Lake Humuhumu

Water Quality Report Card for Hydrological Year 2024

Site description

Lake Humuhumu being 129-ha in size is located on private farmland mid-way down the Poutō Peninsula, in a catchment dominated by fenced pasture and pockets of pine and kānuka scrub. It is the deepest Pouto Lake, with a maximum depth of 15 meters. The lake is classified as a contact dune lake as its western shore sits in contact with geologically recent uncemented-to-loosely-cemented dune; the lake's eastern shore sits on cemented dune geology.

Summary

In 2024, Lake Humuhumu received a 'Fair' TLI score, indicating that the lake ecosystem is impacted by moderate levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Humuhumu has stayed relatively constant, although a gradual increase in Total Nitrogen, Total Phosphorous and Phytoplankton has occured over time, alongside decreasing water clarity.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	3.68	3.89	Fair	Fair	Fair	Fair	Fair
Total Nitrogen	mg N/m3	Median ≤ 750	360	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	26	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	2.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	5.1	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	2.83	2.8	2.8	4.6	5.2	5.7

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Humuhumu over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Humuhumu

Lake Kai iwi

Water Quality Report Card for Hydrological Year 2024

Site description

Lake Kai Iwi is the smallest of the Kai Iwi lake group at 27-ha in size and around 16 meters deep. The lake's margin is bordered by native scrub and pine plantation. There is a small stream that flows into the lake on its southern edge which drains from pastoral land. There is also an outlet that flows from the lake into Lake Taharoa during periods of high water levels.

Summary

In 2024, Lake Kai iwi received a 'Good' TLI score, indicating that the lake ecosystem is exposed to low levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Kai iwi has improved, with Total Nitrogen and Total Phosphorous declining over time, alongside increasing water clarity.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	2.99	2.42	Good	Good	Fair	Fair	Fair
Total Nitrogen	mg N/m3	Median ≤ 750	310	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	3.8	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	2.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	1.2	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	8.5	8.5	6.9	6.9	5.4	6.2

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Kai iwi over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Kai Iwi


Google
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Lake Kanono

Water Quality Report Card for Hydrological Year 2024

Site description

This is a relatively large 74-ha dune lake, with a depth of 15 meters is located on private land near Poutō Point. The surrounding catchment is dominanted by fenced pastoral land, pine forestry, and small areas of native scrub. Lake Kanono is classified as a contact dune lake as its western shore is in contact with geologically recent uncemented-to-loosely-cemented dune; the lake's eastern shore sits on cemented dune geology.

Summary

In 2024, Lake Kanono received a 'Poor' TLI score, indicating that the lake ecosystem is impacted by high levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Kanono has declined due to fluctuations in Total Nitrogen, Phytoplankton and water clarity occuring over time.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

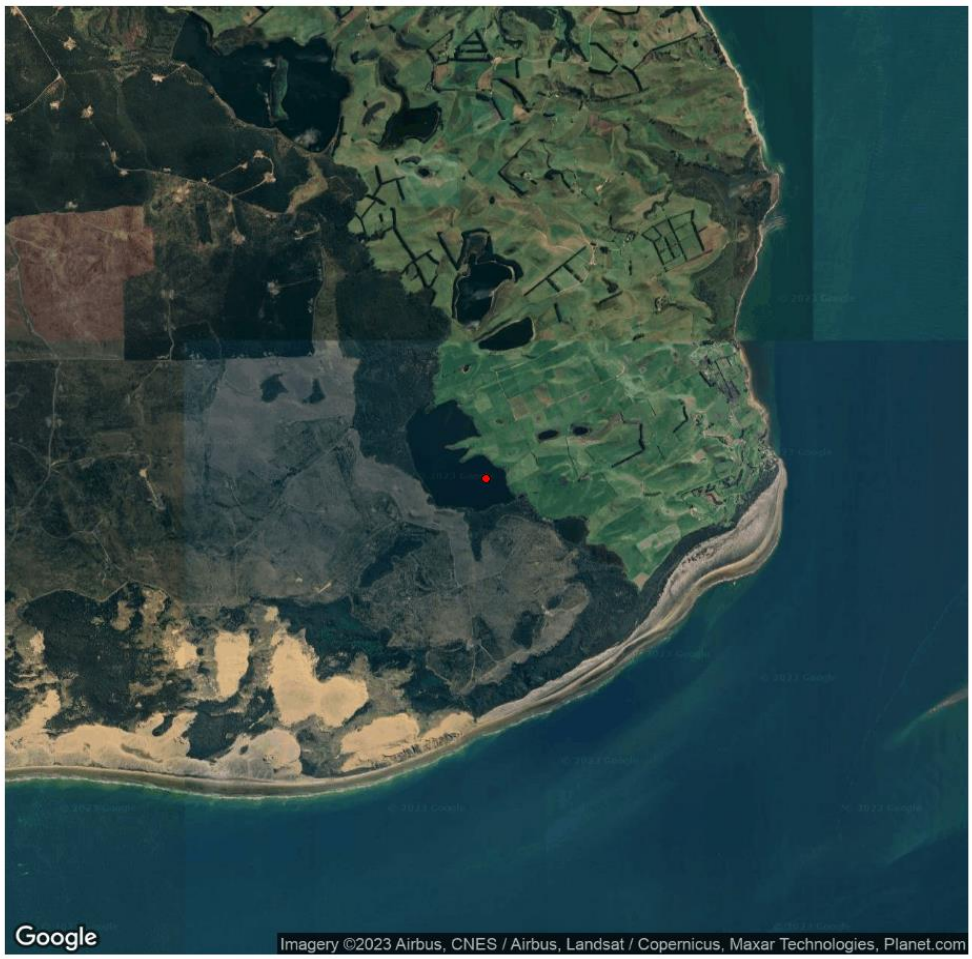
Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	3.89	4.06	Poor	Poor	Fair	Fair	Fair
Total Nitrogen	mg N/m3	Median ≤ 750	340	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	22	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	2.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	6.4	✓	✗	✓	✓	✓
Water clarity (secchi depth)	m	N/A	3.84	3.8	1.6	3.0	6.3	5.0

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Kanono over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Kanono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Lake Mokeno

Water Quality Report Card for Hydrological Year 2024

Site description

Lake Mokeno is a shallow lake at around 6.5 meters deep, located on the western edge of the Poutō Peninsula. It's size of 155-ha, makes it the largest Pouto lake. The lake is surrounded by native scrub and wetland, with pine forestry found in its upper catchment. Water flows from the lake through extensive wetland until it reaches the Kaipara Harbour. Lake Mokeno is not considered a perched dune lake due to numerous swamps present around the lake.

Summary

In 2024, Lake Mokeno received a 'Poor' TLI score, indicating that the lake ecosystem is impacted by high levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Mokeno has fluctuated due to marked changes in Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity occuring over time.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

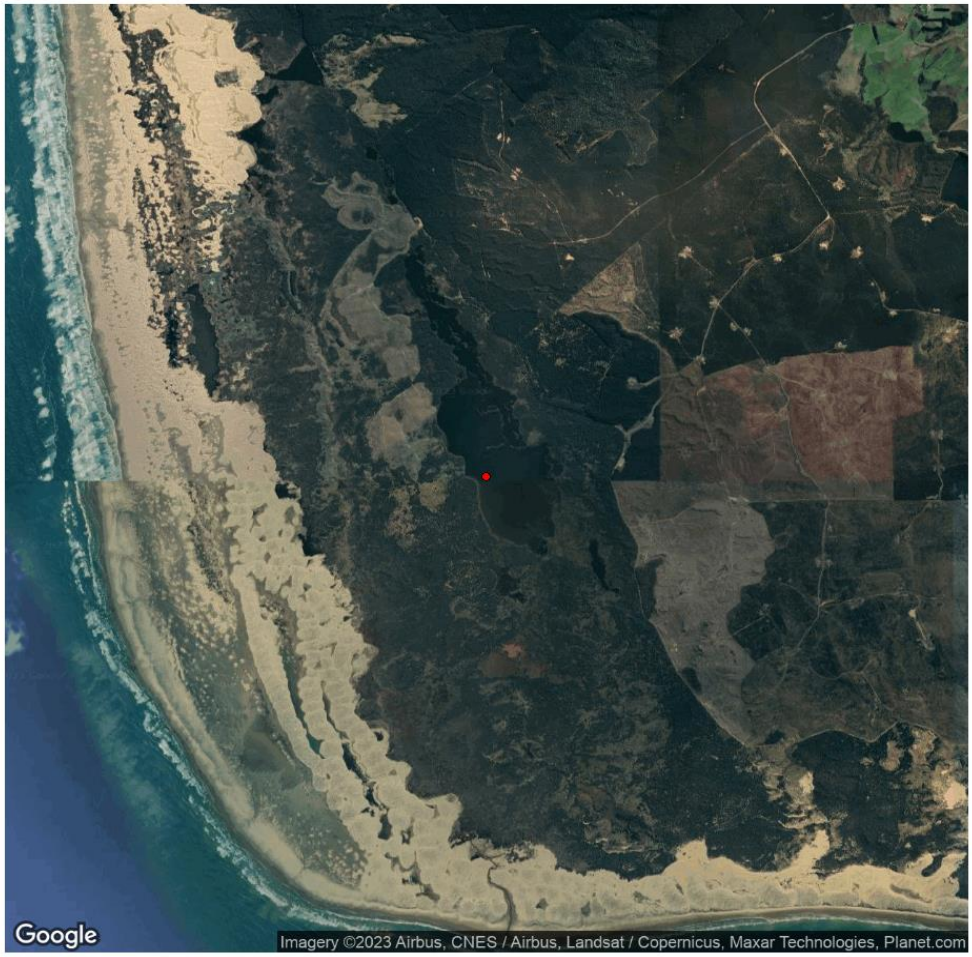
Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	5.07	4.96	Poor	Very Poor	Very Poor	Very Poor	Fair
Total Nitrogen	mg N/m3	Median ≤ 800	790	✓	✗	✗	✗	✓
Total Phosphorous	mg P/m3	Median ≤ 50	38	✓	✗	✗	✗	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	37	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	11	✓	✗	✗	✓	✓
Water clarity (secchi depth)	m	N/A	1.86	1.9	1.2	0.3	1.2	4.2

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Mokeno over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Mokeno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Lake Morehurehu

Water Quality Report Card for Hydrological Year 2024

Site description

This is a 15-meter-deep dune lake of around 36-ha in size, located in a forestry block on the Northern Aupōuri Peninsula. The lake sits on lower quaternary sand dunes, formed by a stream system impounded by dunes. The catchment is mainly plantation pine trees with a zone of mānuka/hakea bordering the lake.

Summary

In 2024, Lake Morehurehu received a 'Fair' TLI score, indicating that the lake ecosystem is impacted by moderate levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Morehurehu has stayed relatively constant.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	3.60	3.71	Fair	Fair	Fair	Fair	Fair
Total Nitrogen	mg N/m3	Median ≤ 750	420	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	10.15	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	10.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	2.5	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	2.265	2.3	1.9	2.6	2.7	2.6

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Morehurehu over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Morehurehu

Lake Ngātu

Water Quality Report Card for Hydrological Year 2024

Site description

This lake is 56-ha in size and forms part of the Sweetwater dune lake system. The 6 meter lake is surrounded by native scrub and fenced pastoral land, with housing on the northern edge of the lake. Lake Ngātu is classified as a perched dune lake, meaning it sits above the water table and relies on rainfall and overland flow for recharge. This lake is a popular recreation lake with easy access.

Summary

In 2024, Lake Ngātu received a 'Fair' TLI score, indicating that the lake ecosystem is impacted by moderate levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Ngātu has stayed relatively constant, excluding marked fluctuations in Total Nitrogen and Ammoniacal Nitrogen occurring over this period.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	3.81	3.59	Fair	Fair	Poor	Fair	Fair
Total Nitrogen	mg N/m3	Median ≤ 800	735	✓	✗	✗	✗	✗
Total Phosphorous	mg P/m3	Median ≤ 50	7.35	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	41.5	✓	✗	✗	✗	✓
Phytoplankton	mg/m3	Median ≤ 12	3.75	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	2.925	2.9	2.9	2.4	3.8	4.1

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Ngātu over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Ngatu


Google
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Lake Rotokawau

Water Quality Report Card for Hydrological Year 2024

Site description

This 29-ha lake is located in a pastoral-dominated catchment on private farmland on the southern end of the Poutō Peninsula. The lake is fenced and surrounded by pine forestry. It has a deep southern basin and a wide shallow basin, in the northern half of the lake with the maximum depth being 13 meters. Lake Rotokawau is classified as a window lake, meaning it sits below the water table and is recharged by a mix of groundwater, rainfall, and surface run off.

Summary

In 2024, Lake Rotokawau received a 'Good' TLI score, indicating that the lake ecosystem is exposed to low levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Rotokawau has stayed relatively constant, excluding small fluctuations in Total Nitrogen and water clarity occuring over this period.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	2.82	2.96	Good	Good	Good	Good	Fair
Total Nitrogen	mg N/m3	Median ≤ 750	310	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	8.6	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	2.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	1.9	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	6.4	6.4	6.7	12.2	9.5	8.5

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Rotokawau over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Rotokawau

Lake Rototuna

Water Quality Report Card for Hydrological Year 2024

Site description

This small 6.9-ha dune lake is around 5 meters deep and is located mid-way down the Poutō Peninsula, in a catchment dominated by pastoral land. The lake is fenced in an area administered by the Department of Conservation. The eastern edge of the lake has been planted with native wetland species.

Summary

In 2024, Lake Rototuna received a 'Poor' TLI score, indicating that the lake ecosystem is impacted by high levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Rototuna has stayed relatively constant, excluding fluctuations in Total Nitrogen, Total Phosphorous and water clarity occuring over this period, alongside increasing levels of Pytoplankton.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	4.70	4.88	Poor	Poor	Poor	Poor	Poor
Total Nitrogen	mg N/m3	Median ≤ 800	960	✗	✓	✗	✓	✗
Total Phosphorous	mg P/m3	Median ≤ 50	42	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	2.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	40	✗	✓	✗	✗	✗
Water clarity (secchi depth)	m	N/A	1.705	1.7	3.1	2.7	3.4	1.9

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Rototuna over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Rototuna

Lake Taharoa

Water Quality Report Card for Hydrological Year 2024

Site description

Lake Taharoa is the deepest lake in Northland, reaching around 38 meters, while also being the second largest in size at around 197-ha. The lake is popular for boating, swimming and water skiing. Lake Taharoa has a complex bathymetry with deep central basins, as well as a discrete, nearly closed basin near its western edge. The many steep drop-offs around the lake do not provide extensive habitat for a littoral fringe of emergent plants.

Summary

In 2024, Lake Taharoa received a 'Good' TLI score, indicating that the lake ecosystem is exposed to low levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Taharoa has stayed relatively constant, excluding fluctuations in water clarity occuring over this period.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	2.07	2.01	Good	Good	Good	Good	Very Good
Total Nitrogen	mg N/m3	Median ≤ 750	130	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	2.2	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	2.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	0.8	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	8.62	8.6	7.5	8.2	14.5	12.9

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Taharoa over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Taharoa

Lake Wahakari

Water Quality Report Card for Hydrological Year 2024

Site description

Lake Wahakari is a 12-meter-deep dune lake located near Te Kao. The lake is around 92-ha in size and is ponded between dunes to the west and weathered hill country with heavy clay soils to the east. The catchment is primarily plantation pine forestry and mānuka scrub, with a small area of fenced pastoral land. Lake Wahakari is classified as a perched dune lake as it sits above the water table and relies on rainfall and overland flow for recharge.

Summary

In 2024, Lake Wahakari received a 'Fair' TLI score, indicating that the lake ecosystem is impacted by moderate levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Wahakari has changed due to Total Nitrogen and Ammoniacal Nitrogen increasing and water clairy decreasing over time, altogether influencing the change in TLI from 'Good' to 'Fair' between 2020 and 2024.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

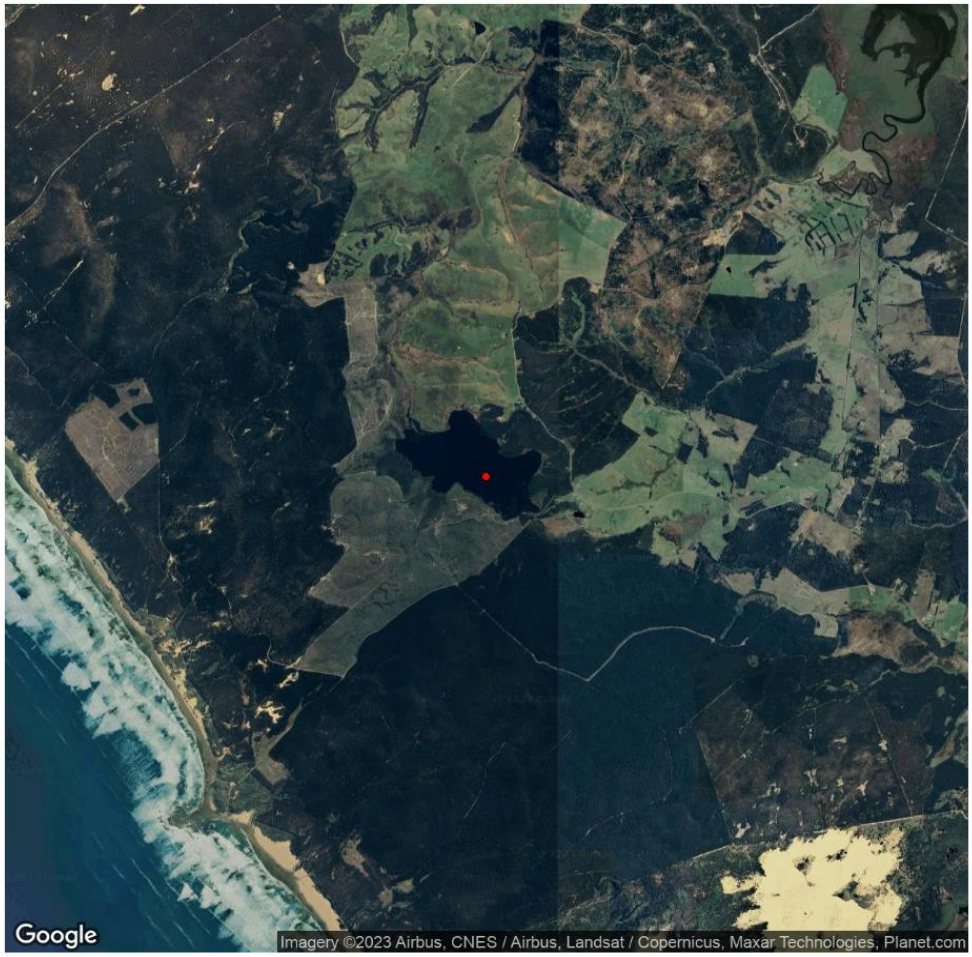
Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	3.20	3.44	Fair	Fair	Fair	Fair	Good
Total Nitrogen	mg N/m3	Median ≤ 800	475	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	11	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	10.8	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	1.7	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	3.15	3.2	2.8	6.9	6.2	6.7

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Wahakari over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Wahakari



Lake Waihopo

Water Quality Report Card for Hydrological Year 2024

Site description

Lake Waihopo is a shallow 4 meter dune lake, covering a small area of 10.9-ha. The lake is located on private property and is mostly surrounded by pastoral land, with areas of grazed mānuka/kānuka scrub. The lake has a catchment size of 167-ha. There is no inlet into the lake but there is an outlet that flows through a wetland on the lake's eastern edge. Lake Waihopo is classified as a perched dune lake, meaning it sits above the water table and relies on rainfall and overland flow for recharge.

Summary

In 2024, Lake Waihopo received a 'Fair' TLI score, indicating that the lake ecosystem is impacted by moderate levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Waihopo has stayed relatively constant with changes in TLI occuring due to small fluctuations in Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity occuring over this period.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

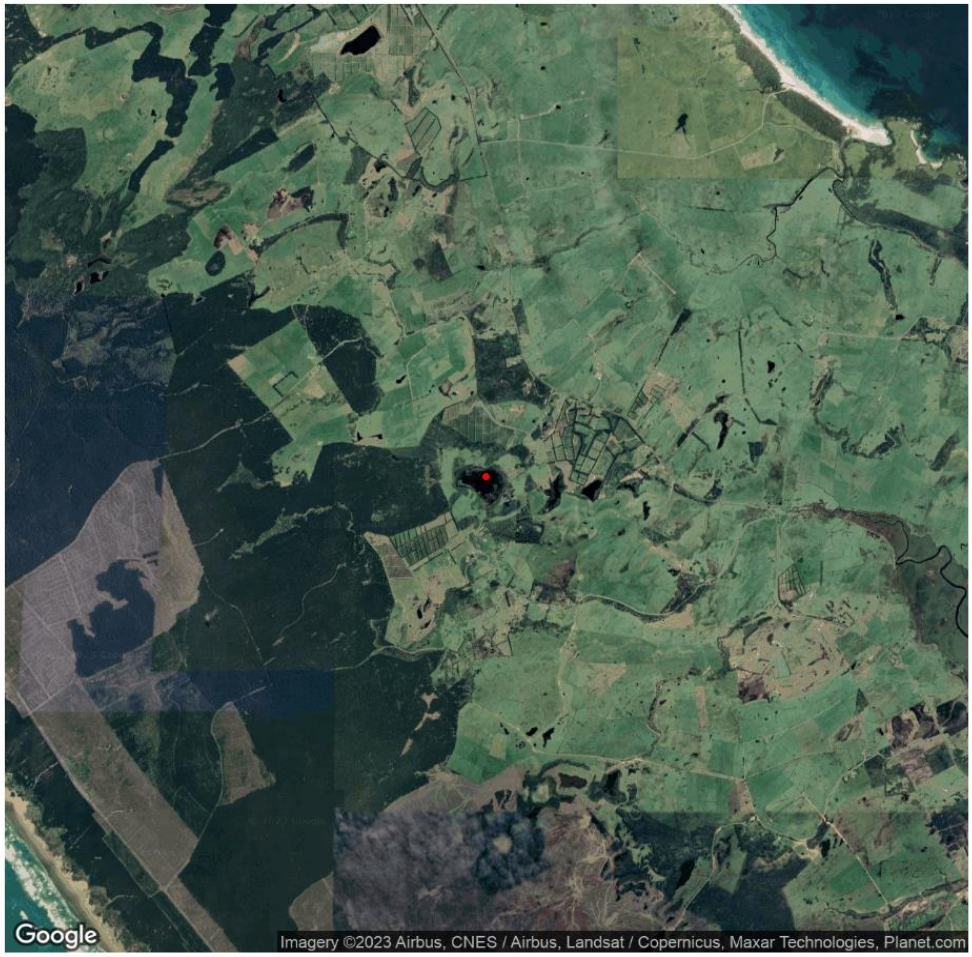
Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	3.80	3.48	Fair	Poor	Poor	Fair	Fair
Total Nitrogen	mg N/m3	Median ≤ 800	635	✓	✓	✗	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	12	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	5.05	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	1.35	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	3.285	3.3	2.8	2.8	3.5	2.7

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Waihopo over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Waihopo



Lake Waikare

Water Quality Report Card for Hydrological Year 2024

Site description

A relatively large 29-ha dune lake with a maximum depth of 29 meters. The lake is easily accessible and regularly used for recreational activities. The surrounding catchment is mainly native scrub with some pine forestry and pastoral land. The lake's undulating shore line has steep drop-offs on its western edge, with gently sloping bathymetery to the east of each arm of the lake.

Summary

In 2024, Lake Waikare received a 'Good' TLI score, indicating that the lake ecosystem is exposed to low levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Waikare has stayed relatively constant, excluding a decline in water clarity in recent years.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	2.43	2.48	Good	Good	Good	Good	Good
Total Nitrogen	mg N/m3	Median ≤ 750	160	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	1	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	2.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	3.4	✓	✓	✓	✓	✓
Water clarity (secchi depth)	m	N/A	5.82	5.8	6.4	9.1	10.7	11.2

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Waikare over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

Find out more about the Lake Trophic Level Index on LAWA: ***www.lawa.org.nz/explore-data/lakes***

Lake Waikare

Lake Wainui

Water Quality Report Card for Hydrological Year 2024

Site description

Lake Wainui is a small 12-meter deep dune lake of around 4.25-ha in size, situated in a pastoral-dominanted catchment. The lake is located on private land in the upper reaches of the Poutō Peninsula.

Summary

In 2024, Lake Wainui received a 'Poor' TLI score, indicating that the lake ecosystem is impacted by high levels of nutrients and algae. Over the past 5 years the ecosystem health in Lake Wainui has fluctuated with Total Phosphorous and Phytoplankton increasing variably over time, alongside decreasing water clarity.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	4.58	4.97	Poor	Very Poor	Poor	Poor	Fair
Total Nitrogen	mg N/m3	Median ≤ 750	720	✓	✓	✓	✓	✓
Total Phosphorous	mg P/m3	Median ≤ 50	39	✓	✗	✓	✗	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	2.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	31	✗	✗	✓	✓	✓
Water clarity (secchi depth)	m	N/A	1.72	1.7	1.4	2.2	4.9	5.3

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Wainui over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

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Lake Wainui


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Lake Waiparera

Water Quality Report Card for Hydrological Year 2024

Site description

Lake Waiparera is the largest of the Aupōuri Lakes at around 108-ha, but is relatively shallow at around 5 meters deep. The lake is mostly surrounded by pasture, with parts of the surrounding catchment dominated by native scrub and wetland. The lake is publicly accessible off State Highway 1.

Summary

In 2024, Lake Waiparera received a 'Very Poor' TLI score, indicating that the lake ecosystem is heavily impacted by high levels of nutrients and algal growth. Over the past 5 years the ecosystem health in Lake Waiparera has declined with Total Nitrogen and Phytoplankton increasing over time, alongside decreasing water clarity.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	4.69	5.17	Very Poor	Very Poor	Poor	Fair	Poor
Total Nitrogen	mg N/m3	Median ≤ 800	1250	✗	✗	✗	✗	✗
Total Phosphorous	mg P/m3	Median ≤ 50	45.5	✓	✓	✓	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	27.5	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	30	✗	✗	✓	✓	✓
Water clarity (secchi depth)	m	N/A	1.085	1.1	1.1	2.4	2.8	2.2

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Waiparera over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

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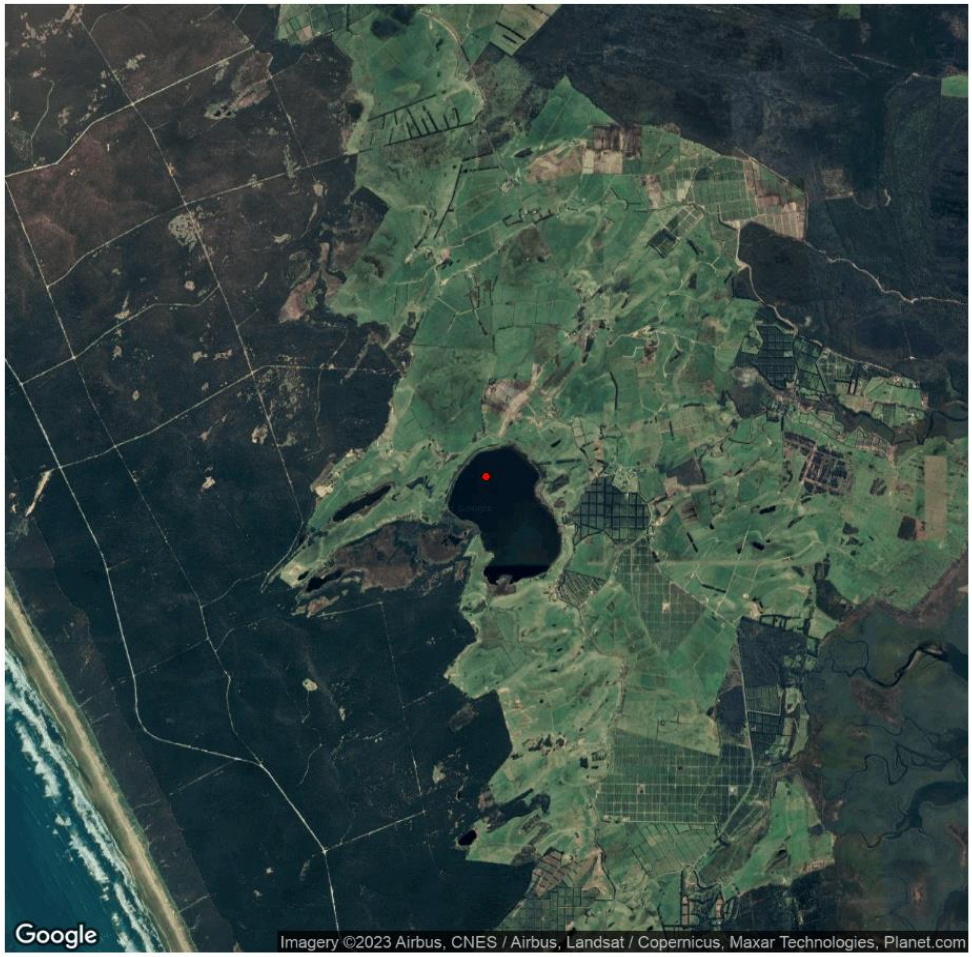
Lake Waiparera



Lake Waiporohita

Water Quality Report Card for Hydrological Year 2024

Site description

A small 6.8-ha dune lake located on the Karikari Peninsula. The lake has a maximum depth of around 4 meters. The surrounding catchment is pasture with some areas of mānuka and Pōhutukawa scrub. Lake Waiporohita is classified as a perched dune lake, meaning it sits above the water table and relies on rainfall and overland flow for recharge.

Summary

In 2024, Lake Waiporohita received a 'Very Poor' TLI score, indicating that the lake ecosystem is heavily impacted by high levels of nutrients and algal growth. Over the past 5 years the ecosystem health in Lake Waiporohita has declined with Total Nitrogen, Total Phosphorous, and Phytoplankton increasing over time.

Find out more at www.nrc.govt.nz/environment/environmental-data/environmental-data-hub

Ecosystem Health

Parameter	Unit	Standard	2024	Status				
				2024	2023	2022	2021	2020
Trophic Level Index	TLI	5.21	5.79	Very Poor	Very Poor	Very Poor	Poor	Poor
Total Nitrogen	mg N/m3	Median ≤ 800	1500	✗	✗	✗	✗	✗
Total Phosphorous	mg P/m3	Median ≤ 50	200	✗	✗	✗	✓	✓
Ammonia (toxicity)	mg N/m3	Median ≤ 240	25	✓	✓	✓	✓	✓
Phytoplankton	mg/m3	Median ≤ 12	36.5	✗	✗	✗	✓	✓
Water clarity (secchi depth)	m	N/A	1.21	1.2	1.3	0.7	2.6	2.2

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Lake Waiporohita over the past 5 years. The median for each 12-month period per hydrological year (i.e., 1 July 2023 - 30 June 2024) is assessed against the National Policy Statement for Freshwater Management national bottom line values and the Lake Trophic Level Index. A tick indicates an achieved standard while a cross indicates a not achieved standard. The Lake Trophic Level Index (TLI) represents the ecological health status of a lake. The TLI is calculated from the Total Nitrogen, Total Phosphorous, Phytoplankton and water clarity parameters listed above.

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Lake Waiporohita