

# 2022 ANNUAL WATER REPORT TO THE CITY COUNCIL

## NARRATIVE DESCRIPTION OF DEPARTMENT

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

Name	Years of Service	Certificate grade and type
1. Rich Sudtelgte	17 years	Grade III Treatment/ Grade III Distribution
2. Monte Brent	6 years	Grade III Treatment/ Grade III Distribution
3. Scott Tillman	6 years	Grade III Treatment/ Grade III Distribution
4. Curt Allen	6 years	Grade II Treatment / Grade II Distribution
5. Justin Frericks	5 Year	Grade III Treatment / Grade III Distribution
6. Angie Kneip	15 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, 5039 water meters (up 72 from last year), 715 fire hydrants, over 1870 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/ 3 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 14 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	1,212,051,000 gallons
Backwashes @ approximately 68,000 gallons per backwash	40,710,000 gallons
Backwash percentage of well water pumped	3.4%
Total metered water pumped into the distribution system	1,171,341,000 gallons
Average daily water pumped	3,133,900 gallons
Billed metered water for 2022	995,683,500 gallons
Flushing, WTP use, Hydrant meter sales, & other	11,259,110 gallons
Water used for testing equipment + RO water	17,770,360 gallons
Estimate for Leaks & fire dept. use for fires	6,180,000 gallons
City meters not billed	28,732,400 gallons
Water from the fill station	2,906,520 gallons
Difference between pumped and non-accountable water	108,809,110 gallons
Percentage of non-accountable gallons	9.5%
<b>This is high due to a leak in the head box &amp; our valves in the treatment plant not working properly.</b>	

<b>Work Completed in 2022</b>		<b>2022</b>	<b>2021</b>
Number of locates performed by the Water Department		285	226
Water concerns		36	30
Work orders completed at Water Treatment Plant		1946	1482
Work orders completed for meters and customer service		259	236
Work orders for fire hydrants		815	768
Water tests & RO tests done		4457	3892
Meter replacements completed		25	30
New meters installed		72	77
Number of disconnect notices		2215	1986
Shut-off and collections		291	230
Water main breaks repaired		10	8
Fire hydrants repaired, moved or replaced		14	8
Hours of snow moved in city with 3 pieces of equip		85	126
Finals and applications done		629	695
Service taps completed		18	24
Service leaks		4	10
Frozen meters		4	6
Call outs not including leaks		67	65
Service call with fee's		73	71

### Review of Gallons Pumped

<b>2022</b>	<b>Ave. Daily Produced</b>	<b>Monthly Water Produced</b>	<b>Total Pumped from well</b>
January	2,175,000	67,440,000	67,912,000
February	2,290,000	64,132,000	65,313,000
March	2,470,000	76,567,000	78,689,000
April	2,754,000	78,224,000	82,828,000
May	3,139,000	97,305,000	100,336,000
June	4,041,000	121,231,000	129,285,000
July	4,221,000	130,858,000	137,369,000
August	4,138,000	128,292,000	137,740,000
September	4,017,000	120,503,000	127,774,000
October	3,347,000	103,744,000	114,825,000
November	2,531,000	75,935,000	84,336,000
December	2,484,000	77,004,000	85,644,000

**Total**                      **1,141,232,000**      **1,212,051,000**  
 90,912,000 gallons more than last year  
 = 40,710,000 Backwash = 3.4%

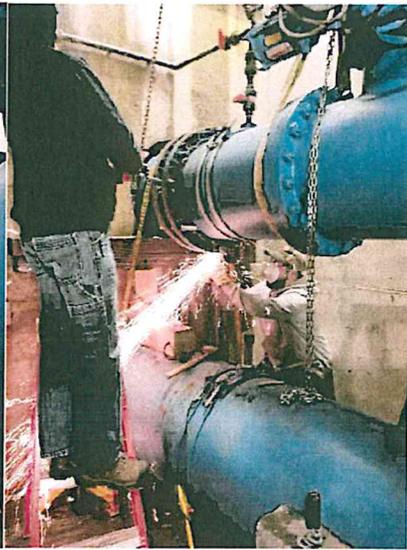
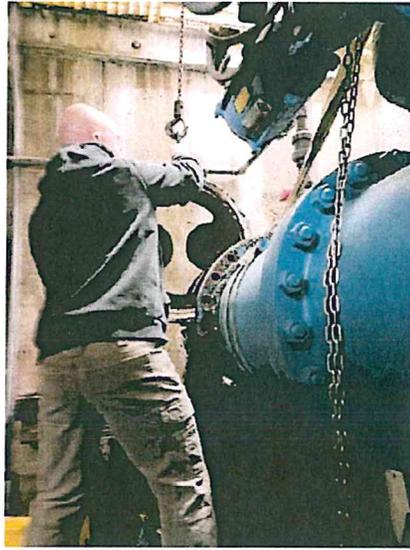
Average gallons pumped per day for 2021 = 3,134,000 gallons, up 86,900 gallons per day from 2021

## Projects completed and worked on in 2022

1. Submitted Emergency Response Plan to EPA.
2. Submit annual water usage report to Iowa DNR.
3. Worked over 100 hours with Harn on RO pilot issues, on Nov. 19<sup>th</sup> we told Harn to come & get their pilot as they could not get it to run. They picked it up on Dec. 7<sup>th</sup>.
4. Changed filter # 2 filtered water valve. I came in at 2 A.M. on April 1 to start draining headbox to install new Filtered Water Valve. Everyone else including John Sailor came in at 4 A.M. and new valve was installed by 12 P.M. that day
5. Removed static mixer from treatment plant. This allows the WTP to run 40% more water through the plant with no changes to the WTP. We did this on a Sunday morning around 2AM as that is the only time the treatment plant is off for 4 hours.
6. Working with DNR to get approval to install mixers in the reservoir & tower #1. We installed the mixers in July.
7. PLC in the HSP building stopped working. That controls all the wells & towers & sends that information to the treatment plant. Repairs were made and we had the WTP back up and running within 3 hours.
8. Replumbed fill station & pre-lube lines at all the wells.
9. Liquid Engineering divers came and fixed the leak that was in the Head Box.
10. Rebuilt Chlorine room equipment that normally would get sent off. Now we do this in house.
11. Sargent pulled Well #7. They could not clean it. Needed pipe and pump rebuilt. We anticipate getting 1 more year from this well before a full replacement is needed.
12. Updated lab equipment, Turbidimeter & KMNO pumps.
13. Submitted CCR to DNR & distributed to nursing homes, assisted living, & big businesses.
14. Completed Hydrant maintenance for the year
15. Worked with RP Construction to get the Dogwood edition filled with water and pressurized.
16. Worked with the airport concrete crew to provide them with water for crushing, packing, and concrete plant.
17. Completed spring & fall flushing.
18. Completed 2 RO pilot studies, one with Wigen (after filtration) & Desalitech (direct from well). Desalitech should have a final report to the engineers in mid-January.
19. Performed weekly in house tests for the RO pilot and had Foundation Analytical perform the rest that we could not do in house. Required by DNR & McClure engineering.
20. 10 Bacteria tests per month, 1- Inorganic Chemicals, 1-Nitrate, 1-Manganese, 1- sodium, 1-Nitrogen-Ammonia, 2- Total Trihalomethanes & 2- Haloacetic Acids, also did a Bacteria test for Americold, IML (quarterly) &, Nor Am, Bo Deans (annually).
21. Assisted wastewater in pigging the sewer line from wells to the new sewer plant.
22. Met with Wells about moving 12" main on the West side of Wells south plant, as they had added 20' of dirt to make a parking lot over our main. They agreed to relocate that main this summer.
23. Did inventory and went over inventory with auditors.
24. Replaced main computer board on fill station.
25. Continued working on valves in treatment plant. We have gone through all of them & are still replacing parts.
26. Finished 8<sup>th</sup> St SW job (moved the services over to the 8" main & disconnected 5 BLK of 4" main)



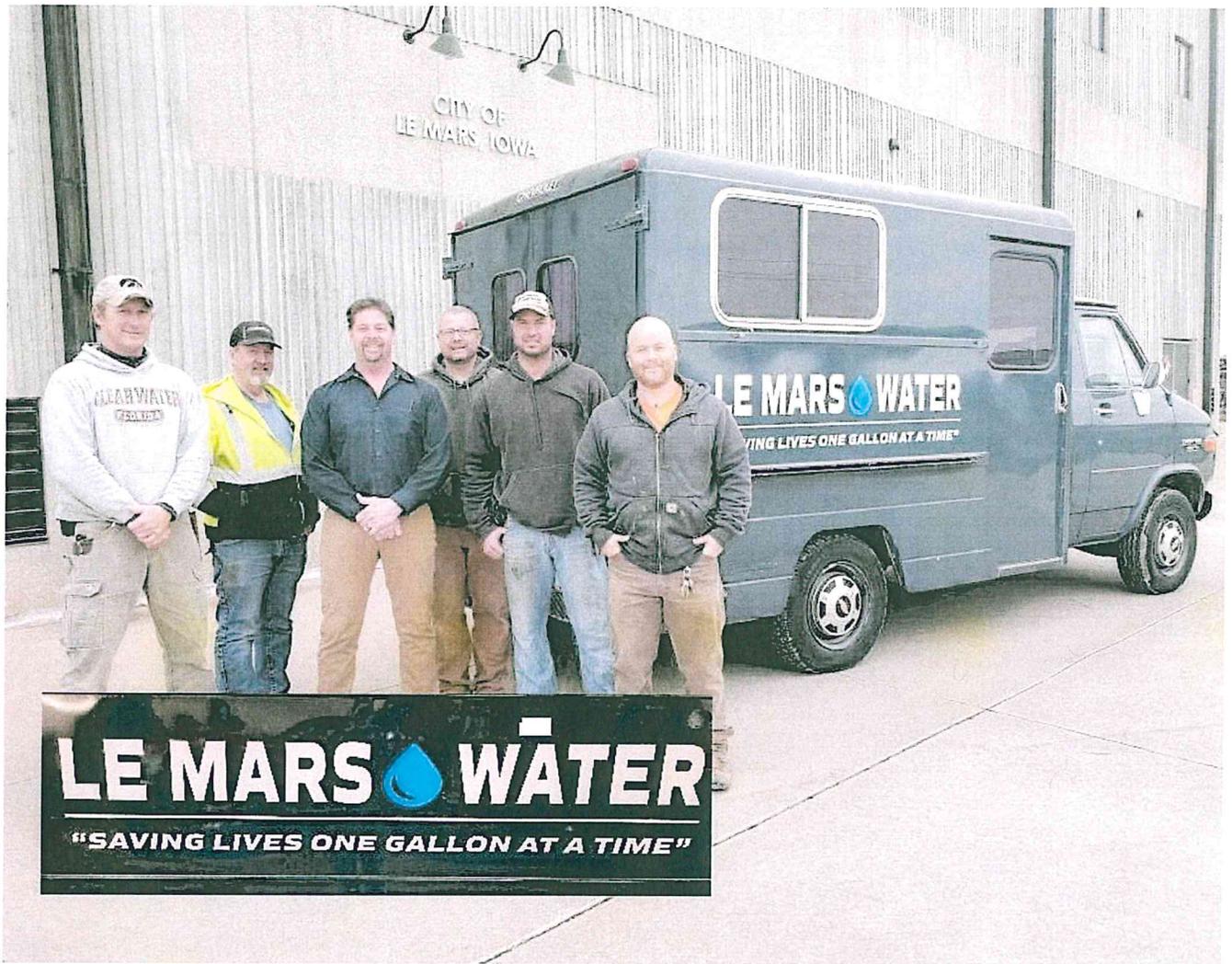
27. Checked on Central Ave white topping job and Dogwood 4th edition to make sure everything was done correctly for the water department.
28. Relocated fire hydrant on 8th St and 6th Ave SW, semis coming out of NorAm kept knocking it over. So, we found the driver responsible and sent that company a bill to replace that fire hydrant and then relocated it to the other side of the street.
29. Performed annual filter checks (sand depth & condition of sand).
30. IRWA & Le Mars water put on a class Dec. 1<sup>st</sup> for area operators at the water plant to help them get their CEU's & have a resource to call if they have water questions.
31. I (Rich) will be region 3 contact for the IOWARN
32. Installed 3- EZ valve for us & 38- EZ valve for other towns, for a total revenue of \$65,200. 2 were emergencies that they wouldn't have been able to fix without our help.
33. Completed many more tasks as mentioned in quarterly reports.
34. Installed 1100' of 8" main by golf course.





### Work to be done in 2023

1. Work on getting an inventory of what material water service lines consist of for the new Lead & Copper rule.
2. Finish installing 620' of 8" water main on Park Lane & tie into 4" main.
3. Continue hydrant maintenance.
4. Upgrade testing equipment at the water department as needed.
5. Spring and fall water main flushing.
6. More backflow awareness, compliance, testing and checks along with compiling information on computer program.
7. Rehab Well #9.
8. Monitor filter media (pull samples & check depths).
9. Add 4<sup>th</sup> pump to booster station.
10. Install VFD's in wells 10,11, & 12.
11. Pull the 4 HSP's & have them inspected.
12. Continue fixing valves in treatment plant.
13. Replace fire hydrants that are not functioning correctly.
14. Work to get a maintenance contract for tower #2.
15. Work with Mc Clure's on the RO plant & new well.
16. Work with Beck Engineering & contractor on Plymouth St. main replacement.
17. Work with Triton Pipe lining to line 4 blocks of water main. The water dept. will be doing all the prep work, digging & reconnecting water lines.
18. Continue to work with contractors and other projects as they pertain to the water treatment and distribution system.
19. Hire new employee.



Saving lives one gallon at a time.