



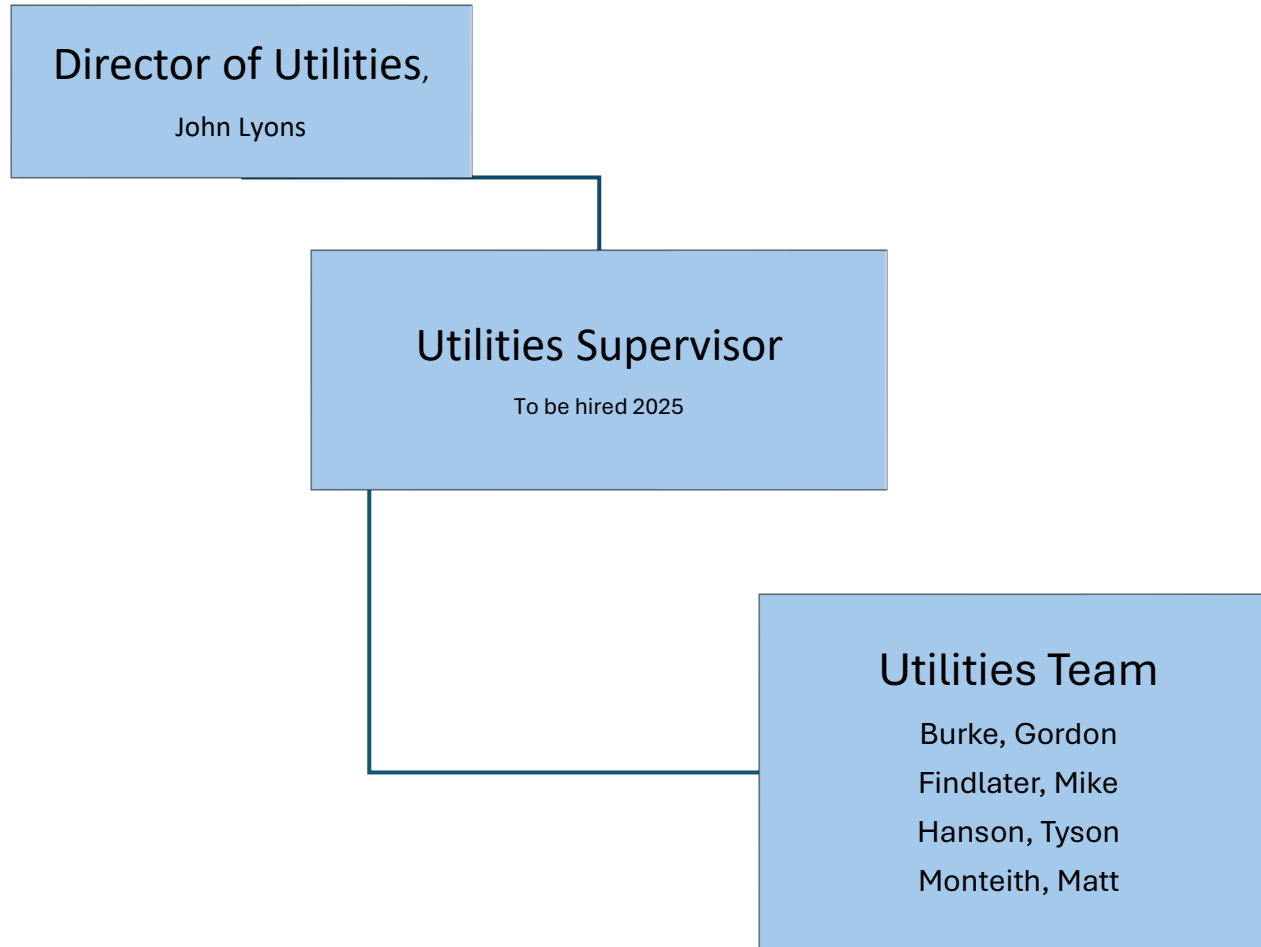
Presentation to Council 2024 Utilities Review

January 28, 2025

Agenda

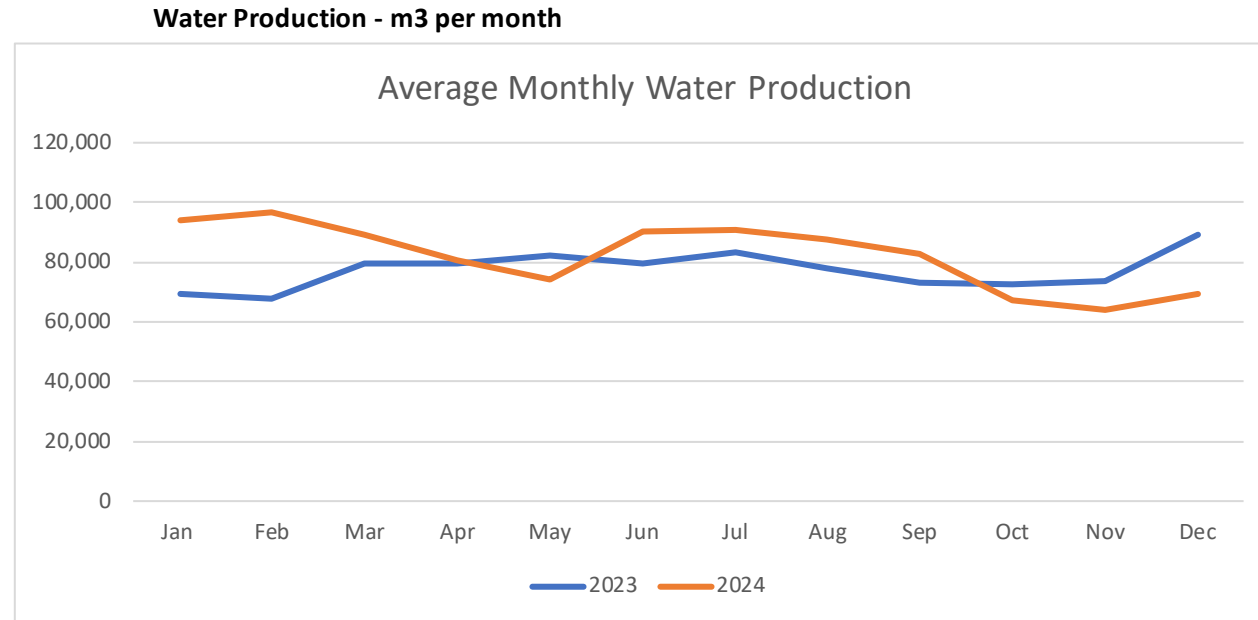
- Utilities network overview
 - Utilities team structure
 - Water production and consumption
 - Age and condition of infrastructure
 - Wells
 - Pump stations, reservoirs, valves and water pipes
 - Lift stations and sewer pipes
 - Waste treatment
 - Work completed in 2024
 - Key projects and costs required for 2025-2028

Utilities Organization Structure



Water Production

Month	2023	2024
Jan	69,553	93,950
Feb	67,599	96,471
Mar	79,296	89,100
Apr	79,633	80,571
May	82,283	74,120
Jun	79,308	89,945
Jul	83,377	90,475
Aug	77,775	87,473
Sep	72,982	82,934
Oct	72,551	67,217
Nov	73,452	64,041
Dec	89,025	69,357
Full year	926,834	985,654
Change		6.3%



Note that while total 2024 consumption was up 6%, from April through December, 2024 usage was the same as 2023

1 million m3 = 220 million Imperial Gallons

Average consumption = 418 gallons/minute
 Well #2 production capacity = 750 gallons/minute
 Operating capacity = 55%

Infrastructure Condition as of Dec 2024

Well House

Well #1	150
Well #2	650
Well #3	TBD
Generator	
Treatment	

Booster Stations

	Pump 1	Pump 2	Pump 3	Generators
Heller Road	Requires power upgrade		N/A	none
Wallace	Bearings		Bearings	
Neal				repairs
St. Andrews	2 new booster pumps need installed			none
Eastwood				

Storage Tanks

	Condition
Eastwood	
St. Andrews	
Charles St.	

Sewer infrastructure Health

Lift Stations

	Pump 1	Pump 2	Generator	Overflow
JR's			none	floatables
Searle			none	floatables
Water St.			none	
King St.			none	
Everett St.			none	
Lower Main			none	floatables
Connell St.			none	floatables
Ironwood			none	

leak in wetwell pipes (confined space)

Overflow needs completed

To be added to SCADA

Rails need replaced, forcemain undersized

Waste Treatment Plant

Intake	
Diffusers	
Lagoon	
Chlorinator	2025 Project
Outflow	
Curtain	2027 Project

Water Test Results 2024

2024	Zone 1	Zone 2	Zone 4	Zone 5	Zone 6	Zone 7
Jan	Pass	Pass	Pass	Pass	Pass	Pass
Feb	Pass	Pass	Pass	Pass	Pass	Pass
Mar	Pass	Pass	Pass	Pass	Pass	Pass
Apr	Pass	Pass	Pass	Pass	Pass	Pass
May	Pass	Pass	Pass	Pass	Pass	Pass
Jun	Pass	Pass	Pass	Pass	Pass	Pass
Jul	Pass	Pass	Pass	Pass	Pass	Pass
Aug	Pass	Pass	Pass	Pass	Pass	Pass
Sep	Pass	Pass	Pass	Pass	Pass	Pass
Oct	Pass	Pass	Pass	Pass	Pass	Pass
Nov	Pass	Pass	Pass	Pass	Pass	Pass
Dec	Pass	Pass	Pass	Pass	Pass	Pass

2024 Infrastructure repairs – well & water lines

- **Main Well ~\$640,000 spent on generator, and well development**
 - Well # 3 project brought to observation well milestone \$195,000
 - Chlorination system reconfigured for better management.
 - New propane generator back up for entire building. \$446,000
 - Electronic flow meter installed
- **Water Lines & Valves ~ \$78,000 spent on valve repairs**
 - Extensive GPS field mapping work done of utility valves, pipes, hydrants etc. \$12,000
 - Over 300 known water isolation valves exercised, with an additional 50 located \$32,000
 - 8 water main gate valves replaced \$25,000
 - Leak detection exercise on St. Andrews system – 4 significant leaks found and repaired \$5,000
 - Multiple valve boxes rebuilt and flushed to restore operability. \$4,000

2024 Infrastructure repairs – Booster Stations

- St. Andrews

- SCADA battery backup installed
- Pump upgrades in progress now \$55,000

- Heller Road

- Electronic flow meter installed \$2,000

- Wallace Street

- Chlorine analyzer reconfigured for proper monitoring
- Pump controls reconfigured to properly rotate all three pumps.
- 2 of three pumps require rebuilding, in process now

2024 Infrastructure repairs – Lift Stations

- Water Street

- New pump bases and piping installed
- Check valves and one pump rebuilt
- Overflow pipe enlarged to prevent street discharge during rain
- 1980's lift station decommissioned

- JR's ~ over \$100,000 on this lift station

- Rebuilt one pump from two failing pumps \$11,000
- New 90 hp pump purchased and installed to return to two pump status. \$82,000
- Installed soft starts on pump motors to extend life and reduce maintenance
- Check valve rebuilt \$8,000

- King Street

- 1 pump rebuilt
- Both check valves rebuilt

2024 Infrastructure repairs – Lift Stations, cont.

- **Connell Street**
 - Biological injection system installed to prevent grease build up
 - Gate valve replaced
- **Searle St.**
 - Replace both pumps with new 10 hp Flyght pumps \$31,000
- **Gallop St.**
 - Partial decommission, pumps removed for spares for other stations.
- **Everett St**
 - Flow meter and other controls added to SCADA
- **Lower Main**
 - Repaired force main pipe.
- **Ironwood**
 - One pump rebuilt, electronics replace in panel

Total Projects & Costs

- Over 30 distinct repair and upgrade projects completed in 2024.
- Capital and repair costs well in excess of \$900,000 in 2024, plus internal time and labour for Utilities and Public Works staff.
- In addition, twenty five water breaks were identified and repaired in 2024.

Major Utility Capital Requirements

Description	3 year capital plan
Well # 3 completion	\$433,000
St. Andrews pump upgrade	\$55,000
Backhoe replacement	\$200,000
Utility system review	\$122,500
Eastwood reservoir	\$1,200,000
Waste water outflow	\$400,000
Lagoon curtain replacement	\$250,000
Total	\$2,660,500
3 year average	\$886,833

This amount does not include any funds for renewal of underground water and sewer infrastructure.