

2023 ANNUAL WATER REPORT TO THE CITY COUNCIL

NARRATIVE DESCRIPTION OF DEPARTMENT

The Water Department has seven full-time Employees plus one Utility Billing Clerk doing collections and data entry at City Hall.

Name	Years of Service	Certificate grade and type
1. Rich Sudtelgte	18 years	Grade III Treatment/ Grade III Distribution
2. Monte Brent	7 years	Grade III Treatment/ Grade III Distribution
3. Scott Tillman	7 years	Grade III Treatment/ Grade III Distribution
4. Justin Frericks	6 years	Grade III Treatment/ Grade III Distribution
5. Clay Luschen	1 Year	Working on grade 1
6. Kade Calhoun	Started in August	Working on grade 1
7. Calvin Schoenrock	Just started	Working on grade 1
8. Angie Kneip	16 years	Utility Billing and Collections

The water department operates the City of Le Mars water system which consists of over 90 miles of underground water main, 5057 water meters (up 18 from last year), 90 fire sprinklers in town, 715 fire hydrants , over 1878 main line valves, 2- one-million-gallon elevated water tanks, 1 - 1.5-million-gallon underground storage tank, over 1 million gallons in the distribution system, A 6 MGD Filtration Plant, 1 - high service pump station with a total of 4 pumps, 1 booster pump station w/ 4 pumps run in alteration, and 6 - Dakota Aquifer wells.

The Water Department also handles some locates for water and many service calls for various reasons, oversees cellular companies at the Le Mars water tower, moves snow at over 20 different locations in the downtown and surrounding areas, preforms small capital projects, replaces valves and fire hydrants, changes water meters, customer service work orders, repairs emergency water main breaks, installs EZ valve for Le Mars & surrounding towns for a fee and performs many other in house maintenance tasks at a great cost savings to the citizens of Le Mars.

Information of interest

Total metered water pumped from 6 wells for the year	1,277,901,000 gallons
Backwashes @ approximately 68,000 gallons per backwash	46,252,000 gallons
Backwash percentage of well water pumped	3.7%
Total metered water pumped into the distribution system	1,181,497,000 gallons
Average daily water pumped	3,234,250 gallons
Billed metered water for 2023	1,067,449,600 gallons
Flushing, WTP use, Hydrant meter sales, & other	6,923,625 gallons
Water used for testing equipment	5,256,000 gallons
Estimate for Leaks & fire dept. use for fires	6,000,000 gallons
City meters not billed up 7,340,600 from last year	36,073,000 gallons
Water from the fill station 220,004 was for city use	826,182 gallons
Difference between pumped and non-accountable water	58,968,593 gallons
Percentage of non-accountable gallons, down from 9.5%	5%
This is an acceptable percentage rate in the water industry.	

Work Completed in 2023

	2022	2023
Number of locates performed by the Water Department	285	127
Water concerns	36	23
Work orders completed at Water Treatment Plant	1946	1380
Work orders completed for meters and customer service	259	238
Work orders for fire hydrant repaired, moved or replaced	815	730
Water tests (more testing last year because of the RO pilot)	4457	3941
Meter replacements completed	25	51
New meters installed	72	46
Number of disconnect notices	2215	2191
Shut-off and collections	291	233
Water main breaks repaired	10	11
New valves added	2	11
Hours of snow moved in city with 3 pieces of equip	85	112
Finals and applications done	629	682
Service taps completed	18	20
Service leaks	4	7
Frozen meters	4	1
Call outs not including leaks	67	72
Service call with fee's	73	86

Review of Gallons Pumped

2023	Ave. Daily Produced	Monthly Water Produced	Total Pumped from well
January	2,499,000	77,455,000	85,050,000
February	2,620,000	73,347,000	80,599,000
March	2,664,000	82,578,000	87,235,000
April	2,882,000	86,462,000	91,020,000
May	3,499,000	108,483,000	116,797,000
June	4,578,000	137,326,000	141,797,000
July	4,310,000	133,624,000	141,131,000
August	4,158,000	128,898,000	137,700,000
September	3,887,000	116,612,000	124,067,000
October	3,090,000	95,805,000	111,573,000
November	2,451,000	73,538,000	83,585,000
December	2,173,000	67,369,000	77,379,000
Total		1,181,497,000	1,277,902,000
			65,851,000 gallons more than last year

Average gallons pumped per day for 2023 = 3,234,250 gallons, up 100,333 gallons per day from 2022

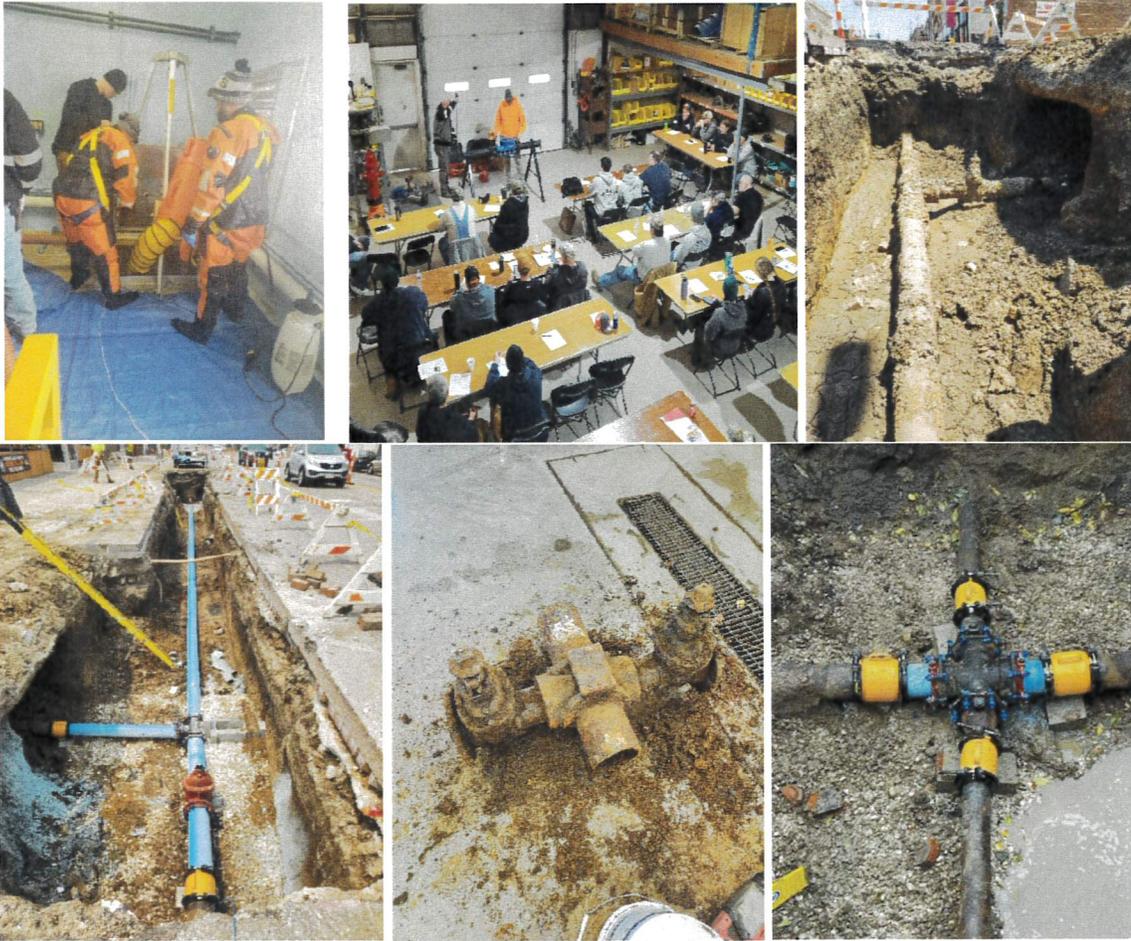
Projects completed and work done in 2023.

1. Tests required by DNR Operating Permit: (120) coliform bacteria, (1) nitrate, (1) manganese, (1) ammonia, (1) sodium, (2) trihalomethanes, (2) haloacetic acids, (12) special coliform bacteria tests for businesses.
2. Finished last RO pilot study with Desalitech (Feb.).
3. Submit annual water usage report, CCR & monthly MOR's to Iowa DNR.
4. Did annual fire hydrant maintenance.
5. Did the spring & fall flushing.
6. Rebuilt our chlorine heads and actuators.
7. Replaced booster pump #3 & added a 4th booster pump.
8. Change oil in all the well & HSP motors.
9. Rebuilt KMNO transfer pump.
10. Worked with AT&T on generator placement at tower #1.
11. Sargent Drilling pulled, videoed, cleaned, replaced half the pipe & bowl on well #9.
12. Removed 2 static mixers in treatment plant.
13. Upgraded HSP PLC (the brains of the water dept.). The old PLC went down 4 times in the last year & we can't get reliable parts for the old PLC.
14. Ask Maguire Iron & Viking tower maintenance contractors to bid Tower #2 maintenance contract. We decided to go with Viking on both towers.
15. Sold some Hydro-stop fittings to the town of Sioux Center, we will never use them.
16. Talked with Southern Sioux rural Water to see if they would be interested in possibly buying water from us after we get the RO up & running, they decided to go a different route.



17. Looked inside old aerators to see if they would work for new RO plant. Turns out they will be too small.
18. Upgraded the CL17's, they monitor our chlorine & if they stop working someone will need to be at the water dept. every 4 hours.
19. Worked with the DNR and the contractor that put in the service line for Red Shed on Prospect. They had a positive E coli test when they did the Bacteria test. We ended up doing the bacteria test and charging the contractor. The water was ok, the contractor did not take the sample correctly.
20. Assisted Clear Path Consultants on taking water samples from well 7 for the EPA.
21. Installed, pressure tested & bacteria tested 620' of 8" water main on Park Lane Road.
22. Fixed leak in headbox. That requires draining most of the treatment plant to fix. That is a hard thing to do as our treatment plant only shuts down in the winter for about 4 hours on Sunday morning.
23. Put on an EZ valve demonstration at Utility Equipment Company in Sioux City.
24. Sanitary survey with DNR. This proves competency and compliance with DNR standards.
25. Pipelined 4 blocks of Plymouth St west. Took a lot of time prepping for temp services, running temp services, lining the pipe, fixing leaks, re-piping intersections, disinfecting main, reconnecting services, & removing temp water lines.
26. Electrical automation installed a VFD on well 9, Stateline set it up on SCADA.
27. Pressure tested & did bacteria tests for Le Mars Public storage's new building.
28. Automatic Systems came & worked on WTP meter; it is not very accurate. They got it to work great.
29. Over halfway done with the lead & copper inventory for the EPA.
30. Worked with contractor on HWY 3 main replacement job.
31. Replace cross, valves, & fire hydrant on 3rd Ave SE & Plymouth St.
32. Worked with RP on moving the 12" main on the north side of the South Ice cream plant.
33. Met with LBIC about water disconnections at Erdmanville & pulled all the meters so they can demo property.
34. Met with Mc Clure about RO & well 15 designs.
35. Completed many more tasks as mentioned in quarterly reports.
36. Installed 36 EZ valves for other towns & 11 for Le Mars.
37. Had Matt Walker come out to educate us about some of the old fittings we took out of the ground.





Work to be done in 2024.

1. Finish Lead & copper inventory for EPA. The due date is Oct. 2024.
2. Do all the testing requirements set by our DNR operating permit.
3. Perform lead & copper testing this year (30 sites this time, up from 20).
4. Continue hydrant maintenance.
5. Eliminate 2 blocks of double main on 7th Ave SE between 3rd St & 6th St SE.
6. Adding more EZ valves & redo some mains in the intersections in town.
7. Spring and fall water main flushing.
8. Rehab Well #10.
9. Monitor filter media (pull samples & check depths).
10. Pull the 2 HSP's & have them inspected.
11. Add 2 valves in front of the head box so we have more control of the treatment plant.
12. Continue fixing valves in treatment plant.
13. Run a new water line to the north campground.
14. Replace fire hydrants & valves that are not functioning correctly.
15. Work with Mc Clure's on the RO plant & new well.
16. Continue to work with contractors and other projects as they pertain to the water treatment and distribution system.

Saving lives one gallon at a time.

