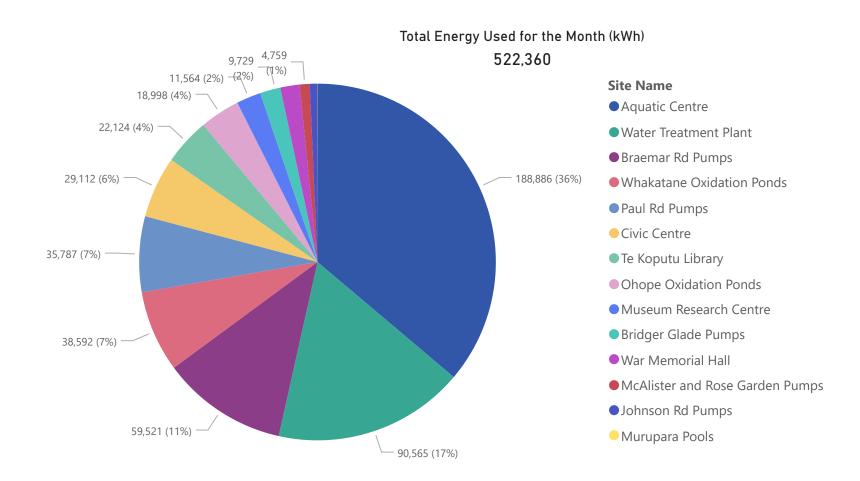


Summary

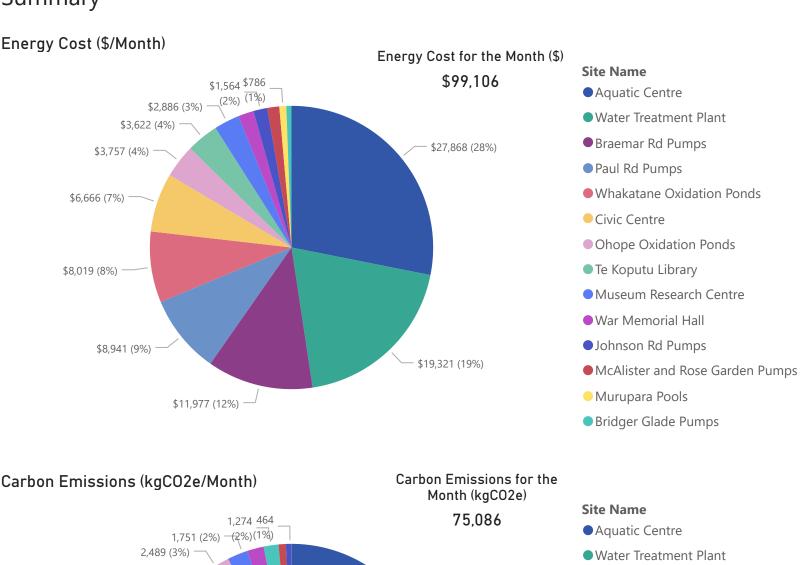
\$1,825 Monthly Energy Cost Savings	28,435 Elec. Savings (kWh/mo)	6% Elec. Savings (%)	589,065 R12M Electricity Savings (kWh/yr)	-4,609 CO2e Savings (kg/mo)
\$100,446 R12M Energy Cost Savings	-40,262 Gas. Savings (kWh/mo)	-85% Gas. Savings (%)	-130,632 R12M Gas Savings (kWh/yr)	50,127 R12M CO2e Savings (kg/yr)

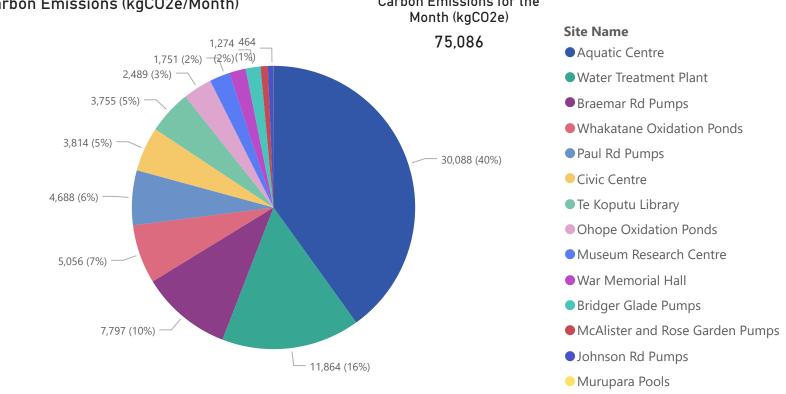
Total Energy (kWh/Month)





Summary

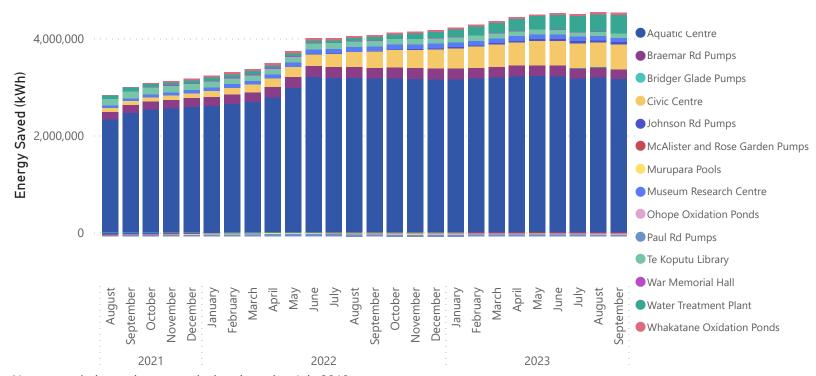






Summary

Cumulative Energy Savings (kWh)

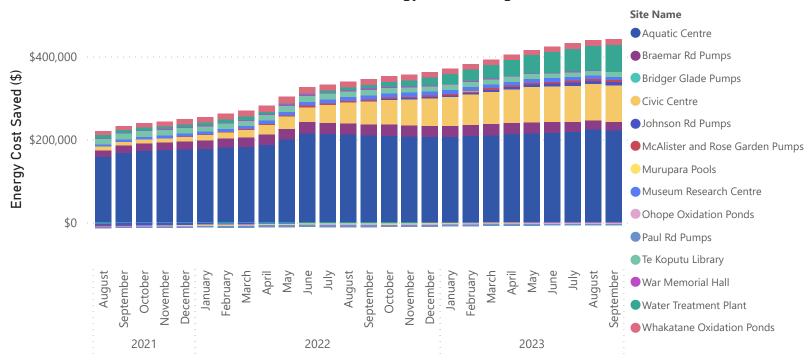


Note, cumulative savings are calculated starting July 2018

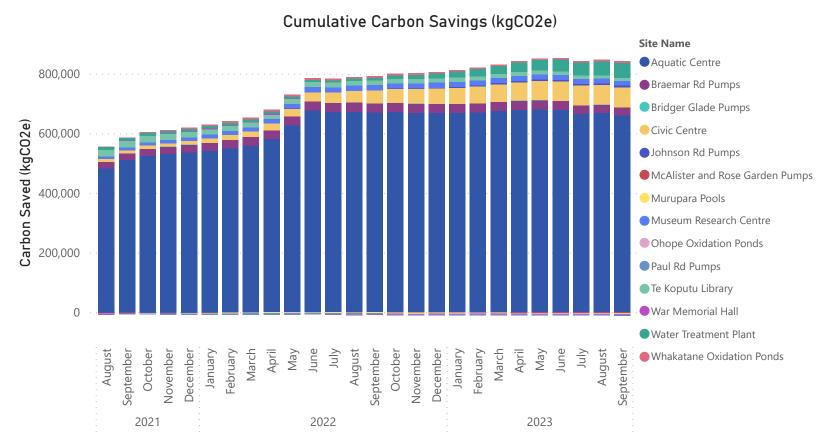


Summary





Note, cumulative savings are calculated starting July 2018





Civic Centre

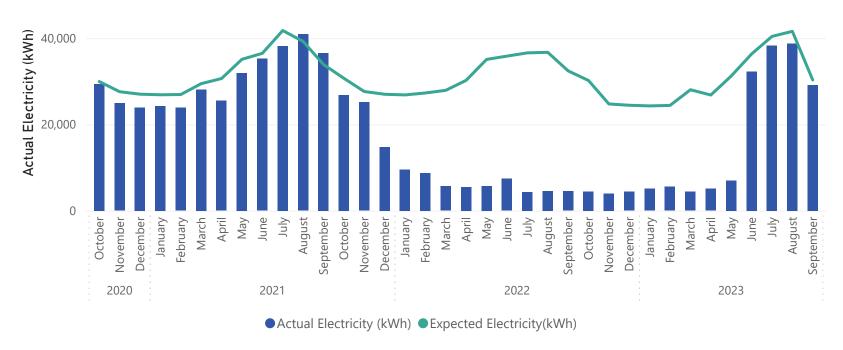
\$202	1,181	4%	184,357	155
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$32,213				24,151
R12M Energy Cost Savings				R12M CO2e Savings (kg/yr)

Comments:

The Civic Centre has returned to normal operation after ongoing refurbishments. It can be seem from TOU electricity that afterhours electricity decreased by approximately 10 kW between 9-21 September. During this time, electricity demand was flat over weekends. Compared to September 2021, peak demand has decreased by 20 kW on average. Overall, electricity use is less than expected.

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

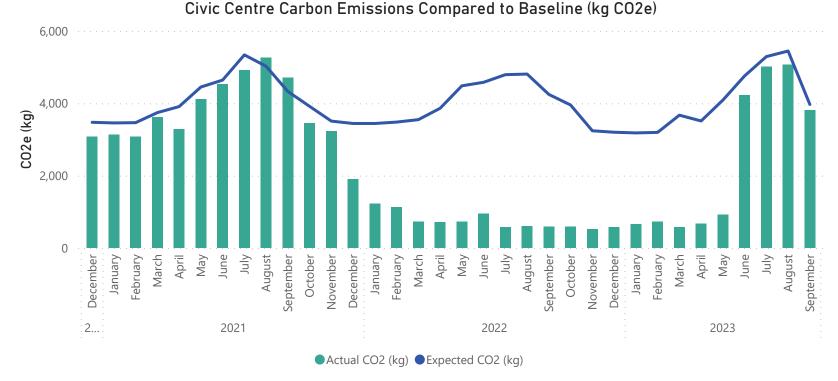
Civic Centre Electricity Use Compared to Baseline (kWh)

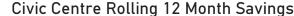


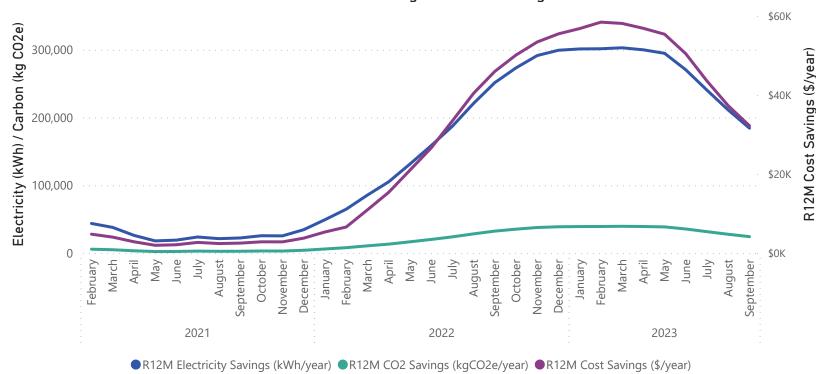


Civic Centre





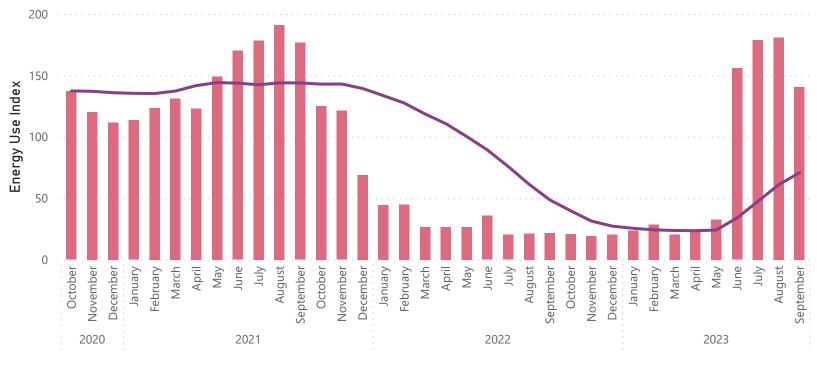






Civic Centre

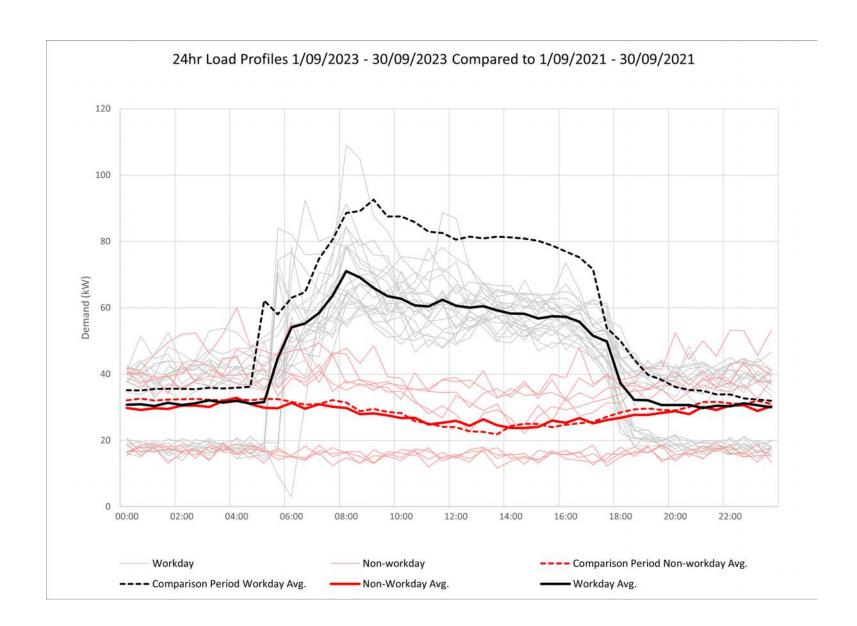




● EUI Monthly (kWh/year/m^2) ● EUI R12M (kWh/year/m^2)



Civic Centre





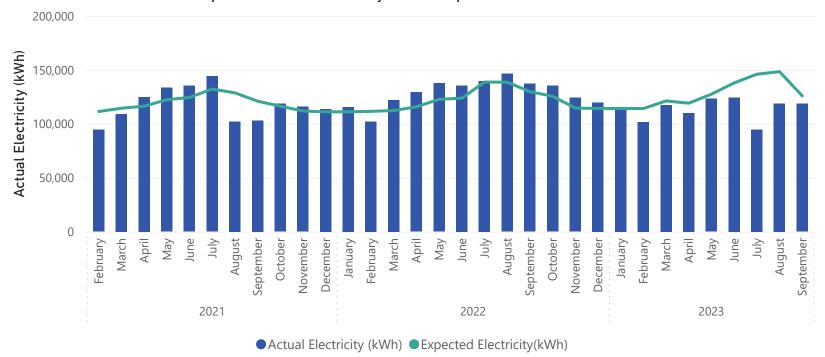
Aquatic Centre

-\$1,863 Monthly Energy Cost Savings	7,328 Elec. Savings (kWh/mo)	6% Elec. Savings (%)	105,576 R12M Electricity Savings (kWh/yr)	-7,100 CO2e Savings (kg/mo)
\$11,668 R12M Energy Cost Savings	-38,939 Gas. Savings (kWh/mo)	-124% Gas. Savings (%)	-111,070 R12M Gas Savings (kWh/yr)	-9,161 R12M CO2e Savings (kg/yr)

Comments:

Electricity use was less than baseline in September 2023 and gas was more than twice as much than expected. The Aquatic Centre has been using the gas boilers as a temporary solution while heat pump and plant equipment are being repaired and redeveloped. The EUI for the month is higher than average over the past 12 months, as would be expected with more use of the gas boilers, heat pumps use energy more efficiently.

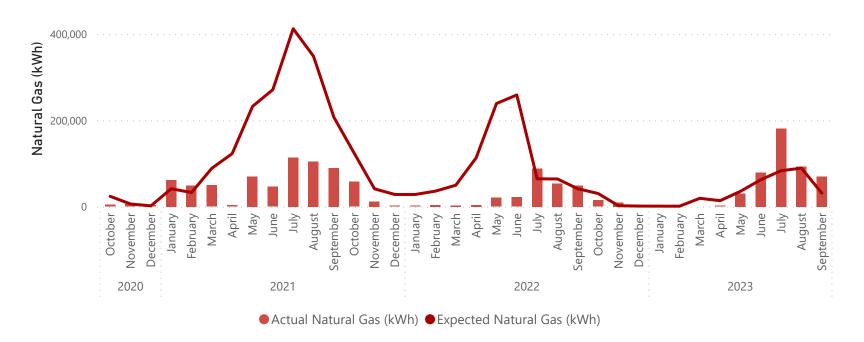
Aquatic Centre Electricity Use Compared to Baseline (kWh)



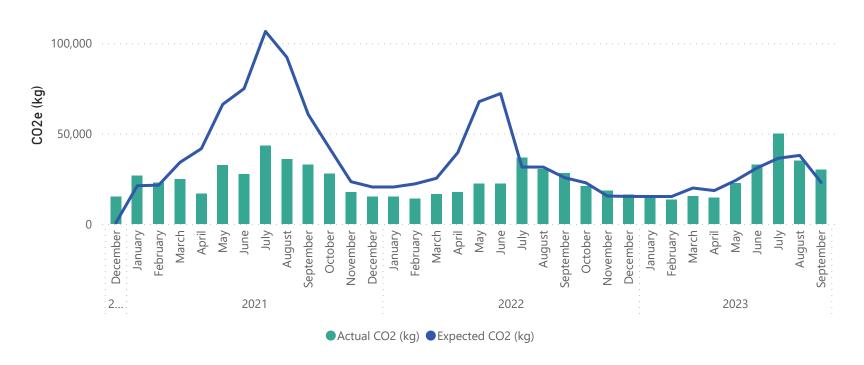


Aquatic Centre

Aquatic Centre Natural Gas Compared to Baseline (kWh)

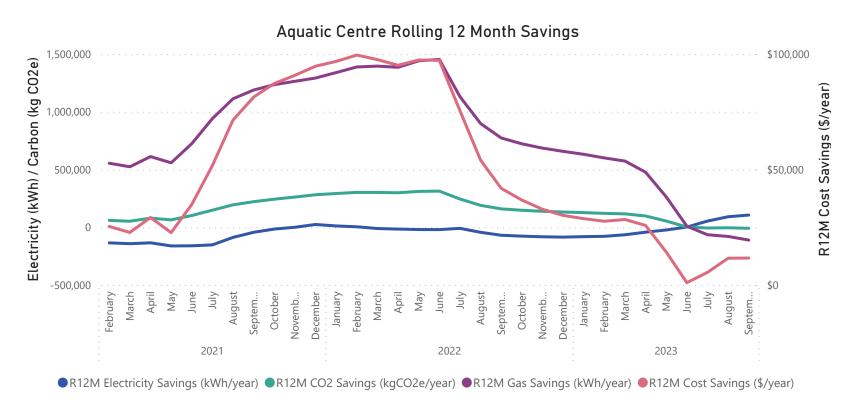


Aquatic Centre Carbon Emissions Compared to Baseline (kg CO2e)

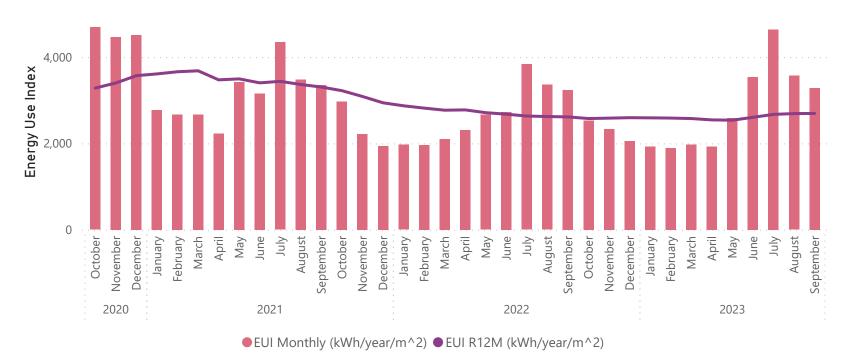




Aquatic Centre



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





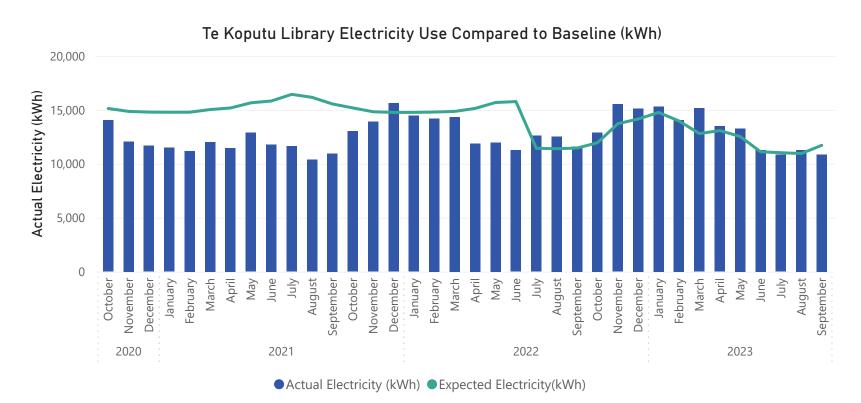
Te Koputu Library

\$72 Monthly Energy Cost Savings	866 Elec. Savings (kWh/mo)	7% Elec. Savings (%)	-7,291 R12M Electricity Savings (kWh/yr)	-85 CO2e Savings (kg/mo)
-\$2,666 R12M Energy Cost Savings	-959 Gas. Savings (kWh/mo)	- 9% Gas. Savings (%)	-16,986 R12M Gas Savings (kWh/yr)	-4,471 R12M CO2e Savings (kg/yr)

Comments:

Electricity use was less than expected for the month, natural gas use was more than expected. Natural gas use has decreased compared to recent months, however is still above baseline.

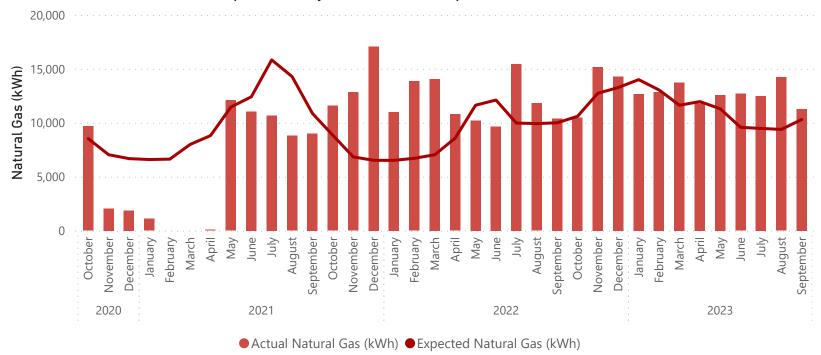
The Library's EUI for the month is less than average compared to the last 12 months, which is good.



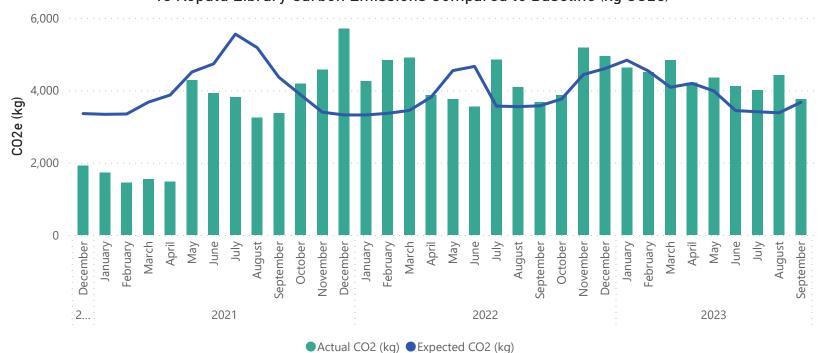


Te Koputu Library



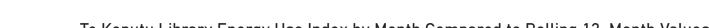


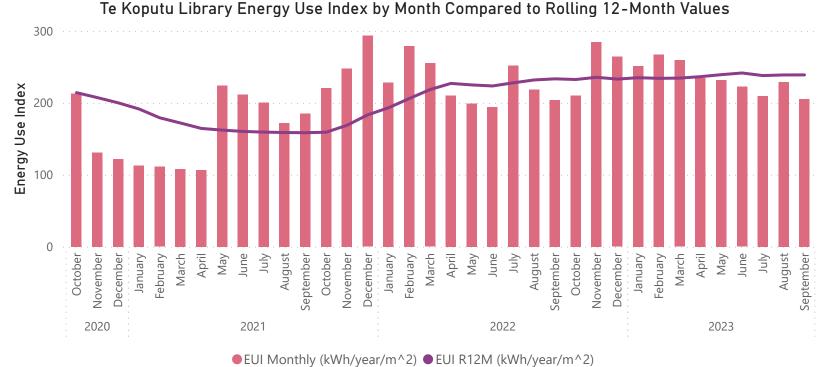




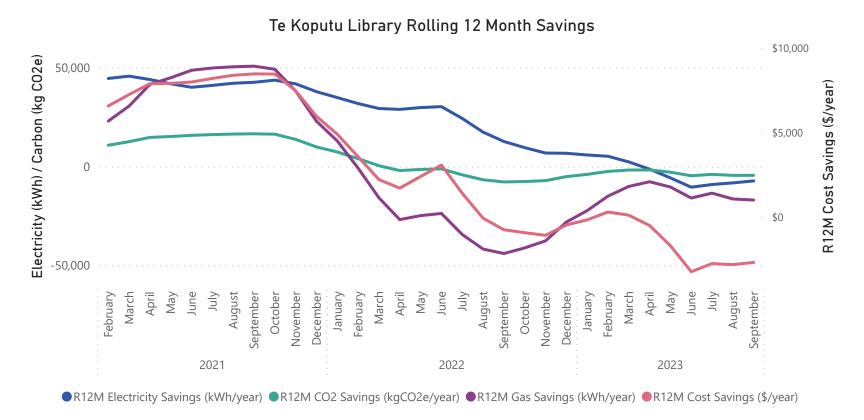


Te Koputu Library









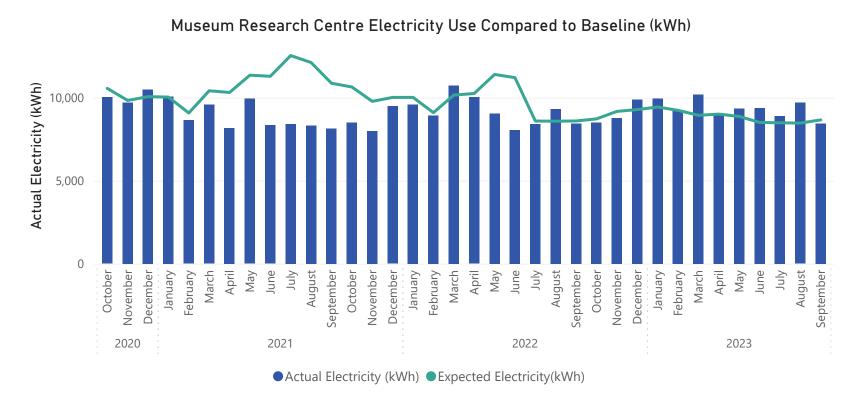


Museum and Research Centre

\$21 Monthly Energy Cost Savings	212 Elec. Savings (kWh/mo)	2% Elec. Savings (%)	-4,432 R12M Electricity Savings (kWh/yr)	-13 CO2e Savings (kg/mo)
-\$1,243	-198	- 7%	-4,916 R12M Gas Savings (kWh/yr)	-1,598
R12M Energy Cost Savings	Gas. Savings (kWh/mo)	Gas. Savings (%)		R12M CO2e Savings (kg/yr)

Comments:

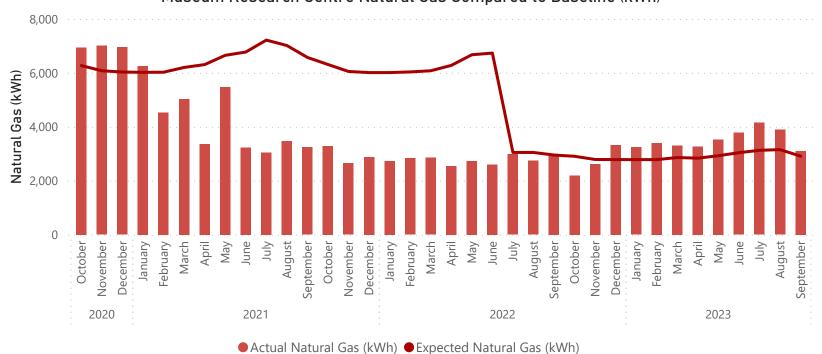
Natural gas use was 7% more than expected and electricity use was 2% less than expected. Natural gas use has decreased compared to recent months, which is expected as the days are warmer on average. September 2023 is the first month since December 2022 where the EUI is less than average compared to the past 12 months, which is good.



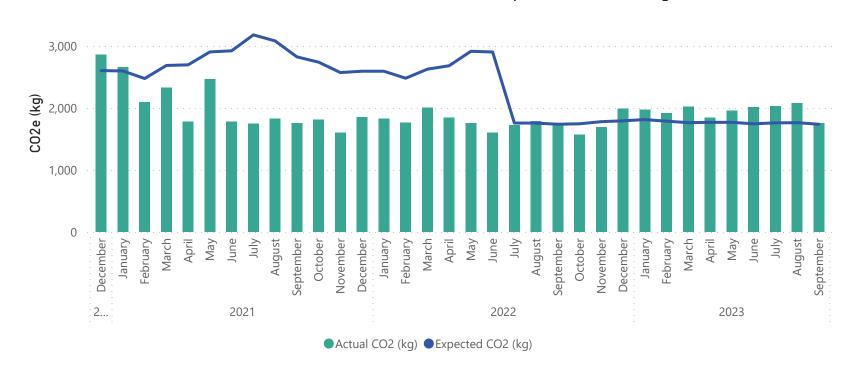


Museum and Research Centre

Museum Research Centre Natural Gas Compared to Baseline (kWh)

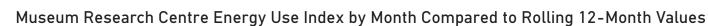


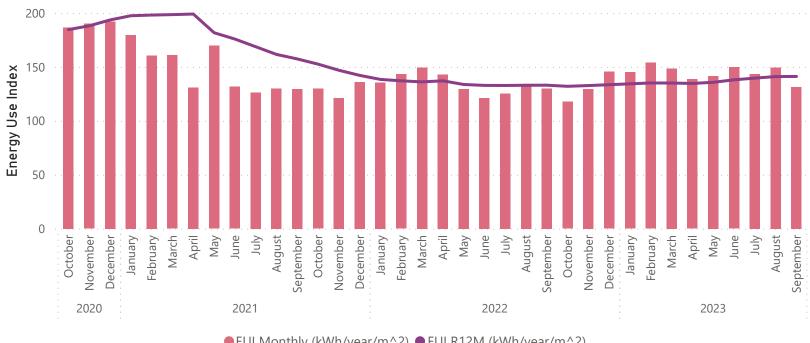
Museum Research Centre Carbon Emissions Compared to Baseline (kg CO2e)





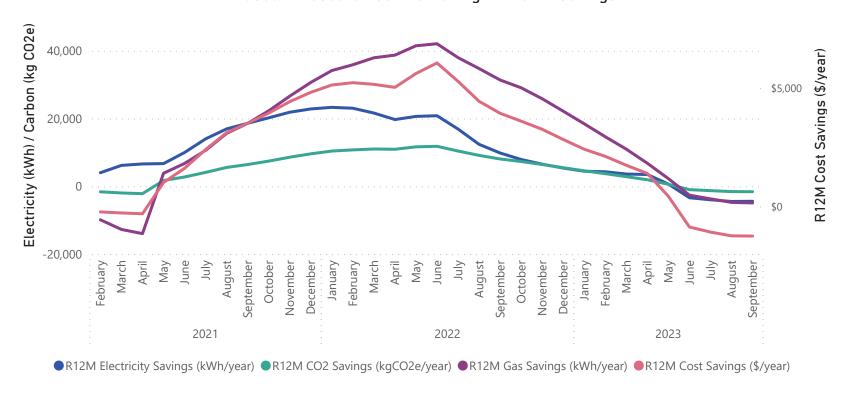
Museum and Research Centre





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

Museum Research Centre Rolling 12 Month Savings





War Memorial Hall

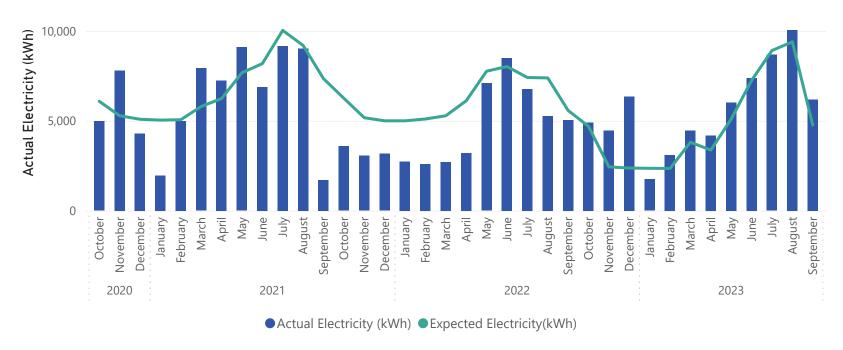
-\$258 Monthly Energy Cost Savings	-1,427 Elec. Savings (kWh/mo)	-30% Elec. Savings (%)	-10,713 R12M Electricity Savings (kWh/yr)	-221 CO2e Savings (kg/mo)
-\$1,717 R12M Energy Cost Savings	-166 Gas. Savings (kWh/mo)	-6% Gas. Savings (%)	2,340 R12M Gas Savings (kWh/yr)	-919 R12M CO2e Savings (kg/yr)

Comments:

The War Memorial Hall used 30% more electricity than expected. Ten of the past 12 months have used more electricity than expected.

The hall has used more natural gas than expected in September. Natural gas use has decreased compared to August and July. The 2023 winter season has used less natural gas than the 2022 winter season, which is good.

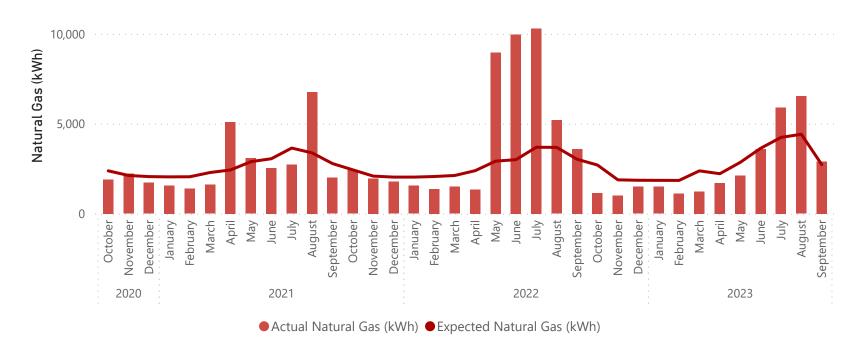
War Memorial Hall Electricity Use Compared to Baseline (kWh)



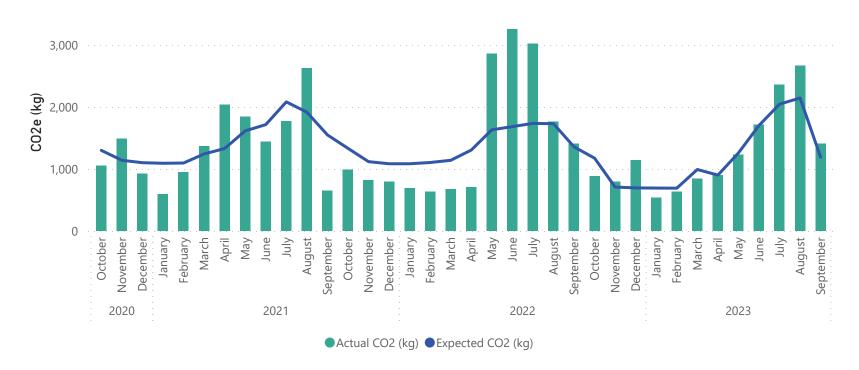


War Memorial Hall

War Memorial Hall Natural Gas Compared to Baseline (kWh)



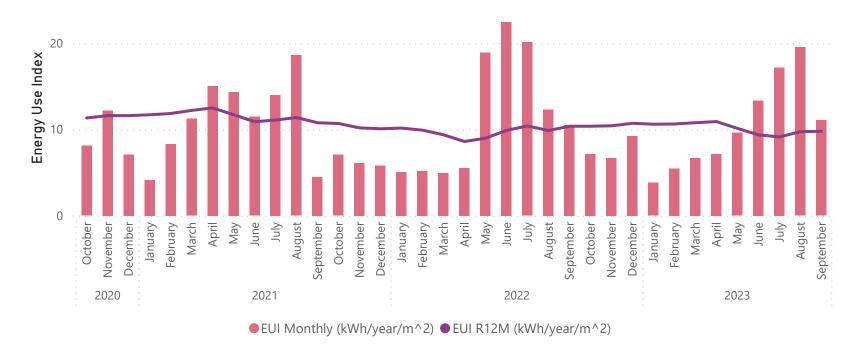
War Memorial Hall Carbon Emissions Compared to Baseline (kg CO2e)

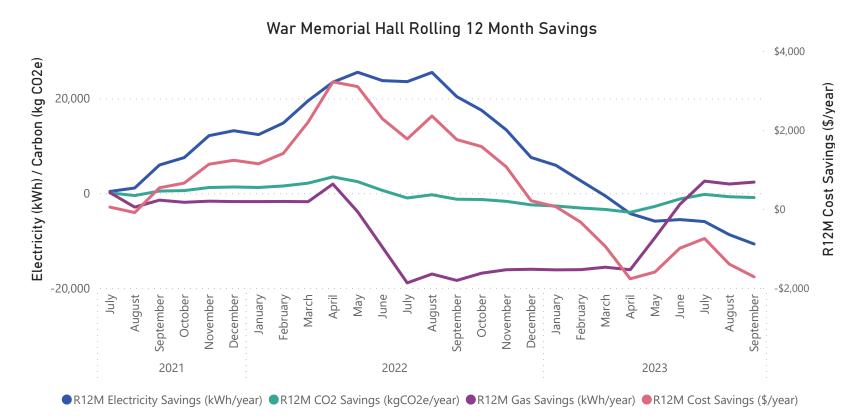




War Memorial Hall

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







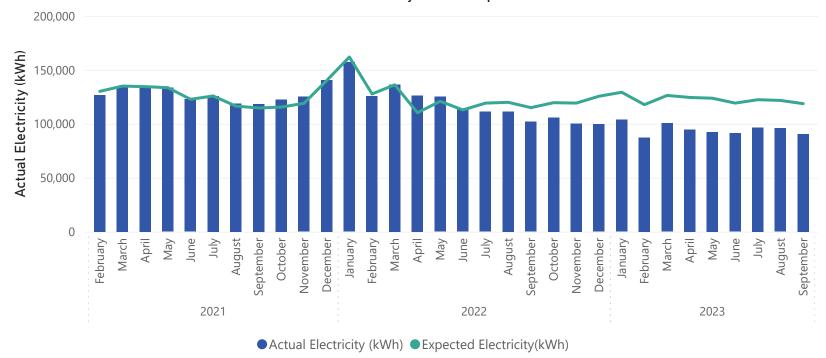
Water Treatment Plant

\$4,659 Monthly Energy Cost Savings	28,132 Elec. Savings (kWh/mo)	24% Elec. Savings (%)	309,012 R12M Electricity Savings (kWh/yr)	3,685 CO2e Savings (kg/mo)
\$54,863 R12M Energy Cost Savings				40,481 R12M CO2e Savings (kg/yr)

Comments:

Another month of savings has been achieved at the WTP in August 2023. Consistent savings between 15-25% have been observed since November 2022. Rolling 12 month savings have been increasing, with approximately \$55,000, 309,000 kWh, and 40,500 kgCO2e saved in the past 12 months, which is excellent.

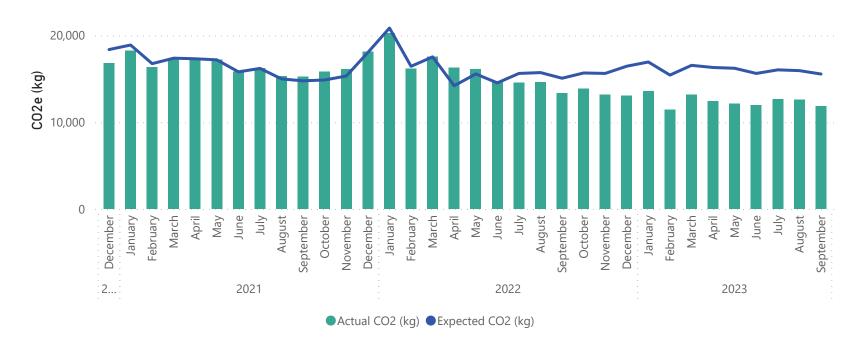
Water Treatment Plant Electricity Use Compared to Baseline (kWh)

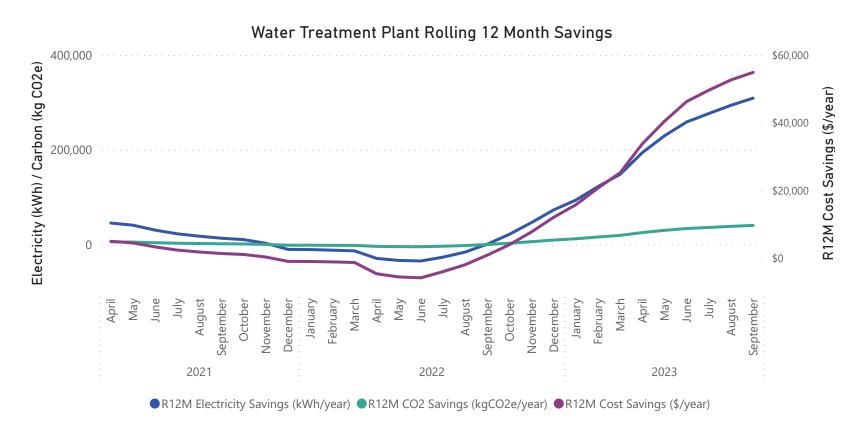




Water Treatment Plant

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

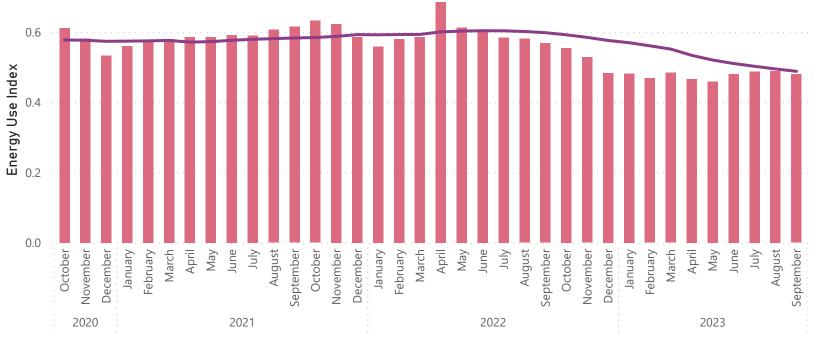






Water Treatment Plant

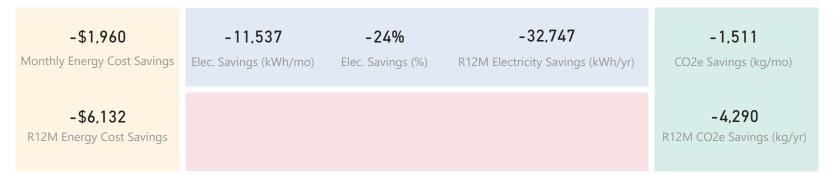
Water Treatment Plant Energy Use Index by Month Compared to Rolling 12-Month Values



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



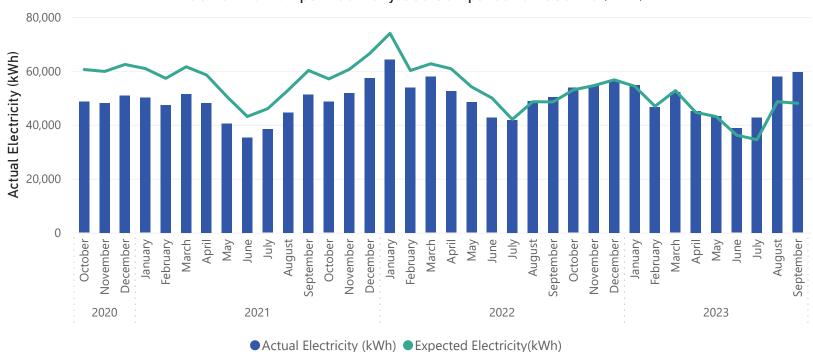
Braemar Road Pump Station



Comments:

Work has been completed at Braemar Rd which added filters and new low lift pumps. Water data was previously estimated for July and August. A contractor was able to supply accurate flows, which show the impact of increased pumping requirements from new filters. New tags will be added to SCADA in future which will capture water metering.

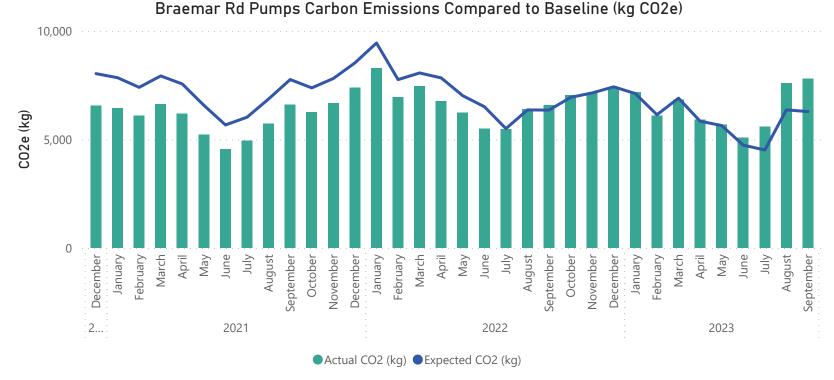
Braemar Rd Pumps Electricity Use Compared to Baseline (kWh)

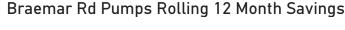




Braemar Road Pump Station











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)



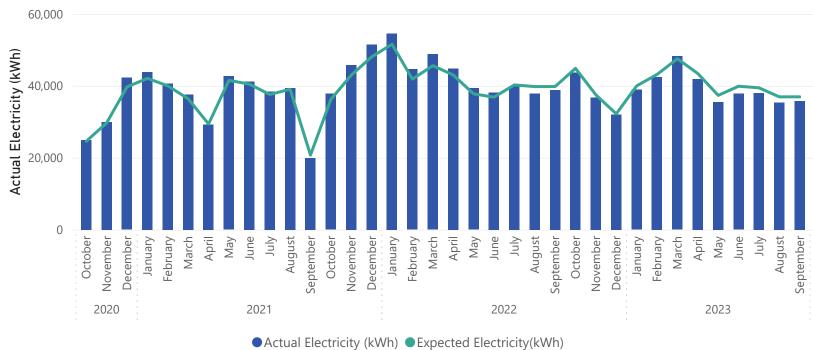
Paul Road Pump Station

\$196	1,170	3%	12,821	153
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$2,386				1,680
R12M Energy Cost Savings				R12M CO2e Savings (kg/yr)

Comments:

Electricity use was less than expected at Paul Road Pump Station. The monthly EUI is below average over the past 12 months. Energy performance has been consistent, with savings each month from April 2023.

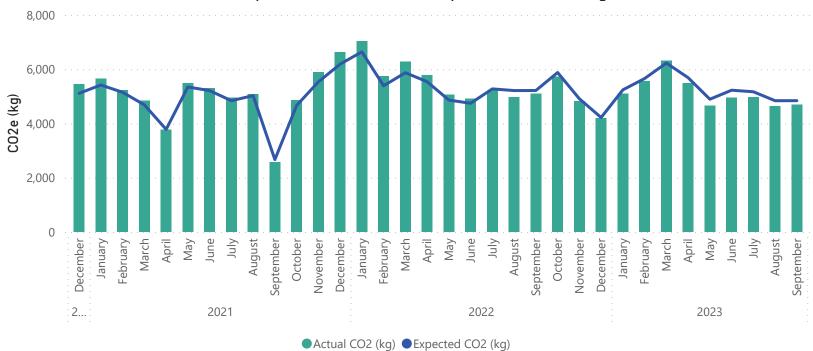
Paul Rd Pumps Electricity Use Compared to Baseline (kWh)



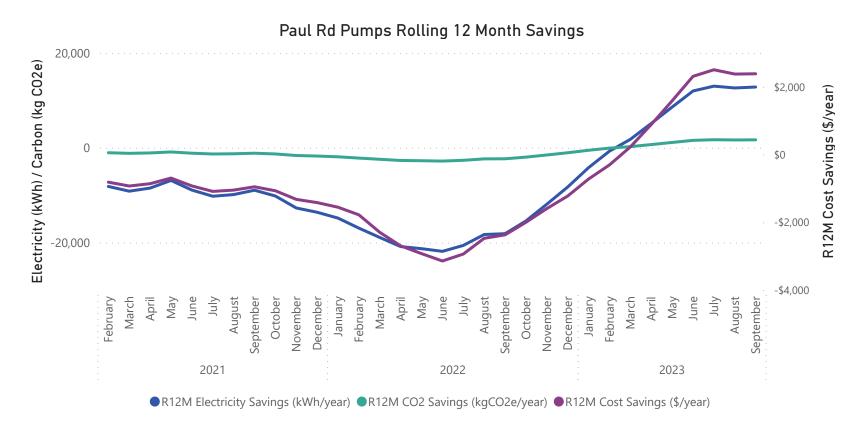


Paul Road Pump Station





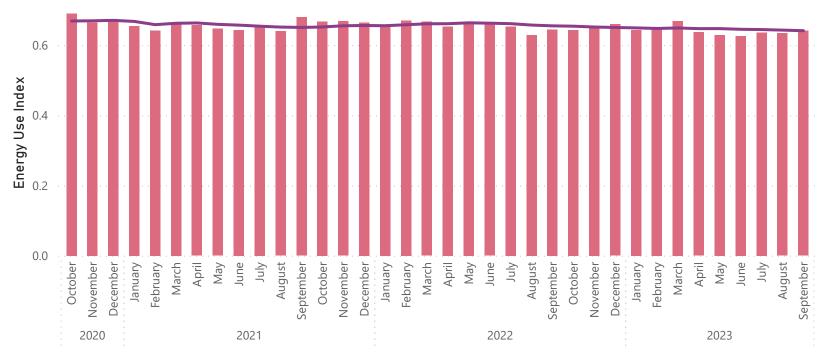






Paul Road Pump Station

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



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



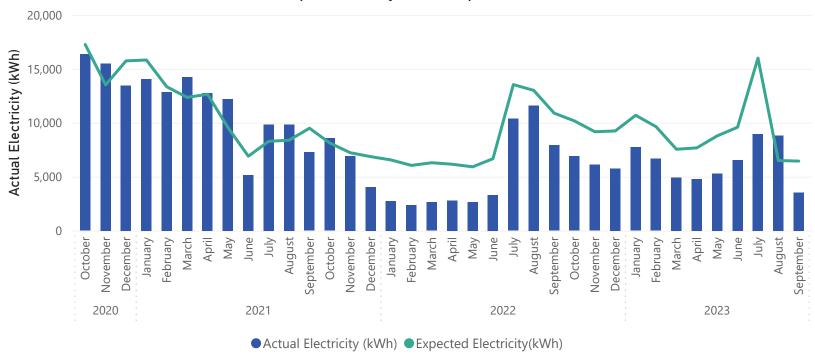
Johnson Road Pump Station

\$646	2,907	45%	35,384	381
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$7,635 R12M Energy Cost Savings				4,635 R12M CO2e Savings (kg/yr)

Comments:

Johnson Rd Pump used significantly more electricity than expected in August and significantly less than expected in September, this may be in part due to when meter readings were taken by the retailer. Previously the pump has been operating more than typical to compensate for work being done at Braemar Rd. It is possible that increased electricity use may be due to some interactive effects between the two pump stations.

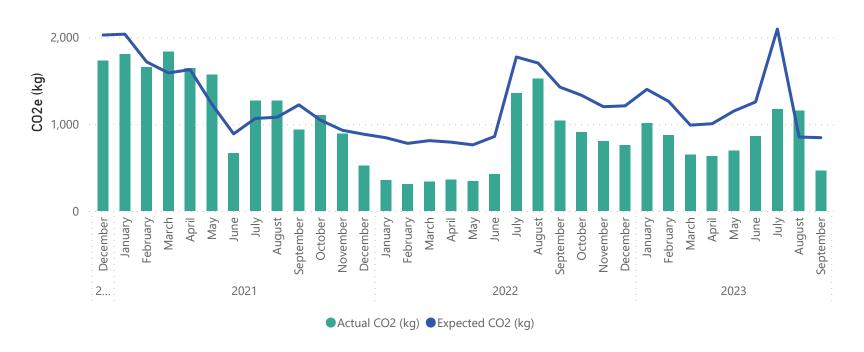
Johnson Rd Pumps Electricity Use Compared to Baseline (kWh)

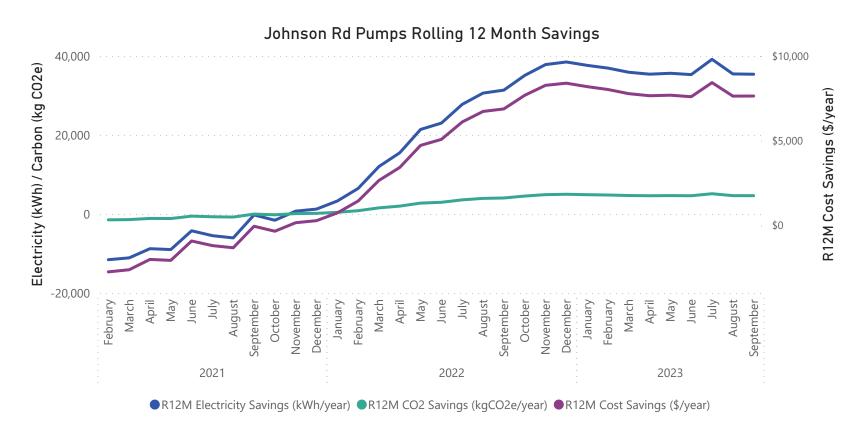




Johnson Road Pump Station

Johnson Rd Pumps Carbon Emissions Compared to Baseline (kg CO2e)







Johnson Road Pump Station

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



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



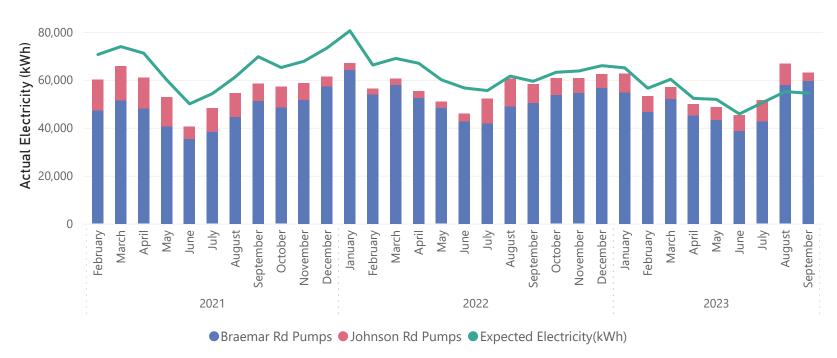
Johnson and Braemar Rd Pump Stations

-\$1,313	-8,631	-16%	2,637	-1,131
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$1,503 R12M Energy Cost Savings				345 R12M CO2e Savings (kg/yr)

Comments:

Braemar Rd pump station has used more electricity than expected in September 2023 and Johnson Rd has used less than expected. New filters at Braemar Road have increased pumping requirements.

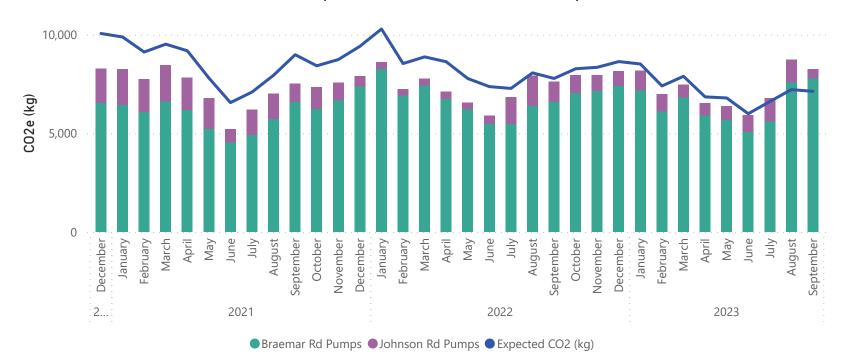
Johnson and Braemar Rd Pump Stations Electricity Use Compared to Baseline (kWh)

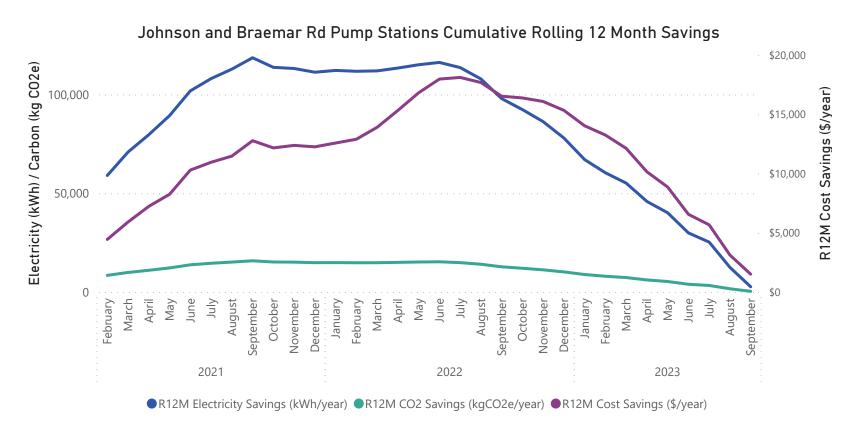




Johnson and Braemar Rd Pump Stations

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

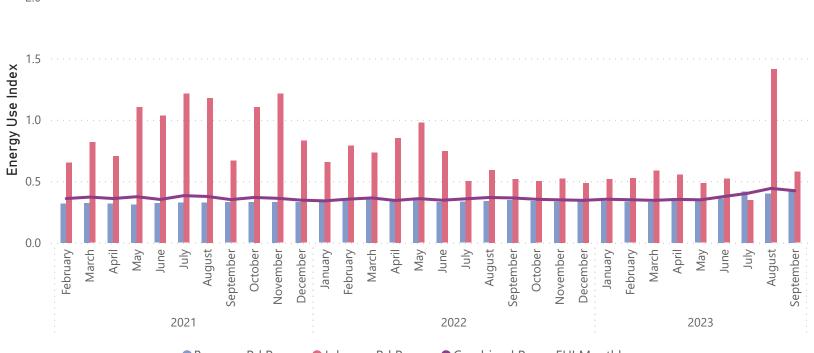






Johnson and Braemar Rd Pump Stations







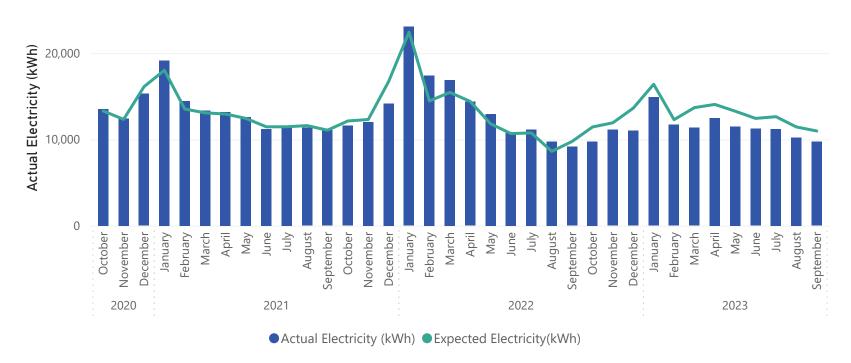
Bridger Glade Pump Station

\$221	1,247	11%	18,007	163
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
\$3,177 R12M Energy Cost Savings				2,359 R12M CO2e Savings (kg/yr)

Comments:

September 2023 is the 13th month in a row that the Bridger Glade Pump Station has used less electricity than expected, this is due to new supply pumps that were installed in late August 2022. Savings over the past year are \$3,200, 18,000 kWh, and 2,360 kg CO2e.

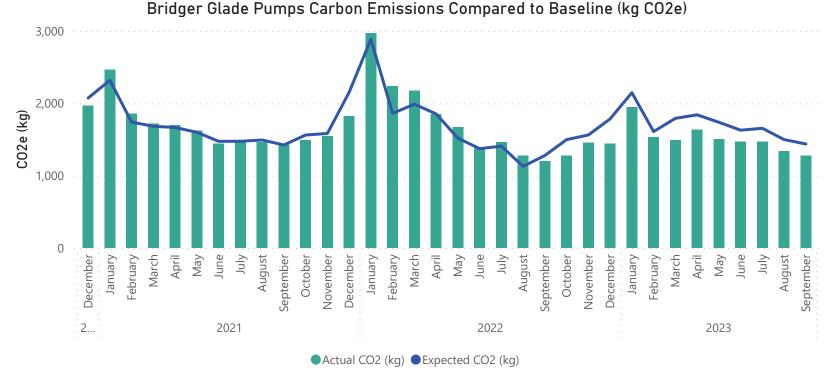
Bridger Glade Pumps Electricity Use Compared to Baseline (kWh)

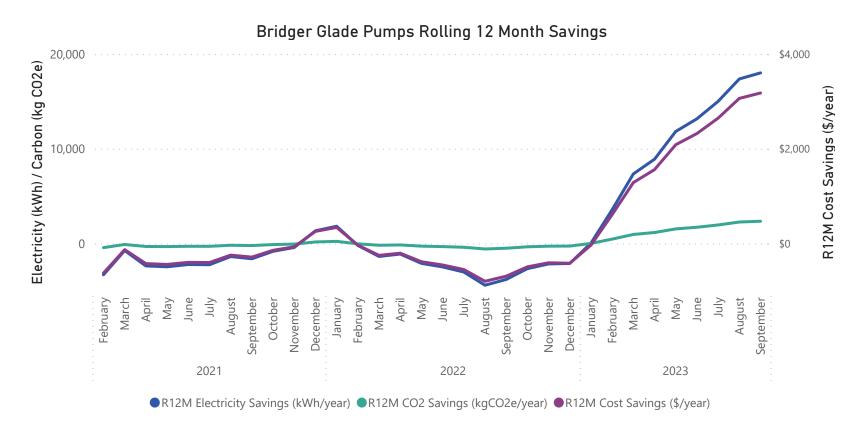




Bridger Glade Pump Station









Bridger Glade Pump Station





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



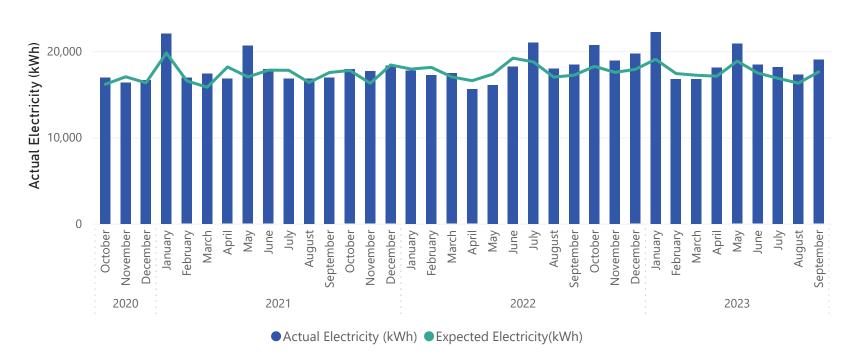
Ohope Oxidation Ponds

-\$253	-1,397	-8%	-15,362	-183
Monthly Energy Cost Savings	Elec. Savings (kWh/mo)	Elec. Savings (%)	R12M Electricity Savings (kWh/yr)	CO2e Savings (kg/mo)
-\$2,711				-2,012
R12M Energy Cost Savings				R12M CO2e Savings (kg/yr)

Comments:

Ohope Oxidation Ponds have used more electricity than expected in 10 of the last 12 months. Rainfall has generally been higher than usual, which may contribute to higher electricity usage. The monthly EUI in September is close to average for the past 12 months.

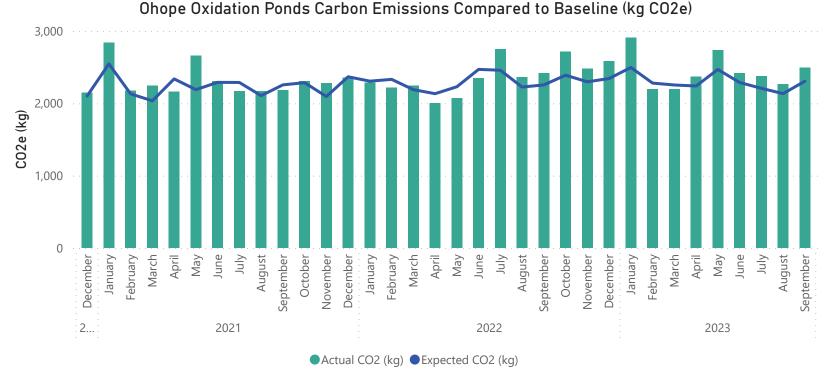
Ohope Oxidation Ponds Electricity Use Compared to Baseline (kWh)



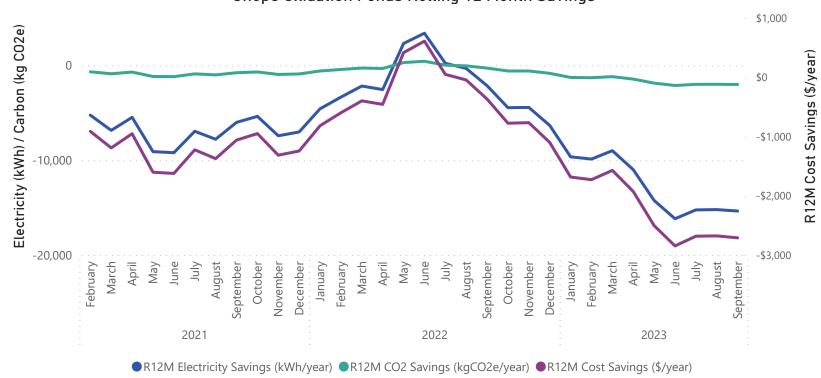


Ohope Oxidation Ponds











Ohope Oxidation Ponds





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

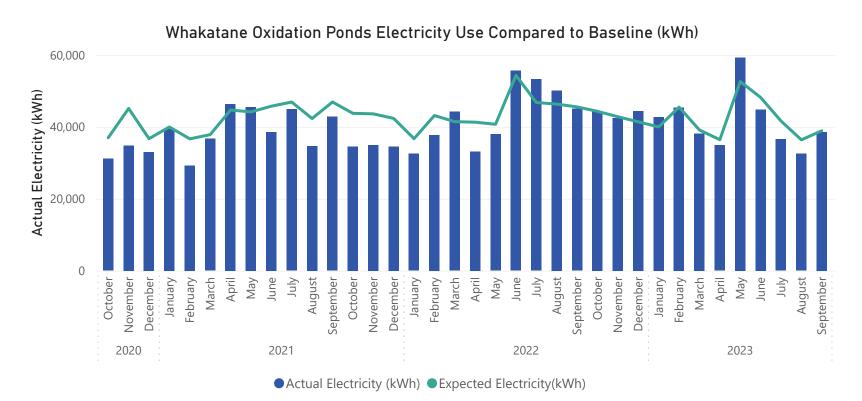


Whakatane Oxidation Ponds

\$58 Monthly Energy Cost Savings	321 Elec. Savings (kWh/mo)	1% Elec. Savings (%)	3,282 R12M Electricity Savings (kWh/yr)	42 CO2e Savings (kg/mo)
\$825 R12M Energy Cost Savings		area connige (iv)		430 R12M CO2e Savings (kg/yr)

Comments:

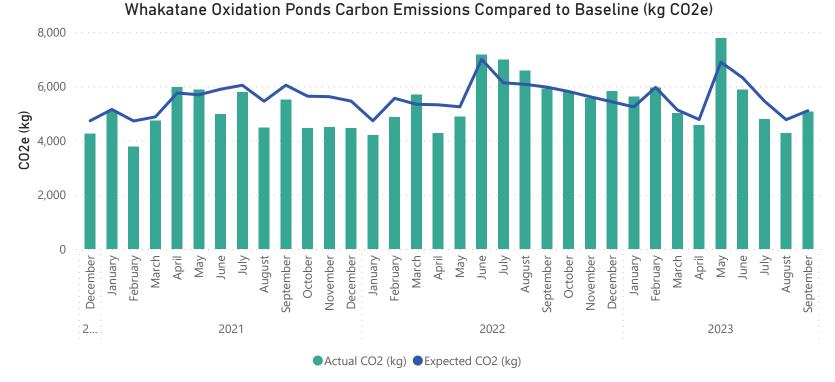
The oxidation ponds used marginally less electricity than expected in September 2023. September 2023 was a month of higher than average rainfall, approximately 250mm of rain was recorded for the month. Rolling 12 month EUI is trending downwards, which is good, however, August and September were higher than average compared to the last 12 months.

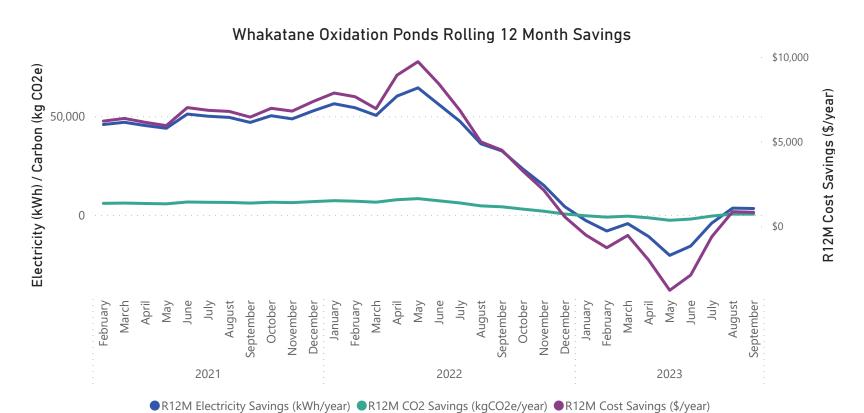




Whakatane Oxidation Ponds

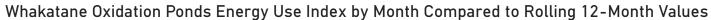








Whakatane Oxidation Ponds

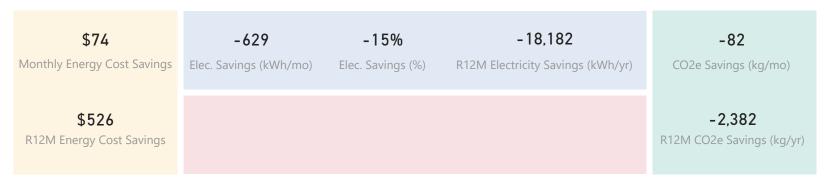




● EUI Monthly (kWh/m^3) ● EUI R12M (kWh/m^3)



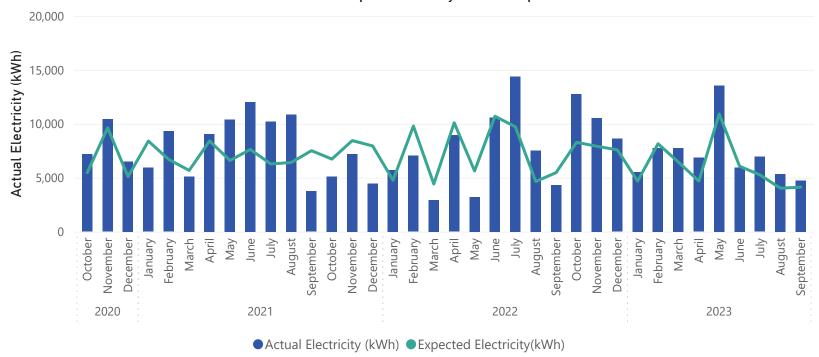
McAlister Street and Rose Garden Pump Stations



Comments:

The pump stations used 15% more electricity than expected this month. Approximately 50mm of rain coincided within the billing period. Rainfall over the past 12 months averaged about 150mm per month.

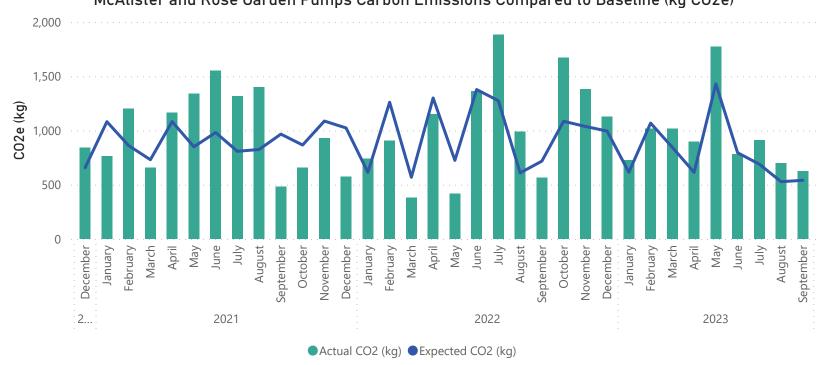
McAlister and Rose Garden Pumps Electricity Use Compared to Baseline (kWh)



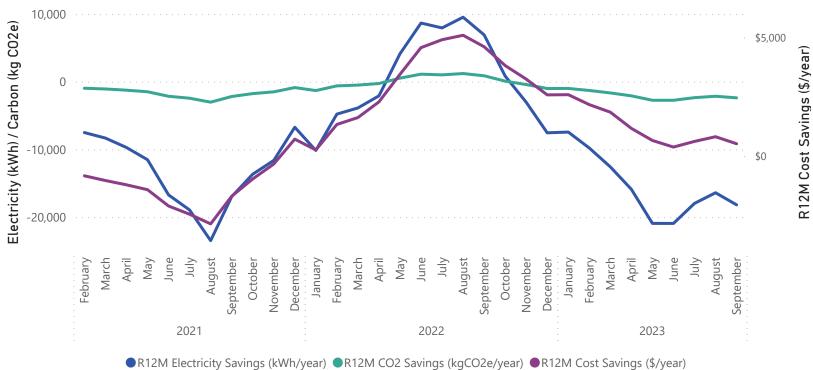


McAlister Street and Rose Garden Pump Stations



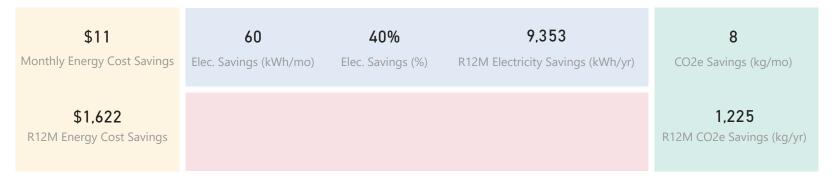








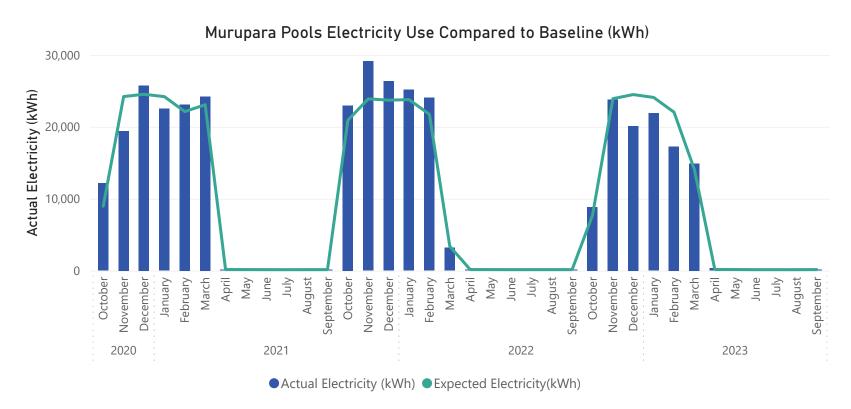
Murupara Pools



Comments:

Murupara Pools have been added to reporting in December 2022. The baseline period uses data from July 2021 to June 2022 and adjusts for ambient temperature as well as how many days in the month the pool is open or closed.

The pools are now closed for the season and are using a few kWh per day.



September

2023

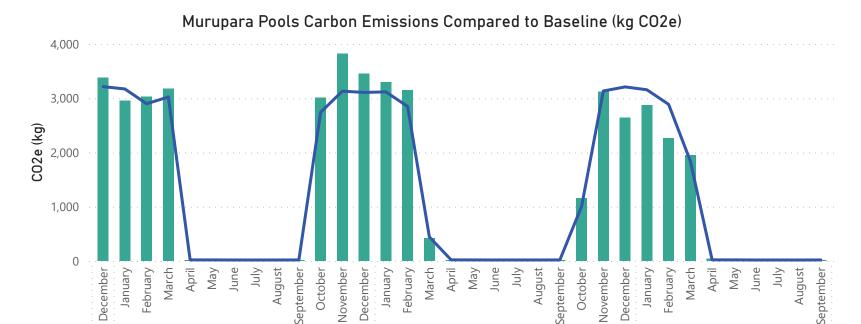


Whakatane District Council

Murupara Pools

2...

2021





2022

