construction of a new well and well house, and a new treatment facility with aeration and detention for iron oxidation, use of potassium permanganate for manganese oxidation, filtration for iron and manganese removal, chlorine for disinfection, as well as the addition of fluoride and a corrosion inhibitor.

Some Short-Term Options for Water Customers:

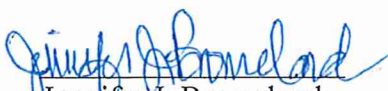
- Use "purified" bottled water for drinking, especially if you have an infant or young child.
- As most softeners can be effective at removing manganese, if you have a water softener, use softened water for drinking and make sure your water softener is in good working order.
- Filter your drinking water with a reverse osmosis filter installed below the sink.
- Contact a reputable water treatment company to install a home treatment system if you do not already have one.

Enclosed is a "Manganese in Drinking Water" handout from MDH.

Public water systems may test their water for manganese, but they are not required to. The City is currently working with an accredited laboratory to obtain random samples throughout the community to test manganese levels.

Please contact City Hall at 507-257-3218 with any questions or concerns. Thank you.

Sincerely,


Jennifer J. Bromeland
City Administrator

Manganese in Drinking Water

Manganese occurs naturally in rocks and soil across Minnesota and is often found in Minnesota ground and surface water. Your body needs some manganese to stay healthy, but too much can be harmful.

Health Effects

Children and adults who drink water with high levels of manganese for a long time may have problems with memory, attention, and motor skills. Infants (babies under one year old) may develop learning and behavior problems if they drink water with too much manganese in it.

How to Protect Yourself & Your Family

The Minnesota Department of Health (MDH) developed guidance values to keep your household drinking water safe. Because these are guidance values, public water systems are not required to meet these values, and some do not.

- If you have an infant who drinks tap water or drinks formula made with tap water, a safe level of manganese in your water is 100 micrograms of manganese per liter of water ($\mu\text{g/L}$)* or less.
- If you have an infant who never drinks tap water or formula made with tap water, a safe level of manganese in your water is 300 $\mu\text{g/L}$ or less.
- If everyone in your household is more than one year old, a safe level of manganese in your water is 300 $\mu\text{g/L}$ or less.

Drinking water with a level of manganese above the MDH guidance level can be harmful for your health but taking a bath or a shower in it is not. Manganese in your water can stain your laundry, cause scaling on your plumbing, and make your water look, smell, or taste bad. Manganese can also create a brownish-black or black stain on your toilet, shower, bathtub, or sink.

The only way to know the level of manganese in your drinking water is to contact your public water system or have your tap water tested. All water testing should be done through an accredited laboratory. Contact an accredited laboratory to get sample containers and instructions or ask your county environmental or public health services if they provide water testing services (see *Search for Accredited Laboratories*).

If you have a household water treatment unit, the unit may reduce the level of manganese in your drinking water (see *Home Water Treatment Units: Point-of-Use Devices* for more information). MDH and Dakota County conducted a study in 2016 and found that water softeners can be an effective way to reduce the level of manganese in drinking water (see *The Wells and Increased Infant Sensitivity and Exposure (WIIE) Study*).

*One microgram per liter ($\mu\text{g/L}$) is the same as 1 part per billion.

If you have a private well

Some Minnesota groundwater naturally has levels of manganese higher than the MDH guidance values. You may want to test your drinking water for manganese, especially if infants drink your tap water. You are responsible for keeping your well water safe and testing it as needed.

If you are on a public water system

Public water systems may test their water for manganese, but they are not required to. You can contact your public water system to find out if they test the water for manganese. If your public water system does not test for manganese, you can arrange and pay for an accredited laboratory to test your water. Remember that certain types of home water treatment units may make the level of manganese lower in your tap water than what your water system detected.

Background Information

Manganese occurs naturally in rocks and soil and can be found in water, food, and air. Your body needs some manganese to stay healthy. The recommended daily intake for manganese depends on a person's age and sex. The recommended manganese intake for children over eight years old and adults varies from 1,900 to 2,600 μg per day. Infants should consume 600 μg or less of manganese per day.

The level at which manganese benefits one person could overlap with the level at which it is harmful to another person. Adults and children get enough manganese through their diet. Infants get enough manganese from breast-milk, food, or formula. Food often has a higher manganese level than water; however, there are many types of food that can actually block manganese from getting into the body. Water does not have the same characteristics as food, so your body can more easily absorb manganese in water.

Manganese in Minnesota's Water

Manganese occurs naturally in groundwater across Minnesota. Based on an MDH study, groundwater in southeastern Minnesota tends to have low levels of manganese (below 50 µg/L). Southwestern Minnesota tends to have higher levels—some over 1,000 µg/L. There are no clear patterns in the other parts of the state.

Although public water systems are not required to test for manganese, some Minnesota community public water systems test for manganese either before or after treating water. Based on test results and treatment practices, MDH estimates about 90 percent of Minnesotans using community public drinking water systems receive water with levels of manganese below 100 µg/L. About 3 percent of Minnesotans on community public water systems receive water with levels above 300 µg/L. It is important to remember certain types of household water treatment units may reduce manganese to safe levels.

What MDH is Doing

MDH has health-based guidance for manganese in water (see *Human Health-Based Water Guidance Table*). MDH gathered data to find patterns of where manganese occurs in Minnesota's groundwater (see *Initial Assessment of Manganese in Minnesota Groundwater*). MDH also participated in an effort by the Minnesota Ground Water Association to create a report about manganese called *Manganese in Minnesota's Groundwaters*.

What Other Groups are Doing?

Researchers at the University of Minnesota received funding to investigate Risks to Infants from Manganese in Drinking Water.

Resources

- [Home Water Treatment \(www.health.state.mn.us/communities/environment/water/factsheet/hometreatment\)](http://www.health.state.mn.us/communities/environment/water/factsheet/hometreatment)
- [Human Health-Based water Guidance Table \(https://www.health.state.mn.us/communities/environment/risk/guidance/gw/table.html\)](https://www.health.state.mn.us/communities/environment/risk/guidance/gw/table.html)
- [Initial Assessment of Manganese in Minnesota Groundwater \(PDF\) \(www.health.state.mn.us/communities/environment/water/docs/swp/mnreport.pdf\)](http://www.health.state.mn.us/communities/environment/water/docs/swp/mnreport.pdf)
- [Manganese in Minnesota's Groundwaters \(PDF\) \(www.mgwa.org/documents/whitepapers/01_manganese/Manganese_in_Minnesotas_Groundwaters.pdf\)](http://www.mgwa.org/documents/whitepapers/01_manganese/Manganese_in_Minnesotas_Groundwaters.pdf)
- [Risks to infants from manganese in drinking water \(https://consortium.umn.edu/risks-infants-manganese-drinking-water\)](https://consortium.umn.edu/risks-infants-manganese-drinking-water)
- [Search for Accredited Laboratories \(www.health.state.mn.us/labsearch\)](http://www.health.state.mn.us/labsearch)
- [The Wells and Increased Infant Sensitivity and Exposure \(WIISE\) Study \(PDF\) \(www.health.state.mn.us/communities/environment/risk/docs/studies/wiisereport.pdf\)](http://www.health.state.mn.us/communities/environment/risk/docs/studies/wiisereport.pdf)

Minnesota Department of Health
Environmental Health Division
651-201-4700
health.drinkingwater@state.mn.us
www.health.state.mn.us

For any health related question, please contact Health Risk Assessment Unit at 651-201-4899, health.risk@state.mn.us.

March 25, 2021

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

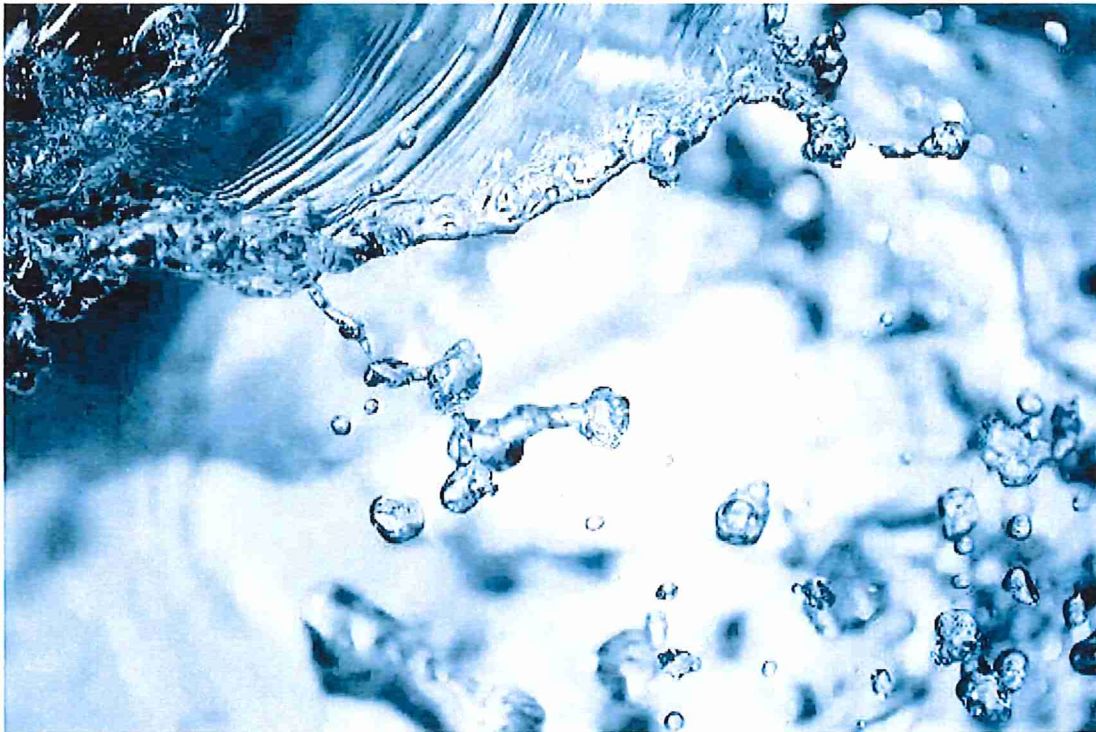
EAGLE LAKE DRINKING WATER REPORT

To obtain a copy of Eagle Lake's most recent drinking water report, please contact City Hall or visit: <https://eaglelakemn.com/residents/drinking-water-report>. Each report contains our monitoring results from January 1 to December 31.

We work with the Minnesota Department of Health to test drinking water for more than 100 contaminants. It is not unusual to detect contaminants in small amounts. No water supply is ever completely free of contaminants. Drinking water standards protect Minnesotans from substances that may be harmful to their health. Eagle Lake strives to provide you with safe and reliable drinking water that meets federal and state water quality requirements.

Learn more by visiting the Minnesota Department of Health's webpage Basics of Monitoring and Testing of Drinking Water in Minnesota (<https://www.health.state.mn.us/communities/environment/water/factsheet/sampling.html>).

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.





705 Parkway Ave, PO Box 159, Eagle Lake, MN 56024
(507) 257-3218 Phone (507) 257-3220 Fax

February 16, 2022

To: Honorable Mayor Auringer and City Council
From: Jennifer J. Bromeland, City Administrator
Re: Planning for Water Treatment Plant and Next Steps

John Graupman with Bolton and Menk will be in attendance to assist continued dialogue about the possibility of constructing a new water treatment plant and next steps.

For purposes of providing background, a water treatment study was undertaken in 2020 to provide information needed to establish priorities, plan, fund, and implement required future water system improvements necessary to address water quality and color and odor concerns. A proposal was submitted to the Drinking Water Revolving Loan Fund Program with the MN Department of Health and Public Facilities Authority for placement on the 2022 Intended Use Plan.

We will plan to review next steps in more detail this evening.

Jennifer J. Bromeland
City Administrator



April 29, 2021

MN Public Facilities Authority
Department of Employment & Economic Development
1st National Bank Building
332 Minnesota St., Suite W820
St. Paul, MN 55101-1378

ATTN: Anita Gallentine

RE: Placement of the City of Eagle Lake on the Drinking Water Revolving Loan Fund
2022 Intended Use Plan – City of Eagle Lake Water Treatment Improvements

Dear Ms. Gallentine:

Please consider this letter as the formal request from the City of Eagle Lake to be placed on the 2022 Intended Use Plan for the Drinking Water Revolving Loan Fund. The proposed project in this request is the City of Eagle Lake Water Treatment Improvements.

The following information should satisfy the requirements for listing on the IUP.

Project Description

This project will be located in the City of Eagle Lake. It includes the planning, design, and construction of a new iron/manganese removal water treatment facility with the drilling of a new well and construction of a new corresponding wellhouse.

Project Schedule

The City's planning and implementation schedule for this project is as follows:

- | | |
|-----------------------------------|-----------------------------|
| 1. Planning, Design & Engineering | September 2021 – March 2022 |
| 2. Review & Approvals | March 2022 – June 2022 |
| 3. Construction | July 2022 – April 2024 |

Project Cost Estimate

The estimated cost of the proposed City of Eagle Lake Water Treatment Improvements project is \$8,400,000.

Requested Loan Amount

The City is requesting PFA financial assistance in the amount of \$8,400,000.

MN Public Facilities Authority
April 29, 2021
Page 2

Approximate Monthly Distribution Schedule


<u>Month/Year</u>	<u>Amount</u>
July 2022 – April 2024	\$400,000/Month

We look forward to working with the Public Facilities Authority and Department of Health on this very important water project for the Community.

If you should have any questions, please feel free to call me, or you may contact our engineer, John Graupman at Bolton & Menk, Inc., at 507-380-0433.

Thank you for your consideration of this request.

Sincerely,


Jennifer J. Bromeland
City Administrator/City of Eagle Lake

cc: John Graupman, P.E., Bolton & Menk, Inc.