

Before the Freshwater Hearings Panel in Dunedin

Under the Resource Management Act 1991 (the Act)

In the matter of Submissions on the Proposed Otago Regional Policy Statement
2021 (Freshwater parts)

Between **Otago Regional Council**
Local Authority

And **Waka Kotahi NZ Transport Agency**
Submitter FPI018

**Evidence in chief of Aileen Mary Crow for Waka Kotahi NZ Transport
Agency on Freshwater parts (Planning)**

Dated 28 June 2023

1 Executive Summary

- 1.1 Waka Kotahi NZ Transport Agency (“**Waka Kotahi**”), as the controlling authority for New Zealand’s State Highway Network and co-funder for parts of the local network, has significant infrastructure assets across New Zealand, including in the Otago region. **Mr Peter Robinson’s** statement of evidence for the non-freshwater parts of the Proposed Otago Regional Policy Statement (“**PORPS**”) describes the role and responsibilities of Waka Kotahi as the controlling authority of the State Highway Network, including the nature and operation of Waka Kotahi assets in the Otago region. Waka Kotahi also work closely with its partners in creating multi-modal transport systems (walking, cycling and public transport) across New Zealand.
- 1.2 **Mr Robinson** has also described the essential role the transport network plays as a facilitator of growth for the Otago region through the safe and reliable supply of roads to transport people, goods and services around the region, and to other regions of New Zealand.
- 1.3 The national significance of the State Highway Network is recognised by the **PORPS** by listing it in the definition for “Nationally significant infrastructure”.
- 1.4 The Waka Kotahi’s submission and further submissions with regards to the Freshwater parts of the PORPS are primarily concerned with ensuring that the PORPS appropriately gives effect to the Resource Management Act 1991 (**‘RMA’**) and the National Policy Statement for Freshwater Management 2020 (**‘NPSFM’**) by:
- a Recognising the benefits of a safe and reliable State Highway Network, including multi-modal transport systems, provided by Waka Kotahi, that underpins the concept of “wellbeing” in section 5 of the RMA;
 - b Providing for the use, maintenance, development and protection of the State Highway Network and multi-model transport systems (as a physical resource in terms of section 5 of the RMA); and
 - c Appropriately managing the adverse effects of the State Highway Network and multi-model transport systems, particularly on freshwater resources.
- 1.5 The Waka Kotahi submission is generally supportive of the approach taken within the Freshwater parts of the PORPS in that it generally gives effect to the NPSFM. However, I consider that some additional specific amendments are required in order to appropriately give effect to the RMA and ensure that the provisions are

practical for infrastructure providers to implement; ensuring there is flexibility to allow for the continued operation, maintenance, upgrade and development of the State Highway Network.

- 1.6 It is concluded that, in my view, the amendments as set out in this evidence, enable the Freshwater parts of the PORPS to appropriately give effect to the NPSFM and as such, achieve the purpose of the RMA by:
- a Appropriately managing the adverse effects from the use, maintenance, upgrade and development of the State Highway Network, and multi-modal transport systems, ensuring there is flexibility for infrastructure providers such as Waka Kotahi; and
 - b Providing for the use, maintenance, upgrade and development of the State Highway Network and multi-modal transport systems whilst also protecting outstanding and significant values of outstanding water bodies.

2 Qualifications and Experience

- 2.1 My full name is Aileen Mary Crow. I am employed by WSP Limited (**'WSP'**) as a Senior Planner based in Dunedin. I hold the qualification of a Bachelor of Science (Ecology and Natural Resource Management) with First Class Honours from Massey University, Palmerston North. I am an Associate member of the New Zealand Planning Institute.
- 2.2 I have over thirteen years' experience in planning practice both in New Zealand and the United Kingdom, primarily as a consultant planner, during which time I have undertaken both consenting and policy planning work. More specifically, I have provided advice to network utility clients in relation to the preparation of policy documents, including preparing submissions, further submissions and presenting evidence on behalf of clients such as Waka Kotahi, Transpower New Zealand Limited and Aurora Energy Limited. This advice has been on various policy documents, including the Proposed Otago Regional Policy Statement (2015); Proposed Queenstown Lakes District Plan; Proposed Dunedin City District Plan (2GP); and the Proposed Canterbury Regional Policy Statement.
- 2.3 I have also assisted Councils in the preparation of policy documents, such as various plan changes for Environment Canterbury relating to water quality and quantity, as well as writing section 32 reports. I have prepared and processed numerous applications for resource consents and notices of requirement for designations, including making recommendations on consent applications to hearing panels.

- 2.4 I have been engaged by Waka Kotahi to assist in its review of the PORPS and consider the effectiveness of the outcomes proposed. In this capacity I have:
- a assisted with the preparation of Waka Kotahi further submissions on the non-freshwater parts;
 - b attended the three pre-hearing meetings for Chapter 9: Land and Freshwater on 27th and 30th June 2022;
 - c attended and presented evidence at the hearing for the non-freshwater parts (Chapter 9: Land and Freshwater); and
 - d assisted with the preparation of the primary submission of Waka Kotahi and further submissions by Waka Kotahi on the freshwater parts.
- 2.5 I am familiar with the roles and responsibilities of Waka Kotahi, having acted for, or advised, Waka Kotahi on both statutory and policy planning matters over the last thirteen years.
- 2.6 I am familiar with regional policy statement approaches to providing for infrastructure across New Zealand through my work for Waka Kotahi and other network utility operators.

3 Code of Conduct

- 3.1 While these proceedings are not before the Environment Court, I confirm that I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court's Practice Note 2023. I have complied with the Practice Note when preparing my written statement of evidence. My qualifications as an expert are set out above.
- 3.2 The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence to follow. The reasons for the opinions expressed are also set out in the evidence to follow.
- 3.3 Unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

4 Scope of evidence

- 4.1 My evidence addresses the submissions and further submissions of Waka Kotahi on the parts of the PORPS considered to be a Freshwater Planning Instrument

under section 80A of the RMA, with specific reference to the relief sought in relation to the following provisions:

- a LF-VM-O2 and LF-VM-O5 – the clauses have now been included as part of new LF-FW-O1A – Region-wide objective for freshwater
- b LF-FW-P15 – Stormwater discharges
- c LF-FW-M7 – District plans

4.2 I have considered the following documents when preparing my evidence:

- a the RMA;
- b the NPSFM 2020;
- c the National Policy Statement on Highly Productive Land 2022 ('**NPSHPL**');
- d the partially Operative Otago Regional Policy Statement 2019;
- e the proposed Otago Regional Policy Statement 2021 ('**PORPS**') including the associated Summary of Decisions Requested;
- f the Section 32 report and appended documents;
- g submissions and further submissions of a number of parties, particularly those related to infrastructure matters or land holding that are traversed by the assets of Waka Kotahi;
- h the further submissions on the submission of Waka Kotahi; and
- i the Section 42a Hearing Report (dated 2 June 2023).

5 Relevance of Freshwater Parts to Waka Kotahi

5.1 As described in the Evidence in Chief of **Mr Peter Robinson** for the non-freshwater parts, Waka Kotahi manages a number of assets in, under, on and over the freshwater environment, including bridges and culverts located within significant water bodies in the Otago region (such as the Clutha River / Mata-Au, Taieri River, Kakanui River and Big Kuri Creek) as well as the unnamed tributaries of these large water bodies. Waka Kotahi also undertake various maintenance and upgrade activities within water bodies in the Otago region, particularly after large flood events where assets have been damaged, or where debris may need to be cleared.

- 5.2 Waka Kotahi also work closely with its partners in creating multi-modal transport systems (walking, cycling and public transport) across New Zealand, such as new walking and cycling bridges over water bodies or increasing facilities for public transport.
- 5.3 **Mr Robinson** describes the importance of transport infrastructure located in, on, under or over water bodies, which includes the operational and functional need for transport infrastructure to traverse water bodies in order to service the Otago region, as well as connect the region to the rest of New Zealand.
- 5.4 As described by **Mr Robinson**, Waka Kotahi relies on provisions which allow it to effectively and efficiently manage its infrastructure in water bodies, as well as upgrade and develop future transport assets where required. **Mr Robinson** also explains that Waka Kotahi relies on a range of resource consents for operation and maintenance, which are due to expire within 10 years.

6 Higher order documents

- 6.1 I have considered higher order policy direction relating to the freshwater environment, particularly the NPSFM.
- 6.2 In relation to the PORPS and the relief sought by Waka Kotahi in relation to Chapter 9, I consider the following objectives and policies of the NPSFM are of particular relevance:
- a **Objective 1;**
 - b **Policy 4:** Freshwater is managed as part of New Zealand's integrated response to climate change;
 - c **Policy 8:** The significant values of outstanding water bodies are protected; and
 - d **Policy 15:** Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement.
- 6.3 In a general sense, the PORPS (freshwater and non-freshwater parts), in giving effect to the NPSFM, should achieve the following:
- a Protect the significant values of outstanding water bodies, whilst also enabling communities to provide for their social, economic and cultural well-being. The assets of Waka Kotahi are critical to ensuring communities can

provide for their social, economic and cultural well-being as the network of State Highways allow people to move around, whether for economic or social well-being reasons.

- b Manage freshwater as part of New Zealand's integrated response to climate change, which includes undertaking repairs and upgrades to Waka Kotahi assets which may be damaged due to large flood events, or to upgrade the assets to protect them from climate change in the future.

7 Freshwater parts of the PORPS

LF-VM-O2 – Clutha Mata-au FMU vision; and LF-VM-O5 – Dunedin & Coast FMU vision

- 7.1 The submission of Waka Kotahi generally supports Objectives LF-VM-O2 and LF-VM-O5 but seeks that the clauses relating to “*no further modification of the shape and behaviour of the water bodies*” be amended to provide some flexibility in order to allow modification of water bodies in appropriate circumstances.
- 7.2 As part of its role in delivering a safe and efficient transport network, there is sometimes the need for Waka Kotahi to modify the shape and / or behaviour of a water body in order to protect an existing State Highway from damage, particularly from erosion and scour. For example, a large flood event may cause the banks of a water body to erode, and it may also change the behaviour of a water body by directing the flow of water towards the banks where a State Highway is located. Waka Kotahi must subsequently undertake works within the water body to reshape the water body as well as train the water to flow away from the State Highway to ensure it is not further eroded and damaged. This would be considered “*modifying the shape and behaviour of a water body*” under Objectives LF-VM-O2 and LF-VM-O5 and thus would not be allowed.
- 7.3 The Section 42a Hearing Report recommends removing clauses (7)(c)(i) and (4) from Objectives LF-VM-O2 and LF-VM-O5 and inserting them into a new region-wide objective (LF-FW-O1A).
- 7.4 I have therefore discussed these clauses below as part of my discussion on Objective LF-FW-O1A.

LF-FW-O1A – Region-wide objective for freshwater (3)

- 7.5 The Section 42a Hearing Report recommends inserting a new region-wide objective for the freshwater section, LF-FW-O1A.

- 7.6 I support the inclusion of a new region-wide objective as it will remove a lot of the duplication contained within the Visions objectives.
- 7.7 In terms of clause (3) of LF-FW-O1A, which seeks that “*indigenous species can migrate easily and as naturally as possible*”, Waka Kotahi generally support this clause, but I consider that amendments are required to ensure this clause is consistent with Section 3.26(1) of the NPSFM, and to recognise that instream structures play a role in maintaining, and improving, fish passage.
- 7.8 Section 3.26(1) of the NPSFM specifically directs every regional council to include the following fish passage objective in its regional plan (or words to the same effect):
- “The passage of fish is maintained, or is improved, by instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.”*
- 7.9 Waka Kotahi is required to provide for fish passage when undertaking works within water bodies, both during the construction and operational stages. Examples of this include several culverts that have recently been replaced within upstream tributaries located under State Highway 8, near Roxburgh. These culverts were badly damaged during storm events and required complete replacement. The water bodies discharge into the Clutha River / Mata-au and therefore are considered a migration route for indigenous fish species.
- 7.10 Waka Kotahi provided for fish passage during the construction stage, utilising bypass pipes when the waterbodies were diverted, and the replacement culverts were designed for effective fish passage, maintaining but sometimes improving fish passage.
- 7.11 However, these fish passage structures may not be considered to be “as natural as possible” under clause (3) of LF-FW-O1A as they are man-made structures that are not found naturally within the water bodies. In my opinion, clause (3) does not recognise the value that instream structures can play in providing for fish passage, particularly as instream structures (such as a replaced culvert) can sometimes improve fish passage from what was previously provided.
- 7.12 The Section 42a Hearing Report states that “*maintaining connections between freshwater habitats and migration routes is essential*”, and the Kāi Tahu ki Otago principles in Table 5 of the Section 42a Hearing Report include “*the ability for indigenous species to migrate easily*”.

7.13 In my opinion, the emphasis within clause (3) of LF-FW-O1A should be that indigenous fish species can migrate easily both within and between catchments, whether this is via natural methods, or via instream structures which can maintain or even improve fish passage.

7.14 I therefore recommend that clause (3) be amended as follows, which would ensure it is more consistent with Section 3.26(1) of the NPSFM:

“indigenous species can migrate easily within and between catchments ~~and as naturally as possible~~”

LF-FW-O1A – Region-wide objective for freshwater (4)

7.15 In terms of clause (4) of LF-FW-O1A, the submission of Waka Kotahi sought the following changes to clauses (7)(c)(i) and (4) of Objectives LF-VM-O2 and LF-VM-O5:

(i) minimise ~~there is no further~~ modification of the shape and behaviour of the water bodies and promote opportunities to restore the natural form and function of water bodies, ~~are promoted~~ wherever possible,

7.16 The Section 42a Hearing Report recommends the following new clause (4) for Objective LF-FW-O1A:

“the natural character, including form and function, of water bodies reflects their natural behaviours to the greatest extent practicable”

7.17 I support the recommended clause as it now provides some flexibility for the form and function of waterbodies to be altered. However, I do not support the words “to the greatest extent practicable” as in my opinion, this is open to interpretation and is a subjective test. My concern with these words is that everything could potentially be considered to be to the greatest extent practicable, without taking into account factors such as cost or identified hazard risks.

7.18 As stated earlier in paragraph 7.2, Waka Kotahi sometimes has to alter the form and function of a water body in order to protect an existing State Highway from damage, particularly from erosion and scour. Under the words “to the greatest extent practicable”, Waka Kotahi may be directed to maintain the natural character of a water body to the greatest extent practicable, even if the future cost of repairing the damage caused from that water body is excessive, or even if there is an identified hazard risk if the water body is not altered.

7.19 I consider that the words “where practicable” are more appropriate as these words are consistent across the PORPS and is also a phrase commonly used in planning.

7.20 I therefore recommend the following changes to clause (4) of LF-FW-O1A:

“the natural character, including form and function, of water bodies reflects their natural behaviours ~~to the greatest extent~~ where practicable”

LF-FW-P15 – Stormwater and wastewater discharges

7.21 The Waka Kotahi submission was concerned with clause (2)(b) of LF-FW-P15, which required all stormwater to be discharged into a reticulated system, where one is available. This would require indirect stormwater discharges from the State Highway, which may currently discharge onto or into land where they may enter groundwater, to be discharged into a reticulated system, which is not practicable.

7.22 The Section 42a Hearing Report recommends the following changes:

(b) all stormwater to be discharged into a reticulated system, where one is made available by the operator of the reticulated system, unless alternative treatment and disposal methods will result in improved outcomes for fresh water,

7.23 I agree with the recommended changes as it allows for alternative treatment and disposal methods, such as swales and infiltration basins, if they will result in improved outcomes for fresh water. Waka Kotahi regularly uses these stormwater treatment and disposal methods when upgrading or constructing new State Highways.

7.24 The recommended changes also accept the relief sought from Waka Kotahi of discharging into a reticulated system, where one is made available by the operator of the system, which I support.

LF-FW-M7 – District plans

7.25 The Waka Kotahi submission is concerned by clause (2), which states that district plans must include provisions to avoid the adverse effects of activities on significant and outstanding waterbodies.

7.26 The submission of Waka Kotahi states that the word “avoid” is a strong directive and was interpreted in the *EDS v New Zealand King Salmon* Supreme Court case as meaning “not allowing” or “preventing the occurrence of”. This results in the method directing territorial authorities to prepare or amend district plans to

include provisions that would not allow any adverse effects on the significant and outstanding values of outstanding water bodies.

- 7.27 This is very restrictive for nationally significant infrastructure providers such as Waka Kotahi, who often have to undertake activities within outstanding water bodies that may create unavoidable adverse effects on significant or outstanding values (such as the new Beaumont Bridge in and over the Clutha River / Mata-Au). Waka Kotahi therefore requests flexibility within the method for nationally and regionally significant infrastructure.
- 7.28 The Section 42a Hearing Report agreed with the submission of Waka Kotahi and proposes the following recommendation:
- (2) include provisions to ~~avoid the adverse effects of activities on~~ protect the significant and outstanding values of outstanding water bodies*
- 7.29 I note that the method is now more consistent with Policy 8 of the NPSFM. However, as I noted in my evidence for the non-freshwater parts Chapter 9: Land and Freshwater (paragraphs 7.6 – 7.14) and as I discussed at the hearing, I am concerned that the method does not provide flexibility for nationally and regionally significant infrastructure.
- 7.30 My evidence for Chapter 9: Land and Freshwater (non-freshwater parts) covered my opinion on this matter in detail, but in summary, Waka Kotahi is concerned that the method directs district plans to include provisions which provide no flexibility for nationally and regionally significant infrastructure, particularly as author for the Chapter 9: Land and Freshwater Section 42a Hearing Report interpreted that “protect those values” does not include remedying or mitigating effects. Based on this, and given the lack of a definition for “protect” in the RMA or case law that I am aware of, I interpret that the intent of the method is that outstanding and significant values of outstanding water bodies are to be avoided via provisions in the District Plan.
- 7.31 I gave examples at the non-freshwater hearing (Chapter 9: Land and Freshwater) regarding how this method may work in practice – i.e. if Waka Kotahi proposed to construct a new walking and cycling bridge over the Kawarau River. Based on the existing Kawarau River Conservation Order, which lists outstanding values of the river such as “for its wild, scenic and other natural characteristics, for recreational purposes”, there is the potential that a new bridge may not be able to protect those scenic values as the bridge may have unavoidable effects on the river’s landscape and visual values that perhaps were more than minor. Therefore,

provisions within a District Plan which protects these significant and outstanding values may prohibit or restrict a new bridge being constructed.

- 7.32 The examples provided at the Chapter 9: Land and Freshwater hearing (non-freshwater parts) highlight how the activities of Waka Kotahi, whether it be a new bridge over an outstanding waterbody; maintenance activities; or undertaking emergency works after a natural hazard event such as a landslip or a flood, Waka Kotahi may not be able to “protect significant and outstanding values of outstanding waterbodies”. **Ms Sarah Ho’s** evidence on the Integrated Management Chapter for the non-freshwater parts references the need for clarity when there are competing provisions, particularly when significant infrastructure (such as the transport network) traverse sensitive environments which are protective in nature (paragraph 8.13).
- 7.33 **Mr Robinson’s** evidence highlighted that there are times when Waka Kotahi cannot avoid effects within water bodies and therefore some flexibility needs to be given, particularly given how many current and proposed Waka Kotahi assets are within outstanding waterbodies, and given the uncertainty around what “protect those values” actually means and requires in practice.
- 7.34 I also note that LF-FW-M7, as currently worded, is not consistent with section 6(a) of the RMA which aims to recognise and provide for the protection of lakes and rivers and their margins from inappropriate subdivision, use and development. The method does not allow for appropriate use and development, such as new or upgraded State Highways, to be located within an outstanding water body and have a temporary adverse effect on any significant or outstanding water bodies. Section 6 of the RMA allows the decision-maker to determine if an “appropriate” development, such as State Highways, should be located within outstanding water bodies. I also note that the direction in the PORPS is more stringent than what the NPSFM requires.
- 7.35 To ensure effect is given to Policy 8 of the NPSFW and the RMA, I recommend the following changes:

“(2) include provisions to protect the significant and outstanding values of outstanding water bodies from inappropriate use and development”

8 Conclusions

- 8.1 The PORPS must recognise and give effect to the NPSFM and must achieve the purpose of the RMA, which includes managing the use, development and protection of physical resources (such as the State Highway Network and multi-

modal transport systems) in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being. The Waka Kotahi submission and further submissions seeks amendments to achieve this.

- 8.2 In my view, the amendments as set out in this evidence enable the PORPS to appropriately give effect to the NPSFM and as such, achieve the purpose of the RMA by:
- a Providing for the use, maintenance, development and protection of State Highway assets, including multi-modal transport systems; and
 - b Appropriately managing the adverse effects from the use, maintenance, development and upgrade of the State Highway Network, including multi-modal transport systems, to ensure that the social, cultural and economic well-being of communities are provided for.

Aileen Mary Crow

28 June 2023