Ahuroa at Braigh Flats

Water Quality Report Card 2022

Site description

The Ahuroa River originates in the Waipu Gorge Forest and flows through predominantly lowland agricultural land before discharging into the Waipu River. Sampling at this site started in January 2022.

Summary

All Nitrogen forms and the Visual Clarity measurements exceeded the Water Quality Index standards for 2022, indicating large amounts of sediment and nutrient runoff.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.032	✗				
Nitrate-N	g/m3	Median <0.1	0.33	✗				
Visual Clarity	m	Median >0.89	0.62	✗				
E.coli	MPN/100 mL	Median <703	485	✓				
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.03	✓				
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.37	✗				

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Ahuroa at Braigh Flats for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Awanui at FNDC

Water Quality Report Card 2022

Site description

The Awanui River originates from Raetea Forest and meanders north for a significant distance through pasture and the Kaitaia Township, eventually flowing into the Rangunu Harbour. The site is on private farmland just upstream of Kaitaia and is the source of the towns residential water supply.

Summary

Exceedances of the Water Quality Index standards for Visual Clarity and Dissolved Inorganic Nitrogen predominantly occurred during the wet winter months. This is likely due to sediment runoff following rain events.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓	✗	✓	✗
Nitrate-N	g/m3	Median <0.1	0.09	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	0.55	✗	✗	✓	✓	✗
E.coli	MPN/100 mL	Median <703	300	✓	✓	✓	✓	✗
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.016	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.10	✗	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	104.0
Periphyton Score	Not enough data	Not enough data

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Awanui at FNDC for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Hakaru at Topuni

Water Quality Report Card 2022

Site description

The Hakaru River originates in native and pine forest in the Brynderwyn hills and flows south through farmland until it reaches the Topuni River. The Topuni River feeds into an arm of the Kaipara harbour.

Summary

Nutrient levels are generally high at this site. In 2022 all Water Quality Index standards were exceeded apart from E.coli. Nutrient levels were particularly high during the wet winter months likely due to nutrient and sediment runoff following rain events.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.027	✗	✓	✗	✗	✗
Nitrate-N	g/m3	Median <0.1	0.32	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	0.81	✗	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	355	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.053	✗	✗	✓	✓	✗
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.35	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	83.5
Periphyton Score	Poor >200	212.2

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Hakaru at Topuni for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Hatea at Whangarei Falls

Water Quality Report Card 2022

Site description

The Hātea River begins as the Waitaua Stream which originates just north of Kamo. It then flows southeast through Tikipunga and over Whangarei Falls, before flowing through Mair Park into Whangārei Harbour. The upper catchment contains some mixed beef and sheep farming; however, the majority of the catchment is a mix of lifestyle blocks and urban areas.

Summary

Whangarei Falls is a popular swimming site but periodic faecal contamination from wildfowl and livestock can make the falls unsuitable for swimming. This site also has frequently exceeding Nitrate-N and Dissolved Inorganic Nitrogen levels which can promote excessive growth of aquatic weeds and algae.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.007	✓	✓	✓	✓	✗
Nitrate-N	g/m3	Median <0.1	0.39	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	1.74	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	740	✗	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.008	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.40	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	73.7
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Hatea at Whangarei Falls for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Kaihu at Gorge

Water Quality Report Card 2022

Site description

The Kaihū River originates in native forest to the west of Trounson Kauri Park and flows through pastoral farm land before it discharges into the Wairoa River in Dargaville. The river at this site is in a deep gully with native riparian margins.

Summary

Nitrate-N and Dissolved Reactive Nitrogen levels are generally high at this site which can lead to excessive aquatic weed and algae growth.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.005	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.18	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	2.49	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	120	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.006	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.19	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	88.8
Periphyton Score	Fair >120 and ≤200	127.6

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Kaihu at Gorge for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Kerikeri River at Golf View Road

Water Quality Report Card 2022

Site description

The Kerikeri River rises in the Puketi Forest and flows east to discharge into the Kerikeri Inlet. The site is located along the Kerikeri River Track upstream of the historic Stone Store.

Summary

Monitoring at this site started in March 2022. Nitrate-N and Dissolved Inorganic Nitrogen have been exceeded during all sampling events in 2022. High nutrient loads can lead to excessive aquatic weed and algae growth. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.007	✓				
Nitrate-N	g/m3	Median <0.1	0.59	✗				
Visual Clarity	m	Median >0.89	2.15	✓				
E.coli	MPN/100 mL	Median <703	350	✓				
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.007	✓				
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.60	✗				

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	Not enough data	Not enough data

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Kerikeri River at Golf View Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at ***www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/***

Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Mangahahuru at Main Road

Water Quality Report Card 2022

Site description

The Mangahahuru Stream, which begins in pine forest to the southeast of Hikurangi, is a small tributary of the Wairua River. The site is situated on private farmland.

Summary

Nitrate-N and Dissolved Inorganic Nitrogen levels are generally high at this site but other environmental factors such as thick canopy cover and corresponding low water temperatures keep accessive aquatic weed and algae growth in check.
Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.009	✓	✗	✗	✗	✓
Nitrate-N	g/m3	Median <0.1	0.21	✗	✗	✓	✓	✗
Visual Clarity	m	Median >0.89	1.13	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	335	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.008	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.23	✗	✗	✓	✓	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Good ≥110 and <130	120.0
Periphyton Score	Excellent ≤50	18.3

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Mangahahuru at Main Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Mangakahia at Titoki

Water Quality Report Card 2022

Site description

The Mangakahia River originates in native bush near Waipoua Forest and flows southwest through predominantly low lying agricultural farmland until it reaches the Wairoa River.

Summary

Ammonical-N, Dissolved Inorganic Nitrogen and the Visual Clarity measurements exceeded the Water Quality Index standards for 2022, indicating large amounts of sediment and nutrient runoff.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.014	✗	✗	✓	✓	✗
Nitrate-N	g/m3	Median <0.1	0.10	✓	✓	✓	✓	✗
Visual Clarity	m	Median >0.89	0.40	✗	✗	✓	✓	✗
E.coli	MPN/100 mL	Median <703	455	✓	✗	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.011	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.12	✗	✓	✓	✓	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Mangakahia at Titoki for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Mangakahia at Twin Bridges

Water Quality Report Card 2022

Site description

This site is located just downstream of the twin bridges where the Awarua River meets the Mangakahia River. This catchment has mainly pastoral farming and forestry land use.

Summary

This site achieved all Water Quality Index standards in 2022. The highest bacterial count was recorded in July with 3900MPN/100mL following a 58mm rain event in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.005	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.03	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	1.91	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	180	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.006	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.04	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	79.0
Periphyton Score	Fair >120 and ≤200	121.2

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Mangakahia at Twin Bridges for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Manganui at Mititai Road

Water Quality Report Card 2022

Site description

The Manganui is a major tributary into the Wairoa River, flowing from the western fringes of the Mareretu Forest to join the Wairoa just east of Dargaville. Sampling began in March 2021

Summary

All Nitrogen forms and the Visual Clarity measurements exceeded the Water Quality Index standards for 2022, indicating large amounts of sediment and nutrient runoff.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.015	✗	✗	✗	✗	✗
Nitrate-N	g/m3	Median <0.1	0.14	✗	✗	✗	✓	✗
Visual Clarity	m	Median >0.89	0.39	✗	✗	✗	✗	✗
E.coli	MPN/100 mL	Median <703	210	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.037	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.17	✗	✗	✗	✓	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Manganui at Mititai Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Mangere at Knight Road

Water Quality Report Card 2022

Site description

The Mangere River is a low-lying, sluggish tributary to the Wairua River, which flows through a mostly intensive agricultural catchment. The river begins as the Mangere Stream, which flows east out of the Pukenui forest near Whangārei. It becomes a river on the flats before joining the Wairoa River just west of Kokopu. For the most part, soft sedimentary rocks make up the underlying geology.

Summary

None of the Water Quality Index standards were achieved at this site in 2022. High bacterial counts are common for this site with the highest count in 2022 recorded in May of 4600MPN/100mL (E.coli).
Because silt is natural, it might be argued that it is a less harmful polluter than sewage effluent or chemicals. However, an overload of silt can harm a stream or river just as effectively as a factory spill. Soil erosion can be prevented or reduced by improving the way the land is used, perhaps by planting trees, or by allowing native bush to grow in areas that are at risk from erosion.

Find out more at www.nrc.govt.nz/environment/land/our-soils/soil-erosion

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.052	✗	✗	✗	✗	✗
Nitrate-N	g/m3	Median <0.1	0.74	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	0.47	✗	✗	✓	✓	✗
E.coli	MPN/100 mL	Median <703	1300	✗	✗	✓	✓	✗
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.059	✗	✓	✓	✓	✗
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.81	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Mangere at Knight Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Ngunguru at Coalhill Lane

Water Quality Report Card 2022

Site description

The Ngunguru River originates in Waipaipai to the west of the Tutukaka Coast and flows through the Glenbervie forest out into the Ngunguru Estuary.

Summary

The Water Quality Standards for Nitrate-N and Dissolved Inorganic Nitrogen were exceeded in 2022 and have been frequently high at this site in the past. Bacterial levels were elevated significantly on two occasions in September and November each recording 24000MPN/100mL (E.coli) following rain events of 30mm and 87mm in the preceding 24 hours, respectivly.
Keeping stock away from waterways and planting riparian margins helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.006	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.14	✗	✓	✗	✓	✗
Visual Clarity	m	Median >0.89	1.17	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	180	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.013	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.15	✗	✓	✗	✓	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	105.9
Periphyton Score	Excellent ≤50	46.1

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Ngunguru at Coalhill Lane for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Northern Wairoa at Pukehuia Road

Water Quality Report Card 2022

Site description

The Wairoa River runs for 150 kilometers and is the longest river in the Northern Region. The river flows predominantly through low lying agricultural farm land before it discharges into the northern end of the Kaipara Harbour. Sampling at this site commenced in November 2021 as the previously samples site was deemed unsafe.

Summary

All Nitrogen forms and the Visual Clarity measurements exceeded the Water Quality Index standards for 2022, indicating high sediment and nutrient runoffs from the surrounding landuse. Due to unsuitable environmental conditions, periphyton is not monitored at this site.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.033	✗	✗			
Nitrate-N	g/m3	Median <0.1	0.33	✗	✗			
Visual Clarity	m	Median >0.89	0.19	✗	✗			
E.coli	MPN/100 mL	Median <703	440	✓	✗			
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.03	✓	✓			
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.37	✗	✗			

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Northern Wairoa at Pukehuia Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Opouteke at Suspension Bridge

Water Quality Report Card 2022

Site description

The Opouteke site is situated on a dairy farm. The river drains from predominantly pine forest through a small area of pasture, before reaching the Mangakāhia River.

Summary

This site achieved all Water Quality Index standards in 2022. The highest bacterial count was recorded in July with 2100MPN/100mL (E.coli) following a 58mm rain event in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.03	✓	✓	✓	✓	✗
Visual Clarity	m	Median >0.89	2.30	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	375	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.006	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.03	✓	✓	✓	✓	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	73.0
Periphyton Score	Good >50 and ≤120	65.3

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Opouteke at Suspension Bridge for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Oruaiti at Windust Road

Water Quality Report Card 2022

Site description

The Oruaiti River flows through mostly pastoral land and some forestry. It then flows out into the Mangonui Harbour and into Doubtless Bay.

Summary

The Water Quality Standards for Ammonical-N were exceeded in 2022. Bacterial levels were elevated significantly on two occasions in March and September recording 12,000 and 20,000MPN/100mL (E.coli) respectively, following rain events of 83.5 and 26mm in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Good

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.010	✗	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.05	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	1.07	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	190	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.011	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.06	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	72.3
Periphyton Score	Fair >120 and ≤200	145.2

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Oruaiti at Windust Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Oruru at Oruru Road

Water Quality Report Card 2022

Site description

The Oruru River originates from the Otangaroa Forest and flows north through native forest and scrub. In the lower catchment, the river meanders through pastoral dominated land eventually flowing out into the Taipa River.

Summary

All Nitrogen forms and the Visual Clarity measurements exceeded the Water Quality Index standards for 2022, indicating high sediment and nutrient runoffs from the surrounding landuse. The highest bacterial count occured in March with 12,000MPN/100mL (E.coli) following a 83.5mm in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.019	✗	✓	✗	✓	✗
Nitrate-N	g/m3	Median <0.1	0.15	✗	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	0.43	✗	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	370	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.029	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.16	✗	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Oruru at Oruru Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Otaika at Otaika Valley Road

Water Quality Report Card 2022

Site description

The Otaika Stream originates near the settlement of Maungatāpere and flows eastwards. The site is located off Otaika Valley Road, bordering the Te Wai-iti forest, which consists of mainly regenerating kauri, tanekaha, and totara.

Summary

Nitrate-N and Dissolved Inorganic Nitrogen exceeded the Water Quality Index standards during every sampling event in 2022 and have been significantly elevated since sampling commenced in 2018. E.coli also exceeded its standard with the highest bacterial count of 6100MPN/100mL (E.coli) recorded in November following a 50mm rain event in the preceding 24 hours.
Keeping stock away from waterways and planting riparian margins helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.009	✓	✓	✗	✓	✗
Nitrate-N	g/m3	Median <0.1	0.94	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	1.13	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	865	✗	✗	✓	✗	✗
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.015	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.94	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Good ≥110 and <130	115.2
Periphyton Score	Good >50 and ≤120	77.0

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Otaika at Otaika Valley Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Peria at Honeymoon Valley US Dutton R

Water Quality Report Card 2022

Site description

The Peria River flows generally north from its origins in the Maungatanuwha Range to reach the Oruru River. The site is located upstream of Honeymoon Valley.

Summary

This site achieved all Water Quality Index standards in 2022. The highest bacterial count was recorded in March with 6,900MPN/100mL (E.coli) following a 58mm rain event in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓			
Nitrate-N	g/m3	Median <0.1	0.05	✓	✓			
Visual Clarity	m	Median >0.89	1.56	✓	✓			
E.coli	MPN/100 mL	Median <703	280	✓	✓			
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.038	✓	✓			
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.05	✓	✓			

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Good ≥110 and <130	116.0
Periphyton Score	Not enough data	Not enough data

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Peria at Honeymoon Valley US Dutton Rd for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Pukenui at Kanehiana Drive

Water Quality Report Card 2022

Site description

The Waiarohia Stream catchment is small (18 square km) and originates in the Pukenui Forest in Whangarei. The upper catchment is mainly native forest with some pine forest and the stream flows through a small area of low intensity farmland (mostly lifestyle blocks) before it reaches residential housing and the central business area of Whangarei. This site is located within the forest.

Summary

The Water Quality Standards for Dissolved Inorganic Nitrogen were exceeded in 2022. Bacterial levels were elevated during the November sampling event recording 4,900MPN/100mL (E.coli) following rain event of 34mm in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Good

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.10	✓	✓	✓	✓	✗
Visual Clarity	m	Median >0.89	1.48	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	205	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.015	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.10	✗	✓	✓	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Excellent ≥130	139.2
Periphyton Score	Excellent ≤50	7.9

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Pukenui at Kanehiana Drive for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Punakitere at Taheke

Water Quality Report Card 2022

Site description

The Punakitere River originates from a wetland to the southwest of Kaikohe and is a major tributary of the Waima River (which flows into the Hokianga Harbour). This site is located on private farmland and is fenced with a native riparian margin but the stream flows through a variety of pastoral farm land and past forestry blocks further upstream.

Summary

The Water Quality Index standards for Nitrate-N and Dissolved Inorganic Nitrogen were exceeded in 2022.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.009	✓	✗	✓	✗	✗
Nitrate-N	g/m3	Median <0.1	0.41	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	1.16	✓	✓	✓	✓	✗
E.coli	MPN/100 mL	Median <703	305	✓	✓	✓	✓	✗
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.019	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.42	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	98.3
Periphyton Score	Good >50 and ≤120	82.4

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Punakitere at Taheke for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Punaruku at Russell Road

Water Quality Report Card 2022

Site description

The Punaruku stream flows through 100% native forest. This site is used as a reference site because it has very minimal human influences.

Summary

This site achieved all Water Quality Index standards in 2022. The highest bacterial count was recorded in November with 14,000MPN/100mL (E.coli) following a 100mm rain event in the preceding 24 hours.
Land dwelling pests can affect our waterways by preying upon the likes of freshwater mussels. Trapping and predator control will protect of precious biodiversity.

Find out more at www.nrc.govt.nz/environment/weed-and-pest-control

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.03	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	2.41	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	80	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.007	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.03	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	106.5
Periphyton Score	Excellent ≤50	13.5

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Punaruku at Russell Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Raumanga at Bernard Street

Water Quality Report Card 2022

Site description

The Raumanga Stream has three main tributaries (the Te Hihi, Nihotetea, and Waiponamu streams) which drain predominately rural lifestyle areas before flowing through the suburb of Raumanga and into the Whangarei Harbour.

Summary

The Water Quality Index standards for Ammonical-N and Dissolved Inorganic Nitrogen were exceeded in 2022. Bacterial levels are regularly elevated with the highest count in 2022 being recorded in November (16,000MPN/100mL; E.coli) following a 73.8mm rain even in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.007	✓	✓	✗		✓
Nitrate-N	g/m3	Median <0.1	0.86	✗	✗	✗		✗
Visual Clarity	m	Median >0.89	2.10	✓	✓			✓
E.coli	MPN/100 mL	Median <703	510	✓	✓	✗		✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.013	✓	✓	✓		✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.86	✗	✗	✗		✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	92.7
Periphyton Score	Excellent ≤50	25.5

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Raumanga at Bernard Street for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Ruakaka at Flyger Road*

Water Quality Report Card 2022

Site description

The Ruakākā river flows east through mainly lowland pastoral and dairying land and forestry. The Bream Bay catchment feeds the Ruakākā river and drains into the Bream Bay at Ruakākā.

Summary

All Water Quality Index standards were exceeded at this site in 2022 indicating significant amounts of sediment and nutrient runoff. High nutrient levels can promote accessive algae growth in waterways affecting the viability of the in-stream habitat for aquatic species and high bacterial counts can pose a risk to human health.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.051	✗	✗	✗	✗	✗
Nitrate-N	g/m3	Median <0.1	0.48	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	0.49	✗	✗	✗	✓	✗
E.coli	MPN/100 mL	Median <703	860	✗	✓	✗	✓	✗
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.094	✗	✗	✗	✗	✗
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.55	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	83.9
Periphyton Score	Good >50 and ≤120	66.8

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Ruakaka at Flyger Road* for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Tangowahine at Tangowahine Valley Ro

Water Quality Report Card 2022

Site description

The Tangowahine Stream flows south through mainly pastoral and dairying farmland and joins the Wairoa River which then flows into the northern end of the Kaipara Harbour.

Summary

The Water Quality Index standards for Visual Clarity and E.coli were exceeded in 2022. This site frequently records high bacterial counts, particularly over the wet winter months, with the highest count recorded in July (8,200MPN/100mL) following a 58mm rain event in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.009	✓	✓	✓	✗	
Nitrate-N	g/m3	Median <0.1	0.06	✓	✓	✓	✓	
Visual Clarity	m	Median >0.89	0.45	✗	✓	✓	✓	
E.coli	MPN/100 mL	Median <703	750	✗	✓	✓	✓	
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.013	✓	✓	✓	✓	
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.08	✓	✓	✓	✓	

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	78.0
Periphyton Score	Good >50 and ≤120	62.5

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Tangowahine at Tangowahine Valley Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Tapapa at SH1

Water Quality Report Card 2022

Site description

The Tapapa Stream is a tributary of the Mangamuka River which drains into the Hokianga Harbour. The surrounding catchment is the native forest of the Maungataniwha Range, and the site is used as a reference site.
Multiple large scale slips have led to road closures and elevated sediment loads in the catchment.

Summary

This site achieved all Water Quality Index standards in 2022. The highest bacterial count was recorded in May with 3400MPN/100mL (E.coli) following a 75.5mm rain event in the preceding 24 hours.
Effects of the large scale slips are visible at the Tumutu Stream discharging into the Mangamuka River just downstream of this site, which appears noticabliy more turbid than the tributary originating west from SH1.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.05	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	1.62	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	98	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.029	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.05	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Good ≥110 and <130	126.9
Periphyton Score	Excellent ≤50	17.8

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Tapapa at SH1 for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.
If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Utakura at Okaka Road

Water Quality Report Card 2022

Site description

The Utakura River flows through pastoral farmland and flows out to the west to join the Waihou River and into the Hokianga Harbour.

Summary

The Water Quality Index standards for Nitrate-N and Dissolved Inorganic Nitrogen were exceeded in 2022.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.010	✓	✓	✓	✗	✗
Nitrate-N	g/m3	Median <0.1	0.13	✗	✓	✓	✗	✗
Visual Clarity	m	Median >0.89	1.34	✓	✓	✓	✓	✗
E.coli	MPN/100 mL	Median <703	300	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.012	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.15	✗	✓	✓	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Utakura at Okaka Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Victoria at Victoria Valley Road

Water Quality Report Card 2022

Site description

The Victoria River begins in the Raetea Forest and runs north through pasture before joining the Awanui River near Kaitaia.

Summary

This site achieved all Water Quality Index standards in 2022. Bacterial count were elevated in May 2022 with 2,400MPN/100mL (E.coli) following a 57.5mm rain events in the preceding 24 hours.
Land dwelling pests can affect our waterways by preying upon the likes of freshwater mussels. Trapping and predator control will protect of precious biodiversity.

Find out more at www.nrc.govt.nz/environment/weed-and-pest-control

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.04	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	1.20	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	310	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.019	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.05	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	103.3
Periphyton Score	Good >50 and ≤120	86.5

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Victoria at Victoria Valley Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waiarohia at Second Avenue

Water Quality Report Card 2022

Site description

The Waiarohia Stream flows through a small area of low intensity farmland (mostly lifestyle blocks), before it reaches residential housing and the central business area of Whangārei where this site is located.

Summary

The Water Quality Index standards for Nitrate-N and Dissolved Inorganic Nitrogen were exceeded in 2022. High bacterial counts are common at this site with the highest one recorded in 2022 in November with 9,800MPN/100mL following a 88.1mm rain event in the preceding 24 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.004	✓	✓	✗	✓	✓
Nitrate-N	g/m3	Median <0.1	0.37	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	1.94	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	495	✓	✗	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.01	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.37	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	77.1
Periphyton Score	Good >50 and ≤120	53.1

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waiarohia at Second Avenue for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waiaruhe at Puketona

Water Quality Report Card 2022

Site description

The Waitangi River catchment is 302 square kilometers, and the river is 37 km long. It originates just east of Lake Ōmāpere and flows east towards Haruru, then enters into the Bay of Islands. The Waiaruhe River is a major tributary of the Waitangi River and begins in the Ngāwhā Springs catchment.

Summary

The Water Quality Index standards for all Nitrogen forms and for Visual Clarity were exceeded in 2022, indicating large amouts of nutrient and sedimetn runoff from the land.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.026	✗	✗	✓	✗	✗
Nitrate-N	g/m3	Median <0.1	0.26	✗	✗	✓	✗	✗
Visual Clarity	m	Median >0.89	0.72	✗	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	305	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.011	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.28	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	103.0
Periphyton Score	Excellent ≤50	39.0

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waiaruhe at Puketona for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waiharakeke at Stringers Road

Water Quality Report Card 2022

Site description

The Waiharakeke Stream is a major tributary of the Kawakawa River, which flows into the Waikara Inlet in the Bay of Islands. The Waiharakeke catchment is large (25- square km) and is approximately 53 km long. It begins as the Horahora Stream, which originates in the Motatau Forest and meanders northwest towards Moerewa.

Summary

The Water Quality Index standards for Ammonical-N, Dissolved Inorganic Nitrogen and Visual Clarity were exceeded in 2022. Bacterial levels are regularly elevated with the highest count in 2022 being recorded in September (4,600MPN/100mL; E.coli) following a 32.5mm rain event in the preceding 48 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.016	✗	✗	✓		✗
Nitrate-N	g/m3	Median <0.1	0.09	✓	✓	✓		✓
Visual Clarity	m	Median >0.89	0.46	✗	✗	✓		✗
E.coli	MPN/100 mL	Median <703	485	✓	✓	✓		✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.016	✓	✓	✓		✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.11	✗	✗	✓		✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	87.8
Periphyton Score	Good >50 and ≤120	52.6

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waiharakeke at Stringers Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waimamaku at SH12

Water Quality Report Card 2022

Site description

The Waimamaku River begins north of the Waipoua Forest and flows west through Waimamaku township, eventually reaching the West Coast south of the Hokianga Harbour. The sampling site is in the lower reaches of the river, on private farmland after it passes through Waimamaku township.

Summary

This site achieved all Water Quality Index standards in 2022. Bacterial count were elevated in September 2022 with 1,400MPN/100mL (E.coli) following a 31mm rain events in the preceding 48 hours.
Land dwelling pests can affect our waterways by preying upon the likes of freshwater mussels. Trapping and predator control will protect of precious biodiversity.

Find out more at www.nrc.govt.nz/environment/weed-and-pest-control

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.01	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	2.41	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	360	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.004	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.01	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	105.5
Periphyton Score	Good >50 and ≤120	67.4

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waimamaku at SH12 for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waiotu at SH1

Water Quality Report Card 2022

Site description

The Waiotu River originates in the hills to the northeast of State Highway One, between Kawakawa and Whangārei, and runs into the Whakapara River to form the greater Wairua River. The site is on private farmland and forms part of the Hikurangi Swamp Flood Control Scheme.

Summary

The Water Quality Index standards for all Nitrogen forms and for Visual Clarity were exceeded in 2022, indicating large amouts of nutrient and sedimetn runoff from the land.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.031	✗	✗	✓	✗	✗
Nitrate-N	g/m3	Median <0.1	0.37	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	0.71	✗	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	440	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.02	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.42	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waiotu at SH1 for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waipao at Draffin Road

Water Quality Report Card 2022

Site description

The Waipao Stream begins as the Kauritutahi Stream to the west of Maungatāpere (the Kauritutahi Stream becomes Waipao as it flows west towards Poroti).

Summary

The Water Quality Index standards for Ammonical-N and Dissolved Inorganic Nitrogen were exceeded in 2022. Bacterial levels are regularly elevated with the highest count in 2022 being recorded in February (1,600MPN/100mL; E.coli) following a 81mm rain event in the preceding 48 hours.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.010	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	2.15	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	1.44	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	390	✓	✗	✓	✓	✗
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.027	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	1.90	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	105.8
Periphyton Score	Not enough data	Not enough data

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waipao at Draffin Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waipapa at Forest Ranger

Water Quality Report Card 2022

Site description

The catchment above is predominantly native forest with some small pockets of pine forest in the headwaters of the catchment. The Waipapa River is classified as pristine with excellent water quality. The geology is soft sedimentary. This monitoring site is located at the Department of Conservation camping area at the end of Forest Road. The water quality is monitored by NIWA as part of national water quality

Summary

This site achieved all Water Quality Index standards in 2022. Bacterial count were significantly elevated on one sampling occasion in February 2022 with 24,000MPN/100mL (E.coli) following a 106mm rain events in the preceding five days.
Land dwelling pests can affect our waterways by preying upon the likes of freshwater mussels. Trapping and predator control will protect of precious biodiversity.

Find out more at www.nrc.govt.nz/environment/weed-and-pest-control

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.007	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.01	✓	✓		✓	✓
Visual Clarity	m	Median >0.89	2.65	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	97	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.008	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.02	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Good ≥110 and <130	123.3
Periphyton Score	Excellent ≤50	21.3

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waipapa at Forest Ranger for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waipoua at SH12

Water Quality Report Card 2022

Site description

The headwaters of the Waipoua River run through a small area of pastoral land before flowing through the Waipoua Forest and then an area of pine forest and out into the west coast of Northland. The river cuts through volcanic soils and has a predominantly native forest catchment. The Waipoua catchment is 65 square km and is 31 km long.

Summary

This site achieved all Water Quality Index standards in 2022 and is one of Northland's reference sites.

Land dwelling pests can affect our waterways by preying upon the likes of freshwater mussels. Trapping and predator control will protect of precious biodiversity.

Find out more at www.nrc.govt.nz/environment/weed-and-pest-control

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.003	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.01	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	2.41	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	57	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.005	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.02	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Good ≥110 and <130	124.2
Periphyton Score	Excellent ≤50	8.2

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waipoua at SH12 for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at ***www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/***

Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Wairau at SH12

Water Quality Report Card 2022

Site description

The Wairau River has predominately a native forest catchment. This site is used as a reference site. The river flows west to the west coast.

Summary

This site achieved all Water Quality Index standards in 2022. Bacterial count were elevated in February 2022 with 1,100MPN/100mL (E.coli) following a 47mm rain events in the preceding four days.
Land dwelling pests can affect our waterways by preying upon the likes of freshwater mussels. Trapping and predator control will protect of precious biodiversity.

Find out more at www.nrc.govt.nz/environment/weed-and-pest-control

Water Quality Index - Excellent

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.006	✓	✓	✓	✓	✓
Nitrate-N	g/m3	Median <0.1	0.00	✓	✓	✓	✓	✓
Visual Clarity	m	Median >0.89	1.69	✓	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	80	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.004	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.01	✓	✓	✓	✓	✓

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Good ≥110 and <130	129.7
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Wairau at SH12 for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Wairua at Purua

Water Quality Report Card 2022

Site description

The Wairua River above Whangārei flows southwest into the Kaipara Harbour. It is one of the major tributaries of the greater Wairoa River. The catchment upstream of the sampling site is predominantly pastoral and the river cuts through hard sediments along a low gradient.

Summary

The Water Quality Index standards for all Nitrogen forms and for Visual Clarity were exceeded in 2022, indicating large amouts of nutrient and sedimetn runoff from the land.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.057	✗	✗	✗	✗	✗
Nitrate-N	g/m3	Median <0.1	0.35	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	0.41	✗	✗	✓	✓	✗
E.coli	MPN/100 mL	Median <703	345	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.031	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.43	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	N/A	N/A
Periphyton Score	N/A	N/A

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Wairua at Purua for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waitangi at Waimate North Road

Water Quality Report Card 2022

Site description

The Waitangi River originates just east of Lake Ōmāpere and flows into the Bay of Islands. This sampling site is in the mid reaches of the Waitangi catchment, above the confluence of the Waitangi and Waiaruhe rivers. The site at Waimate Road is situated on private farmland.

Summary

The Water Quality Index standards for Nitate-N, Dissolved Inorganic Nitrogen and Visual Clarity were exceeded in 2022, indicating large amounts of nutrient and sediment runoff from the surrounding land.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Fair

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.007	✓	✗	✗	✓	✗
Nitrate-N	g/m3	Median <0.1	0.30	✗	✗	✗	✗	✗
Visual Clarity	m	Median >0.89	0.72	✗	✓	✓	✓	✓
E.coli	MPN/100 mL	Median <703	690	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.006	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.33	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Fair ≥90 and <110	103.8
Periphyton Score	Excellent ≤50	38.7

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waitangi at Waimate North Road for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***

Waitangi at Wakelins

Water Quality Report Card 2022

Site description

The Waikangi River originates just east of Lake Omapere and flows east towards Waitangi before entering the Bay of Islands. The site is located close to the river

Summary

The Water Quality Index standards for all Nitrogen forms and for Visual Clarity were exceeded in 2022, indicating large amouts of nutrient and sedimetn runoff from the land.
Keeping stock away from waterways helps to reduce the amount of sediment, nutrients and harmful faecal bacteria that enters the waterways. Planting the riparian margins helps to filter surface runoff and take up nutrients as well as having many other benefits.

Find out more at www.nrc.govt.nz/environment/land

Water Quality Index - Poor

Parameter	Unit	Standard	Result 2022	Status				
				2022	2021	2020	2019	2018
Ammonical-N	g/m3	Median <0.01	0.018	✗	✗	✗	✓	✗
Nitrate-N	g/m3	Median <0.1	0.31	✗		✗	✓	✗
Visual Clarity	m	Median >0.89	0.70	✗		✓	✓	✓
E.coli	MPN/100 mL	Median <703	360	✓	✓	✓	✓	✓
Dissolved Reactive Phosporus	g/m3	Median <0.051	0.014	✓	✓	✓	✓	✓
Dissolved Inorganic Nitrogen	g/m3	Median <0.1	0.31	✗	✗	✗	✗	✗

Ecological Health

Parameter	Standard	Result 2022
Macroinvertebrate Community Index	Poor <90	60.3
Periphyton Score	Not enough data	Not enough data

*The preriphyton value is derived from a 3-yearly rolling 92nd percentile. The MCI value is scored from one year of sampling. All grading is based on the values set in the National Policy Statement for Freshwater 2020.

Disclaimer

This report card provides a snapshot of the water quality and ecological health at Waitangi at Wakelins for the past 5 years. The median for each 12-month period per calendar year is assessed against the latest regional Water Quality Index, Macroinvertebrate Community Index and Periphyton Scores. A tick indicates an achieved standard and a cross a not-achieved standard. The current Water Quality Index is based on the number of achieved standards.

If you would like to find out more about Northland's water quality visit our Environmental Data Hub at
www.nrc.govt.nz/environment/environmental-data/environmental-data-hub/
Or to find out more about water quality parameters at ***www.lawa.org.nz/explore-data/river-quality/***