

**IN THE ENVIRONMENT COURT
AT AUCKLAND**

**I TE KŌTI TAIAO O AOTEAROA
KI TĀMAKI MAKĀURAU**

Decision [2021] NZEnvC 170

IN THE MATTER OF

an appeal under Clause 14 of Schedule 1 of the Resource Management Act 1991 (**the Act**) and Topic 5 (Water Quality) of the Proposed Northland Regional Plan

BETWEEN

MINISTER OF CONSERVATION

(ENV-2019-AKL-122)

AND

ROYAL FOREST AND BIRD PROTECTION SOCIETY OF NEW ZEALAND INCORPORATED

(ENV-2019-AKL-127)

AND

MANGAWHAI HARBOUR RESTORATION SOCIETY INCORPORATED

(ENV-2019-AKL-110)

Appellants

AND

NORTHLAND REGIONAL COUNCIL

Respondent

Court: Judge J A Smith
Commissioner S K Prime
Commissioner S C Myers

Hearing: On the papers

Last case event: Memorandum of counsel for Northland Regional Council, filed 22 October 2021

Submissions: S J Ongley and M Downing for the Minister of Conservation (**the Minister**)
P D Anderson for Royal Forest and Bird Protection Society of New Zealand Incorporated (**Forest and Bird**)
K R M Littlejohn for Mangawhai Harbour Restoration Society



Minister of Conservation v Northland Regional Council (Topic 5 – Water Quality)

Incorporated (**MHRS**)
C H Simmons for New Zealand Refining Company Limited
(**Refining NZ**) (s 274 Party)
P R Gardner for Federated Farmers of New Zealand
Incorporated (**Federated Farmers**) (s 274 Party)
MJ Doesburg and E S Lake for Northland Regional Council (**the
Council**)

Date of Decision: 2 November 2021

Date of Issue: 2 November 2021

FINAL DECISION OF THE ENVIRONMENT COURT

- A: The Court confirms the provisions agreed by parties in the joint memorandum of counsel of 22 October 2021. The agreed provisions are annexed hereto as **A** to this decision.
- B: Regarding the unresolved matter of a clarification statement for Policy D.4.1 and how it does not apply to non-point source discharges, the Court concludes that the amended version of Appendix H.3 is the most appropriate wording. The Council is to accordingly update Appendix H.3 in the Plan as follows:

H.3 Water quality standards and guidelines

The water quality standards and guidelines in this plan only apply when considering applications for resource consent to discharge a contaminant into water or onto or into land when it may enter water, and do not apply to unregulated natural or diffuse discharge.

- C: Topic 5 (Water Quality) to the Proposed Northland Regional Plan is otherwise resolved in its entirety.
- D: The Court understands that no cost applications have been filed. Accordingly, there is no issue as to costs and the Court makes no orders.

REASONS

Introduction

[1] This matter relates to Topic 5 (Water Quality) of the Proposed Northland Regional Plan (**the Plan**). A hearing was convened on 3 May 2021 in Whangarei in relation to the unresolved issues on Topic 5, with the Court issuing its decision on 30 July 2021.¹

[2] The Court directed the Council to prepare draft changes in accordance with the decision and circulate it to the other parties for comment. The other parties were then directed to provide written responses to the Council within 10 working days. If any matters were still in disagreement, the Council was directed to file its preferred provisions, with an explanation of the differences between each party.

[3] On 22 October 2021, the Council filed a memorandum regarding Topic 5's final provisions. The memorandum notes that parties have reached agreement on all but one matter. This decision ultimately addresses these provisions.

Agreed Changes

[4] Parties advised that they have reached agreement on almost all the changes to the provisions in accordance with the Court's 30 July 2021 decision. The agreed provisions are annexed hereto as **A**, with the specific changes and rationale detailed as follows.

[5] Regarding Policy D.4.1, agreements between the parties include:

- (a) Deletion of "in all situations" from clause (1A), as the parties consider that its inclusion is not necessary;
- (b) Minor amendments to clause (2) to ensure that the wording is consistent with clause (3);

¹ *Minister of Conservation v Northland Regional Council* [2021] NZEnvC 113.

- (c) An amendment to clause (3)(a) clarifying the timetable that the quality of the discharge must be improved over; and
- (d) A minor correction to the note at the end of the policy, to include the correct cross-reference.

[6] In terms of Policy H.3.1 Water quality standards for continually or intermittently flowing rivers, the agreed changes include:

- (a) The incorporation of Table 20B: Water quality standards for point source discharges in rivers into Table 20: Water quality standards for ecosystem health in rivers. Parties consider that combining them achieves the intent of the Court's decision and provides further clarity;
- (b) Inclusion of a footnote that clarifies that monitoring for periphyton biomass (chlorophyll a) could be conducted more simply by using visual estimates of periphyton cover. Parties consider this is appropriate as it is consistent with the National Policy Statement for Freshwater Management 2020 (**NPS-FM**);
- (c) Deletion of references to the NPS-FM bands and numeric attribute states in the 'outstanding rivers' and 'other rivers' columns for periphyton biomass (chlorophyll a) – hard bottomed wadeable rivers, and instead providing just the relevant standards. Parties consider it is appropriate to delete the NPS-FM band references as the Plan makes no other references to them;
- (d) Inclusion of relevant references for the compliance metric for temperature changes, QMCI (wadeable rivers) change and deposited fine sediment change – hard bottomed wadeable rivers in Table 20: Water quality standards for ecosystem health in rivers; and
- (e) Inclusion of actual metrics from Table 9 of the NPS-FM, as opposed to just referring to Table 9, in Table 20A: Water quality standards for human contact in rivers.

[7] Finally, in relation to Policy H.3.3 Coastal water quality standards, the parties agree to the following changes:

- (a) The deletion of “annual median” as the compliance metric for turbidity in Table 22: Water quality standards for ecosystem health in coastal waters, contact recreation and shellfish consumption. As directed by the Court in paragraph [41b] of its decision, the parties agree that the wording in the compliance metric column should read:

Turbidity must be maintained at or below the current annual median or at below pre-existing levels, whichever is lesser.

- (b) The inclusion of an advice note, as directed at paragraph [60] of the decision. The parties agree the following advice note is appropriate:

Advice note: Water quality values will vary throughout the year and the values stated as annual median or percentile values may be exceeded for short periods of time during that annual period without the median or percentile standard being exceeded.

Evaluation

[8] Having considered the amendments proposed by the parties, we conclude that they reflect the Court’s earlier decision and are appropriate. For this reason, the agreed provisions are approved and are attached to this decision as **Annexure A**.

H.3 Water quality standards and guidelines

[9] The Court also directed that it would be appropriate to include a general statement which clarifies that Policy D.4.1 and related standards do not apply to non-point source discharges.² Parties however have not reached an agreement on this issue.

[10] The Council initially proposed the following amendment to the heading of Appendix H.3, which includes the relevant standards, to address this issue. They considered this was the simplest and most effective way to achieve the intent of the decision³:

² At [41a] and [51].

³ Memorandum of counsel for Northland Regional Council regarding final provisions for Topic 5 Water Quality, dated 22 October 2021 at [11].

H.3 Water quality standards and guidelines for point source discharges

...

[11] The Minister, supported by Forest and Bird, proposed alternative drafting. This retained the heading of Appendix H.3 from the decisions version and provided a qualifying statement below it. The Minister proposed this because the Act does not define “point source” and referring to it could lead to further argument. Rather, they consider it more accurate to refer to activities that do or do not require resource consent because Policy D.4.1 limits its application to activities requiring resource consent. Additionally, the Minister considered the below statement better reflected the Court’s findings in paragraphs [41a] and [51] of the decision⁴:

H.3 Water quality standards and guidelines

The water quality standards and guidelines in this plan only apply when considering resource consents for activities regulated by this Plan, and do not apply to unregulated natural or diffuse discharges.

[12] Subsequently the Council proposed alternative wording to the Minister’s qualifying statement, to provide greater consistency with Policy D.4.1 and avoid plan users requiring to discern whether an activity is regulated by the Proposed Plan⁵:

H.3 Water quality standards and guidelines

The water quality standards and guidelines in this plan only apply when considering applications for resource consent to discharge a contaminant into water or onto or into land when it may enter water ~~for activities regulated by this Plan,~~ and do not apply to unregulated natural or diffuse discharge.

[13] The position of each party in relation to the changes is as follows:

- (a) The Council supports either the amended heading or its new alternative drafting;
- (b) The Minister agrees with the Council’s alternative drafting, which includes removing the words “point source” from the heading;
- (c) Forest and Bird agree with the Council’s alternative drafting;

⁴ At [13].

⁵ At [15].

- (d) Federated Farmers accept the Council's proposed amendment to the heading of Appendix H.3;
- (e) Refining NZ agrees with the Council's proposed amendment to the heading of Appendix H.3; and
- (f) MHRS agrees with the Council's proposed amendment to the heading of Appendix H.3 rather than the alternative drafting to the Minister's qualifying statement.

[14] Having assessed the options before us and the positions of each party, we agree with the new alternative wording of the Council, being:

H.3 Water quality standards and guidelines

The water quality standards and guidelines in this plan only apply when considering applications for resource consent to discharge a contaminant into water or onto or into land when it may enter water, and do not apply to unregulated natural or diffuse discharge.

[15] While the change to the heading wording is minimal, it could potentially lead to arguments about the Plan not applying to indirect or diffuse discharges. We conclude the use of the words "point source" in the heading are less clear than the new alternative wording. The alternative wording makes the application of the provision more certain and easier for users to understand. The Council is to accordingly update the Plan on this basis.

Outcome

[16] Accordingly, the Court concludes on the following:

- A: The Court confirms the provisions agreed by parties in the joint memorandum of counsel of 22 October 2021. The agreed provisions are annexed hereto as A to this decision.**
- B: Regarding the unresolved matter of a clarification statement for Policy D.4.1 and how it does not apply to non-point source discharges, the Court concludes that the amended version of Appendix H.3 is the most**

appropriate wording. The Council is to accordingly update Appendix H.3 in the Plan as follows:

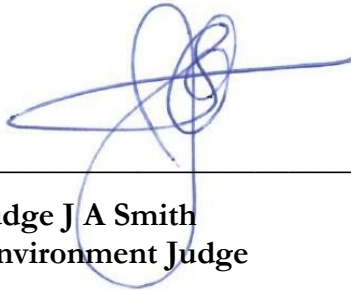
H.3 Water quality standards and guidelines

The water quality standards and guidelines in this plan only apply when considering applications for resource consent to discharge a contaminant into water or onto or into land when it may enter water, and do not apply to unregulated natural or diffuse discharge.

C: Topic 5 (Water Quality) to the Proposed Northland Regional Plan is otherwise resolved in its entirety.

D: The Court understands that no cost applications have been filed. Accordingly, there is no issue as to costs and the Court makes no decisions on this matter.

For the Court:



Judge J A Smith
Environment Judge



Annexure A - Final Agreed Provisions

Amendments are shown in underline and strikethrough as follows:

- Amendments shaded in yellow are proposed in response to the findings in the Court's decision dated 30 July 2021; and
- Amendments shaded in green are minor amendments proposed by the parties for clarification or correction.

Policy D.4.1 Maintaining water quality

When considering an application for a resource consent to discharge a contaminant into water or onto or into land where it may enter water;

~~1) have regard to the need to maintain the overall quality of water including the receiving water's physical, chemical and biological attributes and associated water quality dependent values, and~~

~~2) have regard to the coastal sediment quality guidelines in H.3 Water quality standards and guidelines, and~~

~~3) generally not grant a proposal if it will, or is likely to, exceed or further exceed a water quality standard in H.3 Water quality standards and guidelines.~~

1A) in all situations ensure that the quality of fresh and coastal water is at least maintained, and

1) where a water quality standard in Appendix H.3 is currently met:

a. ensure that the quality of water in a river, lake or the coastal marine area will continue to meet the standards in Appendix H.3; and

b. consider whether any improvements to water quality are required in order to achieve Objective F.1.2.

2) where a water quality standard in Appendix H.3 is ~~not currently met~~ exceeded, ensure that any resource consent for a new discharge will not, or is not likely to, cause or contribute to a further exceedance of a water quality standard in Appendix H.3;

3) where a water quality standard in Appendix H.3 is currently exceeded and the exceedance of the water quality standard is caused or contributed to by an existing activity for which a replacement resource consent is being considered, ensure any replacement resource consent granted for the existing discharge includes a condition(s) that:

a. requires the quality of the discharge to be improved over ~~time the term of the consent~~ to reduce the contribution of the discharge to the exceedance of the water quality standard in Appendix H.3; and

b. sets out a series of time bound steps, demonstrating how the activity will be managed to achieve the water quality improvements required by (3)(a).

4) ensure that the discharge will not cause an acute toxic adverse effect within the zone of reasonable mixing;

5) where a discharge will, or is likely to, cause or contribute to:

a) an exceedance of the coastal sediment quality guidelines in Appendix H.3.4, or

b) a transitory exceedance of the toxicants, metals and metalloids standard in Table 22, and the activity is associated with the establishment, operation, maintenance or upgrade of regionally significant infrastructure, determine whether higher levels of contaminants in the particular location affected by the discharge can be provided for while still achieving Objective F.1.2, and set appropriate levels of contaminants in accordance with best practice methodology to safeguard the ecosystem values present at the location affected by the discharge; and

6) where existing water quality is unknown, or the effect of a discharge on water quality is unknown, the activity must be managed using a precautionary approach, which may include adaptive management.

Note:

For the purpose of Policy D.4.1(5)(b), best practice methodology can be determined by reference to ANZECC 2000 Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Number 4, Volume 1 or any replacement guidelines.

Policy H.3.1 Water quality standards for continually or intermittently flowing rivers

The water quality standards in *Table 20: Water quality standards for ecosystem health in rivers* apply to Northland's continually or **intermittently flowing rivers**, and they apply after allowing for reasonable mixing.

Table 20: Water quality standards for ecosystem health in rivers¹

Attribute	Unit	Compliance metric	Outstanding rivers	Other rivers
Nitrate (toxicity)	mg NO3-N/L	Annual median	≤1.0	≤1.0
		Annual 95 th percentile	≤1.5	≤1.5
Ammonia (toxicity)	mg NH4-N/L	Annual median	≤ 0.03*	≤0.24*
		Annual maximum	≤ 0.05*	≤0.40*
Temperature	°C	Summer period measurement of the Cox-Rutherford Index (CRI), averaged over the five (5) hottest days (from inspection of a continuous temperature record).	≤ 20°C	≤ 24°C
Dissolved oxygen	mg/L	7-day minimum	≥ 8.0	≥ 5.0
		1-day minimum	≥ 7.5	≥ 4.0
pH	pH units are dimensionless	Annual minimum and annual maximum	6.5 < pH < 8.0	6.0 < pH < 9.0
Periphyton biomass (chlorophyll a) – hard-bottomed wadeable rivers	mg chl-a/m²	Exceeded by no more than 8% of samples (default class rivers). Exceeded by no more than 17% of samples in productive class rivers.³ Based on monthly samples collected over three years	≤50	≤200
Temperature change*	Degrees Celsius	Summer period measurement of the Cox-Rutherford Index (CRI)², averaged over the five (5) hottest days (from inspection of a continuous temperature record).	≤1°C	≤3°C
QMCI (wadeable rivers) change*	Index value	Equivalence test between five (5) replicate 0.1m² Surber samples (protocol C3 hard-bottomed quantitative) or equivalent sampling effort for soft-bottomed rivers using protocol C4 soft-bottomed quantitative as per Stark et al. (2001)² from each upstream and downstream site	≤20% (not more than 20% reduction)	≤20% (not more than 20% reduction)
Toxicants, metals and metalloids (excludes nitrate or ammonia toxicity)	Default guideline value (DGV) for toxicant, metal or metalloid in Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2018: ANZG (2018)	Maximum	99% species protection	95% species protection
Visual clarity change*	Metres	Maximum	≤20% Not more than 20% decrease in black disc or equivalent measurement	≤30% Not more than 30% decrease in black disc or equivalent measurement
Deposited fine sediment change - hard-bottomed wadeable rivers*	Percent cover	Sample average	≤10% (Not more than 10% increase in cover)	≤10% (Not more than 10% increase in cover)

¹ Unless **naturally occurring processes** as defined in the NPS-FM (2020) prevent the waterbody from achieving the standard.

² At low risk sites monitoring may be conducted using visual estimates of periphyton cover. Should monitoring based on visual cover estimates indicate that a site is approaching the relevant periphyton abundance threshold, monitoring should then be upgraded to include measurement of chlorophyll-a.

³ Rivers are categorised as productive according to types in the River Environment Classification (REC). Productive rivers are those that fall within the REC “Dry” Climate categories (i.e., Warm-Dry (WD) and Cool-Dry (CD)) and the REC Geology categories that have naturally high levels of nutrient enrichment due to their catchment geology (i.e., Soft-Sedimentary (SS), Volcanic Acidic (VA) and Volcanic Basic (VB)). Therefore, productive rivers are those that belong to the following REC defined types: WD/SS, WD/VB, WD/VA, CD/SS, CD/VB, CD/VA.

		(all transect observations at each site using SAM2 protocol Clapcott et al. 2011)**		
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*Based on pH 8 and temperature of 20 degrees Celsius. Compliance with the water quality standard should be undertaken after pH adjustment.

*Note: Change is to be measured between appropriately matched habitats upstream and downstream of discharges to water or, where there is no suitable upstream site, between reference condition and downstream site.

**As referenced in: Davies-Colley R, Franklin P, Wilcock B, Clearwater S, Hickey C. 2013. National Objectives Framework: Temperature, Dissolved Oxygen & pH Proposed thresholds for discussion. NIWA Client Report No: HAM2013-056. Prepared for the Ministry of the Environment

Stark JD, Boothroyd JKG, Harding JS, Maxted JR, Scarsbrook MR. 2001. Protocols for sampling macroinvertebrates in wadeable streams. New Zealand Macroinvertebrate Working Group Report No. 1. Prepared for the Ministry for the Environment. Sustainable Management Fund Project No. 5103. 57p

Clapcott JE, Young RG, Harding JS, Matthaei CD, Quinn JM, and Death RG. 2011. Sediment Assessment Methods: Protocols and guidelines for assessing the effects of deposited fine sediment on in-stream values. Cawthron Institute: Nelson, New Zealand.

Table 20A: Water quality standards for human contact in rivers⁴

Attribute	Unit	Compliance metric	Outstanding rivers	Other rivers
<u>Escherichia coli (E. coli)</u>	<u>E. coli/100m^l</u>	<u>Does not exceed any of the four attributes states in Table 9 of the NPS-FM (2020)</u> <u>% exceedance over 540</u> <u>% exceedance over 260</u> <u>Median concentration 95th percentile of E. coli</u>	<u>C (Yellow) band</u> <u>≤20%</u> <u>≤34%</u> <u>≤130</u> <u>≤1200</u>	<u>C (Yellow) band</u> <u>≤20%</u> <u>≤34%</u> <u>≤130</u> <u>≤1200</u>
<u>E. coli in primary contact sites during the bathing season</u>	<u>E. coli/100m^l</u>	<u>95th percentile</u>	<u>≤540 All rivers</u>	<u>≤540 All rivers</u>
<u>Periphyton cover (periphyton weighted composite cover – periWCC) – hard-bottomed wadeable rivers</u>	<u>Percent cover</u>	<u>Seasonal maximum weighted composite cover on visible stream bed in a reach (1 November to 30 April)</u>	<u>≤30%</u>	<u>≤30%</u>

⁴ Unless naturally occurring processes as defined in the NPS-FM (2020) prevent the waterbody from achieving the standard.

Policy H.3.3 Coastal water quality standards

The water quality standards in *Table 22: Water quality standards for ecosystem health in coastal waters, contact recreation and shellfish consumption* apply to Northland's coastal waters, and they apply after allowing for reasonable mixing.

Table 22: Water quality standards for ecosystem health in coastal waters, contact recreation and shellfish consumption

Attribute	Unit	Compliance Metric	Coastal water quality management unit			
			Hātea River	Tidal creeks	Estuaries	Open coastal water
Dissolved oxygen	mg/L	Annual median	>6.2	>6.3	>6.9	No discernible change
		Minimum	4.6			
Temperature	°C	Maximum change	3			
pH	pH units are dimensionless	Annual minimum and annual maximum	7.0 - 8.5			8.0 - 8.4
Turbidity	NTU	Annual median Turbidity must be maintained at or below the current annual median or at or below pre-existing levels, whichever is lesser.	<7.5	<10.8	<6.9	No discernible change
Secchi depth	m	Annual median	>0.8	>0.7	>1.0	No discernible change
Chlorophyll-a	mg/L	Annual median	<0.003	<0.004	<0.004	No discernible change
Total phosphorus	mg/L	Annual median	<0.119	<0.040	<0.030	No discernible change
Total nitrogen	mg/L	Annual median	<0.860	<0.600	<0.220	No discernible change
Nitrate-nitrate nitrogen	mg/L	Annual median	<0.580	<0.218	<0.048	No discernible change
Ammoniacal nitrogen	mg/L	Annual median	<0.099	<0.043	<0.023	No discernible change
Copper	mg/L	Maximum	0.0013			0.0003
Lead	mg/L	Maximum	0.0044			0.0022
Zinc	mg/L	Maximum	0.0150			0.0070
Faecal coliforms	MPN/100mL	Median	Not applicable		≤14	≤14
		Annual 90th percentile	Not applicable		≤43	≤43
Enterococci	Enterococci /100mL	Annual 95th percentile	≤500	≤200	≤200	≤40

Advice Note: Water quality values will vary throughout the year and the values stated as annual median or percentile values may be exceeded for short periods of time during that annual period without the median or percentile standard being exceeded.