



City of Fergus Falls Committee of the Whole Agenda

March 29, 2023

7:00 am

City Council Chambers

- A. Call to Order
- B. Roll Call
- C. Discussion Items
 - 1. Gate City Bank Neighborhood Improvement Program Presentation
 - 2. Oak Grove Cemetery
Andrew Bremseth
Requested Action: Recommendation to the council to gift five acres of city-owned land to Oak Grove Cemetery for future expansion
 - 3. Community Service Officers
Kile Bergren
Requested Action: Recommendation to the council to hire up to four part-time/temporary community service officers
 - 4. Tuition Reimbursement Program
Kile Bergren
Requested Action: Recommendation to the council to add part-time or temporary employees serving in the capacity of Community Service Officers to be eligible for participation in the city's tuition reimbursement program
 - 5. Public Safety Officer Wellness Plan and Policy
Kile Bergren
Requested Action: Recommendation to the council to adopt a resolution of support for the Public Safety Officer Wellness Plan and Policy
 - 6. Surplus Equipment
Kile Bergren
Requested Action: Recommendation to the council to declare items from the Police Department as surplus equipment and to authorize their disposal or trade-in
 - 7. Surface Water Assessment

Len Taylor

Requested Action: Recommendation to the council to accept the surface water assessment plan

D. Additional Agenda Items

E. Announcements

April 3 5:30 pm City Council meeting

April 12 7:00 am Committee of the Whole meeting

Adjourn

Neighborhood Impact Program (NIP) Application

Thank you for your interest in applying for a Fergus Falls Home Improvement Loan. We look forward to working with you on a project that will improve your home and help to enhance the neighborhood in which you live.

Eligible Improvement Costs

Funds may be used to address code and structural corrections, energy improvements, and general property improvements. Loans are available to finance new improvements not yet under construction, and if there are code corrections identified during the inspection, they must be addressed as part of the project.

Applicants

Loan applicant must be the owner-occupant of the home and meet Gate City Bank's credit standards for repayment of the improvement loan.

Home/property must meet all of the following criteria:

- Built before 2006
- Located in City of Fergus Falls municipal boundaries, see attached City of Fergus Falls Map.
- Zoned for residential use.
- Outside of 100-year flood plain
- Owner-occupied one- or two-unit residences (if there is a second unit, it must be a registered rental)
- Current on property taxes and special assessments
- Current assessed property value is less than \$275,000.

Project must include at least one of the following:

- Foundation work (drain tile, bracing)
- Major exterior improvements (siding, roofing, windows)
- Addition of bedroom or new living space
- Major interior remodeling or replacement of major mechanical systems (furnace, electrical system)
- Convert rental unit to owner-occupied

Loan Terms:

- 3.00% fixed interest 3.01% APR*)
 - Repayable over 10 years
- 3.50% fixed interest (3.50% APR*)
 - Repayable over 15 years
- Minimum loan \$10,000/ Maximum loan \$100,000
- Maximum loan-to-value 90%

** Terms and conditions may apply. A \$50,000 home equity loan at 3.00% interest rate for 120 monthly payments of \$482.92 will have a 3.01% annual percentage rate.*

Please submit your completed application to:

City of Fergus Falls - Attn. Community Development Department
112 W Washington Avenue
Fergus Falls, MN 56537

Completed applications will be forwarded to Gate City Bank for loan approval. After approval you will be required to set up an inspection time with City of Fergus Falls Building Officials. Please note the city requires all projects to be completed by a licensed contractor and city building permit fees will be applied to your project. **Applications are due by October 31, 2023.**

Neighborhood Improvement Program Loan Application

Please complete all questions.

SECTION A: General Information

Name – Applicant 1	
Name – Applicant 2*	
I am applying:	<input type="checkbox"/> Individually <input type="checkbox"/> With Co-Applicant <input type="checkbox"/> As Co-Signer
Address	
Phone with area code	
Email	
<i>*Include name of individual to be listed on legal documents with applicant, if applicant.</i>	

SECTION B: Property to be Improved.

Do you currently own your home or are you intending to purchase a home that needs work?	
<input type="checkbox"/> Own <input type="checkbox"/> Plan to purchase	
Address of Property to be Improved	
PURCHASE DATE (Approx.)	
Purchase Price	
Year Built	
Is the property in the 100 year flood plain? <input type="checkbox"/> Yes <input type="checkbox"/> No	

SECTION C: Property Information

What types of work are you interested in completing? Check and describe below.	
Types of Work	Describe:
<input type="checkbox"/> Electrical	
<input type="checkbox"/> Plumbing	
<input type="checkbox"/> Heating	
<input type="checkbox"/> Foundation	
<input type="checkbox"/> Roof	
<input type="checkbox"/> Windows	
<input type="checkbox"/> Doors	
<input type="checkbox"/> Siding	
<input type="checkbox"/> Garage	
<input type="checkbox"/> Finish basement	
<input type="checkbox"/> Addition	
<input type="checkbox"/> Kitchen remodel	
<input type="checkbox"/> Bath remodel	
<input type="checkbox"/> Interior finishes	
<input type="checkbox"/> Accessibility	
<input type="checkbox"/> Landscaping/Deck	
<input type="checkbox"/> Convert from rental	
<input type="checkbox"/> Other	

Questions on this page? Contact City of Fergus Falls at 218.332.5419

Neighborhood Impact Program Loan Application

SECTION C: Property Information Continued

What is your heating system?

- Electric Natural Gas Propane Oil Electric Combination
 Wood burning Other:

How many bedrooms are in your house?

- 1 2 3 4 5 6+

What is the square footage of your house including finished basements?

Please describe any existing, notable interior features, amenities, or upgrades to your home (i.e., fireplace, sauna or hot tub, sunrooms, home theatre, full kitchen and bathroom remodels, stone countertops, finished basement):

Questions on this page? Contact City of Fergus Falls at 218.332.5419

Neighborhood Impact Program Loan Application

SECTION D: Applicant Information

	Applicant #1	Applicant #2
Full name		
Social security number		
Date of birth Ex. 1/1/1960		
Street address		
City/State/ZIP		
Own/rent	<input type="checkbox"/> Own <input type="checkbox"/> Rent	<input type="checkbox"/> Own <input type="checkbox"/> Rent
How long at this address?		
Previous address (if less than 3 years)		
How long at previous address?		
Own/rent at previous	<input type="checkbox"/> Owned <input type="checkbox"/> Rented	<input type="checkbox"/> Owned <input type="checkbox"/> Rented
Home/cell phone with area code		
Work phone with area code		
Employer (include address)		
How long at current employer?		
Position title		
Monthly gross salary		
Monthly net salary		
Previous employer (if less than 3 years)		
How long at previous employer?		
Marital status	<input type="checkbox"/> Married <input type="checkbox"/> Unmarried <input type="checkbox"/> Separated	<input type="checkbox"/> Married <input type="checkbox"/> Unmarried <input type="checkbox"/> Separated

Questions on this page? Contact Gate City Bank at 218.998.7908

SECTION D CONTINUED: Applicant Information

	Applicant #1	Applicant #2
Name, address, and phone of nearest living relative not living with you	Name: Address: Phone:	Name: Address: Phone:
Relationship		
Leave blank if you do not want this income considered as a basis for your ability to repay this loan	Alimony, child support, or separate maintenance received under: <input type="checkbox"/> Court order <input type="checkbox"/> Written Agreement <input type="checkbox"/> Oral understanding	Alimony, child support, or separate maintenance received under: <input type="checkbox"/> Court order <input type="checkbox"/> Written Agreement <input type="checkbox"/> Oral understanding
Other income you want to disclose for consideration as a basis for your ability to repay this loan	Nature of additional income: _____ Monthly amount: _____ Duration of Income: _____	Nature of additional income: _____ Monthly amount: _____ Duration of Income: _____
Other income you want to disclose for consideration as a basis for your ability to repay this loan	Nature of additional income: _____ Monthly amount: _____ Duration of Income: _____	Nature of additional income: _____ Monthly amount: _____ Duration of Income: _____
Is any income listed in this section likely to be reduced before the credit request is to be paid off?	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Are you a co-maker, endorser, or guarantor on any loan or contract?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are there any unsatisfied judgements against you?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have you ever filed for bankruptcy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Questions on this page? Contact Gate City Bank at 218.998-7908

SECTION E: Personal Financial Statement

Assets	Total Value
Checking/Bank name:	
Savings & CDs/Bank name:	
Taxable market value of home (land and buildings)	
Other real estate owned:	
Vehicle 1 Year & Model:	
Vehicle 2 Year & Model:	
IRAs/Retirement Plans:	
Stocks:	
Bonds:	
Mutual funds:	
Cash value of life insurance face amt.	
Personal property:	
Other assets (describe):	
Other assets (describe):	
Other assets (describe):	
TOTAL ASSETS	\$ 0.00

Liabilities	Total	Mo. Pmt.
Mortgage/rent		
2 nd mortgage/equity line		
Student loans		
Vehicle 1 Loan		
Vehicle 2 Loan		
Other loans (list)		
Credit cards (list)		
Alimony/child support		
TOTAL LIABILITIES	\$ 0.00	\$ 0.00

Amount you want to borrow: \$ _____

Questions on this page? Contact Gate City Bank at 218.998.7908

All information furnished is for confidential use of the City of Fergus Falls or Gate City Bank. Under Minnesota Law, it is a crime to use false or misleading information in this application in order to qualify for a loan.

Signatures: I certify that everything I have stated in this application and on any attachments is correct. You may keep this application whether or not it is approved. I authorize you to check my credit and employment history and to answer questions others may ask about my credit with you. I understand that I must update credit information at your request if my financial situation changes.

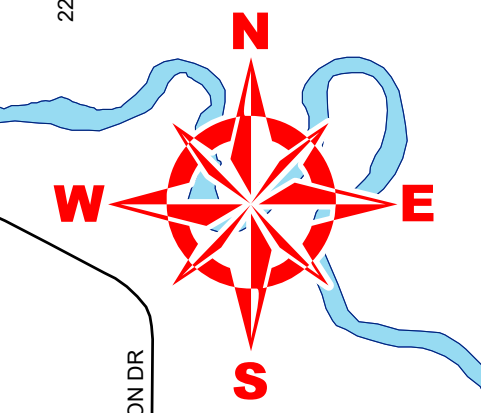
Signature

Date

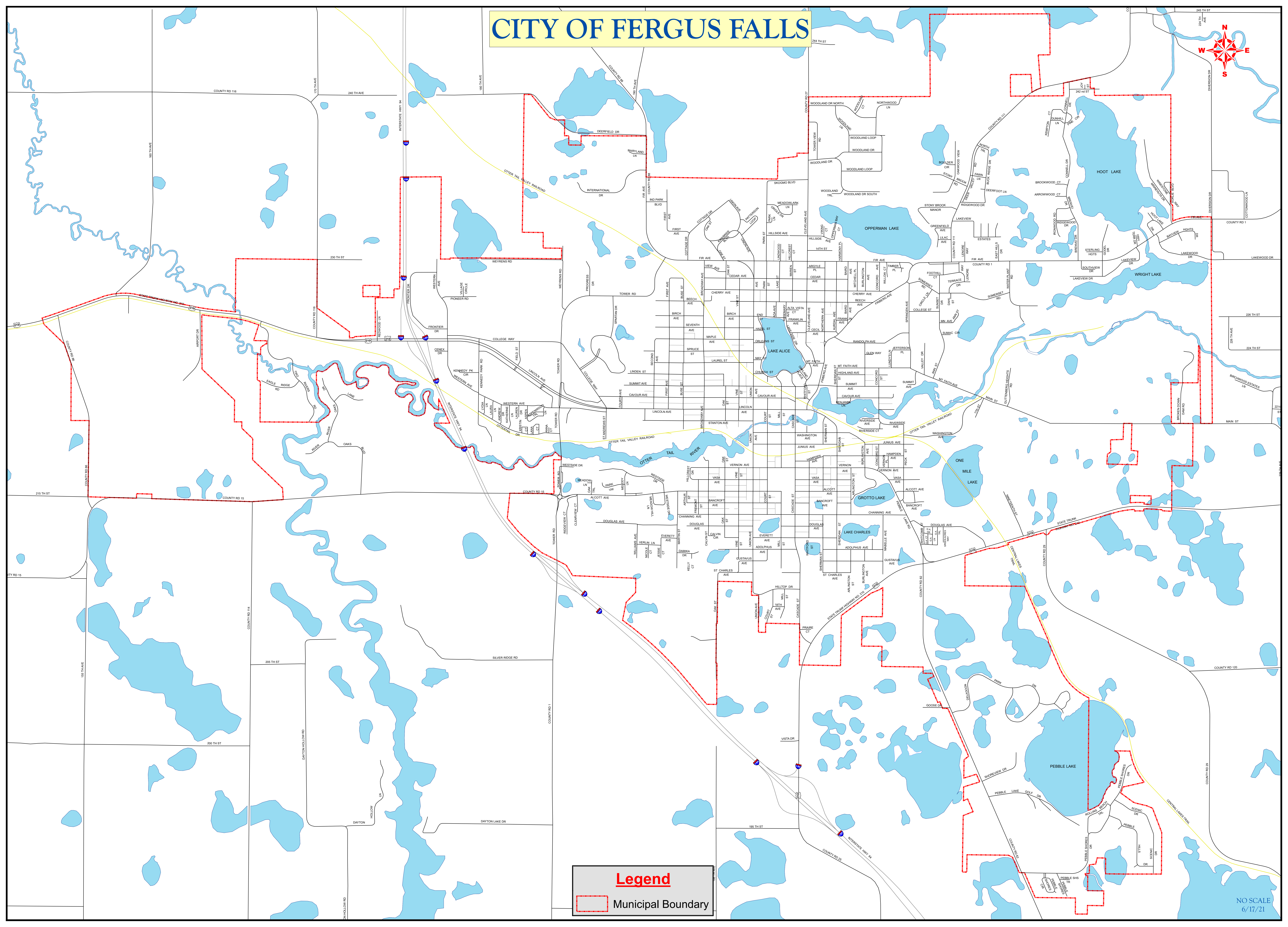
Signature

Date

CITY OF FERGUS FALLS



Legend
Municipal Boundary



March 15, 2023

TO: Mayor, Fergus Falls City Council members, and City Administrator
From: Steve Emerson, Oak Grove Cemetery Board President
RE: Transfer of Land to Oak Grove Cemetery

On behalf of the trustees of Oak Grove Cemetery, please know we appreciate your consideration for five acres of city-owned land being transferred to Oak Grove Cemetery for future expansion.

Over the past month, Buzz Lundeen or I have individually talked to each of you summarizing our concerns and detailing needs for this expansion.

We have consulted with City staff concerning this project. It is our understanding that the five acres are of no future use to the City and it does not conflict with the City infrastructure.

This five acre parcel of land is directly north of our existing cemetery. It is owned by the City and commonly called the Bergeson farm. All of the costs for the development of this expansion are the sole responsibility of the Cemetery, and no additional funding will be requested or needed for this project to be completed.

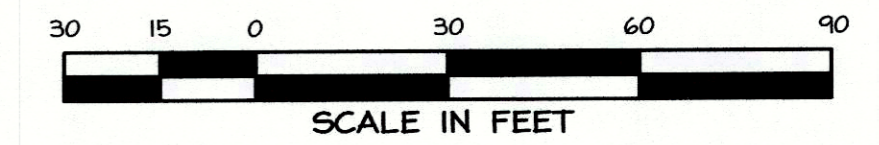
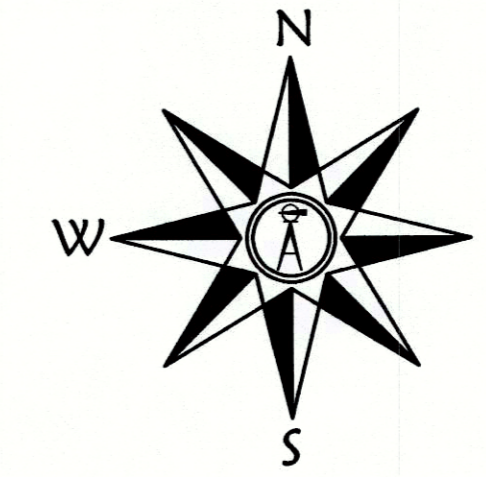
We thank you in advance for your consideration of this important matter.

Sincerely,

Steve Emerson
218-731-4675

Buzz Lundeen
218-770-0899

STATE SUBDIVISION OF SEC. 36, T. 133, R. 43



SCALE: 1 INCH = 30 FEET
 BEARINGS ARE BASED ON OTTER TAIL COUNTY COORDINATES
 2011 ADJUSTMENT AS DETERMINED BY THE MNDOT CORS/VRS NETWORK.

- DENOTES IRON MONUMENT FOUND.
- DENOTES IRON MONUMENT SET MARKED "PLS 13620".
- ⊙ DENOTES CAST IRON MONUMENT FOUND.
- ⊕ DENOTES BRASS PLUG SET MARKED "PLS 13620".
- △ DENOTES MAG NAIL SET.



ANDERSON LAND SURVEYING, INC.
 PROFESSIONAL LAND SURVEYORS & LAND DEVELOPMENT CONSULTANTS
 313 SOUTH MILL STREET, FERGUS FALLS, MN 56537 (218) 739-5268
 (800) 300-9276

CERTIFICATE OF SURVEY FOR: OAK GROVE CEMETERY ASSOCIATION			
CONTRACT NO. 207-22	FOLDER 207-22	DRAWN BY DAA	FIELD BOOK ALS-242/41
DWG FILE 207-22	CRD FILE 207-22	CHECKED BY LIB	FIELD CREW JAK/MLJ
SEC-TMP-RG 36-133-43	REVISION:		DRAWING NUMBER 9390



Council Action Recommendation

Page 1 of 1

Meeting Date: March 29, 2023

Subject: Hiring of Community Service Officers

Recommendation: Approve the hiring of up to four part-time / temporary community service officers.

Background/Key Points: We feel that this program will be an effective recruiting tool for hiring future police officers.

Budgetary Impact: \$20,000

Originating Department: Public Safety

Respectfully Submitted: Kile Bergren, Chief of Public Safety



Council Action Recommendation

Page 1 of 1

Meeting Date: March 29, 2023

Subject: Resolution supporting Pathways to Policing and amendment to city's tuition reimbursement policy.

Recommendation: Resolution supporting Pathways to Policing program. Program would allow for tuition reimbursement for newly hired police officers who sign a service commitment. It would also add part-time / temporary employees serving in the capacity of Community Service Officer to be eligible for participation in the city's tuition reimbursement program.

Background/Key Points: We feel that this program will be an effective recruiting tool for hiring future police officers.

Budgetary Impact: Participation in the program would follow the limits currently outlined in the policy.

Originating Department: Public Safety

Respectfully Submitted: Kile Bergren, Chief of Public Safety



Council Action Recommendation

Page 1 of 1

Meeting Date: March 29, 2023

Subject: Public Safety Officer Wellness Plan and Policy

Recommendation: Resolution of support for Wellness Plan and Policy.

Background/Key Points: A renewed emphasis is being placed on officer wellness. This new plan is to better address all aspects of wellness from physical and mental health to financial and spiritual well-being. The League of MN Cities Insurance Trust is also pushing for agencies to develop a wellness plan to support public safety officers and also reduce risks being assumed by the Insurance Trust. The wellness plan will also bring us into compliance with pending legislation specifically regarding public safety officers wellness.

Budgetary Impact: Any budget impact would fall within the normal operating budget of the agency.

Originating Department: Public Safety

Respectfully Submitted: Kile Bergren, Chief of Public Safety



Kile Bergren
City of Fergus Falls
112 W Washington Ave
Fergus Falls, MN 56537-2568

February 2, 2023

Dear Kile:

I'm asking for your help. We share a goal of keeping our public safety professionals healthy and able to show up for their communities. Minnesota's public safety community is facing a mental health crisis. Here are the facts:

- 1) The number of Minnesota public safety professionals struggling with mental wellness is at an all-time high. In fact, the League of Minnesota Cities Insurance Trust (LMCIT) has received 380 public safety PTSD claims since 2013. That doesn't include those who work for counties, the state, or self-insured cities.
- 2) PTSD is now the largest projected source of workers' compensation claims across all jobs covered by the Trust. LMCIT has incurred more than \$43 million in costs associated with these claims.
- 3) Retirements due to PTSD are contributing to public safety workforce shortages, exacerbating recruitment and retention challenges, and hurting city budgets.

The good news: PTSD is treatable and often preventable. And you can make a difference. A recent study shows that Minnesota cities with established wellness programs experience a "strong benefit in reducing both liability and workers' compensation claims." The study concluded that cities that invest in proactive wellness programs save more than \$50,000 in claims every three years.

Please join us in making a culture of wellness a priority for your organization in 2023. I've enclosed a step-by-step **Public Safety Mental Health Action Guide** for city leaders. I ask that you make this a priority in 2023. If you have questions about how to implement this guide, my colleague Lora Setter is ready to help. Lora is a former Minnesota police officer and understands best practices for mental health prevention strategies. You can reach her at (612) 248-9551 or lsetter@lmc.org.

We've also created an online public safety PTSD and Mental Health Toolkit where you'll find information about prevention, programs, therapies, human resource considerations, and much more. Visit lmc.org/ptsd.

We're committed to confronting the challenge of PTSD, but we can't do it alone. You play a critical role in preventing, identifying, and addressing PTSD and other public safety mental health issues. Together, we can promote excellence in public safety and strengthen our communities by making mental health a priority.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Dan Greensweig', is written over a light blue horizontal line.

Dan Greensweig
LMCIT Administrator



Introduction

Because of the nature of their job duties, public safety employees are exposed to traumas that can create opportunities for mental injuries. But there are strategies every city can put in place to help mitigate this risk. This guide will walk you through steps and considerations for addressing public safety mental health.

Creating a public safety mental health program is an organization's responsibility. It can build a culture of wellness that will give employees permission to talk openly about mental health injuries and seek treatment for them before they become chronic conditions. The entire organization is responsible for creating this supportive work environment where employees feel "it's OK to not be OK." Providing a wellness program can also support morale, resiliency, retention, and job satisfaction.

REMEMBER: One in five adults will suffer from a mental illness, according to the National Alliance on Mental Illness.



Step 1: It starts with leadership!

Creating a successful public safety mental health culture starts with city leadership and public safety leadership working together to normalize the conversation regarding mental illness.

Start by considering your personal feelings about mental illness. It may help to think about mental illness as a mental injury. People heal from injuries, and mental injuries are treatable.

Consider asking some or all of the following questions:

- Why is mental illness tough to talk about? How do you feel about mental illness?
- How can we as leaders normalize the conversation about mental illness? Do we model and support wellness practices?
- Do we have an environment where people with mental illness will seek the internal and external help they need? If not, how can we create it?
- Do our public safety employees feel like valued members of our city government and community?
- What wellness strategies are currently in place? Do we know what mental health resources are available for our public safety team? Do we encourage use of them? How do we know they are working?
- Do we promote “positive gossip” about achievements and remind public safety personnel about their important purpose?

REMEMBER: Organizational wellness is not a program; it’s a philosophy.

PTSD AND MENTAL HEALTH TOOLKIT:

Prior to the meeting have all group members review the League of Minnesota Cities PTSD and Mental Health Toolkit for public safety, focusing on the Leadership Philosophy section.



Step 2: Form a team

Form a public safety wellness team that can help inform, design, or evaluate your organizational wellness strategy.

It’s important to think about creating a culture that supports wellness from the bottom up, with strong support from leaders. Consider including team members who will champion your work: line-level officers, firefighters, civilian staff, union rep(s), training officers, supervisors, informal organizational leaders, and members of your human resource team.

1. Begin by discussing these questions:
2. Create a mental health survey for public safety employees. Questions should allow for employees to reflect on their perception of their own mental health, as well as their perception of the organization’s wellness culture.

- Why do we want to start a program to support mental health?
- How will we know if our efforts are successful?
- Who will be offered our program?

- Do we have strong leadership support to start this?
- Do we want to use in-house resources or a vendor?
- What is our budget?

- Do we want participation to be required or voluntary?
- Are we willing to change our department culture?
- Can we live with the consequences if we don’t establish a program?

REMEMBER: Be mindful of language about mental health; avoid using words like “crazy” or “insane.”

PTSD AND MENTAL HEALTH TOOLKIT:

Encourage team members to review the toolkit wellness materials.





Step 3: Draft a plan

Using information from your employee mental health survey, your wellness team can now design a plan to create or enhance a culture that supports the mental health of public safety employees.

Define the vision, goals, objectives, and action steps

Here are some things to do when creating your plan:

- Review policies and practices surrounding mental health treatment and recovery, such as leave policies, medication policies, and fitness for duty practices, with a goal to remove treatment barriers whenever possible.
- Review scheduling of shift workers to ensure there is adequate opportunity for rest and sleep.
- Include opportunities for family members to learn about trauma-related mental health issues and how to support their public safety professionals.
- Incorporate training of supervisors on how to provide emotional support, and how to speak with employees experiencing mental health issues.

of your plan. It may be necessary to phase in your program elements over time.

Research internal and external resources such as program models, community partners, and grants.

Think about framing the wellness plan as a way to care for the whole employee by including the following components into your program. *Adapted from Dr. Daniel G. Amen, "The End of Mental Illness"*



Purpose: Find ways to help keep employees focused on their mission. Having a strong sense of purpose builds resilience.



Physical: Provide information and scheduling that allows employees to get adequate sleep, nutrition, and exercise.



Emotional: Establish peer support programs, yearly mental health check-ins, mental health counseling sessions, trauma debriefs, etc.



Social: Promote connection through involvement in civic clubs, organizations, sports teams, hobbies, creative endeavors, and other activities outside of work.



Inner Self: Remind people of the value of activities such as meditation, tai chi, and prayer that can restore a sense of calm, and support healing.



Financial: Offer financial wellness advice and education through webinars, workshops, department training and one-on-one financial counseling.

REMEMBER: Remind people often that mental illness is treatable and doesn't have to define a life or end a career.

PTSD AND MENTAL HEALTH TOOLKIT:

Review more detail about program options such as peer support, mental health checkups, and family support.





Step 4: Put your plan into action

Deliberate and consistent communication with all stakeholders will be important to the success of your program. Use roll calls, briefings, memos, emails, and other means of communication. Ensure everyone

understands the importance and the need for the mental health program. Provide opportunities for people to get their questions answered.

Ideas to kick off your program include:

- Design department training specifically about mental health, and the process for how mental health injuries will be handled in the organization.
- Host a family event and invite a speaker to discuss the signs and symptoms of trauma-related mental injuries.
- Hold a wellness fair that includes things like health screenings, employee assistance program representatives, civic organizations, health clubs, yoga studios, nutrition information.

REMEMBER: Leaders can support mental health by modeling healthy behaviors and creating a work culture that is both accountable and compassionate.

PTSD AND MENTAL HEALTH TOOLKIT:
Review the Creating Supportive Work Environments section for tips on supporting your employees and communicating effectively.



Step 5: Measure for success

Measuring the overall success of your wellness program should happen on a regular schedule and when your wellness team identifies a need to revisit an element of your plan. More frequent reviews can be a mix of

quick check-ins with supervisors as well as more formal reviews and surveys. These questions can help your team evaluate the success of your program.

Short term

- Do employees use the program?
- Are employees interested in enhancing the program?
- Do employees recommend the program?

Long term

- Has employee satisfaction improved overall?
- Have sick days and absenteeism decreased?
- Have health insurance and workers' compensation costs decreased?

REMEMBER: Keep mental health information and help resources visible in your break rooms, locker rooms, and other areas of your department.

PTSD AND MENTAL HEALTH TOOLKIT:
Pocket wellness guides for public safety are available to print and share.



www.lmc.org/ActionGuide

For more information:

Contact Lora Setter, Public Safety Program Coordinator
(651) 248-9551 • lsetter@lmc.org

Fergus Falls Police Department

Wellness and Leave Programs

Origination date: November 15, 2021

Revisions: March 21, 2023

Purpose:

The Fergus Falls Police Department recognizes the inherent dangers and stressors associated exclusively with police work and the physical, emotional, and psychological toll that it takes on our employees. The agency is committed to maintain a healthy work-life balance for all sworn officers and offer amenities to include work out room, peer support, safety and wellness training, psychological counseling, and an array of services offered through the employee's assistance program. In addition, the department will offer wellness leave to officers to use throughout the course of their career. The agency recognizes that the law enforcement work environment puts both acute and chronic stressors on the employees that may have a negative impact on their physical and emotional wellbeing and that providing a break can be an essential part in the healing process and continued longevity of the employee.

Much of a police officer's job is making critical decisions under high stress circumstances. Research has shown that officers who are mentally and physically healthy are less likely to make judgement errors in critical situations. They are also more apt to receive fewer complaints, have a higher level of morale, and work towards positive organizational goals. An officer in good emotional, physical and spiritual health will also be more successful in their personal and family life.

The agency also recognizes the growing trend in policing of disability claims associated with PTSD, anxiety, and depression and feels a wellness leave program will help offset potential losses of good employees. Undue pressures of the media, some societal groups as well as increased penalties for early retirements have made it far easier for employees to take a disability leave from the agency. These costs are not sustainable over the short or long term, and alternative measures need to be put in place to ensure that good employees have options to navigate through their career until retirement. A wellness leave program shows that the agency cares for and values the employee and assists them through their journey until retirement.

Wellness Leave:

All sworn law enforcement officers of the Fergus Falls Police Department will be allowed to use a cumulative total of up to six (6) months of wellness leave through the course of their career.

Officers on probation will not be allowed participation in the program. An officer who uses Wellness Leave in excess of two weeks will not be allowed to use Wellness Leave again until three (3) years has elapsed from the conclusion of the past leave, or upon approval of the Chief.

Officers will have to make written application to the Chief of Public Safety or designee requesting leave with sufficient purpose or need to be granted Wellness Leave. The Chief or the City Administrator shall have the final say in all matters related to the granting of Wellness Leave. All leave will be used in consecutive days, weeks or months.

Officers with 1 to 6 years of employment with the Fergus Falls Police Department will be allowed up to two weeks of Wellness Leave.

Officers with 7 to 13 years will be allowed up to one month of Wellness Leave.

Officers with 14 to 20 years will be allowed up to three months of Wellness Leave.

Officers with 21 or more years will be allowed up to six months of Wellness Leave.

Officers granted Wellness Leave may use vacation, sick, holiday, or compensatory or any combination of time for part or all of the leave. Officers may also choose to take all or a portion of the time as unpaid leave.

In all circumstances the city will continue to make normal contributions towards the employee's health and PERA contributions, as well as all other normal pay roll deductions. The employee will continue to be responsible for the employee's normal cost share of all benefits, employee portion of health care premiums and for life insurance premiums, if they choose to continue those benefits. An employee taking paid Wellness Leave shall retain all seniority, service credits and job assignment / classification as they had prior to the leave.

Employees taking unpaid leave will follow the contract language regarding Unpaid Leave of Absences. Employees taking unpaid leave will not be credited for seniority or service credits during the leave and will not be guaranteed job assignment upon return. An employee opting to use unpaid time will be responsible for making acceptable payments for all employee responsible portions of benefits.

An employee who fails to return to work from Wellness Leave shall be treated as a voluntary quit. The agency will provide the employee written notice of this intended personnel action. If the employee fails to respond within three days of the notice being sent, the personnel action will be final.

Employees on Wellness Leave will be required to make all court appearances and may be subject to call back based on the needs of the agency. Every effort will be made by the agency to avoid call back, but in the cases, it is required, the employee will receive credit for any unused leave time or allowed to continue unused leave time at the end of the call back.

Employees intending to terminate employment upon conclusion of their leave shall make notice of their intentions at the time of the leave request. In all cases, the employee shall give the agency no less than two weeks' notice of their intended termination in order to leave in good standing. No vacation, sick, or holiday time will be accumulated during this period. Wellness leave will need to be used to include all time taken off including holidays.

Physical Wellness and Fitness Time:

The agency recognizes the importance physical wellness plays in the fitness and health of its employees and the role it plays in reducing stress. The agency encourages all employees to participate in annual physicals and health screenings for the early detection of illnesses. In addition, the agency encourages employees to explore the benefits of healthy dietary habits, like plant strong diets, that can help reduce the risks of heart disease and diabetes. The agency will promote, when available, resources on healthy eating habits.

Physical fitness and strength training is also an important part of employee wellness. The agency will allow an employee to work out during their assigned shift for up to one hour, with supervisor approval. Employees can utilize the fitness times up to two days per week.

The officer shall seek approval from their supervisor prior to working out and the supervisor shall ensure adequate staffing is available to handle call volume. Officers who leave the premises for their workout, such as for running or biking, shall have a means of communication with them in cases where the supervisor needs to contact them. Use of the department's work out space is highly encouraged.

In addition to the benefit of workout time, the agency will also allow staff to voluntarily participate in a wellness challenge biannually. The challenge will consist of passing each category in the areas of bench press, mile and half run, sit-ups, and push-ups for their designated age range. Each employee who passes the challenge will be allowed to convert one day of sick leave into a regular day off of discretionary time. The day off must be used before the next fitness challenge. The run time will be adjusted for each group by 1 minute to give each participant an advantage. An officer who fails to meet the criteria for their age bracket, but successfully meets the criteria for the next age group will be given one half day off.

Males	Bench Press	Sit-up	Push-Up	1.5 Mile
20-29	1.06	40	33	11:58
30-39	.93	36	27	12:25
40-49	.84	31	21	13:11
50-55	.75	26	15	14:16
Females				
20-29	.65	35	18	14:07
30-39	.57	27	14	14:34
40-49	.52	22	11	15:24
50-55	.46	17	0	17:13

EAP and Counseling Services:

The city offers every employee access to the Employee Assistance Program through Lakeland Mental Health. The program allows employees access to family counseling, financial counseling, mental health, and other related services. The programs are offered free of charge to the employee and their immediate family, up to three visits, and they may contact Lakeland Mental Health (218-736-6987) directly to schedule an appointment. The agency is aware of the specific stressors and issues associated to policing and the need to offer specialized counseling services from licensed practitioners who understand the dynamics of policing. Each employee is allowed to directly contact Dr. Jay Phillippi at Positive Psychological Solutions (701)866-3641 and schedule an appointment. The agency will pay for the initial consultation, but any further services will be handled on a case-by-case basis at the discretion of the Chief.

Peer Support:

The agency recognizes the acute and accumulated stressors that an officer encounters during their career and the negative impact it may have on the employee’s wellbeing, as well as other issues encountered during one’s daily personal life. It is important for officers to be able to talk with peers about their experiences and get support. The agency encourages officers to reach out to their co-workers, even in an informal setting and discuss issues.

The agency also recognizes that a structured peer support program may offer the same type of support, but also include privacy advantages that may be needed immediately following a critical incident. The agency will offer training to those who wish to become certified as peer support

counselors and follow the requirements outlined in Minnesota State Statute 181.9731 referring formal public safety peer support programs.

Regardless of the setting, the agency strongly encourages officers to reach out for support from the peers when dealing with difficult times in their personal and professional lives.

Financial Planning and Wellness:

Often times, financial stressor within an employee's personal life can start to effect performance at work. Having a plan in place to help mitigate some of these burdens is advantageous to both the employer and employee. The city offers a number of financial planning tools and programs that are available to all employees. These programs include a traditional 457b deferred compensation savings plans, Roth 457 savings plan, post-employment Health Care Savings accounts, Health Care Savings attached to current insurance plan options, and flexible spending accounts for day-care and health care costs. Employees are encouraged to learn more about these options and participate accordingly. In addition, the representatives from each of these accounts are available for consultation via phone and occasionally in person. Employees are encouraged to use these resources, or other privately offered services, to their advantage.

Spiritual and Mindful Wellness:

Spiritual wellbeing can be accomplished through a number of avenues to include religious, faith, meditation, establishing connections with community or nature, and mindfulness. While these are personal choices and some need to have clear boundaries with official work, the agency encourages all employees to consider the importance of spiritual health and wellbeing.

Meditation and mindfulness are two tools that can be used during the course of an employee's day to help reduce stress and anxiety and improve an employee's outlook and performance. Mindfulness is the basic human ability to be fully present, aware of where we are and what we're doing, and not overly reactive or overwhelmed by what's going on around us. Mindfulness is a quality that every person already possesses, it's not something you have to conjure up, you just have to learn how to access it. When we are mindful, we reduce stress, enhance performance, gain insight and awareness through observing our own mind and increase our attention to other's wellbeing. It is the concept of removing other thoughts from our mind that create stress, confusion, anxiety or other conflicted thoughts. It is a way, in other words, to clear our minds and become mentally prepared for work and also clearing our thoughts and actions of the workday as we prepare to return to our personal lives at the end of our shift.



Council Action Recommendation

Page 1 of 1

Meeting Date: March 29, 2023

Subject: Declaration of Surplus Property

Recommendation: Declare the following items as surplus so they can be sold or traded towards the purchase of a new vehicle:

Unit 2068	2013 Ford Police Interceptor	1FM5K8ARXDGB84741
Unit 2088	2019 Ford Police Interceptor	1FM5K8AR3KGA31728
Unit 2089	2019 Ford Police Interceptor	1FM5K8AR5KGA31729

Miscellaneous office chairs as surplus to be sold at public sale.

Background/Key Points: Vehicles and equipment have surpassed the normal use expectancy.

Budgetary Impact: The proceeds from the sale of the surplus property will be returned to the Equipment or General Fund.

Originating Department: Public Safety

Respectfully Submitted: Kile Bergren, Chief of Public Safety



Council Action Recommendation

Page 1 of 1

Meeting Date: March 29, 2023

Subject:

Source Water Assessment (SWA) plan and Source Water Intake Protection Plan (SWIPP)

Recommendation:

Adopt the updated the SWA

Background/Key Points:

This is an update to a plan that was done in 1996. With more data available and better methods to characterize water quality, and with a shift in framework of resource management in MN, the MDH dedicated resources to update the Fergus Falls SWA to update the SWA and create the SWIPP.

Budgetary Impact:

None

Originating Department:

Public Works/Water Purification Div.

Respectfully Submitted:

Len Taylor

Attachments:

2022 Source Water Assessment

FERGUS FALLS PUBLIC SERVICE PUBLIC WATER SYSTEM

PWS ID # 1560014

**2022 Source Water Assessment – Fergus Falls Public Service
Public Water Supply ID: 1560014**

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Upon request, this material will be made available in an alternative format such as large print, Braille or audio recording. Printed on recycled paper.

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I hereby certify that this plan, document or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Geologist under the laws of the State of Minnesota.

Signature: _____ Date: _____

Printed Name: Jim Walsh License Number: _____

DRAFT

Glossary

Appropriations – The total amount of water approved for use from an aquifer, stream, lake, or reservoir by the Minnesota Department of Natural Resources.

Aquatic consumption – A standard that is applied to a body of water by the Minnesota Pollution Control Agency that differentiates whether fish caught in that waterbody should be consumed by people or not.

Aquatic life use – A standard that is applied to a body of water by the Minnesota Pollution Control Agency that describes whether the waterbody supports a healthy aquatic ecosystem or not.

Aquatic recreation use – A standard that is applied to a body of water by the Minnesota Pollution Control Agency that describes whether the waterbody supports or is impaired for recreational (i.e., swimming, boating, fishing, etc.) purposes.

Biochemical oxygen demand (BOD) – represents the amount of oxygen consumed by bacteria and other microorganisms while they decompose organic matter under aerobic (oxygen is present) conditions at a specified temperature.

Buffer – An area of equal width on either side of a stream.

Catchment – The area that collects water, especially the collection of rainfall over a natural drainage area

Centerline – The center of a stream.

Concentrations – The abundance of an element or compound within a volume of water.

Contaminant – A chemical or pollutant, either natural or man-made, that degrades water quality.

Delineated area – A watershed area that has been outlined as contributing to a downstream waterbody that serves as a public water supply source. The ERA, SMA, and DWSMA are all delineated areas.

Dilution – The action in which a chemical, biological, or contaminant concentration is reduced in water by increasing the amount of water present.

Disinfectant – Any oxidant, including but not limited to chlorine dioxide, chloramines, and ozone added to water in any part of the treatment or distribution process, which is intended to kill or inactivate pathogenic microorganisms.

Disinfection byproduct (DBP) – A chemical that is formed from a reaction between a disinfectant and organic matter that is present in water.

DNR Division of Waters Lake Number (DOWLKNUM) – The DNR Division of Waters Lake Number (DOWLKNUM) is the primary identifier used to catalog lake and wetland basins in Minnesota.

Drainage Area - the land area where precipitation falls off into creeks, streams, rivers, lakes, and reservoirs

Geography – Physical features of a described land area.

Haloacetic acids – are a group of disinfection byproducts that form when chlorine compounds that are used to disinfect water react with other naturally-occurring chemicals in the water

Infrastructure – The physical structures and facilities that are needed for a public water supply's operation.

Inorganic chemical – Metals, salts, or other compounds that typically do not contain carbon.

Intake – A pipe located in a waterbody from which a public water supplier put their raw water for treatment.

Microorganism – An organism that can only be seen with the use of a microscope.

Mitigate – Decrease in severity.

Organic chemical – A compound that contains carbon.

Radionuclides – An element that decays radioactively, emitting radiation as a result.

Toxin – Poison from plant or animal origin.

Watershed – An area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel.

Abbreviations

BOD – Biochemical oxygen demand

DBPs – Disinfection By-Products

DNR – Department of Natural Resources

DWSMA-SW – Drinking Water Source Management Area – Surface Water

EPA – U.S. Environmental Protection Agency

ERA – Emergency Response Area

HAA – Haloacetic acids

HAB – Harmful Algal Bloom

HUC – Hydrologic Unit Code

MCL – Maximum Contaminant Level

MDH – Minnesota Department of Health

FFWTP – Fergus Falls Water Treatment Plant

mg/L – milligrams per liter

MN – Minnesota

MDA – Minnesota Department of Agriculture

MGY – millions of gallons per year

MNDWIS – Minnesota Drinking Water Information System

MnGEO – Minnesota Geospatial Information Office

MPCA – Minnesota Pollution Control Agency

MPN/100 mL – Most probable number of organisms per 100 milliliters of solution

NRCS – Natural Resource Conservation Services

NTU – Nephelometric Turbidity Units

PCSI – Potential Contaminant Source Inventory

ppb – parts per billion

ppm – parts per million

PWS – Public Water System

SDWA – Safe Drinking Water Act

SMA – Spill Management Area

SWA – Source Water Assessment

SWIPP – Surface Water Intake Protection Plan

TOC – Total Organic Carbon

TP – Total Phosphorus

TSS – Total Suspended Solids

TT – Treatment Technique

TTHM – total trihalomethanes

ug/L – micrograms per liter

uS/cm – Micro Siemens per centimeter

USGS – United State Geological Survey

WWTP – Wastewater Treatment Plant

Introduction to the Source Water Assessment

Background

The 1996 amendments to the federal Safe Drinking Water Act (SDWA) required the Minnesota Department of Health (MDH) to complete source water assessments (SWAs) for public water systems (PWS).

Since the first SWAs were completed, much has changed in the processes used to develop source water protection plans, as well as with the data and tools to support these efforts. For example, we now have more data available and use a more sophisticated method to characterize water quality. Also, the water resource management framework in Minnesota has changed substantially, most notably with a shift towards watershed-based comprehensive local water planning.

MDH has dedicated resources to update the Fergus Falls SWA and to work with the PWS, Fergus Falls Water Treatment Plant (FFWTP), to create a Surface Water Intake Protection Plan (SWIPP). These documents will be used to drive implementation of activities to protect the surface water-derived source of drinking water for the city of Fergus Falls for the next ten years. After the 10 years have elapsed MDH will reassess the PWS source water assessment area. This updated SWA will then guide the amended SWIPP.

Contributors to the SWA

MDH, in partnership with the City of Fergus Falls, assembled a team of staff from Minnesota Pollution Control Agency (MPCA), Minnesota Department of Natural Resources (DNR), Minnesota Board of Water and Soil Resources (BWSR), Minnesota Department of Agriculture (MDA), Otter Tail County, West Otter Tail Soil and Conservation District, East Otter Tail Soil and Conservation District, 1W1P partnerships, city of Fergus Falls staff, and Braun Intertec Corporation to develop and review this SWA.

Purpose of the SWA

The information from this updated and enhanced assessment can be used to expand upon activities to prevent or mitigate contamination of Fergus Falls' surface water-derived source of drinking water. The SWA provides information regarding the drinking water sources for public water systems. This SWA includes information on the following: identification of the resource(s) used as a drinking water source, its physical setting, public water system intake and treatment, contaminants of concern, and known threats.

Source Water Characteristics

Fergus Falls obtains their drinking water from Wright Lake (Figure 3) and blends with one city well (Well #3, unique #763320). The drainage area to Wright Lake encompasses portions of two different HUC12 watersheds which in totality drain approximately 58,034 acres. The contributing watershed is the Otter Tail River Watershed (HUC8: 09020103) within west-central Minnesota.

According to the 2021 Otter Tail River Watershed Restoration and Protection Strategy (WRAPS) Report, the Otter Tail River Watershed generally has very good to excellent water quality. Some concerns in the watershed include stressors to aquatic life, the impact of the 32 dams within the watershed, and the presence of developed urban areas (and resulting developed shorelines and stormwater runoff from impervious surfaces). Most of the impaired lakes in the watershed are shallow lakes with elevated total phosphorus (TP) nutrient concentrations. There is an extensive network of drainage ditches that drain into the Otter Tail River. These drainage ditches were created to improve agricultural production and reduce flooding in the Lower Otter Tail River Subwatershed. There is a dam diversion system coming from the Otter Tail River that is connected to Hoot Lake (located directly north of Wright Lake). Hoot Lake and Wright Lake are connected via a mostly open channel that flows under a portion of the Otter Tail Scenic Byway which bisects Hoot and Wright Lakes. Hoot Lake is approximately 161 acres in size with a maximum depth of 20 feet. Wright Lake is approximately 66 acres in size with a maximum depth of 32 feet.

Infrastructure Characteristics

The following list describes the key infrastructure components and permit capacity to provide safe and reliable water for residents and businesses in the city of Fergus Falls. The city operates and blends two drinking water sources the surface water intake on Wright Lake, and a groundwater system consisting of one 396-foot-deep city well (Well #3, unique #763320) that draws water from a Quaternary buried artesian aquifer. When necessary, a backup Emergency Use Well (unique #147218) is used to combat drought and low lake level conditions by pumping water directly into Wright Lake. The emergency well was installed in the 1970s and has not been used. It is run annually for maintenance purposes.

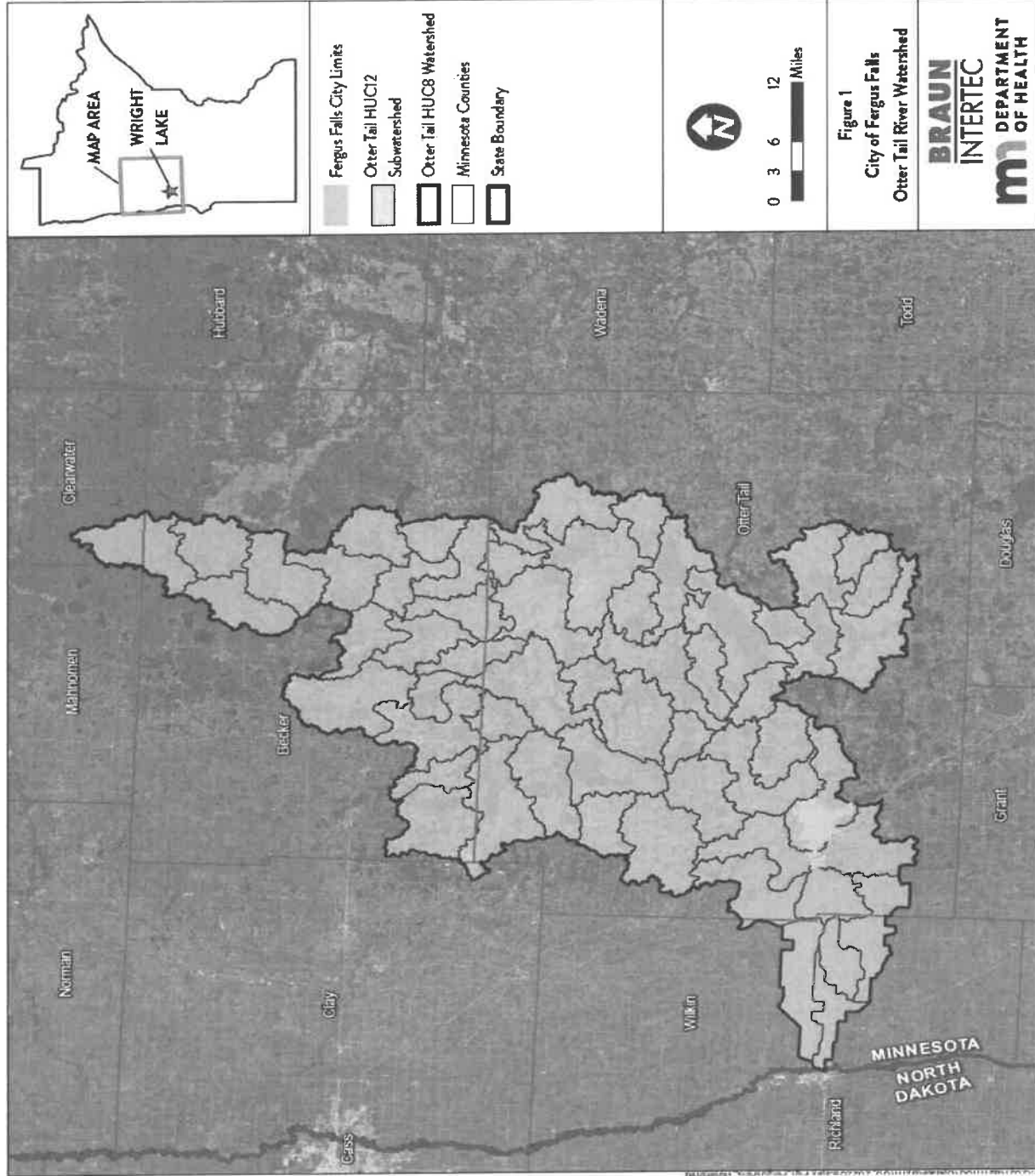


Figure 1 – Otter Tail River Watershed Catchments

Public Water System Characteristics

Intake Location and Method:	West side of Wright Lake.
Treatment Facility:	One treatment facility approximately 100 yards west of the Wright Lake intake.
Treatment Methods:	Particulate removal by coagulation/ferric sulfate, filtration (gravity)/rapid sand, and sedimentation/upward flow; softening by chemical precipitation/lime and stabilization/inhibitors/carbon dioxide; disinfection via ammonization/ammonia compound and chlorine gas; calcium/magnesium sequestration via stabilization/inhibitors/blended phosphates; taste/odor control adsorption/powdered carbon; and fluoridation.
Production:	Max daily production of (up to) 4.2 million gallons per day (MGD), average daily production of 1 MGD (Minnesota Drinking Water Information System (MNDWIS)).
Storage Capacity:	1.5 million gallons elevated (2 structures); 2.25 million gallons ground (2 structures).
Backup Water Sources:	Groundwater from an Emergency Use Well (unique #147218) located on the east side of Wright Lake. The well draws water from the Quaternary Buried Artesian aquifer. This well is primarily used to combat drought/low lake level conditions by pumping directly into Wright Lake.
DNR Appropriations Permit:	Surface water (Permit 85-1082): 2,000 gallons per minute and 700 million gallons per year (MGY) permitted. Groundwater (Permit 1977-1978): 190.0 MGY from wells (unique numbers 147218 and 763320) permitted.

The blending ratios of surface water to well water typically vary between 90/10 to 65/35, depending on seasonal surface water conditions. Table 1 shows the water volumes pumped from the FFWTP's surface water intake and wells from 2021, which was the only reference data that was provided. Due to drought conditions in 2021, the amount of groundwater blending was higher than average.

Table 1 – 2021 Volume of Water Used from Surface Water Intake and Water Supply Wells

Intake or Well Name (Unique Number)	Wright Lake Intake	Well #3 (763320)
Amount Used (gallons)	334,000,000	156,000,000

Source Water Protection Areas

Four nested protection areas are presented below in the SWA. Three (ERA, DWSMA-SW, and SWAA) of these areas are shown in Figure 2 and the ERA, SMA, and DWSMA-SW are shown on Figure 3.

Historical aerial photos dating back to 1939 were reviewed for changes (river meandering, ditch reconstruction, etc.) to surface water features in the region. The review showed very little change in the surface water features. The water measurement data used to delineate source water protection areas was collected from the MN DNR.

Emergency Response Area

The Emergency Response Area (ERA) is designed to help FFWTP, and the city, address potential contaminant sources and contaminant releases that present an immediate health concern to water users. The ERA highlights possible point source contamination issues that could impact the water supply. The ERA geographic area is defined by the amount of notification time FFWTP needs to close the surface intake, plus some additional time to accommodate unanticipated delays in notification and shut down.

Traditionally, the defined time of travel for the ERA is eight hours. However, as the primary source of water for Fergus Falls is Hoot and Wright Lakes, as a conservative approach, the ERA is defined as the entire catchment boundaries for these lakes. This boundary accommodates the risks associated with point sources released into the lakes that have the potential to impact the drinking water from the lake.

The land use in the ERA is mostly open water and developed land (residential), with some forested, recreational (park) and agricultural land.

Spill Management Area

The Spill Management Area (SMA) is designed to focus source water protection activities on potential contaminant sources within 500 feet of either 1) the centerline of a public stream, or 2) the shoreline of a lake contributing flow to a PWS's source waterbody. Like the ERA, the SMA is designed to highlight point source contamination issues of immediate concern that could impact the water supply but at longer (24-hour) time of travel.

Traditionally, the SMA is delineated for all perennial public stream tributaries, ditches and lakes within 25 river miles upstream of the intake outside of the ERA or 24 hours time of travel, whichever is greater. As a practical approach, because of the ability to control the surface water flow, the SMA includes an upstream portion of the Otter Tail River that encompasses the reach between Hoot Lake and the Otter Tail Power Company control structure. This control structure is located approximately eight miles upstream from where the Otter Tail River discharges into Hoot Lake. This structure has the capability to be temporarily closed with a response time of about 30 minutes. Due to the presence and capabilities of the control structure, it is acceptable to terminate the SMA at this point rather than the typical 25 river miles upstream (Figure 3).

The land use in the SMA is mostly agricultural and wetland, with some forested land and open water.

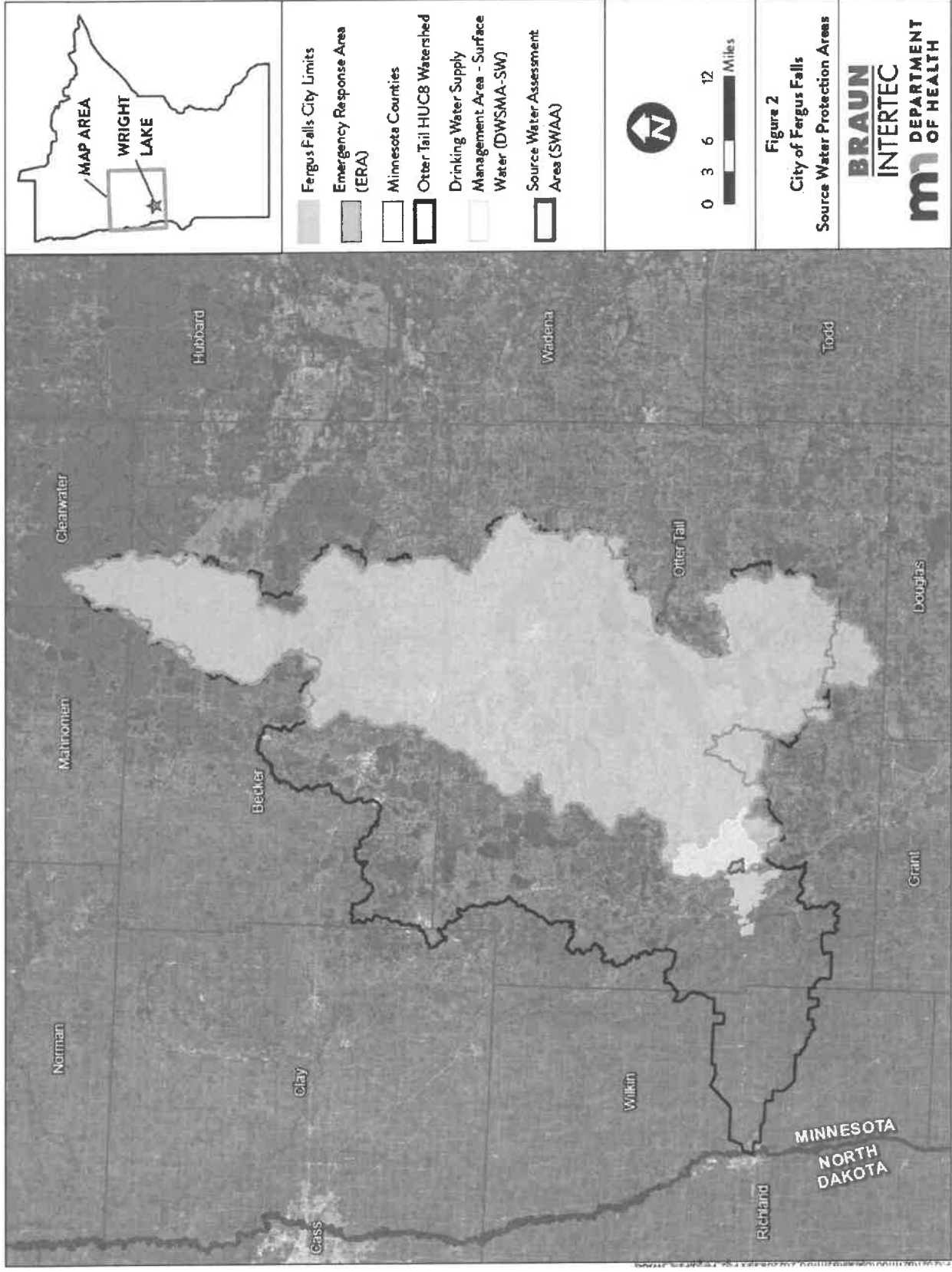


Figure 2
City of Fergus Falls
Source Water Protection Areas

BRAUN
INTERTEC
DEPARTMENT
OF HEALTH

0 3 6 12 Miles

MAP AREA
 WRIGHT LAKE

- Fergus Falls City Limits
- Emergency Response Area (ERA)
- Minnesota Counties
- Otter Tail HUC8 Watershed
- Drinking Water Supply Management Area - Surface Water (DWSMA-SW)
- Source Water Assessment Area (SWAA)

Figure 2 – Surface Water Features Delineations

Drinking Water Supply Management Area – Surface Water

The Drinking Water Supply Management Area – Surface Water (DWSMA-SW) is designed to protect water users from long-term health effects related to low levels of contamination that originate from diffuse, widespread sources. These contaminant sources, known as non-point contaminants, can pose a high-level threat when the combined concentration of the contaminant from across the watershed is substantially high. The DWSMA-SW also incorporates areas where future land use development may influence the source water quality. These future development issues are addressed below.

The DWSMA-SW is typically defined as using HUC 12 watershed boundary data from the U.S. Natural Resources Conservation Service (NRCS), the DWSMA-SW was further refined by using the Minnesota Department of Natural Resources (DNR) surface water auto-catchment dataset, we utilized modeling capabilities from the ESRI Arc Hydro tool. The Arc Hydro tool utilized the 2010 MN Topo 2-foot digital elevation model to delineate the DWSMA-SW boundary. Additionally, particle tracing was conducted to verify the integrity of the established boundary and to remove river catchments that were downstream of Fergus Falls, the DWSMA-SW encompasses portions of two HUC 12 watersheds upstream from the city.

The resulting DWSMA-SW includes portions of watersheds listed in Table 2. The streams within the DWSMA- SW drain from land represented by agricultural, forested, wetland, and developed uses. Historical aerial photos from the USGS and MnGEO dating back several decades show that the current dataset of streams that are considered perennial is accurate.

Table 2 – Watersheds included in the Fergus Falls DWSMA-SW

HUC12 Watershed Name	HUC12 Code	DWSMA-SA Watershed (acres)
City of Fergus Falls – Otter Tail River	090201030904	3,260
West Lost Lake – Otter Tail River	090201030903	14,990

Source Water Assessment Area

The Source Water Assessment Area (SWAA) includes portions Otter Tail River watershed (HUC8: 09020103), as wells portions of the West Lost Lake – Otter Tail River watershed boundary as determined by the same Arc Hydro Tool modeling to include the delineated drainage area that are upgradient of the FFWTP’s intake on Wright Lake. The final SWAA is shown in Figure 2. Typically, the SWAA is defined by the HUC 8 boundary, however those boundaries are based upon older lower resolution data, therefore for this plan we have defined the SWAA based upon newer higher resolution data, and that is why the SWAA boundaries do not necessarily line up with the historical HUC 8 boundaries.

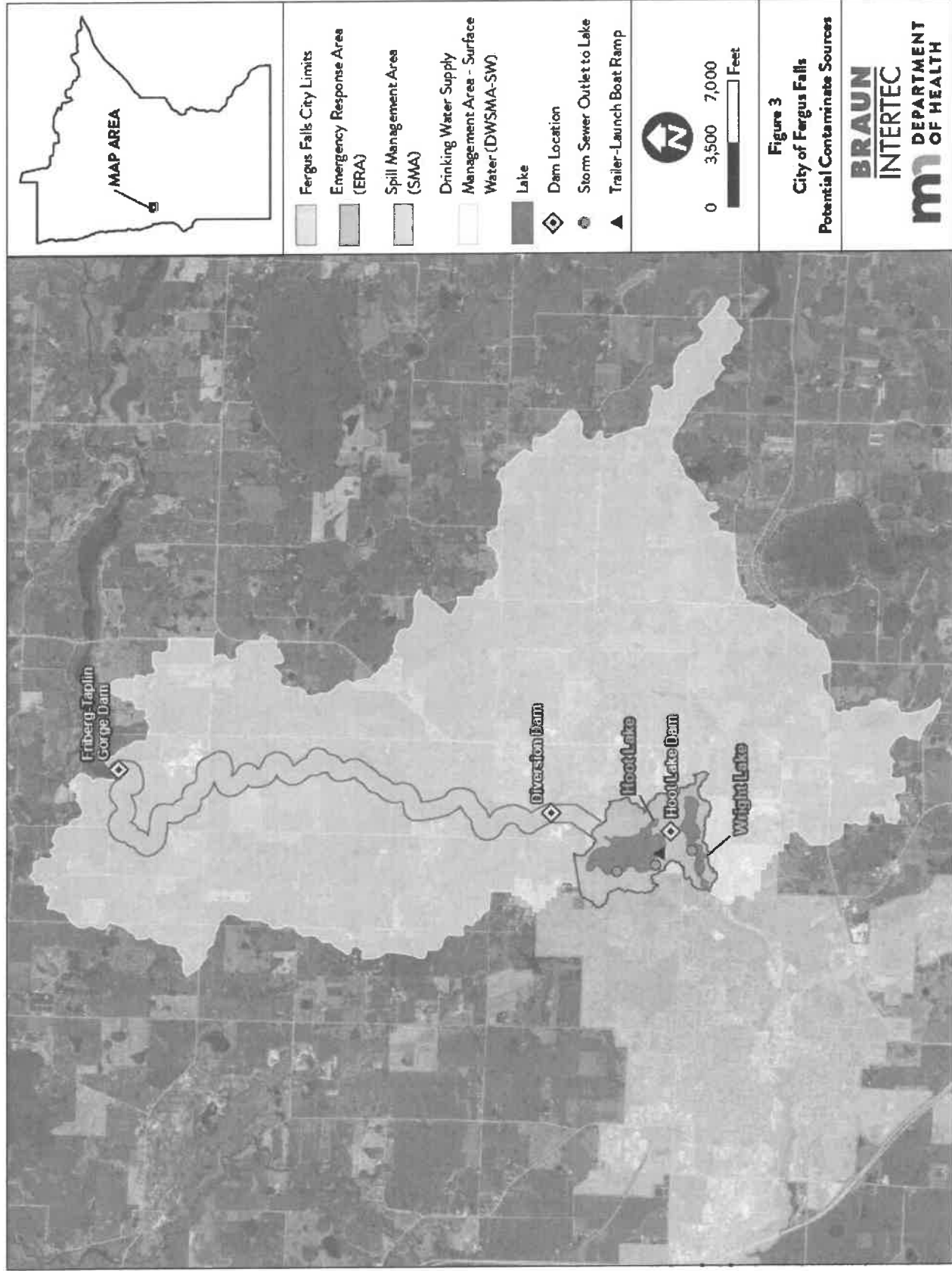


Figure 3 – Fergus Falls Source Water Protection Areas

SWA Area Statistics for Fergus Falls

Emergency Response Area:	1,569 Acres
Spill Management Area:	2,033 acres
Drinking Water Supply Management Area – Surface Water:	18,254 acres
Source Water Assessment Area:	1,628,005 acres

Contaminants of Concern

The federal Safe Drinking Water Act (SDWA) regulates primary contaminants related to public health, which are listed on the National Primary Drinking Water Regulations website (<https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>). They are divided into categories of microorganisms, organic chemicals, inorganic chemicals, radionuclides, disinfectants, and disinfection byproducts. The drinking water system is required to meet these water quality standards and that these standards are used to regulate discharges into upstream Class 1 waters.

Surface water quality indicators are used to determine watershed health based on fishable, swimmable standards of the federal Clean Water Act. Maintaining source water quality over time ensures that treatment processes remain effective and efficient for consumers based on existing surface water quality. While there may not be federal drinking water standards or limits for some indicators like total organic carbon (TOC) or total suspended solids, they can lead to creation of disinfection byproducts (DBPs) within drinking water treatment and distribution systems. DBPs are not usually found in source water and can be avoided by managing TOC level in the source water or by using conventional treatment to remove a significant percentage of total organic carbon prior to chlorination.

In addition to the contaminants regulated by the SDWA, some emerging contaminants are also of concern. Emerging contaminants are chemicals about which we are gaining new understanding and awareness regarding their public health or environmental impacts. These emerging contaminants do not yet have SDWA regulated maximum contaminant levels (MCLs) but may have health-based guidance values developed by the U.S. Environmental Protection Agency (EPA) or MDH.

Table 4 summarizes important raw water quality detection data for FFWTP. The detections are contaminants that can be a result of failing sanitary and septic systems, animal fecal waste, residential fertilizer, erosion and sedimentation from construction sites, and pollution associated with watercraft use on the lake and traffic on roads within the lake's watershed. FFWTP treatment processes are able to remove these contaminants prior to distribution for public consumption.

Table 3 – Raw Water Quality Summary

Water Quality Parameters and Measurement Units	Date Range of Samples	Total Samples	Total Detections
Cryptosporidium (oocysts/L)	04/2008 to 06/2018	97	12
Giardia (cysts/L)	07/2016 to 06/2018	45	5
Microcystin (ug/L)	09/2012 to 10/2012	2	1
MPN E coli QT Colilert (MPN/100)	04/2008 to 06/2018	95	62

Table 5 summarizes important water quality detection data for the Otter Tail River Watershed. The detections are either from raw source water (i.e., turbidity, total organic carbon, E. coli) or from post-treatment entry or distribution point samples (i.e., organic compounds, nitrate, disinfection by-products and harmful algal bloom toxins).

Table 5 highlights the:

- Drinking water quality information for Fergus Falls,
- Violations and significant detections of contamination in the raw (untreated) or finished (treated) water, and
- Potential or probable sources of contamination if the samples are from the source water.

Table 4 – Drinking Water Quality Results

Water Quality Parameters and Measurement Units	Violations	Detections and water quality concerns	Data Source	Potential Source(s) and comments
Turbidity (NTU) ^{1,2}	None	Up to 2.74 NTU's in raw water and up to 0.2 NTU's during treatment.	MDH-MNDWIS	Source water turbidity is usually due to erosion in watershed
Total Organic Carbon (mg/L) ^{1,2}	None	Detected in intake water <10 mg/L. Detected in treated water usually <5 mg/L.	MDH-MNDWIS	Can lead to increased production of disinfection by-products
Disinfection By-Products Haloacetic Acids (HAAs, ug/L) ²	None	Detected at concentrations of 14.60-23.80 ppb in 2021.	MDH-MNDWIS	By-products of disinfection
Disinfection By-Products Total trihalomethanes (TTHM, ug/L) ²	None	Detected at concentrations of 11.10-20.60 ppb in 2021.	MDH-MNDWIS	By-products of disinfection
Disinfection By-Products Total Chlorine (mg/L) ²	None	Detected at concentrations of 1.53-2.04 ppm in 2021.	MDH-MNDWIS	Water additive used to control microbes
Nitrate (as Nitrogen) (mg/L or ppm) ²	None	Treated water maximum of 0.11 mg/L (2006).	MDH-MNDWIS	Seasonal cycling may occur in raw intake water

•¹Raw Water

•²Treated Water

The Minnesota Pollution Control Agency (MPCA) has established that, for the lakes and stream segments investigated in the Ottertail watershed, most are not impaired for aquatic recreation, consumption and/or life uses. Of the impaired water bodies (Hoot and Wright Lakes are not currently listed as impaired) in the watershed, the detections include excess E. coli, elevated suspended sediment concentration, and reduced fish and macroinvertebrate biological assemblages. Aquatic recreation use, aquatic life use, and aquatic consumption use definitions can be found at Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment: 305(b) Report and 303(d) List (<https://www.pca.state.mn.us/sites/default/files/wq-iw1-04i.pdf>). Water use classes are summarized on the Water Quality Standards site (<https://www.pca.state.mn.us/water/water-quality-standards>). The ERA and SMA do not have any impaired lakes or streams that were assess for Class 1 waters, Aquatic Life, or Aquatic Recreation.

While these issues do not directly pertain to drinking water, they do further underscore the water quality

issues observed in the watershed. Therefore, while the impairments in other lakes within the watershed may not relate to drinking water, the general water quality of the source is important to the PWS because poor quality increases the treatment burden, and costs, for the system. It should be noted that while the city's drinking water treatment system protects against turbidity, fecal coliform, and E. coli bacteria, there are some contaminants that, while not a problem historically, may not be addressed by current treatment practices should they be found at levels of concern. These include substances such as nitrate and per- and polyfluoroalkyl substances (PFAS). These contaminants are particularly difficult to treat, so prevention to maintain water quality is key. There should be a focus on maintaining and improving the existing water quality, which will be beneficial to Fergus Falls' drinking water quality as a higher quality source water is easier and more cost effective to treat.

Parasites and Bacteria

Based on raw water data from within the Otter Tail River Watershed, various parasites and bacteria associated with human and animal fecal waste or excess nutrients from fertilizer or wastewater, have been detected in surface waters of the watershed. Contaminants in this category include cryptosporidium, giardia lamblia, microcystin, and E. coli. Both cryptosporidium and giardia lamblia have an EPA Treatment Technique (TT). EPA's surface water treatment rules require systems using surface water or ground water under the direct influence of surface water to (1) disinfect their water, and (2) filter their water or meet criteria for avoiding filtration so that the included contaminants are controlled at their respective levels. Cryptosporidium has a TT of 99% removal for systems that filter. Unfiltered systems are required to include Cryptosporidium in their existing watershed control provisions. Giardia lamblia has a TT of 99.9% removal/inactivation. E. coli has a Maximum Contaminant Level (MCL), which is the highest level of a contaminant that is allowed in drinking water. In general, the Fergus Falls Water Plant treatment process addresses these concerns, however additional filtration and/or reverse osmosis may be necessary to fully address microcystins.

Inorganic Chemicals

There have been very few detections of inorganic chemicals in the available water data collected from the treatment plant. However, historical detections of inorganic chemicals have included chromium-6 and mercury. The detections of mercury and chromium-6 were from samples of the post treatment water. The detection of chromium-6 corresponded with detections of total chromium during sampling performed in 2013 and 2014. The analytical results for total chromium, and specifically Chromium -6, were well below the MCL for Chromium-6. The detection for mercury was from a post treatment sample collected in 2005, subsequent samples were non-detect for mercury. In addition, fluoride has also been detected in the raw water according to the available data; however, small amounts of fluoride in drinking water are beneficial to public health, and therefore levels of fluoride in water systems are adjusted to stay within the recommended range of 0.5 to 0.9 ppm. Fergus Falls brings the fluoride level to 0.7 ppm before it is distributed to its citizens.

Disinfection By-Products

Disinfection rids drinking water of microbiological organisms that can cause and spread diseases. The most common disinfection method is the addition of chlorine to drinking water supplies. However, chlorine also

has the potential to form by-products that are known to produce harmful health effects. For example, chlorine can combine with organic materials in the raw water to create contaminants called trihalomethanes (THMs) and haloacetic acids (HAAs). Repeated exposure to elevated levels of THMs over a long period could increase a person’s risk of cancer.

The formation of disinfection by-products is a greater concern for water systems that contain organics or use surface water as their source. Surface water sources are more likely to contain the organic materials that combine with chlorine to form THMs and HAAs.

There have been occasional historical detections of THMs and HAAs in Fergus Falls’ drinking water data but no exceedances of drinking water standards.

Specific Conductance

Figure 4 shows the trend of specific conductance from 2016 to 2017. In this time period, the specific conductance of Wright Lake stayed relatively consistent, with an average of about 376 uS/cm. Specific conductance is a function of the concentration of dissolved salts present as charged ions in solution, so the higher the specific conductance of a solution the more salt that water contains.

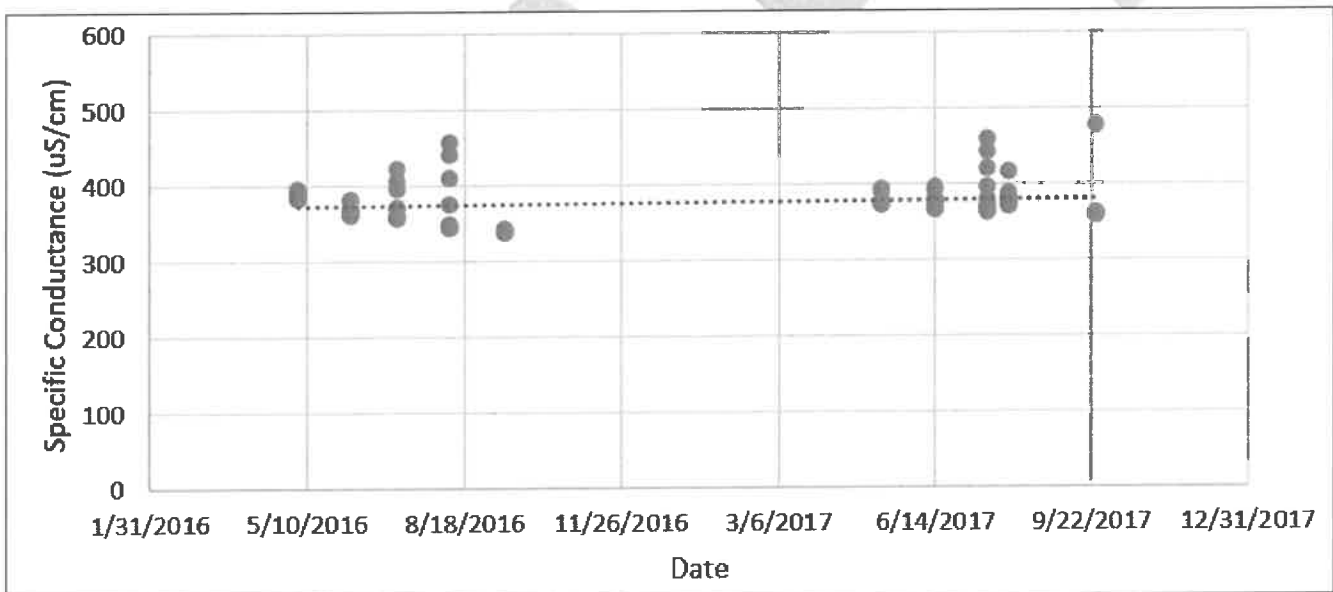


Figure 4 – Wright Lake Specific Conductance Concentration

Chloride

Figure 5 shows the trend of chloride concentration of Wright Lake from 2016 to 2017. In this time period, there was a general decrease in the chloride concentration.

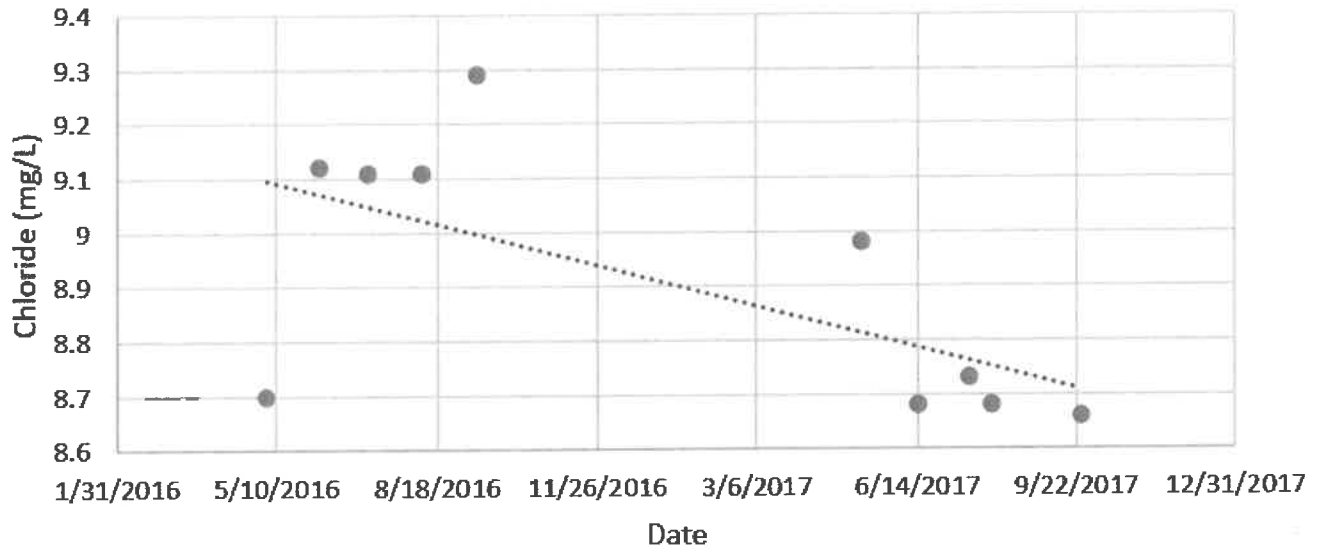


Figure 5 - Wright Lake Chloride Concentration

Potential Contaminant Source Inventory

MDH, FFWTP, and the city of Fergus Falls conducted a Potential Contaminant Source Inventory (PCSI) to evaluate the different types of contaminants found in the watershed that threaten the quality of the city's source water. These identified potential sources can have a direct or indirect threat to public health and the drinking water quality. The PCSI is organized by threats and potential risks closest to the intake (i.e., ERA), potential contaminants along contributing water bodies (i.e., SMA), and land use management within the DWSMA-SW. The data in the tables was collected from various state and local databases and discussed in detail with the city.

The following source summaries document the diverse types of contaminant sources within the ERA and SMA. Certain types of contaminants are indicated as being high priority due to the fact that they can have a significant impact on surface water quality and public health. Each identified contaminant source went through a detailed analysis; MDH can provide the criteria for these analyses on request.

In general, there are two types of pollutant sources to a waterbody: nonpoint sources and point sources. Point sources of pollutants are discrete identifiable conveyance source such as a pipe, channel, ditch etc. Nonpoint pollution refers to sources such as run off, aerial deposition, drainage, and/or hydrologic modification.

Point Source Contaminants in the ERA and SMA

Point Sources in the Otter tail watershed may include Waste Water Treatment Plants (WWTPs), permitted construction and industrial stormwater sites, and conveyance owned by a state, city, town, village, or other public entity that discharges to surface water.

There is one active point source identified by the MPCA What's in my Neighborhood database in the ERA

and SMA. There is a single feedlot in the SMA, 2.5 river miles south of the Otter Tail River damn. This feedlot is under 10 animal units and doesn't require to be registered. In addition, there are storm sewer lines that drain into the source water bodies. There are currently two storm water outfalls on Hoot Lake and one outfall on Wright Lake. The outfalls into Hoot Lake drain surface water from a length of approximately 1.3 miles along Connell Dr. (west of Hoot Lake) and south of Hoot Lake along East Fir Ave (Highway 1). The outlet into Wright Lake drains from a length of approximately 0.3 miles along Lakeview Dr. (north of Wright Lake). Furthermore, septic systems can leach into the surrounding waterbodies. Wright and Hoot Lake are surrounded by many homes, but all these homes are all connected to the city sewer system.

Non-Point Source Contaminants in the ERA and SMA

Non-point sources in the Otter Tail River Watershed may include feedlots, agriculture sources, lakeshore development, cropland, and pastures. The primary nonpoint pollutants within the Watershed include TP, TSS, and E. coli bacteria. In total there are 725 acres of cropland and 597 acres hay/pasture, this encompasses 27% and 17% of the ERA and SMA respectively.

The following summary documents the non-point sources identified within the ERA and SMA:

Table 5 - Non-Point Source in the ERA and SMA

Non-Point Source	Amount and location
Roads/Bridges over Surface Water:	3: 1 ERA, 2 SMA
Streets/Roads Near Surface Water:	3: 2 ERA, 1 SMA
Other Spaces (baseball fields, parks, cemeteries, etc.):	1: ERA

There are three roads or bridges that cross over a stream or ditch in the ERA and SMA, with one bridge crossing in the ERA and one bridge crossing and one road crossing within the SMA. The time of travel and dilution factor are much higher for roads outside of the ERA.

Three wastewater treatment facilities in the watershed are designated as major NPDES/SDS permits: Detroit Lakes Water Reclamation Facility, Fergus Falls WWTP and the Otter Tail Power Co – Hoot Lake Plant.

As mentioned above, large green spaces can be a source of nutrient runoff and contamination, therefore encouraging proper best management practices for application of amendments is important to reducing potential harmful run off from these areas. There is one park in the ERA (Godel Park), which consists of a large natural green space and a boat landing.

Septic systems can be a source of bacteria and other impediments to the source water bodies. Therefore, encouraging proper best management practices such as inspections and maintenance are important to reduce harmful release from these systems.

Additionally, one trailer-launch boat landing is included as potential non-point source of contamination as

shown on Figure 3.

Drinking Water Supply Management Area – Surface Water

Point source contaminants are not considered for management within the DWSMA-SW by definition, except where those contaminant locations are also within the ERA and SMA. Non-point source management through analysis of land use, existence of drain tile, and nutrient and pesticide sourcing within the DWSMA-SW is addressed below.

Results of Surface Water Monitoring

As mentioned, the primary non-point source concern is total phosphorus (TP) nutrient concentrations. Per the Otter Tail River Watershed Restoration and Protection Strategy Report, September 2021, 40% of the land around Hoot Lake has been disturbed. The recent Total Phosphorus concentration in Hoot Lake was at 22 ug/l, just above the target goal of 21 ug/l. Similarly, 37% of the land around Wright Lake has been disturbed. The recent Total Phosphorus concentration in Wright Lake as at 21 ug/l, just above the target goal of 19 ug/l.

Large scale water quality trends within the Otter Tail River Watershed have been analyzed for the surface water bodies within the watershed, however direct measurement from Wright and Hoot Lakes were not identified during this study. Within the streams measured, in general the water quality has been improving for biochemical oxygen demand (BOD), E. coli concentration, TP concentration, and TSS. Historically, chloride concentration and inorganic nitrogen concentration had a degrading water quality trend overall. Recent water quality trends generally show degrading water quality with noticeable declines in dissolved oxygen concentration, increases in inorganic nitrogen, TP, and TSS concentrations. However, BOD was still decreasing, which is a positive water quality trend.

The lakes in the Otter Tail River Watershed historically have shown improving water quality trends in chloride concentrations, Secchi depth transparencies, and TP concentrations, and degrading water quality trends of dissolved oxygen and inorganic nitrogen concentrations. Recent water quality trends degrading water quality trends for chloride concentrations and improving water quality trends for dissolved oxygen and inorganic nitrogen. Neither Hoot nor Wright Lakes are currently listed on the MPCA Minnesota's 2022 Impaired Waters List.

The DNR assessed the overall ecological health of the watershed using the Watershed Health Assessment Framework (WHAF), scoring hydrology, geomorphology, biology, connectivity, and water quality from 0 to 100 (0 = low and 100 = high). The Otter Tail River Watershed collectively received a score of 58. These results indicate that cultivated watersheds are the most degraded due to the loss of perennial cover, hydrologic storage, terrestrial habitat quality, terrestrial habitat connectivity, and riparian connectivity as well as pollution from non-point sources. Headwater watersheds that "export" water and are not recipients of sediment and contaminants, tend to have higher health scores than their downstream watersheds. A score of 58 falls in the middle of the scale and improvement can be made.

Susceptibility of the Source Water to Contamination

Susceptibility is defined as the likelihood that a contaminant will enter a public water supply at a level which may result in an adverse human health impact. The determination of susceptibility by the Environmental Protection Agency is on a scale of low, medium, and high. The susceptibility of any surface water source, such as Wright and Hoot Lakes, is determined to be high because there are no practical means of preventing all potential contaminant releases into surface waters. The federal SDWA recognizes the susceptibility of the surface waters and requires filtration to remove pathogens and particulate contaminants. The susceptibility of the Fergus Falls surface water intake to contamination is classified as high.

While it has been determined that Fergus Falls source water is highly susceptible to contaminants found in the Wright Lake, historically the city's water plant has effectively treated this source water to meet safe drinking water standards. In addition, we water quality data shows that Wright Lake is meeting the Minnesota's water quality standards. However, water suppliers are being increasingly challenged to comply with new and changing standards and to respond to changing land uses and conditions within their source water assessment areas. Therefore, maintaining a healthy watershed and vegetative cover to the extent practical, can assist in preventing or reducing potential pressures from row crop farming, development and climate impacts that may lead to more erosion and sedimentation issues on the river and in the watershed.

Land Use

Land use plays an important role in water quality and directing implementation activities in the ERA, SMA and DWSMA-SW. The following section describes land uses documented in the 2019 National Land Cover Database (USGS, 2021), and land use-associated impacts to surface water quality and drinking water.

Land use overall varies from urban development (predominantly the city of Fergus Falls) to cultivated crops to forested land. The SWAA is comprised of 35% agricultural, dedicated to cultivated crops or hay/pasture lands. The remaining land use is 30% water and wetland, 27% forest, and 1% herbaceous.

Residential development is concentrated in the urban centers. Fergus Falls is the largest city in the area and manages storm water through local ordinance and state statutes. Typically, storm water is managed by impounding and discharging storm water runoff to the river through a well-developed storm water conveyance system. Several smaller cities are located up stream of the city of Fergus Falls drinking water intake. It appears that there are varying levels of storm water management in these areas.

Emergency Response Area

The ERA contains Hoot Lake and Wright Lake, which are connected by a channel. Almost a third of the land in the ERA is open water (29%). The rest of the land is predominantly development (22%), forest (17%), and agricultural (15% hay and pasture; 14% cultivated crops).

Spill Management Area

The SMA encompasses the stretch of the Otter Tail River between the Friberg-Taplin Gorge Hydroelectric Dam and Hoot Lake. The majority of the SMA is agricultural land (25% cultivated crops: 18% hay and pasture), with wetlands (22%), forest (17%), and open water (12%) making up most of the remaining land. A detailed breakdown of the land use is provided in Table 3.

Drinking Water Supply Management Area – Surface Water

The DWSMA-SW encompasses approximately 58,000 acres of land around Fergus Falls. Over half of the land is agricultural (48% cultivated crops: 16% hay and pasture). The remaining land is mostly forest (14%), woody or emergent wetland (8%), development (7%), open water (5%) and barren or shrub/scrub land (1%). Developed land is comprised of impervious surfaces such as roads, buildings, and other infrastructure. There are 69 lakes in the DWSMA-SW, but many of the lakes are shallow basins and do not have a DNR Division of Waters Lake Number (DOWLKNUM). There are 55 lakes that do not have DOWLKNUM and some lakes that are inside the DWSMA-SW that are not defined at all. This is due to the large amount of a manipulated agricultural landscape within the DWSMA-SW.

The following table describes land uses within the ERA, SMA, DWSMA-SW, and the SWAA.

Table 6 – Land Uses Within Delineated Protection and Watershed Areas

Type of Area (Unit size)	Emergency Response Area	Spill Management Area	Drinking Water Supply Management Area – Surface Water	Source Water Assessment Area
Area (acres)	1569	2033	18,254	1,628,005 ¹
Lake area in acres (# of lakes)	228 (Two Lakes)	0 (No Lakes)	399 (69 Lakes, Ponds, and Reservoirs)	125,585 (2,781 Lakes, Ponds, and Reservoirs)
Stream length in miles (# of stream segments ²)	0.38 (2 segments)	8.43 (10 segments)	12.67 (9 segments)	467.8 (1166 segments)
Barren Land (acres)	0 (0%)	1 (<1%)	50 (<1%)	2,616 (<1%)
Cultivated Crops (acres)	227 (14%)	498 (25%)	8,832 (48%)	412,736 (25%)
Development (acres)	353 (22%)	104 (5%)	1,257 (7%)	78,863 (5%)
Forest (acres)	265 (17%)	354 (17%)	2,577 (14%)	436,057 (27%)
Hay/Pasture (acres)	237 (15%)	360 (18%)	2,996 (16%)	176,669 (11%)
Herbaceous (acres)	10 (1%)	29 (1%)	204 (1%)	20,154 (1%)
Open Water (acres)	455 (29%)	238 (12%)	922 (5%)	262,252 (16%)
Shrub land (acres)	2 (<1%)	4 (<1%)	30 (<1%)	8,061 (<1%)
Wetlands (acres)	19 (1%)	444 (22%)	1,386 (8%)	230,597 (14%)

¹Area includes the ERA, SMA, and DWSMA-SW, and encompasses the delineated portions of the Otter Tail River Watershed

²Streams are based on the MN DNR's streams and surface water bodies data

Buffer Law Compliance

The Minnesota buffer law was established in November 2017 for all public waters and November 2018 for public ditches. The law provides flexibility to all landowners to comply with the law by using practices that are outlined in the Natural Resources Conservation Service Field Office Technical Guide. Otter Tail County, which contains both the ERA and SMA, has reached 100% compliance. Buffered waterbodies that are in compliance are low priority for Source Water Assessment and planning purposes.

Climate Change Impact

Minnesota has become measurably warmer, particularly in the last few decades, and precipitation patterns have become more erratic, resulting in changes in air, weather, water, and ecosystems. These changes have impacts on Minnesota's public water suppliers. The surface water systems are more vulnerable to these extremes events due to the immediate impacts of surface water contributions. Variability in systems geography will effect on how they become resilient to the changing weather

patterns.

In 2021, climate issues affected Fergus Falls in the form of drought. Drought was widespread over Minnesota during the summer months. During the height of summer’s drought, Ottertail Power Company, who controls the flow of water diverted through Hoot and Wright lakes by the control of diversion dam, was forced to stop diverting river water through the lakes due to low water levels and permit issues. This significantly increased algae growth in the bay where the intake is located. It created conditions that increased filamentous algae and the taste and odor compounds (Geosmin and MIB) associated with that gave Fergus Falls PWS a very challenging couple of months trying to provide aesthetically pleasing water to consumers.

Fergus Falls PWS is located in the Otter Tail River watershed. The Minnesota Department of Natural Resources has a large database of climate data (1895-2021) for this watershed. Figure 6 is based on historical precipitation data, on average 24.12 inches of rain fall annually. The watershed has gained 0.18 inches of rain per decade and from 1990 more than 65% of the time the region received over the annual precipitation.

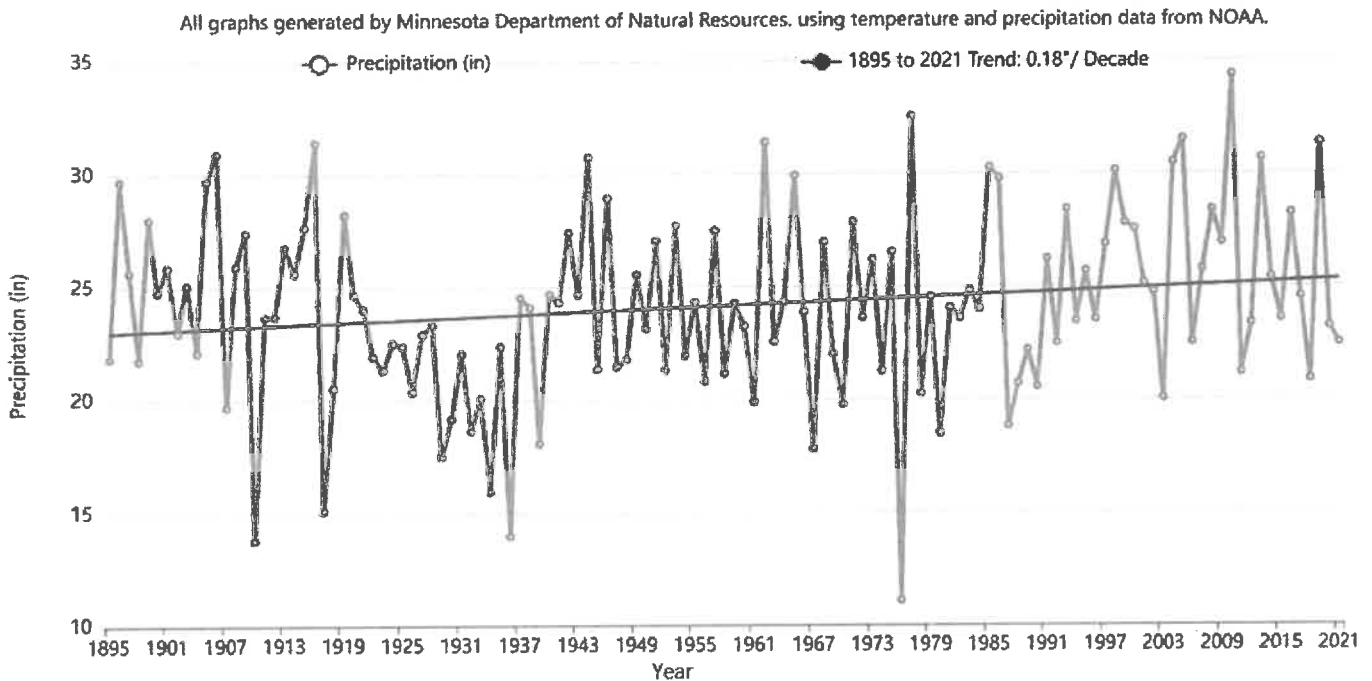


Figure 6 – Observed annual precipitation trend for Otter Tail River watershed.

During the same timeframe (1895-2021) figure 7 is the Palmer Drought Severity Index (PDSI) which uses readily available temperature and precipitation data to estimate relative dryness shows increased wetter conditions. There are only six years since 1990 where the PDSI showed dryer conditions.

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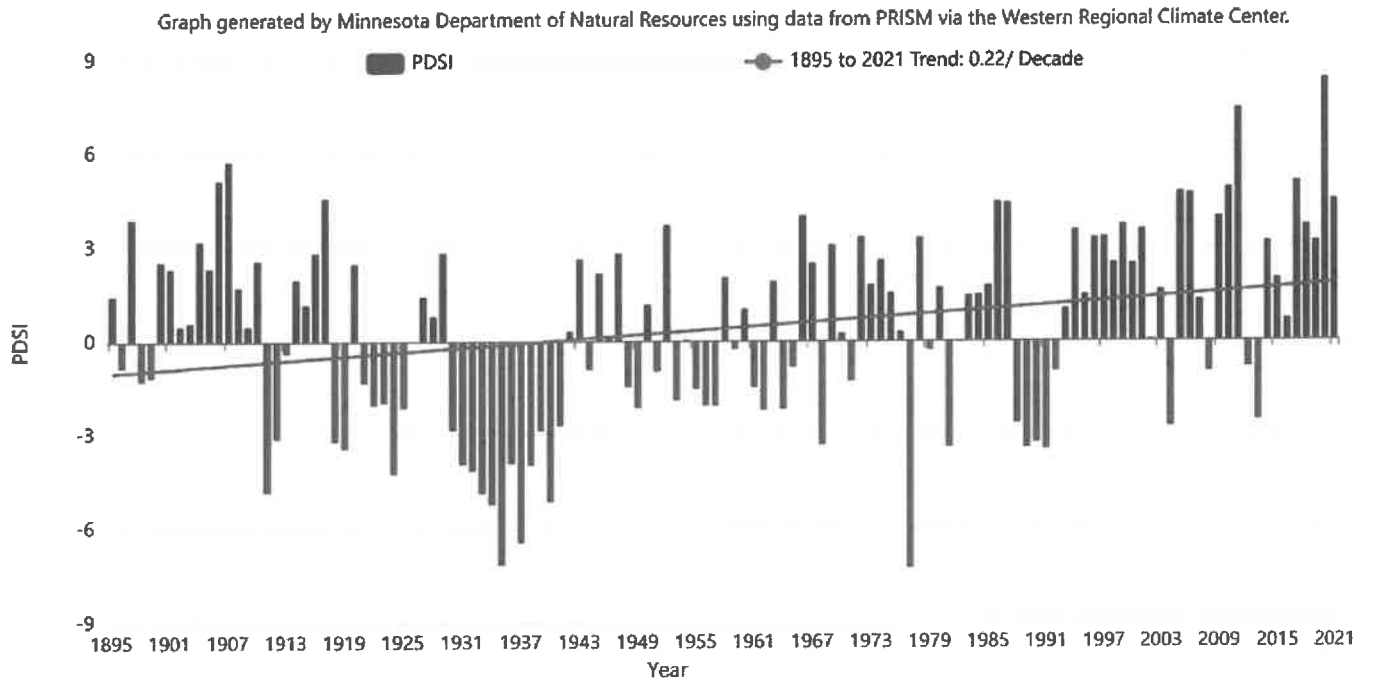


Figure 7 – Observed Palmer Drought Severity Index (PDSI) trend for Otter Tail River watershed .

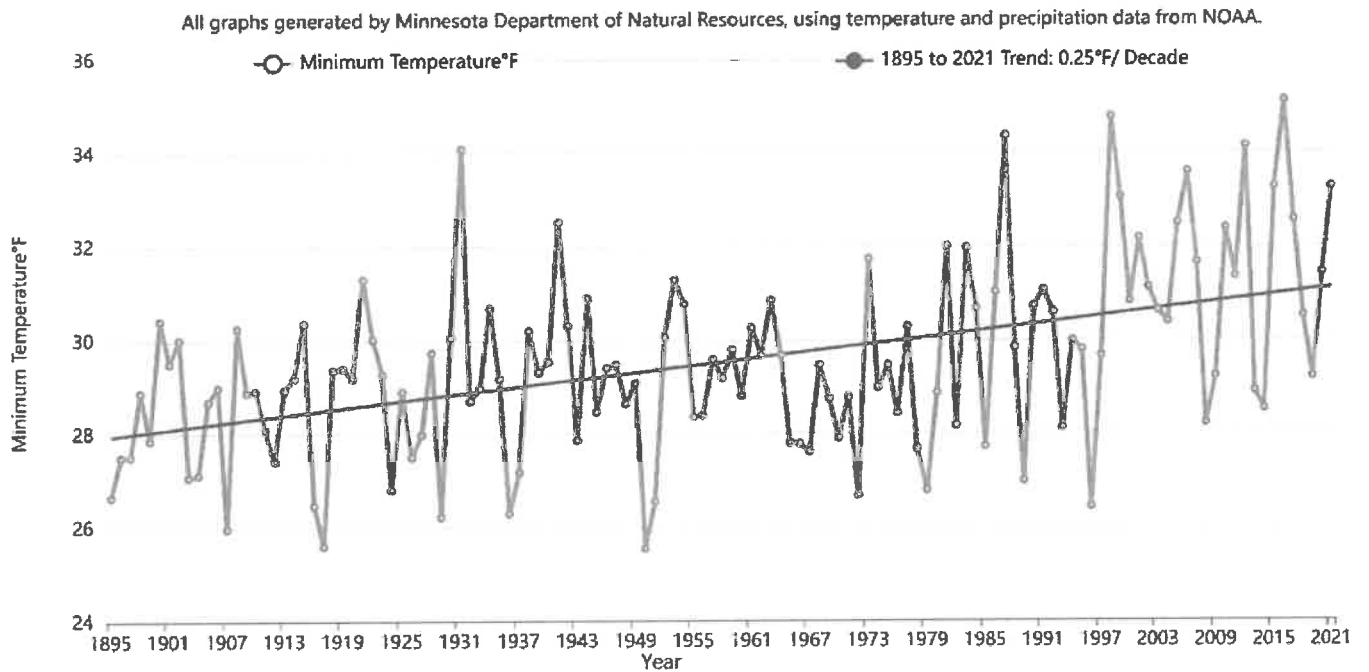


Figure 8 – Observed minimum temperature trend) trend for Otter Tail River watershed.

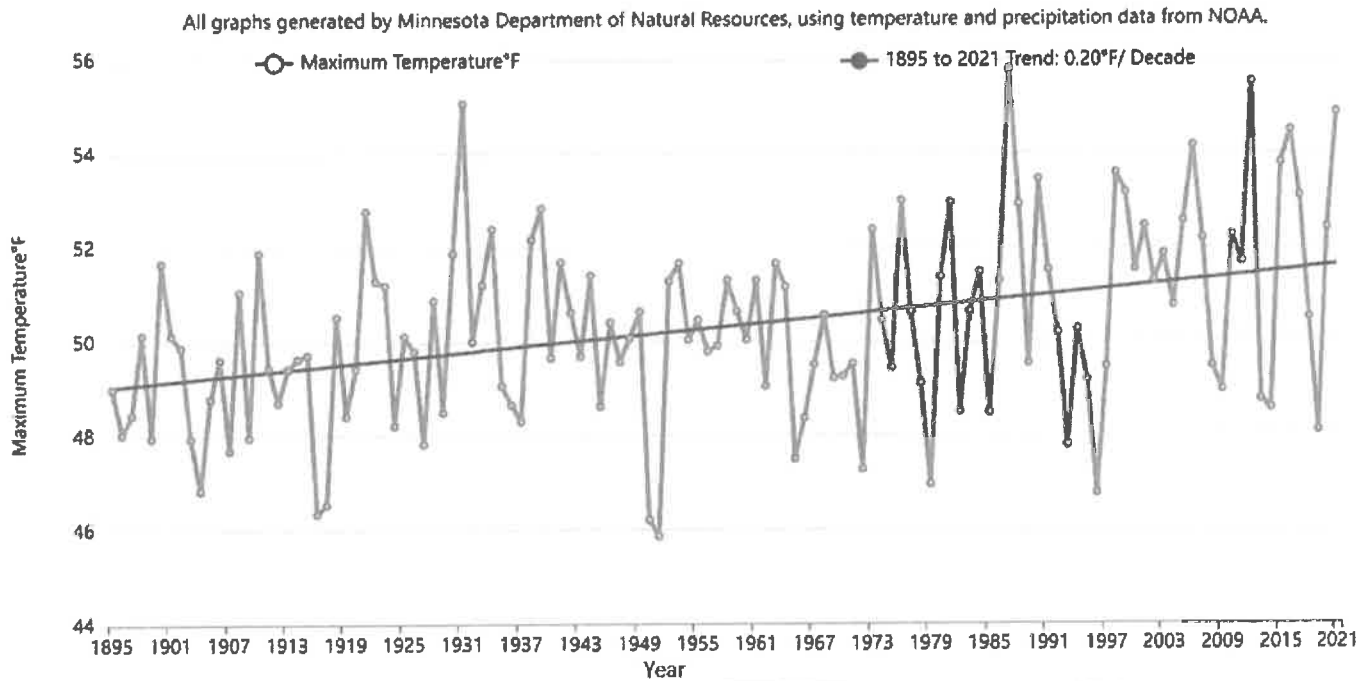


Figure 9 – Observed maximum temperature trend for Otter Tail River watershed.

Annual precipitation totals have increased over time and are expected to continue to increase as climate change progresses through the 21st century (Minnesota Department of Natural Resources, 2021). Figure 10 features data collected from the Minnesota Climate Explorer tool, which shows the annual precipitation trend for the Ottertail River watershed, and the annual mean climate projections of precipitation for the middle and late 21st century. The ranges shown represent an average of the most commonly used climate model calculations, which in turn use the most plausible IPCC greenhouse gas emissions scenarios, including a mid-century reduction best case scenario in blue (RCP 4.5, where greenhouse gas emissions begin to drop by 2045), and a worst-case scenario where emissions continue at current levels in red (RCP 8.5, where emissions continue to increase throughout the 21st century). The projections averages (means of all downscale model runs, represented by the longer line at the middle of the shaded ranges) of the two time points (mid- and late-century) highlight the range in uncertainty of all IPCC evaluated models. The projected precipitation ranges are quite large, but illustrate what climate scientists have hypothesized about how climate change is expected to affect annual precipitation trends. Average annual precipitation is expected to increase by about an inch and half by mid-century, and if CO₂ emissions continue at current rates, average annual precipitation is expected to increase by an additional two and a half inches by the year 2100. The plotted ranges shown indicate that annual precipitation amounts could be far greater or far less, as precipitation events are also projected to become more extreme as well.

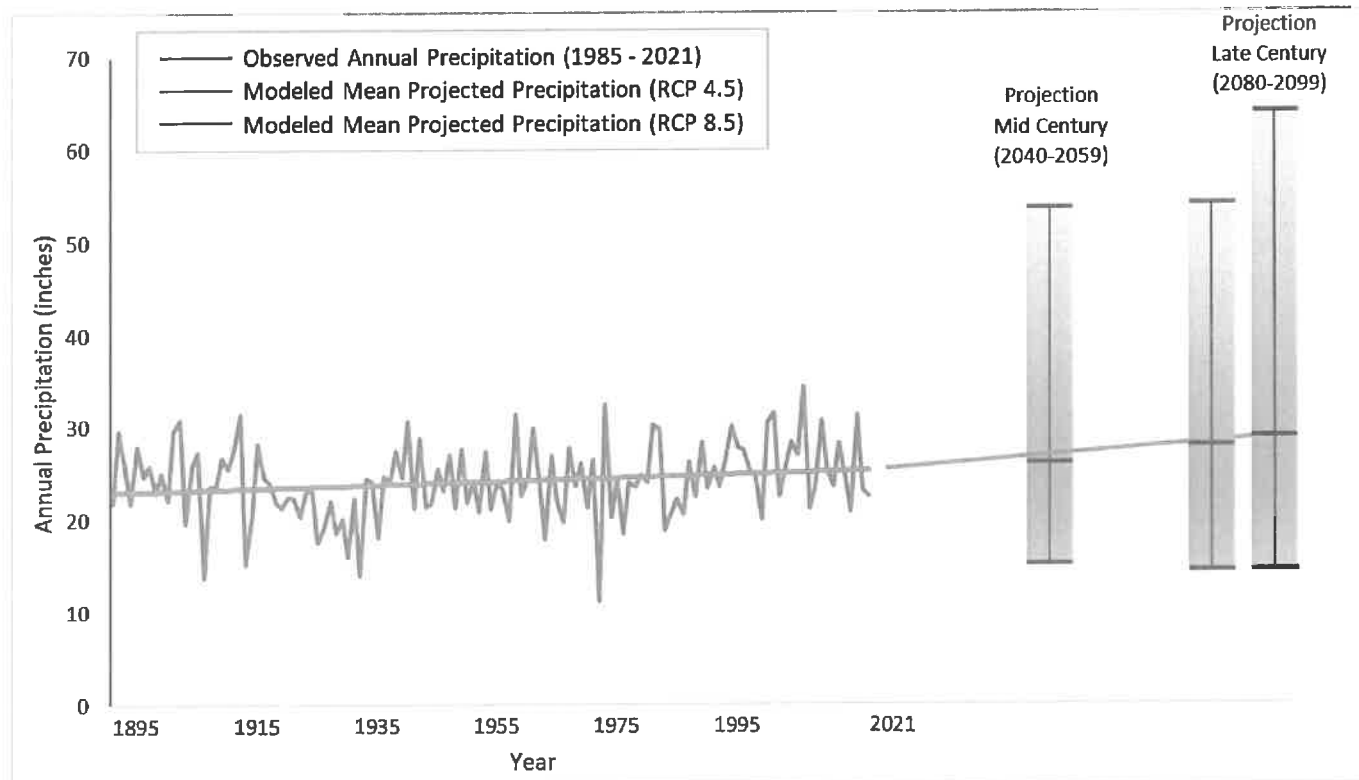


Figure 10— Observed annual precipitation trend and average modeled climate change projections for the mid and late 21st century based on models simulating the RCP 4.5 reduced CO2 emissions scenario and the “worst-case” continued CO2 emissions scenario.

Another factor in model trends is that increasing temperatures in the watershed could actually mean that the region experiences more droughts, even with increased precipitation. Figure 8 shows annual low temperatures have increased 0.25°F per decade and figure 9 show the annual high temperatures have increased 0.20°F per decade. Future model means for the two scenarios indicate average annual temperature increases of six to 10 degrees. Fahrenheit for RCP 4.5 and RCP 8.5, respectively. These higher temperatures will drive increased evaporation rates and could lead to less flow available for supply. There will always be variability in weather, but over time the increases in precipitation, PDSI, low and high temperatures will continue.

Summary of High-Priority Issues

High priority issues for this watershed and SWA should focus on maintaining a healthy watershed that aids in the protection of the city of Fergus Falls drinking water. Bacterial contamination is indicative of human and agricultural related impacts in the watershed. Reducing sediment and run-off, maintaining perennial vegetation, advocating for soil health and agricultural bmp’s are all things to focus on in the watershed. Fergus Falls’ surface source water has been impacted by bacterial contamination, which includes cryptosporidium, giardia lamblia, microcystin, and E. coli. The issues below are the highest priority for action within the delineated Source Water Assessment areas for the city of Fergus Falls.

Emergency Response Area and Spill Management Area: FFWTP and the city should ensure that their emergency management plan is updated to address any potential contamination events. The most

prevalent issues that could impact the city’s drinking water are agricultural runoff, transportation spills, and municipal stormwater from Fergus Falls.

Also present in the ERA and SMA are roads adjacent to and bridges over the river and lakes, which could impact water quality during transportation route spills or via stormwater flushing. Boat landings are also potential spill sources in the ERA and SMA. These infrastructure locations can quickly contaminate the source water and should be a focus in an emergency spill management plan.

Drinking Water Supply Management Area – Surface Water: The DWSMA-SW is primarily dominated by agriculture, with some area devoted to urban land uses including portions of the Fergus Falls city limits. The long-term health of the watershed can be improved by focusing on urban planning as it relates to impacts on surface water quality, best management practices for erosion prevention, land use, fertilizer, and runoff, all of which can have negative impacts on water quality.

Recommended Actions

The SWA is a tool for the PWS and local partners. The PWS and local partners should consider implementing the activities below to protect the source water and its surrounding watershed. The activities should also be included in Fergus Falls Surface Water Intake Protection Plan (SWIPP) when it is developed.

Monitoring Source Water

Continued monitoring of source water quality is needed to determine on-going best practices needed to maintain and improve water quality in the watershed, and potentially identify and then mitigate sources negatively affecting water quality. Reaches within the ERA and SMA should be the main focus for implementation of measures that address point source contamination. Monitoring of bacteria should be a priority due to regular detections of cryptosporidium, giardia lamblia, microcystin, and E. coli in the surface water of the watershed.

Emergency Preparedness

Emergency spill prevention within the ERA and SWA and response preparedness is a vital aspect of protecting the source water. The annual PWS emergency plan is necessary and should be updated to include the SWA and coordinated with the MPCA Emergency Response unit, first responders, city planners, Otter Tail County Emergency Management, and local government staff. The initial priority should be Hoot and Wright lakes and the transportation infrastructure that is located adjacent and in-between Hoot and Wright lakes.

Potential Contaminant Source Management

Point and non-point source contamination is a high priority for protecting source waters and public health. As discussed in the PSCI section there are no known points that are identified in the MPCA What’s in my Neighborhood database, but there are stormwater outlets on both Hoot Lake and Wright Lake. These

outlets should be a focus for Fergus Falls. Outreach to the public regarding stormwater management and fertilizer application should be a priority. There are a total of 289 feedlots in the DWSMA-SW and continued communication with MPCA feedlot and county feedlot staff should be addressed to ensure that high water quality is maintained. Non-point sources are discussed below.

Contaminant Conveyances and Potential Releases

As discussed in the PCSI section above, stormwater in the ERA is a major concern. Any direct runoff and stormwater conveyance structures that are closest to FFWTP's intake are of greatest concern (see Figure 3). Understanding the directional flow and contributing surfaces to the stormwater system is key to understanding how to mitigate any potential contamination. Additionally, investigation should be completed to determine if fueling stations near the ERA and SWA have stormwater conveyances that could rapidly move a large fuel spill to the surface water. It should be noted that there were no fueling stations identified within the ERA during this assessment, however consideration should be made for future development. This information should be added to emergency response plans so that first responders can block flow to these input points or capture materials at their source. The stormwater conveyances may also need to be included in future SWA delineations, based upon any stormwater system modeling data that may be available at that future time.

Non-Point Source Pollution and Land Management

Contaminants from non-point sources are a concern for the city's drinking water. There is a risk of contamination through spills along roads (Highway 1, etc.) with storm sewers flowing directly into Hoot and Wright Lakes. If a spill occurs along these roads, extra monitoring of surface water should be conducted to determine whether contamination occurred. This would also include any boat landings that allow quick access to the ERA waterbodies.

Alternative Water Supply

Alternative and emergency water sources are an important factor in source water protection planning. Fergus Falls has an Emergency Use well that is used to supplement Wright Lake during drought or low water level condition. However long-term additional wells may be considered in order to lessen the need for surface water as the city's primary source of drinking water.

The Public Water System Characteristics summary above states that FFWTP has water storage capacity of between three and four days. Though the existing wells can provide backup for the water supply, there is a concern for the impact on nearby private wells that draw from the same aquifer if they are used for extended periods of time, particularly during drought conditions when aquifer recharge has been diminished. Exploring and possibly establishing additional backup capacity should be considered to ensure that Fergus Falls water supply is more resilient during times that Wright Lake is flooded, at low volume, or is of poor quality.

Source Water Protection Planning

FFWTP and the city of Fergus Falls should develop a Surface Water Intake Protection Plan (SWIPP) that will

lay out strategies for protecting and improving source water quality. FFWTP and the City may receive assistance from the MDH Surface Water Planner and Hydrologist to complete the planning document if needed. Additionally, upon completion of the SWIPP, FFWTP and the City may be eligible for MDH plan implementation grants to fund documented plan activities. The SWIPP will also guide the FFWTP and local planning partners by documenting other potential complementary watershed-level activities to protect drinking water on a larger scale than can be accomplished by FFWTP alone.

This SWA is designed to provide guidance for planning purposes for the next 10 years. After the 10 years have elapsed MDH will reassess the PWS source water area. Any updated SWA will then guide the amended SWIPP.

DRAFT

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