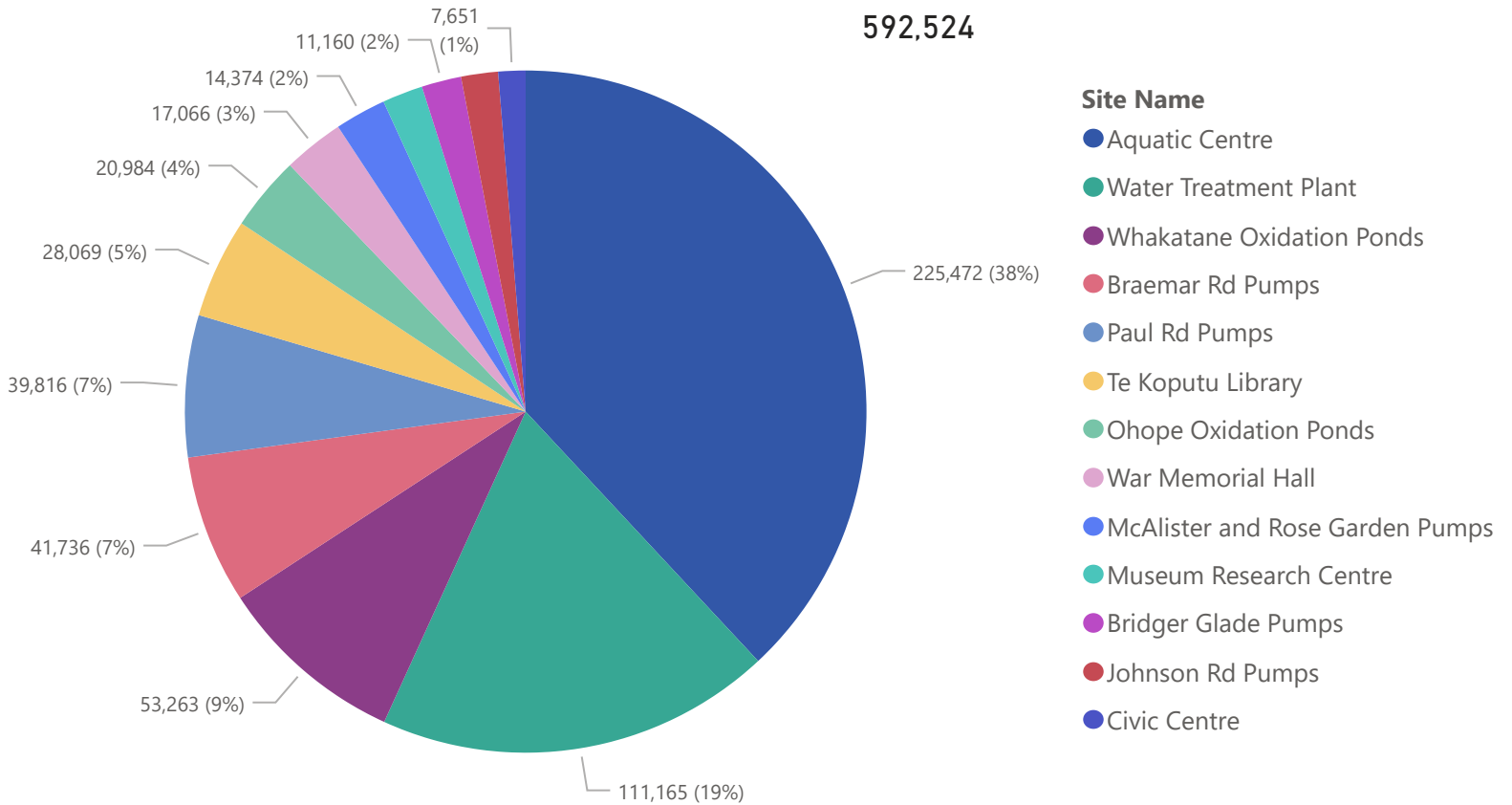


# Whakatane District Council Summary

<p><b>\$5,404</b> Monthly Energy Cost Savings</p>	<p><b>33,099</b> Elec. Savings (kWh/mo)</p>	<p><b>6%</b> Elec. Savings (%)</p>	<p><b>365,529</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-2,677</b> CO2e Savings (kg/mo)</p>
<p><b>\$140,107</b> R12M Energy Cost Savings</p>	<p><b>-33,881</b> Gas. Savings (kWh/mo)</p>	<p><b>-42%</b> Gas. Savings (%)</p>	<p><b>1,117,497</b> R12M Gas Savings (kWh/yr)</p>	<p><b>290,048</b> R12M CO2e Savings (kg/yr)</p>

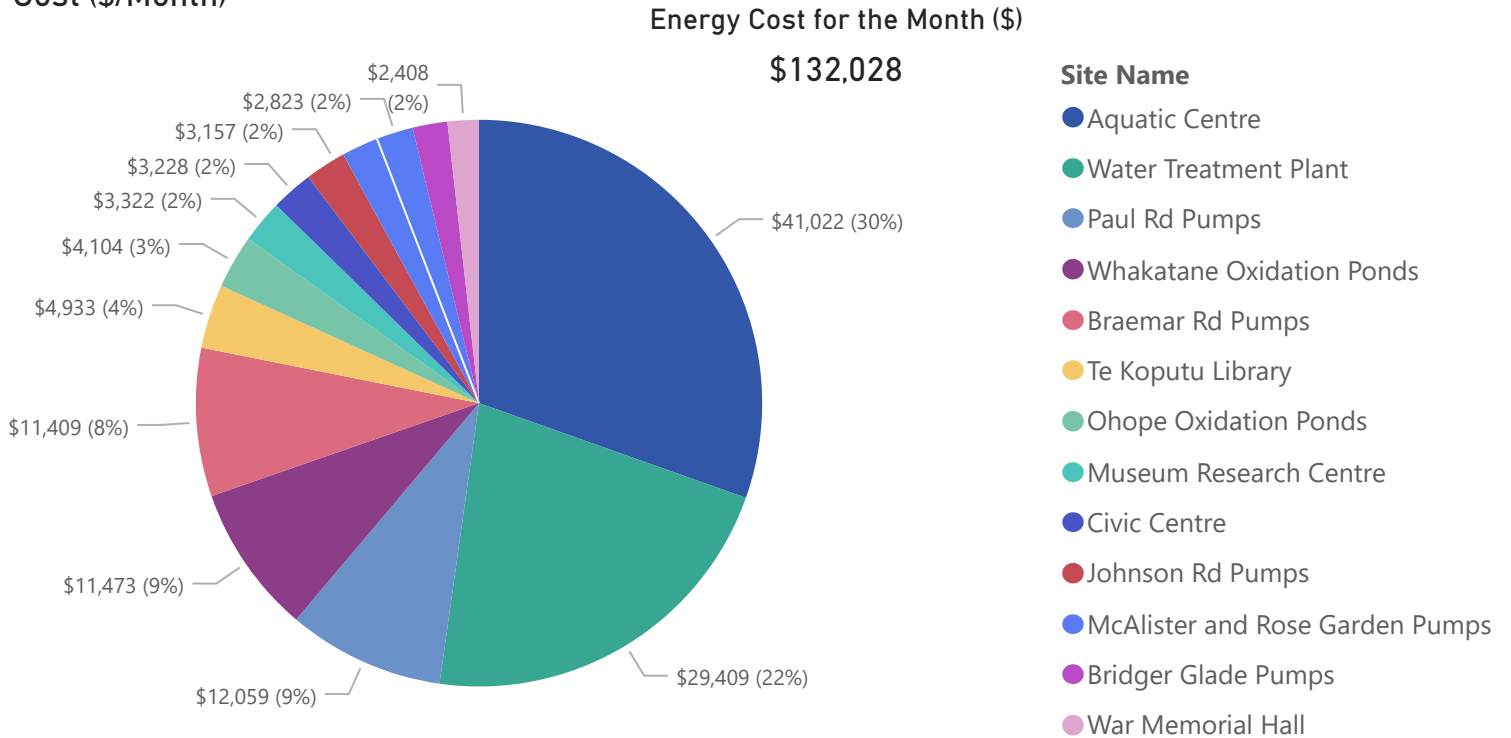
## Total Energy (kWh/Month)

**Total Energy Used for the Month (kWh)**  
**592,524**

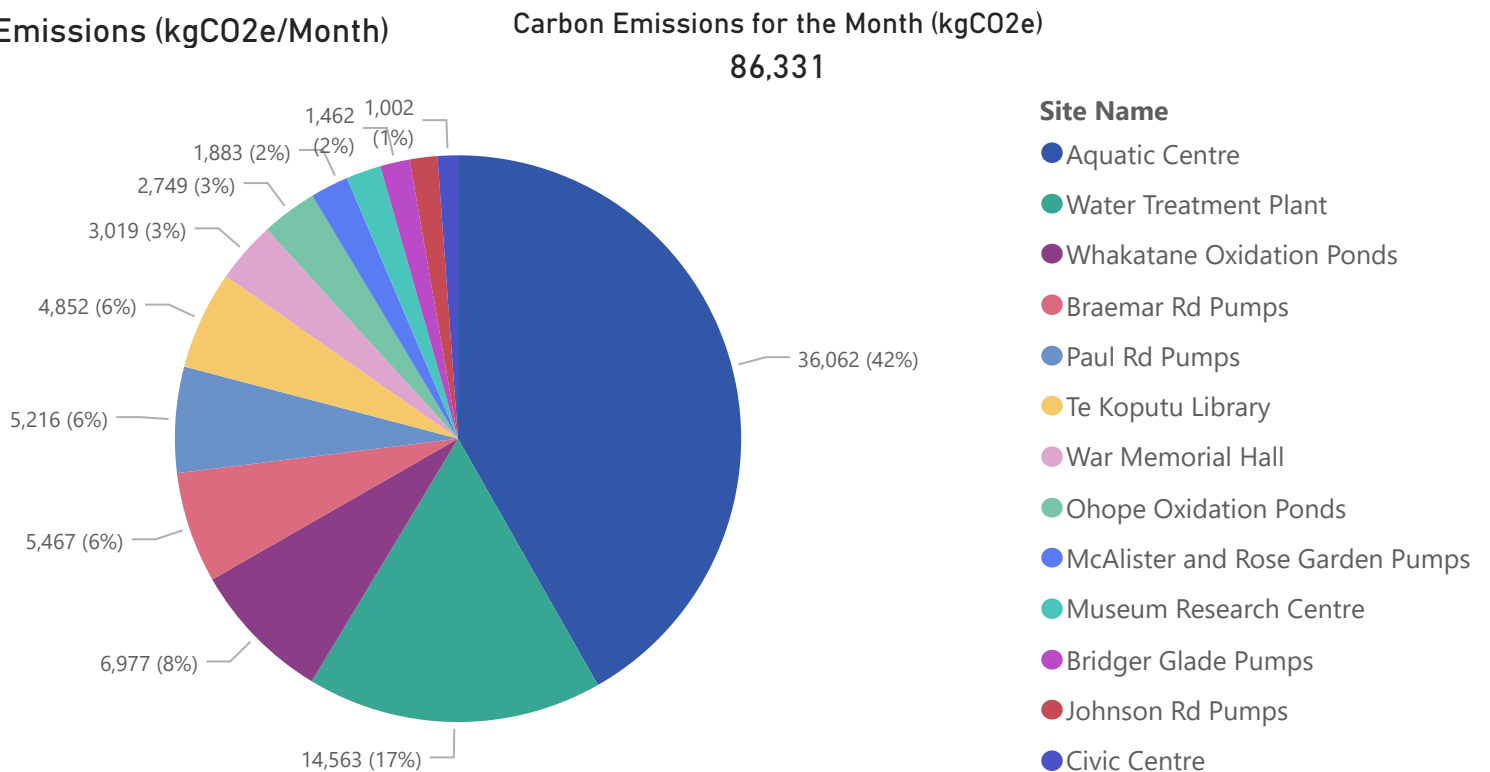


# Whakatane District Council Summary

## Energy Cost (\$/Month)

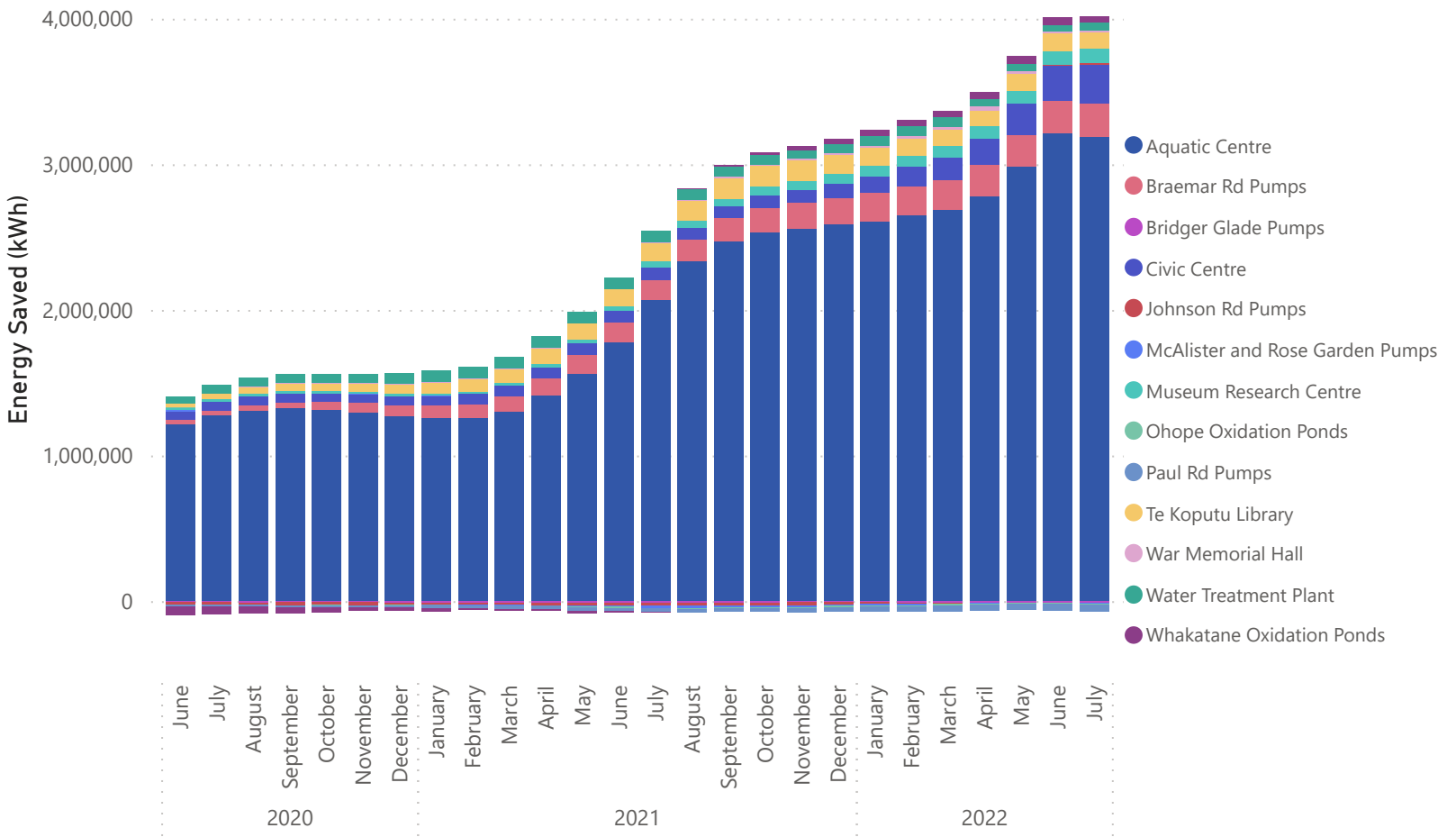


## Carbon Emissions (kgCO2e/Month)



# Whakatane District Council Summary

Cumulative Energy Savings (kWh)



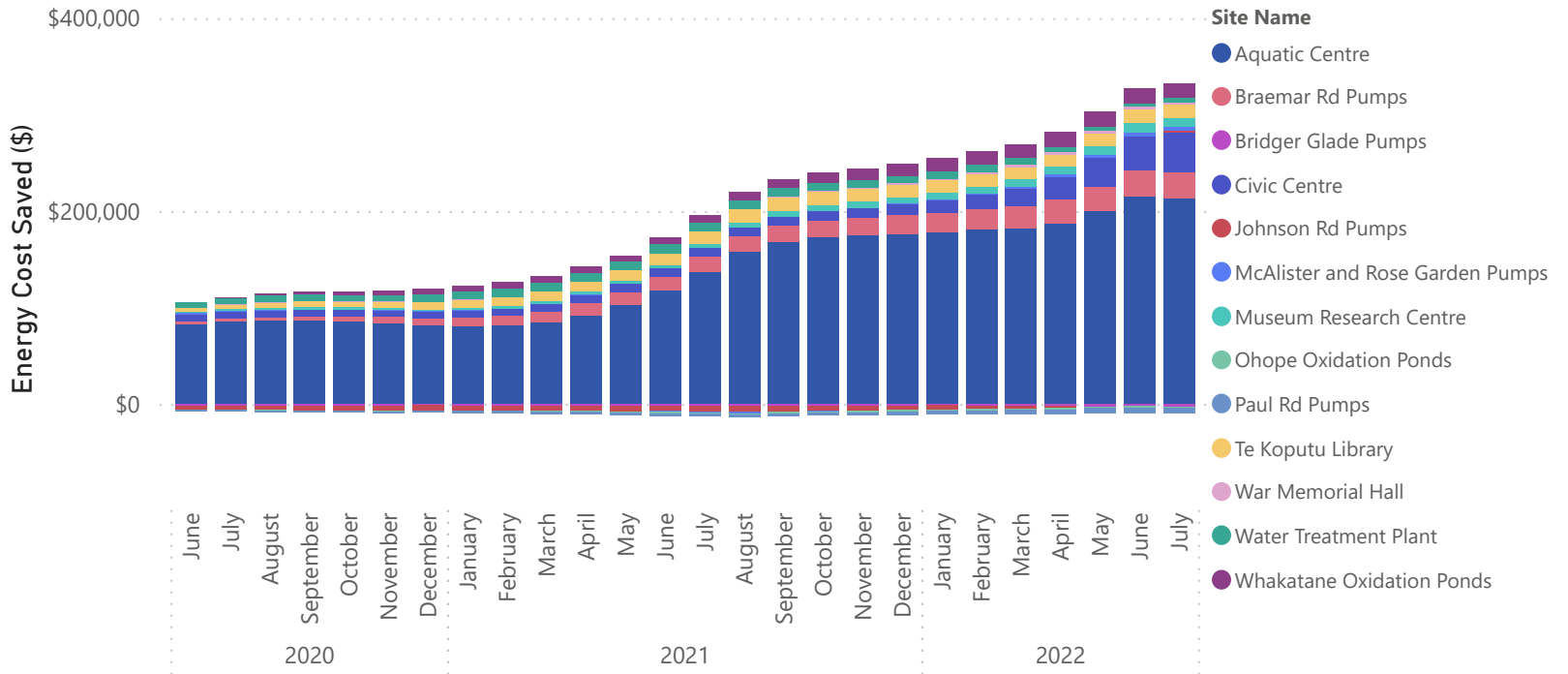
Note, cumulative savings are calculated starting July 2018

**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

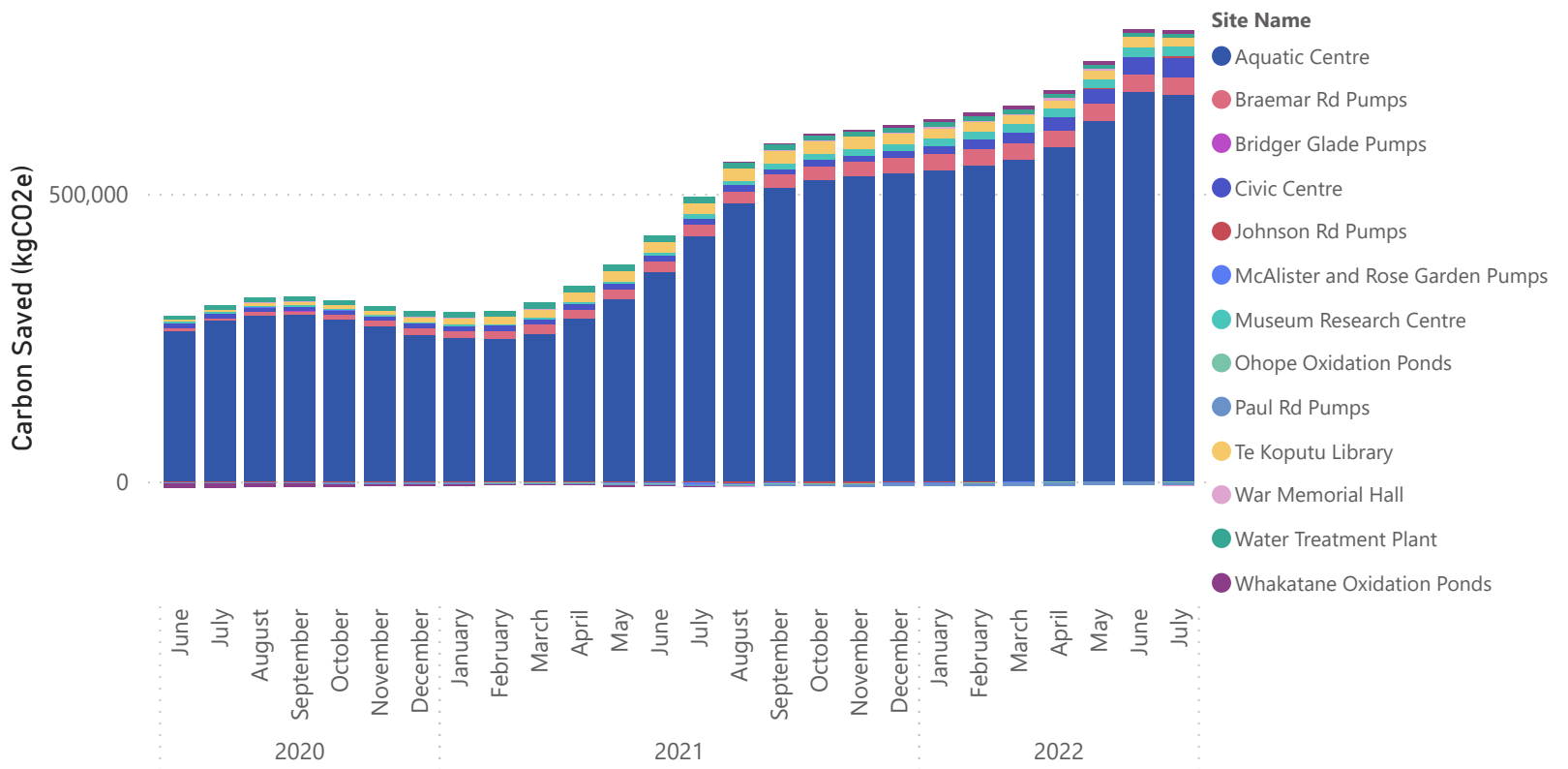
## Summary

Cumulative Energy Cost Savings (\$)



Note, cumulative savings are calculated starting July 2018

Cumulative Carbon Savings (kgCO2e)



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Civic Centre

<p><b>\$5,826</b> Monthly Energy Cost Savings</p>	<p><b>28,726</b> Elec. Savings (kWh/mo)</p>	<p><b>79%</b> Elec. Savings (%)</p>	<p><b>183,638</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>3,763</b> CO2e Savings (kg/mo)</p>
<p><b>\$31,926</b> R12M Energy Cost Savings</p>				<p><b>23,360</b> R12M CO2e Savings (kg/yr)</p>

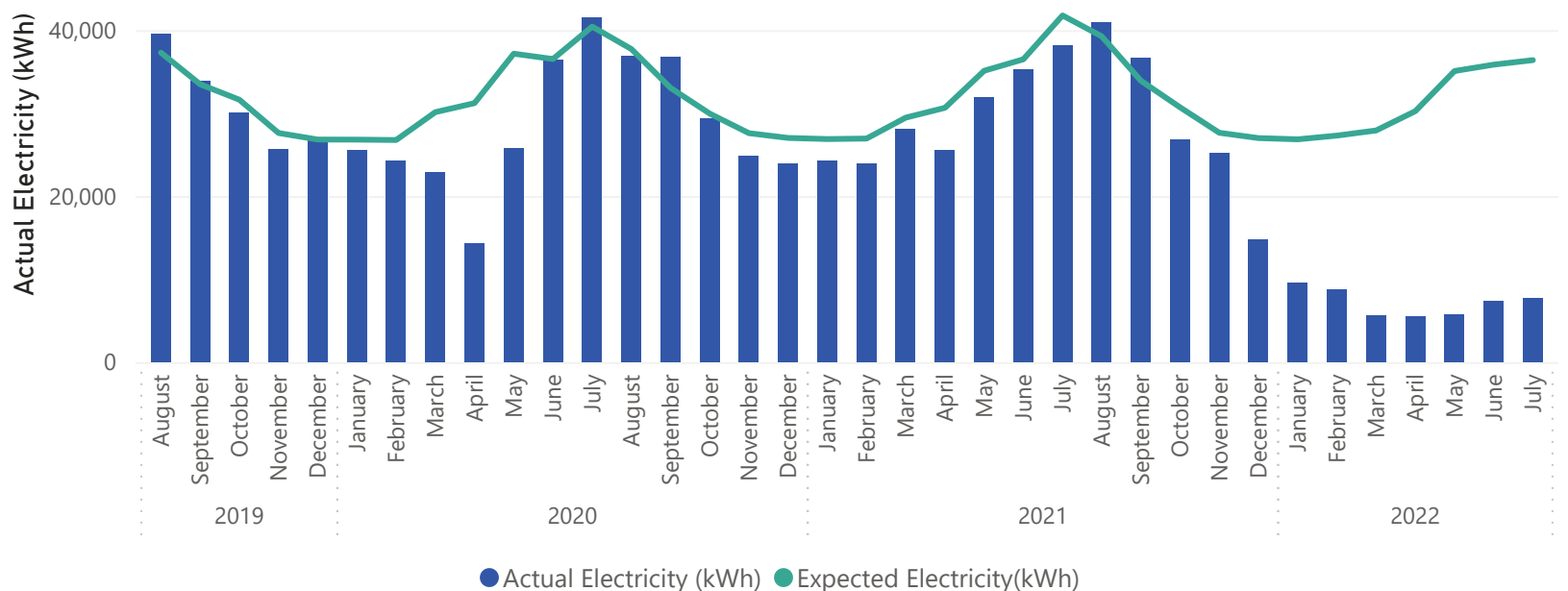
### Comments:

The baseline for the Civic Centre has been updated, the baseline period was selected as Dec-2020 to Nov-2021, in order to exclude months where refurbishment was taking place.

Electricity use continues to be less than baseline for 2022, the Civic Centre renovation has displaced many office workers, which has decreased electricity demand. The Civic Centre has not yet been billed for May, June, or July 2022 due to metering issues. Monthly cost and usage are estimated based on recent months and will be updated as data becomes available.

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

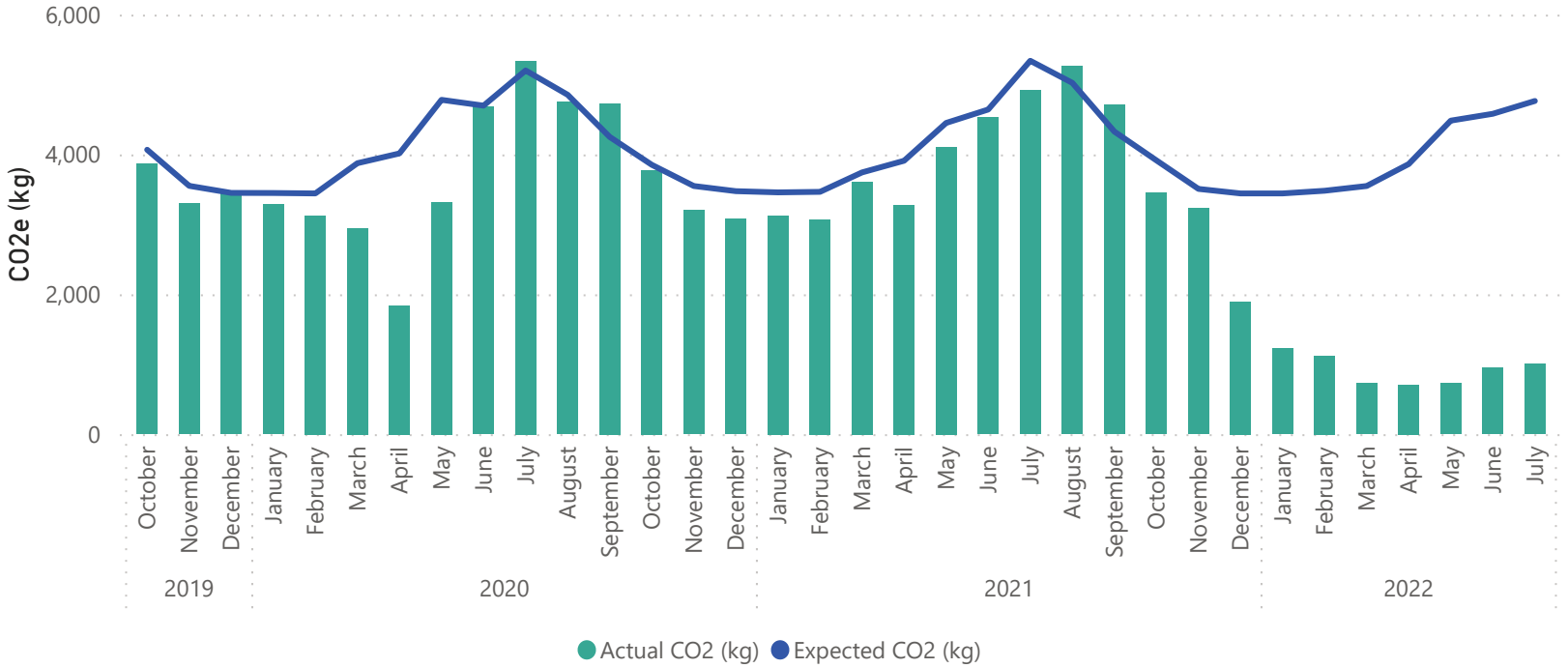
Civic Centre Electricity Use Compared to Baseline (kWh)



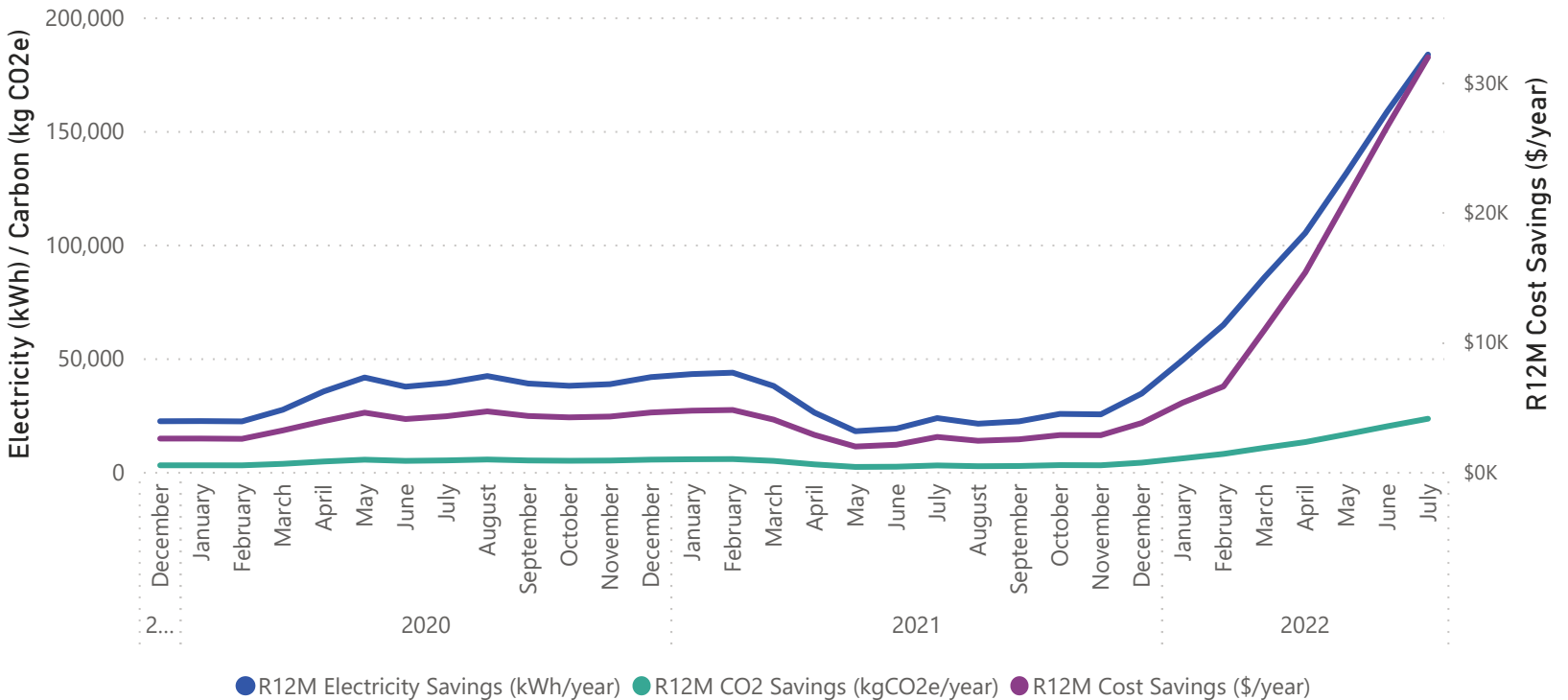
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council Civic Centre

### Civic Centre Carbon Emissions Compared to Baseline (kg CO2e)



### Civic Centre Rolling 12 Month Savings

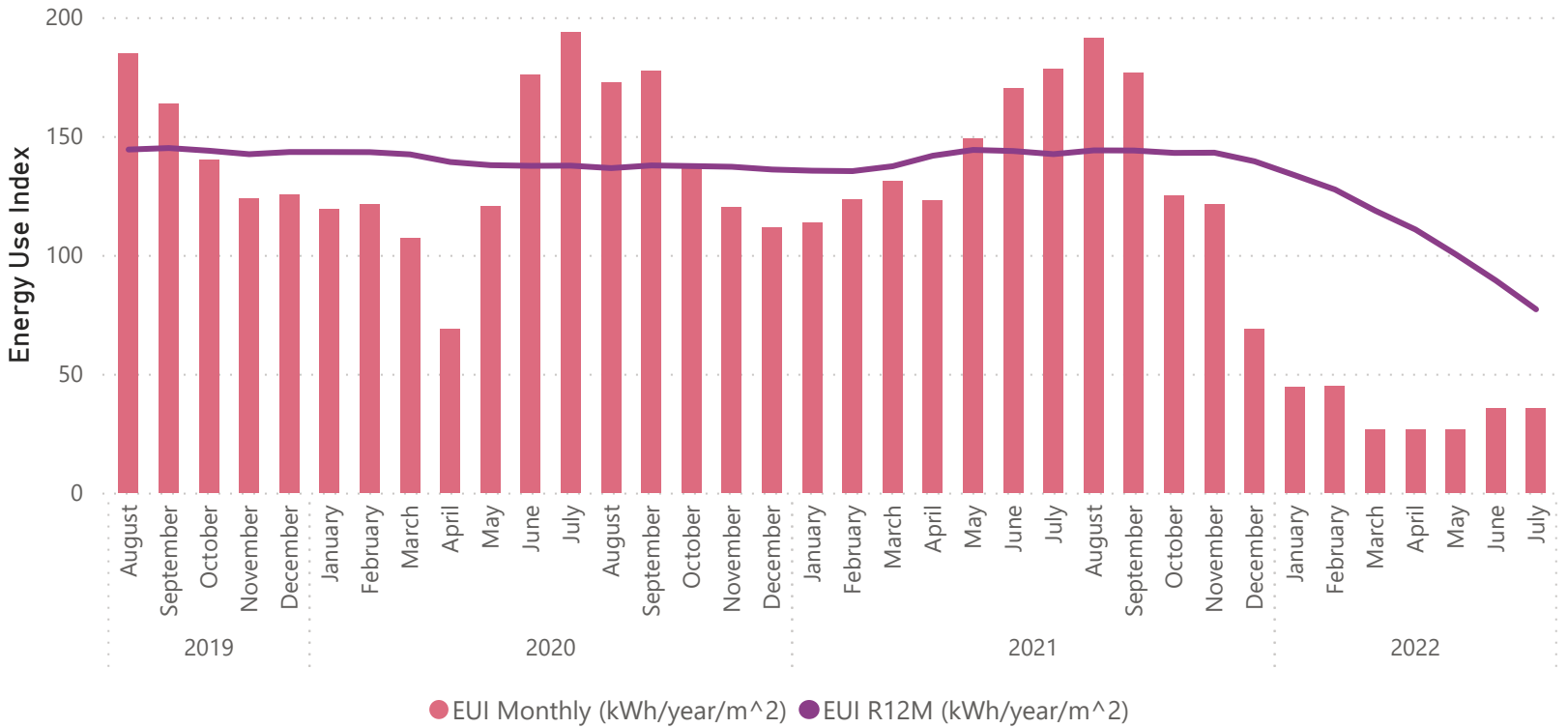


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Civic Centre

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



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Aquatic Centre

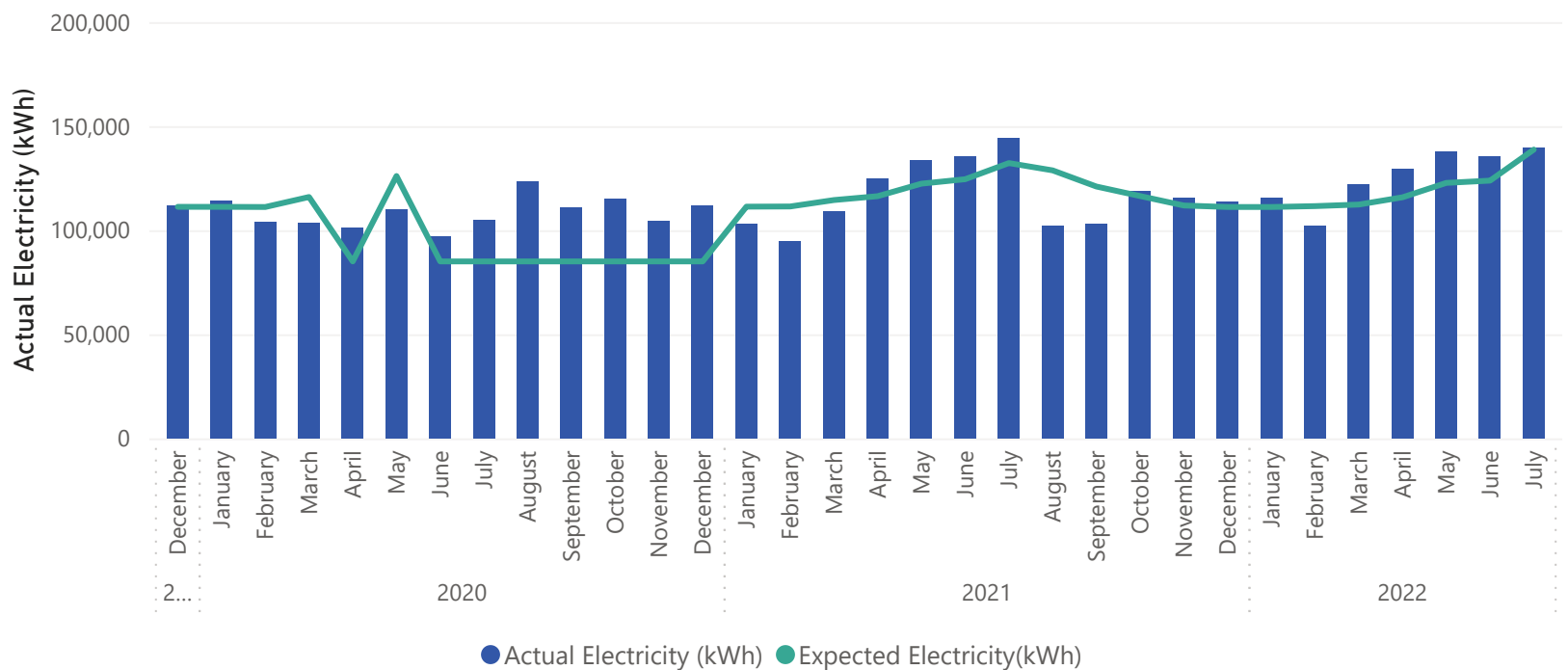
<p><b>-\$1,761</b></p> <p>Monthly Energy Cost Savings</p>	<p><b>-870</b>      <b>-1%</b>      <b>-9,422</b></p> <p>Elec. Savings (kWh/mo)    Elec. Savings (%)    R12M Electricity Savings (kWh/yr)</p>			<p><b>-4,535</b></p> <p>CO2e Savings (kg/mo)</p>
<p><b>\$75,642</b></p> <p>R12M Energy Cost Savings</p>	<p><b>-21,355</b>      <b>-33%</b>      <b>1,133,345</b></p> <p>Gas. Savings (kWh/mo)    Gas. Savings (%)    R12M Gas Savings (kWh/yr)</p>			<p><b>245,079</b></p> <p>R12M CO2e Savings (kg/yr)</p>

### Comments:

Electricity and natural gas baselines have been updated for the Aquatic Centre, the baseline period is May 2021 to June 2022 and excludes Aug. and Sept. 2021 due to changes in Covid-19 alert levels and partial closure. The outdoor pool is open year-round and the baseline reflects this change.

More natural gas was used than expected when compared to the new baseline, however, 25% less natural gas was used in July 2022 compared to July 2021. The monthly EUI has increased by approximately 40% compared to June 2022.

Aquatic Centre Electricity Use Compared to Baseline (kWh)



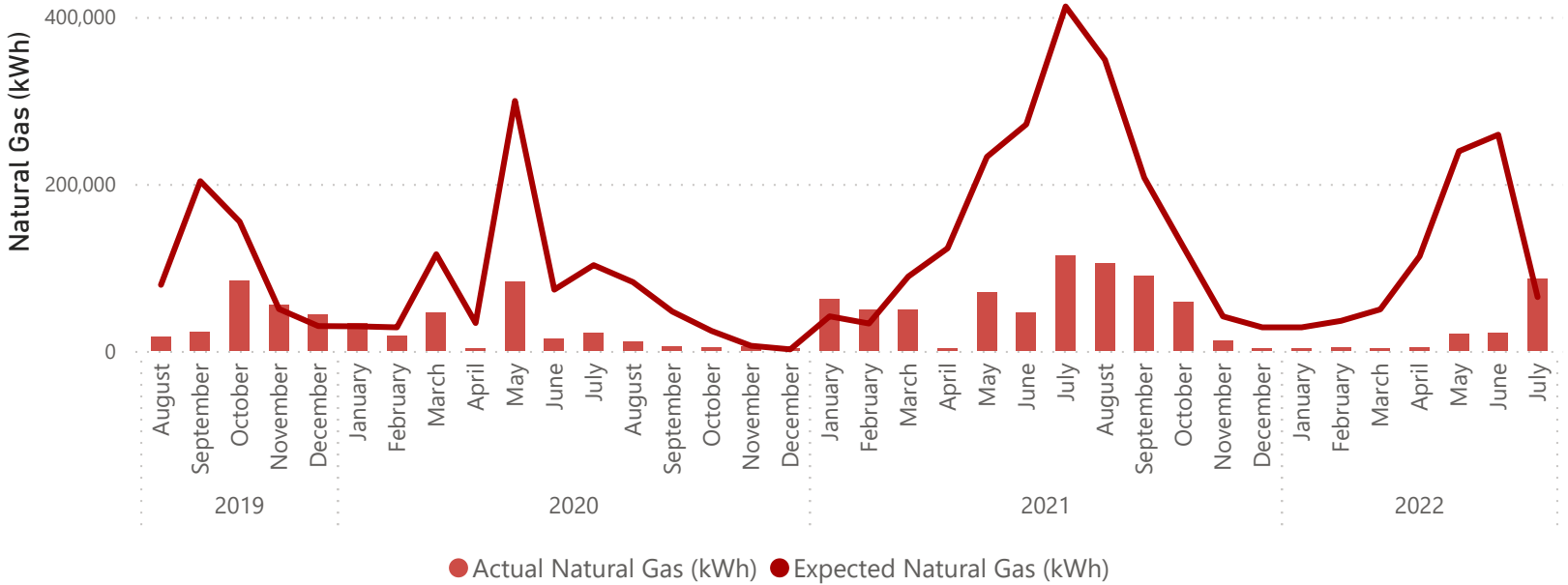
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**



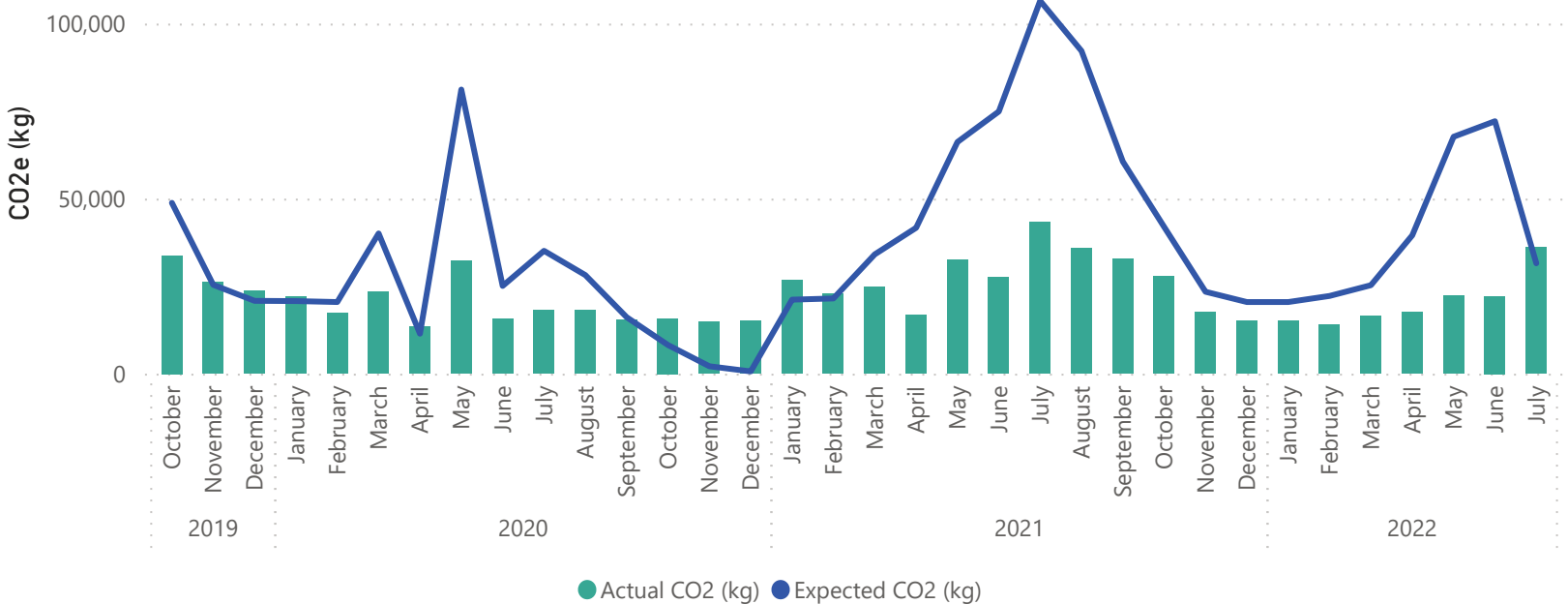
# Whakatane District Council

## Aquatic Centre

Aquatic Centre Natural Gas Compared to Baseline (kWh)



Aquatic Centre Carbon Emissions Compared to Baseline (kg CO2e)

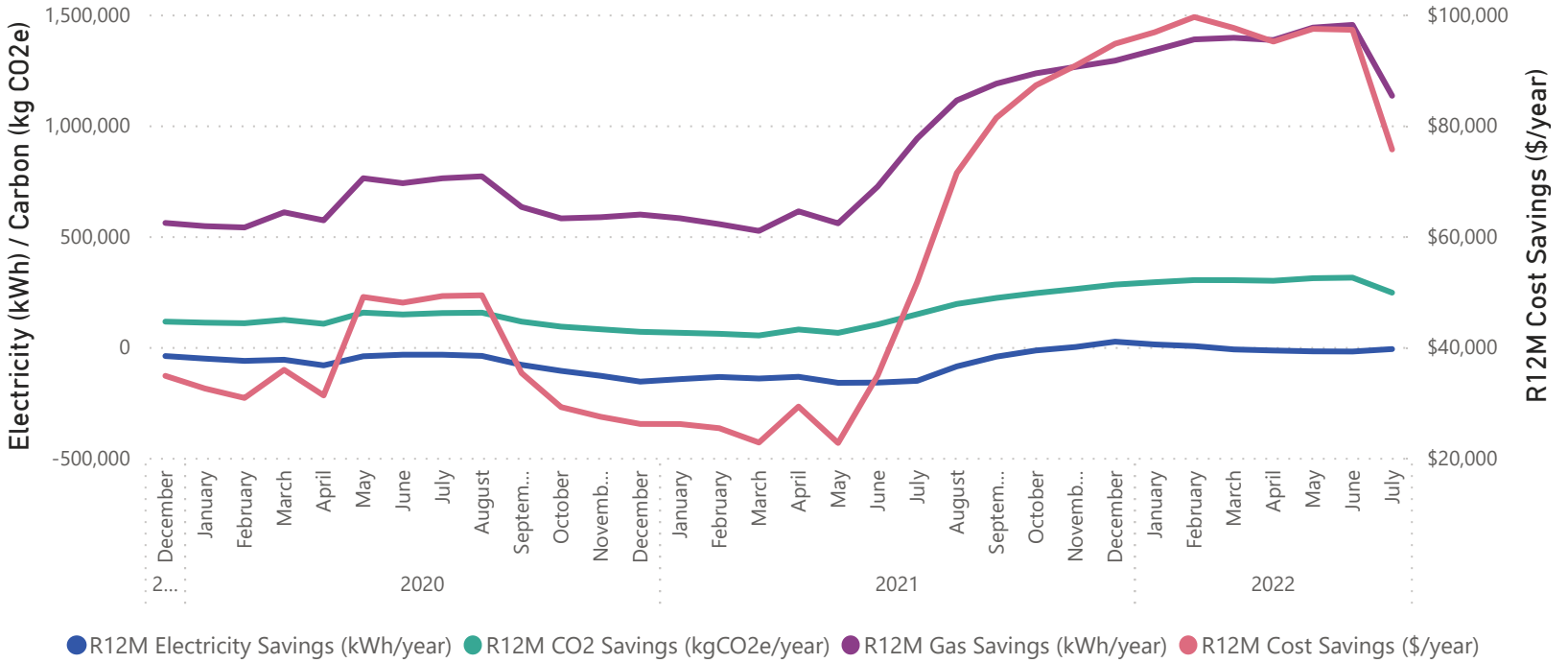


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

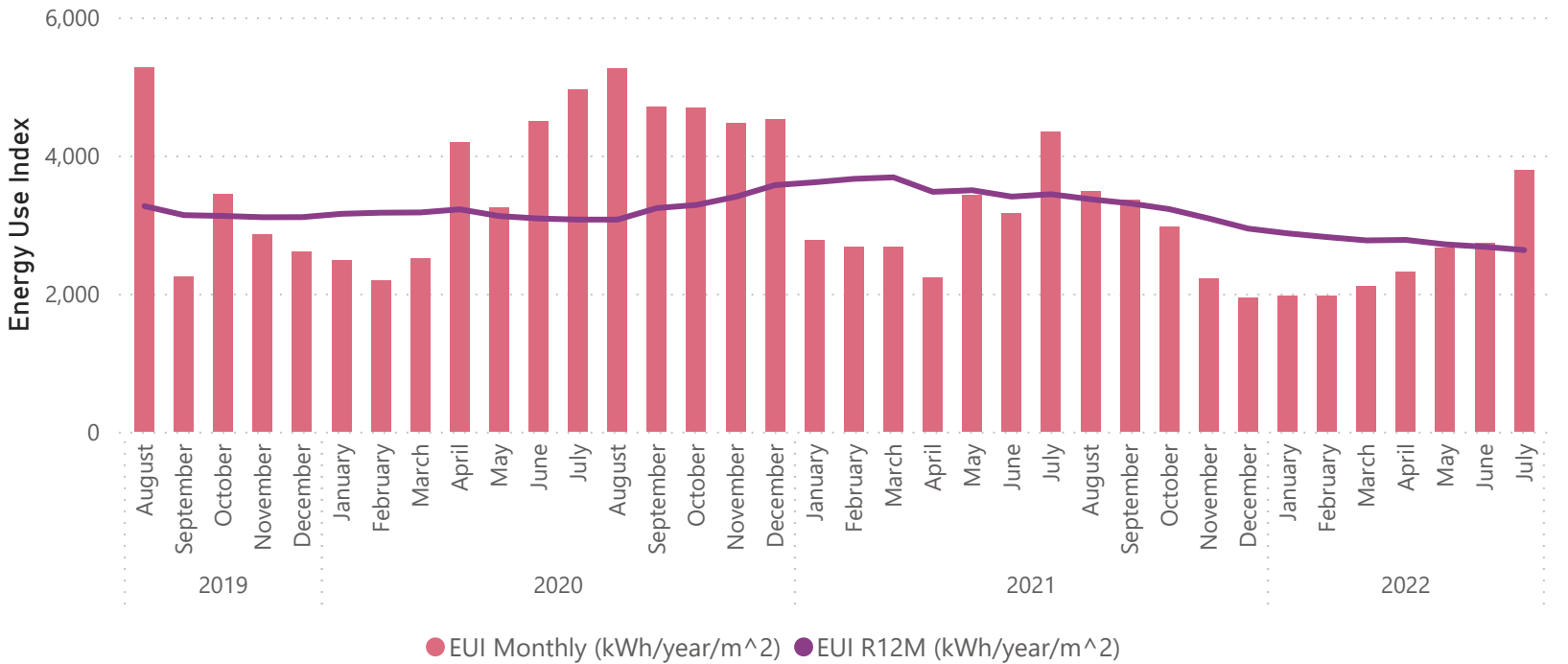
# Whakatane District Council

## Aquatic Centre

Aquatic Centre Rolling 12 Month Savings



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



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Te Koputu Library

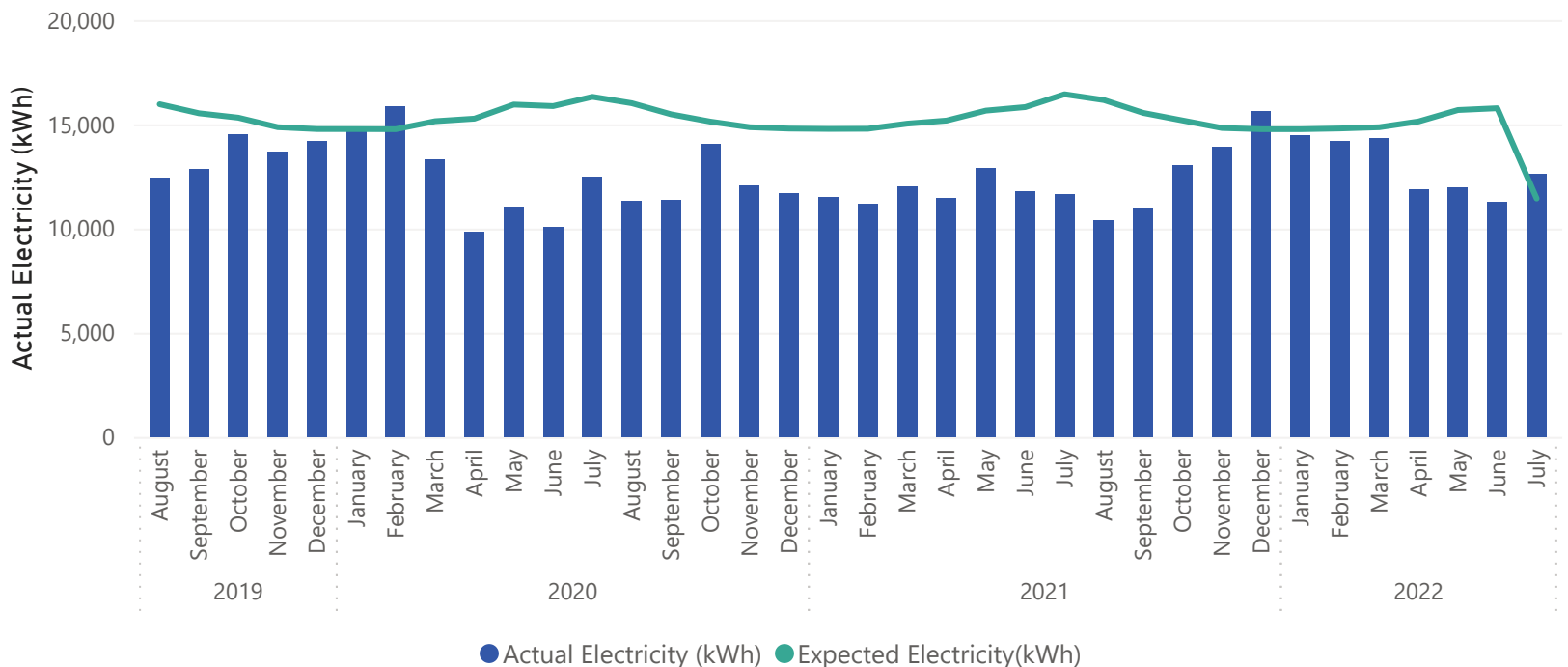
<p><b>-\$680</b> Monthly Energy Cost Savings</p>	<p><b>-1,163</b> Elec. Savings (kWh/mo)</p>	<p><b>-10%</b> Elec. Savings (%)</p>	<p><b>24,343</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-1,288</b> CO2e Savings (kg/mo)</p>
<p><b>\$1,422</b> R12M Energy Cost Savings</p>	<p><b>-5,488</b> Gas. Savings (kWh/mo)</p>	<p><b>-55%</b> Gas. Savings (%)</p>	<p><b>-34,423</b> R12M Gas Savings (kWh/yr)</p>	<p><b>-4,230</b> R12M CO2e Savings (kg/yr)</p>

### Comments:

New baselines were established for electricity and natural gas at the Library, the baseline period is July 2021 to June 2022 and use cooling degree days as the independent variable.

Natural gas use has increased by 60% compared to June 2022. Dehumidification loads are significant as electricity is required for cooling and gas is required for re-heat. Control of relative humidity has improved, however further investigation is needed to understand if this is optimised or if the cooling and heating coils are fighting each other excessively.

Te Koputu Library Electricity Use Compared to Baseline (kWh)

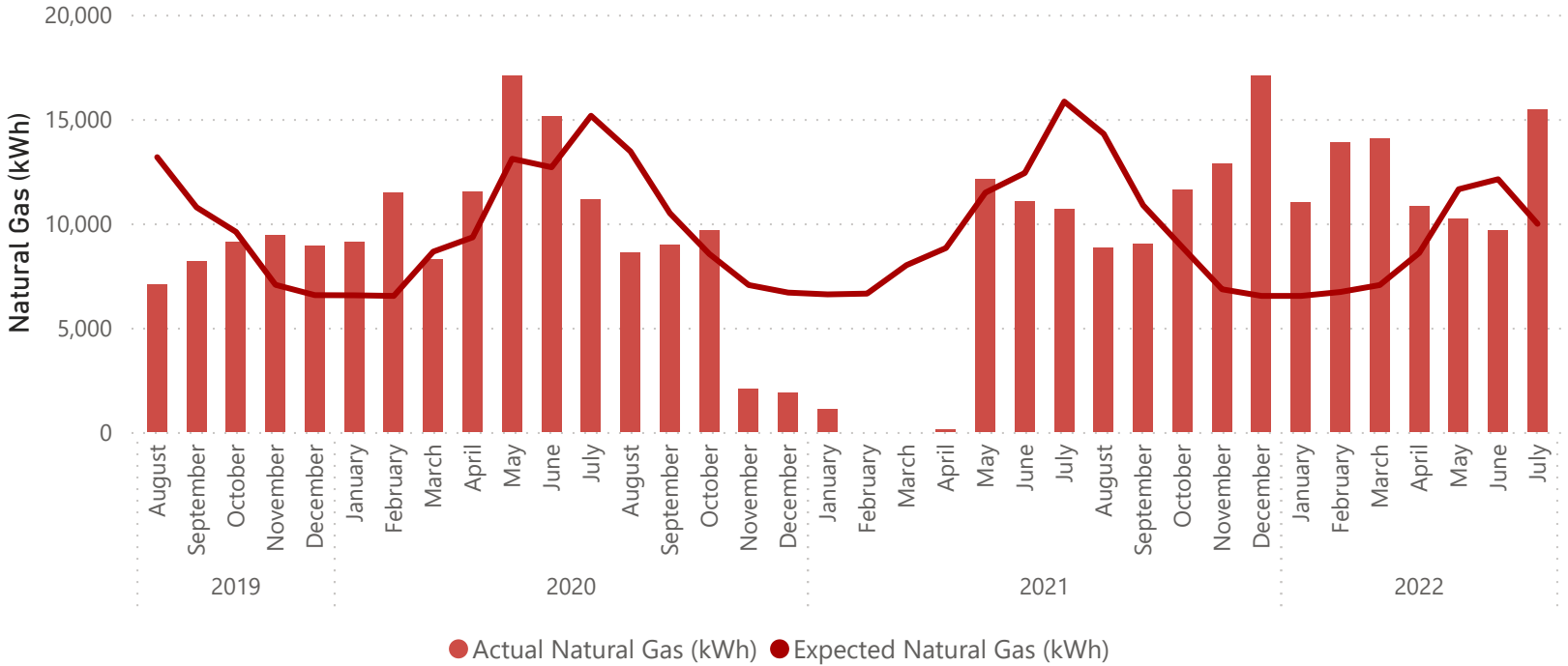


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

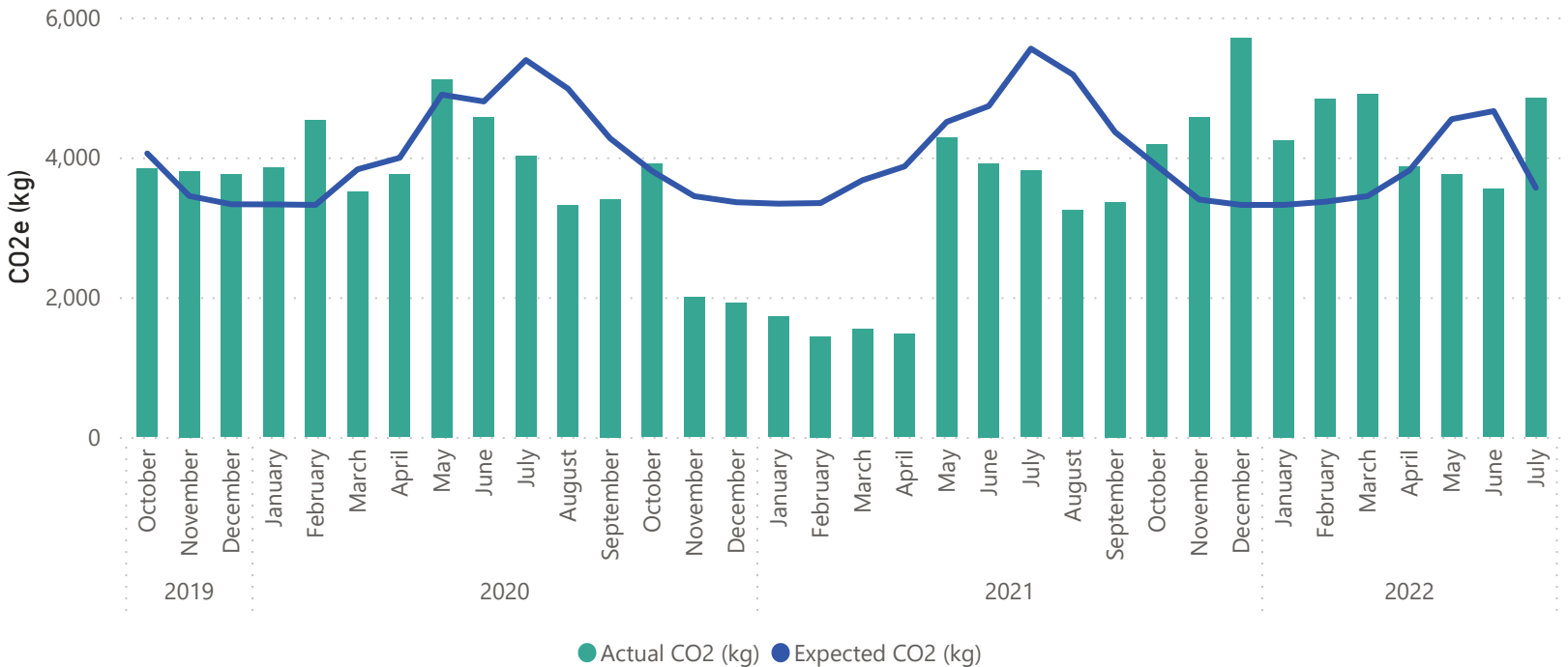
# Whakatane District Council

## Te Koputu Library

Te Koputu Library Natural Gas Compared to Baseline (kWh)



Te Koputu Library Carbon Emissions Compared to Baseline (kg CO2e)

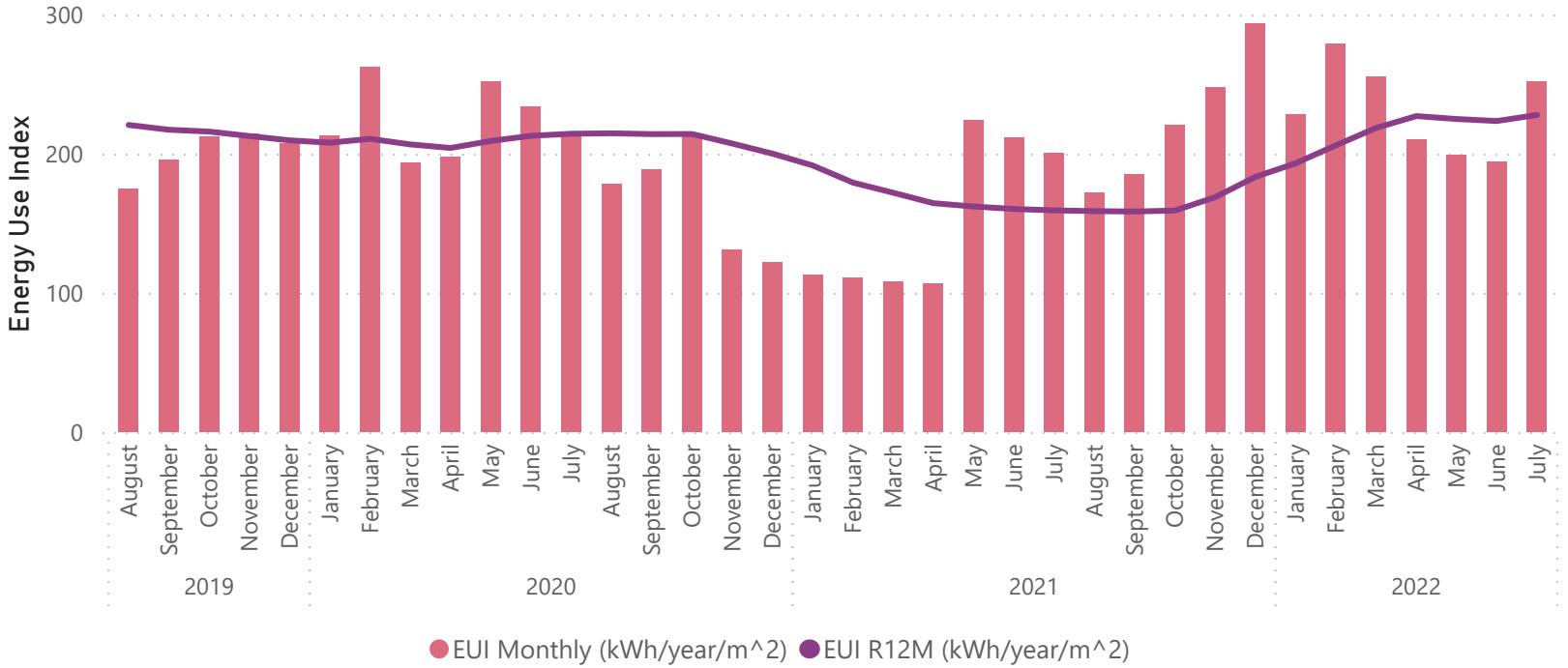


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

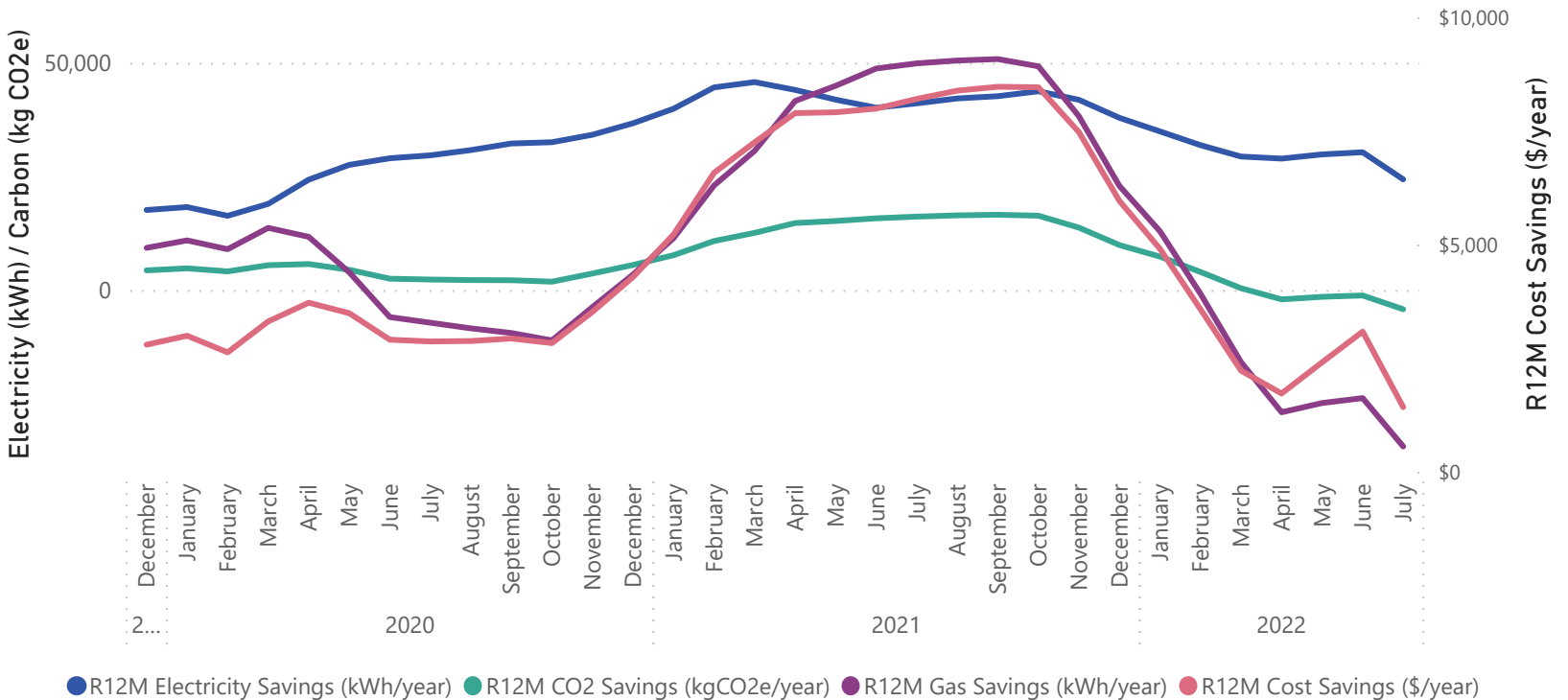
# Whakatane District Council

## Te Koputu Library

Te Koputu Library Energy Use Index by Month Compared to Rolling 12-Month Values



Te Koputu Library Rolling 12 Month Savings



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

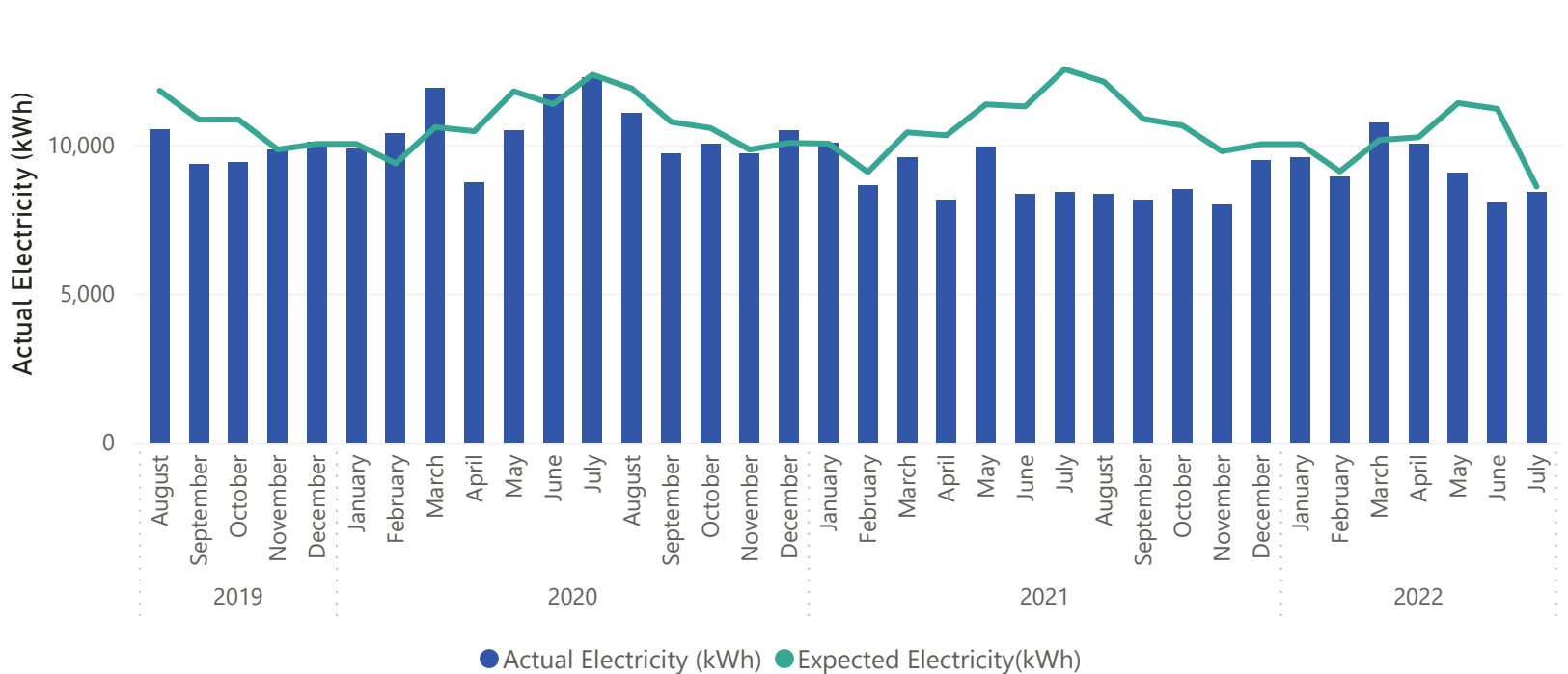
## Museum and Research Centre

<p><b>\$48</b></p> <p>Monthly Energy Cost Savings</p>	<p><b>184</b></p> <p>Elec. Savings (kWh/mo)</p>	<p><b>2%</b></p> <p>Elec. Savings (%)</p>	<p><b>16,904</b></p> <p>R12M Electricity Savings (kWh/yr)</p>	<p><b>38</b></p> <p>CO2e Savings (kg/mo)</p>
<p><b>\$5,285</b></p> <p>R12M Energy Cost Savings</p>	<p><b>67</b></p> <p>Gas. Savings (kWh/mo)</p>	<p><b>2%</b></p> <p>Gas. Savings (%)</p>	<p><b>37,998</b></p> <p>R12M Gas Savings (kWh/yr)</p>	<p><b>10,413</b></p> <p>R12M CO2e Savings (kg/yr)</p>

### Comments:

New baselines were established for electricity and natural gas at the Museum and Research Centre, the baseline period is July 2021 to June 2022. The electricity baseline uses cooling degree days as the independent variable and the natural gas baseline uses heating degree days as the independent variable.

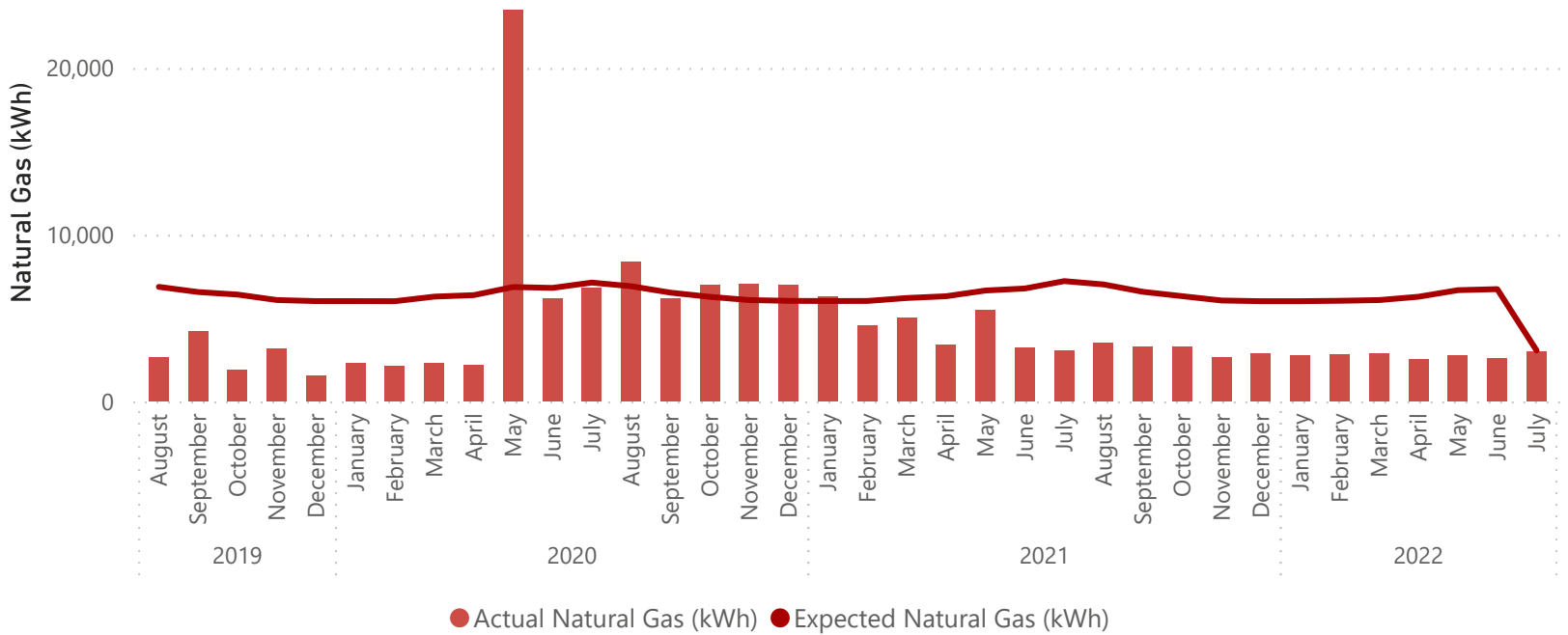
Museum Research Centre Electricity Use Compared to Baseline (kWh)



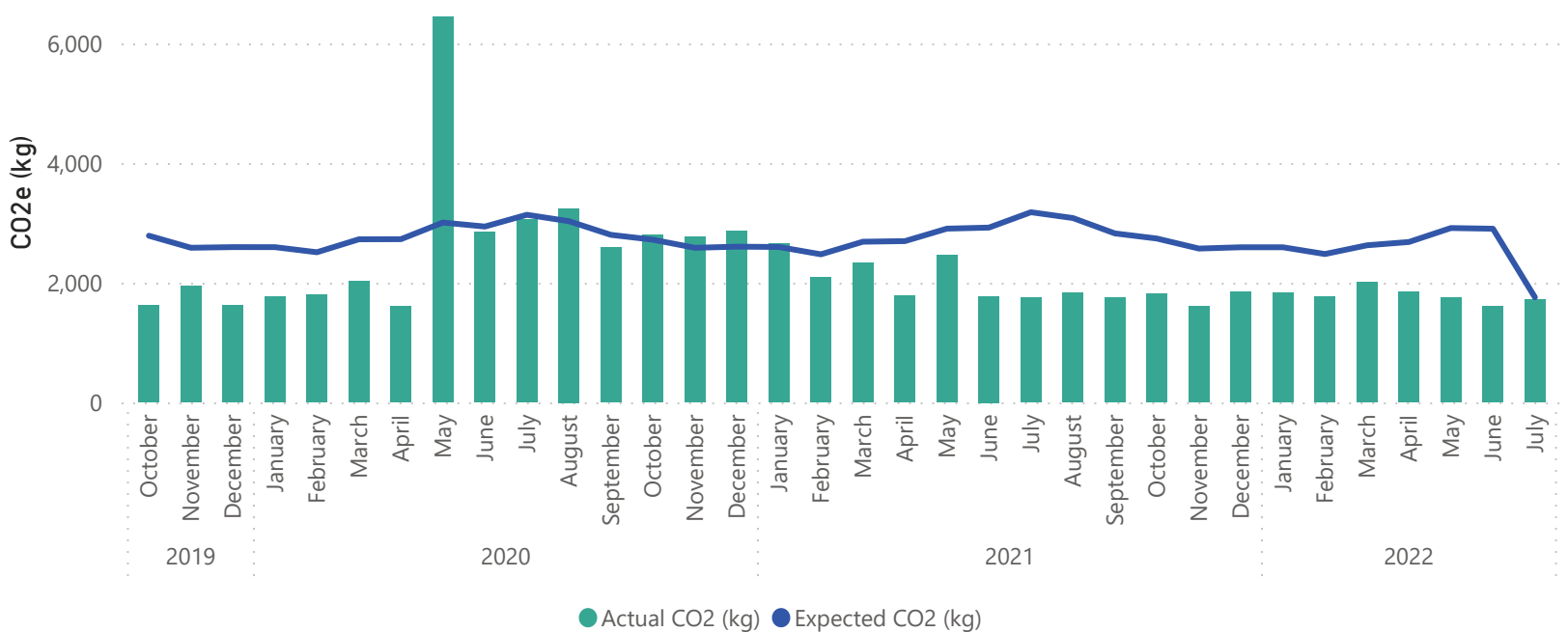
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council Museum and Research Centre

Museum Research Centre Natural Gas Compared to Baseline (kWh)



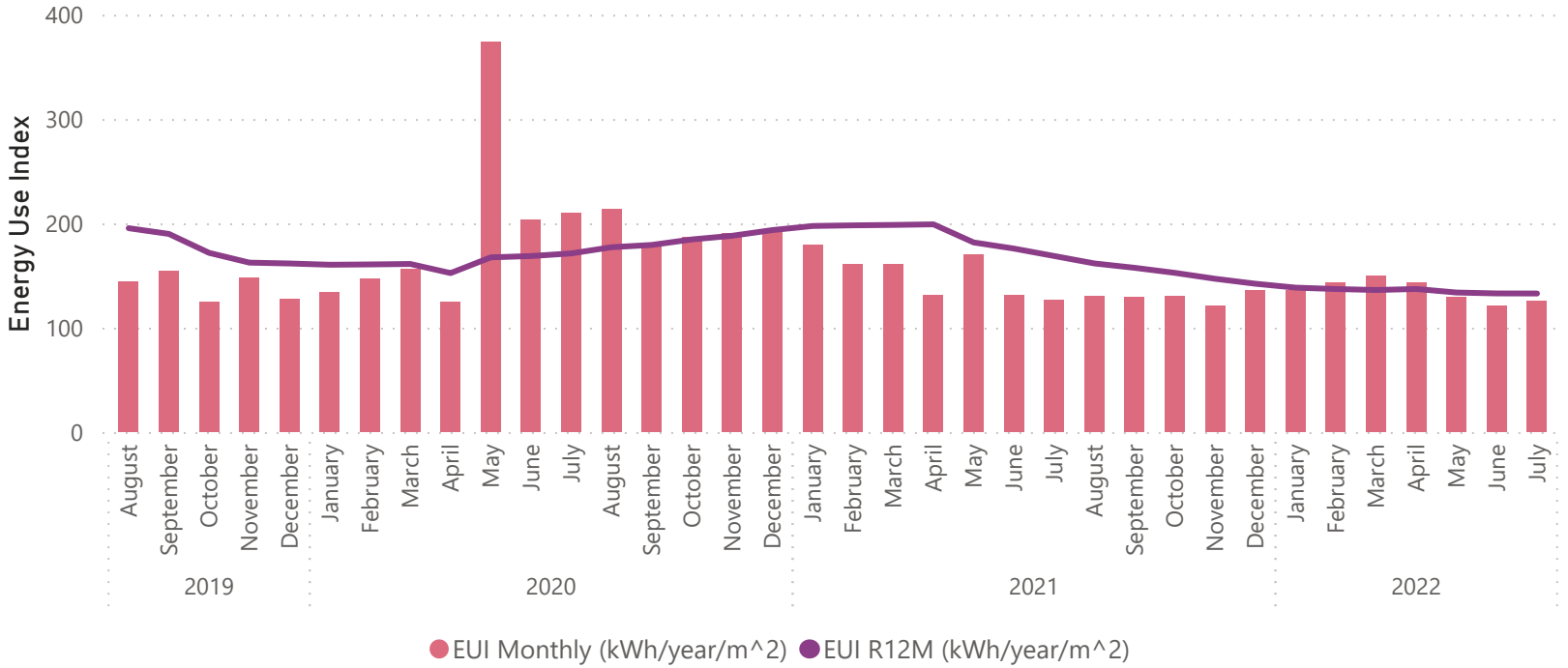
Museum Research Centre Carbon Emissions Compared to Baseline (kg CO2e)



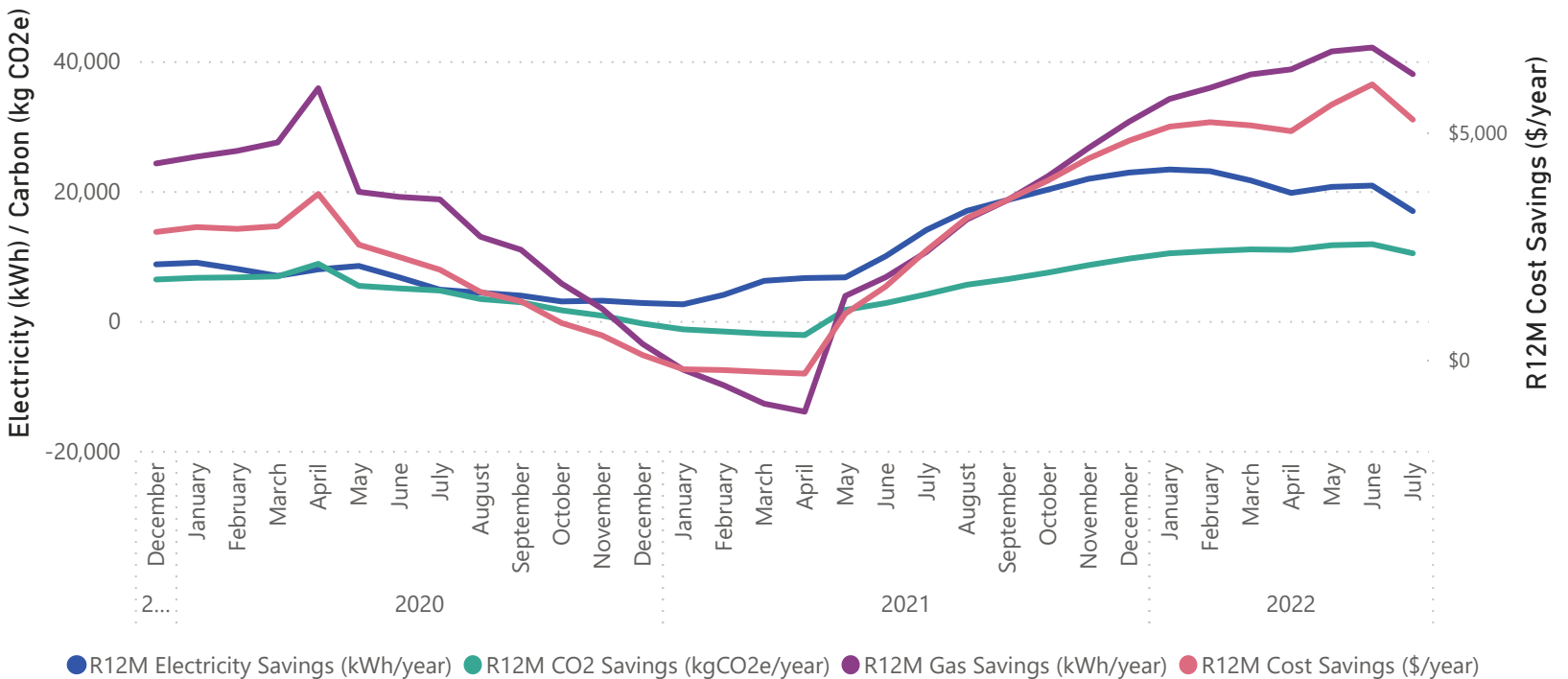
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council Museum and Research Centre

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



Museum Research Centre Rolling 12 Month Savings



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**



# Whakatane District Council

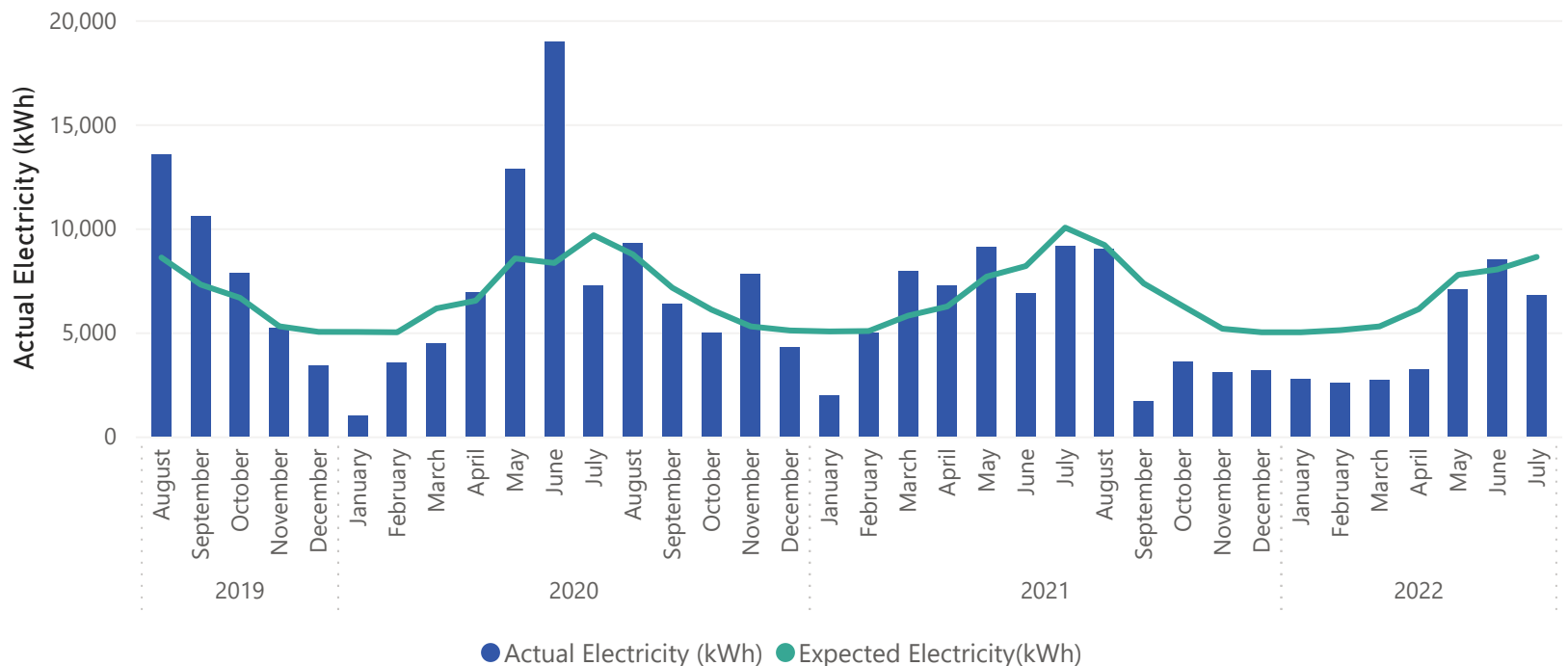
## War Memorial Hall

<p><b>-\$84</b></p> <p>Monthly Energy Cost Savings</p>	<p><b>1,857</b></p> <p>Elec. Savings (kWh/mo)</p>	<p><b>22%</b></p> <p>Elec. Savings (%)</p>	<p><b>24,744</b></p> <p>R12M Electricity Savings (kWh/yr)</p>	<p><b>-1,227</b></p> <p>CO2e Savings (kg/mo)</p>
<p><b>\$2,023</b></p> <p>R12M Energy Cost Savings</p>	<p><b>-7,104</b></p> <p>Gas. Savings (kWh/mo)</p>	<p><b>-222%</b></p> <p>Gas. Savings (%)</p>	<p><b>-19,423</b></p> <p>R12M Gas Savings (kWh/yr)</p>	<p><b>-953</b></p> <p>R12M CO2e Savings (kg/yr)</p>

### Comments:

The baseline was updated for War Memorial Hall, the baseline adjusts for ambient temperature. The baseline period is July 2021 to June 2022. The War Memorial Hall uses more electricity and gas in winter months. The War Memorial Hall is on a NHH account, some months' usage may be estimated by the retailer and captured by a subsequent meter reading. Manual meter readings can improve accuracy of electricity and gas usage.

War Memorial Hall Electricity Use Compared to Baseline (kWh)

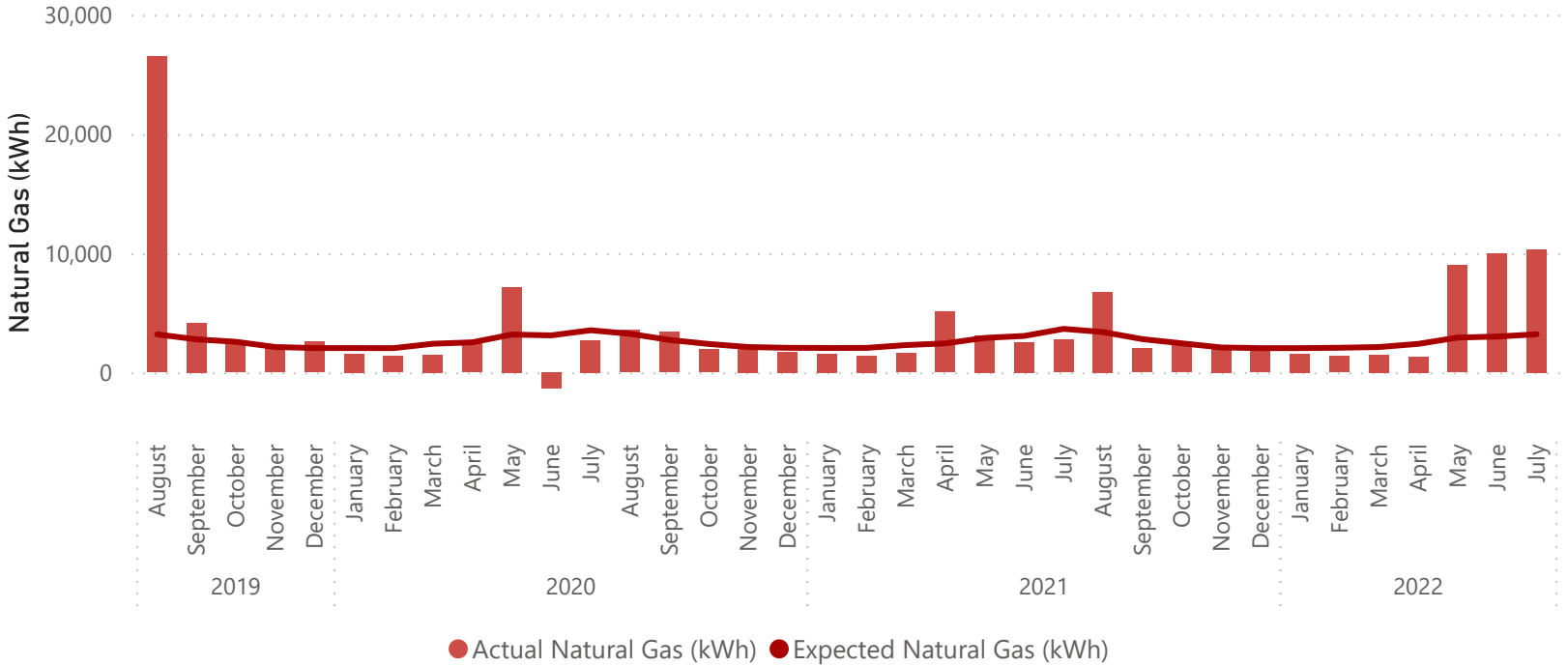


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

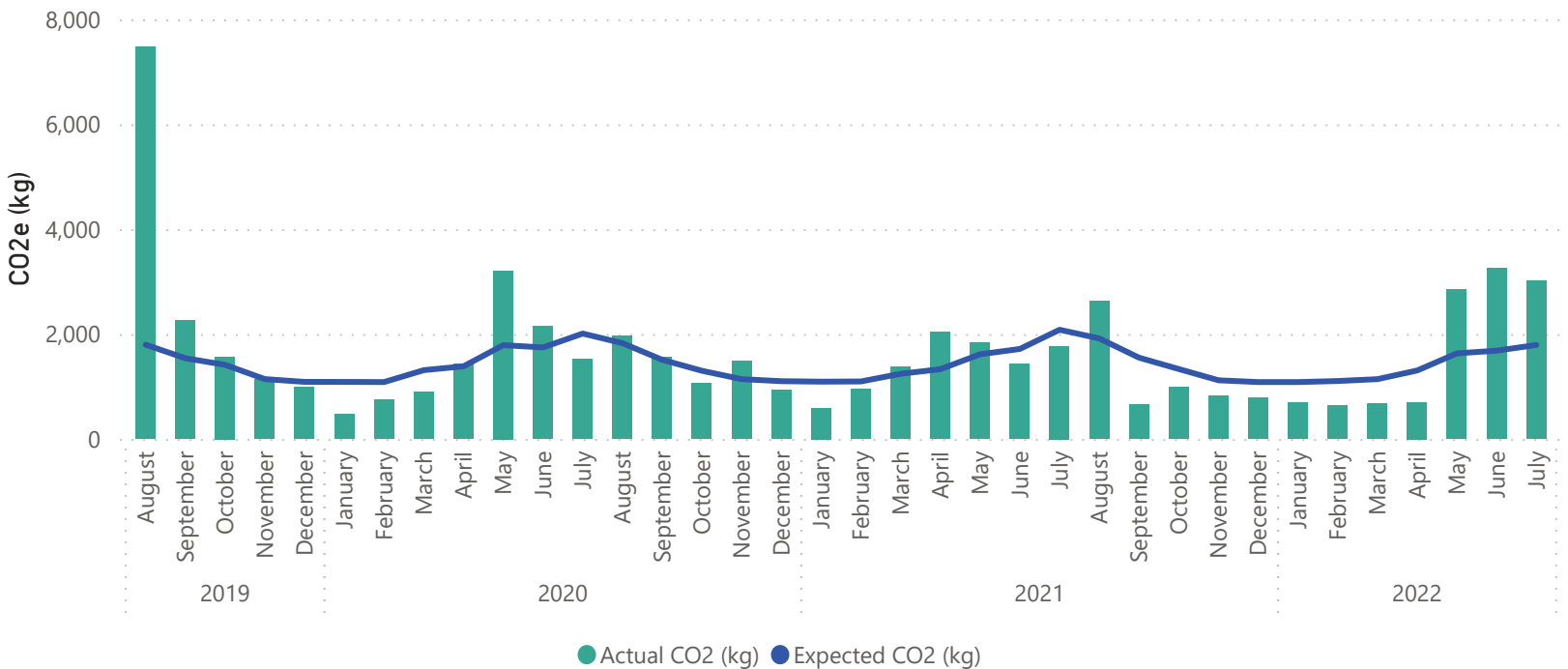
# Whakatane District Council

## War Memorial Hall

War Memorial Hall Natural Gas Compared to Baseline (kWh)



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

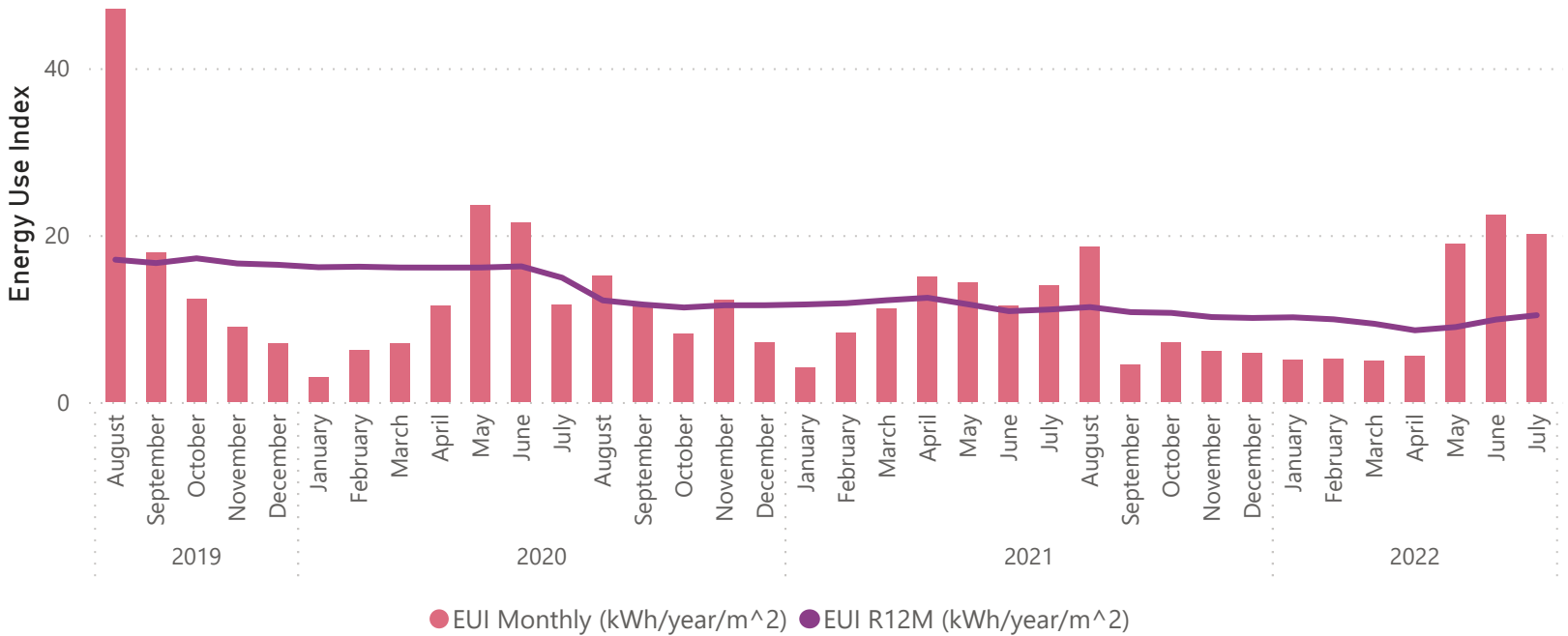


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

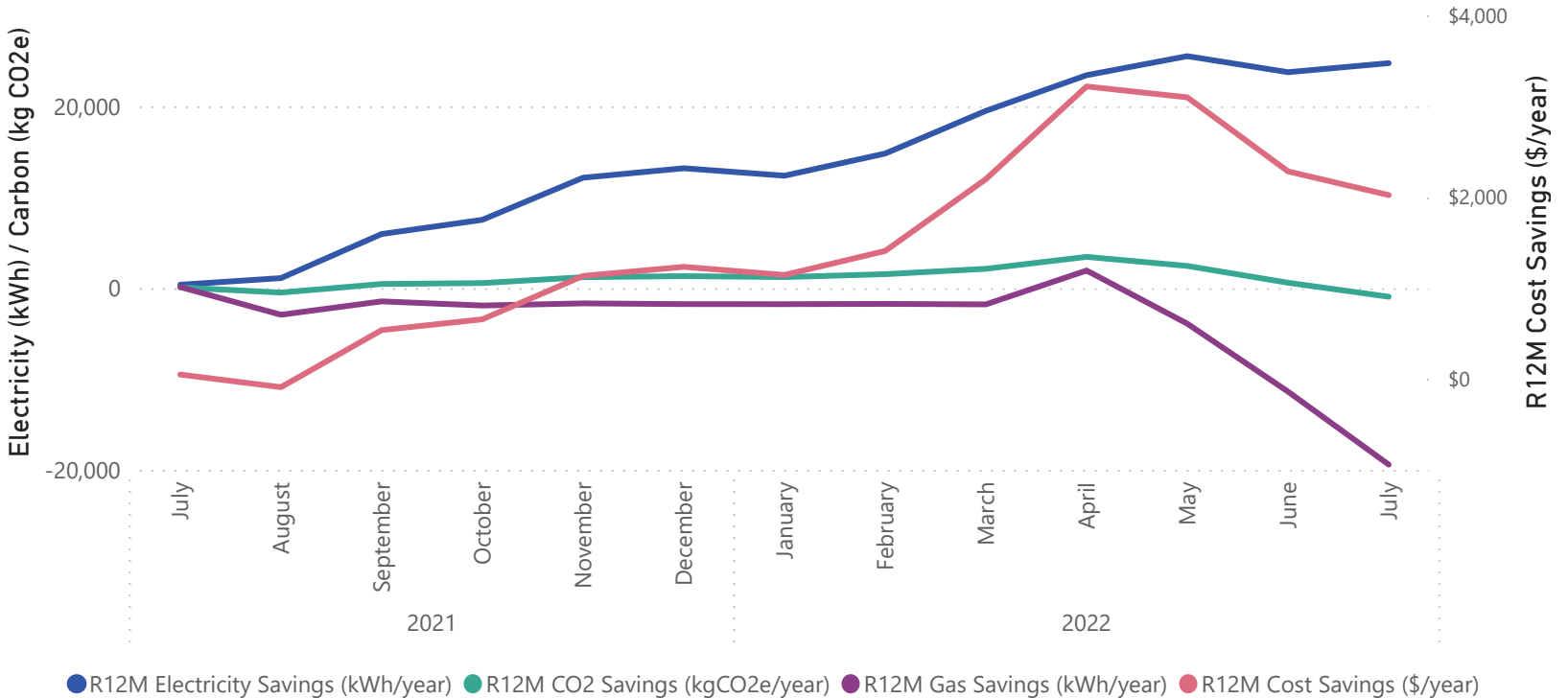
# Whakatane District Council

## War Memorial Hall

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



War Memorial Hall Rolling 12 Month Savings



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Water Treatment Plant

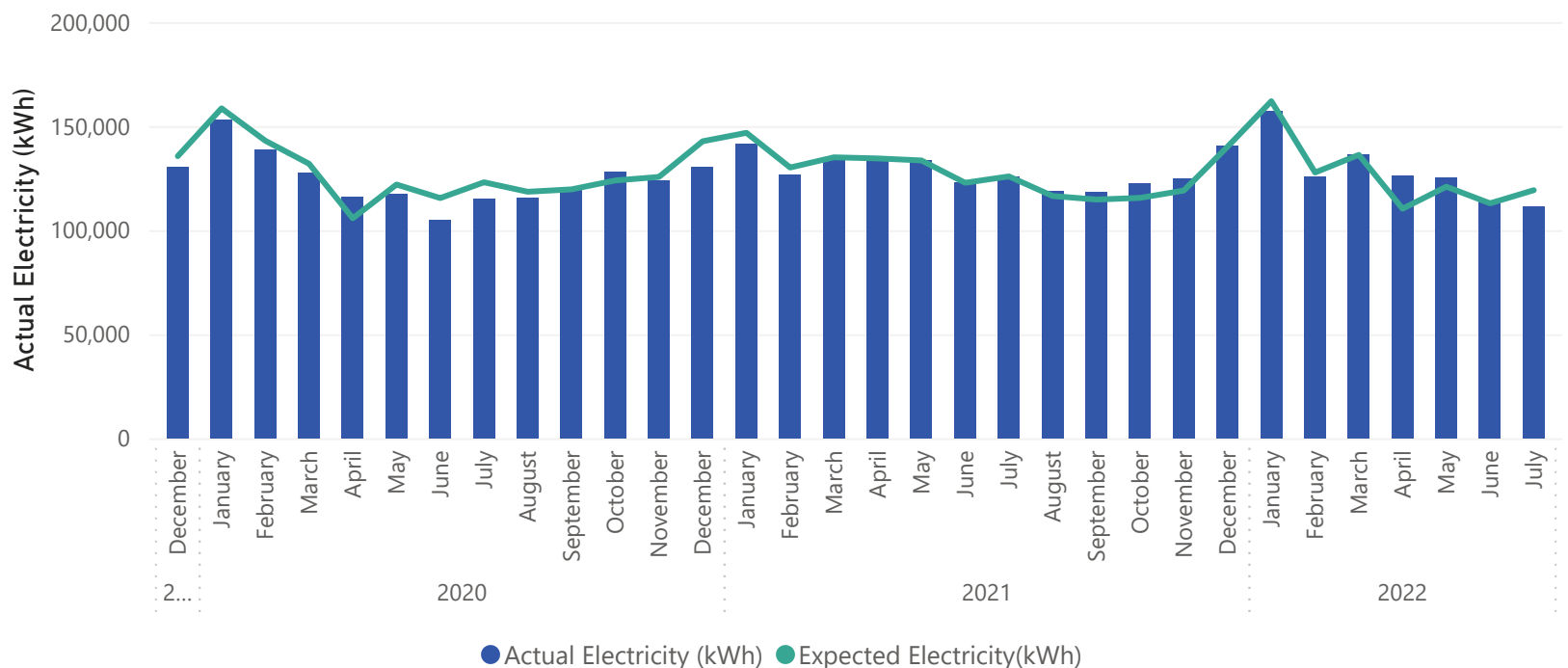
<p><b>\$1,834</b></p> <p>Monthly Energy Cost Savings</p>	<p><b>8,054</b></p> <p>Elec. Savings (kWh/mo)</p>	<p><b>7%</b></p> <p>Elec. Savings (%)</p>	<p><b>-26,489</b></p> <p>R12M Electricity Savings (kWh/yr)</p>	<p><b>1,055</b></p> <p>CO2e Savings (kg/mo)</p>
<p><b>-\$3,976</b></p> <p>R12M Energy Cost Savings</p>				<p><b>-3,391</b></p> <p>R12M CO2e Savings (kg/yr)</p>

### Comments:

The electricity use baseline was updated for the Water Treatment Plant, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m<sup>3</sup>) as the independent variable.

The monthly EUI has decreased below average for the last 12 months.

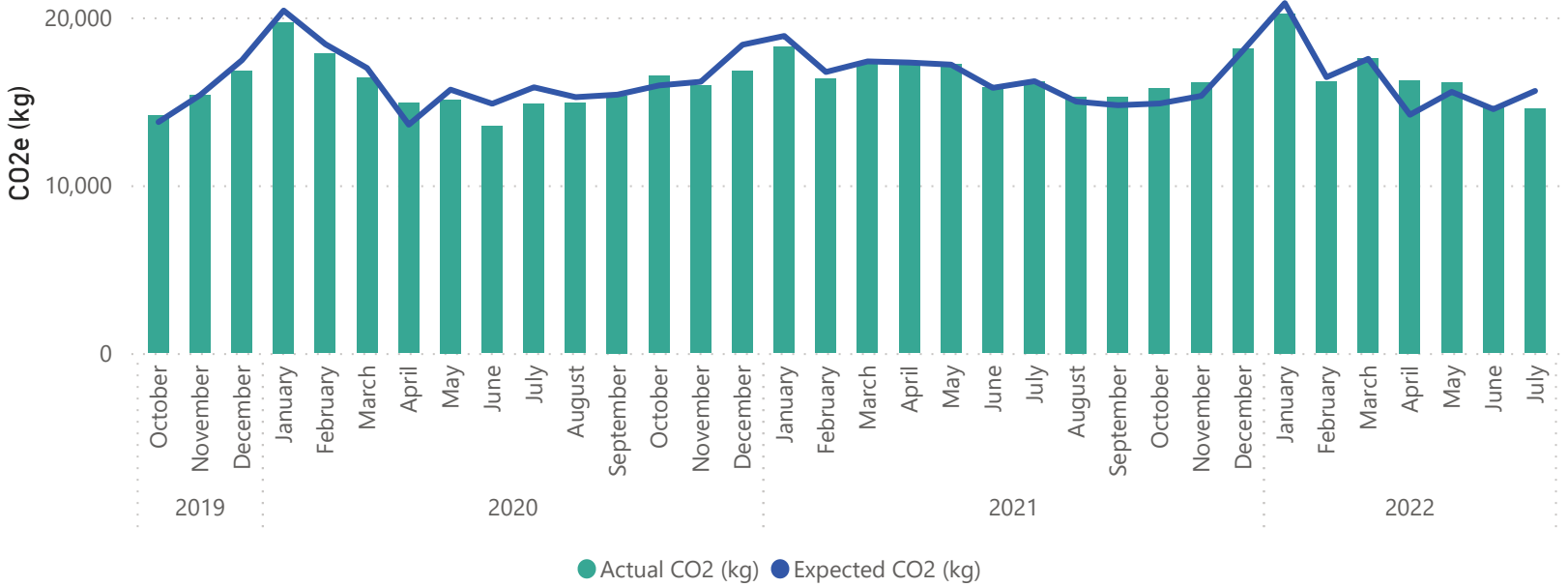
Water Treatment Plant Electricity Use Compared to Baseline (kWh)



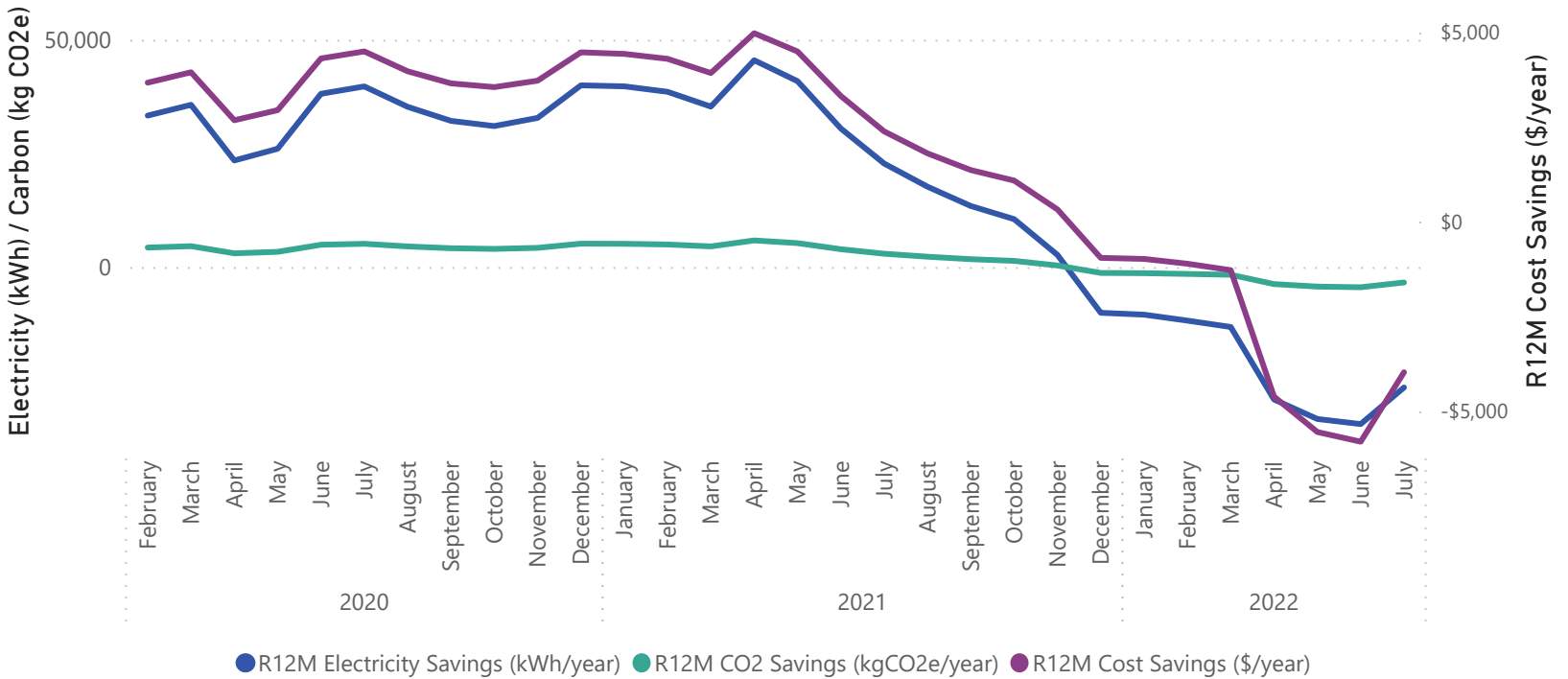
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council Water Treatment Plant

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



Water Treatment Plant Rolling 12 Month Savings

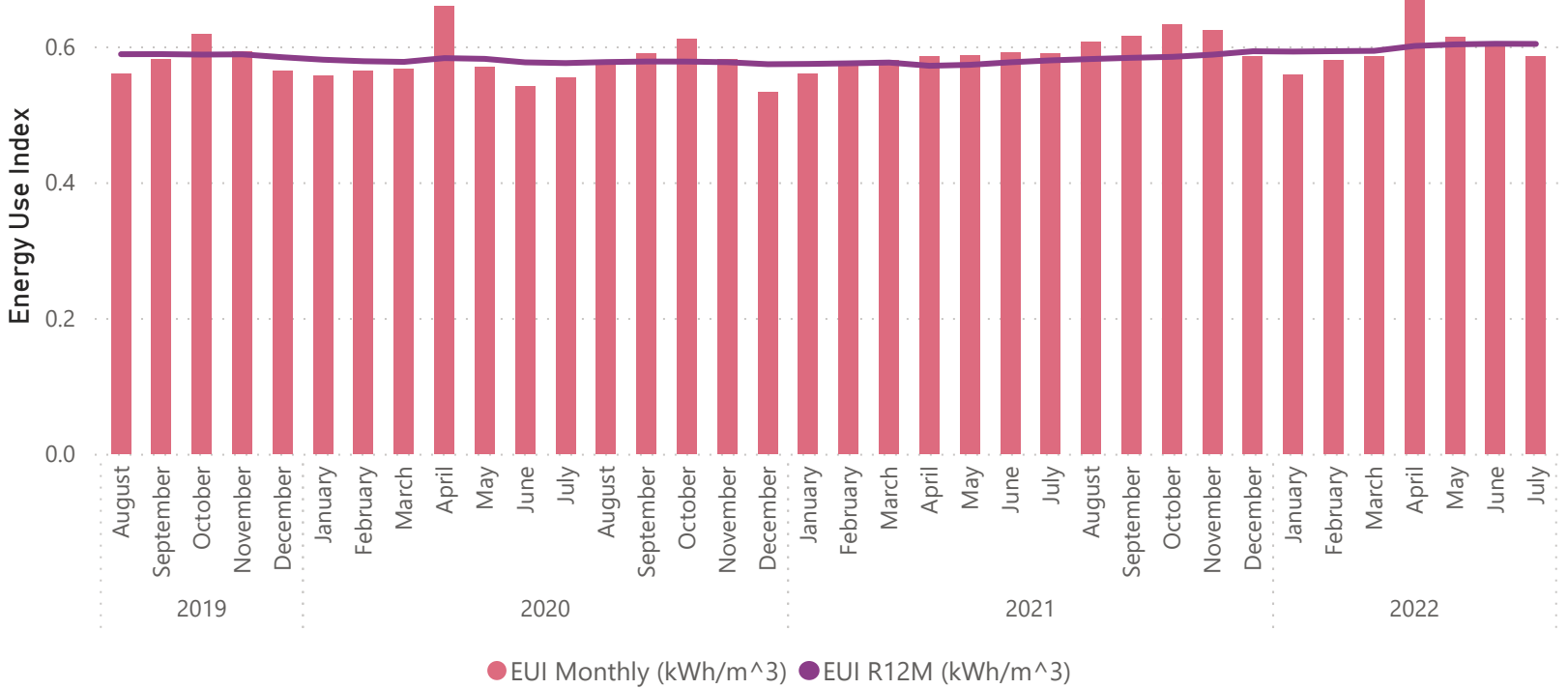


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Water Treatment Plant

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



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Braemar Road Pump Station

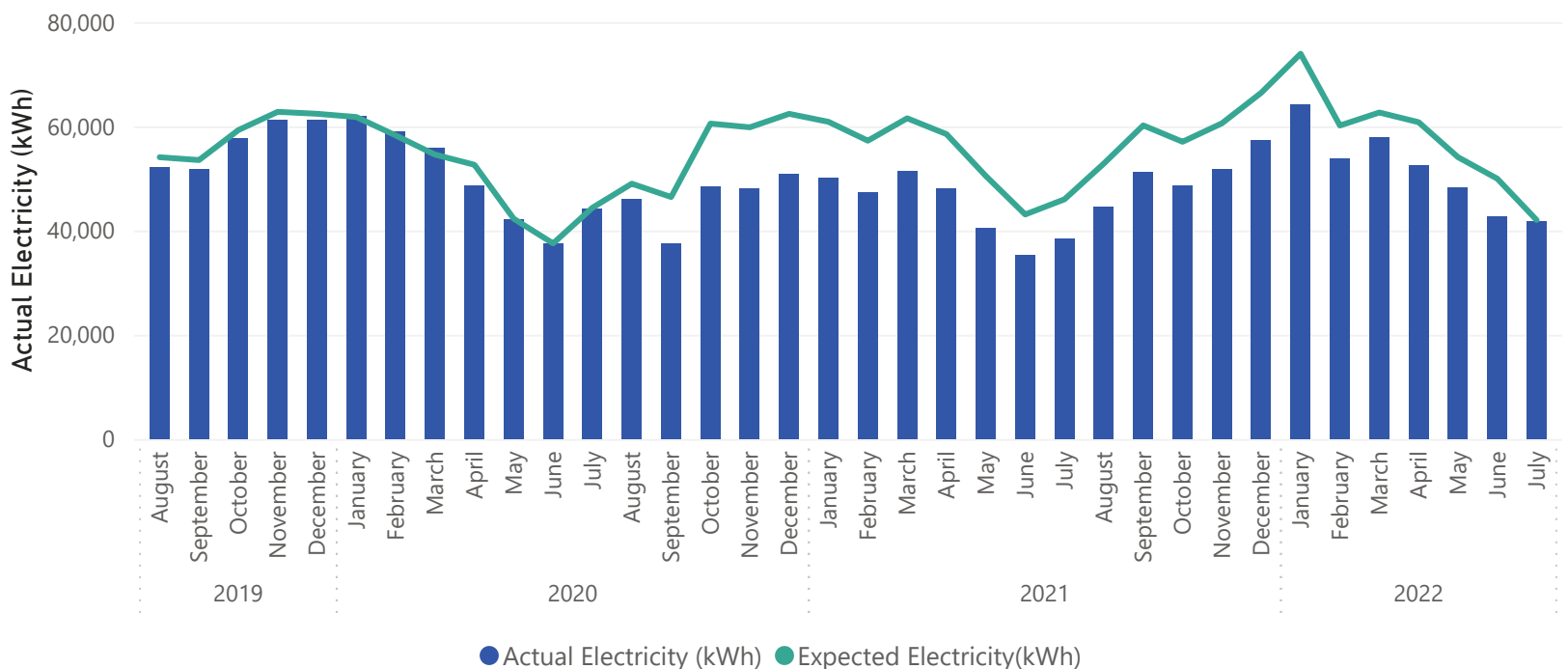
<p><b>\$62</b> Monthly Energy Cost Savings</p>	<p><b>270</b> Elec. Savings (kWh/mo)</p>	<p><b>1%</b> Elec. Savings (%)</p>	<p><b>85,880</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>35</b> CO2e Savings (kg/mo)</p>
<p><b>\$12,004</b> R12M Energy Cost Savings</p>				<p><b>11,280</b> R12M CO2e Savings (kg/yr)</p>

### Comments:

The electricity use baseline was updated for the Braemar Road Pump Station, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m<sup>3</sup>) as the independent variable.

Savings from the high efficiency pumps and motors will no longer be visible when comparing to the new baseline, however, real savings have been achieved since September 2020, using approximately 15% less electricity compared to the older pumps and motors.

Braemar Rd Pumps Electricity Use Compared to Baseline (kWh)

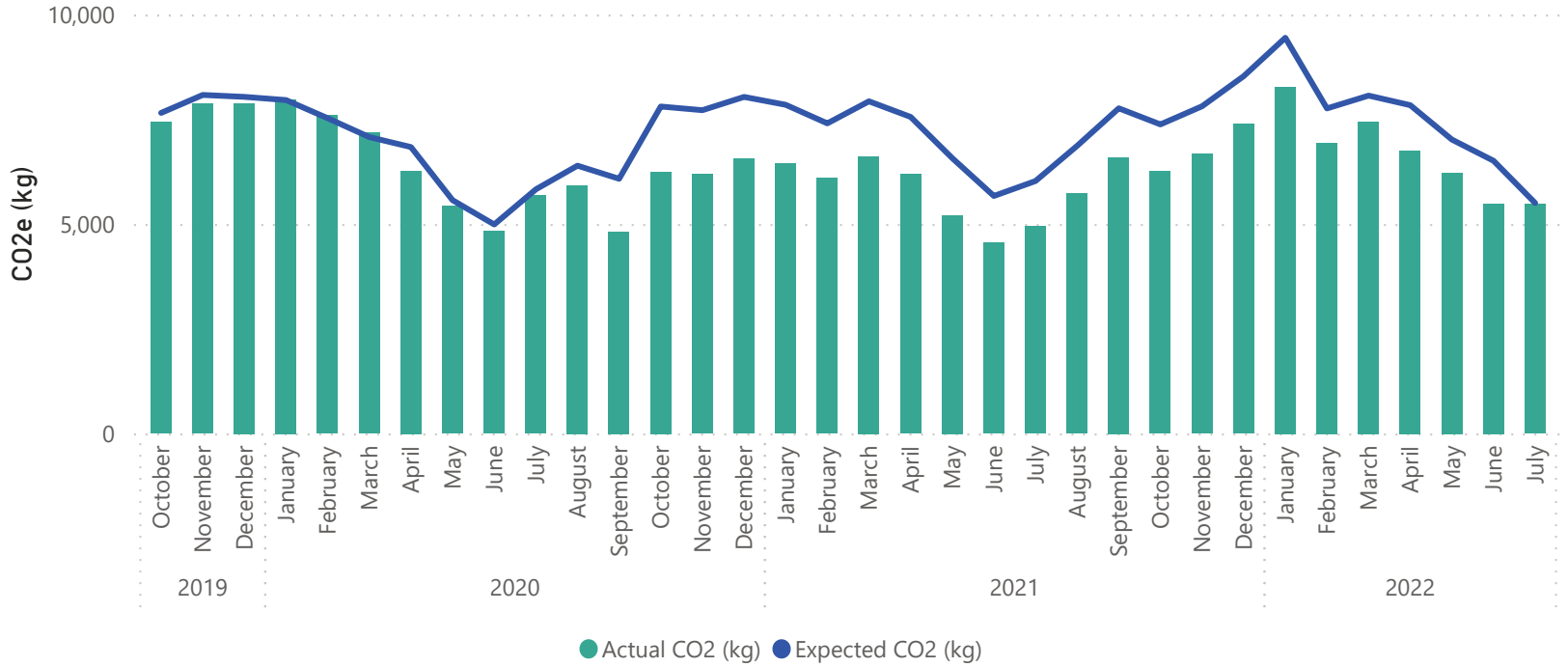


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

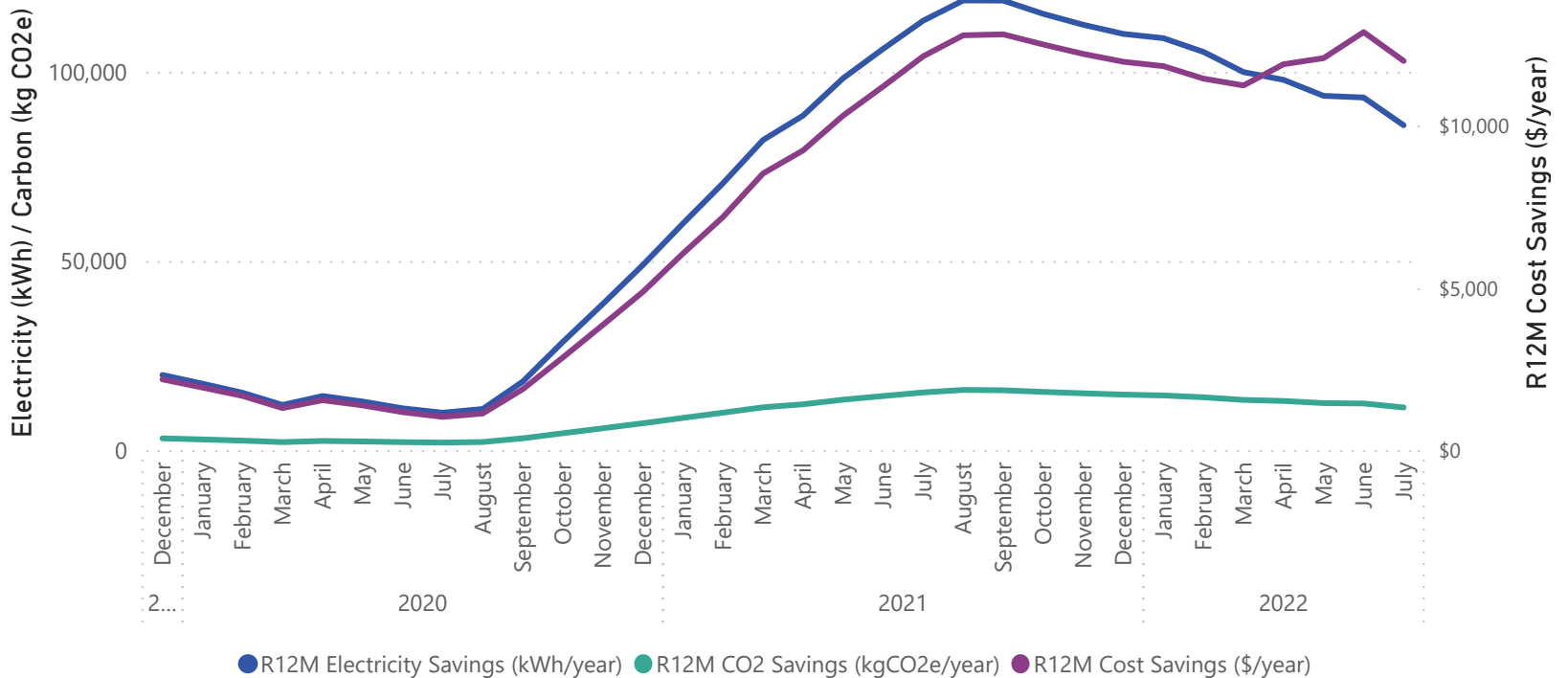
# Whakatane District Council

## Braemar Road Pump Station

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



Braemar Rd Pumps Rolling 12 Month Savings



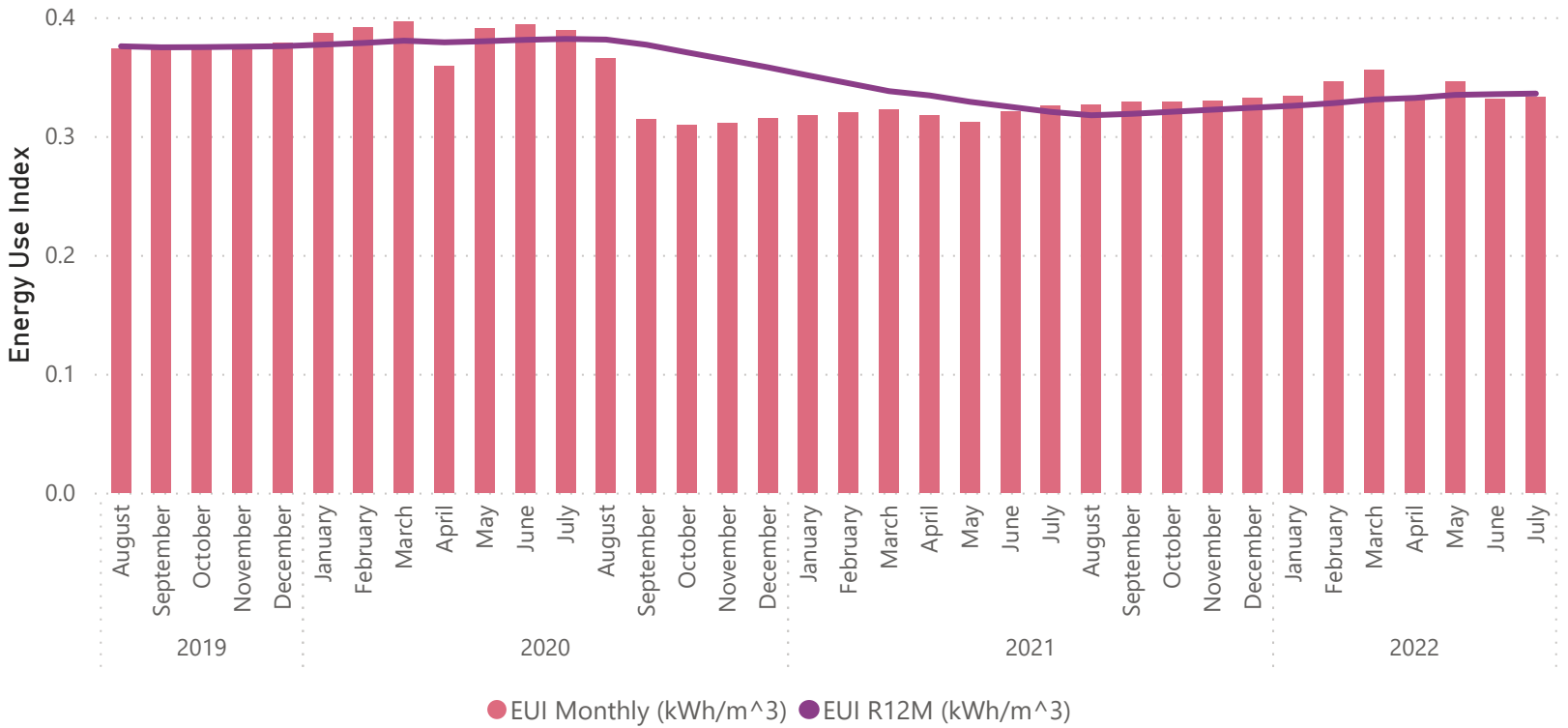
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**



# Whakatane District Council

## Braemar Road Pump Station

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



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

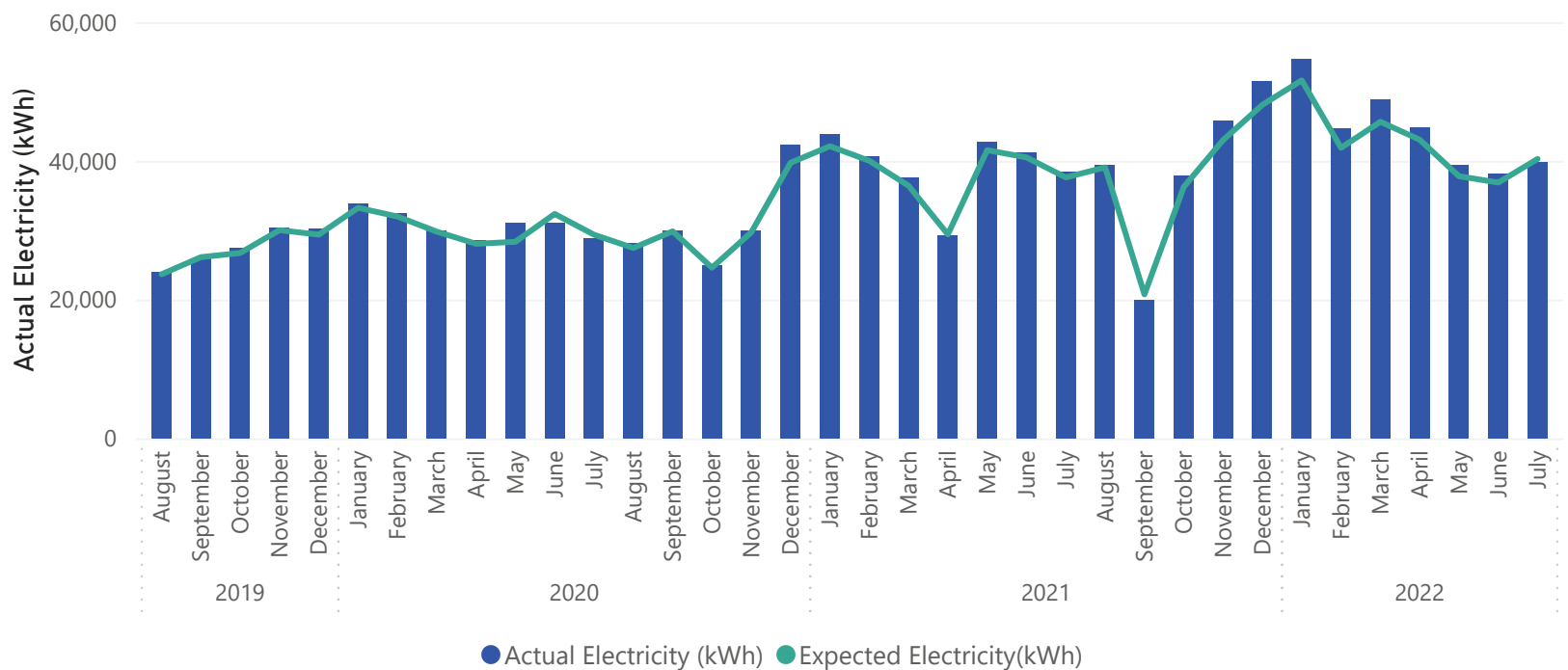
## Paul Road Pump Station

<p><b>\$107</b> Monthly Energy Cost Savings</p>	<p><b>457</b> Elec. Savings (kWh/mo)</p>	<p><b>1%</b> Elec. Savings (%)</p>	<p><b>-20,595</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>60</b> CO2e Savings (kg/mo)</p>
<p><b>-\$2,938</b> R12M Energy Cost Savings</p>				<p><b>-2,640</b> R12M CO2e Savings (kg/yr)</p>

### Comments:

The electricity use baseline was updated for the Paul Road Pump Station, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m<sup>3</sup>) as the independent variable. The updated baseline has a smaller baseload factor and a larger variable component.

Paul Rd Pumps Electricity Use Compared to Baseline (kWh)

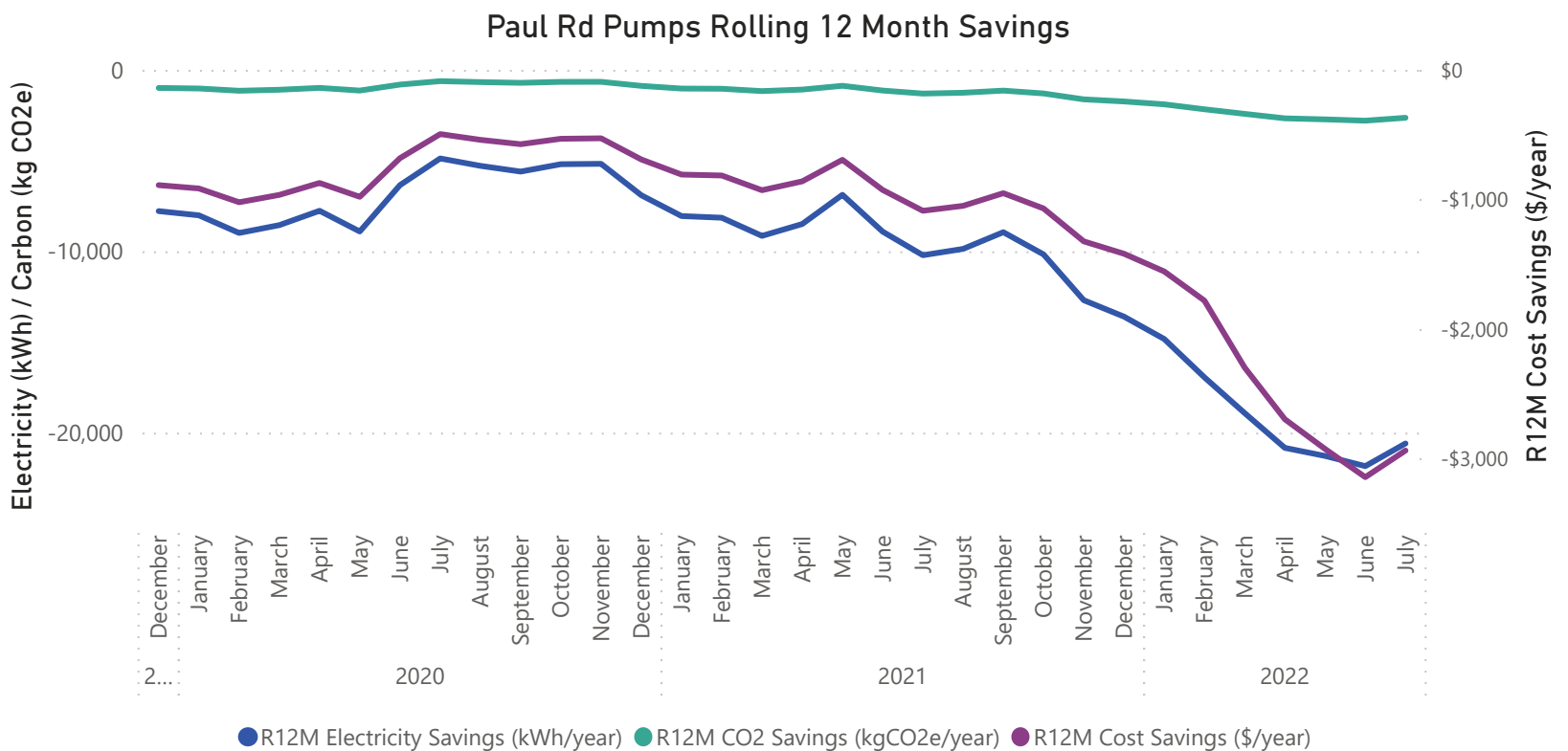
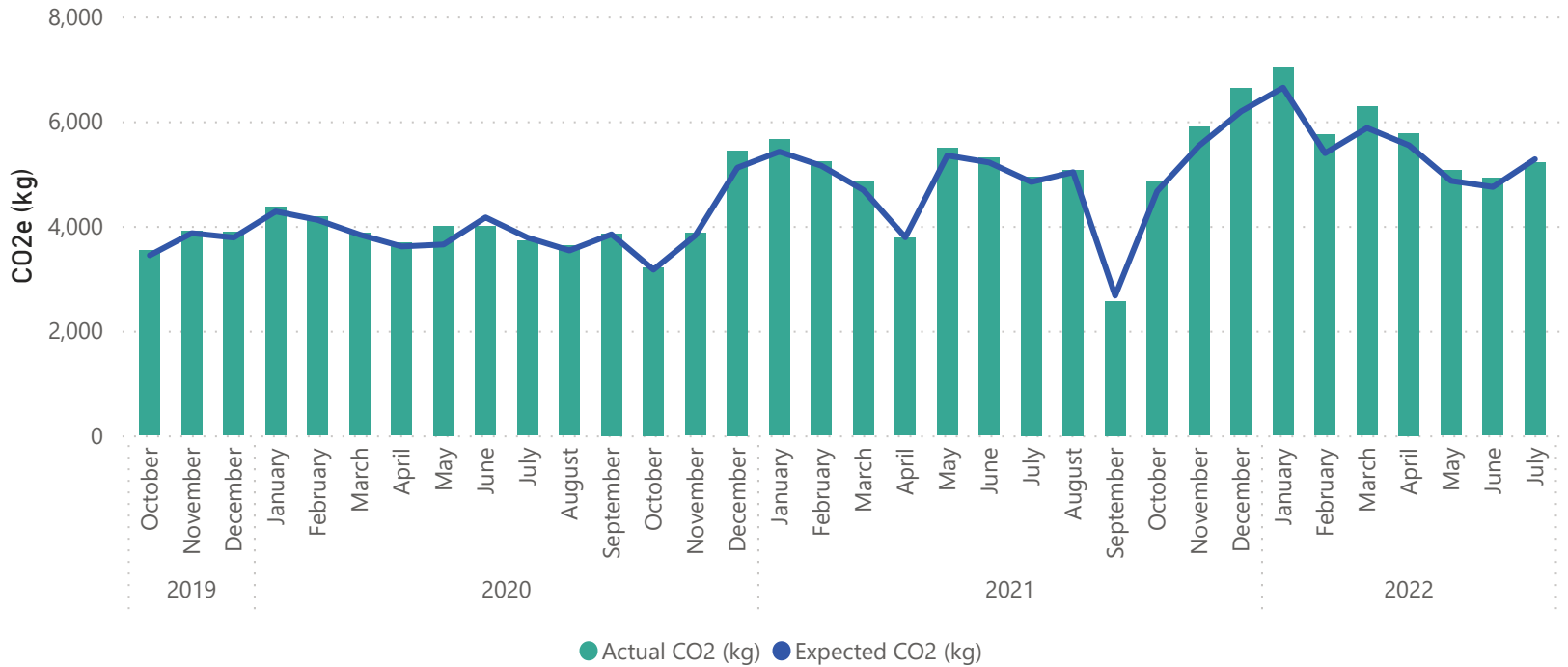


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Paul Road Pump Station

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

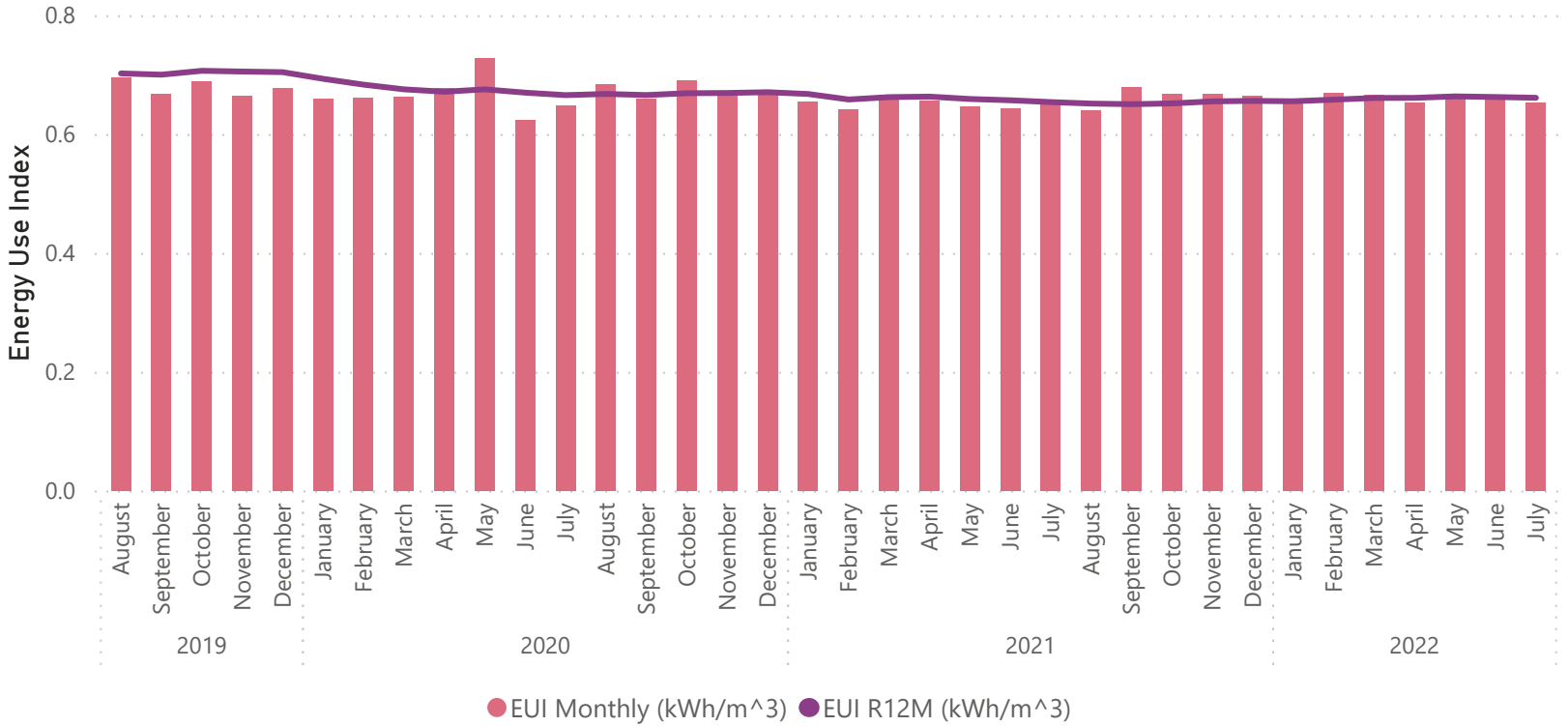


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Paul Road Pump Station

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



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

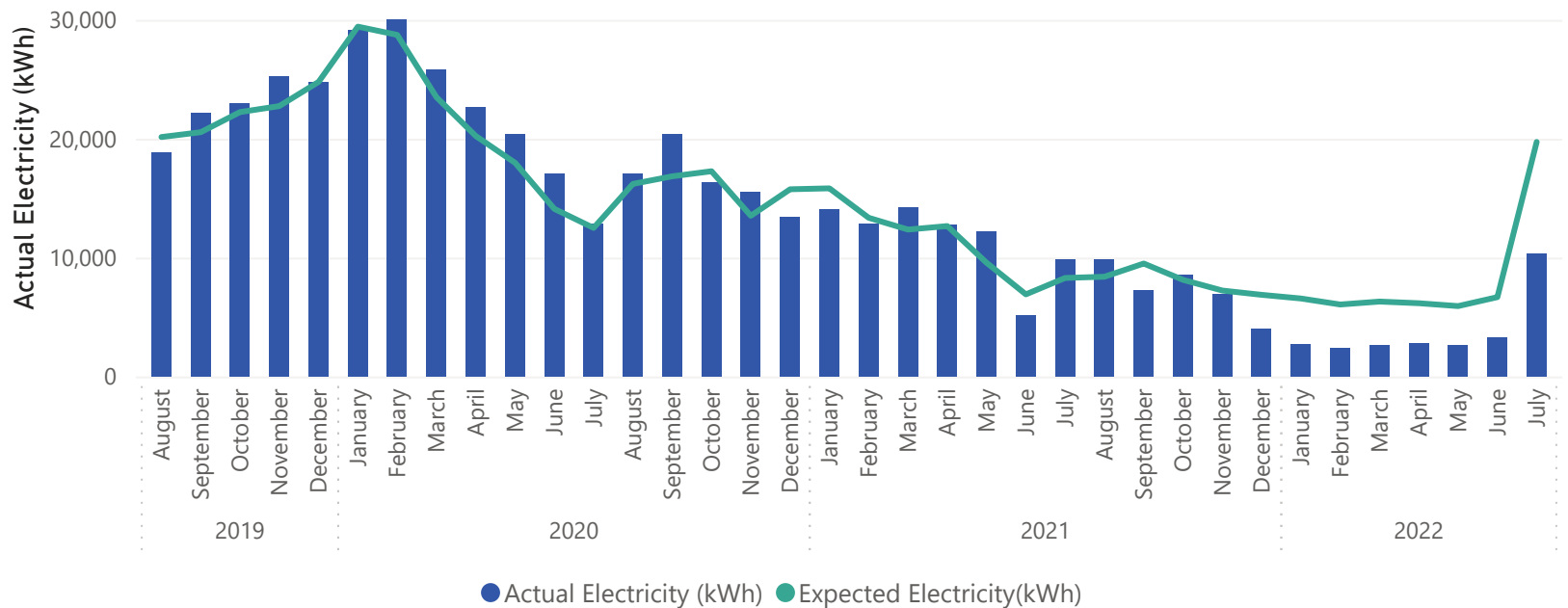
## Johnson Road Pump Station

<p><b>\$2,063</b> Monthly Energy Cost Savings</p>	<p><b>9,357</b> Elec. Savings (kWh/mo)</p>	<p><b>47%</b> Elec. Savings (%)</p>	<p><b>33,939</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>1,226</b> CO2e Savings (kg/mo)</p>
<p><b>\$7,484</b> R12M Energy Cost Savings</p>				<p><b>4,391</b> R12M CO2e Savings (kg/yr)</p>

### Comments:

The electricity use baseline was updated for the Johnson Road Pump Station, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m<sup>3</sup>) as the independent variable. The updated baseline has a smaller baseload factor and a larger variable component.

Johnson Rd Pumps Electricity Use Compared to Baseline (kWh)

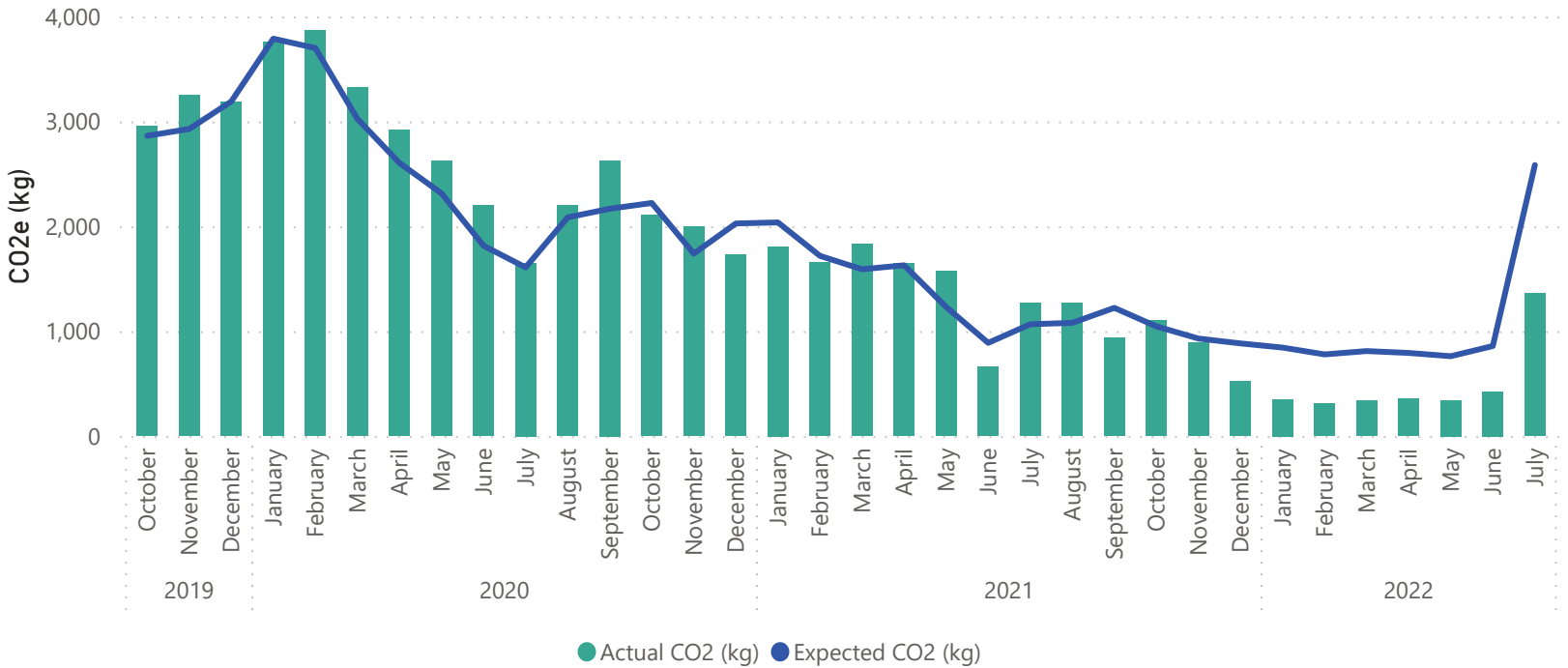


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

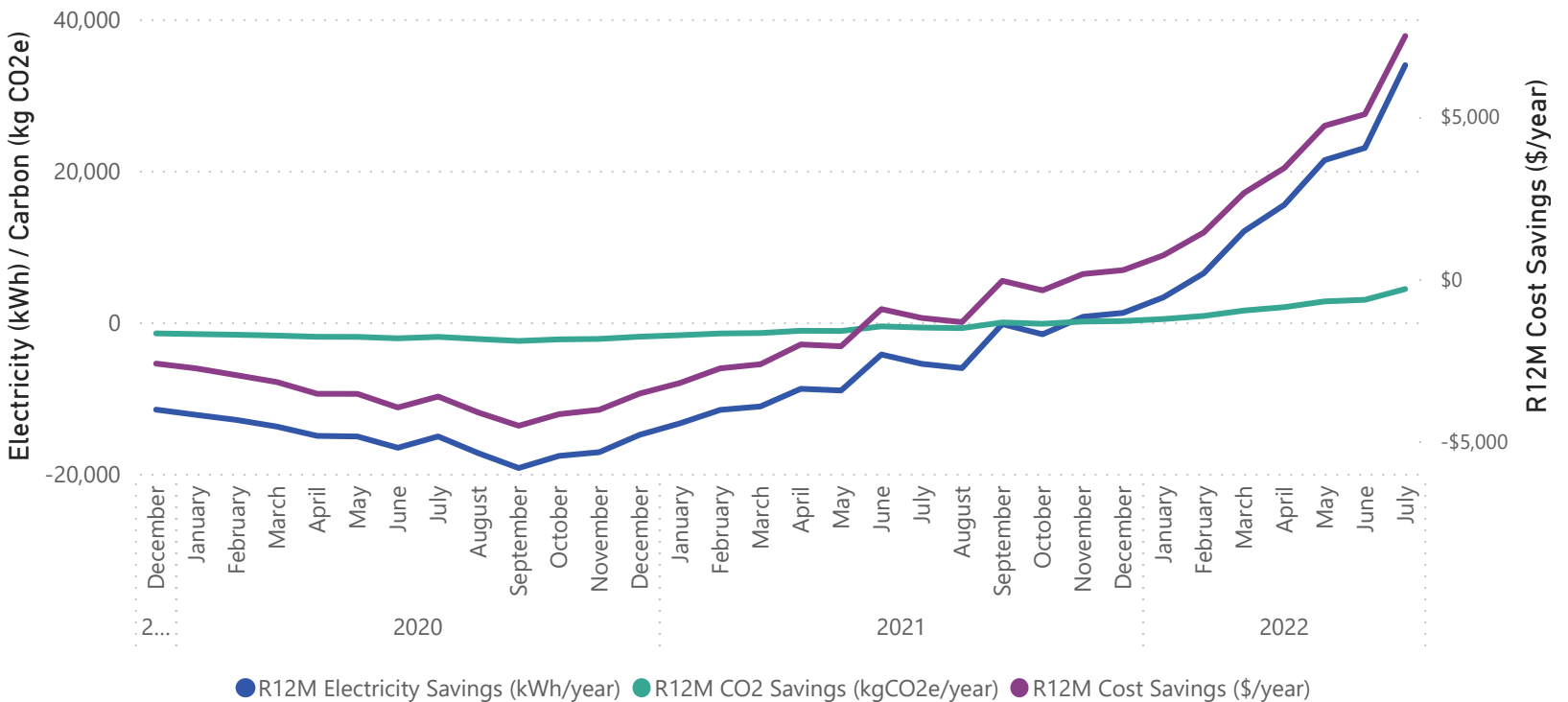
# Whakatane District Council

## Johnson Road Pump Station

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



Johnson Rd Pumps Rolling 12 Month Savings

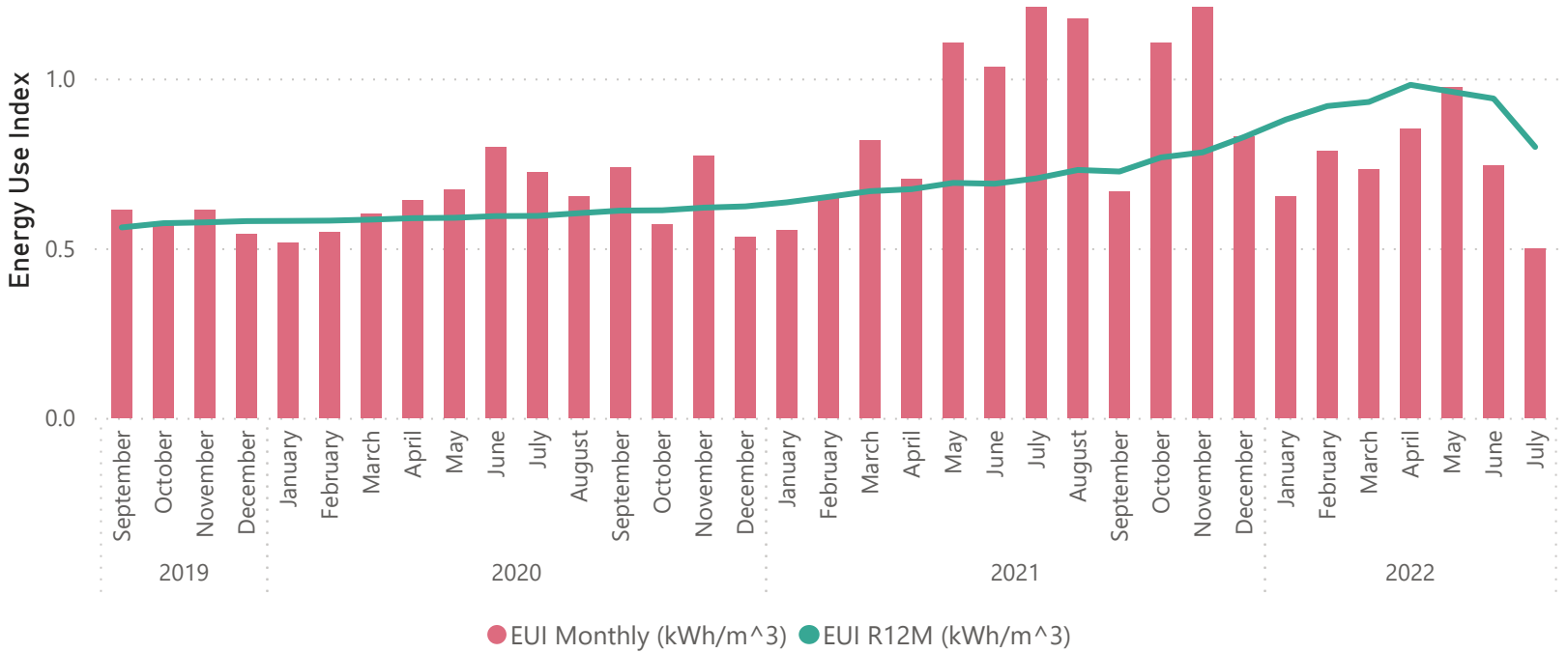


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Johnson Road Pump Station

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



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Johnson and Braemar Rd Pump Stations

<p><b>\$2,126</b> Monthly Energy Cost Savings</p>	<p><b>9,627</b> Elec. Savings (kWh/mo)</p>	<p><b>16%</b> Elec. Savings (%)</p>	<p><b>119,819</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>1,261</b> CO2e Savings (kg/mo)</p>
<p><b>\$19,488</b> R12M Energy Cost Savings</p>				<p><b>15,672</b> R12M CO2e Savings (kg/yr)</p>

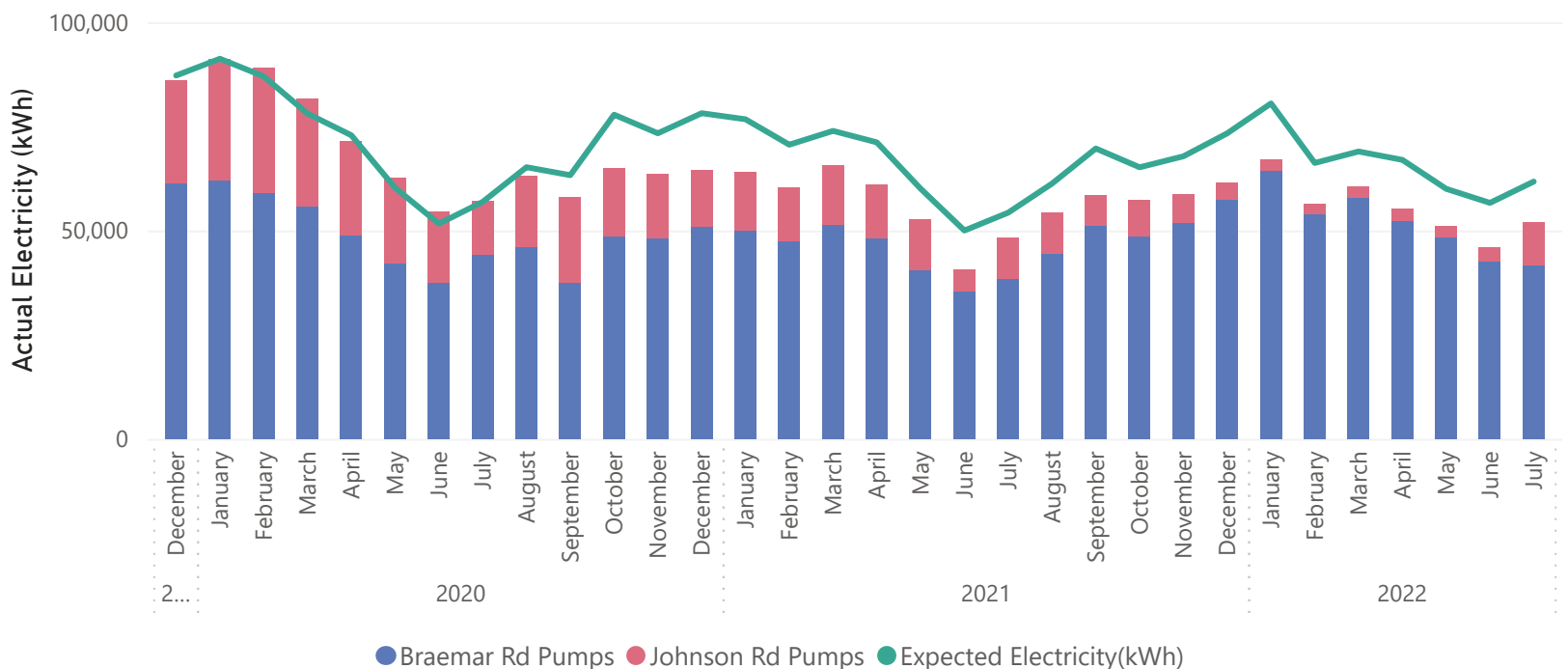
### Comments:

Baselines were updated for Johnson Road and Braemar Road pump stations. The monthly EUI has decreased significantly for Johnson Road in July 2022, which has positively attributed to savings for the month.

It is clear from the combined monitoring how the new, more efficient pumps (installed September 2020) at Braemar Road greatly contribute to the collective savings. On an EUI basis, even before the more efficient pumps were installed, Braemar Road was pumping water more efficiently than Johnson Rd.

Johnson Rd and Braemar Rd pump stations both achieved savings independently from one another. When viewed as a network of pumps, savings achieved over the past year are consistent.

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



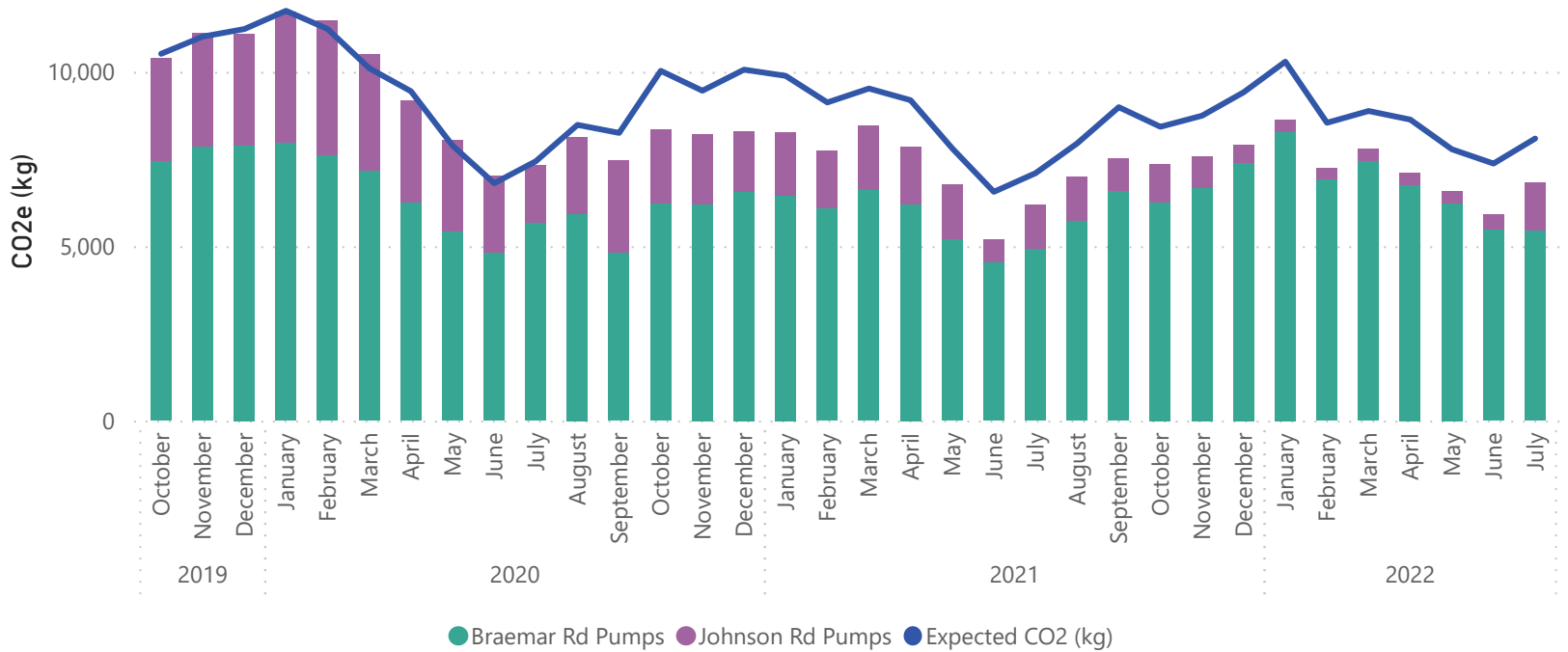
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**



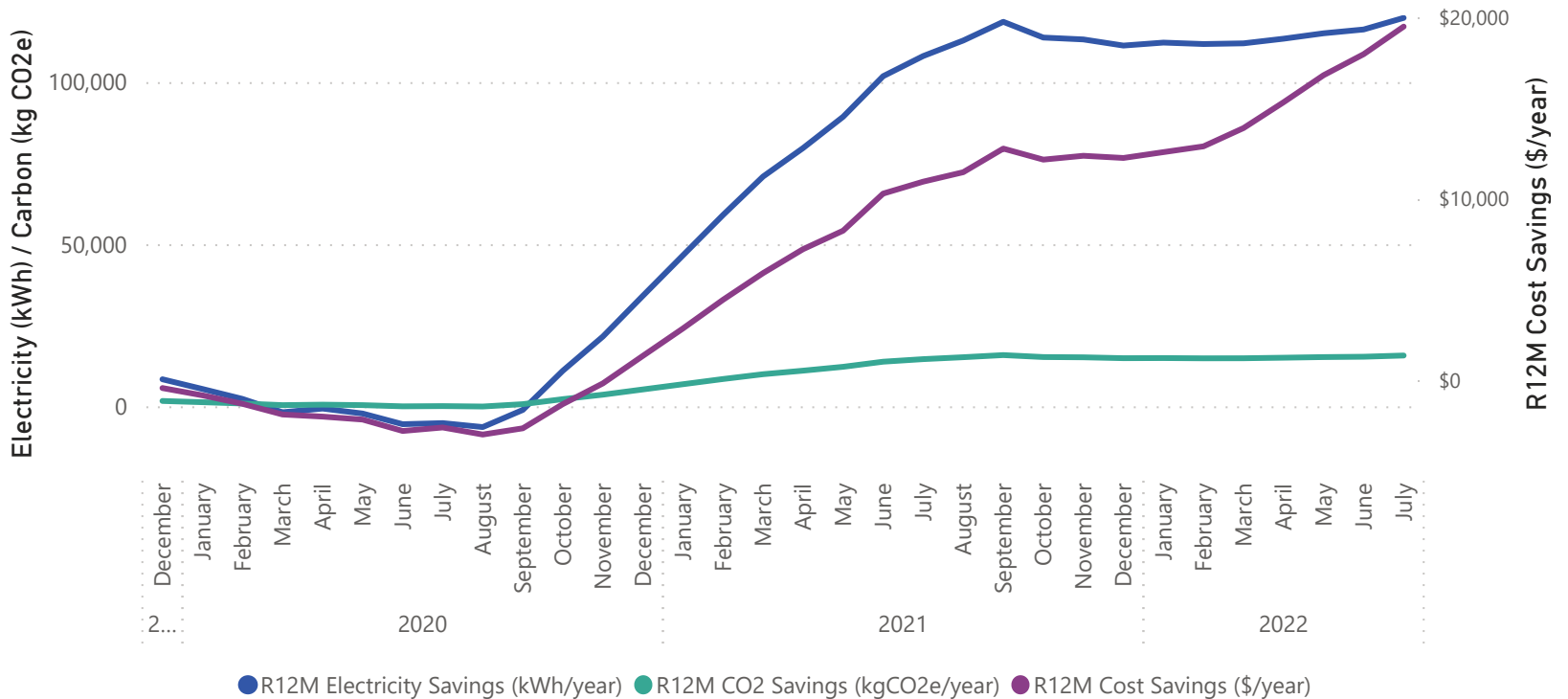
# Whakatane District Council

## Johnson and Braemar Rd Pump Stations

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



Johnson and Braemar Rd Pump Stations Cumulative Rolling 12 Month Savings

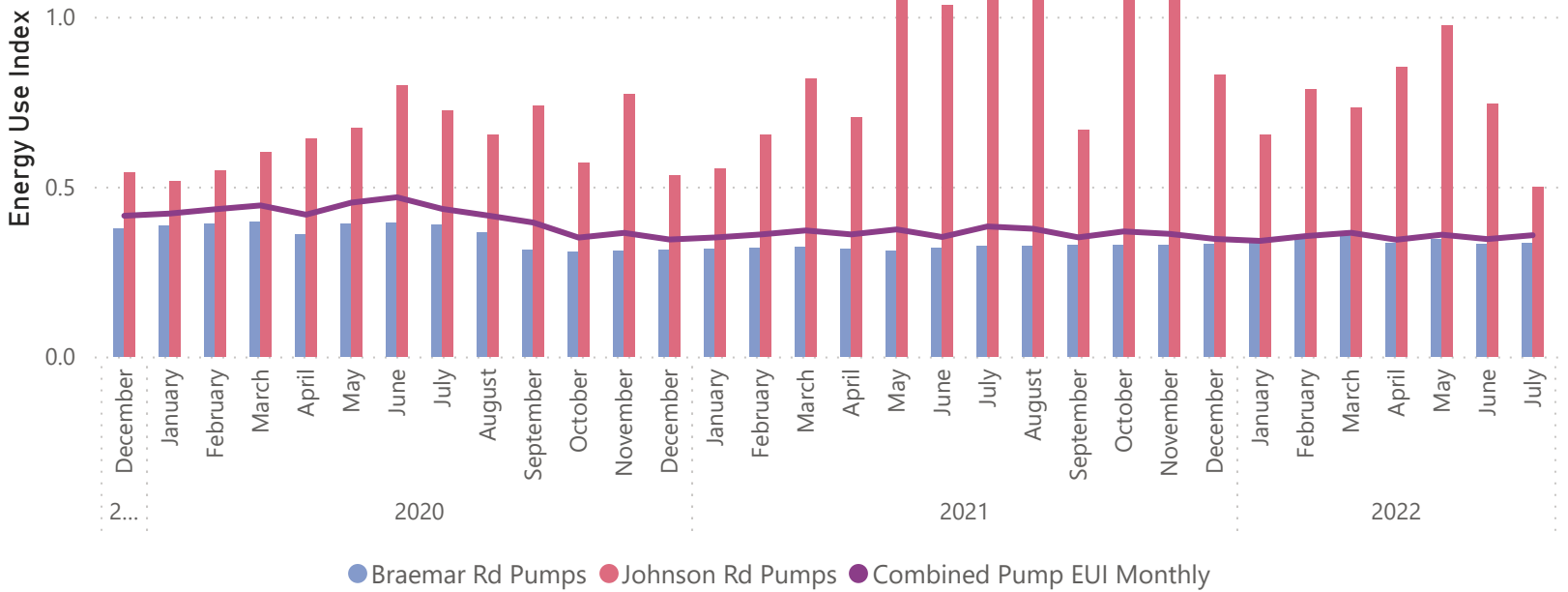


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Johnson and Braemar Rd Pump Stations

Johnson and Braemar Rd Pump Stations Energy Use Index by Month



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Bridger Glade Pump Station

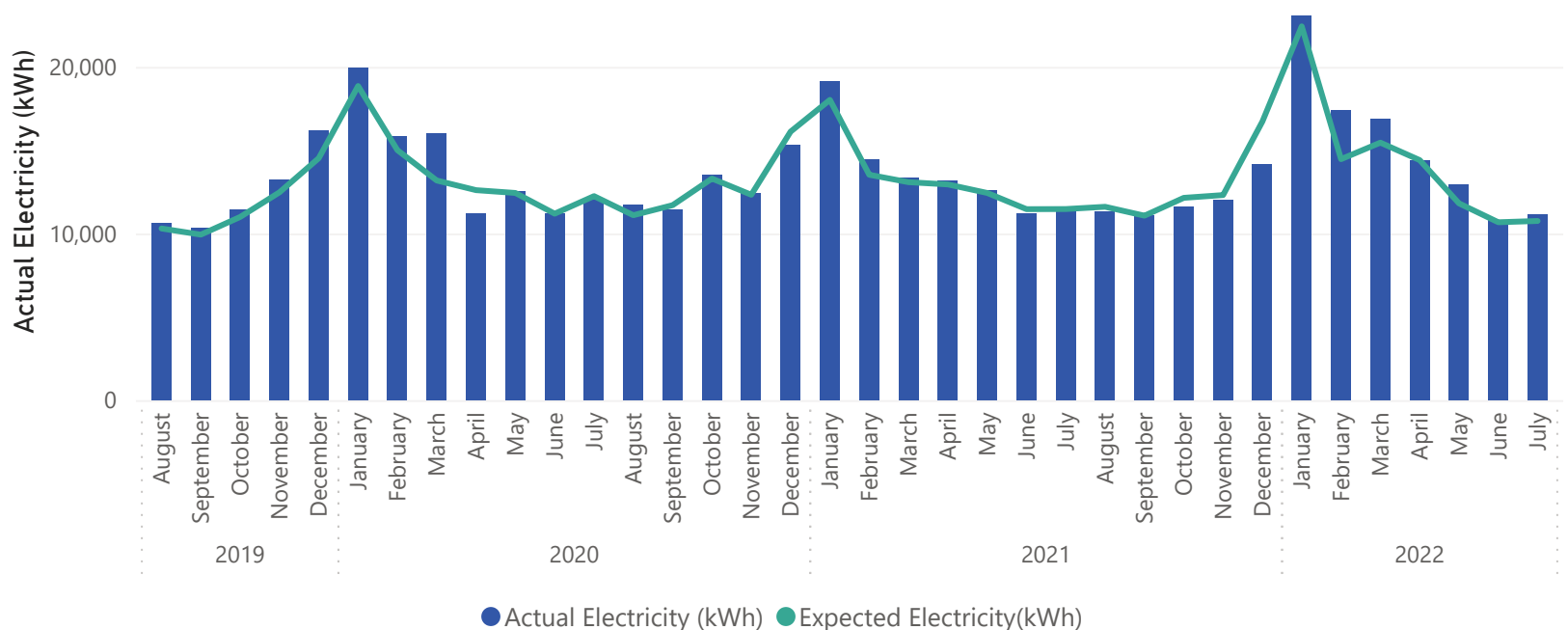
<p><b>-\$75</b> Monthly Energy Cost Savings</p>	<p><b>-411</b> Elec. Savings (kWh/mo)</p>	<p><b>-4%</b> Elec. Savings (%)</p>	<p><b>-2,997</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-54</b> CO2e Savings (kg/mo)</p>
<p><b>-\$550</b> R12M Energy Cost Savings</p>				<p><b>-387</b> R12M CO2e Savings (kg/yr)</p>

### Comments:

The electricity use baseline was updated for the Bridger Glade Pump Station, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m<sup>3</sup>) as the independent variable. The updated baseline has no baseload factor and a marginally larger variable component.

Months of high demand have typically used more electricity than expected. This may indicate that during periods of high demand the pump station is operating outside of its best efficiency point.

Bridger Glade Pumps Electricity Use Compared to Baseline (kWh)

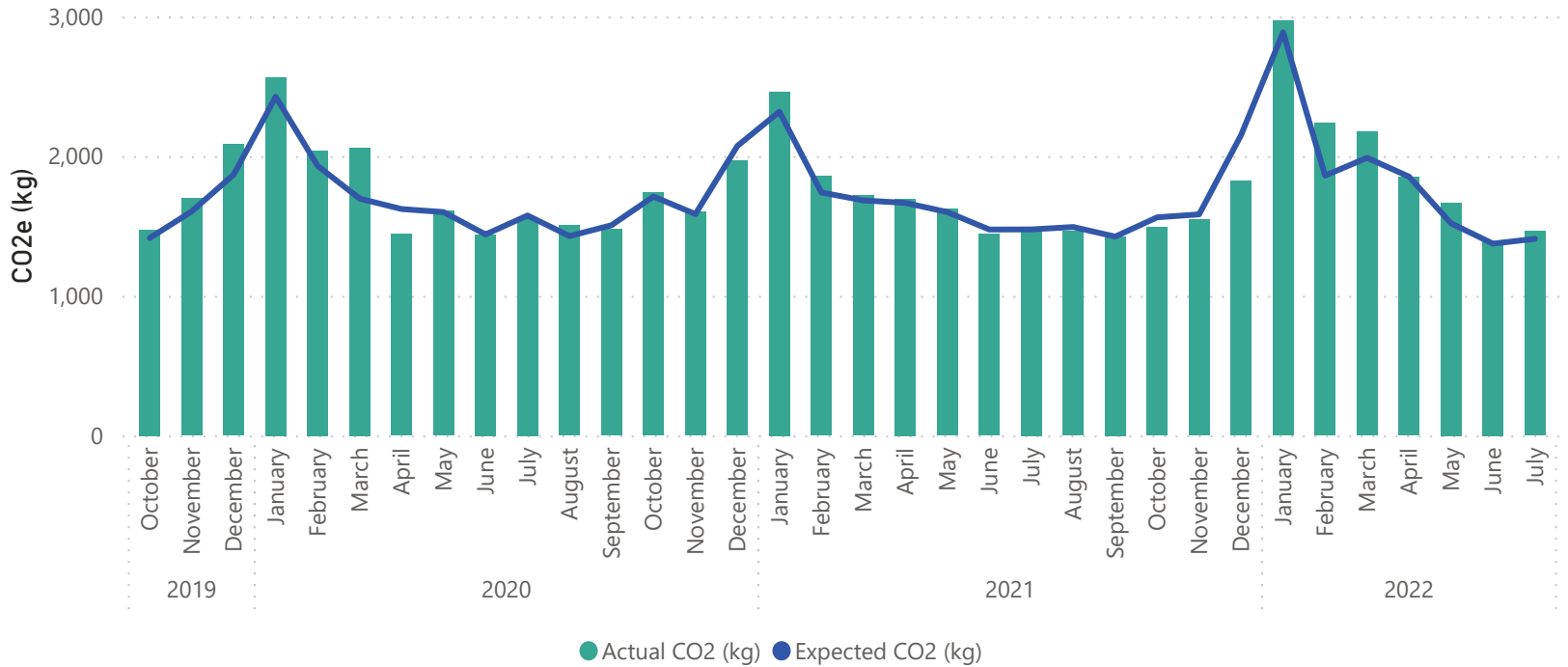


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

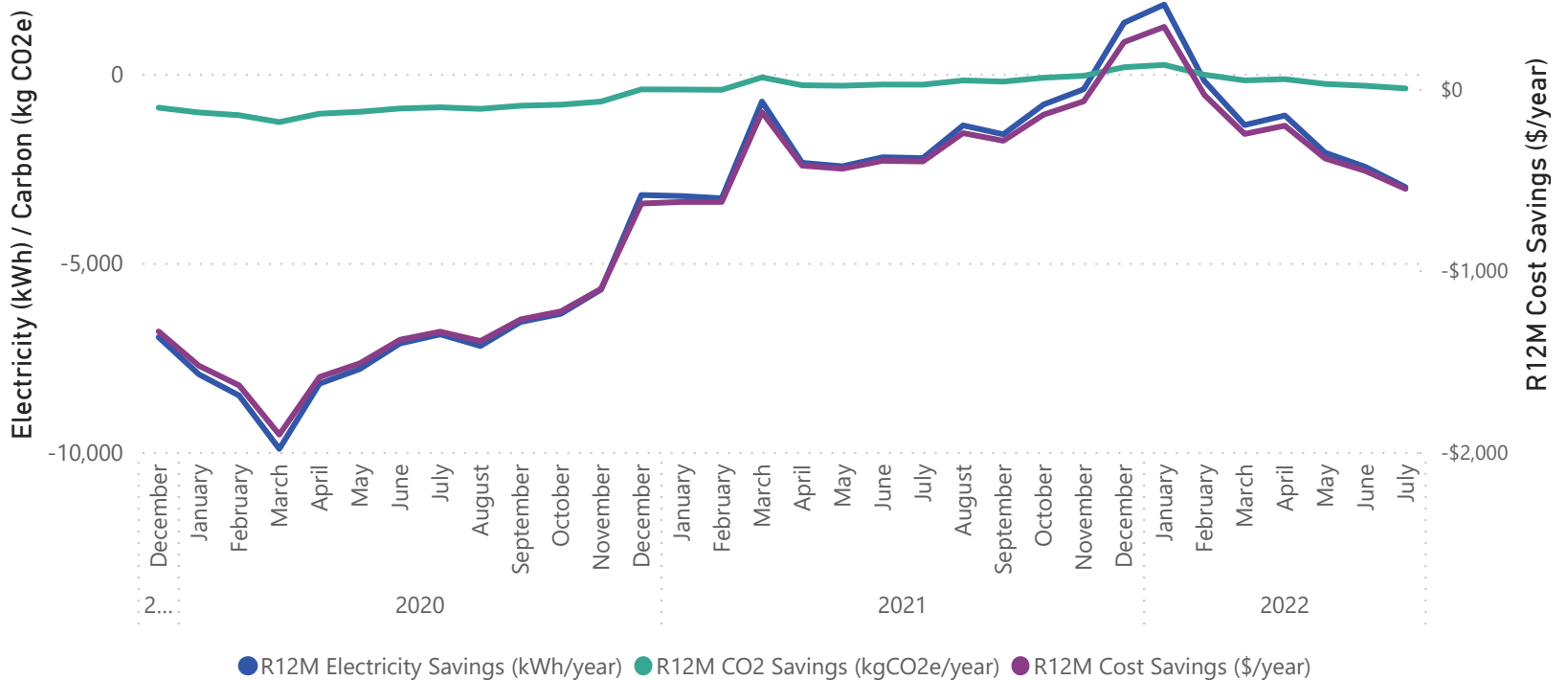
# Whakatane District Council

## Bridger Glade Pump Station

Bridger Glade Pumps Carbon Emissions Compared to Baseline (kg CO2e)



Bridger Glade Pumps Rolling 12 Month Savings

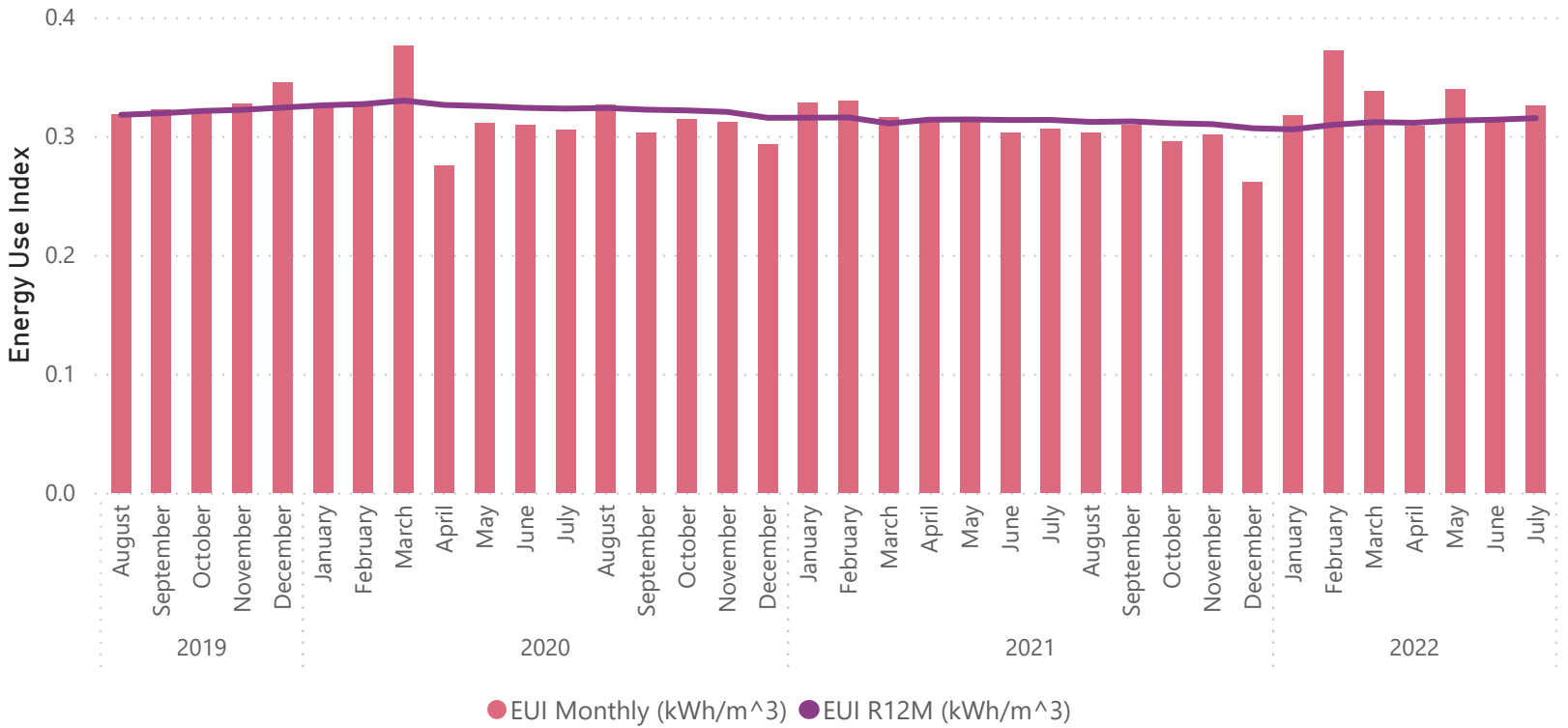


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Bridger Glade Pump Station

Bridger Glade Pumps Energy Use Index by Month Compared to Rolling 12-Month Values



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Ohope Oxidation Ponds

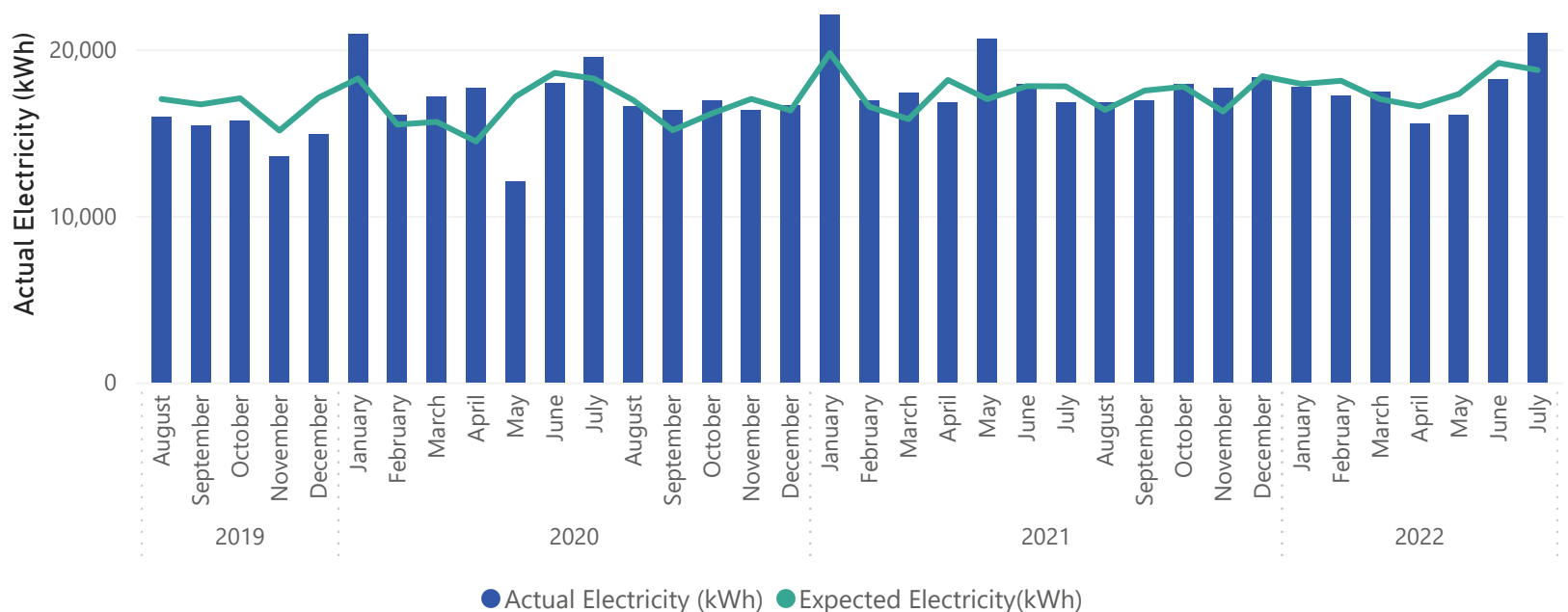
<p><b>-\$400</b> Monthly Energy Cost Savings</p>	<p><b>-2,225</b> Elec. Savings (kWh/mo)</p>	<p><b>-12%</b> Elec. Savings (%)</p>	<p><b>223</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-291</b> CO2e Savings (kg/mo)</p>
<p><b>\$40</b> R12M Energy Cost Savings</p>				<p><b>24</b> R12M CO2e Savings (kg/yr)</p>

### Comments:

The baseline for electricity use was updated for the Ohope Oxidation Ponds, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of effluent pumped (m<sup>3</sup>) as the independent variable. The updated baseline has a larger baseload factor and a smaller variable component.

Electricity use has increased in July 2022 compared to recent months, however, the monthly EUI has remained similar or less than previous months.

Ohope Oxidation Ponds Electricity Use Compared to Baseline (kWh)

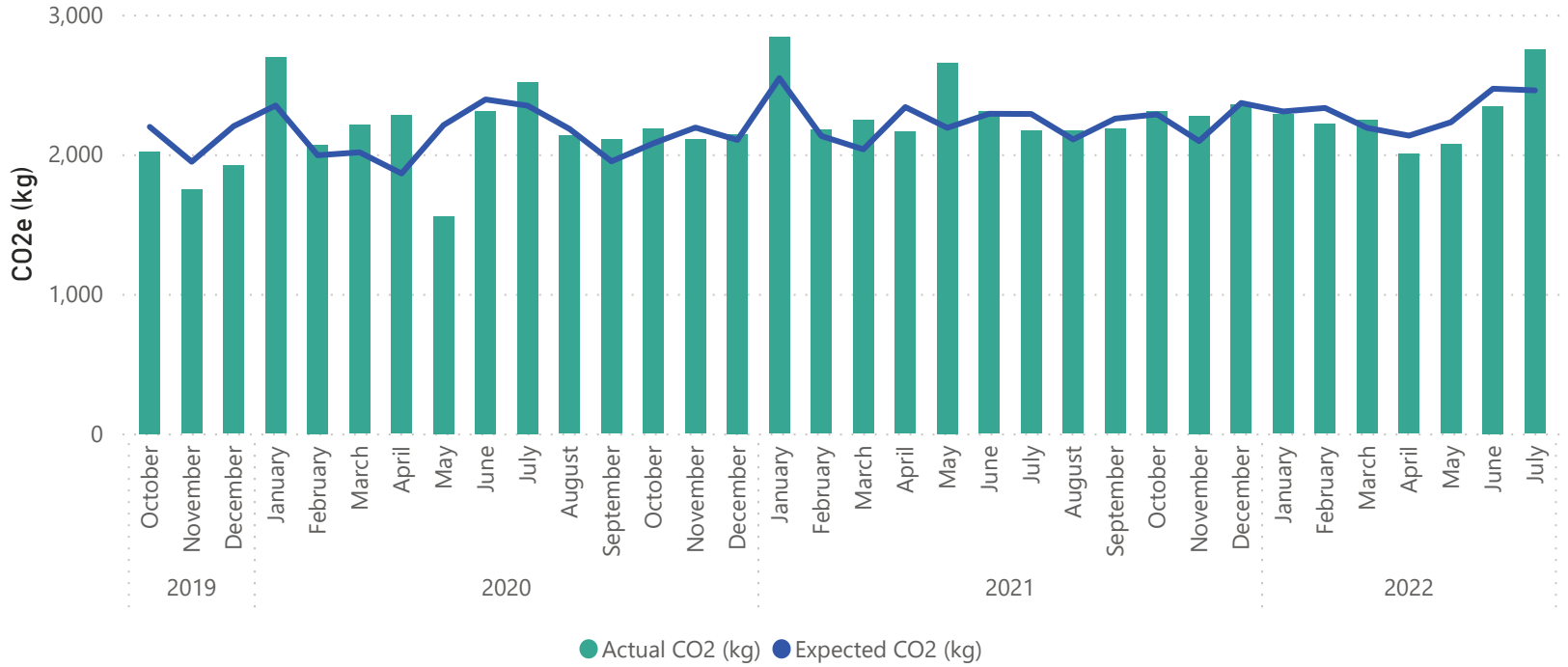


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

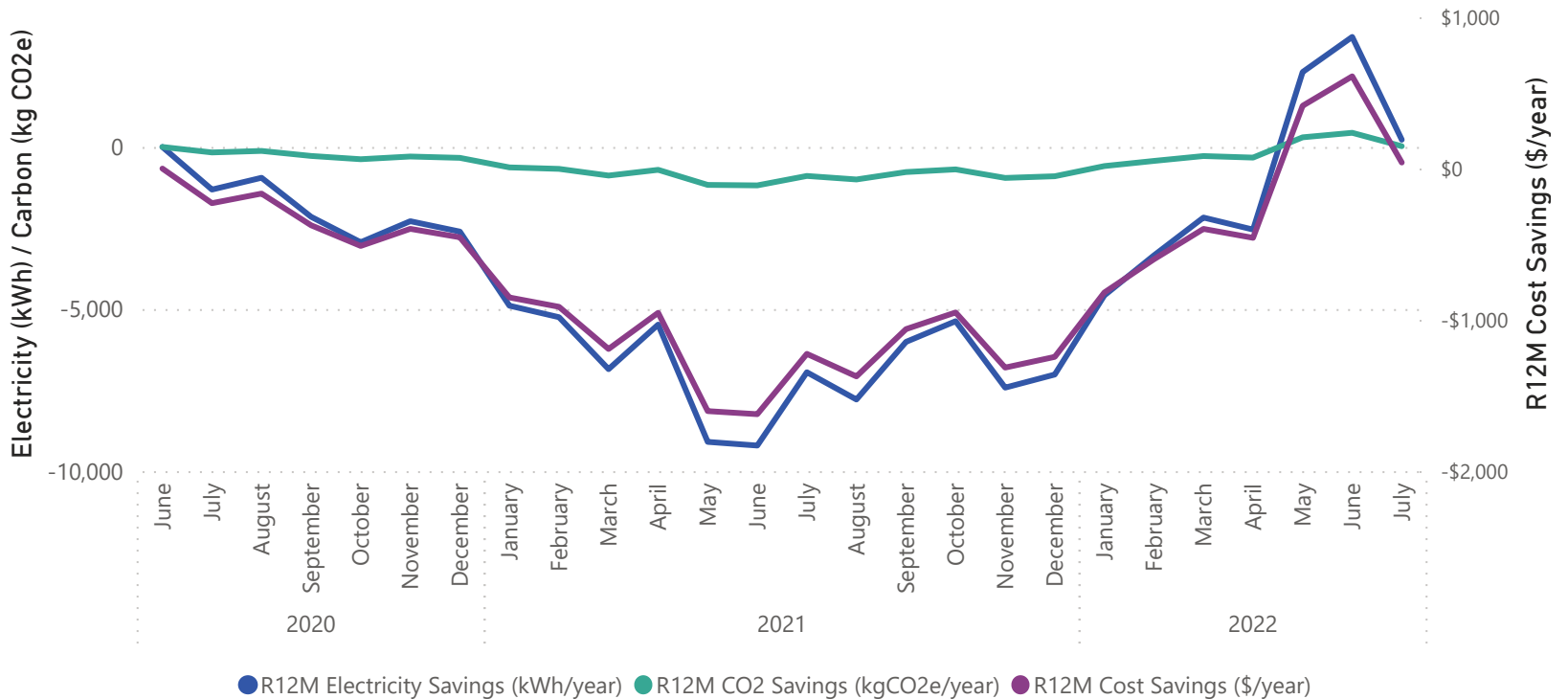
# Whakatane District Council

## Ohope Oxidation Ponds

Ohope Oxidation Ponds Carbon Emissions Compared to Baseline (kg CO2e)



Ohope Oxidation Ponds Rolling 12 Month Savings

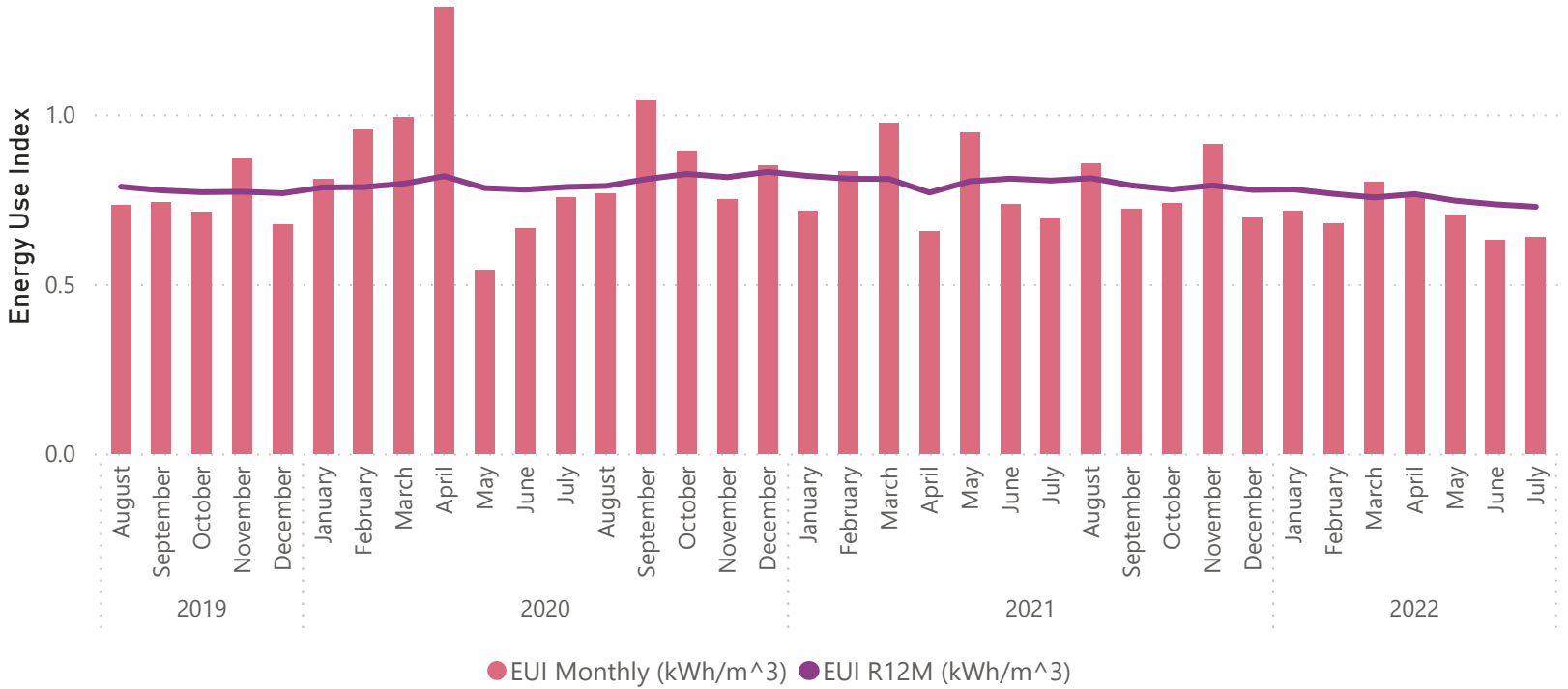


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Ohope Oxidation Ponds

Ohope Oxidation Ponds Energy Use Index by Month Compared to Rolling 12-Month Values



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**



# Whakatane District Council

## Whakatane Oxidation Ponds

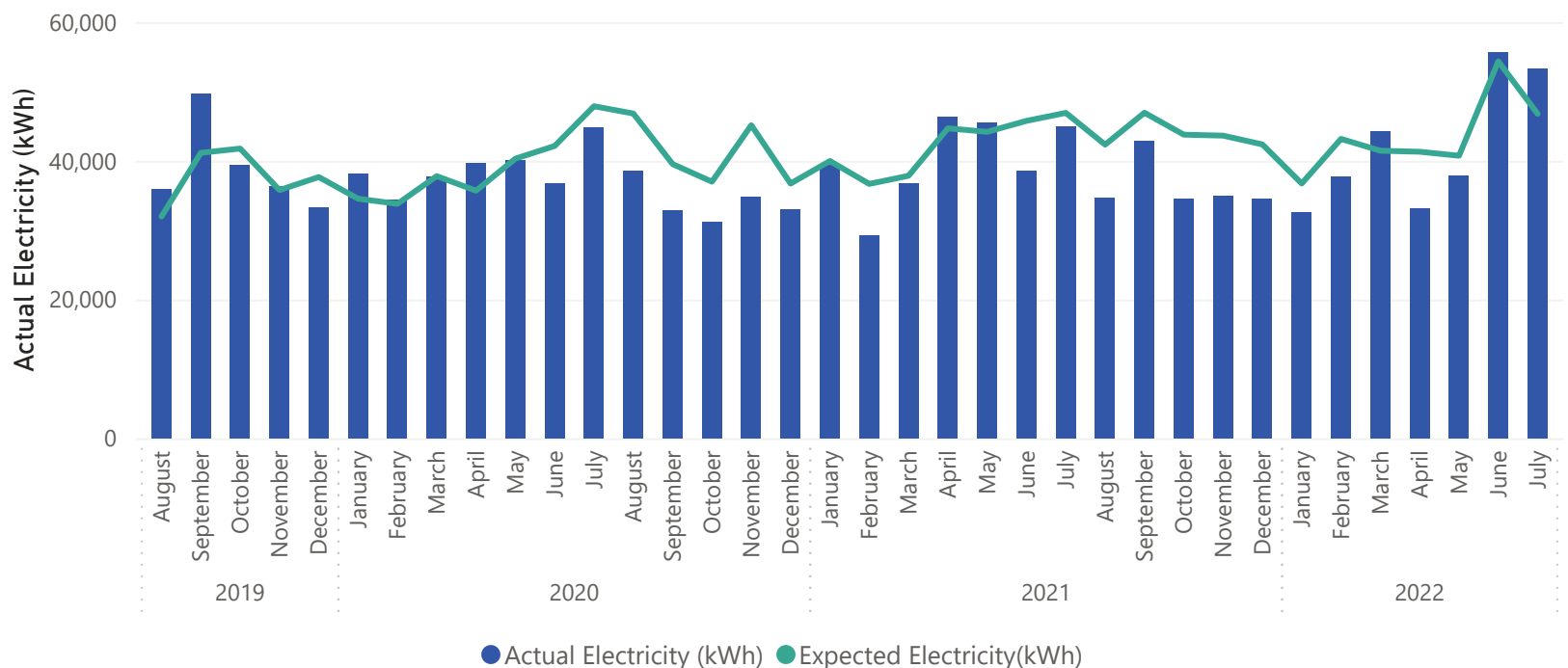
<p><b>-\$1,261</b> Monthly Energy Cost Savings</p>	<p><b>-6,492</b> Elec. Savings (kWh/mo)</p>	<p><b>-14%</b> Elec. Savings (%)</p>	<p><b>47,418</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-850</b> CO2e Savings (kg/mo)</p>
<p><b>\$6,838</b> R12M Energy Cost Savings</p>				<p><b>6,088</b> R12M CO2e Savings (kg/yr)</p>

### Comments:

The electricity use baseline was updated for the Whakatane Oxidation Ponds, the baseline period is July 2021 to June 2022. The electricity baseline combines electricity use for the NHH and TOU account and uses the effluent volumes each month (m<sup>3</sup>) as the independent variable. The updated baseline has a smaller baseload factor and a smaller variable component.

The Whakatane Oxidation Ponds have two ICPs, the aerators are set up as a time of use (TOU) account (supplied by Mercury), and the pumps are non-TOU (supplied by Genesis). The variability in electricity is largely attributed to the non-TOU account. Aerators are supplied by the TOU account and generally run for similar amounts of time each month.

Whakatane Oxidation Ponds Electricity Use Compared to Baseline (kWh)

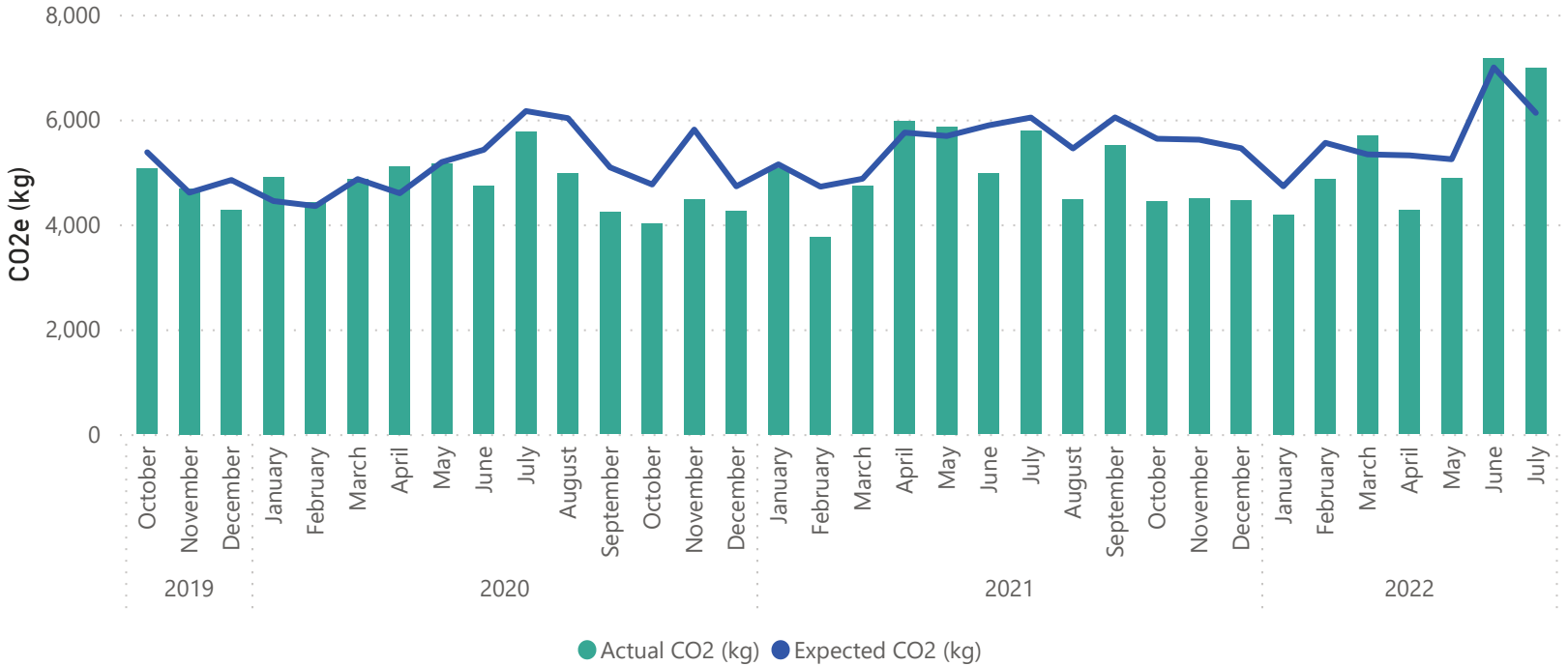


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

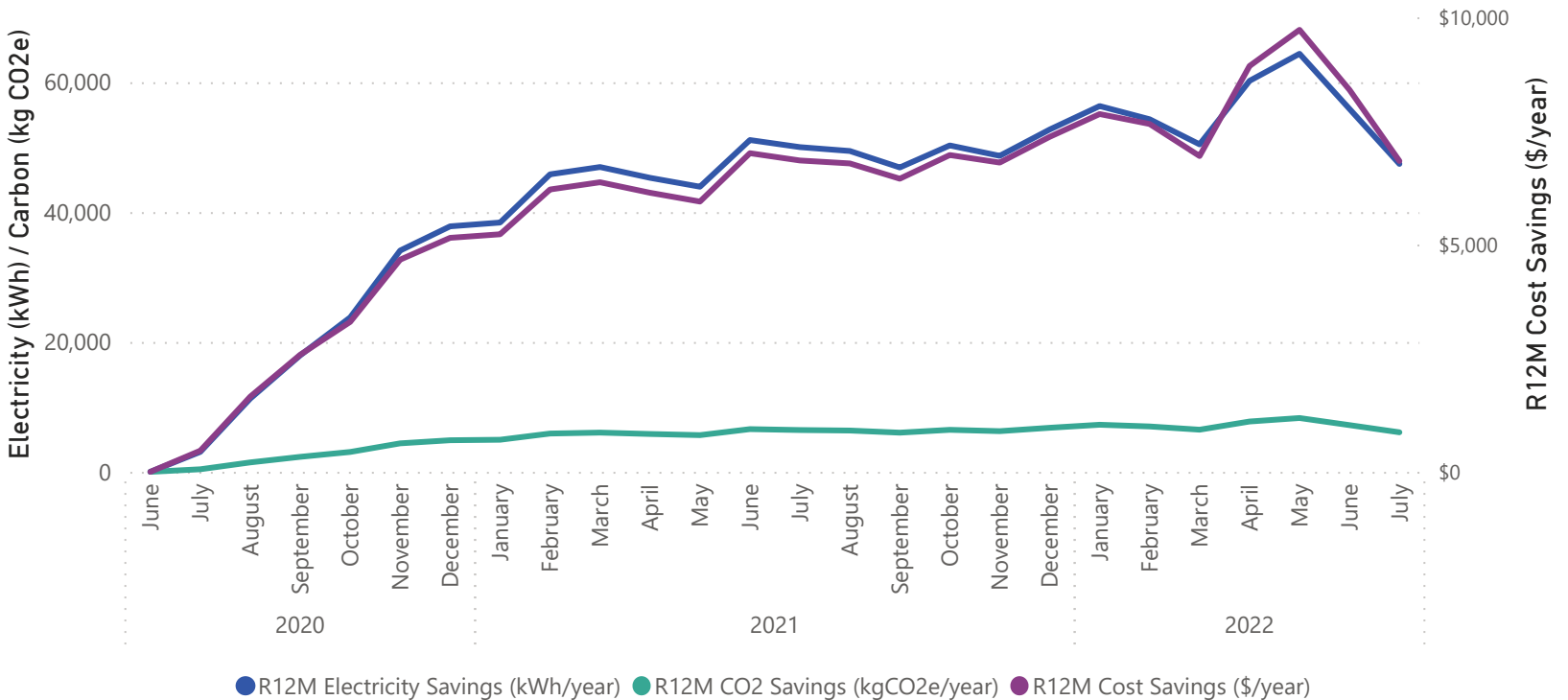
# Whakatane District Council

## Whakatane Oxidation Ponds

Whakatane Oxidation Ponds Carbon Emissions Compared to Baseline (kg CO2e)



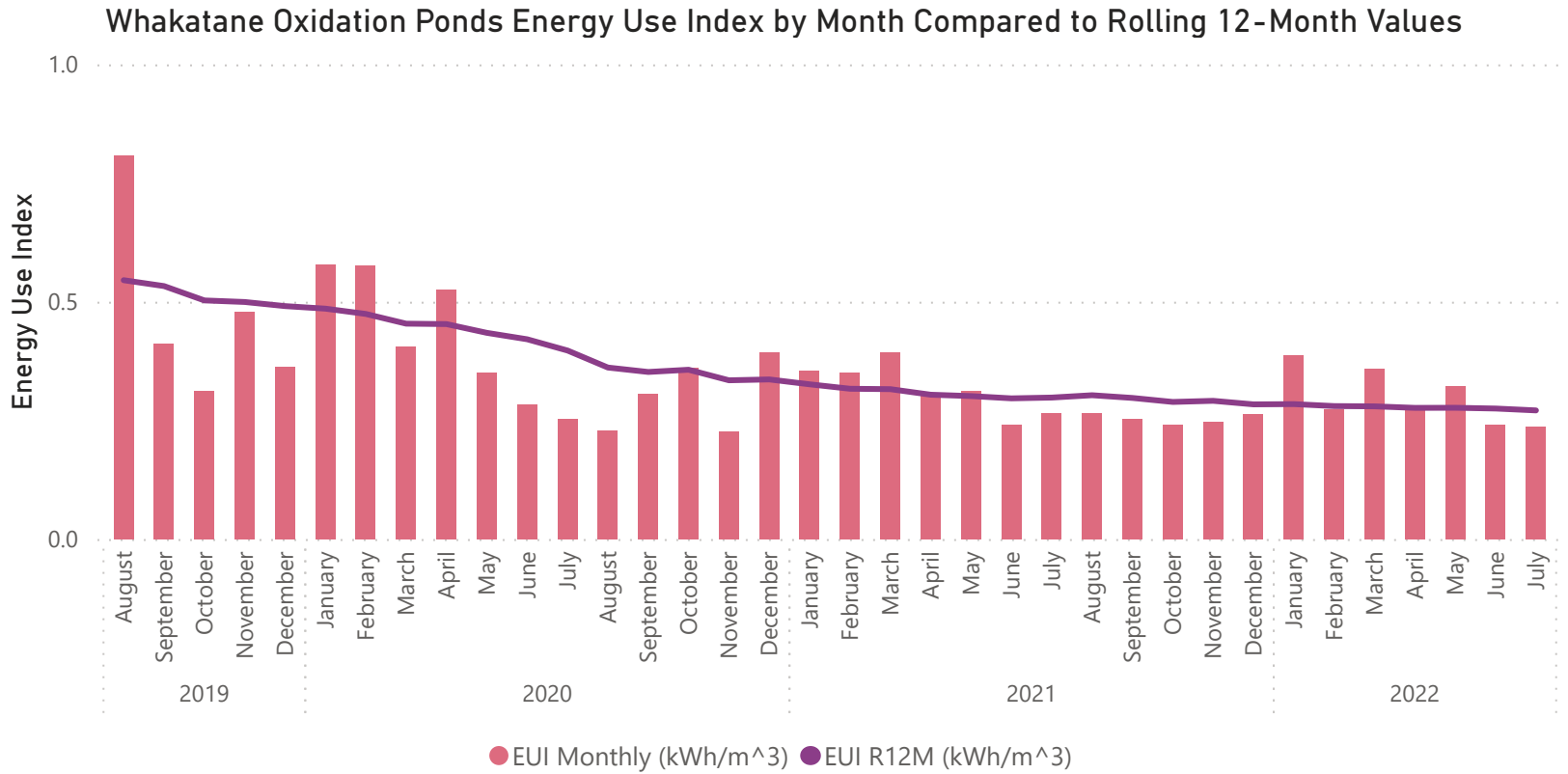
Whakatane Oxidation Ponds Rolling 12 Month Savings



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## Whakatane Oxidation Ponds



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council

## McAlister Street and Rose Garden Pump Stations

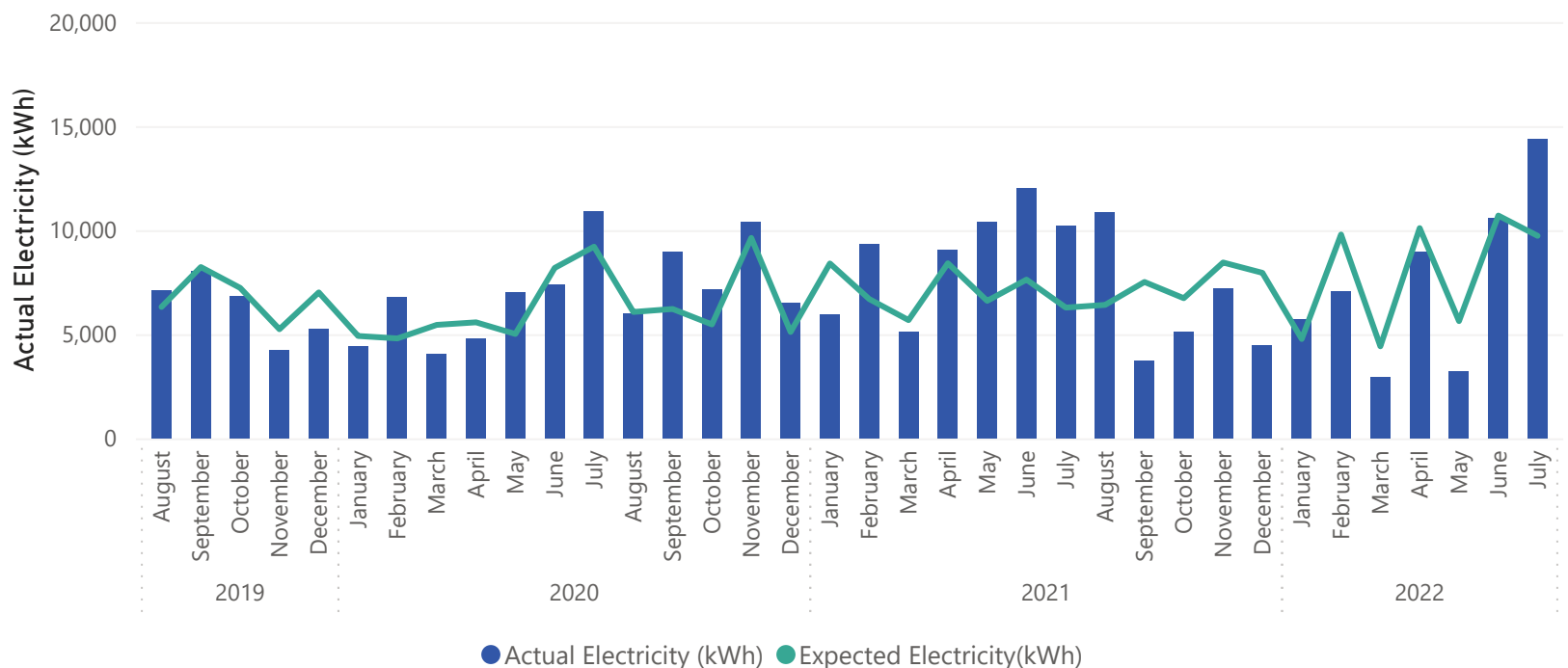
<p><b>-\$276</b> Monthly Energy Cost Savings</p>	<p><b>-4,646</b> Elec. Savings (kWh/mo)</p>	<p><b>-48%</b> Elec. Savings (%)</p>	<p><b>7,944</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-609</b> CO2e Savings (kg/mo)</p>
<p><b>\$4,907</b> R12M Energy Cost Savings</p>				<p><b>1,012</b> R12M CO2e Savings (kg/yr)</p>

### Comments:

The baseline for McAlister St and Rose Garden Pumps was updated, the baseline adjusts for the amount of rainfall at the Kopeopeo weather station. Expected electricity is for McAlister St and Rose Gardens combined. The baseline period uses data from July 2021 to June 2022. The updated baseline uses a smaller baseload and a marginally smaller variable component.

Rainfall was significant for the month, the highest on record since monitoring began.

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

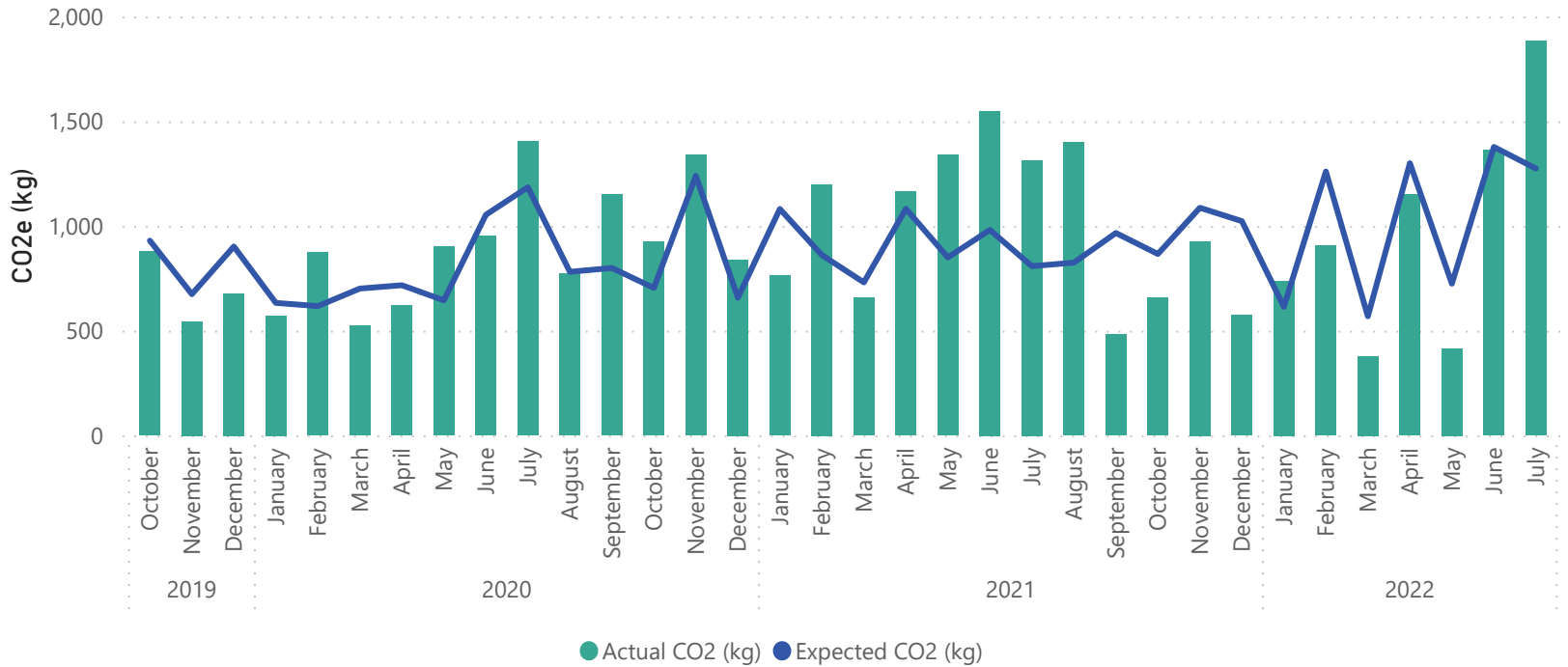


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

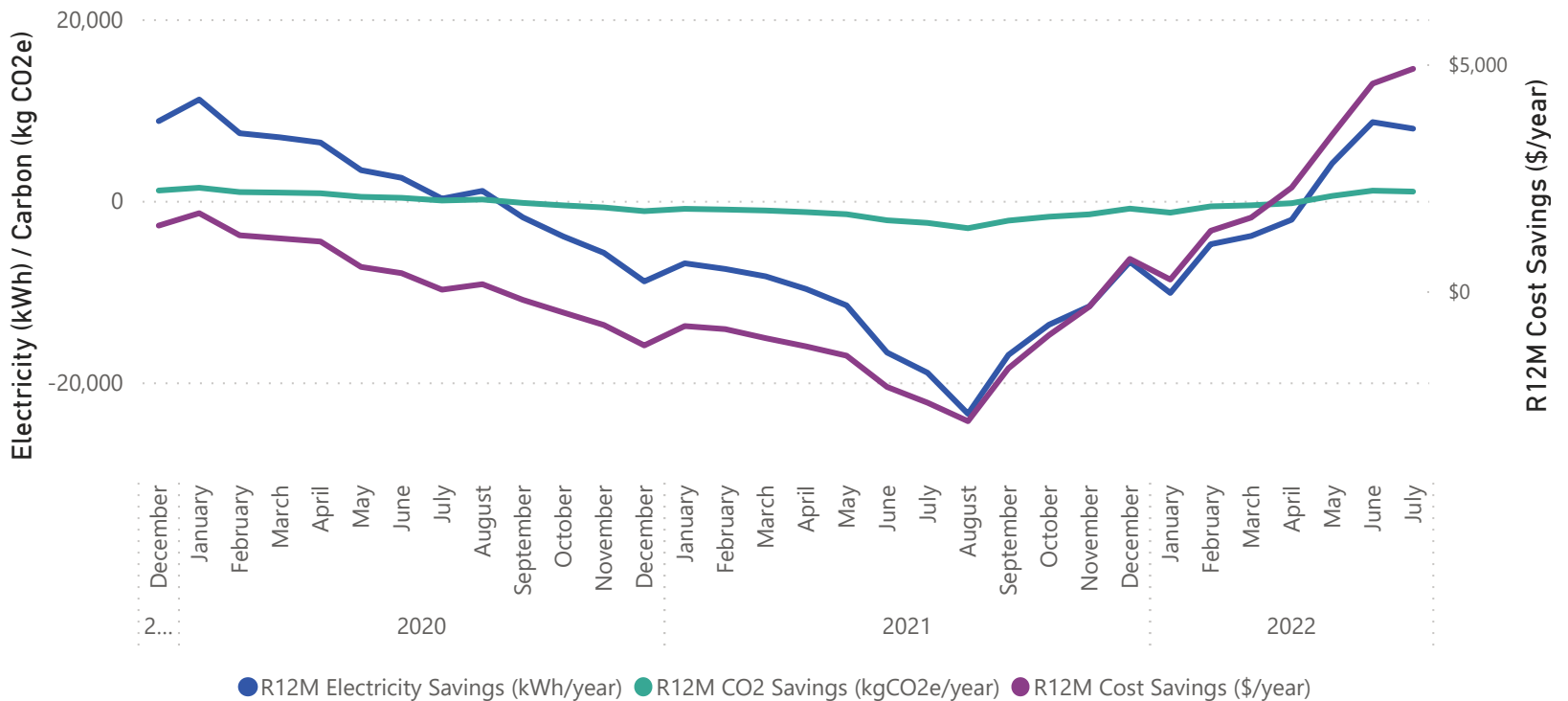
# Whakatane District Council

## McAlister Street and Rose Garden Pump Stations

McAlister and Rose Garden Pumps Carbon Emissions Compared to Baseline (kg CO2e)



McAlister and Rose Garden Pumps Rolling 12 Month Savings



**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**