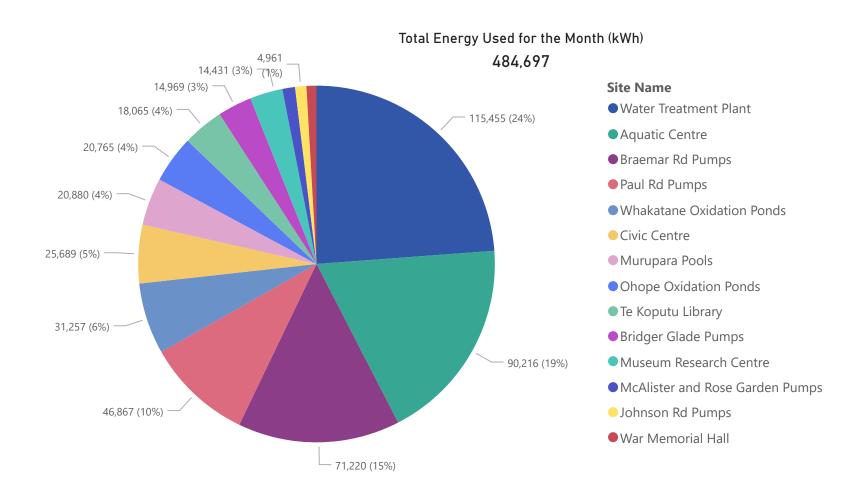


Summary

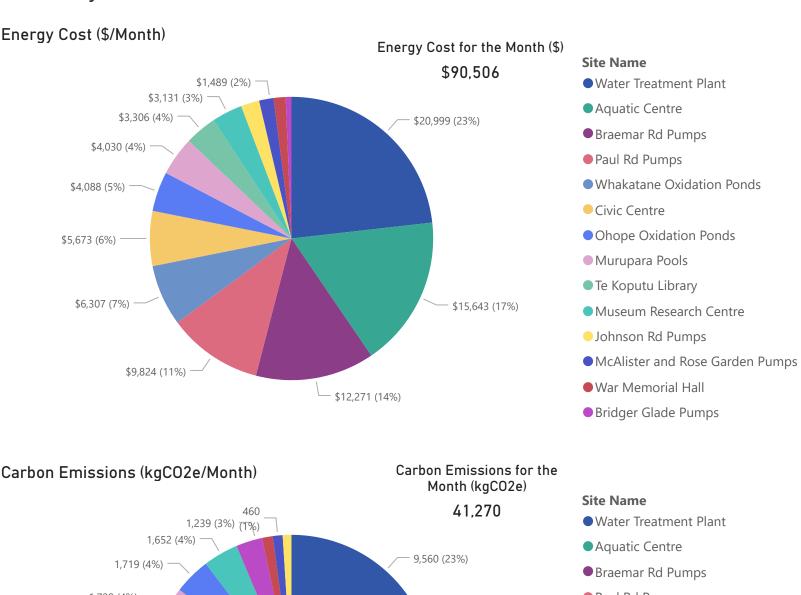
\$9,670 Monthly Energy Cost Savings	49,325 Elec. Savings (kWh/mo)	9% Elec. Savings (%)	661,809 R12M Electricity Savings (kWh/yr)	6,264 CO2e Savings (kg/mo)
\$103,535 R12M Energy Cost Savings	10,838 Gas. Savings (kWh/mo)	53% Gas. Savings (%)	-218,385 R12M Gas Savings (kWh/yr)	10,874 R12M CO2e Savings (kg/yr)

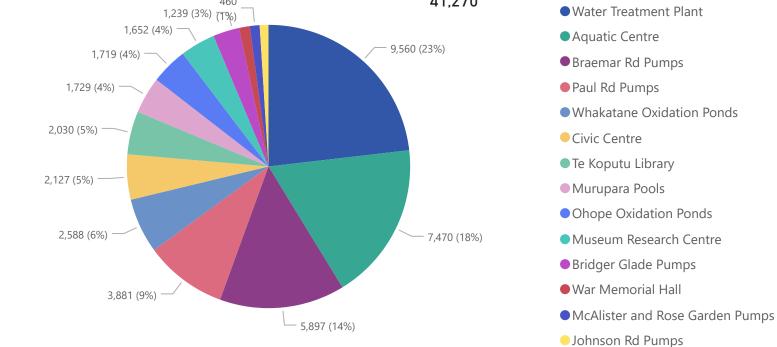
Total Energy (kWh/Month)





Summary

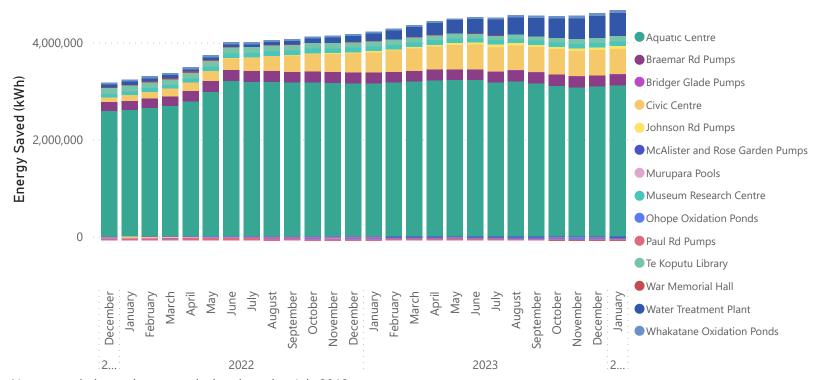






Summary

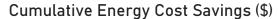
Cumulative Energy Savings (kWh)

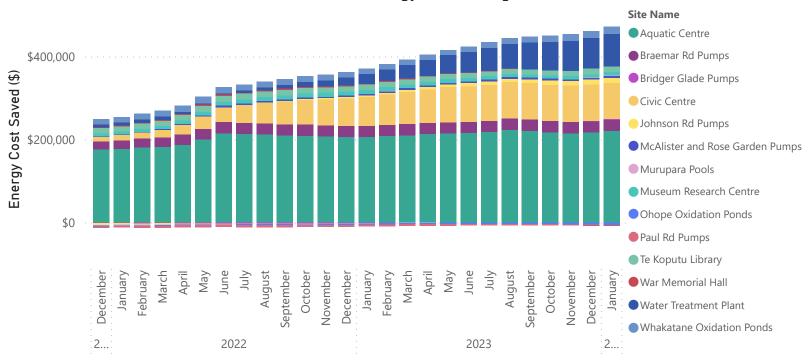


Note, cumulative savings are calculated starting July 2018

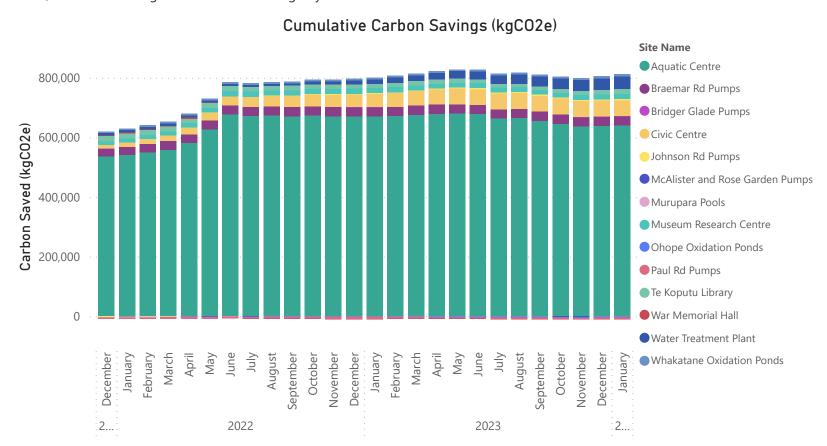


Summary



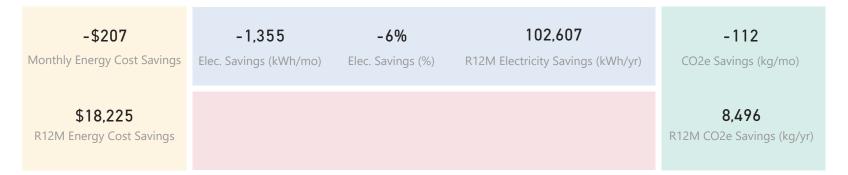


Note, cumulative savings are calculated starting July 2018





Civic Centre

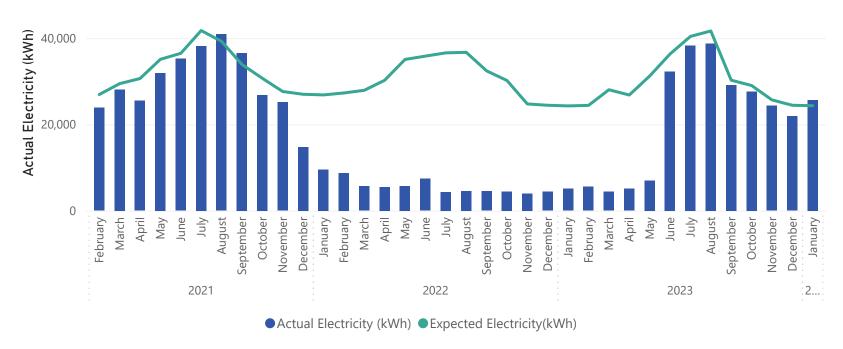


Comments:

It can be seen from the monthly electricity demand chart, electricity was close to baseline during holiday period, before most staff returned on 8 Jan. Demand was as expected for most of the month, however, from 25-31 Jan electricity use after hours did not decrease as significantly. From 25-31 Jan, afterhours electricity was approximately 30 kW, 10 kW higher than it was earlier in the month. This increase in electricity is the primary reason why electricity use was more than expected this month.

Electric vehicle charging stations have been in use from March 2021, non-routine adjustments are on-going to account for the increased electricity use.

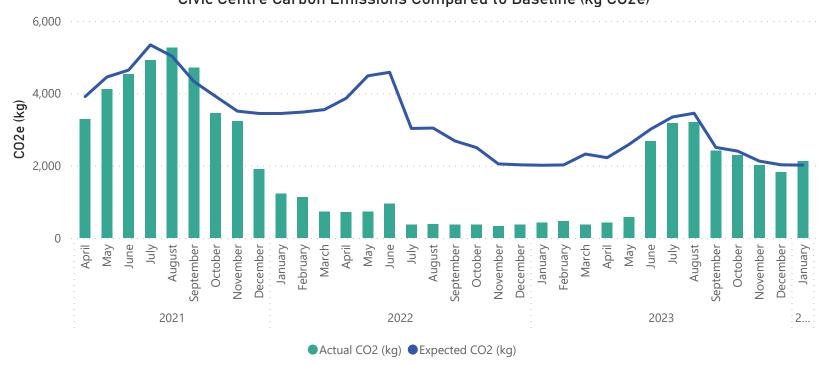
Civic Centre Electricity Use Compared to Baseline (kWh)



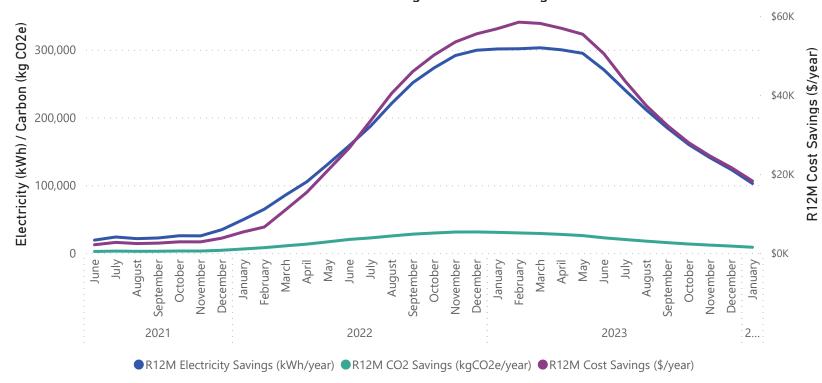


Civic Centre





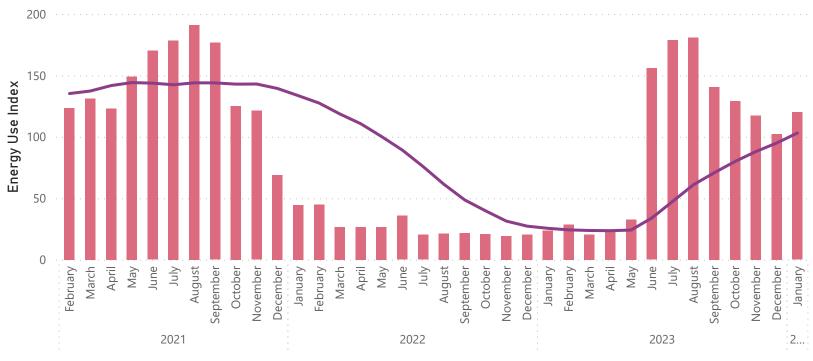






Civic Centre

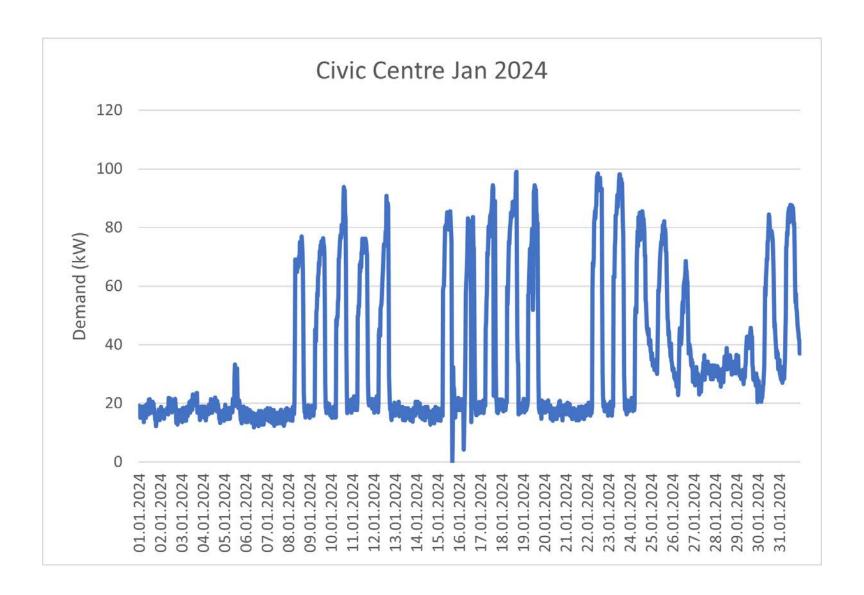




● EUI Monthly (kWh/year/m^2) ● EUI R12M (kWh/year/m^2)



Civic Centre





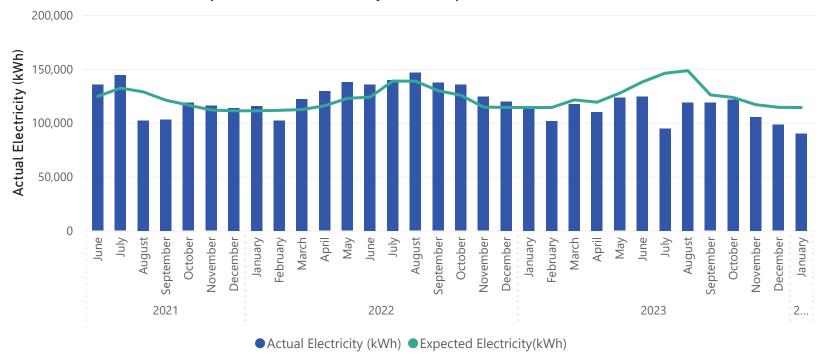
Aquatic Centre

\$3,558 Monthly Energy Cost Savings	23,959 Elec. Savings (kWh/mo)	21% Elec. Savings (%)	184,314 R12M Electricity Savings (kWh/yr)	2,206 CO2e Savings (kg/mo)
\$14,119 R12M Energy Cost Savings	1,105 Gas. Savings (kWh/mo)	100% Gas. Savings (%)	-226,162 R12M Gas Savings (kWh/yr)	-30,227 R12M CO2e Savings (kg/yr)

Comments:

Electricity use was less than baseline in Jan 2024. No gas was used for the month, which is excellent. Heat pumps are being used again and gas boilers have been switched off. The EUI for the month is significantly less than average over the past 12 months which aligns with heat pumps being used, as they are a more efficient technology compared to gas boilers.

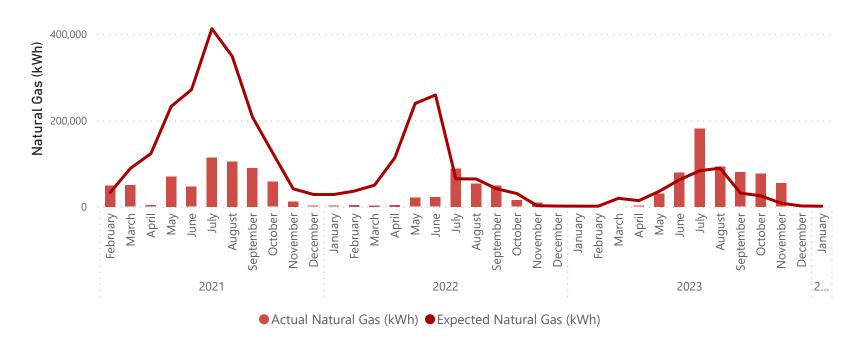
Aquatic Centre Electricity Use Compared to Baseline (kWh)



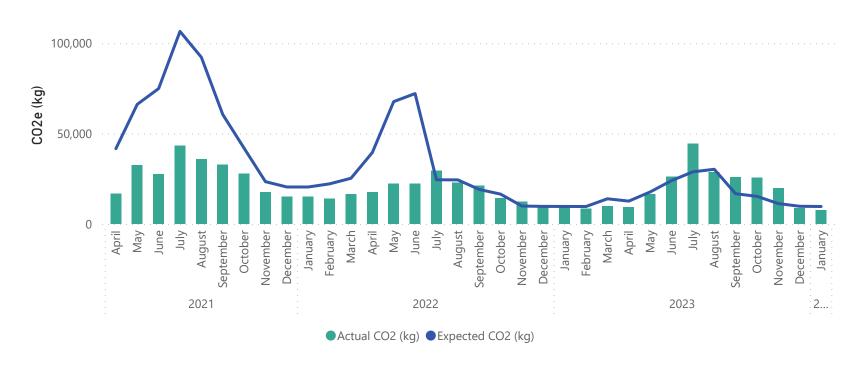


Aquatic Centre

Aquatic Centre Natural Gas Compared to Baseline (kWh)

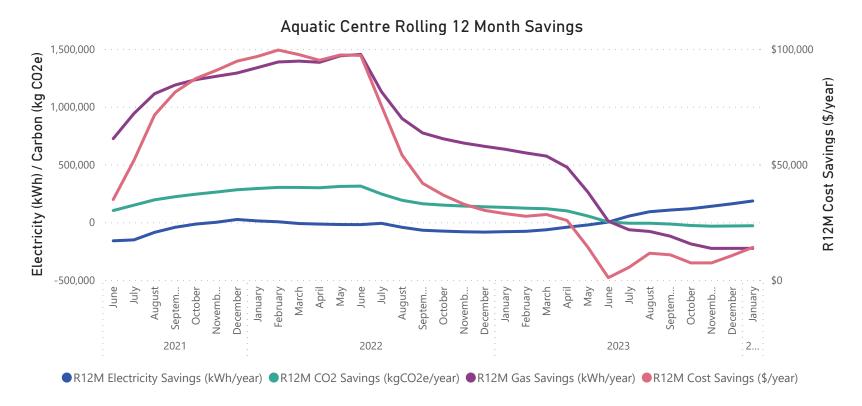


Aquatic Centre Carbon Emissions Compared to Baseline (kg CO2e)

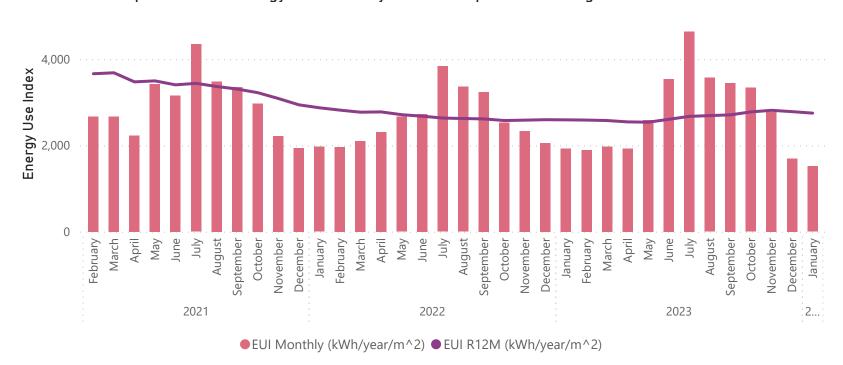




Aquatic Centre



Aquatic Centre Energy Use Index by Month Compared to Rolling 12-Month Values





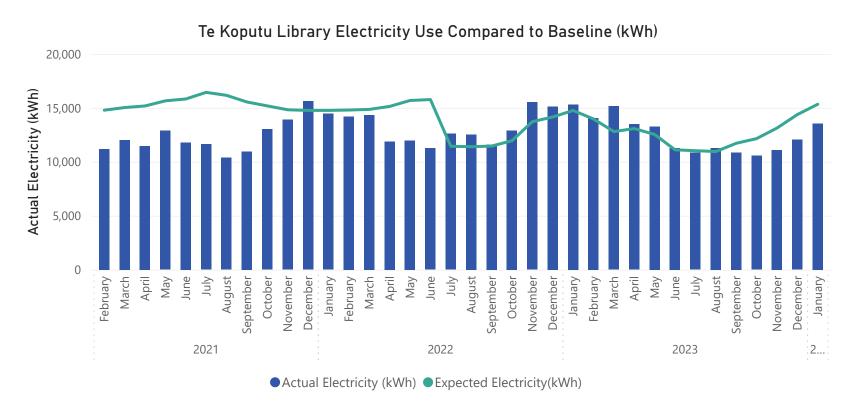
Te Koputu Library

\$1,142 Monthly Energy Cost Savings	1,787 Elec. Savings (kWh/mo)	12% Elec. Savings (%)	4,729 R12M Electricity Savings (kWh/yr)	2,198 CO2e Savings (kg/mo)
\$1,731 R12M Energy Cost Savings	10,192 Gas. Savings (kWh/mo)	69% Gas. Savings (%)	12,145 R12M Gas Savings (kWh/yr)	2,834 R12M CO2e Savings (kg/yr)

Comments:

Electricity and natural gas use were both less than expected for the month, an excellent result and most likely a result of tuning the boiler and chiller. Both natural gas and electricity savings have increased over the past four months, particularly gas.

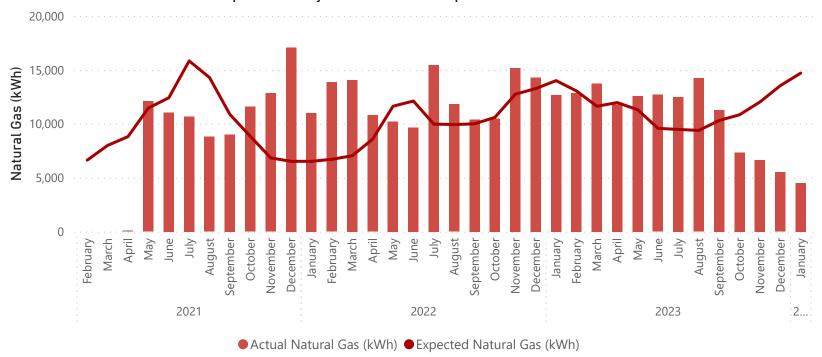
The Library's EUI has been consistent from Oct 2023 and lower than average compared to the last 12 months, which is great.

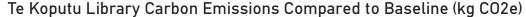


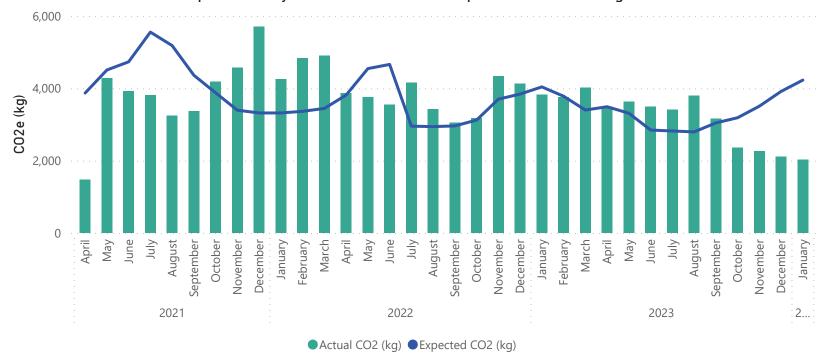


Te Koputu Library





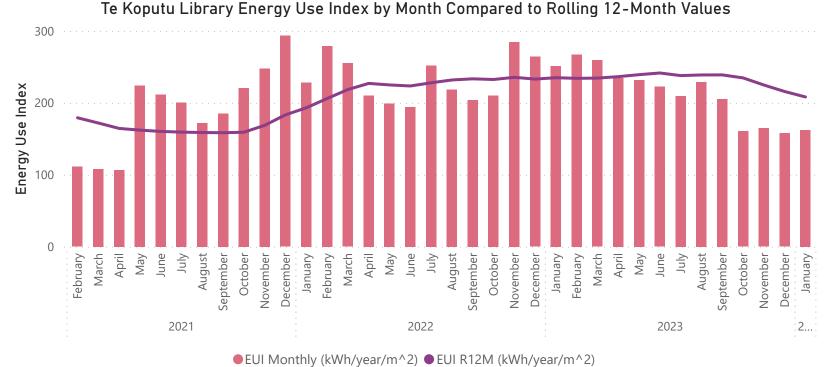






Te Koputu Library









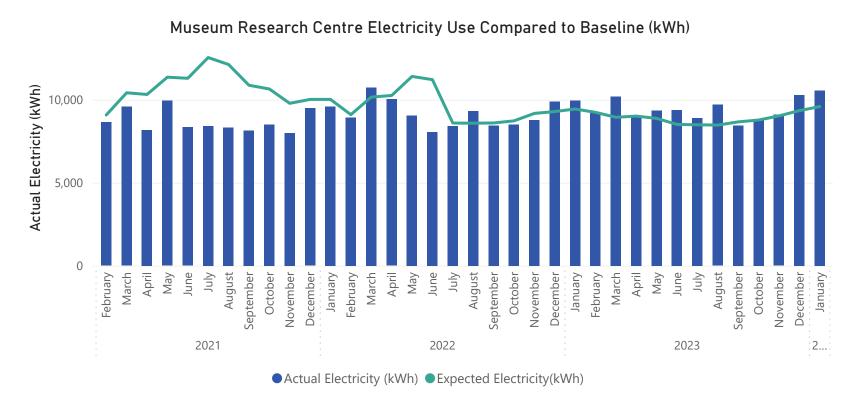


Museum and Research Centre

-\$239 Monthly Energy Cost Savings	-975 Elec. Savings (kWh/mo)	-10% Elec. Savings (%)	- 5,975 R12M Electricity Savings (kWh/yr)	-298 CO2e Savings (kg/mo)
-\$1,580	- 1,082	-39%	-6,241	-1,750
R12M Energy Cost Savings	Gas. Savings (kWh/mo)	Gas. Savings (%)	R12M Gas Savings (kWh/yr)	R12M CO2e Savings (kg/yr)

Comments:

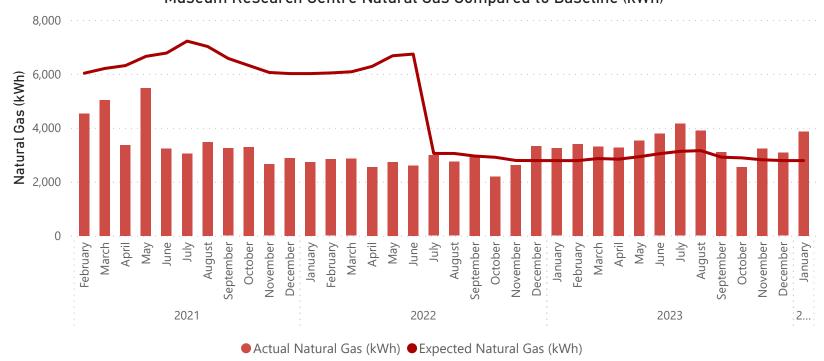
Natural gas and electricity were significantly more than expected. Operation of the AHUs has been changed to combat high humidity, which has had a negative impact on energy use. With the exception of October 2023, natural gas has been more than expected since December 2022.



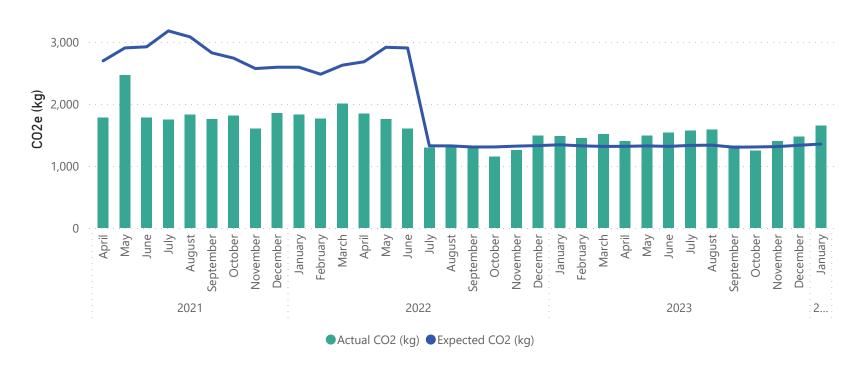


Museum and Research Centre



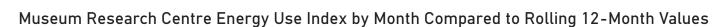


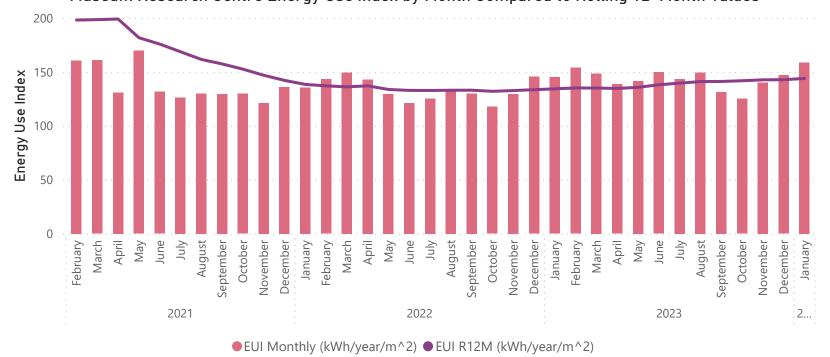
Museum Research Centre Carbon Emissions Compared to Baseline (kg CO2e)

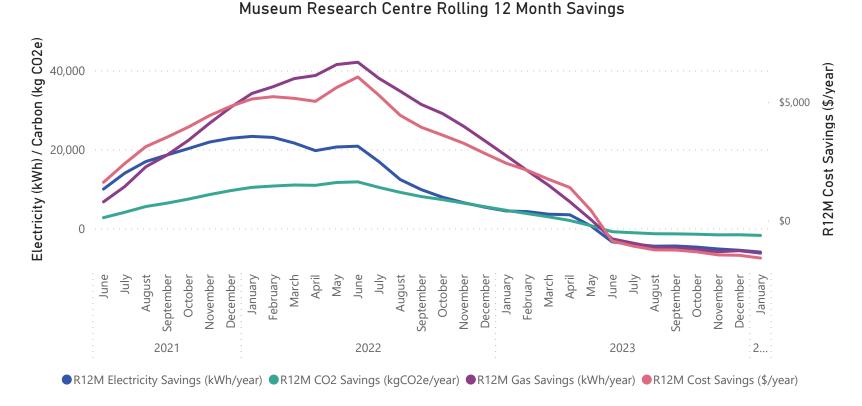




Museum and Research Centre









War Memorial Hall

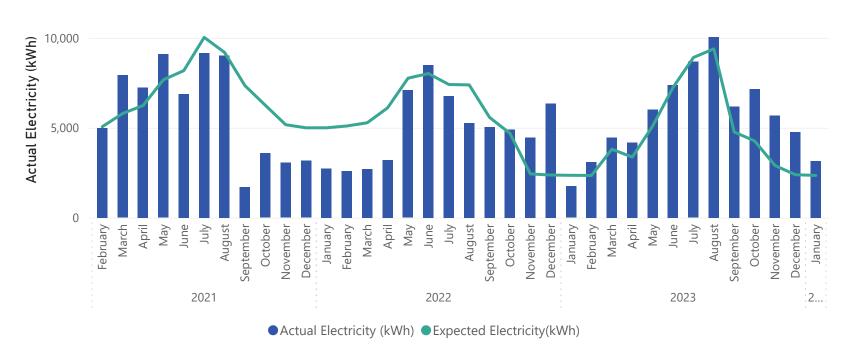
-\$66 Monthly Energy Cost Savings	-796 Elec. Savings (kWh/mo)	-34% Elec. Savings (%)	-13,963 R12M Electricity Savings (kWh/yr)	59 CO2e Savings (kg/mo)
-\$2,104 R12M Energy Cost Savings	623 Gas. Savings (kWh/mo)	34% Gas. Savings (%)	1,873 R12M Gas Savings (kWh/yr)	-779 R12M CO2e Savings (kg/yr)

Comments:

The War Memorial Hall used more electricity than expected. Eleven of the past 12 months have used more electricity than expected. This may be due to higher occupancy rates than usual.

The hall has used less natural gas than expected since October 2023. Natural gas use has decreased in recent months as ambient temperature is higher and less heating is required.

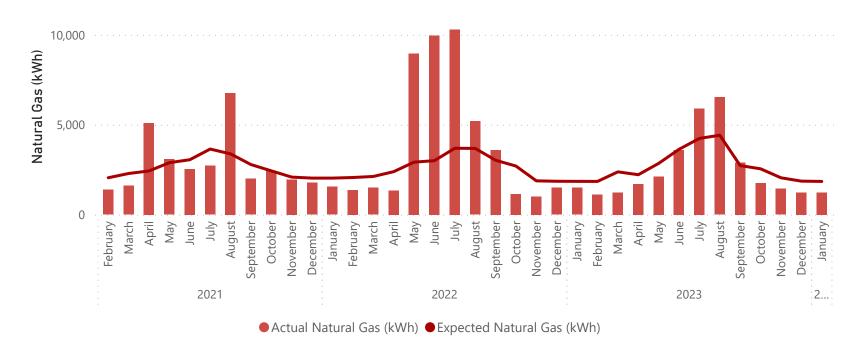
War Memorial Hall Electricity Use Compared to Baseline (kWh)



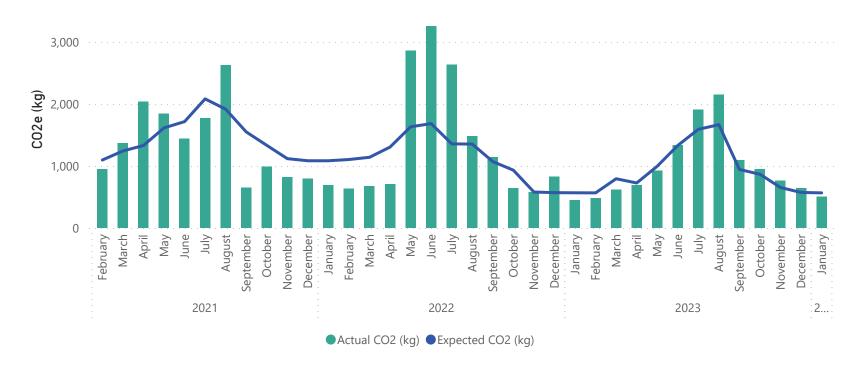


War Memorial Hall

War Memorial Hall Natural Gas Compared to Baseline (kWh)



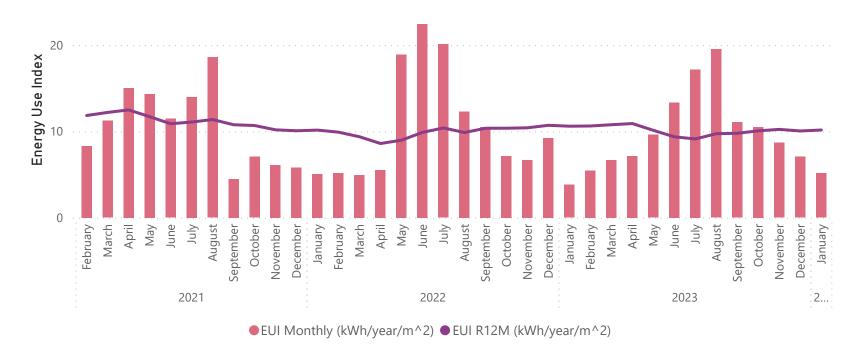
War Memorial Hall Carbon Emissions Compared to Baseline (kg CO2e)

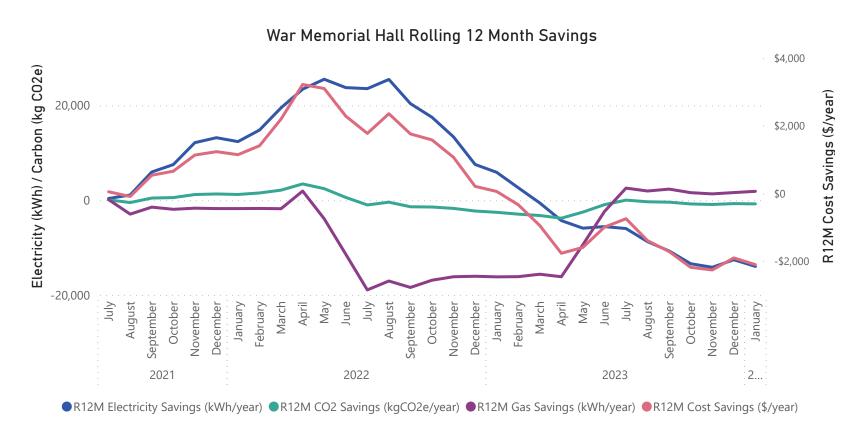




War Memorial Hall

War Memorial Hall Energy Use Index by Month Compared to Rolling 12-Month Values







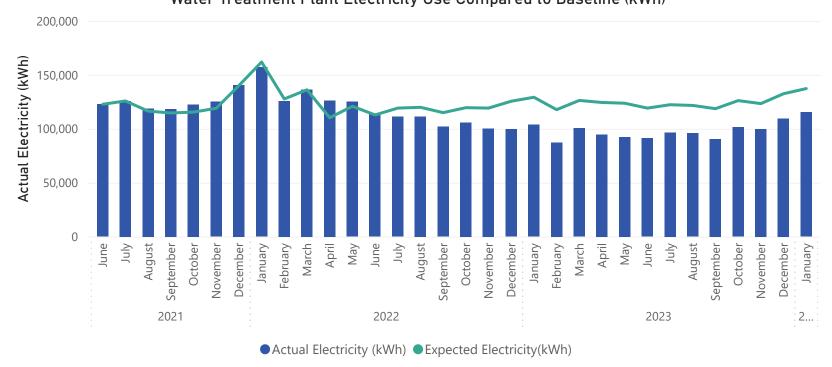
Water Treatment Plant

\$3,133 Monthly Energy Cost Savings	21,872 Elec. Savings (kWh/mo)	16% Elec. Savings (%)	318,114 R12M Electricity Savings (kWh/yr)	1,811 CO2e Savings (kg/mo)
\$54,325 R12M Energy Cost Savings				26,340 R12M CO2e Savings (kg/yr)

Comments:

Another month of savings has been achieved at the WTP in December 2023. Consistent savings between 15-25% have been observed since November 2022.

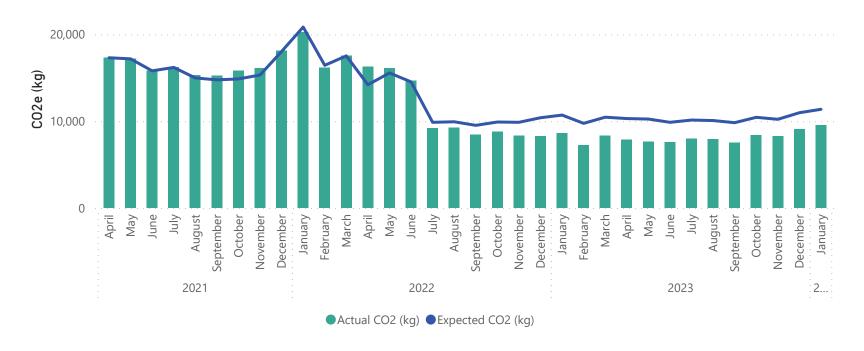
Water Treatment Plant Electricity Use Compared to Baseline (kWh)

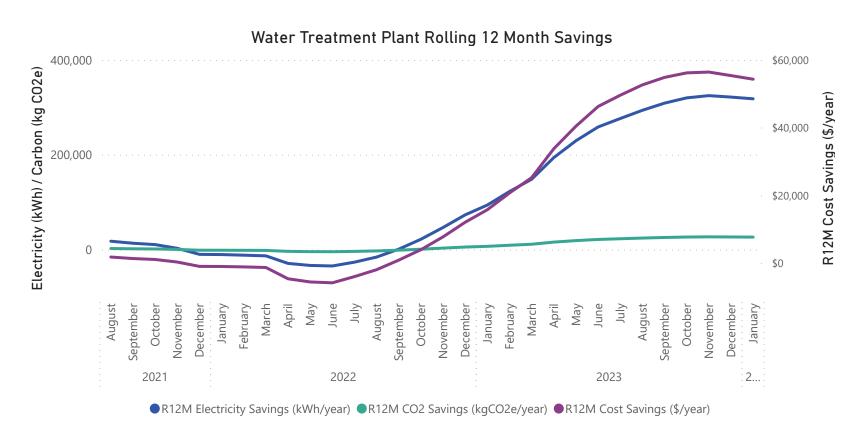




Water Treatment Plant

Water Treatment Plant Carbon Emissions Compared to Baseline (kg CO2e)

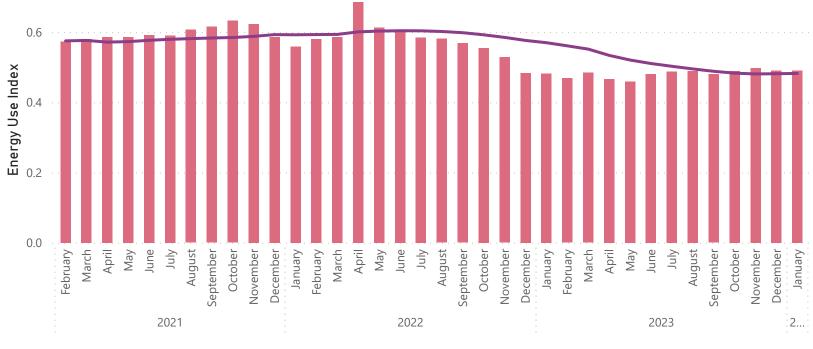






Water Treatment Plant

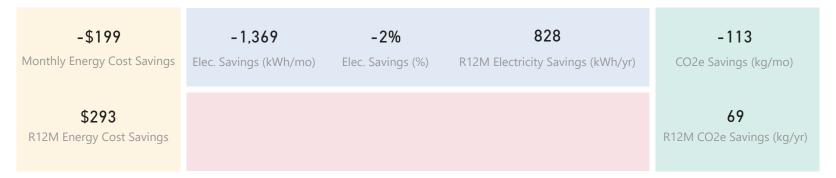
Water Treatment Plant Energy Use Index by Month Compared to Rolling 12-Month Values



● EUI Monthly (kWh/m^3) ● EUI R12M (kWh/m^3)

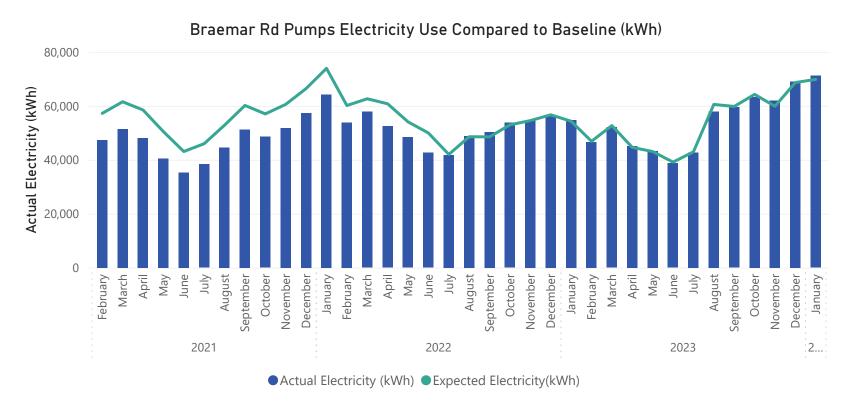


Braemar Road Pump Station



Comments:

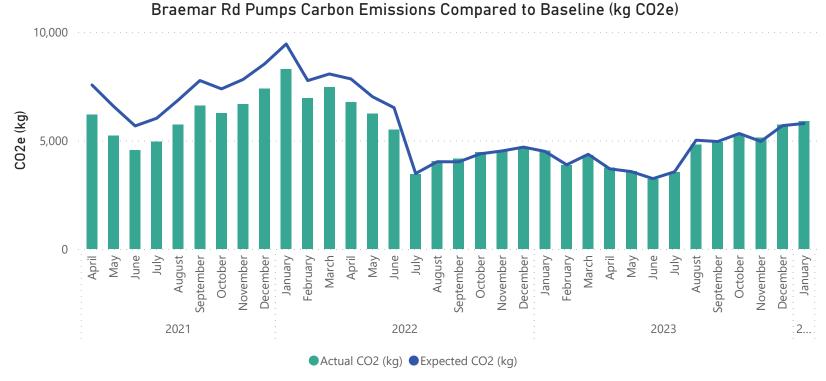
Braemar Rd pump station has been re-baselined this month, the baseline period is Jul 2023 to Jan 2024 and has an R2 value of 0.99. Work has been completed at which added filters and new low lift pumps to meet water quality requirements. A contractor was able to supply accurate flows, which show the impact of increased pumping requirements from new filters, using around 24% more electricity on average. New tags will be added to SCADA in future which will capture water metering.

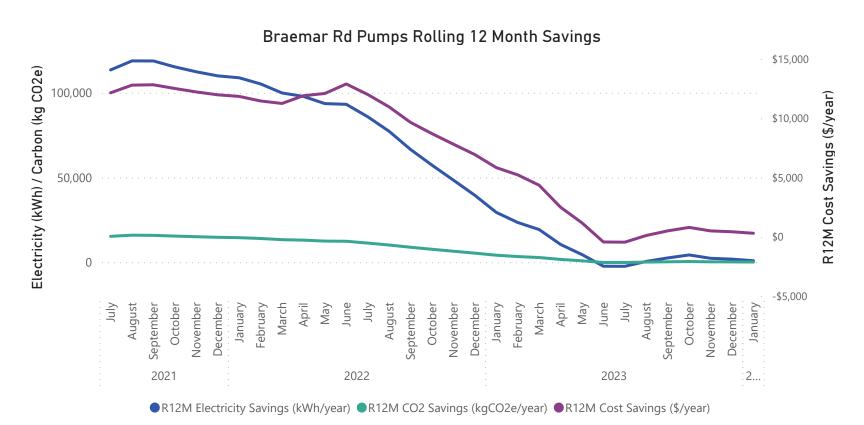




Braemar Road Pump Station









Braemar Road Pump Station

Braemar Rd Pumps Energy Use Index by Month Compared to Rolling 12-Month Values



● EUI Monthly (kWh/m^3) ● EUI R12M (kWh/m^3)



Paul Road Pump Station

-\$67	-466	- 1%	10,726	-39
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$1,977 R12M Energy Cost Savings				888 R12M CO2e Savings (kg/yr)

Comments:

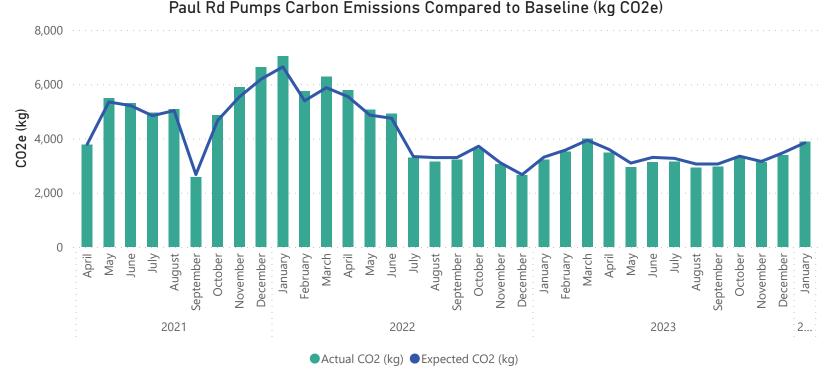
Electricity use was close to expected at Paul Road Pump Station. Energy performance has been consistent each month from April 2023, with savings or marginal increase above expected electricity.

Paul Rd Pumps Electricity Use Compared to Baseline (kWh) 60,000 Actual Electricity (kWh) 40,000 20,000 August January March August March June July September July March November February September December November October December January October November February September December 2... 2021 2022 2023 ◆Actual Electricity (kWh)◆Expected Electricity(kWh)

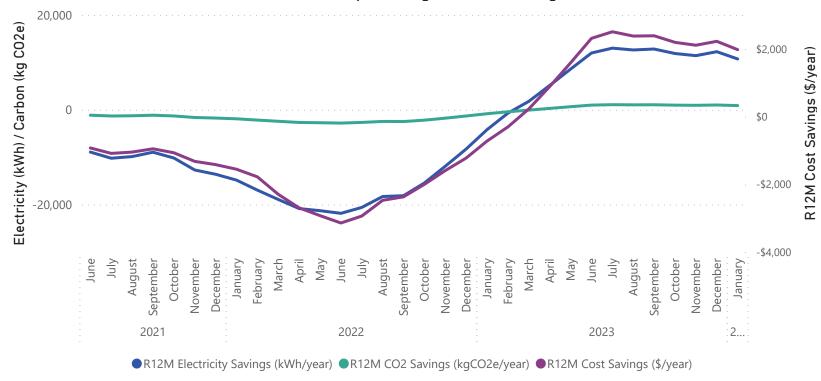


Paul Road Pump Station





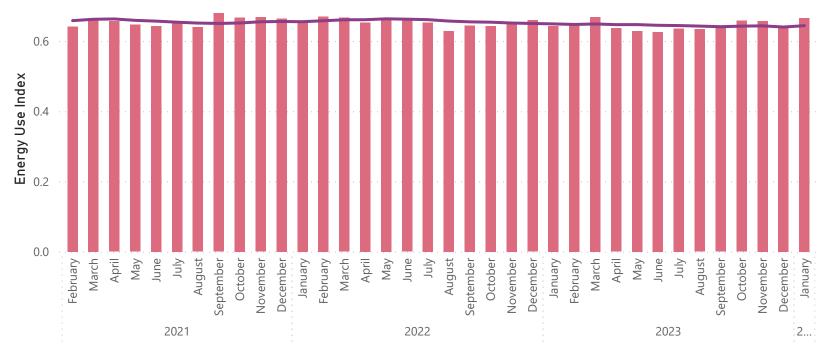






Paul Road Pump Station

Paul Rd Pumps Energy Use Index by Month Compared to Rolling 12-Month Values



● EUI Monthly (kWh/m^3) ● EUI R12M (kWh/m^3)



Johnson Road Pump Station

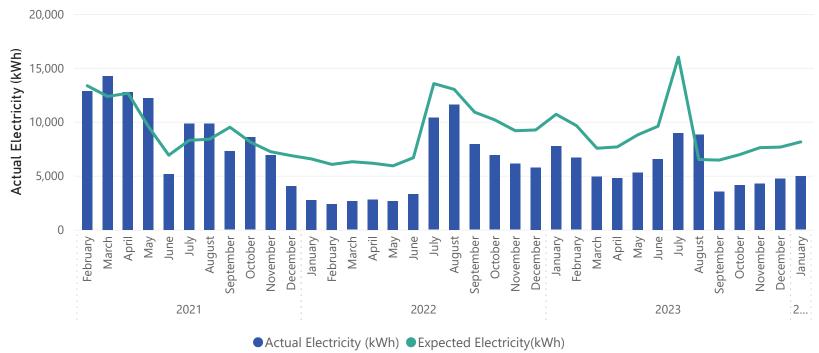
\$707	3,179	39%	34,837	263
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$7,605				2,885
R12M Energy Cost Savings				R12M CO2e Savings (kg/yr)

Comments:

Johnson Rd Pump used 39% less electricity than expected. Over the past 5 months demand has been increased steadily.

The pump has been achieving consistent savings from Dec 2021, with the exception of August 2023, which may be due to when the electricity meter was read or the increased electricity use may be due to some interactive effects between Johnson and Braemar Rd pump stations.

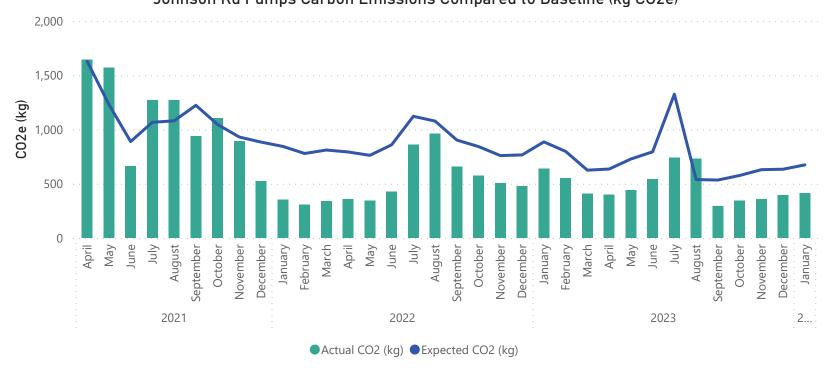


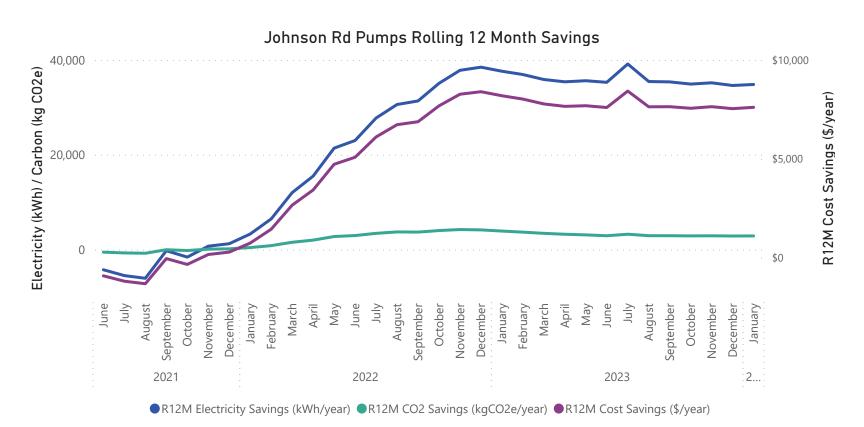




Johnson Road Pump Station



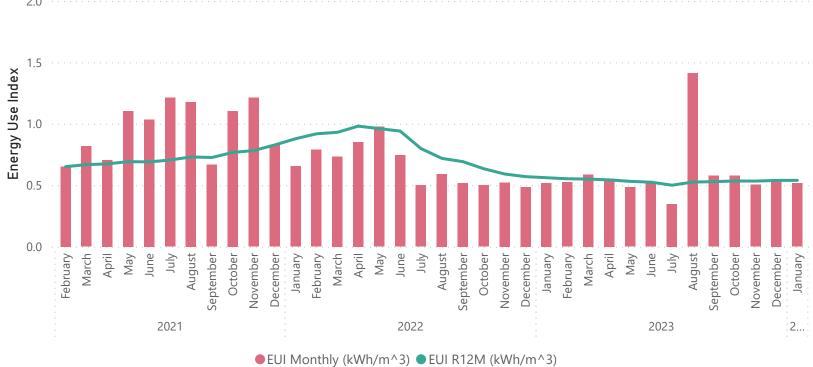






Johnson Road Pump Station

Johnson Rd Pumps Energy Use Index by Month Compared to Rolling 12-Month Values





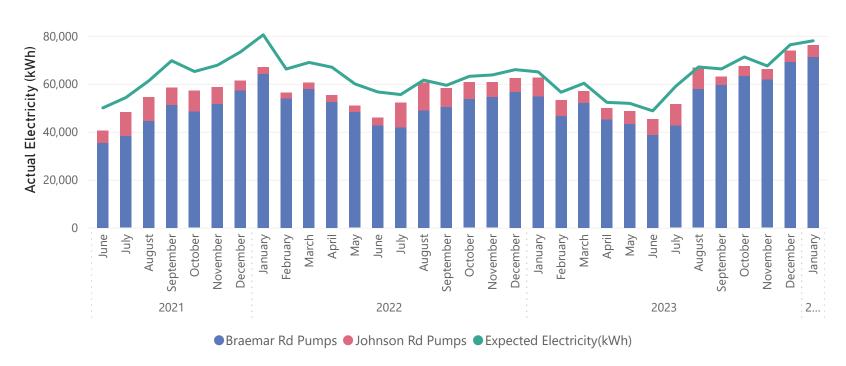
Johnson and Braemar Rd Pump Stations

\$508	1,810	2%	35,665	150
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$7,898				2,953
R12M Energy Cost Savings				R12M CO2e Savings (kg/yr)

Comments:

Braemar Rd pump station has been re-baselined due to new pumping requirements from additional screens added, which has increased electricity use by approximately 24%.

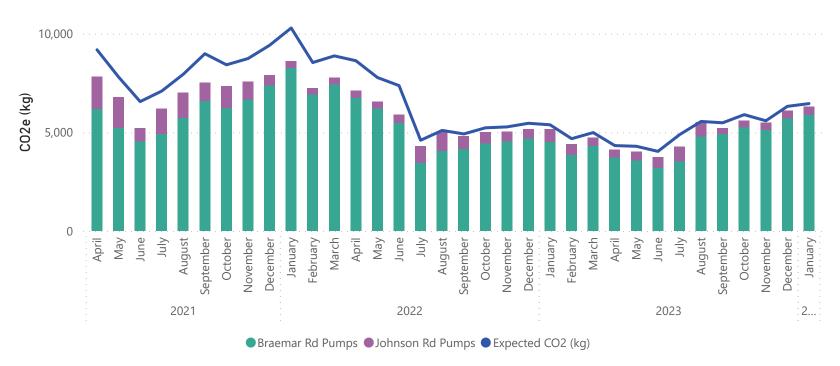
Johnson and Braemar Rd Pump Stations Electricity Use Compared to Baseline (kWh)

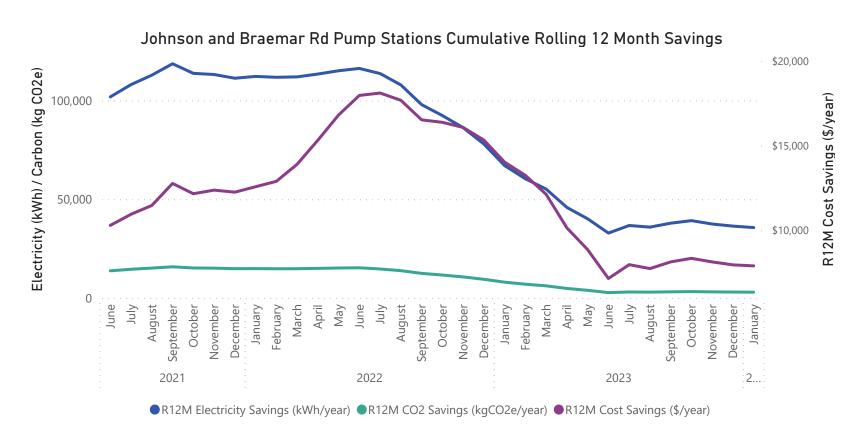




Johnson and Braemar Rd Pump Stations

Johnson and Braemar Rd Pump Stations Carbon Emissions Compared to Baseline (kWh)

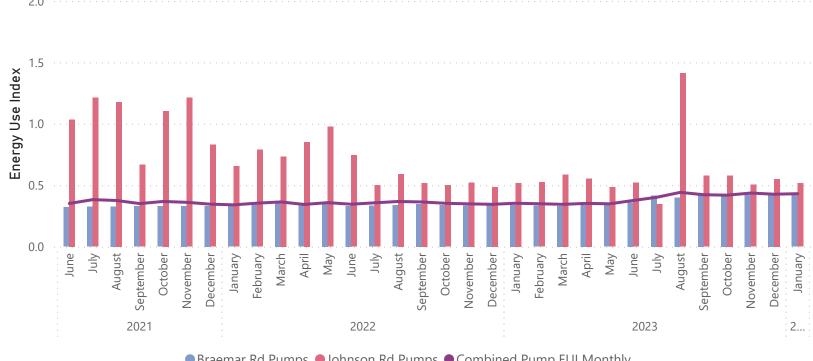






Johnson and Braemar Rd Pump Stations







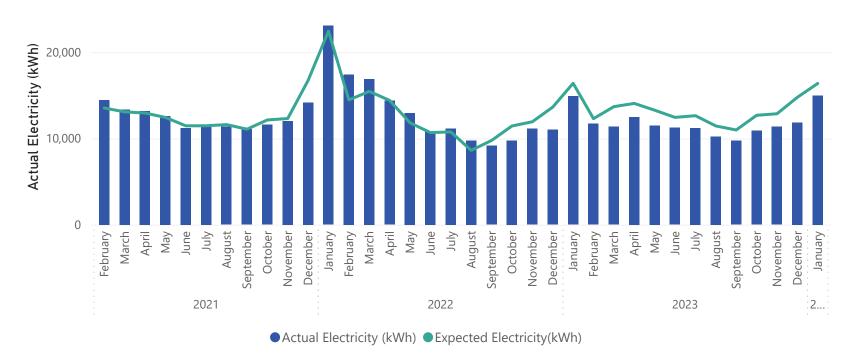
Bridger Glade Pump Station

\$248	1,402	9%	18,988	116
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$3,356 R12M Energy Cost Savings				1,572 R12M CO2e Savings (kg/yr)

Comments:

Bridger Glade Pump Station has used less electricity than expected since September 2022, which is excellent. This is due to new supply pumps that were installed in late August 2022. Savings over the past year are \$3,400, 19,000 kWh, and 1,570 kg CO2e.

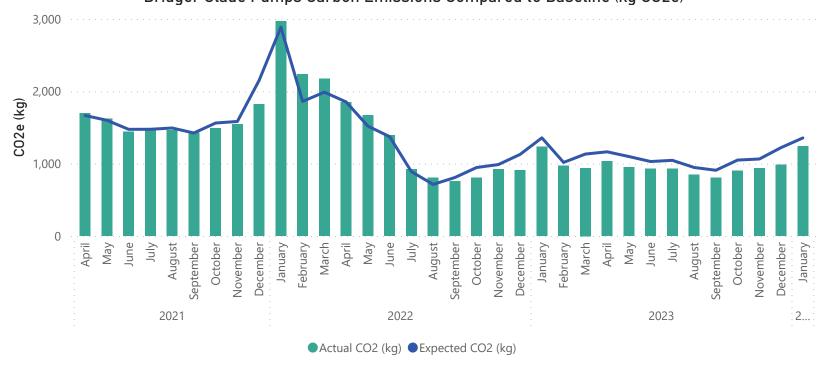
Bridger Glade Pumps Electricity Use Compared to Baseline (kWh)

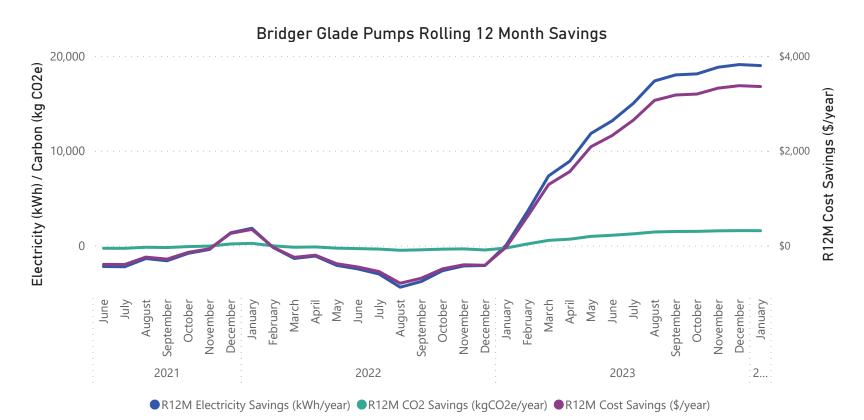




Bridger Glade Pump Station



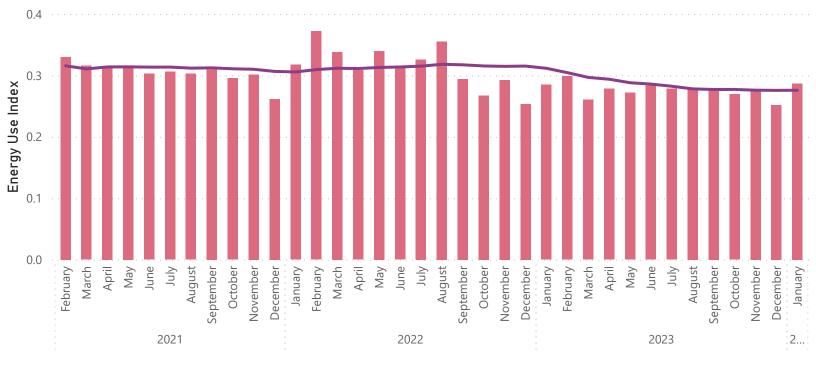






Bridger Glade Pump Station





● EUI Monthly (kWh/m^3) ● EUI R12M (kWh/m^3)



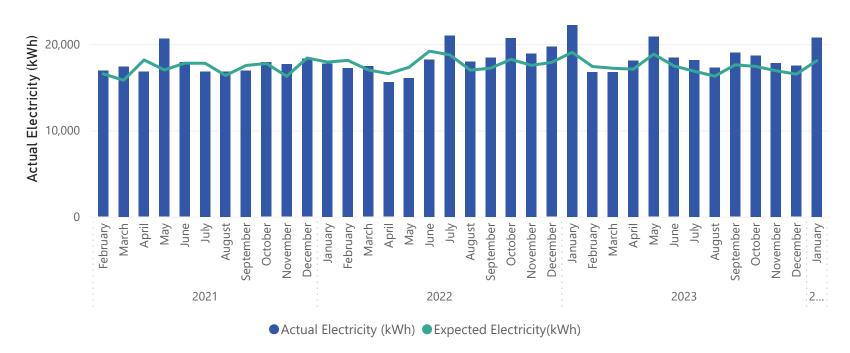
Ohope Oxidation Ponds

-\$486	-2,682	-15%	-12,369	-222
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
-\$2,213 R12M Energy Cost Savings				-1,024 R12M CO2e Savings (kg/yr)

Comments:

Ohope Oxidation Ponds have used more electricity than expected in 11 of the last 12 months. Rainfall has generally been higher than usual, which may contribute to higher electricity usage. The monthly EUI in January is less than average for the past 12 months.

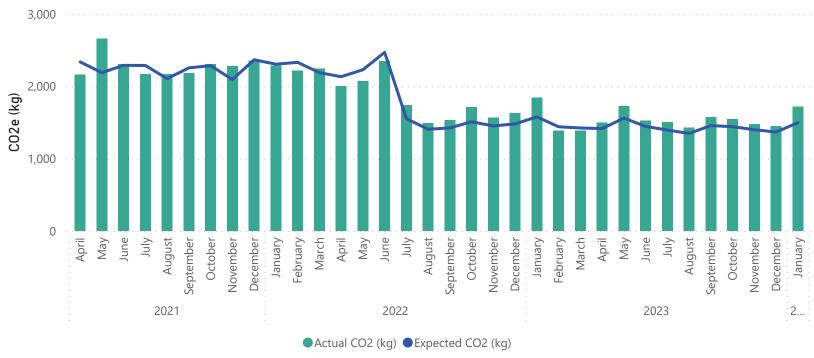
Ohope Oxidation Ponds Electricity Use Compared to Baseline (kWh)



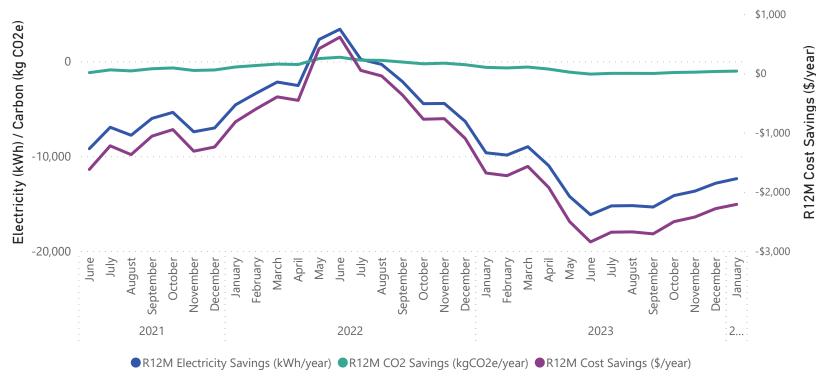


Ohope Oxidation Ponds











Ohope Oxidation Ponds





● EUI Monthly (kWh/m^3) ● EUI R12M (kWh/m^3)

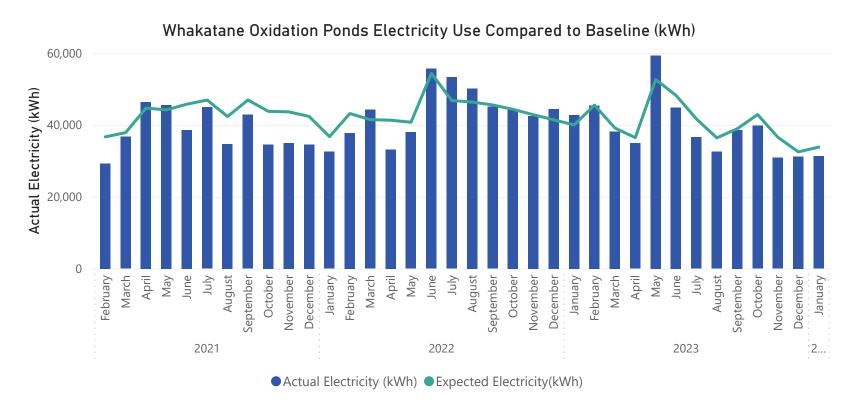


Whakatane Oxidation Ponds

\$1,599	2,566	8%	21,261	212
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$5,065 R12M Energy Cost Savings				1,760 R12M CO2e Savings (kg/yr)
R12M Energy Cost Savings				R12M CO2e Savings (kg/yr)

Comments:

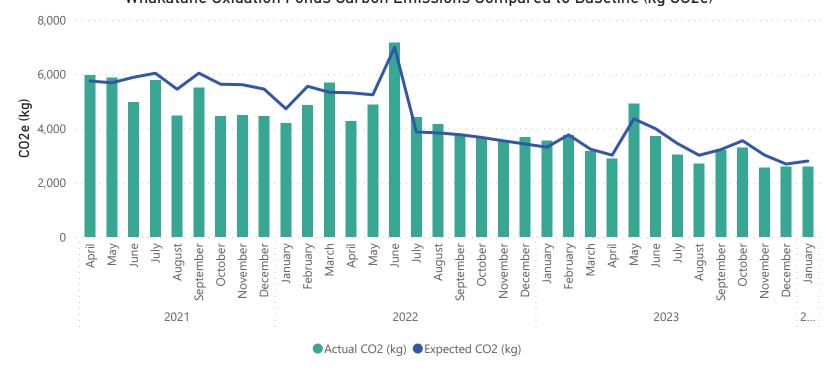
The oxidation ponds used less electricity than expected in January 2024. January 2024 was a month with lower than average rainfall, approximately 56mm of rain was recorded for the month. The EUI for the month is above average compared to the last 12 months.



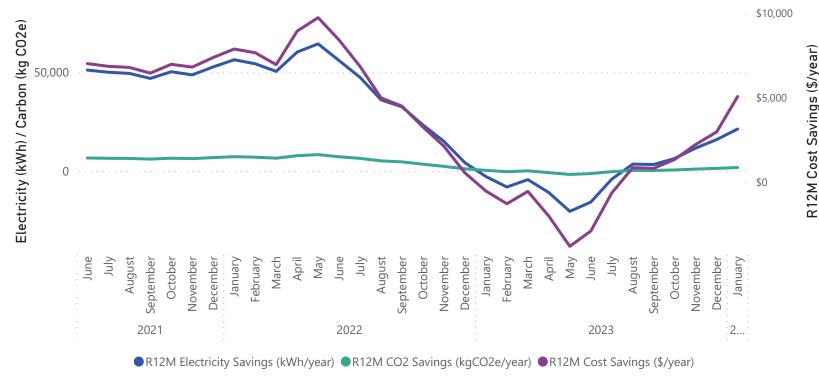


Whakatane Oxidation Ponds



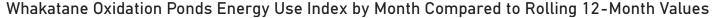


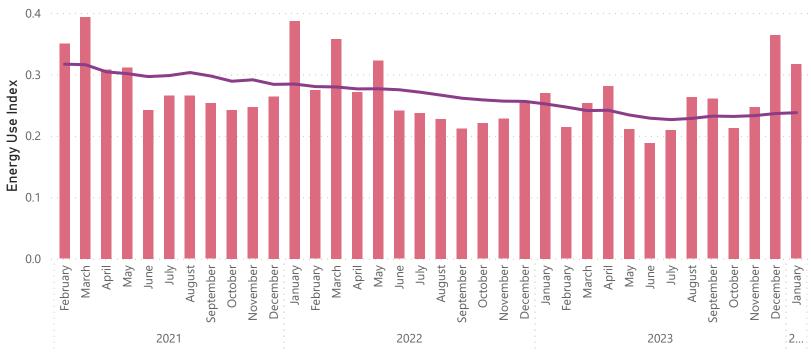






Whakatane Oxidation Ponds

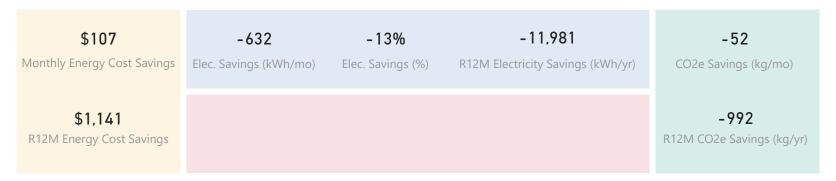




● EUI Monthly (kWh/m^3) ● EUI R12M (kWh/m^3)



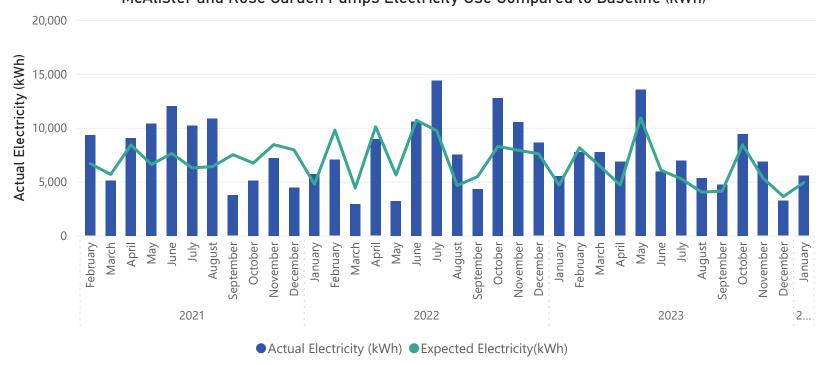
McAlister Street and Rose Garden Pump Stations



Comments:

The pump stations used 13% more electricity than expected this month. Approximately 81mm of rain coincided within the billing period. Rainfall over the past 12 months averaged about 130mm per month.

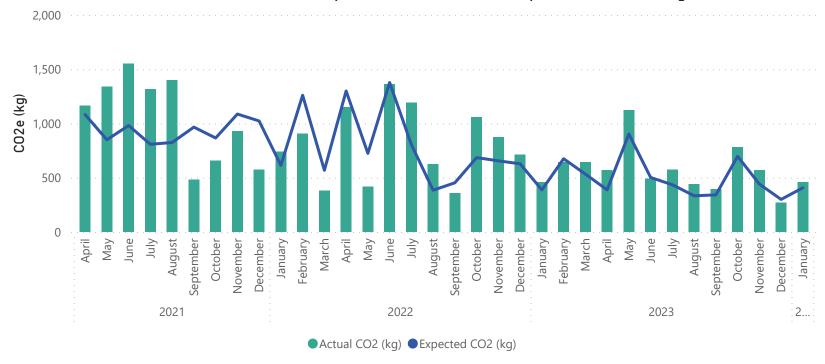
McAlister and Rose Garden Pumps Electricity Use Compared to Baseline (kWh)

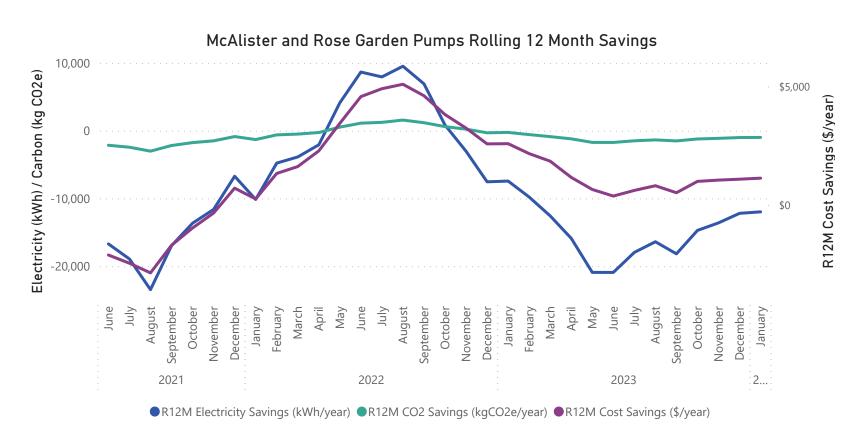




McAlister Street and Rose Garden Pump Stations







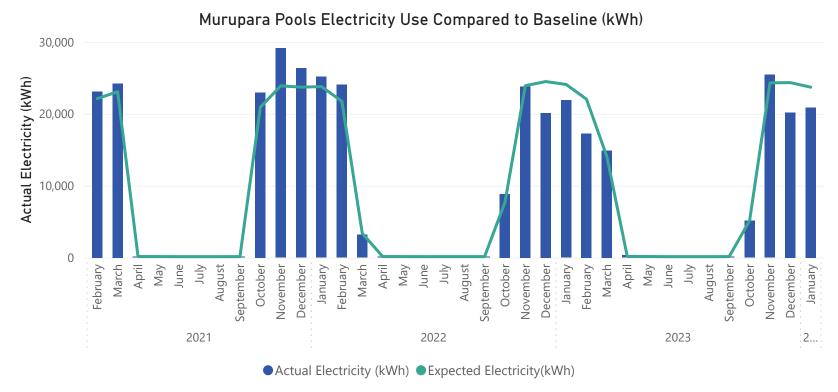


Murupara Pools

\$440 Monthly Energy Cost Savings	2,834 Elec. Savings (kWh/mo)	12% Elec. Savings (%)	9,692 R12M Electricity Savings (kWh/yr)	235 CO2e Savings (kg/mo)
\$1,596 R12M Energy Cost Savings				802 R12M CO2e Savings (kg/yr)

Comments:

Murupara Pools have opened for the season, heating of the pools started in late October 2023, electricity use in January was 12% less than expected.



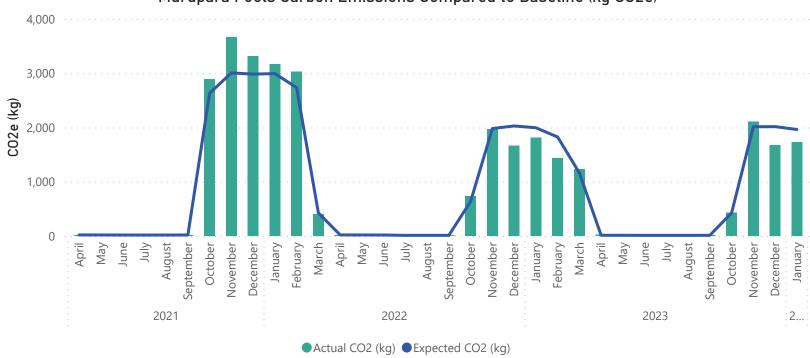
\$2,000



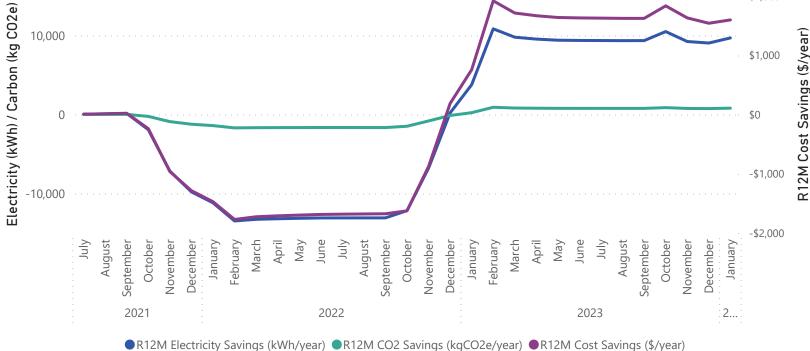
Whakatane District Council

Murupara Pools









Murupara Pools Rolling 12 Month Savings