AGENDA
SHAKOPEE PUBLIC UTILITIES COMMISSION
REGULAR MEETING
February 3, 2025
at 5:00 PM

1. **Call to Order** at 5:00pm in the SPU Service Center, 255 Sarazin Street 1a)
Roll Call

2. **Communications**
   2a) Customer Communications Received – Response to Opt-Out Appeal from the Gavins (SW)
   Customer appeal of AMI installation

3. **Consent Agenda**
   C=> 3a) Approval of January 6, 2025 Minutes (GD)
   C=> 3b) Approval of February 3, 2025 Agenda (JK)
   C=> 3c) February 3, 2025 Warrant List (KW)
   C=> 3d) MMPA January 2025 Meeting Updates (GD)
   C=> 3e) Monthly Water Dashboard for December 2024 (LS)
   C=> 3f) Agreement with Current Compass (GD)
   C=> 3g) County Project No.78-07 Construction Cooperative Agreement (JA)

   *** Motion to approve the Consent Agenda***

4. **Public Comment Period.** Please step up to the table and state your name and address for the record.

5. **Liaison Report** (JD)

6. **Reports: Water Items**
   6a) Water System Operations Report – Verbal (LS)
   6b) Combined Minnesota Department of Health/SPU PFAS Results for Environmental Protection Agency Method 533 (LS)
   6c) Accept Bids and Award Contract for Tank #9 (RH)

   *** Motion to Accept bids and Award Contract to XXXX for Tank #9***

   6d) Water Tower #3 – Custom Design (SW)

   *** Motion to approve the first draft design and proceed with the custom design as part of the water tower maintenance painting project

7. **Reports: Electric Items**

7a) Electric System Operations Report – Verbal (BC)

8. **Reports: General**

8a) Marketing/Key Accounts Report – Verbal (SW)

8b) Goals 2025 (GD)

*** Motion to approve the Goals for 2025 as presented or amended

8c) General Manager Report – Verbal (GD)

9. **Items for Future Agendas**

10. **Tentative Dates for Upcoming Meetings**

- March 3, 2025
- March 17, 2025 Workshop
- April 7, 2025
- May 5, 2025
- June 2, 2025
- June 16, 2025 Workshop
- July 7, 2025

11. **Adjournment**

Shakopee Public Utilities

PO Box 470 • 255 Sarazin Street
Shakopee, Minnesota 55379
Main 952.445-1988 • Fax 952.445-7767
www.shakopeeutilities.com

January 16, 2025

TO: Greg Drent, General Manager

FROM: Sharon Walsh, Director of Marketing, Key Accounts and Special Projects

SUBJECT: Response to Opt-Out Appeal from the Gavins

Overview

SPU customers, Dave and Jeanne Gavin, attended the January 6 Commission meeting to appeal SPU's AMI policy for smart electric and water metering for their home. Their appeal focused on the safety of this technology. They did not oppose access to SPU equipment. The Gavins also indicated that if SPU proceeded with installation of this technology, they would incur mitigation expenses as a result. The Commission asked the Gavins to share these desired mitigation solutions and estimated costs, but the Gavins declined.

As a follow up to the presentation, staff has reviewed the informational links (which are outside of governmental regulatory sites, such as the EPA or FCC, or well-established nonprofits, such as the American Cancer Society) provided by the Gavins. In our review, staff was unable to find data that conclusively confirmed safety issues caused by AMI meters. Staff further researched options and costs associated with mitigation, as suggested by the Gavins, but without specific mitigation requirements the range of options and costs is broad.

Based on this information, the following actions are potential options for proceeding with this appeal:

1. Proceed with standard installation of electric meter on the outside of the property and the water comm module on the inside of the house.
2. Utilize SPU's Opt Outside Policy, installing both the electric meter and the water meter comm module on the outside of the house. If electrical wiring is needed (i.e., 3-wire low voltage), this cost is the homeowner's responsibility.
3. Utilize a faraday cage on the smart meter to reduce what little RF is being transmitted. This equipment can be made and/or purchased in the range of $20-$100.
4. Allow special accommodations by mounting the electric meter and water comm module across the alley. This would require the homeowner to hire an electrician to underground the electric service and necessary 3-wire needed for the comm module. These costs, which can be significant, would be the responsibility of the homeowner.

Action Requested

Staff is recommending that the Commission direct staff to proceed with one of the options presented above. The Commission may also explore additional options, including any policy changes, if desired. Based on the Commission's direction, staff will prepare a resolution for consideration at a future Commission meeting.

MINUTES OF THE
SHAKOPEE PUBLIC UTILITIES COMMISSION
January 6, 2025
Regular Meeting

1. Call to Order. President Krieg called the January 6, 2025 meeting of the Shakopee Public Utilities Commission to order at 5:00 P.M. President Krieg, Vice President Letourneau, Commissioner DuLaney, Commissioner Fox, and Commissioner Mocol were present.

2. Communication. Greg Drent, General Manager, explained that item (2a) involved a customer appeal regarding AMI. Jeanne and David Gavin presented their health and safety concerns with AMI and requested that SPU consider these concerns and exempt them from AMI for both electric and water meters. SPU staff will review the information provided and bring a recommendation to a future meeting. For item (2b) Solar Grid Access Charge, Mr. Drent explained that SPU provided notice of the fee and described the responses received.

3. Consent Agenda. Commissioner Mocol moved to approve the consent agenda:
   (a) December 2, 2024 minutes;
   (b) January 6, 2025 Agenda;
   (c) January 6, 2025 Warrant List;
   (d) MMPA December 2024 Meeting Update;
   (e) Monthly Water Dashboard for November 2024;
   (f) Nitrate Results;
   (g) 2024 Audit Schedule;
   (h) Resolution #2024-36 Correction;
   (i) 2025 Solar Grid Assess Charge;
   (j) 2023 CIP Results- Opening of 2025 Program;
   (k) 15 kV Pad Mount Switchgear Bid Award.

Commissioner Fox seconded the motion. Ayes: Krieg, Letourneau, DuLaney, Fox, and Mocol. Nays: None.

4. Public Comment Period. No public comments were offered.

5. Liaison Report. Commissioner DuLaney reported that the City Council approved Resolution #2024-161 concerning weighted voting for MMPA, which the Commission recently approved. He thanked staff for clarifying the wording in the water meter letters to customers that SPU seeks access to its water meters in this process.

6. Water Report. Lon Schemel, Water Superintendent, reported that SPU just received the PFAS test results from the Minnesota Department of Health, which reflected compliance with state (below one) and federal standards; more detail will be provided at the next Commission meeting. He explained that Well #7 showed results of .4; the Commission previously removed this well from production and, in an emergency, would only run it in combination with Well #6, to further blend the output.

7. Electric Report. Brad Carlson, Electric Superintendent, reported three outages since the last Commission meeting. Two outages affected approximately 40 customers; one lasted 240 minutes and the rest were small. He provided an update of projects, including annual dielectric testing, inspecting 1800 of the 3300 wood poles with maintenance when needed, energizing Boardwalk, removing overhead lines at the gravel pit, changing out the purple streetlights, installing three EV chargers at SMSC, installing electric service at Pumphouse 23, and tree trimming maintenance. SPU will be donating water to flood the rinks for Hockey Day Minnesota.

8. Marketing/Key Account Report. Sharon Walsh, Director of Marketing/Key Accounts/Special Projects, reported that APPA recognized SPU for its mutual aid work in Florida. She noted work on the 2023/2024 Year in Review and ongoing work on the water tower design. She reported that SPU has 18,892 electric meters and 8,975 water meters being read on the AMI system. Ms. Walsh noted that SPU is sending the second to the last water notices for AMI, with the last notice expected in the next 3 – 4 weeks. She also indicated that of the 327 letters sent regarding the new Solar Grid Access Charge, SPU received only seven phone calls with questions.

9. 2025 Handbook Revisions. Mr. Drent presented the revised Employee Handbook, which included changes due to the Employee Sick and Safe Time law. Commissioner Mocol requested that staff develop guidelines for use of ESST. Vice President Letourneau moved to approve the 2025 Handbook Revisions as presented, seconded by Commissioner DuLaney. Ayes: Krieg, Letourneau, DuLaney, Fox, and Mocol. Nays: None.

10. General Manager Report. Mr. Drent provided updates on pending projects, including benefits, rates, new position job descriptions and point systems, as well as recent meetings with Ryan Hentges from Dakota Electric and Bill Reynolds from the City. Mr. Drent also noted a recent meeting with a potential data center customer.

11. NEW WTP Site Search Update. Vice President Letourneau moved to go into closed session under Minnesota 13D.05, subdivision 3(c) to review confidential or protected nonpublic appraisal data and to develop or consider offers or counteroffers for the purchase of property located at 1776 Mystic Lake Drive. Commissioner Mocol seconded the motion. Ayes: Krieg, Letourneau, DuLaney, Fox, and Mocol. Nays: None. In open session, President Krieg noted that the Commission reviewed the appraisals, directed staff to continue with negotiations, and that Vice President Letourneau and Commissioner Mocol volunteered to assist with negotiations as an informal working group.

12. Adjourn. Motion by Commissioner DuLaney, seconded by Vice President Letourneau, to adjourn. Ayes: Krieg, Letourneau, DuLaney, Fox, and Mocol. Nays: None.

_____

Greg Drent, Commission Secretary

Proposed As Consent Item **3b**

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Proposed As Consent Item 3c

SHAKOPEE PUBLIC UTILITIES COMMISSION

WARRANT LISTING

February 3, 2025

By direction of the Shakopee Public Utilities Commission, the Secretary does hereby authorize the following warrants drawn upon the Treasury of Shakopee Public Utilities Commission:

WEEK OF 01/03/2025

AAR BUILDING SERVICE CO.	$4,338.46	JANUARY 2025 CLEANING
ALTEC INDUSTRIES INC	$45.77	HASTINGS;P10549;EYE SCREW
ANNETTE STANEK	$3,150.00	SPU 2025 JAN RATE BILL STUFFER
ARAMARK REFRESHMENT SERVICES INC	$429.75	COFFEE
ARROW ACE HARDWARE	$12.46	SPONGE/MAGIC ERASER(E)
BORDER STATES ELECTRIC SUPPLY	$44,495.88	AMI 2472 ELECTRIC METER INSTALL
ANTHONY BREZINA	$18.94	REIMBURSE STAINLESS SCREWS FOR P.H.'S
CDW GOVERNMENT LLC	$5,682.15	VEAM BACKUP RENEWAL
CITY OF SHAKOPEE	$109,483.93	WO#2888 WM EGLE CRK/VIERLING 2024
CORE & MAIN LP	$331.78	CHAMBER COVER O-RING
DAHLEN SIGN COMPANY	$1,760.00	WO#2848 COMM ROOM REMODEL
DSI/LSI	$562.11	JANUARY 2025 GARBAGE SERVICE
ECM PUBLISHERS, INC	$120.00	ELECTRIC SWITCHGEARS BID
ELECTRICAL PRODUCTION SERVICES	$75,631.00	WO2648 FIBER SUB EAGLE CREEK
FERGUSON US HOLDINGS, INC.	$10,483.76	METER HORNS(W)
FIRE SAFETY USA	$1,059.65	HOSES(W)
GRAYBAR ELECTRIC COMPANY INC	$12,323.66	Y618522 ELECTROMARK(E)
BRAD GUSTAFSON	$244.99	REIMBURSE SAFETY BOOTS
HAWKINS INC	$410.00	DEMURRAGE CHLORINE CYLINDERS
HENNEN'S AUTO SERVICE INC.	$220.27	ELECTRIC TRK#642 OIL CHANGE
MAUREEN HILL	$50.00	ENERGY STAR CLOTHES WASHER REBATE
MAUREEN HILLMAN	$125.00	ENERGY STAR CLOTHES WASHER REBATE
HREXPERTISEBP LLC	$656.25	DECEMBER HR CONSULTING
INNOVATIVE OFFICE SOLUTIONS	$38.46	STOP CLOTH SEAL
GAGANA KARUNANAYAKE	$125.00	ENERGY STAR REFRIGERATOR REBATE
BRIAN KRAUTKREMER	$75.00	ENERGY STAR REFRIGERATOR REBATE
LLOYD'S CONSTRUCTION SERVICES	$612.75	RENTAL PD 11.15.24-12.17.24 DEMO/CONSTR
LOCATORS & SUPPLIES INC	$798.90	RED CONSTRUCTION MARKING PAINT
MINN VALLEY TESTING LABS INC	$260.00	WATER TESTING NITRATES
MMUA	$3,000.00	CYBER/FISCAL SECURITY THREATS PREP
MRA-THE MANAGEMENT ASSOCIATION	$78.00	BACKGROUND CHECKS
TONY MYERS	$179.85	REIMBURSE SAFETY CLOTHING EXPENSE
NAGEL COMPANIES LLC	$5,121.25	WO2960 BORING LIONS PARK SIGN SERVICE
GERRY NEVILLE	$42.21	REIMBURSE 63 MILES
OLE AND LENA'S GARAGE DOOR SERV LLC	$180.00	DOOR REPAIR
ZACH OWENS	$50.00	ENERGY STAR CLOTHES WASHER REBATE
POMP'S TIRE SERVICE INC	$1,662.79	ELECTRIC TRK#642 TIRES
POWER TESTING AND ENERGIZATION INC.	$46,274.42	SHAKO S SUB REPLAY REPAIR
BRET PURRINGTON	$75.00	ENERGY STAR REFRIGERATOR REBATE
RESCO	$2,157.60	ELBOW ARRESTER 10KV 8.4MCOV 15KV
JACK SCHINTZ	$119.00	REIMB DOT PHYSICAL
SENSIDYNE, LP	$577.00	GAS CYL CL2,5PPM(W)
STANTEC CONSULTING SERVICES INC.	$14,206.18	WO#2901 TRACKSIDE WM PRI
TESCO - THE EASTERN SPECIALITY COMPANY	$183.02	SOCKET SAFETY CLIP(E)
THE WINSTON COMPANY	$148.20	3939 2" X 60YDS SILVER (W)
USABLUEBOOK	$1,715.60	HACH DPD 1 & 4
JAMIE VON BANK	$275.00	SAFETY BOOT REIMB 2024
WESCO RECEIVABLES CORP.	$3,725.83	T&B HS-904 1.25 INCH STRAP RGD/IMCS
GRAYBAR ELECTRIC COMPANY INC	$201.85	ELBOWS 22 OF 25 REC'D -SHORT PAYING
JT SERVICES	$14,630.63	FOUNDATION ANCHOR ST. LIGHTS
VERIZON WIRELESS SERVICES LLC	$386.89	MONTHLY SUMMARY PEPWAVE POTSOLVE
CENTERPOINT ENERGY - ACH	$3,188.76	GAS USAGE 255 SARAZIN 11/6-12-2 2024
ZAYO GROUP, LLC	$5,011.13	DECEMBER BILLING

Total Week of 01/03/2025 **$376,736.13**

WEEK OF 01/10/2025

CREDIT REFUNDS	$7,189.94	CREDIT REFUNDS
ABDO LLP	$4,258.00	DEC 2024 FS ACCOUNTING SERVICES
KATIE J ADAMS	$109.35	REIMB MILEAGE 4TH QTR 2024
ALL ELEMENTS INC.	$1,050.00	ROOF MAINT. & SERVICE AGREEMENT
ALTEC INDUSTRIES INC	$245.98	SLING;SYNTHETIC WEB(E)
ALTERNATIVE TECHNOLOGIES INC	$6.00	SURCHARGE DUE
RON BARTUSEK	$255.50	REIMB SAFETY BOOTS 2025
BERGERSON-CASWELL INC	$320.00	FURNISHING MATERIALS BAKER MONITOR(W)
BORDER STATES ELECTRIC SUPPLY	$64,549.70	AMI 2472 ELECTRIC METER INSTALL
CANTERBURY DEVELOPMENT LLC	$2,148.05	WO#2901 CANTER TRACKSIDE WM REFUND
CHOICE ELECTRIC INC	$150.00	UNFASTEN SMARTSWITCH 228 ARDENNES AVE
CITY OF SHAKOPEE	$543,158.57	DECEMBER SW$400,495.62/SD$142,662.95
CITY OF SHAKOPEE	$1,080.04	DEC 2024 SD/SPU PROPERTIES
CORVAL CONSTRUCTORS, INC.	$3,560.23	BOILER #REPOAIR CIR PUMP
CUSTOMER CONTACT SERVICES	$696.02	ANSWERING SVC 1/7/25-2/3/25
DIVERSIFIED ADJUSTMENT SERVICES INC	$379.05	DEC 2024 COLLECTION AGENCY STMT
FLYTE HCM LLC	$21.00	DECEMBER 20254 COBRA
FRONTIER ENERGY, INC.	$2,207.75	DEC 2024 SHAKO C&I IMPLENTATION SVCS
GOPHER STATE ONE-CALL	$291.60	DECEMBER TICKETS
GRAINGER INC	$1,004.17	MECH TSTAT,HEAT/COOL,STEEL(W)
GRAYBAR ELECTRIC COMPANY INC	$27.53	ELBOWS SHORT PD TIED TO INV9340071147
INNOVATIVE OFFICE SOLUTIONS	$341.33	OFFICE SUPPLIES
INT'L UNION OF OPER ENGINEERS LOCAL 49	$765.00	DEC. MONTHLY UNION DUES
INTERSTATE ALL BATTERY CTR	$176.40	BATTERY(W)
KATAMA TECHNOLOGIES, INC.	$562.50	AMI 2472 DEC GENERAL CONSULTING FEES
LLOYD'S CONSTRUCTION SERVICES	$562.75	OCT- 30 YD - DEMO & CONST RENTAL PD
LOFFLER COMPANIES - 131511	$2,417.84	OVERAGE PERIOD 10/1/24-12/31/24
MICHAEL MIANO	$50.00	ENERGY STAR WATER SENSE TOILET REBATE
MINN VALLEY TESTING LABS INC	$166.00	WATER TESTING COLIFORM
MMUA	$2,220.00	METER SCHOOL REG JACK MIKO ERIC JUSTIN
MN DEPT OF HEALTH	$30,568.59	4TH QTR 2024 COMM WATER SUPPLY SVC CONN
MN DEPT. OF LABOR & INDUSTRY	$60.00	PRESSURE VESSEL
NCPERS GROUP LIFE INS.	$176.00	DEC. NCPERS PREMIUMS FOR LIFE INS.
GERRY NEVILLE	$34.84	REIMBURSE 52 MILES
ONE TECH ENGINEERING INC.	$5,827.50	PAY WEEK 12/2-12/6/24
ORACLE AMERICA INC.	$41,724.35	3RD QTR 2024 OPOWER CLOUD SERVICE
RW BECK GROUP, INC, LEIDOS ENG. LL	$9,564.00	WO#2844 DEC 2024 EAST SUB CIVIL DESIGN
SHAKOPEE CHAMBER OF COMMERCE	$180.00	2025 ANNUAL MEETING
SMSC	$950.30	WO 2498 SMSC EV MN GREEN UG REFUND
SPENCER FANE LLP	$16,071.00	DECEMBER LEGAL FEES
SRF CONSULTING GROUP, INC.	$397.19	WO#2885 DEC RELOC SVCS HAWKINSON PROP
STAR ENERGY SERVICES	$19,446.57	2024 POLE INSPECTION
TOM KRAEMER, INC	$476.86	JAN 2025 AMI TANK SITE MONTHLY RENT
ULINE, INC.	$446.18	CHROME CASTERS WIRE SHELVING(W)
USABLUEBOOK	$578.09	SPECCHECK LR DPD CHLROINE SECONDARY
VERIZON	$614.25	DECEMBER TRUCK TRACKING
VIVID IMAGE, INC.	$650.00	JAN 2025 ESSENTIAL+PLAN
JAMIE VON BANK	$180.00	REIMBURSE COUNTY UTILITY PERMIT
MICHAEL VOURLOS	$32.84	REIMB MILEAGE 4TH QTR 2024
WESCO RECEIVABLES CORP.	$1,078.29	RED DELINEATOR MARKERS
KIM M WILLIAMS	$100.00	ENERGY STAR DISHWASHER REBATE
WSB & ASSOCIATES INC.	$265.50	NOV 2024 GIS CONSULTING SERVICES
AMERICAN NATL BANK_MASTERCARD_ACH	$11,205.78	DECEMBER CC STMT
FIRST DATA CORPORATION	$9,532.26	DECEMBER 2024 CC FEES
MMPA C/O AVANT ENERGY	$2,655,206.90	DECEMBER 2024 POWER BILL
VERIZON WIRELESS SERVICES LLC	$3,926.32	DEC CELL PHONE BILL
HEALTH EQUITY INC.	$221.00	DEC. ADM. FEES
DELTA DENTAL PLAN OF MN	$5,598.18	DEC. DENTAL PREMIUMS
PRINCIPAL LIFE INS. COMPANY	$4,405.37	DEC. CHARGE MONTH FOR L.T.D AND S.T.D
MINNESOTA LIFE	$1,117.45	MN LIFE INS. PREMIUMS FOR DEC.
HEALTHPARTNERS	$75,663.65	JAN. PREMIUMS, DEC. CHARGE MONTH
PAYROLL DIRECT DEPOSIT 01.10.25	$131,022.20	
BENEFITS & TAXES FOR 01.10.25	$188,851.48	
Total Week of 01/10/2025	**$3,856,143.24**	

WEEK OF 01/17/2025

AAR BUILDING SERVICE CO.	$100.00	BALANCE DUE ON INV#1075
AFFINITY PLUMBING LLC	$735.92	AMI WO 2718 SVC 9/18/24 @ SHAKO CHILIS
APPA	$250.00	ERELIABILITY TRACKER SUBSCRIPTION
BORDER STATES ELECTRIC SUPPLY	$40,905.06	RN2SID,120,200,12S
CAP AGENCY	$33,317.00	2024 CIP SPU
CITY OF PRIOR LAKE	$624.00	4TH QTR 2024 FRANCHISE FEE
CITY OF SHAKOPEE	$4,488.79	DEC 2024 FUEL BILL
CITY OF SHAKOPEE	$87,947.00	PILOT TRF FEE - DEC 2024 TRUE UP
DITCHWITCH OF MINNESOTA	$885.48	HX50 VACUUM EXCAV REPAIR
GRAYBAR ELECTRIC COMPANY INC	$26.50	ANCHOR WINGS(W)
JACKLYN HANSON	$75.56	PER DIEM COLUMBIA HGTS MN/REIMB MILEAGE
TYLER HANSON	$627.67	WO#2976 RODEO REIMB AIRFARE EXPENSE
HENNEN'S AUTO SERVICE INC.	$87.74	PROPANE
HERMAN'S LANDSCAPE SUPPLIES INC.	$398.50	WO#2896 WASHED SAND
HOTSY MINNESOTA	$341.27	HOSE
YANG HSU	$75.00	ENERGY STAR REFRIGERATOR REBATE
IRBY - STUART C IRBY CO	$1,397.95	GLOVE VMI TESTING
JAMES JOHNSON	$225.00	ENERGY STAR DISHWASHER
JT SERVICES	$576.18	SODIUM LAMP
MATTHEW KAHLE	$558.67	WO#2967 RODEO REIMB AIRFARE
LLOYD'S CONSTRUCTION SERVICES	$562.75	AMI2472 RENTAL PD 12/17/24-1/9/25
MINN VALLEY TESTING LABS INC	$392.00	WATER TESTING NITRATES
MINNESOTA SECURITY CONSORTIUM	$445.80	INFOSEC IQ PRO LIC SEC AWARNESS TRAIN
MINNESOTA UI	$4,693.00	4TH QTR 204 U.E. BENEFITS PD
MMUA	$38,628.45	MEMBER DUES 1/1/25-12/31/25
MN DNR WATERS	$44,315.09	2024 WATER USAGE/SURCHARGE
MPOWER TECHNOLOGIES, INC.	$10,120.00	SOFTWARE ANNUAL FEE 1/15/25-1/14/26
GERRY NEVILLE	$173.60	REIMBURSE 248 MILES
NISC	$33,530.98	DEC 2024 PRINT SERVICES
NORTHERN STATES POWER CO	$2,928.04	DEC 2024 POWER BILL
O'REILLY AUTOMOTIVE, INC.	$29.22	MISCROFIBER PAD/NYLON BRUSH(E)
OFFICE OF MNIT SERVICES	$734.01	DEC 2024 WAN MONTHLY SERVICE
PRAIRIE MEADOWS LLC	$729.45	WO#2930 UG ELEC CTRYSIDE 3RD ADDN REFUND
SCOTT REIN	$225.00	ENERGY STAR DISHWASHER REBATE
RICE LAKE CONSTRUCTION GROUP	$100,628.29	WO#2581 P.H. 23 - PYMT #11
JACK SCHINTZ	$558.67	WO#2976 RODEO REIMB AIRFARE
SCHNEIDER ELECTRIC	$6,711.00	INTERIOR/EXTERIOR LIGHTING REBATE
SHAKOPEE CHEVROLET	$18,041.28	WO#2760 CHEV CHARGER UG ELEC REFUND
SMSC	$1,126.56	WO2956 DAKOTAH PKWY PED FLSH UG ELE REFU
SURVALENT TECHNOLOGY, INC.	$100,063.00	2025 SURVALENT SUPPORT PLAN
TRI-STATE BOBCAT INC.	$736.21	CLUTCH REPAIR BOBCAT
UNLIMITED SUPPLIES INC.	$2,171.51	CARRIAGE BOLT
JAMIE VON BANK	$660.67	WO#2976 RODEO REIMB AIRFARE EXPENSE
XCEL ENERGY	$2,194.84	ELECT SVC 11/20-12/23 2024 VALLEY PARK
XCEL ENERGY	$241.73	GAS SEVC 11/20-12/23 2024 AMBERGLEN CIR
ZIEGLER INC.	$1,246.26	WO#2787 UG ELEC SVC/XFMR 7950 CO RD 101
JULISSA G MEDINA	$43.26	Credit Balance Refund
CENTERPOINT ENERGY - ACH	$5,830.21	GAS USAGE 12/6/24-1/7/25 255 SARAZIN
MN DEPT OF REVENUE ACH PAYMENTS	$278,228.00	DEC 2024 SALES & USE TAX PAYABLE
Total Week of 01/17/2025	**$829,632.17**	

WEEK OF 01/24/2025

ALDEN POOL & MUNICIPAL SUPPLY CO.	$75.00	BCA- BUG SCREENS(W)
AMARIL UNIFORM COMPANY	$68.28	SPU CLOTHING G DRENT
APPLE FORD OF SHAKOPEE	$216.22	OILC CHANGE ELECTRIC TRK 23 FORD
BARR ENGINEERING CO.	$8,435.50	WO#2683 TANK 9 NOV-DEC 2024 ENG SVCS
BORDER STATES ELECTRIC SUPPLY	$7,901.67	AMI 2472 ELETRIC METER INSTALL
ANTHONY BREZINA	$75.56	PER DIEM PROF OPER PROG/REIMB MILEAGE
MIKE BRUELS	$500.00	ENERGY STAR COOLING/HEATING REBATE
CHOICE ELECTRIC INC	$420.00	REPAIR @ LIFT STATION SUMP PUMP
PRESTON COLEMAN	$275.00	REIMB SAFETY BOOTS 2025
COMCAST CABLE COMM INC.	$2.29	CABLE FOR BREAKROOMS
TEKLU ENDALE	$175.00	ENERGY STAR CLOTHES WASHER REBATE
JACKLYN HANSON	$26.00	PER DIEM PROF OPER PROGRAM
HAWKINS INC	$5,029.07	CHLORINE CYLINDER/HYDROFLU ACID
HENNEN'S AUTO SERVICE INC.	$187.62	OIL CHANGE ELECTRIC TRK#690
INNOVATIVE OFFICE SOLUTIONS	$583.27	OFFICE SUPPLIES
INTEGRATED PROCESS SOLUTIONS, INC	$843.00	WELL 3 FAULTY POWER MONITOR
JT SERVICES	$171.24	ORANGE PHASE LABEL KIT(E)
GOPI KRISHNA PONNALURU	$175.00	ENERGY STAR CLOTHES WASHER REBATE
LOCATORS & SUPPLIES INC	$137.47	CREDIT MEMO #0317742 ON ACCT
LOFFLER COMPANIES - 131511	$204.51	POSTAGE MACHINE AGREEMENT/MTR RENTAL
MINN VALLEY TESTING LABS INC	$94.00	WATER TESTING NITRATES
NAPA AUTO PARTS	$11.31	HITCH PIN(E)
GERRY NEVILLE	$139.30	REIMBURSE 199 MILES
SOTHA NHEP	$500.00	ENERGY STAR COOLING/HEATING REBATE
QUADIENT, INC.	$2,790.11	LETTER OPENER
HANI RASHID	$75.00	ENERGY STAR REFRIGERATOR REBATE
RIES HEATING & A/C INC	$110.00	SERVICE CALL P.H.#6
SCOTT COUNTY TREASURER	$2,100.00	JAN 2025 FIBER
MICHAEL SOBIECH	$175.00	ENERGY STAR CLOTHES WASHER REBATE
STAPLES OIL COMPANY, INC.	$400.74	DEF-BULK(E)
ULINE, INC.	$452.47	ALUMINUM CLIPBOARD(E)
WESCO RECEIVABLES CORP.	$492.89	12 MITT HV 5 CUFF FR (E)
MICHAEL CONRADY	$90.27	CREDIT BALANCE REFUND
PAYROLL DIRECT DEPOSIT 01.24.25	$136,937.69	
BENEFITS & TAXES FOR 01.24.25	$144,696.98	

Total Week of 01/24/2025	**$314,567.46**

Grand Total	**$5,377,079.00**

Kelly Williamson

Presented for approval by: Director of Finance & Administration

Approved by General Manager

Approved by Commission President

Proposed As Consent Item 3d

Shakopee Public Utilities
PO Box 470 • 255 Sarazin St
Shakopee, Minnesota 55379
Main 952.445-1988 • Fax 952.445-7767
www.shakopeeutilities.com

To: SPU Commissioners

From: Greg Drent, General Manager

Date: January 27, 2025

Subject: MMPA January 2025 Meeting Update

The Board of Directors of the Minnesota Municipal Power Agency (MMPA) met on January 21, 2025, at Chaska City Hall in Chaska, Minnesota and via videoconference.

The Board reviewed the Agency's financial and operating performance for December 2024.

Participation in the residential Clean Energy Choice program increased by 43 customers. Customer penetration for program is 6.0%.

The Board was informed that MMPA received a $4.19 million direct payment of an investment tax credit for the renewable natural gas project at the Agency's Hometown BioEnergy facility.

The Board discussed the status of renewable projects the Agency is pursuing.

Monthly Water Dashboard

As of: December 2024

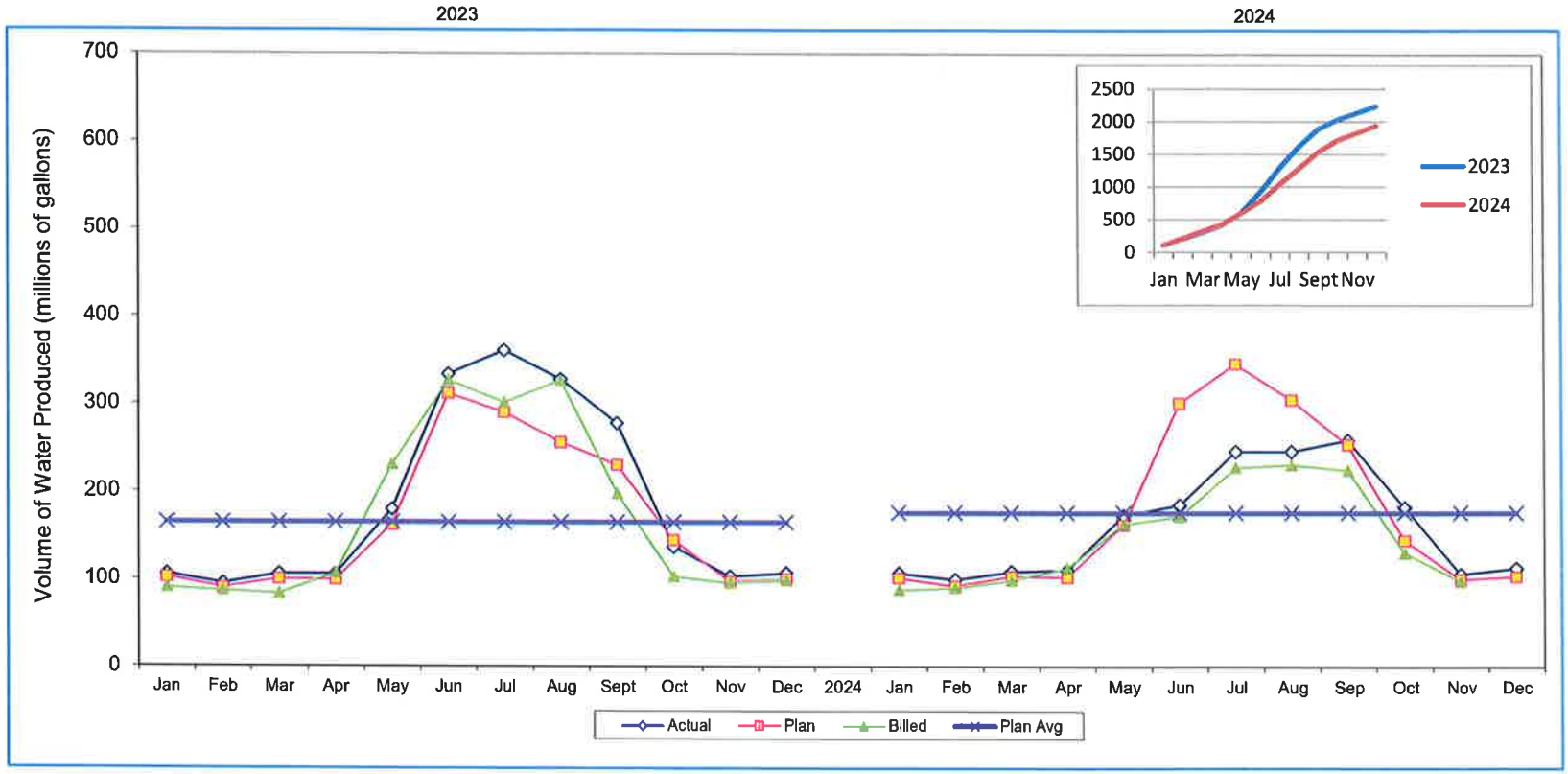
Shakopee Public Utilities Commission

ALL VALUES IN MILLIONS OF GALLONS

Element/Measure Water Pumped/Metered

Last 6 months actuals	246	246	259	182	106	113

Monthly Avg	
2021	173
2022	167
2023	187



2023	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Actual	106	95	106	106	180	334	361	328	278	137	103	107
Plan	102	90	100	99	162	312	290	256	230	144	97	100
YTD % *												
Billed	91	87	84	107	231	327	302	327	198	103	96	99

2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	107	100	109	111	173	185	246	246	259	182	106	113
	101	92	103	102	162	301	346	305	254	144	100	103
	106%	107%	107%	107%	107%	91%	85%	84%	87%	90%	91%	92%
	88	91	99	113	163	172	228	231	225	130	98	

* Actual gallons pumped vs. Plan

Proposed As Consent Item 3f

SPU
Shakopee Public Utilities

PO Box 470 • 255 Sarazin Street
Shakopee, Minnesota 55379
Main 952.445-1988 • Fax 952.445-7767
www.shakopeeutilities.com

DATE: January 24, 2025

TO: Commissioners

FROM: Greg Drent, General Manager

Subject: Agreement with Current Compass

SPU staff has been working on electric service territory for several years. The next step would be to secure an agreement with Xcel Energy for electric service territory on the northeast side of town. We considered engaging a consultant to provide guidance and support as we move forward. This collaboration will help ensure that we achieve our objectives efficiently and effectively.

SPU staff met with Mark Fritsch, the president and owner of Current Compass Inc. Mark has successfully negotiated agreements for municipal utilities with Xcel in the past. The scope of the work will be to negotiate a long-term service territory agreement between SPU and Xcel Energy.

Current Compass and SPU will negotiate an agreement on behalf of the SPU commission for service territory acquisition. The ultimate goal is to produce a fair and equitable service territory agreement that both parties can support. This agreement will enable SPU and Xcel Energy to avoid the irrationalities and/or disproportionalities that sometimes exist with service territory agreements. Some of the examples of topics we will be working on are loss revenue compensation, asset valuation, duration of payments, and large customer acquisition compensation. While the consultant will provide recommendations and work on behalf of SPU during the negotiations, the final decision-making authority will remain with the commission. The agreement will be brought to the commission for approval before it can be final and in effect.

Mark's rate is $150.00 an hour. Also, MMPA has a policy to pay ½ of this expense up to $20,000.00 to explore service territory in a member community. Based on our initial discussions with Mark, it is unlikely that the total expense will be over $20,000.

Request: Authorize Mark Fritsch of Current Compass to work with staff and Xcel Energy on a service territory agreement within city limits of Shakopee.

Proposed As Consent Item 3g

Shakopee Public Utilities

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SHAKOPEE PUBLIC UTILITIES
MEMORANDUM

TO: Greg Drent, General Manager

FROM: Joseph D. Adams, Planning & Engineering Director

SUBJECT: County Project No. 78-07 Construction Cooperative Agreement

DATE: January 30, 2025

ISSUE

Scott County is constructing a traffic control intersection roundabout improvement to increase traffic safety at the intersection of CR 78 and CR 79. The project will also include installation of two (2) SPU owned casing pipes for future 12 inch trunk water main to serve future development and a roadway lighting system to be owned by Scott County.

BACKGROUND

Staff has been working with Scott County staff to develop the attached Construction Cooperative Agreement for the project.

Installing casings with the project is more cost effective than boring casings in at a future date and can avoid conflicts with other improvements. Future development must occur before SPU extends the water main into the area by the intersection. The water main is presently approximately ½ mile east along CR 78 at the northwest corner of the Valley Creek Crossings 2nd Addition. When the water main is extended west, it is likely SPU will also have to fund oversizing a lateral watermain to serve the adjacent properties lying between Valley Creek Crossing 2nd Addition and the CR 78/79 roundabout. In staff's opinion. the driving force for timing of further water main improvements west and south of the roundabout will be when it is deemed necessary to extend public water main along CR 78 and CR 79 to provide municipal water service to the school property now being utilized as play fields if an additional school building may be required and when additional development of adjacent parcels occurs.

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The roadway lighting system being installed with the project is like lighting City roundabouts within the City of Shakopee with the notable exception that the intersection involves two county roads and not any city street. Thus, per the joint City/SPU Street Lighting Policy lighting there would have to be a Special Lighting District adopted to establish City/SPU/Other Parties responsibilities for first costs and ongoing costs. Since the City has declined an interest in assuming any responsibility for lighting this county road roundabout, Scott County will be solely responsible for all costs present and future for the lighting system.

DISCUSSION

Under the terms of the agreement the Commission agrees to fund the cost of the casings for future trunk water main extensions and to pay a prorated portion of various project costs and fees. The estimated amount that the Commission will pay to Scott County is $56,032 pending actual bid prices determining the final amount. This item is listed in the 2025 Capital Projects under Trunk Water Mains by SPU which has a budget amount of $75,000.

Under the terms of the agreement SPU will assist Scott County by installing the lighting control cabinet, wiring, lighting poles and lighting fixtures and Scott County will install the lighting conduit and reimburse SPU for all costs of labor, equipment, and material for its efforts. SPU will bill Scott County for ongoing energy and any maintenance activities in the future.

Finally, the construction of the roundabout will affect multiple SPU power lines, including overhead circuits SS-32, SS-34 and underground circuits SS-31, SS-33, SS-81 and SS-82. City staff have indicated the City desires the affected existing overhead lines to be placed underground, and SPU staff are preparing plans to do so. We will have costs estimates to submit at a future date to determine how much of the relocation cost will be from the Relocation Underground Fund. Scott County will install SPU supplied conduits as necessary, and SPU will reimburse the county at their road contractor's bid price cost estimated to be $21,800 for 1,000 feet of 3 inch, to facilitate the relocation of all the circuits affected and undergrounding of the overhead power lines.

RECOMMENDED ACTION

Staff recommends the Commission approve the CP No. 78-07 Construction Cooperative Agreement and authorize its execution by the designated parties.

COOPERATIVE AGREEMENT

THIS AGREEMENT, by and between the **County of Scott**, a body politic and corporate under the laws of the State of Minnesota, hereinafter referred to as the **"County"** and the Shakopee Public Utilities, a municipal utilities commission with offices at 255 Sarazin Street, Shakopee, Minnesota, hereinafter referred to as the **"SPU".**

RECITALS:

A. County plans to improve the County Highway (CH) 78 and CH 79 intersection by constructing a roundabout to address safety and operational deficiencies. The Project includes grading, paving, curb and gutter, storm sewer, trails, and other related improvements (hereinafter referred to as the "Project").

B. The above-described Project lies within the corporate limits of the City of Shakopee.

C. Separate and apart from the Project, SPU plans to install two twenty-two (22) inch steel watermain casings and non-metallic conduit in the Project area across CH 78 that will allow for future expansion of the watermain system. The total length of the casing is approximately 240 lineal feet and the total length of the non metallic conduit is approximately 1,000 lineal feet (hereinafter referred to as "SPU's Work").

D. Parties desire to enter into an Agreement for the mutual benefit of each Party to benefit from the economies of scale by including the SPU Work plans in the Project.

E. The County Engineer has prepared an estimate of quantities and unit prices of material and labor for the Project and an estimate of the total cost for SPU's Work in the sum of seventy-seven thousand eight hundred thirty-two dollars and no cents ($77,832.00). A copy of said estimate (marked "Exhibit A") is attached hereto and made a part hereof.

F. SPU plans to perform the installation of lighting standards within the Project using its own local forces.

G. SPU has requested, and County agrees, to reimburse SPU for the actual reasonable cost it incurs in the lighting standard installation.

H. The Project will be constructed in 2025 in accordance with the 2024 County Project ("CP") 78-07 listed in the 2025-2034 Transportation Improvement Program.

I. It is contemplated that the Project shall be carried out by the parties under the provisions of Minn. Stat. §162.17, subd. 1 and Minn. Stat. §471.59.

NOW, THEREFORE, in consideration of the mutual undertakings and agreement contained within this agreement, the County and SPU hereby agrees as follows:

1. Incorporation

The recitals set out above are hereby incorporated into this Agreement as if fully restated herein.

2. Scope of Services

a. County agrees to provide preliminary and final design work and services to include SPU's Work within the project. The plan set for the Project will be designed and prepared in accordance with SPU requirements for its portion of the work as requested by SPU, including:
   1) All watermain casing and related work being added with the Project per the construction plans. This includes final plan drawings, watermain casing, and associated system detail sheets, and tables as directed by SPU staff.
   2) Special provision for the watermain casing work being included in the construction plans and specifications as directed by SPU staff. These provisions shall include, but not be limited to, providing per unit bidding and changes in design quantities.

b. County shall advertise for bids for the work and construction of the aforesaid Project, receive and open bids pursuant to said advertisement and enter into a contract (Contract) with the successful bidder at the unit prices specified in the bid of such bidder, according to law in such case provided for counties. The Contract will include the plans and specifications prepared by the County or its agents, which plans and specifications are by this reference made a part hereof.

c. County shall have overall authority to administer the Contract and inspect the construction of the Contract work for the Project. County shall have ultimate authority in initiating and determining change orders, supplemental agreements, and final quantities.

d. SPU shall cooperate with the County Engineer and his staff at their request to the extent necessary but shall have no other responsibility for the supervision of the Contract work other than SPU's Work, which is included in the Project.

e. SPU agrees to provide construction inspection for all watermain, casing and related work including daily written and photo documentation of construction activities, collection of GPS data, and quantities completed as needed.

f. County will resolve any issues or conflicts with the construction contractor so that the installation meets the requirements of the specifications and drawings. County will provide SPU with written documentation of the resolution and all contract issues and conflicts within one (1) week of resolution.

g. SPU will construct the street lighting system and provide service per the SPU Underground Distribution Agreement (UDA) (marked "Exhibit B"). County agrees to reimburse SPU for one hundred percent (100%) of the actual reasonable costs of the work to install the street lighting system.

h. SPU shall supply the underground conduit and street lighting bases for Scott County's Contractor to install prior to SPU's installation of the street lighting.

i. Scott County shall maintain ownership of these lights. SPU shall perform maintenance responsibilities for County, as requested, and invoice County actual reasonable costs for the ongoing maintenance of the lights. Scott County shall apply for electric service and shall pay the monthly electric charges.

j. The County Engineer shall prepare monthly progress reports to SPU upon request.

3. Payment

a. It is specifically agreed that the estimate(s) mentioned in this agreement is only a preliminary estimate of the cost for the work on the Project and that the unit prices set forth in the Contract and the final quantities as measured by the County Engineer shall govern in computing the total final construction cost for apportioning the cost of the Project according to the provisions of this section.

b. Based upon the total final construction costs:
   1) SPU shall pay one hundred percent (100%) of the construction cost of the Contract work for SPU's Work.
   2) SPU shall pay for its design services as described here which includes all actual costs of planning, design, and preparation of plans and specifications, at an agreed upon sum of one thousand five hundred thirty-two dollars and zero cents ($1,532.00).
   3) SPU further agrees to contribute to the costs designated as a percentage of Contract work for SPU's Work:
      a) Mobilization and traffic control by paying four percent (4%), and
      b) Construction engineering and inspection at two percent (2%), and
      c) Contract administration at three percent (3%).

c. SPU shall, based on the Contract price, deposit with the Scott County Treasurer ninety five percent (95%) of the construction and engineering costs attributable to SPU's Work as partial payment within thirty (30) days after award of Contract or execution of this Agreement, whichever is later. The final amount of SPU's share of construction and engineering costs of the Project shall be determined upon completion of the Project and any amount remaining due to County shall be reflected in County's final, itemized statement of the Project costs submitted to SPU. In the event the initial payment exceeds SPU's share of these final costs, such overpayment shall be returned to SPU by County.

4. Ongoing Maintenance Items

Future Modifications. County reserves the right not to issue any permits for a period of five (5) years after completion of the Project for any service cuts in the roadway surfacing of the County Highway included in the Project for any installation of underground utilities which would be considered as new work; service cuts shall be allowed for the maintenance and repair of any existing underground utilities.

5. Effective Date of Contract

This agreement shall be effective upon approval by the Scott County Board of Commissioners and the Commissioners of the Shakopee Public Utilities Commission and upon execution by all parties to the agreement.

6. Term of Contract

This Agreement will terminate upon County's project completion and close out, provided that the Ongoing Maintenance section shall survive the agreement termination. Either Party may terminate the agreement upon ninety (90) days' notice to the other Party. Upon termination, County shall be entitled to payment for any materials purchased and/or

work reasonably completed and the value of any work not completed shall be refunded to SPU.

7. Authorized Agents

The Parties shall appoint an authorized agent for the purpose of administration of this agreement. SPU is notified of the authorized agent of Scott County as follows:

Nathan Thomas, or his successor
Highway Division Program Manager
Scott County Transportation Services
200 Fourth Avenue West
Shakopee, MN 55379
(952) 496-8479
nthomas@co.scott.mn.us

The County is notified the authorized agent for SPU is as follows:

Joseph Adams, or his successor
Planning and Engineering Director
Shakopee Public Utilities Commission
255 Sarazin Street
Shakopee, MN 55379
(952) 233-1501
jadams@shakopeeutilities.com

8. County and State Audit

Pursuant to Minn. Stat. Sec. 16C.05, subd. 5, the books, records, documents, and accounting procedures and practices of the County and SPU pursuant to this Agreement shall be subject to examination by the County, SPU and the State Auditor. Complete and accurate records of the work performed pursuant to this Agreement shall be kept by the County and SPU for a minimum of six (6) years following termination of this Agreement for such auditing purposes. The retention period shall be automatically extended during the course of any administrative or judicial action involving the County or the SPU regarding matters to which the records are relevant. The retention period shall be automatically extended until the administrative or judicial action is finally completed or until the authorized agent of the County or SPU notifies each party in writing that the records no longer need to be kept.

9. Liability and Indemnity

a. Neither party, its officers, agents or employees, either in their individual or official capacity, shall be responsible or liable in any manner to the other party for any claim, demand, action or cause of action of any kind or character arising out of, allegedly arising out of or by reason of the performance, negligent performance or nonperformance of the described maintenance, restoration, repair or replacement work by the other party, or arising out of the negligence of any contractor under any contract let by the other party for the performance of said work; and each party agrees to defend, save, keep and hold harmless the other, its officers, agents and

employees harmless from all claims, demands, actions or causes of action arising out of negligent performance by its officers, agents or employees.

b. It is further agreed that neither party to this Agreement shall be responsible or liable to the other or to any other person or entity for any claims, damages, actions, or causes of actions of any kind or character arising out of, allegedly arising out of or by reason of the performance, negligent performance or nonperformance of any work or part hereof by the other as provided herein; and each party further agrees to defend at its sole cost and expense and indemnify the other party for any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein. Each party's obligation to indemnify the other under this clause shall be limited in accordance with the statutory tort liability limitation as set forth in Minnesota Statutes Chapter 466 to limit each party's total liability for all claims arising from a single occurrence, include the other party's claim for indemnification, to the limits prescribed under §466.04. It is further understood and agreed that the Parties' total liability shall be limited by Minn. Stat. §471.59, Subdivision 1a. as a single governmental unit.

c. It is further agreed that any and all employees of each party and all other persons engaged by a party in the performance of any work or services required or provided herein to be performed by the party shall not be considered employees, agents or independent contractors of the other party, and that any and all claims that may or might arise under the Workers' Compensation Act or the Unemployment Compensation Act of the State of Minnesota on behalf of said employees while so engaged and any and all claims made by any third parties as a consequence of any act or omission on the part of said employees while so engaged shall be the sole responsibility of the employing party and shall not be the obligation or responsibility of the other party.

10. Insurance

Since each party is a political subdivision of the State of Minnesota, each party shall maintain a program of self-insurance or insurance covering general liability and automobile liability coverage protecting itself, its officers, agents, employees and duly authorized volunteers against any usual and customary public liability claims to the limits prescribed under Minn. Stat. Sec. 466.04 and Workers' Compensation in accordance with the Minnesota statutory requirements. Said coverage shall be kept in effect during the entire term of this Agreement.

11. Data Practices

All records kept by SPU and County with respect to the Project shall be subject to examination by the representatives of each party. All data collected, created, received, maintained or disseminated for any purpose by the activities of the County or SPU pursuant to this Agreement shall be governed by Minnesota Statutes Chapter 13, as amended, and the Minnesota Rules implementing such Act now in force or hereafter adopted.

12. Equal Employment and Americans with Disabilities

In connection with the work under this agreement, SPU agrees to comply with the

applicable provisions of state and federal equal employment opportunity and nondiscrimination statutes and regulations. In addition, upon entering into this agreement, SPU certifies that it has been made fully aware of Scott County's Equal Employment Opportunity and Americans With Disabilities Act Policies, that it supports these policies and that it will conduct its own employment practices in accordance therewith. Failure on the part of SPU to conduct its own employment practices in accordance with County Policy may result in the withholding of all or part of regular payments by the County due under this agreement unless or until SPU complies with the County policy, and/or suspension or termination of this agreement.

13. Controlling Law

The laws of the State of Minnesota shall govern all questions and interpretations concerning the validity and construction of this Agreement and the legal relations between the parties and performance under it. The appropriate venue and jurisdiction for any litigation hereunder shall be those courts located with the County of Scott, State of Minnesota. Litigation, however, in the federal courts involving the parties shall be in the appropriate federal court within the State of Minnesota.

14. Changes/Amendments

The parties agree that no change or modification to this agreement, or any attachments hereto, shall have any force or effect unless the change is reduced to writing, dated, and made part of this agreement. The execution of the change shall be authorized and signed in the same manner as this agreement, or according to other written policies of the original parties.

15. Severability

In the event any provision of this Agreement shall be held invalid and unenforceable, the remaining provisions shall be valid and binding upon the parties unless such invalidity or non-enforceability would cause the Agreement to fail its purpose. One or more waivers by either party of any provision, term, condition or covenant shall not be construed by the other party as a waiver of a subsequent breach of the same by the other party.

16. Entire Agreement

It is understood and agreed that the entire agreement of the parties is contained herein and that this agreement supersedes all oral agreements and negotiations between the parties relating to the subject matter hereof as well as any previous agreements presently in effect between the County and SPU relating to the subject matter hereof.

IN TESTIMONY WHEREOF, the parties hereto have caused this Agreement to be executed intending to be bound thereby.

SHAKOPEE PUBLIC UTILITIES COMMISSION

By_____
Justin Krieg, Commission President

And_____
Greg Dent, General Manager

Date_____

Date_____

COUNTY OF SCOTT

By_____
Lezlie Vermillion, County Administrator

Date_____

Upon proper execution, this agreement will be legally valid and binding.

RECOMMEND FOR APPROVAL:

By_____
Jeanne Andersen, Assistant County Attorney

By_____
Anthony J. Winiecki, County Engineer

Date_____

Date_____

EXHIBIT A

Division of Cost Summary

Construction Costs and Design Services to be 100% Shakopee Public Utilities

Preliminary Estimated Costs

CH 78/79 Roundabout (CP 78-07)

Construction Costs				
Item	Qty	Unit	Unit Price	Amount
Setup Boring Pit	4	EA	$ 5,000.00	$ 20,000.00
22" Steel Casing Pipe	200	LF	$ 150.00	$ 30,000.00
3" Non-Metallic Conduit	1000	LF	$ 20.00	$ 20,000.00
			Total Estimated Construction Costs	**$ 70,000.00**
Contract Work Percentage Costs				
Mobilization and Traffic Control - Four Percent (4%)				$ 2,800.00
Construction Engineering and Inspection - Two Percent (2%)				$ 1,400.00
Contract Administration - Three Percent (3%)				$ 2,100.00
			Total Estimated Construction Costs	**$ 6,300.00**
Design Services Costs				
Develop Watermain Casing Plans & Specifications to be Included into the Project ($1,532)				
				$ 1,532.00
ESTIMATED GRAND TOTAL				**$ 77,832.00**

EXHIBIT B

UNDERGROUND DISTRIBUTION AGREEMENT

AGREEMENT: Agreement between Shakopee Public Utilities, a municipal utility commission organized under the laws of the State of Minnesota, hereinafter called "Shakopee Public Utilities" and Scott County, a body politic and corporate under the laws of the State of Minnesota, hereinafter called "County".

RECITALS:

A. Pursuant to Minn. Stat. Sec. 373.01, subd. 1(a)(5), the County is a body politic and corporate and may make all contracts and do all other acts in relation to the property and concerns of the County necessary to the exercise of its corporate powers.

B. Shakopee Public Utilities has been requested to provide an underground electric distribution system to serve certain properties hereinafter called:

The County Highway (CH)78 and CH79 Roundabout, situated in the City of Shakopee and Jackson Township, County of Scott, State of Minnesota.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter contained to be kept and performed, the parties hereto agree as follows:

I. General:

1. Subject to all the terms and conditions hereinafter contained Shakopee Public Utilities shall install, own, operate, and maintain all facilities necessary to provide an underground electric distribution system to serve the above-described real estate. The input end of the underground service connection shall be deemed the terminus of the customer's wiring.

2. Shakopee Public Utilities shall endeavor to coordinate the installation of said underground system with the activities of the County in the area to be served: however, Shakopee Public Utilities shall not be required to install said underground system in segments smaller or larger than considered economically feasible. Shakopee Public Utilities shall not be responsible for any damages resulting from delay in completing the installation of the underground system contemplated herein, whether such delay is due to casualty, labor dispute, weather or other similar or dissimilar cause beyond the reasonable control of Shakopee Public Utilities.

3. Prior to the installation of said system, County shall at no cost or expense to Shakopee Public Utilities, grant such easement rights as Shakopee Public Utilities may require for the installation, operation, and maintenance of said system.

4. Prior to the time the installation of any segment of said underground system is commenced by Shakopee Public Utilities, County shall establish grades in the easement strip which shall not be above, or more than six (6) inches below, the finished grade. Before trenching operations are started by Shakopee Public Utilities:

(a) The route of said underground system shall be accessible to Shakopee Public Utilities equipment, and

(b) All obstructions shall be removed from such route by County at no cost or expense to Shakopee Public Utilities, and

(c) Marker stakes at lot corners shall be placed by County at intervals designated by Shakopee Public Utilities, and

(d) No street lights shall be installed until streets are to grade and staked, and curb work is complete.

5. Shakopee Public Utilities will make final connections of its facilities to the terminus (as defined in Paragraph 1 hereof) of County's wiring.

6. In consideration of Shakopee Public Utilities installing and owning the underground system as described in Paragraph 1, County agrees to pay to Shakopee Public Utilities, on or before the completion of said installation, at such time as the actual cost can be determined, in cash, a sum equal to one hundred percent (100%) of the total materials cost, plus any and all permit fees associated with said installation of utilities within public right of way and easements.

(a) Should completion of said installation occur following the approval and adoption of the new calendar year utility construction rate(s) and/or fee(s) by Shakopee Public Utilities Commission, County shall be charged the new rate(s) and/or fee(s) as adopted for the new calendar year, regardless of the rate(s) and/or fee(s) in effect upon execution of this Agreement.

(b) Prior to the Shakopee Public Utilities entering into a contract for the installation of such underground distribution system, County will deposit cash with Shakopee Public Utilities in the amount of one hundred percent (100%) of the total materials cost, as estimated, to assure performance.

(c) At such time as the final cost is determined, adjustments shall be made so that the cost to County will be one hundred percent (100%) of the total materials cost. Hence upon receipt of a bill documenting final costs, County shall pay Shakopee Public Utilities such amount by which one hundred percent (100%) of actual materials cost exceeds County's deposit(s), plus such additional amount to cover any unpaid costs described in Section I, Paragraphs 7, 8, 9 and 10 below. Should the amount of the bill documenting final costs for the total of 100% of actual material costs plus any costs described in Section I, Paragraphs 7, 8, 9 and 10 below be less than the amount that County deposited, Shakopee Public Utilities will refund to County the deposited funds in excess of the bill final costs amount. No interest will be paid on any such deposit(s).

7. County shall be subject to additional winter construction charges herein defined by Shakopee Public Utilities as: an additional cost of up to six dollars and no cents ($6.00) per trench foot for underground facilities installed between October 15 and April 15.

   (a) County shall deposit with Shakopee Public Utilities an amount to cover such winter construction charge based on the estimated frost that exists for the installation site. Final determination of whether sufficient frost exists, and to what extent it affects the cost of installation up to the amount defined in Section I, Paragraph 8, will be made by the Shakopee Public Utilities Electric Superintendent.

8. County shall pay all additional installation costs incurred by Shakopee Public Utilities because of, but not limited to, the following reasons: (a) delays caused by County, (b) soil conditions that impair the installation of underground facilities, such as rock formations, (c) paving of streets, alleys, parking lots, or other areas prior to the installation of the underground facilities, or (d) unique characteristics, as defined by Shakopee Public Utilities, that cause the installation costs to exceed an amount justified by the expected load.

9. County shall pay the cost of any subsequent relocations or rearrangement of any portion of Shakopee Public Utilities underground facilities made to (a) accommodate the County needs or (b) because County alters the final grade or because the grade was found to be inaccurate or incorrect.

10. This agreement shall be in lieu of any other provision of Shakopee Public Utilities which may pertain to the payment of excess costs associated with the installation of underground service.

11. County shall not assign this agreement without written consent of the Shakopee Public Utilities Commission.

12. All wiring beyond the service connection shall be the responsibility of the County.

13. County shall, per the terms of the Underground Distribution Agreement and based on SPU's estimation on reasonable costs of the street lighting system, deposit with SPU one hundred forty-two thousand three hundred dollars and zero cents ($142,300.00) to assure performance.

IN TESTIMONY WHEREOF, the parties hereto have caused this Agreement to be executed intending to be bound thereby.

SHAKOPEE PUBLIC UTILITIES COMMISSION

By_____ And_____
Justin Krieg, Commission President Greg Dent, General Manager

Date_____ Date_____

COUNTY OF SCOTT

By_____
Lezlie Vermillion, County Administrator

Date_____

Upon proper execution, this agreement will be legally valid and binding.

RECOMMEND FOR APPROVAL:

By_____ By_____
Jeanne Andersen, Assistant County Attorney Anthony J. Winiecki, County Engineer

Date_____ Date_____

THIS INSTRUMENT WAS DRAFTED BY:
Shakopee Public Utilities
255 Sarazin Street, P.O. BOX 470
Shakopee, MN 55379
(952) 445-1988

6b

Shakopee Public Utilities

PO Box 470 • 255 Sarazin Street
Shakopee, Minnesota 55379
Main 952.445-1988 • Fax 952.445-7767
www.shakopeeutilities.com

TO: Greg Drent, General Manager

FROM: Lon R. Schemel, Water Superintendent

SUBJECT: Combined Minnesota Department of Health/SPU PFAS Results for Environmental Protection Agency method 533

DATE: January 21, 2025

None of SPU's wells appear on the Environmental Protection Agency's hazard index. Well 7 does have enough detects for PFOS to be calculated on the Quarterly Running Annual Average but are still below 4.0. On the Minnesota Department of Health's calculations, none of SPU's wells are near the Health Risk Index of 1.

Please see the attached email and results calculations from Brian Rivers, Compliance Engineer for the Minnesota Department of Health for details through the 4th quarter.

Schemel, Lon

From: Rivers, Brian (He/Him/His) (MDH) <Brian.Rivers@state.mn.us>
Sent: Friday, January 3, 2025 6:05 PM
To: Schemel, Lon; Myers, Tony
Cc: Karp, Andrew (He/Him/His) (MDH)
Subject: Quarter 4 PFAS results; Shakopee
Attachments: Shakopee PFAS Summary.xlsx; 24K0179_1 MDH_EnvHealth 11 26 24 1701.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good evening,

Attached above is:

- a laboratory report detailing results of Per- and Polyfluoroalkyl Substances (PFAS) samples taken during Quarter 4 (October 1st – December 31st) of 2024.
- an updated summary spreadsheet that tracks the historical sample results at your public water system (I've included Eurofins sampling results).

If you notice any discrepancy or would like copies of previous lab reports, please feel free to reply to this email.

How to read the spreadsheet:

- *I direct your attention to the locations where we performed our last round of sampling:*
    - *COMBINED DISCHARGE 1 (Wells 6, 7 & 10)*
    - *Well #2 Entry Point*
    - *Well #4 Entry Point*
    - *Well #5 Entry Point*
    - *Well #8 Entry Point*
    - *Well #20 Entry Point*
    - *Well #21 Entry Point*
- *The shading of the cells is explained on the righthand side of the spreadsheet; all dark red cells indicate an exceedance of a federal Maximum Contaminant Level (MCL), the light pink cells indicate results that are between half the MCL and the MCL. For Minnesota's Health Risk Index, the level is represented by shades of green and orange.*

Please keep in mind that the summary spreadsheet is meant to be a tool that MDH uses and provides to the water system for tracking and visualizing a history of PFAS results. Data is entered manually into this spreadsheet and potential for error does exist. Thus, laboratory reports should be referenced and regarded as the authoritative source of PFAS results at your public water system.

Written below is general information about PFAS, including details about the newly published EPA National Primary Drinking Water Regulation. Links to PFAS resources are detailed in blue.

Thank you and have a great day!

Brian Rivers, EIT

What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are chemicals produced in the United States since the 1940s. They are used for applications ranging from firefighting to stain and waterproofing of consumer products, such as carpet, clothing, and food packaging. Some PFAS are no longer made due to environmental and human health concerns, but they persist in the environment and may contaminate surface waters and groundwaters near sites where they were made or used.

What We Know about Health Effects

Current peer-reviewed scientific studies have shown that exposure to certain levels of PFAS may lead to:

- Reproductive effects such as decreased fertility or increased high blood pressure in pregnant women.
- Developmental effects or delays in children, including low birth weight, accelerated puberty, bone variations, or behavioral changes.
- Increased risk of some cancers, including prostate, kidney, and testicular cancers.
- Reduced ability of the body's immune system to fight infections, including reduced vaccine response.
- Interference with the body's natural hormones.
- Increased cholesterol levels and/or risk of obesity.
- More information on potential health effects of PFAS can be found here.

Definitions

- Health Based Value (HBV)
  - Typically set by state primacy agency (MDH)
  - HBV is a level of a contaminant in drinking water that is considered safe to consume over a lifetime without any adverse health effects.
  - HBVs are used by health agencies to provide guidance on the safe level of a contaminant in drinking water and are typically more conservative than regulatory standards or guidelines. This is because HBVs are designed to protect even the most sensitive individuals, such as children and pregnant women, and consider potential cumulative effects of exposure to multiple contaminants.
  - HBV are non-enforceable standards.

- Health Risk Index (HRI)
  - Typically set by state primacy agency (MDH)
  - Combinations of chemicals may cause health effects that are different from the health effects of each individual chemical. MDH evaluates the health effects of groups of chemicals such as PFAs using the following process:
    - For each chemical in the group, MDH calculates a ratio of the groundwater concentration of the chemical to the HBV appropriate to the length of exposure for that chemical. MDH adds the ratios for all the chemicals in the group to create a number called a Health Risk Index (HRI).
  - Currently, an HRI over one indicates a possible health risk from PFAs.

- Maximum Contaminant Level (MCL)
  - Set by federal regulatory agency (EPA)
  - An MCL is a regulatory standard for the maximum amount of a particular contaminant that is allowed in public drinking water systems under the Safe Drinking Water Act (SDWA).
  - MCL are enforceable standards.

Units

- Part Per Million (ppm) = milligrams per liter (mg/l)
- Part Per Billion (ppb) = micrograms per liter (µg/l)
- Part Per Trillion (ppt) = nanograms per liter (ng/l)

Conversions

- 1 ppm = 1,000 ppb = 1,000,000 ppt
- 1 ppt = 0.001 ppb = 0.000001 ppm

Current Health Standards/ Future Regulations

- **State Level:** MDH currently has an HRI of 1 to weigh the cumulative risk of multiple PFAS compounds.
    - In February of 2024, MDH published new HBV's for PFOS & PFOA (in red) and these values could change the HRI calculation when/ if implementation decisions are finalized. For now, the old HBV's listed in black below are still being applied to compliance calculations.
    - MDH's current HRI is calculated by the following formula:
        - HRI = $(cPFOS / PFOS\_HBV) + (cPFOA / PFOA\_HBV) + (cPFBS / PFBS\_HBV) + (cPFBA / PFBA\_HBV) + (cPFHxS / PFHxS\_HBV) + (cPFHxA / PFHxA\_HBV)$
            - where cN = the concentration of N chemical that has been detected in groundwater.
            - The health-based guidance values (HBV) used for these calculations are:
            - PFOS HBV: 0.015 ug/L = 15 ppt; new value: 2.3 ppt
            - PFOA HBV: 0.035 ug/L = 35 ppt; new value: 0.0079 ppt
            - PFBS HBV: 0.1 ug/L = 100 ppt
            - PFBA HBV: 7 ug/L = 7000 ppt
            - PFHxS HBV: 0.047 ug/L = 47 ppt
            - PFHxA HBV: 0.2 ug/L = 200 ppt
    - More Information on MDH's PFAS HRI can be found here.
- **Federal Level:** On April 26, 2024, EPA published a new National Primary Drinking Water Regulation (NPDWR), outlining six new MCL's for PFAS:

Compound	Final MCL (enforceable levels)
PFOA	4.0 parts per trillion (ppt) (also expressed as ng/L)
PFOS	4.0 ppt
PFHxS	10 ppt
PFNA	10 ppt
HFPO-DA (Commonly known as GenX Chemicals)	10 ppt

Compound	Final MCL (enforceable levels)
Hazard Index Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless)

The PFAS NPDWR was promulgated (became effective) on June 25th, 2024. Public water systems are given until April 26th, 2027, to satisfy initial monitoring requirements and report results to the state. PWS must meet the new MCL compliance requirements by April 26th, 2029. More information on the PFAS National Primary Drinking Water Regulation can be found here: Per- and Polyfluoroalkyl Substances (PFAS) | US EPA

- The Hazard Index (HI) of 1 weighs the cumulative risk of multiple PFAS compounds. The HI is calculated by the following formula, comparing the measured concentration of the compound in the numerator of each term to the health-based water concentration (HBWC):

$$\text{Hazard Index (1 unitless)} = \left(\frac{[\text{HFPO} - \text{DA}_{\text{ppt}}]}{[10\ \text{ppt}]}\right) + \left(\frac{[\text{PFBS}_{\text{ppt}}]}{[2000\ \text{ppt}]}\right) + \left(\frac{[\text{PFNA}_{\text{ppt}}]}{[10\ \text{ppt}]}\right) + \left(\frac{[\text{PFHxS}_{\text{ppt}}]}{[10\ \text{ppt}]}\right)$$

  - PFHxS HBWC: = 10 ppt
  - GenX HBWC: = 10 ppt
  - PFNA HBWC: = 10 ppt
  - PFBS HBWC: = 2000 ppt

More Information:

- Per- and Polyfluoroalkyl Substances (PFAS) - MN Dept. of Health (state.mn.us)
- Per- and Polyfluoroalkyl Substances (PFAS) | US EPA

Brian Rivers, EIT
Compliance Engineer | Community Public Water Supply

Minnesota Department of Health
Office: +1 651 201 4757| Mobile: +1 612 477 4311

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Tony Myers
Shakopee Public Utilities
255 Sarazin Street
Shakopee, Minnesota 55379

Generated 10/11/2024 4:19:04 AM

JOB DESCRIPTION

PFAS 533

JOB NUMBER

810-122436-1

Eurofins Eaton Analytical South Bend
110 S Hill Street
South Bend IN 46617

See page two for job notes and contact information

my EOL

Eurofins Eaton Analytical South Bend

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Authorization

Generated
10/11/2024 4:19:04 AM

Authorized for release by
Caleb Hunsberger, Senior Project Manager
Anthony.Hunsberger@et.eurofinsus.com
(574)233-4777

Table of Contents

Definitions/Glossary

Client: Shakopee Public Utilities
Project/Site: PFAS 533

Job ID: 810-122436-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 810-122436-1 — Eurofins Eaton Analytical South Bend

Job Narrative
810-122436-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/2/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C.

PFAS
Method 533: The pH of the following samples were adjusted to pH 7.5 in the laboratory: Well 5 (810-122436-2), Well 6 (810-122436-3), Well 7 (810-122436-4), Well 2 (810-122436-5), Well 20 (810-122436-6), Well 21 (810-122436-7) and Well 15 (810-122436-8)

Method 533: The pH of the following samples were adjusted to pH 7.5 in the laboratory: Well 4 (810-122436-1) and (810-122436-A-1 MS)

Method 533: The pH of the following sample was adjusted to pH 7.5 in the laboratory: Well 4 FRB (810-122436-9)

Method 533: The pH of the following samples were adjusted to pH 7.5 in the laboratory: Well 5 FRB (810-122436-10), Well 6 FRB (810-122436-11), Well 7 FRB (810-122436-12), Well 2 FRB (810-122436-13), Well 20 FRB (810-122436-14), Well 21 FRB (810-122436-15) and Well 15 FRB (810-122436-16)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Shakopee Public Utilities
Project/Site: PFAS 533

Job ID: 810-122436-1

Client Sample ID: Well 4 — Lab Sample ID: 810-122436-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	12		1.9	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.9		1.9	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	10		1.9	ng/L	1		533	Total/NA

Client Sample ID: Well 5 — Lab Sample ID: 810-122436-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	31		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	8.7		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	32		2.0	ng/L	1		533	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.0		2.0	ng/L	1		533	Total/NA

Client Sample ID: Well 6 — Lab Sample ID: 810-122436-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	16		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	4.8		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	5.1		2.0	ng/L	1		533	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0	ng/L	1		533	Total/NA

Client Sample ID: Well 7 — Lab Sample ID: 810-122436-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	20		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	5.6		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	6.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	2.7		2.0	ng/L	1		533	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.2		2.0	ng/L	1		533	Total/NA

Client Sample ID: Well 2 — Lab Sample ID: 810-122436-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	16		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	3.2		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.7		2.0	ng/L	1		533	Total/NA

Client Sample ID: Well 20 — Lab Sample ID: 810-122436-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	12		1.9	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.1		1.9	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.1		1.9	ng/L	1		533	Total/NA

Client Sample ID: Well 21 — Lab Sample ID: 810-122436-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	19		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	12		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	11		2.0	ng/L	1		533	Total/NA
Perfluoroheptanoic acid (PFHpA)	4.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.6		2.0	ng/L	1		533	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Well 21 (Continued)

Lab Sample ID: 810-122436-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.5		2.0	ng/L	1		533	Total/NA

Client Sample ID: Well 15

Lab Sample ID: 810-122436-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	3.5		2.0	ng/L	1		533	Total/NA

Client Sample ID: Well 4 FRB

Lab Sample ID: 810-122436-9

No Detections.

Client Sample ID: Well 5 FRB

Lab Sample ID: 810-122436-10

No Detections.

Client Sample ID: Well 6 FRB

Lab Sample ID: 810-122436-11

No Detections.

Client Sample ID: Well 7 FRB

Lab Sample ID: 810-122436-12

No Detections.

Client Sample ID: Well 2 FRB

Lab Sample ID: 810-122436-13

No Detections.

Client Sample ID: Well 20 FRB

Lab Sample ID: 810-122436-14

No Detections.

Client Sample ID: Well 21 FRB

Lab Sample ID: 810-122436-15

No Detections.

Client Sample ID: Well 15 FRB

Lab Sample ID: 810-122436-16

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Shakopee Public Utilities
Project/Site: PFAS 533

Job ID: 810-122436-1

Client Sample ID: Well 4
Date Collected: 09/30/24 07:50
Date Received: 10/02/24 09:20

Lab Sample ID: 810-122436-1
Matrix: Drinking Water

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**12**		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoropentanoic acid (PFPeA)	**2.9**		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluorohexanoic acid (PFHxA)	**10**		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoroheptanoic acid (PFHpA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluorooctanoic acid (PFOA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluorononanoic acid (PFNA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluorodecanoic acid (PFDA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoroundecanoic acid (PFUnA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluorododecanoic acid (PFDoA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluorobutanesulfonic acid (PFBS)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoropentanesulfonic acid (PFPeS)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluorohexanesulfonic acid (PFHxS)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluorooctanesulfonic acid (PFOS)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoro(4-methoxybutanoic acid)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1
Perfluoro-3,6-dioxaheptanoic acid	<1.9		1.9	ng/L		10/03/24 09:34	10/05/24 14:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C5 PFPeA	*90*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C5 PFHxA	*89*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C4 PFHpA	*86*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C8 PFOA	*86*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C9 PFNA	*86*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C6 PFDA	*83*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C7 PFUnA	*85*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C2 PFDoA	*84*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C3 HFPO-DA	*84*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C3 PFBS	*93*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C8 PFOS	*89*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C2-4:2-FTS	*87*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C2-6:2-FTS	*90*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*
13C2-8:2-FTS	*93*		*50 - 200*	*10/03/24 09:34*	*10/05/24 14:54*	*1*

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Tony Myers
Shakopee Public Utilities
255 Sarazin Street
Shakopee, Minnesota 55379

Generated 10/21/2024 4:39:40 PM

JOB DESCRIPTION

PFAS 533

JOB NUMBER

810-123757-1

Eurofins Eaton Analytical South Bend
110 S Hill Street
South Bend IN 46617

See page two for job notes and contact information

my EOL

Eurofins Eaton Analytical South Bend

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Authorization

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Authorized for release by
Caleb Hunsberger, Senior Project Manager
Anthony.Hunsberger@et.eurofinsus.com
(574)233-4777

Table of Contents

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 810-123757-1

Eurofins Eaton Analytical South Bend

Job Narrative
810-123757-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/10/2024 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C.

PFAS
Method 533: The pH of the following samples were adjusted to pH 7.5 in the laboratory: Well 8 (810-123757-1), Well 9 (810-123757-2), Well 11 (810-123757-3) and Well 16 (810-123757-4)

Method 533: The pH of the following samples were adjusted to pH 7.5 in the laboratory: Well 17 (810-123757-5) and (810-123757-B-5 DU)

Method 533: The pH of the following samples were adjusted to pH 7.5 in the laboratory: Well 8 FTB (810-123757-6), Well 9 FTB (810-123757-7), Well 11 FTB (810-123757-8), Well 16 FTB (810-123757-9) and Well 17 FTB (810-123757-10)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Shakopee Public Utilities
Project/Site: PFAS 533

Job ID: 810-123757-1

Client Sample ID: Well 8 — Lab Sample ID: 810-123757-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	15		1.9	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	7.3		1.9	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	4.2		1.9	ng/L	1		533	Total/NA

Client Sample ID: Well 9 — Lab Sample ID: 810-123757-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	11		1.9	ng/L	1		533	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.9		1.9	ng/L	1		533	Total/NA

Client Sample ID: Well 11 — Lab Sample ID: 810-123757-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.7		1.9	ng/L	1		533	Total/NA

Client Sample ID: Well 16 — Lab Sample ID: 810-123757-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	12		1.9	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.7		1.9	ng/L	1		533	Total/NA

Client Sample ID: Well 17 — Lab Sample ID: 810-123757-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	12		1.9	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	3.7		1.9	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.9	ng/L	1		533	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.1		1.9	ng/L	1		533	Total/NA

Client Sample ID: Well 8 FTB — Lab Sample ID: 810-123757-6

No Detections.

Client Sample ID: Well 9 FTB — Lab Sample ID: 810-123757-7

No Detections.

Client Sample ID: Well 11 FTB — Lab Sample ID: 810-123757-8

No Detections.

Client Sample ID: Well 16 FTB — Lab Sample ID: 810-123757-9

No Detections.

Client Sample ID: Well 17 FTB — Lab Sample ID: 810-123757-10

No Detections.

This Detection Summary does not include radiochemical test results.

DEPARTMENT OF HEALTH

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

PWSID: 1700009
System Name: Shakopee
City: Shakopee

Program Code: HC

Type: X

Date Received: 11/04/24 14:37
Rep. Temp. (°C): 4.7

Collector Name: Andrew Karp
Collector ID: 8126

MDH Sample Number: 24K0179-01

Location ID: E01
Sampling Point: Well #2 Entry Point
Field Number: AK510

Collect Date: 11/04/24
Collect Time: 11:00
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

PFAS in Water 533

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
11Cl-PF3OUdS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
4:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
6:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
8:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
9Cl-PF3ONS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
ADONA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
HFPO-DA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
NEtFOSAA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
NFDHA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFBA	**19**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFBS	**2.4**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFDA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFDoA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFEESA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFHpA	**1.1**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	J
PFHpS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFHxA	**2.2**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFHxS	**2.1**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFMBA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFMPA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFNA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFOA	**1.4**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	J
PFOS	**2.5**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFPeA	**3.4**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFPeS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	
PFUnA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:27	ACA	EPA 533	

FINAL REPORT

Report ID: 11262024170133

Generated: 11/26/2024 5:01:32PM

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

PWSID: 1700009

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

MDH Sample Number: 24K0179-02

Location ID: E03
Sampling Point: Well #4 Entry Point
Field Number: AK511

Collect Date: 11/04/24
Collect Time: 10:10
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

PFAS in Water 533

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
11Cl-PF3OUdS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
4:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
6:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
8:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
9Cl-PF3ONS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
ADONA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
HFPO-DA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
NEtFOSAA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
NFDHA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFBA	**34**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFBS	**4.0**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFDA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFDoA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFEESA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFHpA	**1.5**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	J
PFHpS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFHxA	**26**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFHxS	**1.3**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	J
PFMBA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFMPA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFNA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFOA	**3.2**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFOS	**2.1**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFPeA	**8.1**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFPeS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	
PFUnA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:41	ACA	EPA 533	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

PWSID: 1700009

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

MDH Sample Number: 24K0179-03

Location ID: E04
Sampling Point: Well #5 Entry Point
Field Number: AK512

Collect Date: 11/04/24
Collect Time: 10:15
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

PFAS in Water 533

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
11Cl-PF3OUdS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
4:2FTS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
6:2FTS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
8:2FTS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
9Cl-PF3ONS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
ADONA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
HFPO-DA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
NEtFOSAA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
NFDHA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFBA	**34**	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFBS	**3.8**	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFDA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFDoA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFEESA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFHpA	**1.4**	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	J
PFHpS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFHxA	**29**	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFHxS	**1.2**	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	J
PFMBA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFMPA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFNA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFOA	**2.6**	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFOS	**1.9**	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFPeA	**9.0**	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFPeS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	
PFUnA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 04:54	ACA	EPA 533	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

PWSID: 1700009

MDH Sample Number: 24K0179-04

Location ID: E07
Sampling Point: Well #8 Entry Point
Field Number: AK513

Collect Date: 11/04/24
Collect Time: 10:55
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

PFAS in Water 533

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
11Cl-PF3OUdS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
4:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
6:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
8:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
9Cl-PF3ONS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
ADONA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
HFPO-DA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
NEtFOSAA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
NFDHA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFBA	**20**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFBS	**1.2**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	J
PFDA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFDoA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFEESA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFHpA	**2.0**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFHpS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFHxA	**5.6**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFHxS	**1.2**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	J
PFMBA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFMPA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFNA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFOA	**1.3**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	J
PFOS	**1.8**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFPeA	**9.8**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFPeS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	
PFUnA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:08	ACA	EPA 533	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

PWSID: 1700009

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

MDH Sample Number: 24K0179-05

Location ID: E17
Sampling Point: Well #20 Entry Point
Field Number: AK514

Collect Date: 11/04/24
Collect Time: 11:15
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

PFAS in Water 533

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
11Cl-PF3OUdS	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
4:2FTS	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
6:2FTS	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
8:2FTS	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
9Cl-PF3ONS	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
ADONA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
HFPO-DA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
NEtFOSAA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
NFDHA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFBA	**17**	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFBS	**2.3**	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFDA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFDoA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFEESA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFHpA	**1.6**	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	J
PFHpS	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFHxA	**3.5**	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFHxS	**0.58**	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	J
PFMBA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFMPA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFNA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFOA	**3.0**	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFOS	**0.68**	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	J
PFPeA	**2.4**	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFPeS	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	
PFUnA	<	1.6	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:21	ACA	EPA 533	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

PWSID: 1700009

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

MDH Sample Number: 24K0179-06

Location ID: E18
Sampling Point: Well #21 Entry Point
Field Number: AK515

Collect Date: 11/04/24
Collect Time: 11:10
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

PFAS in Water 533

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
11Cl-PF3OUdS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
4:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
6:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
8:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
9Cl-PF3ONS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
ADONA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
HFPO-DA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
NEtFOSAA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
NFDHA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFBA	**15**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFBS	**1.3**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	J
PFDA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFDoA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFEESA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFHpA	**1.0**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	J
PFHpS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFHxA	**2.9**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFHxS	**0.52**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	J
PFMBA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFMPA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFNA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFOA	**2.2**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFOS	**0.53**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	J
PFPeA	**2.9**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFPeS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	
PFUnA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 05:35	ACA	EPA 533	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

PWSID: 1700009

MDH Sample Number: 24K0179-07

Location ID: E19
Sampling Point: COMBINED DISCHARGE 1 (Wells 6,7 & 10)
Field Number: AK516

Collect Date: 11/04/24
Collect Time: 10:40
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

PFAS in Water 533

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
11Cl-PF3OUdS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
4:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
6:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
8:2FTS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
9Cl-PF3ONS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
ADONA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
HFPO-DA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
NEtFOSAA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
NFDHA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFBA	**15**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFBS	**2.3**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFDA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFDoA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFEESA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFHpA	**1.2**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	J
PFHpS	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFHxA	**4.6**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFHxS	**1.3**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	J
PFMBA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFMPA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFNA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFOA	**2.2**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFOS	**2.1**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFPeA	**4.1**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	
PFPeS	**0.59**	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	J
PFUnA	<	1.7	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:02	ACA	EPA 533	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

PWSID: 1700009

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

MDH Sample Number: 24K0179-08

Location ID: None
Sampling Point: Field Blank

Collect Date: 11/04/24
Collect Time: 10:10
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

PFAS in Water 533

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
11Cl-PF3OUdS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
4:2FTS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
6:2FTS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
8:2FTS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
9Cl-PF3ONS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
ADONA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
HFPO-DA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
NEtFOSAA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
NFDHA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFBA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFBS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFDA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFDoA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFEESA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFHpA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFHpS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFHxA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFHxS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFMBA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFMPA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFNA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFOA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFOS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFPeA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFPeS	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	
PFUnA	<	1.8	ng/L	B4K0758	11/15/24 06:49	11/16/24 06:16	ACA	EPA 533	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

PWSID: 1700009

Results were produced by Minnesota Department of Health, except where noted.

Batch B4K0758 - PFAS in Water by 533

Blank (B4K0758-BLK1) **Prepared: 11/15/24 06:49 Analyzed: 11/16/24 02:52**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
11Cl-PF3OUdS	<	1.6	ng/L							ACA	
4:2FTS	<	1.6	ng/L							ACA	
6:2FTS	<	1.6	ng/L							ACA	
8:2FTS	<	1.6	ng/L							ACA	
9Cl-PF3ONS	<	1.6	ng/L							ACA	
ADONA	<	1.6	ng/L							ACA	
HFPO-DA	<	1.6	ng/L							ACA	
NEtFOSAA	<	1.6	ng/L							ACA	
NFDHA	<	1.6	ng/L							ACA	
PFBA	<	1.6	ng/L							ACA	
PFBS	<	1.6	ng/L							ACA	
PFDA	<	1.6	ng/L							ACA	
PFDoA	<	1.6	ng/L							ACA	
PFEESA	<	1.6	ng/L							ACA	
PFHpA	<	1.6	ng/L							ACA	
PFHpS	<	1.6	ng/L							ACA	
PFHxA	<	1.6	ng/L							ACA	
PFHxS	<	1.6	ng/L							ACA	
PFMBA	<	1.6	ng/L							ACA	
PFMPA	<	1.6	ng/L							ACA	
PFNA	<	1.6	ng/L							ACA	
PFOA	<	1.6	ng/L							ACA	
PFOS	<	1.6	ng/L							ACA	
PFPeA	<	1.6	ng/L							ACA	
PFPeS	<	1.6	ng/L							ACA	
PFUnA	<	1.6	ng/L							ACA	

LCS (B4K0758-BS1) **Prepared: 11/15/24 06:49 Analyzed: 11/16/24 02:38**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
11Cl-PF3OUdS	33	1.6	ng/L	37.76		88	70-130			ACA	
4:2FTS	31	1.6	ng/L	37.52		83	70-130			ACA	
6:2FTS	33	1.6	ng/L	38.08		87	70-130			ACA	
8:2FTS	31	1.6	ng/L	38.4		81	70-130			ACA	
9Cl-PF3ONS	33	1.6	ng/L	37.36		89	70-130			ACA	
ADONA	30	1.6	ng/L	37.84		79	70-130			ACA	
HFPO-DA	33	1.6	ng/L	40		82	70-130			ACA	
NEtFOSAA	29	1.6	ng/L	40		72	70-130			ACA	

FINAL REPORT Report ID: 11262024170133 Generated: 11/26/2024 5:01:32PM

Authorized by:

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Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

Results were produced by Minnesota Department of Health, except where noted.

Batch B4K0758 - PFAS in Water by 533

LCS (B4K0758-BS1) **Prepared: 11/15/24 06:49 Analyzed: 11/16/24 02:38**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
NFDHA	28	1.6	ng/L	40		71	70-130			ACA	
PFBA	34	1.6	ng/L	40		85	70-130			ACA	
PFBS	31	1.6	ng/L	35.52		86	70-130			ACA	
PFDA	34	1.6	ng/L	40		84	70-130			ACA	
PFDoA	32	1.6	ng/L	40		79	70-130			ACA	
PFEESA	30	1.6	ng/L	35.68		83	70-130			ACA	
PFHpA	33	1.6	ng/L	40		82	70-130			ACA	
PFHpS	34	1.6	ng/L	38.16		89	70-130			ACA	
PFHxA	33	1.6	ng/L	40		82	70-130			ACA	
PFHxS	30	1.6	ng/L	36.48		83	70-130			ACA	
PFMBA	32	1.6	ng/L	40		79	70-130			ACA	
PFMPA	34	1.6	ng/L	40		85	70-130			ACA	
PFNA	34	1.6	ng/L	40		86	70-130			ACA	
PFOA	33	1.6	ng/L	40		83	70-130			ACA	
PFOS	33	1.6	ng/L	37.12		89	70-130			ACA	
PFPeA	33	1.6	ng/L	40		83	70-130			ACA	
PFPeS	30	1.6	ng/L	37.6		81	70-130			ACA	
PFUnA	33	1.6	ng/L	40		83	70-130			ACA	

Matrix Spike (B4K0758-MS1) Source: 24K0118-01 **Prepared: 11/15/24 06:49 Analyzed: 11/16/24 03:19**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
11Cl-PF3OUdS	15	1.7	ng/L	16.13	<	93	70-130			ACA	
4:2FTS	16	1.7	ng/L	16.03	<	100	70-130			ACA	
6:2FTS	16	1.7	ng/L	16.27	<	100	70-130			ACA	
8:2FTS	13	1.7	ng/L	16.41	<	78	70-130			ACA	
9Cl-PF3ONS	15	1.7	ng/L	15.96	<	94	70-130			ACA	
ADONA	14	1.7	ng/L	16.17	<	89	70-130			ACA	
HFPO-DA	15	1.7	ng/L	17.09	<	89	70-130			ACA	
NEtFOSAA	14	1.7	ng/L	17.09	<	81	70-130			ACA	
NFDHA	18	1.7	ng/L	17.09	<	106	70-130			ACA	
PFBA	16	1.7	ng/L	17.09	<	92	70-130			ACA	
PFBS	14	1.7	ng/L	15.17	<	89	70-130			ACA	
PFDA	15	1.7	ng/L	17.09	<	90	70-130			ACA	
PFDoA	14	1.7	ng/L	17.09	<	83	70-130			ACA	
PFEESA	13	1.7	ng/L	15.24	<	85	70-130			ACA	
PFHpA	16	1.7	ng/L	17.09	<	94	70-130			ACA	
PFHpS	14	1.7	ng/L	16.30	<	87	70-130			ACA	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

Final Report

Minnesota Department of Health
Public Health Laboratory
Environmental Laboratory Section
601 Robert St. N., P.O. Box 64899
St. Paul, MN 55164-0899
651-201-5300

PWSID: 1700009

Results were produced by Minnesota Department of Health, except where noted.

Batch B4K0758 - PFAS in Water by 533

Matrix Spike (B4K0758-MS1) Source: 24K0118-01 **Prepared: 11/15/24 06:49 Analyzed: 11/16/24 03:19**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
PFHxA	16	1.7	ng/L	17.09	<	94	70-130			ACA	
PFHxS	14	1.7	ng/L	15.59	<	90	70-130			ACA	
PFMBA	16	1.7	ng/L	17.09	<	93	70-130			ACA	
PFMPA	15	1.7	ng/L	17.09	<	90	70-130			ACA	
PFNA	15	1.7	ng/L	17.09	<	88	70-130			ACA	
PFOA	15	1.7	ng/L	17.09	<	85	70-130			ACA	
PFOS	14	1.7	ng/L	15.86	<	90	70-130			ACA	
PFPeA	16	1.7	ng/L	17.09	<	91	70-130			ACA	
PFPeS	14	1.7	ng/L	16.06	<	89	70-130			ACA	
PFUnA	15	1.7	ng/L	17.09	<	90	70-130			ACA	

Matrix Spike Dup (B4K0758-MSD1) Source: 24K0118-01 **Prepared: 11/15/24 06:49 Analyzed: 11/16/24 03:32**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
11Cl-PF3OUdS	15	1.7	ng/L	16.13	<	96	70-130	3	30	ACA	
4:2FTS	15	1.7	ng/L	16.03	<	91	70-130	9	30	ACA	
6:2FTS	16	1.7	ng/L	16.27	<	101	70-130	0.9	30	ACA	
8:2FTS	15	1.7	ng/L	16.41	<	91	70-130	16	30	ACA	
9Cl-PF3ONS	14	1.7	ng/L	15.96	<	90	70-130	4	30	ACA	
ADONA	14	1.7	ng/L	16.17	<	89	70-130	0.04	30	ACA	
HFPO-DA	16	1.7	ng/L	17.09	<	92	70-130	4	30	ACA	
NEtFOSAA	15	1.7	ng/L	17.09	<	85	70-130	5	30	ACA	
NFDHA	16	1.7	ng/L	17.09	<	92	70-130	15	30	ACA	
PFBA	15	1.7	ng/L	17.09	<	88	70-130	4	30	ACA	
PFBS	14	1.7	ng/L	15.17	<	93	70-130	4	30	ACA	
PFDA	15	1.7	ng/L	17.09	<	89	70-130	2	30	ACA	
PFDoA	15	1.7	ng/L	17.09	<	86	70-130	3	30	ACA	
PFEESA	14	1.7	ng/L	15.24	<	90	70-130	6	30	ACA	
PFHpA	16	1.7	ng/L	17.09	<	91	70-130	4	30	ACA	
PFHpS	15	1.7	ng/L	16.30	<	92	70-130	6	30	ACA	
PFHxA	16	1.7	ng/L	17.09	<	96	70-130	2	30	ACA	
PFHxS	14	1.7	ng/L	15.59	<	87	70-130	4	30	ACA	
PFMBA	16	1.7	ng/L	17.09	<	91	70-130	3	30	ACA	
PFMPA	15	1.7	ng/L	17.09	<	88	70-130	2	30	ACA	
PFNA	15	1.7	ng/L	17.09	<	88	70-130	0.5	30	ACA	
PFOA	15	1.7	ng/L	17.09	<	87	70-130	2	30	ACA	
PFOS	15	1.7	ng/L	15.86	<	96	70-130	6	30	ACA	
PFPeA	15	1.7	ng/L	17.09	<	90	70-130	2	30	ACA	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

Final Report

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Public Health Laboratory
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St. Paul, MN 55164-0899
651-201-5300

PWSID: 1700009

Results were produced by Minnesota Department of Health, except where noted.

Batch B4K0758 - PFAS in Water by 533

Matrix Spike Dup (B4K0758-MSD1) Source: 24K0118-01 **Prepared: 11/15/24 06:49 Analyzed: 11/16/24 03:32**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
PFPeS	15	1.7	ng/L	16.06	<	92	70-130	3	30	ACA	
PFUnA	15	1.7	ng/L	17.09	<	90	70-130	0.4	30	ACA	

Data Qualifiers and Definitions

J Analyte was present between the method detection limit and reporting limit and should be considered an estimated value.

Work Order Comments

Samples were received in proper condition.

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Gc	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
11/4/2024	2.1	2.2	2.3	15	0	4.6	0	0	0.3	0.2	0.0	0.0	0.0	0.0	0.0
7/15/2024	1.8	1.6	2	14	0	3.6	0	0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
5/14/2024	0	1.3	1.8	13	0	3.9	0	0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
1/17/2024	2.2	1.8	2.0	14.0	0.0	3.3	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
8/16/2023	1.8	0.0	0.0	12.0	0.0	2.6	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
5/24/2023	2.5	1.8	2.0	18.0	0.0	3.3	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0
1/10/2023	1.8	0.0	0.0	14.0	0.0	2.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
10/10/2022	1.8	0.0		13.0		1.9			0.1	0.2	0.0	0.0	0.0	0.0	#DIV/0!
9/8/2021	2.8	1.7	1.7	17.0		2.4			0.3	0.3	0.0	0.0	0.0	0.0	#DIV/0!

CID1

Wells 6-7-10

MN Health Based Values

HRI = Health Risk Index

QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0

HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level

50%-100% MCL

>100% MCL

QRAA = Quarterly Running Annual Average

PQL = Practical Quantification Level

If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)

0.50 < HI < 1.4

HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid

PFOA = Perfluorooctanoic Acid

PFBS = Perfluorobutane Sulfonic Acid

PFBA = Perfluorobutanoic acid

PFHxS = Perfluorohexane Sulfonic Acid

PFHxA = Perfluorohexanoic acid

HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid

PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)

Part per Trillion (ppt) = (ng/L)

1 ppm = 1,000 ppb = 1,000,000 ppt

1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (G	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
7/25/2022	0.0	0.0		3.1					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
9/8/2021	0.0	0.0		2.1					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!

CD2
Wells 12-13-14

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (r

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in pr

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
11/4/2024	2.5	1.4	2.4	19	2.1	2.2	0	0	0.3	0.2	0.0	0.0	0.0	0.0	0.0
9/30/2024	2.7		2.3	16		2			0.2	0.2	0.0	0.0	0.0	0.0	0.0
7/15/2024	1.9	0	0	11	0	0	0	0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
6/17/2024	2.0	0.0	2.2	13.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
5/14/2024	1.8	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
1/17/2024	2.6	0.0	2.4	16.0	0.0	2.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
8/16/2023	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
5/24/2023	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
1/10/2023	2.4	0.0	1.8	14.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
10/10/2022	2.9	1.3	2.7	18.0	1.4	2.3			0.3	0.2	0.0	0.0	0.0	0.0	0.0
8/17/2022	0.0	0.0		5.9					0.0	0.1	0.0	0.0	0.0	0.0	0.0
9/8/2021	1.6	0.8	1.5	11.0	0.9	1.9			0.2	0.2	0.0	0.0	0.0	0.0	0.0

Well 2

MN Health Based Values

HRI = Health Risk Index

0.50 < HRI < 1.0

HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt

PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level

50%-100% MCL

>100% MCL

QRAA = Quarterly Running Annual Average

PQL = Practical Quantification Level

If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)

0.50 < HI < 1.4

HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
11/4/2024	2.1	3.2	4	34	0	26	0	0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
9/30/2024				12		10			0.1	0.1	0.0	0.0	0.0	0.0	0.0
7/15/2024	0	0	0	15	0	13	0	0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
6/17/2024	0	0	0	14	0	12	0	0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
5/14/2024	0	1.5	2.8	24	0	21	0	0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
1/17/2024	0	1.9	3.3	29	0	19	0	0	0.2	0.3	0.0	0.0	0.0	0.0	0.0
8/16/2023	0	0	2.9	26	0	21	0	0	0.1	0.3	0.0	0.0	0.0	0.0	0.0
5/24/2023	1.9	2.6	4.3	38	0	30	0	0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
1/10/2023	2.2	2.8	3.4	36.0	0.0	17.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
10/10/2022	0.0	0.0	2.6	25.0	0.0	18.0			0.1	0.2	0.0	0.0	0.0	0.0	0.0
8/17/2022	0.0	0.0	2.5	23.0	0.0	19.0			0.1	0.2	0.0	0.0	0.0	0.0	0.0
9/8/2021	1.2	2.0	2.6	30.0	0.9	20.0			0.3	0.3	0.0	0.0	0.0	0.0	0.0

Well 4

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Gc	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
11/4/2024	1.9	2.6	3.8	34	0	29	0	0	0.4	0.3	0.0	0.0	0.0	0.0	0.0
9/30/2024			4	31		32			0.2	0.3	0.0	0.0	0.0	0.0	0.0
7/15/2024	0	1.7	4.1	37	0	37	0	0	0.3	0.3	0.0	0.0	0.0	0.0	0.0
6/17/2024	0	2.1	4.3	35	0	33	0	0	0.3	0.3	0.0	0.0	0.0	0.0	0.0
5/14/2024	0	2.1	4.6	37	0	33	0	0	0.3	0.3	0.0	0.0	0.0	0.0	0.0
1/17/2024	0	2.2	5.4	44	0	35	0	0	0.3	0.3	0.0	0.0	0.0	0.0	0.0
8/16/2023	0	2.2	4.7	38	0	34	0	0	0.3	0.4	0.0	0.0	0.0	0.0	0.0
5/24/2023	1.9	2.7	4.3	39	0	28	0	0	0.4	0.4	0.0	0.0	0.0	0.0	0.0
1/10/2023	2.3	2.6	3.6	37.0	0.0	18.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0
10/10/2022	1.4	2.4	5.1	42.0	1.1	39.0			0.4	0.4	0.0	0.0	0.0	0.0	0.0
8/17/2022	0.0	1.9	4.3	36.0	0.0	33.0			0.3	0.3	0.0	0.0	0.0	0.0	0.0
9/8/2021	1.8	2.7	3.1	36.0	1.2	21.0			0.4	0.4	0.0	0.0	0.0	0.0	0.0

Well 5

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
9/30/2024			2.8	16		5.1			0.1	0.0	0.0	0.0	0.0	0.0	0.0
6/17/2024	0	0	2.4	17	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/16/2023	0	0	0	14	0	2.6	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/24/2023			1.7	16		3.2			0.0	0.0	0.0	0.0	0.0	0.0	0.0
1/10/2023	0.0	0.0	1.8	16.0	0.0	2.7			0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/10/2022	0.0	0.0		15.0	0.0	2.1			0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/17/2022	0.0	0.0		14.0	0.0	1.9			0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well 6

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
9/30/2024	4.2	2.7	3	20		6			0.4	0.4	0.0	0.0	2.1	0.0	0.0
6/17/2024	3.6	2.7	2.9	21		5.2			0.4	0.4	0.0	0.0	2.1	0.0	0.0
8/16/2023	4.1	2.7	2.3	20	0	4.2	0	0	0.4	0.4	0.0	0.0	2.1	0.0	0.0
5/24/2023	3.6	2.3	2.2	20		3.6			0.3	0.4	0.0	0.0	1.1	0.0	0.0
1/10/2023	4.2	2.3	2.4	21.0	0.0	3.2			0.4	0.4	0.0	0.0	1.4	0.0	0.0
10/10/2022	3.7	1.9	2.1	19.0	0.0	3.0			0.3	0.3	0.0	0.0	0.0	0.0	0.0
8/17/2022	3.8	1.9	2.0	18.0	0.0	2.7			0.3	0.3	0.0	0.0	0.0	0.0	0.0

Well 7

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
11/4/2024	1.8	1.3	0	20	0	5.6	0	0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
9/30/2024				15		4.2			0.0	0.1	0.0	0.0	0.0	0.0	0.0
7/15/2024	1.8	1.6	0	20	0	5	0	0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
6/17/2024	0	0	0	18	0	4.7	0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
1/17/2024	2.6	0.0	2.0	20.0	1.9	3.5	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0
8/16/2023	2.4	0.0	0.0	16.0	0.0	3.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
5/24/2023	2.3	0.0	0.0	17.0	0.0	3.5	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
1/10/2023	0.0	0.0	0.0	19.0	0.0	5.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
10/10/2022	2.9	0.0	1.9	20.0	1.8	3.5			0.3	0.2	0.0	0.0	0.0	0.0	0.0
8/17/2022	2.2	0.0	0.0	15.0	0.0	2.6			0.2	0.2	0.0	0.0	0.0	0.0	0.0
9/8/2021	2.7	1.2	1.5	17.0	1.6	2.9			0.3	0.3	0.0	0.0	0.0	0.0	0.0

Well 8

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Gr	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
9/30/2024			1.9	11					0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/10/2022	0.0	0.0		7.1	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/17/2022	0.0	0.0		7.4	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/8/2021	0.0	0.0	0.9	10.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0

Well 9

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Gt	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
10/10/2022	0.0	0.0							0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	0.0							0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!

Well 10

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Gc	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
9/30/2024				6.7					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
10/10/2022	0.0	0.0		5.6					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	0.0		4.4					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
9/8/2021	0.0	0.0		5.4					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level

50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)

0.50 < HI < 1.4
HI > 1.4

ᵖA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
10/10/2022	0.0	0.0		2.0					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	0.0		1.8					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!

Well 12

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

MCL = Maximum Contaminant Level
50%-100% MCL
>100% MCL

QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
If result is < PQL, it is set to 0 in QRAA & HI calcs for MCLs

EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
PFOS	4.0	4.0
PFOA	4.0	4.0
PFHxS	10	3.0
HFPO-DA (GenX)	10	5.0
PFNA	10	4.0
PFBS	Use HI	3.0

HI = Hazard Index (MCL = 1)
0.50 < HI < 1.4
HI > 1.4

PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
		c = concentration in ppt

PFAS Compounds

PFOS = Perfluorooctane Sulfonic Acid
PFOA = Perfluorooctanoic Acid
PFBS = Perfluorobutane Sulfonic Acid
PFBA = Perfluorobutanoic acid
PFHxS = Perfluorohexane Sulfonic Acid
PFHxA = Perfluorohexanoic acid
HFPO-DA = GenX = Hexafluoropropylene Oxide Dimer Acid
PFNA = Perfluorononanoic acid

Conversions

Part per Billion (ppb) = (µg/L)
Part per Trillion (ppt) = (ng/L)
1 ppm = 1,000 ppb = 1,000,000 ppt
1 ppt = 0.001 ppb = 0.000001 ppm

Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
10/10/2022	0.0	0.0		2.6					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	0.0		2.4					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!

Well 13

MN Health Based Values

HRI = Health Risk Index
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0.50 < HRI < 1.0
HRI > 1.0

MDH Health-Based Guidance Values (HBVs) in ppt (

	2022 MDH HBVs	HRI Calculation:
PFOS	15	cPFOS/15
PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
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PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
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Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Gt	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
9/30/2024		3.5							0.1	0.0	0.0	0.0	0.0	0.0	#DIV/0!
10/10/2022	0.0	0.0		9.8					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	0.0		9.8					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
9/8/2021	0.0	0.0	1.2	9.4		1.1			0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!

Well 15

MN Health Based Values

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PFBS	100	cPFBS/100
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PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

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	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
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HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
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PFAS Compounds

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PFOA = Perfluorooctanoic Acid
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Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
9/30/2024				12					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
10/10/2022	0.0	0.0		10.0					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	0.0		11.0					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
9/8/2021	0.0	0.0	1.5	11.0					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!

Well 16

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

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MDH Health-Based Guidance Values (HBVs) in ppt (n

	2022 MDH HBVs	HRI Calculation:
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PFOA	35	cPFOA/35
PFBS	100	cPFBS/100
PFBA	7000	cPFBA/7000
PFHxS	47	cPFHxS/47
PFHxA	200	cPFHxA/200
		HRI = Sum of Above
		c = concentration in ppt

EPA MCLs

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QRAA = Quarterly Running Annual Average
PQL = Practical Quantification Level
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EPA MCLs in ppt (ng/L)

	2024 EPA MCL	PQL
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PFNA	10	4.0
PFBS	Use HI	3.0

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PA Health-Based Water Concentrations (HBWC) in p

	2024 EPA HBWC	HI Calculation
PFBS	2000	cPFBS/2000
PFHxS	10	cPFHxS/10
HFPO-DA (	10	cGenX/10
PFNA	10	cPFNA/10
		HI = Sum of Above
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Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Ge	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
9/30/2024			2.1	12		2.2			0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
10/10/2022	0.0	0.0	2.2	14.0		2.0			0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	0.0	2.7	15.0		2.0			0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
9/8/2021	0.0	0.0	1.6	11.0					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!

Well 17

MN Health Based Values

HRI = Health Risk Index
QRAA = Quarterly Running Annual Average

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HRI > 1.0

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PFHxS	47	cPFHxS/47
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		HRI = Sum of Above
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		HI = Sum of Above
		c = concentration in ppt

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Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Gr	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
11/4/2024	0	3	2.3	17	0	3.5	0	0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
9/30/2024				12		2.1			0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/15/2024	0	1.5	0	14	0	1.7	0	0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
6/17/2024	0	0	0	13	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/14/2024	0	0	0	12	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1/17/2024	0	0	0	14	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/16/2023	0	0	0	11	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/24/2023	0	2.1	0	15	0	2.7	0	0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
10/10/2022	0.0	0.0		12.0					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	0.0		10.0					0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!
9/8/2021	0.0	1.1	1.0	11.0		1.4			0.1	0.1	0.0	0.0	0.0	0.0	#DIV/0!

Well 20

MN Health Based Values

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Date	PFOS ppt	PFOA ppt	PFBS ppt	PFBA ppt	PFHxS ppt	PFHxA ppt	HFPO-DA (Gx	PFNA ppt	MDH HRI	HRI QRAA	EPA HI	HI QRAA	PFOS QRAA	PFOA QRAA	PFHxS QRAA
11/4/2024	0	2.2	0	15	0	2.9	0	0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
9/30/2024		3.6	2.5	19		11			0.2	0.1	0.0	0.0	0.0	0.0	0.0
7/15/2024	0	2.4	1.8	17	0	6.9	0	0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
6/17/2024	0	0	0	12	0	0	0	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
5/14/2024	0	2.2	1.9	17	0	6.9	0	0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
1/17/2024	0	2.6	2.3	21	0	11	0	0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
8/16/2023	0	0	0	11	0	0	0	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
5/24/2023	0	0	0	11	0	0	0	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
10/10/2022	0.0	2.5	2.5	20.0		12.0			0.2	0.1	0.0	0.0	0.0	0.0	#DIV/0!
8/17/2022	0.0	2.3	2.3	18.0		9.5			0.1	0.1	0.0	0.0	0.0	0.0	#DIV/0!
9/8/2021	0.0	1.7	1.5	14.0		4.3			0.1	0.1	0.0	0.0	0.0	0.0	#DIV/0!

Well 21

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Shakopee Public Utilities

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Shakopee, Minnesota 55379
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www.shakopeeutilities.com

SHAKOPEE PUBLIC UTILITIES
MEMORANDUM

TO: Greg Drent, General Manager
Joseph Adams, Engineering Director

FROM: Ryan Halverson, Water Engineering Supervisor

SUBJECT: Accept Bids and Award Contract for Tank 9

DATE: February 3, 2025

ISSUE

Shakopee Public Utilities staff has received bids for the elevated storage Tank 9 project. Staff seeks Commission approval to accept the bids and award the contract for Tank 9.

BACKGROUND

SPU has a project in the 5-year Capital Improvement Plan to construct a 0.5MG elevated storage Tank 9 in the 2-HES zone on the same site of Ground Storage Tank #7, which serves the 1-HES zone. SPU staff, along with engineering consultant Barr Engineering, has developed construction plans and specifications for the project.

An initial public bid opening was held September 30, 2024 and included a bid from Maguire Iron, Inc., in the amount of $4,548,000.00. SPU elected to reject all bids received under the first project bid.

SPU recently adopted the 2024 Comprehensive Water Plan, which shows a larger 16-inch trunk water main need from Tank 9, heading east and eventually connecting to the future water treatment plant in the NES-Zone. These increased pipe sizes were incorporated into the new tank bid package. This was estimated to increase the project scope by $110,000. Additionally, to take advantage of economies of scale, approximately $80,000 of work was added to the project, to replace pumps and add a pressure sustaining valve to the Valley Creek Booster Station.

In accordance with Minnesota Statute Section 471.347 Uniform Municipal Contracting Law, bids were solicited and opened on November, 21, 2024. Only one bid was received and opened

Shakopee Public Utilities

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during the public bid opening and Maquire Iron, Inc., from Sioux Falls, SD was the apparent low bidder in the amount of $4,663,000.00.

DISCUSSION

Since 2020, construction costs for infrastructure projects, including watermain and electric control components have seen significantly higher costs. Labor costs, steel and electrical control components are all subject to higher pricing and these industries still struggles with long lead times for procurement. The recent updated Barr Engineers' Estimate construction only cost for the project was $4,400,000. This estimated amount utilized the Contractor bid unit prices from the 2019 Tank 8 project and adjusted by 36% (2019 – 2024) construction inflation per the Mortenson construction cost index for projects located in the Minneapolis area.

Project Budget:	
Low Bid (Maquire Iron, Inc.)	$ 4,663,000
5% Construction Contingency	$ 230,000
City Building Permit Fee	$ 100,000
Construction Services Contract	$ 100,000
Engineering (SPU/Barr Engineering)	$ 390,000
Total Proposed Project Cost	$ 5,483,000

The 2025 CIP Budget for the Tank 9 project is $4,500,000. Staff intended to increase the 2025 CIP budget for the Tank 9 project to $5,400,000, based on the previously rejected bid and expanded scope, but the amount listed is only $4,500,000. The 2025 CIP does include a transmission watermain extension project parallel to Wood Duck Trail, with a budget amount of $1,200,000. The proposed tank project includes a portion of the transmission watermain.

Staff will be working with our consultants to design the remaining transmission watermain, as well as securing easements along the corridor during 2025, with actual construction expected during the 2026 season. The combined 2025 budget would be sufficient to cover the project budget as proposed for the Tank 9 project. The 2026 CIP will have to be increased, once the final transmission watermain and easement costs are determined.

Additionally, the budget above includes $100,000 for a construction services and inspection contract, which will be secured shortly after the commission considers the award of the Tank 9 project.

FUNDING

All of the cost associated with the engineering design, administration and construction of the proposed elevated storage Tank 9 project is proposed to be paid for by the Connection Fund. All costs over the CIP budgeted amount would be proposed to be paid for from the Connection Fund, which has a sufficient balance to cover the additional expense.

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REQUESTED ACTION

Staff is requesting that the Commission accept all bids and motion to award the elevated storage Tank 9 project to Maguire Iron, Inc. in the amount of $4,663,000, and authorizing a project budget in the amount of $5,483,000.

resourceful. naturally.
engineering and environmental consultants

BARR

Sent via email

December 30, 2024
Ryan Halverson, Water Engineering Supervisor
Shakopee Public Utility
255 Sarazin Street
Shakopee, MN 55379

Re: Contractor Bid Award Recommendation
Water Tank No. 9 (Re-bid)

Dear Mr. Halverson:

This recommendation letter is in reference to public re-bidding of the Water Tank No. 9 project with bid opening held on Thursday, November 21, 2024 at 2:00 P.M. (CST). The bid opening resulted in a single contractor bid submittal by Maguire Iron, Inc. (Maguire). Maguire's submitted bid resulted in a bid amounting to $4,663,000.00, which was $153,000.00 or approximately 3.3% higher than the engineer's estimate of $4,510,000.00.

Maguire Iron, Inc.:	$4,663,000.00
Engineer's Estimate:	$4,510,000.00

The Water Tank No. 9 project first bid opening was held on Thursday, September 30, 2024 and included a bid from Maguire in the amount of $4,548,000.00. SPU elected to reject all bids received under the first project bid which was a result of required plan changes that were realized after the bid opening date. The plan changes included size increase for underground watermain materials. Following redesign, Barr Engineering estimated plan changes to result in $110,000.00. When comparing the bid results received from Maguire's first bid and the rebid, Maguire's bid was increased by $115,000.00 between the two bidding periods. Barr is confident that Maguire's increased bid price is consistent with market value for changes included in the project rebid held on Thursday, November 21, 2024.

In consideration of Maguire Iron's bid and the engineer's estimate, the rebid efforts were successful. Based on review of the lowest responsive bid, the recommendation is to award the Project to Maguire Iron, Inc.

Feel free to contact me with any questions and comments.

Sincerely,

Mike Burdorf, PE
Project Manager
507-380-6521

cc: Lon Schemel
Enclosures: Bid Opening Tabulation

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January 28, 2025

TO: Greg Drent, General Manager

FROM: Sharon Walsh, Director of Marketing, Key Accounts and Special Projects

SUBJECT: Water Tower #3 – Custom Design

Overview

Over the last several years staff has had discussions of having a featured water tower design like many other cities across the country do. Creative and artistic, these custom designs help build identity and demonstrate a sense of pride for the community. They become a recognizable landmark for the area and in our case, specifically, a custom tower design can be an important part of branding Shakopee as an entertainment destination. When the construction of an amphitheater directly across the street from water tower #3 came to fruition – at the same time the tower was scheduled to be repainted - the idea of a featured water tower became more than an idea. It became a marketing strategy too good to pass up.

While initial ideas included LED lights and digital display boards, a more realistic, cost-effective approach brought us a to four-color, two-dimensional design promoting Shakopee and identifying SPU. This custom artwork will wrap the circumference of the flat surface of the water tower tank for optimal viewing. Artwork on the tower column will provide SPU visibility for those traveling on County Road 83. The color scheme further brands SPU, using the four spot colors of our logo.

Water tower #3 is viewable to travelers from both the north and south on highways 169 and 101. Locally it can be seen from multiple directions. Because of its proximity to the amphitheater, Canterbury Park, Mystic Lake and Valleyfair, thousands of people will view this design each year.

The design itself speaks to the entertainment opportunities in Shakopee, including horseracing, an amusement park, musical venues and concerts, family activities (i.e., corn maze), and adult gaming. The design is drawn to be clear and decipherable yet appealing and fun. It's colorful and coordinated without being too bright or distracting.

Coordinating this custom design with the scheduled maintenance painting of the tower makes this a fiscally responsible effort. The cost of the custom artwork is a fraction of the overall painting bid.

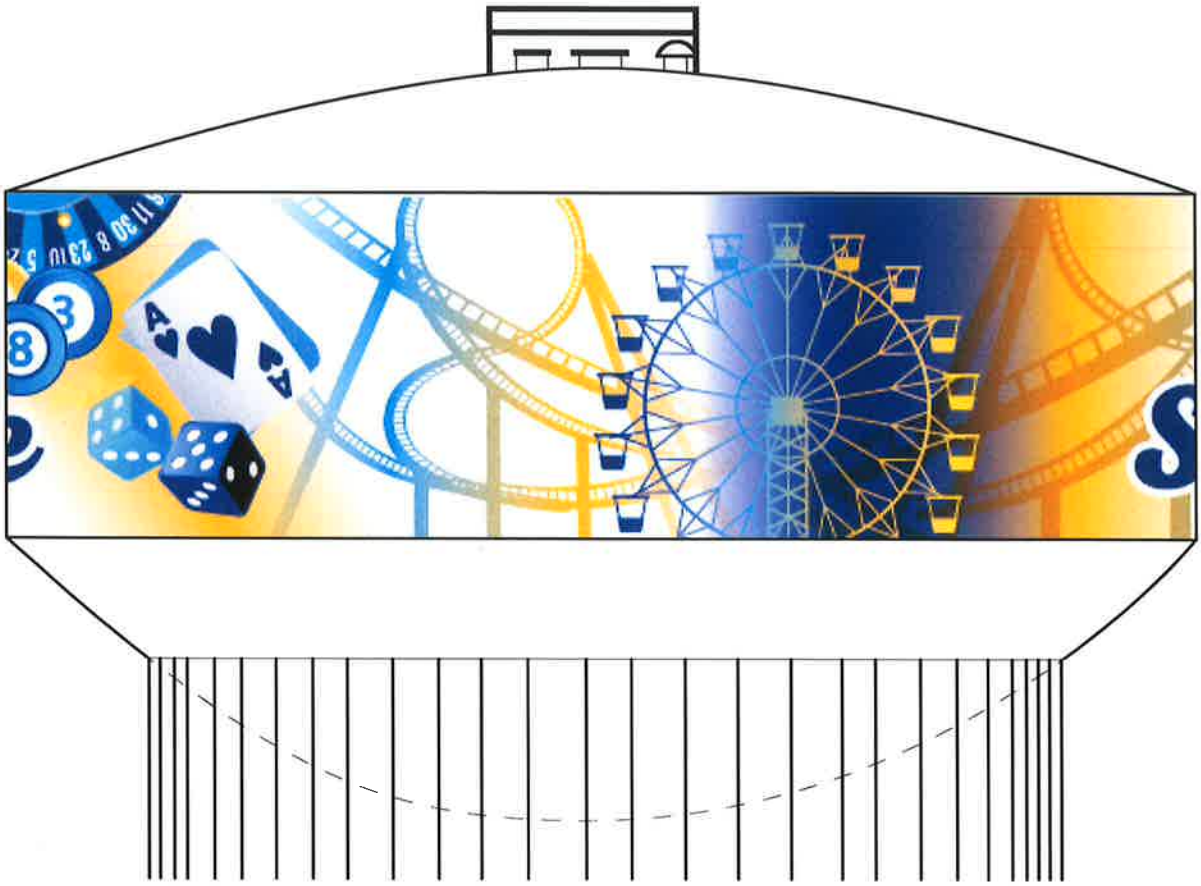
Action Requested

Staff is looking for Commission feedback on the first draft design and approval to proceed with the custom design as part of the water tower maintenance painting project.

PMS Black 2 PMS 288 PMS 298 PMS 012 PMS 7549


Shakopee


Shakopee

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DATE: January 8, 2025

TO: SPU Commissioners

FROM: Greg Drent, General Manager

Subject: Goals 2025

SPU leadership team met to discuss and create goals for 2025, focusing on growth opportunities and key initiatives for the utility. Through these discussions, we identified the following actionable goals for 2025. We are looking for input from the commission on these goals. Are there additional goals that should be considered or do any of the goals need modifications.

2025 Goals

1. Develop a Crisis Management Plan
    a. Risk Assessment – identify and rank technology, financial, employee and operational risks
    b. Crisis Communications – identify responders, communication strategies and messaging
    c. Disaster Recovery Plan – create a formal plan

2. Continue developing and planning infrastructure needs to support expected growth
    a. Water treatment land purchase
    b. Additional well sites
    c. Additional booster station site
    d. Raw water lines in projects
    e. Electric substation land for expansion (Shakopee Substation) 2025-2026

3. Update Electric and Water Policy manuals

4. Easement set guidelines for service installation
    a. Standard Utility Easement Template
    b. Recording process
    c. Use of Easement
    d. Enforcement
    e. Termination of easement templates

5. Electric Service Territory with Xcel Energy 2025-2026

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6. Implement On-Boarding Process – new commissioners and employees
    a. Create on-boarding welcoming packet
    b. Orientation (organizational overview, responsibilities, regulations, compliance, goals)
    c. MMUA training and workshops
    d. Relationship building with GM and Staff
    e. Governance and Decision-Making

Additional topics: 10-year CIP to match city, Leadership development, Update all resolution 2026-2027.

2024 Goals

1. Develop and Implement AMI Deployment Plan - (AMI Project Kick-Off)
    1. Work Planning, Integration (NISC) and Design Work (Q1-Q3) Complete
    2. SAT Pilot Installation (Q3) Complete
    3. Conduct SAT (Q3-Q4) Complete
    4. Preparation for Full System Ordering (Dec 2023) Complete

2. IT Goals
    1. Update ICs Environment. Ongoing
        A. Work on communications, fiber Ongoing
        B. Virtualize Electric Scada System Complete
    2. Update all IT Policies. Ongoing
    3. Continue work on IT Risk Assessment Items. Complete
    4. Implement Password Manager for Utility. Complete
    5. Upgrade Phone System - 2025

3. Water Treatment
    1. Land purchase Ongoing
    2. Comprehensive Water Plan Complete
    3. Water Capacity Charge update Complete
    4. Trunk Water Charge update Complete
    5. Lead Service line inventory and changeout Inventory done a few changeout to go

4. Long Range planning electric
    1. East Substation site work (ponding and pad ready) Ongoing 2025-2026
    2. System Coordination Study 2025
    3. Arc Flash Analysis 2025
    4. Pole Inspection has started will be complete in early 2025
    5. IIFA grant funding opportunities ongoing No active application

Action: Review 2025 goals and approve them as presented or amended