

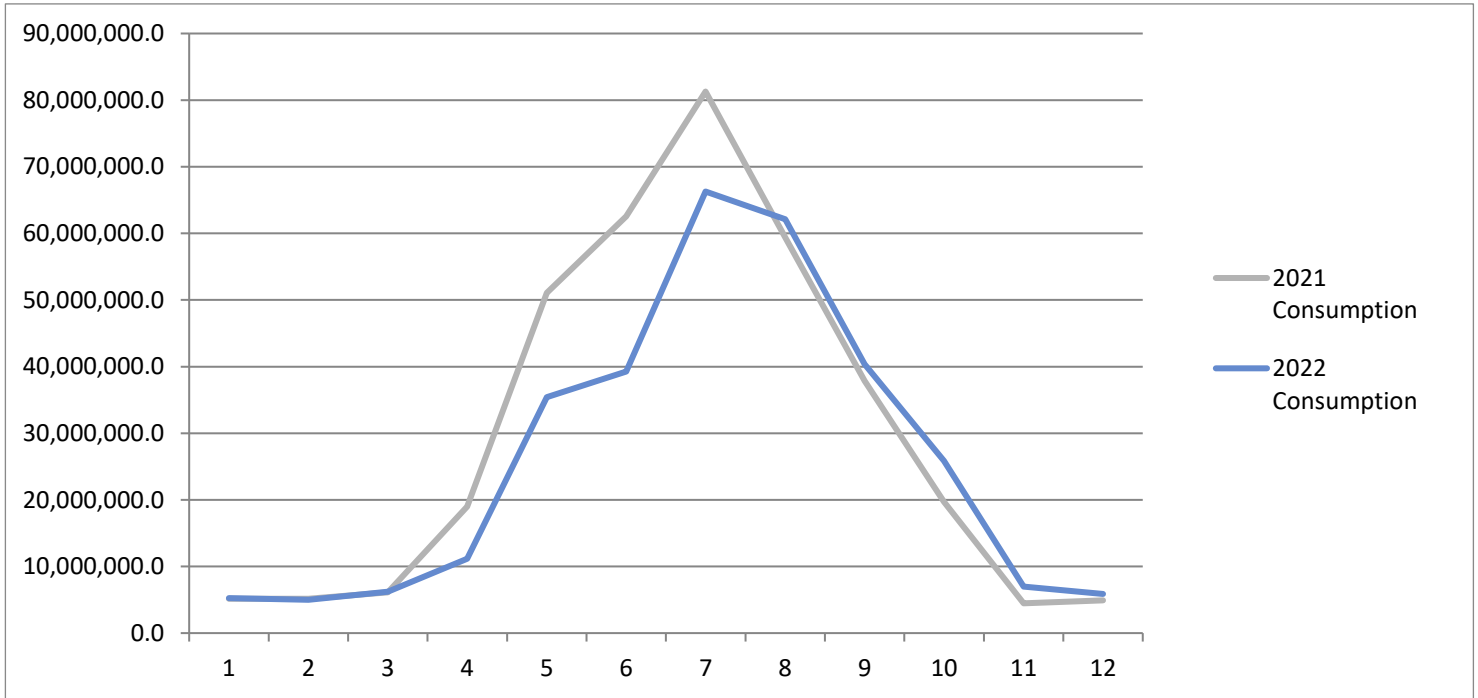
KALEDEN IRRIGATION DISTRICT

REPORT ON OPERATIONS for 2022

QUANTITY OF WATER PUMPED 2022 309,790,044 U.S. GAL
 MAXIMUM DAILY DEMAND (July 28, 2022) 1,997,114 U.S. GAL
 MINIMUM DAILY DEMAND (January 8, 2022) 81,332 U.S. GAL

46,938,156 U.S. Gal less were consumed than in 2021.

2022 vs 2021 Consumption



Total Coliform and E-Coli Bacterial Testing Sample Locations:

KALEDEN POST OFFICE	9
PINEVIEW NORTH END	9
LINDEN SOUTH END	7
KALEDEN DISTRICT OFFICE	8
PUMPHOUSE	10
UPPER CYPRESS	8

TOTAL SAMPLES TAKEN 51

There were no positive E-Coli samples.

Trihalomethane Results:

	<u>100 Ash Ave.</u>	<u>621 Linden Ave.</u>
February 2022	0.0652 mg/L	0.0652 mg/L
May 2022	0.0574 mg/L	0.0587 mg/L
August 2022	0.0904 mg/L	0.0764 mg/L
November 2022	0.123 mg/L	0.124 mg/L

Guidelines for Canadian Drinking Water Quality maximum acceptable concentration is 0.1 mg/L

In 2022 the K.I.D. continued to make necessary upgrades and repairs to our main pump station; back in 2020 inspections of our main winter pump were undertaken as well as non-destructive testing (NDT) of our main steel trunk that supplies water from our pumping wet well into the distribution system. The 125 HP pump bowl assembly (wet end) was pulled by Penticton Pump Service and sent for sandblasting and further inspection. At this time, it was determined that the bowl assembly was showing significant deterioration and would need to be replaced after almost two decades of production. The purchase of a new multi-stage bowl assembly was budgeted and was purchased as a replacement at a cost of \$25K. In fall of 2022 the new pump (wet end) was installed prior to the shut-down of Irrigation season. During the commissioning process it was noted that the increase in efficiency and production to be greatly increased by some almost 100 USG/M.

The NDT of our main trunk showed that most of the steel to be in great shape, however, one area due to flows and cavitation needed attention. Mearl's Machine Works was contracted to fabricate and install the necessary components to re-establish the wall thickness of the steel in the areas of question.

2022 also was the final year in the life expectancy of our ultra sonic flow meter that had been in service some 15 years. The new unit was installed and calibrated by our electrical automation contractor and has proven to be very reliable thus far, with only minor adjustments required. Regular pump maintenance and servicing including vibration testing, oil changes and packing gland adjustments were completed in early April of 2022. At this time, it was noted that the shaft for pump #3 was showing signs of wear. This will be a budget item for 2024 as we will have all other pumps at full operating capacity, which is far more pumping capacity than required even at our maximum demands though out the summer months.

We have continued to upgrade our chlorine room and chlorine injection systems, including new automated controls, lighting, and ventilation exhaust fans. The north facing wall was renovated for the installation of an overhead door to allow easier access for chlorine shipments and storage. In the fall of 2022, we decided to run a 6% chlorine solution instead of a normal 12%, this helps stabilize and reduce the breakdown of the chlorine over longer periods of time as water demand is significantly reduced in the winter months.

2022 also included the repairs of 8 services that had been leaking throughout the distribution system from Linden Ave to Ash Ave and several in between.

Other items to note:

- Fencing project of the Cypress reservoir area was completed.
- Office flooring replaced.
- Office roofing replaced.
- Pumphouse fascia replaced.
- Back up pump for Cypress pressure zone purchased.
- Upgrades to Dogwood booster station completed.

If there are any questions or concerns, please feel free to contact the office on Monday, Wednesday, or Thursday mornings at 250-497-5407, send us an email at kaledenirrigation@gmail.com or visit our website, www.kaledenirrigation.org

We hope you have a safe, enjoyable summer!

Mike Snair,
Operations Manager