BEFORE THE ENVIRONMENT COURT
AT WELLINGTON

I MUA I TE KŌTI TAIAO O AOTEAROA
KI TE WHANGANUI-A-TARA

Decision No. [2020] NZEnvC 192

IN THE MATTER	of the Resource Management Act 1991
AND	of the direct referral of applications for resource consents for activities associated with Te Ahu a Turanga: Manawatū Tararua Highway project
BETWEEN	WAKA KOTAHI NZ TRANSPORT AGENCY (ENV-2020-WLG-000014) Applicant
AND	MANAWATŪ-WHANGANUI REGIONAL COUNCIL Regulatory Authority

Court: Environment Judge B P Dwyer
Environment Commissioner D J Bunting
Environment Commissioner R M Bartlett

Hearing: At Wellington on 24 August 2020

Counsel/Appearances:
D G Randal, T J Ryan, F R Wedde for Waka Kotahi NZ Transport Agency
S Johnston for Manawatū-Whanganui Regional Council
S J Ongley for the Director-General of Conservation
H J Tapper for Meridian Energy Ltd
W J Bent for himself
N S Shoebridge for himself

Date of Decision: 13 November 2020

Date of Issue: 13 November 2020

DECISION OF THE ENVIRONMENT COURT

Introduction

[1] In November 2018 Waka Kotahi NZ Transport Agency (Waka Kotahi) lodged applications with the Palmerston North City Council (PNCC), Tararua District Council (TDC) and Manawatū District Council (MDC) for Notices of Requirement (NoR) for a roading project called Te Ahu a Turanga: Manawatū Tararua Highway (the Project).

[2] On 24 May 2019 the Panel appointed by the three councils to consider the applications recommended that the NoR be confirmed as modified by the submission and hearing process and subject to conditions.

[3] Waka Kotahi, as requiring authority, confirmed the requirements on 7 June 2019, subject to the conditions.

[4] This decision was appealed to the Environment Court by the Department of Conservation (DOC), the Queen Elizabeth II National Trust (the QEII Trust) and affected landowners (who ultimately withdrew their appeal). The Environment Court confirmed the requirements, subject to amended conditions, by consent order dated 27 March 2020. In doing so the Environment Court modified the requirements to provide for an alignment that moved further north of the original NoR boundary (the Northern Alignment). The designations now have legal effect within the relevant district plans.

[5] On 11 March 2020 Waka Kotahi lodged applications with the Manawatū-Whanganui Regional Council (MWRC) for a suite of resource consents (non complying activity) for the construction, operation and maintenance of the Project. This application was accompanied by a request for the application to be referred directly to the Environment Court for determination.

[6] MWRC granted this request on 17 March 2020.

[7] The application was publicly notified on 25 March 2020, submissions closed on 24 April 2020 and MWRC released its s 87F report on 25 May 2020.

[8] Waka Kotahi filed its Notice of Motion with the Court on 26 May 2020 and its evidence on 12 June 2020.

[9] Eight parties joined the proceeding under s 274 of the Act. They are identified later.

[10] Following filing of the evidence, topic experts for the parties participated in a series of court-facilitated expert conferences which addressed erosion and sediment control, freshwater quality, air quality, terrestrial and freshwater ecology, hydrology and stormwater, natural character and landscape and planning.

[11] As well as this expert conferencing the Court facilitated three separate mediation sessions among the parties in the period from 22 June 2020 to 3 August 2020, the ultimate goal of these mediations being to resolve all points of difference among the parties and to reach agreement on a final set of resource consent conditions.

[12] Counsel for Waka Kotahi advised that the parties' discussions at the mediations were informed by a suite of evidence which included:[1]

- Waka Kotahi's evidence in chief dated 12 June 2020;
- MWRC s 87F report;
- The joint witness statements (JWS) signed by the experts representing Waka Kotahi, MWRC and (in respect of ecology) DOC, the QEII Trust, the Royal Forest and Bird Protection Society of NZ Inc (Forest and Bird) and Meridian Energy Ltd (Meridian).

[13] On the final day of mediations held on 3 August 2020 the parties in attendance reached agreement on a set of conditions which we will refer to as the 3 August 2020 Agreed Conditions.

[14] All parties signed the 3 August 2020 Agreed Conditions as having their consent.

[15] At the Court's request, in his Updated s 87F report dated 17 August 2020, MWRC's planner (Mr M L St Clair) provided an overview of the evidence which had been prepared since the filing of the Council's s 87F report and the extent to which issues identified as being in contention in the initial s 87F report had been resolved by agreements reached at the expert conferencing and mediations.

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[1] MOC dated 3 August 2020.

[16] At the hearing held on 24 August 2020 counsel for Waka Kotahi submitted a further set of conditions dated 21 August 2020. The introduction to this condition set noted that it contained a number of amendments to the 3 August 2020 Agreed Conditions. These included a number of updated drawing references to reflect recent revisions of the relevant drawings, Waka Kotahi's response to the Court's 17 August 2020 minute about air quality conditions and the correction of minor typographical errors.

[17] We will refer to these as the 17 August 2020 Agreed Conditions.

[18] Finally, Waka Kotahi attached a further set of conditions to its 8 September 2020 Reply Submissions. This set contained a small number of amendments in the form of clarifications to the 17 August 2020 Agreed Conditions which are discussed in the Conditions section of this decision.

[19] For ease of reference, in this decision, we will refer to the 8 September 2020 set as the Agreed Conditions.

Background to the Project

[20] The Project will replace the indefinitely closed existing State Highway 3 (SH3) through the Manawatū Gorge with a new stretch of rural state highway.

[21] The following summary of the Project's elements has been drawn from the evidence of the Project's Design Director (Mr T J Watterson). These elements are:

- Around 11.5 km of two-lane, median-divided, access-controlled rural state highway with crawler lanes over the majority of the length in each direction, connecting SH3 at Ashhurst with SH3 at Woodville via a route over the Ruahine Range to the north of the Manawatū Gorge;
- Connections to the existing highway network, by way of:
  - (i) a single lane roundabout at a new intersection of SH3 and State Highway 57 (SH57) to the immediate east of the current SH57 / Fitzherbert East Road / SH3 intersection (the Western Roundabout); and
  - (ii) a single lane roundabout at a new intersection of SH3 with local roads to the west of Woodville (the Eastern Roundabout).

- A four-lane bridge across the Manawatū River and the adjacent Palmerston North – Gisborne rail line at the western end of the Manawatū Gorge;
- A four-lane 'Eco Bridge' spanning an ecologically sensitive area located on the northern side of the Manawatū River, 100 m north of the river bank;
- A four-lane bridge crossing the Mangamanaia Stream with allowance for two farm tracks passing underneath located above the 1 in 10 year flood level;
- Underpasses to allow access from one side of the new alignment to the other:
  - (i) at Nutcracker Farm which is located to the south of the proposed state highway;
  - (ii) to connect the northern and southern sections of Te Āpiti Wind Farm, which overall occupies some 1,150 ha and is owned and operated by Meridian;
  - (iii) to connect the northern and southern sections of the Ballantrae Hill Country Research Station which is owned and operated by AgResearch Limited;
- A controlled access to Te Āpiti Wind Farm for over-dimension vehicles;
- Realignment of various access tracks within the Te Āpiti Wind Farm to maintain the network of accesses between the wind turbines for ongoing farm operations;
- A restricted (left in/out) access point to an adjacent farm/lot;
- A restricted (left in/out) access point to future stockyards;
- A replacement grassed airstrip and associated access track located approximately 100 m to the south of its current location (within the Andrew Bolton property);
- Creation of a Western Gateway Park at the western end of the Manawatū Gorge Scenic Reserve, to facilitate access to existing walking tracks in the Reserve and new recreational facilities provided by the Project, consisting of a parking area (comprising 80 car parks, a bus drop-off bay and parking space for up to three buses, landscaped open spaces connected by pathways, and relocation of existing toilet facilities);

- A shared use path (SUP) for pedestrians and cyclists commencing at the existing SH3 Ashhurst Bridge and terminating at the Vogel Street / Hampson Street intersection, Woodville - the general width of the SUP is to be 3 m with narrowing where it passes through a number of constraint points;
- Three safe stopping areas or SSAs accessed from the main alignment and leading to viewing platforms / rest areas accessed via footpaths as follows:
  (i) off the eastbound carriageway at about CH 5200 leading to a viewing platform / rest area via a 2 m wide, approximately 500 m long footpath;
  (ii) off the westbound carriageway at about CH 8150 leading to a viewing platform / rest area via a 2 m wide, approximately 200 m long footpath; and
  (iii) at about CH 11650 leading to a viewing platform/ rest area via a 2 m wide, approximately 200 m long footpath;
- A 2-3 m wide walking/cycling track linking the SSA at CH 5200 (which accesses a proposed lookout over Ashhurst) and a proposed new eco-experience area to the north of the Manawatū River and west of the Project alignment with this track to be formed through the repurposing of a construction access track;
- New walking tracks and boardwalks within the eco-experience area;
- A repurposed existing access track (the Western Access Track) to provide walking and cycling facilities alongside the Pohangina River over a distance of about 3 km linking the Project with Saddle Road;
- Nine stormwater treatment wetlands to be constructed at various locations along the length of the Project alignment;
- A series of stormwater swales, roadside drainage channels and sediment basins also to be constructed at various locations along the length of the Project alignment;
- Culverts to reconnect streams crossed by the proposed works;
- Stream diversions to recreate and reconnect streams; and
- Spoil disposal sites at various locations in the vicinity of the Project alignment.

[22] In addition to these permanent works, temporary construction-related elements of the Project include:

- Construction staging for the development of the Manawatū River Bridge and the Eco Bridge;
- Construction yards at various locations to provide for car parking, office space, staff rest and well-being facilities, stores, minor vehicle and machinery repairs and fuel storage;
- Laydown areas at various locations;
- Stockpile areas at various locations;
- Construction access tracks; and
- A temporary western car park to provide car parking and toilet facilities for users of the Northern Manawatū Gorge Scenic Reserve during the construction phase. This facility is to be relocated several times during the construction period to allow for the safe management of the construction activities.

[23] Physical constraints which have influenced the design of the Project have included its topographic and geological setting, the presence of a number of sensitive cultural and ecological areas (including legally protected areas) and the need to maintain existing land uses such as farming, agribusiness, the operation of the Te Āpiti Wind Farm and the operation of Transpower's national grid transmission lines.

[24] The geomorphology along the Project alignment is strongly controlled by the tectonic setting of the lower North Island. At the western end there are three faults which run in a more or less north-easterly direction and cross the Manawatū River while there are three further faults of note at the eastern end. Within this geomorphological setting the engineering design of the Project has placed particular emphasis on achieving resilience against potential land instability and earthquakes.

[25] The land use adjacent to the new highway is predominantly agricultural, with the turbines of Te Āpiti Wind Farm scattered across its upland reaches. At its western end the alignment crosses an area of wetland and associated forest on low-lying land and as it passes over the Ruahine Range it crosses the headwaters of catchments that drain to the Manawatū River. These areas variously support indigenous vegetation and both terrestrial and aquatic fauna.

[26] The freshwater, indigenous vegetation, ecological habitats and natural character effects of the Project (including the offsetting, compensation and pest control measures proposed for situations where residual effects on biodiversity remained following mitigation) were key issues in contention among the experts for various parties at the time the s 87F report was prepared. These issues and their resolution are discussed in detail in the terrestrial and freshwater ecology sections of this decision.

Submissions and s 274 Notices

[27] MWRC received 19 submissions on the Project as follows:

- Seven submissions supported the Project without qualifications, these being from the Manawatu and Tararua District Councils, the Palmerston North City Council, Business Central (a member organisation of Business NZ in the central North Island) and three individual submitters (Mr C Westwood, Mr K C Barnett and Mr G D Speedy);
- Three individual submitters (Mr L G Klinkhamer, Mr N Shoebridge and Mr J Bent) opposed the project for various reasons;
- Two utility companies, Transpower NZ Ltd (Transpower) and Meridian opposed the Project on the basis that it could have potential adverse effects on their existing infrastructure in the vicinity of the Project;
- Three organisations (the QEII Trust, Forest and Bird and DOC) opposed the Project on the basis that it would have adverse freshwater, indigenous vegetation, ecological habitat and natural character effects;
- One individual (Mr S D Hill) opposed the Project on the basis of that it would have adverse ecological and wahi tapu effects;
- Two submissions, one from the New Zealand Automobile Association (Manawatū Branch) and one from Heritage New Zealand Pouhere Taonga (Heritage New Zealand) supported the Project on the basis that agreement could be reached with Waka Kotahi on a single issue (in each case) identified in their submissions;
- One submission from the Te Āpiti Ahu Whenua Trust, the owner of Parahaki Island in the Manawatū River, requested that the consenting be put on hold while ownership issues relating to Parahaki Island were resolved in the Māori Land Court.

[28] Of the 19 parties and individuals who made submissions, eight elected to join the application as s 274 parties, these being Mr Shoebridge, Mr Bent, the QEII Trust, Forest and Bird, DOC, Transpower, Meridian, and the Te Āpiti Trustees. In addition, Heritage New Zealand's s 274 Notice was provided to Waka Kotahi but inadvertently not filed with the Court.[2]

[29] Mr St Clair noted in his Updated s 87F report that none of the seven parties who made submissions in support of the Project raised specific issues. We agree with Mr St Clair that in the absence of any issues having been raised, we do not need to comment further on these submissions.

[30] Conversely, for those parties who were in opposition, we have examined the reasons for their opposition and Waka Kotahi's responses and set out our findings on each.

Mr Klinkhamer

[31] Mr Klinkhamer submitted that instead of constructing the new highway along Waka Kotahi's chosen alignment, it would have been preferable to have constructed an elevated viaduct more or less on the route of the existing highway through the Manawatū Gorge similar in form to the new Karakoram Highway bridge recently constructed in Pakistan.

[32] In response Mr Watterson said that at the long list stage where options were being considered by the design team, such a structure had been investigated but that it had been discounted on the basis of its very high cost ($1.1 to $1.4 billion), its significant adverse environmental effects on natural character and the river eco-system and resilience issues which would arise from the ongoing risk of damage to the structure from the landslip prone slopes along the Gorge.

[33] We accept Mr Watterson's evidence (which was not disputed) that a viaduct as suggested by Mr Klinkhamer had been considered by Waka Kotahi and discounted as being non-viable.

[2] This is discussed below in the section on Heritage New Zealand's submission.

Mr Shoebridge

[34] Mr Shoebridge and his mother's property[3] is located at 49846 Napier Road (SH3) near Woodville. The property is in close vicinity to the Project's proposed new Eastern Roundabout.

[35] Mr Shoebridge opposed the Project for a number of reasons, primarily related to the potential for the Project to cause unacceptable noise and (enhanced) flooding on his property. He also raised concerns about air and light pollution.

[36] In his s 274 notice Mr Shoebridge was critical of Waka Kotahi and Mr L W D Dalzell (Waka Kotahi's Owner Interface Manager) for not having fixed long-standing flooding of his property which he says has been caused by run-off from the existing highway. We note that solving existing flooding problems is outside the scope of the current resource consent applications and that we cannot assist Mr Shoebridge in this regard. We also note however that Waka Kotahi has committed to exploring potential solutions for drainage works on Mr Shoebridge's property to assist with resolving these existing drainage problems.[4]

[37] With respect to noise, Mr Shoebridge is concerned about the proximity of the edge of the new Eastern Roundabout to the closest corner of his home and the adverse effects of the noise which will arise from vehicles braking/accelerating at the roundabout.

[38] In response Mr Watterson advised that Mr Shoebridge's home is currently about 23 m from the edge of the existing SH3 Napier Road whereas the closest edge of the new roundabout will be about 149 m away. The key measures proposed in the designation conditions for mitigating the adverse effects of noise on Mr Shoebridge's property include modifications to an existing noise bund, using low noise asphaltic surfacing on the roundabout and eastern slope of the main alignment, maintaining a separation distance of at least 100 m between the proposed roundabout and the home and incorporating geometric alignments which moderate vehicle speeds and driver behaviour through the roundabout. In addition, Designation Condition 39

3 Mr Shoebridge advised that his mother Barbara Cooke is the owner of the property.
4 Waka Kotahi legal submission at [236].

requires noise bunds to be constructed on Mr Shoebridge's property prior to any construction activities occurring in the vicinity of the property.

[39] The designation conditions (and others) on noise have been already been considered and approved under the NoR process and are not open to us to reconsider in this resource consent decision. We have included reference to them here for completeness to assure Mr Shoebridge that they have/had not been overlooked.

[40] Mr Shoebridge also has a major concern that the new highway will exacerbate the flooding which currently affects his property.

[41] In the context of the existing environment Waka Kotahi's hydrologist (Dr J A McConchie) advised that during a 1% AEP flood flow design event (a flood with a 1% annual exceedance probability) increased to allow for the potential effects of climate change to 2120, SH3 acts as a bund and intercepts the free flow of flood water as it crosses the Manawatū River floodplain on which Mr Shoebridge's property is located. There are two culverts under the highway which connect the depressions and drainage pathways on either side of the highway. Hydraulic modelling has shown that under this 1% AEP extreme flood flow event, all of the flood waters will flow within the existing drainage pathways and that none of Mr Shoebridge's buildings will be affected.

[42] With the new highway and Eastern Roundabout in place, the hydraulic modelling has shown that there will be a slight reduction in the flood levels in these existing drainage pathways and that there will also be less 'ponding' on the upstream side of the existing highway which will reduce the potential for flood flows to overtop the highway and flow onto Mr Shoebridge's property.

[43] In Dr McConchie's opinion, with the Project in place there will be a slight reduction in the flood hazard for Mr Shoebridge's property.

[44] Waka Kotahi's stormwater designer (Mr D W Hughes) agrees with Dr McConchie that the Project including the Eastern Roundabout will not exacerbate the flooding which currently occurs on Mr Shoebridge's property. In addition, responding to Mr Shoebridge's concern about the quality of the stormwater which will flow along the drainage pathways through his property, Mr Hughes advised that all run-off from the Eastern Roundabout will be discharged through wetland swales designed to

provide treatment, extended detention and peak-flow attenuation up to and including a 10- year ARI flood event.

[45] Dr McConchie's and Mr Hughes' conclusions on the reduced flood hazard once the new Eastern Roundabout at Mr Shoebridge's property has been constructed have been endorsed by MWRC's stormwater and hydrology engineer, Mr J D Bell.

[46] We accept Dr McConchie's and Mr Hughes' evidence as well as that of Mr Bell that the Project, including the Eastern Roundabout, will not exacerbate the flooding which currently affects Mr Shoebridge's land. In doing so we repeat Mr Dalzell's advice that Waka Kotahi will explore potential solutions for drainage works on Mr Shoebridge's property to assist with resolving the drainage issues which presently exist.

Mr Bent

[47] Mr Bent opposed the designation as notified, seeking that his concerns be addressed through appropriate consent conditions. In brief, these concerns were that there had been inadequate consideration given to the adverse effects which would arise from contaminated run-off from sources such as tyres, brakes and oils from vehicles using the new highway. He sought also that Project structures be designed and constructed to provide long-term environmental benefit without further modifications or additions.

[48] Waka Kotahi's water quality expert (Mr K D Hamill) agreed with Mr Bent that contaminated run-off from the new highway could contain a range of contaminants which would affect stream water quality if not adequately treated. In this context he said that the Project incorporated long-term systems for treating all stormwater run-off from the highway. This was in contrast with the current situation where there was no specific stormwater treatment on either the Saddle Road or the old Manawatū Gorge route. The design of the Project would result in improved water quality in the Manawatū River, the Pohangina River and most catchments along its route. Mr Hamill said that while there was the potential for some treated stormwater discharges to cause a decline in the water quality in a small number of sub-catchments, the likely effects of these would be small because discharges would be intermittent and the quality would be within relevant guidelines.

[49] This evidence on the effects of highway run-offs on water quality in the receiving rivers was confirmed in the 3 July 2020 JWS by the four erosion, sediment control and freshwater quality experts (including Mr Hamill) engaged by Waka Kotahi and MWRC, as discussed in more detail later in this decision.

[50] With respect to Mr Bent's second concern, Mr Watterson advised that all bridge structures along the highway would be designed to have a design life of 100 years in accordance with Waka Kotahi's Bridge Manual with each having sufficient width to accommodate the proposed four traffic lanes thereby precluding the need for future modification. We accept Mr Watterson's advice that Waka Kotahi's design responds to Mr Bent's concern.

[51] At the PHC held on 5 August 2020 Mr Bent confirmed that the Agreed Conditions resolved all of his concerns about the Project and we take these no further.

Transpower

[52] In its submission and s 274 Notice, Transpower raised concerns about the adequacy of the separation distances at the Eastern Roundabout between the locations and heights of roadside features such as signage and lighting poles and its 110kV National Grid Transmission Line. It was also concerned about the potential for heavy equipment and machinery to come into contact with its grid assets during the construction of the roundabout, the potential for dust to adversely affect its assets during bulk earthworks and how access to its assets was to be maintained during construction.

[53] Following discussions with Waka Kotahi on these issues, in a joint memorandum to the Court dated 6 July 2020, counsel for Waka Kotahi and Transpower advised that the two parties had reached agreement on the resolution of all of Transpower's concerns. This agreement was reflected in agreed amended wording for conditions GA(1) (c), NG1 and NG2 (the latter two managing the effects of the Project on the National Grid).

[54] In summary, condition NG1 requires that:

- A minimum distance of 50 m is maintained between the edge of any construction works and the centreline of Transpower's transmission line at all times;

- Earthworks are managed to ensure that a minimum vertical clearance of 10 m is maintained at all times between the transmission line conductors and the finished road level of the new highway;
- Access to Transpower's assets is maintained at all of the times specified in the condition;
- Construction and associated activities are designed and undertaken to comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001).

[55] Under condition NG2 a National Grid Management Plan (NGMP) is to be prepared by the consent holder in consultation with Transpower prior to any works being undertaken within 50 m of Transpower's assets. This plan must demonstrate how the objectives set out in the condition are to be achieved for the duration of the construction of the Project.

[56] With agreement having been reached on the wording for these conditions, counsel for both parties confirmed in their 6 July 2020 joint memorandum that Transpower no longer opposed the Project and instead took a neutral position with respect to the application for the resource consents for it.

[57] A further condition NG3 was added later setting out the basis on which amendments to the NGMP are to be undertaken. Primarily this requires that if any amendment is proposed to the NGMP, there must be prior consultation with Transpower before the amended management plan is submitted to MWRC for certification.

[58] In an email to the Court and the other parties dated 3 August 2020, counsel for Transpower confirmed that it did not intend to take further part in the proceedings, on the basis that by agreement among the parties to the mediations, the agreed outcomes of the mediations were to form part of the conditions.

[59] We acknowledge Transpower's formal advice that all of the concerns identified in its submission and s 274 Notice have been resolved to its satisfaction through the wording of conditions NG1 -NG3 in the Agreed Conditions.

Meridian

[60] In its submission and s 274 Notice, Meridian raised concerns that planned new habitat to be constructed on the Te Āpiti windfarm site by Waka Kotahi would attract avifauna and result in increased bird strikes on its turbines. This planned habitat included wetland devices, stream diversions with riparian planting and landscape planting adjacent to the highway as part of the Project's ecological offset/compensation package for streams displaced by the Project.

[61] Following a number of discussions, a site visit and conferencing between them, the terrestrial and wetland ecology experts (Dr L S Bull for Meridian and Dr M J Baber for Waka Kotahi) recorded in their JWS dated 20 June 2020 that they had reached agreement to reduce the extent of the area of the proposed wetland devices from 0.75 ha to 0.325 ha, the extent of the proposed stream diversions from 2,874 m to 1,078 m along the road edge, the associated riparian planting margins to no more than 10 m wide on each bank and for the stream diversions to be formed with either rock lining or as grassed cut off drains.

[62] Having agreed these reductions, the two experts identified the consequential changes which would be required to be made to a number of the Project plans. They noted in their JWS that amended plans incorporating these changes had been reviewed and agreed to by both Meridian and Waka Kotahi.

[63] While they did not specifically say so in their JWS, it is our understanding that the reductions in the ecological mitigation measures would resolve Dr Bull's concerns about the potential for the Project to result in increased bird strikes at the windfarm.

[64] As well as bird strikes Meridian also raised concerns about the potential for the Project's bulk earthworks to adversely affect its turbine foundations arising from ground water drawdown, creep, settlement, long term consolidation and seismically induced settlements.

[65] Following discussions between Meridian and Waka Kotahi, these concerns were resolved through condition LD5 in the Agreed Conditions. Under this condition, stockpiles of topsoil must be located at least 100 m away from the base of any turbine. In addition, prior to undertaking any earthworks within 160 m of the base of any turbine, expert written technical, engineering and geotechnical advice must be

provided by the consent holder to Meridian on the potential impacts of the safe and efficient operation of the turbine including measures to be put in place to manage the identified potential effects.

[66] In his 24 August 2020 legal submission, Mr Tapper (counsel for Meridian) advised that unlike the earlier alignment of the new highway, the designated alignment would not require any of Meridian's turbines to be removed and that while the Project did not give effect to the National Policy Statement for Renewable Energy Generation, equally it was not repugnant to this Statement.

[67] We are satisfied that Meridian's objections to the Project at the time the s 87F report was written have been resolved through a combination of reducing the areal extent of the wetlands on its land, limiting the width of riparian planting to no more than 10 m on the banks of all streams on the windfarm and limiting the proximity of the Project's earthworks to the nearest turbine, all as provided for in the amended plans and the Agreed Conditions.

QEII Trust, Forest and Bird and DOC

[68] Concerns over the Project adversely affecting freshwater, indigenous vegetation, ecological habitats and natural character were raised in the submissions and s 274 Notices received from the QE II Trust (for QEII Trust covenanted land along the route), Forest and Bird and DOC.

[69] With respect to QEII Trust covenanted areas along the Project route, Mr Dalzell advised that there were four covenanted areas which had been avoided through route reassessment and selection processes and that following the Council designation hearing, the impacts on the two QEII Trust covenants still affected by the Project had been further reduced through a modification to the alignment. As a result of these amendments, the Project would now impact on less than 1 ha of QEII Trust covenanted land as opposed to the original 3.6 ha.

[70] Court-facilitated expert conferencing and mediations leading up to the hearing involved extensive discussions of the terrestrial and freshwater ecology issues raised by the QEII Trust, Forest and Bird, DOC and MWRC. We discuss the detail of these issues and the resolutions reached among the parties in the ecology section of this decision.

Dr Hill

[71] Dr Hill (a submitter and ecologist from Palmerston North) opposed the Project on the basis of what he saw to be its adverse ecological and cultural effects. While Dr Hill was not a s 274 party and did not participate in the conferencing or mediations, we are satisfied that his concerns on ecology have been satisfactorily addressed and responded to through these processes. His concerns about the adverse impacts of the Project on waahi tapu along the route including Te Ahu a Turanga Peak have also been addressed to our satisfaction as set out in the cultural effects section of this decision.

New Zealand Automobile Association

[72] In its submission, the NZ Automobile Association (Manawatu District)[5] sought confirmation from Waka Kotahi that there would be a four-lane highway along the full length of the new alignment. Waka Kotahi responded that the final design did in fact incorporate a median-separated carriageway with two lanes in each direction over the full length of the route (incorporating crawler lanes on the steepest sections) except for short single-lane connecting lengths at the Eastern and Western Roundabouts. This response resolved the Automobile Association's concern.

Heritage New Zealand

[73] While supporting the Project, Heritage New Zealand noted in its submission that it would expect to receive an application from Waka Kotahi for an archaeological authority and that it was important for the conditions to provide for this authority, an accidental discovery protocol and an associated management plan.

[74] In an email to the Court dated 11 August 2020, Heritage New Zealand advised that it had prepared a s 274 notice confirming its submission and that while this had been circulated to NZTA, for some "technology" reason during the Covid Level 4 lockdown period it had not been lodged with the Court. In its minute dated 12 August 2020 the Court acknowledged receipt of the email and advised Heritage New Zealand that it should take its own independent advice as to what it should do about this. In this same minute the Court stated that Heritage New Zealand could take some

[5] The NZAA Manawatu District was not a s 274 party.

comfort that in determining the application the Court was obliged to consider matters raised in submissions, pursuant to s 104(1) of the Act.

[75] Heritage New Zealand did not provide a further response to the Court and the parties on this matter. Mr St Clair advised in his Updated s 87F report that his understanding was that Heritage New Zealand was not seeking a waiver of time for filing its notice and that Waka Kotahi's application for an archaeological authority was underway.

[76] Condition AH1 sets out the requirements for an archaeological discovery protocol to apply, under which all work must cease in the event that activities authorised by the consents discover or disturb an archaeological site, koiwi tangata, or wāhi tapu. The condition then specifies follow up actions which must be undertaken before work can resume. The condition also notes that this protocol would not apply and would be superseded for any works which are subject to an archaeological authority granted by Heritage New Zealand.

[77] We accept that this condition is an appropriate response if the types of archaeological and historic heritage issues described in the condition were to be encountered on the Project.

Te Āpiti Ahu Whenua Trust

[78] The Te Āpiti Ahu Whenua Trust owns Parahaki, an island in the middle of the Manawatū River. The Trust advised that the island was an urupa with high cultural significance. The main part of the island is adjacent to the Project's proposed new Manawatū River bridge. Dr McConchie advised that there is potential for the bridge's central pier to be located on the island depending on whether the gravel accretion at the pier's location is considered to be part of the island. This is discussed in more detail in the hydrology section of this decision.

[79] In its submission the Trust advised that it had instructed its legal counsel to make an application to the Māori Land Court for the area of accretion to be recognised as part of Parahaki, the sole purpose of this being to uphold the mana of whenua and to protect the tranquil resting place of the Trust's ancestors.

[80] The submission requested that MWRC put the consent application on hold until such time as the accretion ownership question had been resolved. The submission noted that the Trust was in constructive negotiations with Waka Kotahi to support the Trust's ownership of the accretion.

[81] Subsequently, in its s 274 Notice, the Trust advised that it had agreed mitigation strategies with Waka Kotahi which when coupled with cultural off-setting had overcome its objection to the entire proposal. This had changed its position from being neutral to being in support of the Project.

Consents Being Sought[6]

[82] Waka Kotahi's planner (Mr D R McGahan[7]) acknowledged that despite the measures being taken to avoid or minimise adverse effects, the Project would still result in adverse effects on the environment which are more than minor in respect of:

- The cultural landscape, indigenous biodiversity, the mauri of the Manawatū River and catchment and access to cultural resources;
- The natural character of streams and their margins;
- Terrestrial ecology and loss of indigenous biodiversity values including those identified in Schedule F of the One Plan;
- Freshwater ecology, through the loss and modification of stream habitat.

That was the common position of all of the planning witnesses. We will return to the detail of the above effects in due course.

[83] Five consents have been sought for the construction phase of the Project and eight for the post construction phase.

Construction phase

[84] The construction phase consents being sought for durations of 10 years are:

- A land use consent pursuant to Rule 13-6 of the One Plan and sections 9(2), 14, and 15 of the RMA, as a restricted discretionary activity, for land disturbance and vegetation clearance (and associated diversion of

6 Waka Kotahi legal submission at [50] – [52].
7 McGahan EIC at [248].

water and discharge of sediment) within the Hill Country Erosion Management Area, but outside of a rare, at-risk or threatened habitat and not within 10 m of a watercourse.

- A land use consent pursuant to Rule 13-7 of the One Plan and ss 9(2), 14, and 15 of the RMA, as a discretionary activity, for land disturbance and vegetation clearance (and associated diversion of water and discharge of sediment) within 10 m of a watercourse, but outside of a rare, at-risk or threatened habitat.
- A land use consent pursuant to Rule 13-9 of the One Plan and s 9(2) of the RMA, as a non-complying activity, for earthworks and vegetation clearance within a rare habitat or threatened habitat.
- A discharge permit pursuant to Rule 13-9 of the One Plan and s 15 of the RMA, as a non-complying activity, for discharges of sediment during construction to a rare habitat or threatened habitat.
- A water permit pursuant to Rule 16-9 of the One Plan and s 14(2) of the RMA, as a discretionary activity, to take water (dewatering).

Post Construction/Enduring Resource Consents

[85] The following post construction phase consents being sought (some of which also enable construction activities) are required to remain in place post-construction for a maximum duration of 35 years:

- A land use consent pursuant to Rule 13-9 of the One Plan and s 13 of the RMA, as a non-complying activity, for activities (Bridge BR03, one stream diversion and five culverts) in the bed of any lake or river, within a rare habitat or threatened habitat.
- A water permit pursuant to Rule 13-9 of the One Plan and s 14 of the RMA, as a non-complying activity, to take and divert water (diversion and drainage) within a rare habitat or threatened habitat.
- A discharge permit pursuant to Rule 13-9 of the One Plan and s 15 of the RMA, as a non-complying activity, for discharges of stormwater (once operational from Wetland 03) to a rare habitat or threatened habitat.
- A discharge permit pursuant to Rule 14-30 of the One Plan and s 15 of the RMA, as a discretionary activity, for discharges of fill.

- A water permit pursuant to Rule 16-13 of the One Plan and s 14 of the RMA, as a discretionary activity, for the diversion of streams.
- A land use consent pursuant to Rule 17-3 of the One Plan and s 13 of the RMA, as a discretionary activity, for the placement of a bridge and associated disturbance, diversion, deposition and discharges, over the Manawatū River which is identified as a Schedule B – Site of Significance – Cultural.
- A land use consent pursuant to Rule 17-15 of the One Plan and s 13 of the RMA, as a discretionary activity, for the placement of a bridge and associated disturbance, diversion, deposition and discharges, over the Mangamanaia Stream which is identified as Schedule B – Value of Flood Control and Drainage.
- A land use consent pursuant to Rule 17-23 of the One Plan and s 13 of the RMA, as a discretionary activity, for the proposed culverts and associated disturbance, diversion, deposition and discharges, within watercourses, which do not comply with Rule 17-10.

[86] These consents have been assessed by Waka Kotahi and MWRC as a single bundle, with the most stringent activity status to apply. This means that the Project has an overall activity status of non-complying and that ss 104, 104B and 104D of the Act apply.

[87] Our evaluation of the Project in the context of these consents is set out in a later section of this decision.

Environmental Effects

[88] In this section of our decision we evaluate the evidence on the environmental effects of the Project.

Traffic and Transportation, Economic, Social and Cultural Benefits

[89] Mr D J Dunlop (Principal Transport Planner for Waka Kotahi) described the traffic and transport benefits of the Project. Drawing on this evidence, in its legal submission Waka Kotahi contended that from a traffic and transport perspective the Project will result in significant benefits which must be considered in the context of the

Court's determination of the resource consents. These positive transport and traffic effects and the key benefits were identified as being:[8]

(a) significant travel time savings, primarily as a result of the improvements in alignment and access efficiency attributed to the Project (Mr Dalzell adds that current inefficiencies are estimated to be costing more than $22 million per annum);
(b) redistribution of traffic demand from existing routes, providing a better environment for residents, pedestrians and cyclists on local roads, particularly in Ashhurst, on Saddle Road and on the Pahīatua Track;
(c) a high-quality and resilient alternative route to the existing non-state highway routes (with those other routes remaining available, and creating an additional overall resilience benefit);
(d) safety benefits, both in terms of significantly reduced demand and therefore crash risk for Saddle Road and Pahīatua Track, and the Project route itself being much safer than those alternatives;
(e) the provision of excellent facilities for pedestrians and cyclists, including the main separated shared use path; and
(f) a much-improved route for potential future public transport links.

[90] The submission then went on to quote from the AEE that these transport benefits will bring related economic, social and cultural benefits which will include:[9]

(a) the Project's safety performance will reduce the social consequences of injuries and death;
(b) providing better access to social infrastructure, such as Palmerston North Hospital, as well as for emergency vehicles;
(c) improved connectivity, modal choice, recreation benefits and tourism opportunities due to the shared use path and walking tracks;
(d) positive social effects by diverting traffic from Ashhurst and increasing traffic through Woodville (that is, returning traffic in both centres to what was experienced before the closure of the Gorge Road);
(e) supporting regional economic activities through reducing operating costs and travel times; and
(f) providing for enhanced socio-economic wellbeing through increased business activity and employment opportunities during construction.

8 Waka Kotahi legal submission at [88].
9 Waka Kotahi legal submission at [89].

Finding on Traffic, Transportation, Economic, Social and Cultural Effects

[91] We accept the evidence of Mr Dunlop and the submissions of Waka Kotahi as to the transport, transportation, economic, social and cultural benefits of the Project. No party contested those in these proceedings.

Hydrology and Hydraulics

[92] Expert evidence on the impact of the Project on the area's hydrology and hydraulics was provided by Dr McConchie on behalf of Waka Kotahi and Mr Bell for MWRC.

[93] The network of watercourses which will be crossed by the new highway will include[10]:

- Nine stormwater wetlands, ten stormwater wetland swales, ten flow-through treatment swales and 17 new sediment basins to treat stormwater from the new highway and cut slopes;
- 25 cross culverts and 8 access culverts to reconnect streams and to assist cross-catchment drainage;
- Approximately, 74 cut-off drains of varying size and shape to intercept and convey overland flow away from road embankments and to the appropriate cross culverts; and
- Approximately, 39 stream diversions of varying size and shape to recreate and reconnect streams and to assist cross-catchment drainage.

[94] Dr McConchie advised that the Project had been designed to respond to a 1% annual exceedance probability (AEP) rainfall or flood event, increased for the long-term potential effects of climate change to 2120.

[95] Dr McConchie considered that despite its relatively large scale, the Project's actual and potential effects on the area's hydrology would be minor because:

- The area potentially impacted by the Project (not just the footprint) is less than 0.3% of the Manawatū catchment (if the upper Mangamanaia sub-catchment is excluded).

[10] Bell s 87F report at [24].

- Relative to the existing land cover and land use changes which have already taken place, land use and land cover changes from the Project will be extremely small;
- Unlike many of the existing permitted land-use activities in the area, the actual and potential effects of the Project will either be avoided or managed and mitigated through the Project's proposed stormwater management and erosion and sediment control measures;
- Any effects during the construction of the Project will be very localised and will moderate and attenuate with increasing distance downstream of the Project;
- There will be several environmental benefits including the continuity of stream flow generation and flood hazard mitigation.

[96] Mr Bell's advice was that the potential for the Project's stormwater network to create or exacerbate flooding or erosion problems had been fully considered by Waka Kotahi's experts and that he agreed with Dr McConchie that any adverse hydrological effects from the network would be less than minor.

[97] With respect to the new bridge crossing of the Manawatū River, the central pier of the bridge is to be located on an area of accretion (an alluvial gravel fan) near the eastern-most part of Parahaki Island more or less in the middle of the river.[11]

[98] Dr McConchie advised that the bridge had been designed for two flood events, during construction when the effects of climate change will not apply and long term when they will. Under the long-term design flood (which is the key flood event from an effects perspective), the hydraulic analysis has shown that:

- A localised bow-wave some 1.4m high will form upstream of the central pier with this dissipating rapidly further upstream;
- Conversely, downstream there will be a slight reduction of up to 0.25m in the water level;
- During the design flood the presence of the new bridge would cause a slight reduction in the water level of up to 0.25m on the island with this

[11] Waka Kotahi legal submission at [102] stated that the Project would avoid Parahaki Island. Whether the area of accretion referred to by Dr McConchie is currently part of the island is unclear (see paras [78] – [81] above).

being generally restricted to the upstream gravel bar and the left bank of the river;

- There would be no change in the flow velocity across the island because of the relatively shallow depth of flooding and the island's vegetation cover;
- There would be potential for the deposition of sediment and accretion along the edge of the gravel bar at the upstream end of the island with this potentially mitigating the effects of future large floods on the island;
- The bridge would be designed to incorporate scour protection around its central pier, specifically to mitigate the risk of any scour occurring on the island.

[99] Dr McConchie's overall assessment (which was endorsed by Mr Bell) was that the new bridge would not result in any adverse hydrologically induced effects on Parahaki Island.

Finding on Hydrology and Hydraulics

[100] We accept the findings of the two experts (which were not disputed) that the hydrological and hydraulic effects of the Project on the network of water courses crossed by the new highway including the Manawatū River crossing will be less than minor.

Erosion, Sediment Control and Freshwater Quality

[101] With respect to stormwater runoff during construction of the Project, in their JWS dated 3 July 2020, Mr L A Brown and Mr K S Pearce (for MWRC) and Mr C R Stewart and Mr Hamill (for Waka Kotahi) agreed that bulk earthworks presented a risk of erosion and sediment release which if not properly managed would adversely affect stream water quality and aquatic life including reducing water clarity, increasing turbidity and potentially depositing sediment on stream beds.

[102] Having identified this risk, they agreed that the adverse effects of sediment releases into streams would be appropriately managed through the Erosion and Sediment Control conditions ES1 – ES10 if the following discharge targets were included in condition ES2:

a. Sediment retention devices shall be designed and operated to achieve the following targets when discharging, to be applied as triggers for response action in the Erosion Sediment Control Monitoring Plan (as required by condition ES8 (ES9 in the Agreed Conditions)):
   (i) Greater than 90% treatment efficiency across a rainfall trigger event; and
   (ii) A discharge clarity of greater than 100 mm measured by a black disc.

[103] They agreed also that condition ES8 (ES9 in the Agreed Conditions) should include the following requirements to be implemented in the Erosion and Sediment Control Plan:

a. The Erosion and Sediment Control Plan shall include details to achieve the following:
   (i) Continuous turbidity monitoring telemetered at the inlet and outlet of the two SRPs;
   (ii) Spot measurements for all sediment retention devices for turbidity, clarity and pH during rainfall events;
   (iii) Management response related to exceedances of the triggers in ES2; and
   (iv) Reporting procedures.

[104] On the basis that these amendments were incorporated in the two conditions, the experts agreed that the overall Erosion and Sediment Control conditions represented an appropriate response for controlling erosion and sediment releases during the construction phases of the Project.

[105] As noted, condition ES8 is now condition ES9 in the Agreed Conditions. We note also that in the Agreed Conditions the planners have amended some of the experts' recommended wording to provide improved clarity. In addition, "with an intensity exceeding 25 mm/day and/or 15 mm/hr" has been added as a qualification after "rainfall events."

[106] In terms of operational stormwater run-off from the completed highway, condition SW1 sets out requirements for the treatment and discharges of this operational runoff. In brief these requirements are that:

- All stormwater runoff must be treated in a dedicated stormwater management device before discharge into the environment in compliance with Waka Kotahi's standard publication *Stormwater Treatment Standard for State Highway Infrastructure* dated May 2010.
- All stormwater treatment devices must be designed and constructed to achieve the minimum design requirements identified for each of the eight catchments along the Project length as well as the Manawatū River;
- All discharge structures must be designed to avoid erosion in the water courses below the outfalls of the structures;
- Operational stormwater runoff must receive treatment using planted wetlands or swales before discharging to any waterbody;
- All stormwater management devices must be fully operational prior to the opening of the highway;
- As built plans confirming that all stormwater management devices have been designed and constructed to achieve the minimum requirements of this condition must be provided to MWRC within 12 months of the completion of construction.

[107] The experts agreed that the microbial water quality in some of the streams and the Manawatū River did not meet the microbial water quality targets in the One Plan for recreational waters. They agreed that the treatment of operational stormwater proposed for the new highway under condition SW1 would provide an appropriate level of treatment for nutrients and microbial contamination and that this would be an improvement on the current situation. Also, in the context of condition SW1, they agreed that it would not be necessary to include a requirement for water quality monitoring of operational stormwater because of the practical difficulties of accurately monitoring stormwater or discharges from the stormwater treatment wetlands.

Finding on Erosion and Sediment Control

[108] We accept that the experts have undertaken thorough assessments of the way in which both construction and operationally generated stormwater should be treated and discharged, that construction discharges are to be monitored and that acceptable environmental outcomes can be expected in practice through the implementation of the requirements contained in conditions ES1 – ES10 and SW1, the related Erosion Sediment Control Plan and the Site Specific Erosion and Sediment Control Plans which are required to be prepared for each individual work area.

Air Quality

[109] Expert evidence on air quality was provided by Mr R L Chilton for Waka Kotahi and Ms D A Ryan for MWRC.

[110] The two experts met on 7 July 2020 and in their JWS agreed that dust was the primary issue associated with air discharges from the Project, with the main sources of dust being from the movement of heavy vehicles using unpaved surfaces in dry weather and wind erosion of dust from exposed dry fill and spoil surfaces.

[111] Relying on a report prepared by MWRC ecologist Mr J S Lambie on the effects of dust on terrestrial ecology, Mr Chilton advised that as long as dust was actively managed below nuisance levels, dust deposition was likely to be a minor effect on terrestrial ecology compared with other effects. In her s 87F report, relying on this same advice, Ms Ryan agreed that the air quality mitigation measures proposed by Waka Kotahi were suitable for addressing the adverse effects of dust on terrestrial ecology.

[112] The witnesses also agreed that all of the appropriate sensitive receivers had been identified by Mr Chilton in his evidence and that the recommended mitigation measures contained in the Dust Control Procedure[12] were appropriate for ensuring that the potential adverse effects of dust on sensitive receivers would be reduced to acceptable levels. These mitigation measures are to include:

- Dust suppression on unpaved roads;
- Minimising vehicle speeds to 20 km/hr within 100 m of sensitive receivers;
- Stabilising exposed surfaces;
- Control measures for minimising dust associated with access points;
- Progressively completing works in an area, and
- Continuous real-time monitoring with trigger levels requiring dust generating activities to cease until concentrations reduce.

[113] The two witnesses expressed differing opinions about whether the standards for dust management and control should be included in the conditions or whether it was acceptable for these to be included in the Dust Control Procedure which is to sit

[12] Later renamed Dust Management Plan.

under the Erosion and Sediment Control Plan. Relying on the condition set and the Dust Control Procedure current at the time of their conference, Mr Chilton's understanding was that Waka Kotahi was seeking the Court's authorisation of the management plans as part of the application and therefore that these plans could include standards which were not included in the conditions.

[114] Ms Ryan said that she did not consider it was entirely clear whether it was intended if the management plans would be authorised by the Court.

[115] We have discussed the relationship between the conditions and the management plans in the conditions section of this decision. Through the mediation process, the parties agreed significant amendments to the original set of conditions on the basis that the Court did not authorise or approve management plans as had been assumed when these conditions and management plans were originally drafted. These amendments involved shifting many of the standards which had been included in the management plans into the conditions.

[116] In a minute to the parties shortly before the hearing, the Court requested Waka Kotahi to review the content of the air quality conditions as it appeared that these conditions had been overlooked in the condition/management plan review process.

[117] In its legal submission Waka Kotahi advised that in response to this request its planner (Ms A J McLeod) had reviewed the Dust Control Procedure in consultation with Mr Chilton and that standards previously contained in the Dust Control Procedure had now been incorporated into condition LD3. From our review of the amended wording of this condition, we accept that this wording provides an acceptable response to our earlier concerns about the positioning of the standards within the two documents.

[118] In the JWS Ms Ryan expressed the view that there should be a condition requiring a meteorological station be installed on the site for the ongoing management of dust related operations during construction. Mr Chilton's position at that time was that the Dust Control Procedure included provisions for this and that he did not consider it was necessary for this requirement to be included in the conditions.

[119] In the event, following the amendments made by Ms McLeod and Mr Chilton to the conditions, we note that a meteorological station is now a requirement under condition LD3.

Finding on Air Quality

[120] We accept the uncontested evidence of the two experts that the air quality conditions provided for in the Agreed Conditions are appropriate for mitigating to acceptable levels the adverse effects of dust on terrestrial ecology and sensitive receivers along the route of the new highway.

Terrestrial ecology

[121] Evidence on terrestrial ecology was provided by Dr Baber and Mr J A Markham (Waka Kotahi), Mr Lambie (MWRC), Mr T J Martin (DOC) and Dr K M Lloyd (Forest and Bird and QEII Trust).

[122] We evaluate below the assessments undertaken by Dr Baber and Mr Markham on the residual effects of losses in terrestrial ecology from construction of the Project and how offsetting and compensation is proposed to respond to these losses. Later we summarise the agreements reached among the five experts in their conferencing and we go on to evaluate the proposed ecological offset and compensation measures in the context of the relevant objectives and policies of the One Plan.

[123] Dr Baber summarised the key findings of Technical Report F which formed part of Waka Kotahi's Application and Assessment of Environmental Effects (AEE). This report addressed how the ecological values of the Project area had been determined, how the effects of the Project on those values had been assessed, the magnitude of those effects and the additional surveys undertaken since the report was completed.

[124] Dr Baber also described the means by which adverse effects of the Project on ecology and biodiversity could be addressed or managed through the proposed 'mitigation hierarchy', from avoidance (as the primary and preferred measure), to remediation and mitigation and, for effects that could not be mitigated, through offsetting and compensation.

[125] Dr Baber's assessment was that some of the adverse ecological effects of the Project would be managed to 'Low' levels (on the assessment scale used) and some to 'Moderate' levels. There would also be a 'High' effect on some aspects of biodiversity values even after avoidance and minimisation, although no adverse effects after avoidance and minimisation had been found to be 'Very High".

[126] The residual 'High' and 'Moderate' effects would be addressed through habitat provision and enhancement measures, the biodiversity values of which were determined through the offset and compensation modelling undertaken by Mr Markham.

[127] The data that underpinned Dr Baber's findings and contributed to the offset and compensation modelling were collected from within and around the Project footprint through surveys of vegetation, bats, birds, lizards and invertebrates. The details of the surveys, methodology, results and analysis are set out in Technical Report F with summaries of some of this data included in the updated Environmental Management Plan (Updated EMP) (12 June 2020).[13]

Context

[128] We were provided with a copy of the Updated EMP which summarises the environmental context of the Project as follows:[14]

> The 195 ha Project footprint traverses three ecological districts (ED): Manawatū Plains, Manawatū Gorge North and Woodville ED. Prior to human modification, it is predicted that the area would have been covered in podocarp-hardwood forest types with kahikatea-dominated swamp forest on the alluvial flats (Leathwick et al., 2004). The Project footprint occurs within a predominately agricultural landscape dominated by grazed pastureland and exotic-dominated plantation forests or exotic shrublands (e.g. gorse and broom). However, the Project footprint does include 11.82 ha of indigenous forest and shrublands and a number of small wetlands totalling 4.97 ha. These terrestrial and wetland habitat types have been further split into 12 vegetation/habitat types and include or potentially include a number of nationally 'Threatened' and 'At Risk' species. The Project footprint is largely but not entirely within the proposed designation corridor for the Project.
>
> The vegetation within the Project footprint has the potential to support multiple

13 Attachment MB.2 Updated EMP.
14 Updated EMP at 14.

indigenous fauna groups. Notable species identified within the Project footprint include: kārearea (New Zealand falcon), New Zealand pipit, whitehead and the moth *Meterana grandiosa*. In addition to the above, cryptic wetland birds (Australasian bittern, spotless and marsh crakes) and several 'Threatened' and 'At Risk' lizard and invertebrate species have been previously recorded in the wider landscape and may be present. The Project footprint also traverses the Manawatū River which is a known nesting and foraging habitat for banded ('Nationally Vulnerable') and black-fronted dotterels ('Naturally Uncommon') and black-billed gulls ('Nationally Critical').

(Footnotes omitted.)

Vegetation and habitat types

[129] The Project will affect eleven of the twelve vegetation / habitat types identified, rated as being of Moderate, High or Very High value as set out in Table 1 below. This table also includes information on the significance of the **vegetation types** as per Policy 13-5 of the One Plan and their threat status in terms of Schedule F of that Plan.

Table 1. Vegetation types with values assessed as Moderate, High or Very High

Vegetation types	Area affected (ha)	Ecological value	Assessment of significance per One Plan Policy 13-5	One Plan Schedule F classification
Old-growth alluvial forest	0.1	Very high	Significant	Threatened
Old-growth hill country forest	0.85	Very high	Significant	Threatened
Secondary broadleaved forest with old growth signatures	0.25	Very high	Significant	Threatened
Old-growth treeland (with ramarama)	0.13	Moderate	Significant	Threatened
Kānuka forest	1.3	Moderate	Significant	Threatened

Advanced secondary broadleaved forest	0.04	Very high	Not significant	Not threatened
Secondary broadleaved forest	6.71	Moderate	Not significant	n/a
Mānuka / kānuka shrublands	2.11	Moderate	Not significant	Not threatened
Divaricating shrublands	0.33	Moderate	Not significant	Not threatened
Raupō-dominated seepage wetland	0.11	High	Significant	Rare
Indigenous-dominated wetlands	0.44	Moderate	Significant	Rare
Pasture wetlands – dominated by exotic species or indigenous rush *Juncus edgariae*	4.42	Moderate	Exotic-dominated Not significant Native-dominated significant	Native dominated: rare

Threatened species

[130] Of the ten **threatened plant species** that are or may be present[15] kānuka and four species of rātā (climbers) are listed as Threatened – Nationally Vulnerable in the DOC National Threat Classification System. Ramarama and rohutu (both shrubby trees) and swamp maire (a wetland tree) are listed as Threatened – Nationally Critical and mānuka as At Risk – Declining. All of the above species are members of the Myrtaceae and have been assigned a threat status which includes the identified potential threat of myrtle rust.[16] Giant maidenhair (fern) is listed as At Risk – Relict.

[131] Eight **threatened bird species** were observed during surveys in 2019.[17]

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15 Updated EMP Table 3-1 at 23.
16 Technical Assessment F at [90].
17 Updated EMP Table 8-1 at 84.

Another ten may use the area.[18] The Manawatū River corridor is said to be a known nesting or foraging habitat for a number of species[19] and during the 2019 survey black-billed gull, Caspian tern, banded dotterel, black-fronted dotterel and black shag were observed there. Red-billed gull, South Island pied oystercatcher, pied shag and little black shag may also use the area. The proposed road route will cross the river at a new bridge at the western end where construction activities are anticipated to take place over a four-year period.

[132] The bird data reported do not appear to show the more immediate surrounds of the bridge construction area as particularly favoured locations for nesting or breeding, although a pair of black-fronted dotterel have been observed 600 m to the west of the bridge "potentially prospecting for nesting sites". There have also been unconfirmed reports of black-billed gulls nesting on the western edge of Parahaki Island.[20] Black shags have been observed flying up and down the river.

[133] Mature forested habitats are described in Technical Report F as potentially supporting the threatened species whitehead, rifleman and New Zealand falcon, while also being likely to "occasionally support other wide-ranging species such as North Island kaka". Whitehead and New Zealand falcon were recorded during the 2019 surveys[21] but the habitat type they were found in was not noted. As noted in Table 1 above, road construction will require the removal of 0.85 ha of old growth forest and 0.13 ha of old-growth tree-land. In addition, 0.1 ha of old-growth alluvial forest lies directly adjacent to the route.

[134] New Zealand pipit has been recorded in the Project area in all surveys reported.[22] This species' habitat is mainly grassland / pasture as we understand it.

[135] Wetland species marsh crake and spotless crake are 'At Risk – Declining' and Australasian bittern is 'Threatened - Nationally Critical' in the National Threat Classification System. From our reading of the plan supplied the main wetland areas affected appear to be at the western end of the route where the Eco Bridge is to be

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18 Updated EMP Table 8-2 at 85.
19 Technical Assessment F at [107].
20 Technical Assessment F at [111] – [112]. The centre pier of the bridge is to be founded on the edge of Parahaki Island.
21 Technical Assessment F Table F.6.2.
22 Technical Assessment F Table F.6.2.

constructed (Acoustic Wetland Bird Monitoring Locations ARD1 and NOR-ARD2)[23], at NOR-ARD5 and possibly at ARD3[24] where a wetland area appears to be adjacent to but outside of the designation footprint. From Technical Report F we note that no species of wetland bird or waterfowl (e.g., dabchick) was recorded during the 102.5 hours of acoustic recording at any of the bird recording sites[25]. Table F.6.2 in the Technical Report contains no previous record of the three threatened wetland bird species in the 200 km area surrounding the Project footprint.

[136] The six **threatened lizard species** that have been found over the last 20 years within 200 km of the Project footprint[26] are the barking gecko, Raukawa gecko, ngahere gecko, Pacific gecko, glossy brown skink, and northern grass skink. The first two species were recorded during Project surveys in 2019. Three native lizard species are confirmed in the adjacent Manawatū Gorge Scenic Reserve (MGSR) which is contiguous with a number of the habitat types occurring within the Project footprint. These records were made within 1 km of the Project footprint at the closest point. It is considered highly likely that these species are present in the footprint.[27]

[137] It has been assumed that all lizard species known from the wider area may be present in low numbers in the Project footprint.

[138] Multiple acoustic surveys for **bats** have been carried out across the designation area with no bat activity having been detected. Additional surveys were undertaken in February - March 2020 but no bats were recorded.[28] Long-tailed bats are a wide-ranging species and prefer mature forest remnants for roosting and breeding. The native and exotic vegetation stands in or adjacent to the Project area could prove high value habitat for bats if they are present in the area. Dr Baber's assessment of effects was based on the assumption that bats move through the area on occasion.[29]

[139] Potentially high-quality habitats for **terrestrial invertebrates** within or near the project area are mature forest in the western rise section and older regenerating

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23 Map folder Terrestrial Ecosystem Sheet 1 TAT 3 DG E 4131 B.
24 Map folder Terrestrial Ecosystem Plans Sheet 4.
25 Technical Assessment F at [106].
26 Technical Assessment F Table F.6.3 at 155.
27 M Baber's Attachment MB.2 Updated EMP section 11.1.2 page 73.
28 Baber EIC Attachment MB.1.
29 Technical Assessment F page iii.

secondary forest in the eastern rise section. In addition, divaricating shrublands were identified as potential invertebrate habitat, in particular, for moths of the genus *Meterana* whose larvae feed on certain species of *Olearia* (shrubs). The species of relevance are *Meterana exquisita* and *Meterana grandiosa,* both classified 'At Risk – Relict'. Searches for the latter in 2020 identified two adult moths and probable larvae on the edge of divaricating shrubland and secondary shrubland. Other threatened invertebrate species for which potentially suitable habitat is present include three species of *Powelliphanta* snail (two of which are 'Threatened - Nationally Endangered' and the third 'Threatened – Serious Decline'). A further snail and a beetle, neither classified, were also listed as potentially being present. No *Powelliphanta* snails were found during surveys in February 2020 but the habitat values in some locations were identified as suitable such that further precautionary searches are to be undertaken pre-construction.

Actual and potential ecological effects on terrestrial vegetation and fauna

[140] The actual and potential adverse ecological effects on terrestrial vegetation and terrestrial fauna from the construction of the Project have been identified by Dr Baber as arising from:[30]

Terrestrial Vegetation

- Clearance or modification of indigenous vegetation and habitats;
- Habitat fragmentation and isolation;
- Sediment runoff to wetlands and watercourses that may affect the quality of wetland habitat;
- Edge effects on retained vegetation and habitats;
- Creation of new edges resulting in a shift in microclimate condition with the potential for the quality of remaining habitat along these new edges to be degraded as a result of:
    - Increased exposure to light and wind;
    - Increased incursions from pest plants and animals;
    - Dust deposition.

[30] Updated EMP section 2.2.

Terrestrial Fauna

- Injury or mortality during vegetation clearance and earthworks;
- Disturbance during critical nesting periods (birds);
- Permanent loss of habitats;
- Modification of habitats in the form of:
    - increased fragmentation and isolation due to reduced habitat connectivity;
    - creation of edge effects and consequential effects to composition, structure and food sources in retained habitats;
    - invasions and corresponding impacts of non- native plant and animal species.

Assessment of Effects

[141] Dr Baber described his approach to the assessment of the adverse effects as follows:[31]

(a) My assessment follows the Environment Institute of Australia and New Zealand ("**EIANZ**") Ecological Impact Assessment Guidelines ("**EcIAG**") (Roper-Lindsay et al., 2018) (Herein "**EcIAG 2018**"). The EcIAG (2018) provides a systematic, robust and transparent approach to assessing ecological effects.

(b) As appropriate for effects assessments on threatened or otherwise significant vegetation/ habitat types and species, my 'Level of Effects' assessment relates primarily to the level of adverse effects at a local scale, i.e. a landscape scale for habitat types and local population scale for species.

(c) As appropriate for effects assessments on threatened species, our assessment is precautionary in assuming that all species that are likely or possibly present in the footprint, but not recorded, are present.

(d) The approach to residual effects management in respect of 'rare', 'threatened' and 'at risk' habitats addresses key biodiversity offsetting principles (Maseyk et al. 2018). This includes:

    (i) Adoption of an effects management hierarchy i.e. avoid, mitigate, offset, compensate in descending order.

    (ii) Adherence to No Net Loss or preferably Net Gain outcomes, including the use of offset models to demonstrate verifiable No Net Loss or Net Gain outcomes and the use of compensation models to determine expected No Net Loss or Net Gain outcomes (as detailed in Mr Markham's Technical Assessment H).

[31] Technical Assessment F at [82].

(iii) Offsetting or compensation measures that result in long-term tangible biodiversity outcomes and that are additional i.e. would not have happened anyway.

[142] The process carried out by Dr Baber under EcIAG 2018 resulted in an 'Ecological Value' category being assigned to each vegetation habitat type and species, and the potential 'Magnitude of Effect' (after efforts have been made to avoid or minimise effects) being calculated for each.

[143] Mr Lambie (MWRC's ecologist) agreed that the conclusions drawn by Dr Baber in relation to the ecological value of flora and fauna were sound and consistent with the EcIAG and the New Zealand threat classification system.[32] He also recorded that while the naming of vegetation / habitat types in the Project reports was different from those used to describe those vegetation types in Schedule F of the One Plan he accepted their equivalence and adopted them within his own report.

Mitigation Hierarchy

Avoidance of effects

[144] A feature of the work carried out between the granting of the NOR and the current hearing process described by Dr Baber, was the effort made to avoid certain areas of high ecological value and to otherwise minimise the area affected by the Project.[33] This had included:

- Shifting the road route to the north (the Northern Alignment) to avoid or reduce the effect on stream gullies and other pockets of ecologically significant vegetation along the designation route;
- Relocation of a spoil site, which resulted in avoidance of 89% of the divaricating shrubland type;
- Avoiding parts of QEII Trust covenanted areas (as a result of the realignment) which significantly reduced the area of QEII Trust land affected by the Project.

While the above changes to the design were carried out in advance of the current hearing process, it is clear that Waka Kotahi has made considerable effort to avoid effects that we would otherwise be addressing here. Those effects would have been of some significance and we recognise that.

[32] Lambie s 87F report at [29] – [30].
[33] Updated EMP section 2.4.

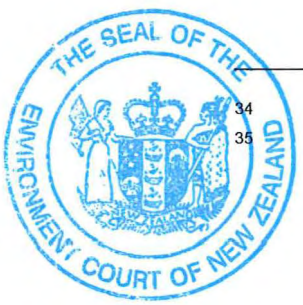
Minimising effects

[145] During the design process, several modifications were also made to the proposed construction techniques to minimise adverse ecological effects. These included, among others, steepening some road batters and choosing different methodologies for the construction of the eco-bridge.[34] As a result, the forest and wetland footprint losses had been reduced from a total of 31 ha under the original NoR envelope to 11.82 ha and 4.97 ha respectively or a total of 16.79 ha.

[146] We note that these reduced areas are slightly different from those shown in Table EC1 of the Agreed Conditions which total 16.685 ha. Nothing hangs on this.

[147] Further measures to minimise adverse effects on the Project's terrestrial ecology were set out in a draft EMP attached to Dr Baber's evidence. This draft included a range of detailed standards/requirements for the mitigations including:[35]

- The identification of vegetation clearance protocols to manage the potential effects of run off from cleared vegetation;
- A staged approach to earthworks and sediment and erosion controls consistent with the requirements in *GD05: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region*;
- Searching for native bird nests prior to vegetation removal to minimise the likelihood of eggs and unfledged chicks being harmed when trees are felled;
- Annual long-tailed bat surveys and a defined management escalation process if bats are recorded in the area together with bat vegetation removal protocol to be implemented to minimise the likelihood of bats being harmed when trees are felled;
- Selected culverts being designed to accommodate fish passage;
- Swales and wetlands being designed to Waka Kotahi design standards.
- Salvage and relocation of 'Threatened', 'At Risk' or otherwise legally protected native lizards, invertebrates and fish from the Project footprint;
- Removal and stockpiling of topsoil from vegetated areas for use in replanting areas;
- Removal and stockpiling of coarse woody debris and felled logs for habitat enrichment in replanting areas and in-stream habitat enhancement;



34 Updated EMP at 18.
35 Updated EMP at 19.

- Translocation of nest epiphytes from the area of old-growth forest (hill country) scheduled for removal onto trees in adjacent forest.

[148] After Dr Baber had prepared his evidence the planners rearranged the content of the conditions and the management plans to comply with Court's direction to the parties that it did not propose approving management plans. These updated conditions (the Agreed Conditions) require the EMP (as a part of the overarching Construction Environmental Management Plan) to be supported through a series of topic-specific management plans:[36]

- Vegetation Clearance Management Plan;
- Planting Establishment Management Plan;
- Biosecurity Management Plan;
- Lizard Management Plan;
- Bat Management Plan;
- Avifauna Management Plan;
- Terrestrial Invertebrate Management Plan;
- Freshwater Ecology Management Plan;
- Fish Recovery Protocols; and
- Pest Management Plan.

[149] Schedule 1 of the Agreed Conditions lists the standards/requirements to be achieved in the implementation of each of the management plans. The Agreed Conditions include most, if not all, of the standards/requirements for mitigation originally contained in the draft EMP referred to by Dr Baber.

Residual effects – offsetting and compensation

[150] Notwithstanding the above measures for minimising adverse ecological effects, as noted above, the construction of the Project will still result in a loss of 11.82 ha of indigenous-dominated forest and shrublands and 4.97 ha of wetland habitats (in addition to the associated actual or potential effects on threatened flora and fauna).

[151] Mr Markham used the Biodiversity Offset Accounting Model (BOAM) and a Biodiversity Compensation Model (BCM) to calculate the offset and compensation

[36] Conditions GA2 a) i & ii, CM4.

requirements for the twelve habitat types affected by the Project (and the enabling works).[37]

[152] Our understanding of the models is that they:

- Place (where possible) a numerical value on the existing ecological quality of each ecological component ('attribute') of an area of vegetation or habitat;
- Compare that with a 'benchmark' (the value of a more-or-less intact ecosystem of the same habitat type), then record or calculate the loss of that value as a result of the activity in question;
- Calculate the quantum of offset needed to achieve the replacement (leading to no net loss of biodiversity) or improvement (leading to a net gain in biodiversity) over a set period, with a 'discount' applied to account for model uncertainties and the lag time between biodiversity losses and gains.

[153] Where the attribute values and losses are able to be quantified and the outcome verified, that replacement or improvement is an offset. Where the values cannot be quantified and the losses and gains cannot be verified, that outcome is termed compensation.

[154] Offset design must also meet certain other criteria which relevantly include:

- Adherence to the agreed mitigation hierarchy;
- Recognising that some biodiversity values cannot be offset ('limits to offsetting');
- Ensuring that any gains are additional to those that would have occurred in the absence of an offset ('additionality');
- Ecological values gained being similar to those lost ('like for like');
- Offsets being carried out in proximity to the loss (for example, in the same catchment, or same ecological district, taking into account the ecological context);
- Outcomes lasting at least as long as the effects and preferably in perpetuity;
- The delay ('time lag') between the loss and offset gain in biodiversity

[37] Technical Assessment G at [70] refers to the DOC website for the BOAM model's user guide; at [74] describes BCM as a Tonkin & Taylor model.

being taken into account.

[155] Mr Markham advised that he had updated his original calculations for the offset and compensation modelling prepared for the NoR process with the Northern Alignment to include additional data from subsequent field investigations.[38]

[156] The following quanta were identified from this modelling:[39]

- Revegetation (with weed and mammalian pest control, stock exclusion fencing and forest resource reuse (re use of forest material) of:
  - 45.6 ha of native terrestrial revegetation; and
  - 6.55 ha of native wetland revegetation;

- Stock exclusion (with weed and mammalian pest control) within:
  - 48.3 ha of existing bush retirement; and
  - 0.4 ha of existing wetland habitat.

- Mammalian pest control within approximately 300 ha of old growth forest (hill country) in and around the Northern Manawatū Gorge Scenic Reserve and within the 45.6 ha of native terrestrial revegetation and 48.3 ha of stock exclusion sites) to include:
  - annual rat, mustelid and possum control for 10 years; and
  - annual deer control for 35 years.

[157] These are to be managed though a Residual Effects Management and Monitoring Plan.

[158] Mr Markham provided the following summary of the outcomes from this modelling:[40]:

- Based on the type and quantum of revegetation (and associated habitat enhancement measures) proposed, the modelling had shown that;
  - seven habitat types could be offset to a 'verifiable' Net Gain standard within 35 years; and
  - key attributes within the other five habitat types could be compensated to an 'expected' Net Gain standard within 35 years,

38 Markham EIC at [29] and Appendix 3.
39 Markham EIC at [12].
40 Markham EIC at [16] – [22].

with the notable exception of tawa, which is expected to take 100 years to achieve a net gain in basal area.

- For the five habitats where the 'verifiable' Net Gain standard would not be achieved through the revegetation and enhancement measures within the revegetated areas, this was a consequence of the following factors:
  - biodiversity values in these habitat types would take too long a time to reinstate to demonstrably offset (i.e., the three mature forest habitat types); or
  - some values could not be replaced (i.e., while wetland habitat types can be compensated for by improving wetland habitat quality within compensation wetlands, this does not constitute an offset because all three wetland habitats affected by the Project would incur a Net Loss in wetland area per se).

[159] In addition, adopting a conservative approach, he considered that further compensation measures were necessary to address short to medium term 'Net Loss' and the risk of 'false positives', in that:

- Not all biodiversity values being measured (and those that were not measured) might incur a 'Net Loss' outcome, which could result in a 'Net Loss' outcome overall; and
- Inaccurate data inputs or assumptions could understate the effects at the impact site(s) or overstate the benefits at the offset or compensation site(s).

[160] To address these uncertainties, additional compensation in the form of stock exclusion fencing (and associated habitat enhancement measures) and mammalian pest control was proposed.

[161] Our understanding is that after 10 years a biodiversity gain will be achieved.

[162] We draw attention to an issue we have identified about the 'transparency' of the modelling results in terms of the link between the results of the model calculations contained in Mr Markham's tables and the hectares required to achieve the offsets. While the calculations have been summarised in the tables,[41] the steps between

[41] Markham EIC Tables 4.3.1 (page 94 of 134) and 4.3.2 (page 100 of 134).

"impact to be compensated (ha)" and "required compensation (ha)" are not evident from the tables nor are they explained in the text.

[163] For transparency the link between the detailed offsets and compensation modelling tables (which contain the detail about each biodiversity component) and the overall result (the proposed hectares of revegetation, retirement, pest control) should be clear in the accompanying text otherwise the final figures reached cannot be verified through the documentation provided.

[164] While we have found no reason to disagree with the outcomes of the modelling an explanation of the "missing link" would have been of assistance.

Expert Conferencing and the JWSs

[165] Terrestrial ecology issues were discussed by the five ecologists at four joint witness conferences on 6-8 July, 20 July, 23 July and 24 July 2020.

[166] Over the course of these conferences the experts identified a range of additional and modified inputs which they agreed should be tested in further iterations of the offset and compensation modelling. They also agreed on a significant number of amendments for improving the clarity and content of the ecology conditions.

[167] We provide here an overview of these matters and others agreed by all of the experts, noting that this summary is by no means an exhaustive listing.

Conference 1: 6-8 July 2020

General

- The EcIAG model used by Dr Baber was appropriate;
- The biodiversity offset model and compensation approach used by Dr Baber and Mr Markham was appropriate;
- The need for the mitigation of edge effects with appropriate standards for this mitigation should be included in the conditions;
- The approach taken by Dr Baber for addressing the adverse effects on Myrtaceae species was appropriate as is the approach taken for addressing swamp maire, ramarama, mānuka and kānuka;
- The lizard and invertebrate management plans should include monitoring regimes.

Limits to offsetting

- A key element of vulnerability is when an ecosystem is reduced to less than 20% of its original extent in an ecological district or region;
- For this site ecosystems below this threshold are alluvial old-growth forest, hill country old-growth forest, indigenous wetlands;
- Irreplaceability is the degree to which a biodiversity feature is sustained by the site and the degree to which the loss of the site would significantly increase the extinction risk of the feature;
- For this site, the irreplaceability assessments are:
    - Alluvial old-growth forest – moderate
    - Hill country old-growth forest – moderate
    - Raupō / swamp maire wetland – high
    - Indigenous-dominated seepage wetland – moderate
    - Other indigenous wetlands – low;
- Although the alignment does not intersect alluvial old-growth forest, 0.9 ha of proposed planting is necessary to help account for basal area offset requirements and to ensure that the quantum and type of planting is adequate;
- Adverse effects on the raupō wetlands should be mitigated to the extent possible, with offsetting being required at a site with similar hydrology;
- Adverse effects on indigenous-dominated seepage wetlands, other indigenous wetlands and other ecosystem types affected by the Project can all be offset;
- Certainty of outcomes is important, through legal protection of offset and compensation sites, strong performance measures in conditions, comprehensive and robust monitoring and reporting, and strong contingency actions where performance is not achieved.

Offsetting currency/Input Values

- The attributes used in Mr Markham's BOAM models were satisfactory but additional attributes for basal area metrics, forest birds and wetland birds should be included;
- The offsetting currency needed to be updated to show that the basal area for multi-stemmed trees is the sum of the basal areas of each stem and the input values for species richness revised to reflect the planting schedule in tiers including trees and shrub, groundcover and vines and

epiphytes.

Updates to the conditions

- A requirement for a pest animal management plan should be added to the conditions for improving the ecological condition of the offset and compensation sites through a reduction in browsing and/or predation pressure;
- The performance standards should identify the species for which specific pest control programmes will be developed, the trap catch, tracking indices and other targets pertinent to the species being controlled, the location and area of the offset and compensation sites to be targeted for each species and the period of pest control (years) for each;
- The current pest management plan should be updated to reflect best practice;
- Condition EC12(b)(viii)[42] should be revised to include an average 20% increase in whitehead, tui and bellbird relative to their abundance over 10 years from a pre-pest control baseline;
- An additional round of biodiversity monitoring should be undertaken at 25 years and, if a clear trajectory towards the outcome state did not confirm a Net Gain at year 25, further adaptive management and monitoring recommendations should be required to reach the desired Net Gain;
- There should be minimums of 35 years of effective pest control for ungulates and 10 years for other pest animal species;
- Planting schedules on Meridian-owned land should provide for vegetation remaining less than 1.5 m tall;
- The planting schedule for Meridian land must be agreed with Meridian;
- The redistribution of stream diversion offset planting from Meridian's land to other locations in the Project footprint should address any associated terrestrial ecological effects;
- Amendments (identified by the experts) should be made to the wording of conditions EC1(b), EC3, EC8 and EC12(a)[43].

Conference 2: 20 July 2020

42 This is condition EC12 (m) (ix) in the Agreed Conditions.
43 Amendments have been made to the numbering of these conditions in the Agreed Conditions.

General

- Condition EC3 should apply to the 6 ha QEII Trust covenant at chainage 7900-8300 because the Project footprint is close to this covenant area;
- Possum, rat, mustelid, ungulate and pig control should be undertaken in the covenant area, under the proposed 300 ha pest control programme.

Species to add to forest offsetting models

- A range of canopy species (identified in the JWS) should be included as attributes in the offsetting currency;
- A range of browse-vulnerable species (identified in the JWS) should be included as attributes in the forest offsetting currencies.

Revisions to basal area

- The basal area input values identified by the experts should be used to revise the canopy offsetting currencies, noting that these agreed input values are subject to a range of uncertainties.

Bird currencies

- A range of forest bird inputs, offsetting currencies and a robust monitoring approach should be used to revise the forest bird offsetting currencies;
- If the predicted forest bird outcomes are not achieved by year 10 and/or year 25 then adaptive management would be required to address this such as additional pest animal control.

Pest control and exclusion standards

- Monitoring of rats should conform to the DOC best practice methodology;
- A performance standard for the exclusion of stock was needed for all revegetation and retirement areas under which all stock should be removed if detected within these areas.

Pest plant standards

- The pest plants identified for the following habitat types (forest revegetation, bush retirement and riparian restoration, divaricating shrublands and wetland mitigation) should be managed to zero

densities;

- The forest offsetting currencies should be recalculated to take account of the updated inputs identified by the experts at the conference.

Conference 3: 23 July 2020

Species richness and forest offsetting currencies updates

- While the assumptions and inputs identified by the experts in the previous conference had been updated / undertaken in subsequent modelling, a further round of modelling was required as some anomalies still existed.

Forest edge mitigation planting buffer areas

- Additional chainages should be included in the edge enrichment planting of forest habitats.

Conditions

- An additional vegetation performance standard based on the seedling ratio index (SRI) should be included in condition EC22(a).
- For this same condition, an additional vegetation performance standard based on foliage density for palatable canopy trees should be added in the forest retirement area and the pest control areas within and adjacent to the Northern Manawatū Gorge Scenic Reserve.

Conference 4: 24 July 2020

- The JWS from this conference recorded that all issues/matters identified by the experts in their three previous conferences had been resolved.

Discussion on Terrestrial Ecology

[168] As noted in the above summary, the use of the EcIAG, BOAM and BCM models were agreed by the terrestrial ecologists as being appropriate tools for assessing biodiversity offsets and compensations for the Project.

[169] We accept that these offsets and compensations are consistent with agreed biodiversity offsetting principles including No Net Loss and Net Gain outcomes, increased landscape ecological connectivity, additionality, permanent protection of restored areas, and ecological equivalence.

[170] As we noted in the introduction to this section on terrestrial ecology expert conferencing, Mr Markham re-ran the offset and compensation models a number of times over the term of the conferencing to gauge the effects of a range of additional or amended attributes identified by the ecologists. We observed that the additional modelling did not result (as far as we could determine) in any changes being made to the quanta of restoration planting areas, retirement areas and pest management areas identified, between the evidence of Dr Baber and Mr Markham prepared in June 2020 and the JWSs from the expert conferencing. This has raised a question in our minds about the degree of refinement expected of the model and the efficacy of undertaking that additional work. There must be a point of diminishing returns at which the inclusion and refinement of additional attributes ceases to add value to the outcome and we wonder if some form of simpler sensitivity analysis might have been as effectively adopted for testing the modelling.

[171] Condition EC12 sets out the targets and EC22 sets out the monitoring and reporting required to confirm that the measures proposed to achieve the offset and compensation have been carried out (the enhancement planting, restoration and retirement activities) and whether gains have been made toward performance targets for the following parameters:

- 80% canopy cover;
- The foliage density for palatable trees;
- The seedling index ratio;
- The pest animal management performance;
- The pest plant management performance.

[172] We wonder whether the targets under all of the above are realistic and, indeed, whether monitoring all of those parameters is necessary. The activities proposed to achieve the offset and compensation are, simply put, fencing and removal of stock, planting of a range of agreed species at target densities, control of animal pests and predators and control of invasive weed species (along with some other specified enhancements carried out when the project is being implemented). If these activities are carried out it seems to us that canopy cover should be monitored to ensure the planting and establishment were successful; the fences should be monitored on a regular basis to ensure grazing animals continue to be excluded, the success of animal pest and predator control should be monitored by the methods proposed and weed species should be monitored and any incursions dealt with. Beyond that, vegetation recovery can be expected to occur at a rate commensurate with the

circumstances that prevail at the site, including its climate, rainfall, and soil conditions. The fauna present can be expected to take advantage of the improved conditions, as has in our understanding been demonstrated by a range of similar projects.

[173] With those systems in place it is unclear why monitoring at the level of foliage density and seedling indices is necessary. With best practice pest control in place and being monitored it does not seem necessary to add another level of monitoring. Given the comprehensive range of requirements for the implementation and monitoring of the offset and compensation activities such fine-grained monitoring of outcomes seems to be extraordinarily risk-averse. It places reliance on the model at a level of confidence that seems out of proportion with what it is intended to achieve. From the Court's perspective, the model is intended to assist in determining reasonable and supportable offset and compensation quanta. The offset and compensation are intended to be measurable and that will be the case without the level of detail included in the EC conditions. The development of biodiversity offsetting and the use of models to achieve it is relatively recent. We appreciate the models' applicability as tools and that inputs can be at a very detailed level but there is no compulsion to use any particular model or for the model to do more than assist the Court in making a decision as to whether reasonable mitigation is being applied.

[174] Following the terrestrial ecologists' conferencing, the planners at their conferencing made a number of formatting changes to the condition set which had been used by both the terrestrial and freshwater ecologists. To the best of our knowledge, all of the amendments to the conditions recommended by both sets of ecologists during their conferencing have been incorporated by the planners in this updated condition set (the Agreed Conditions).

[175] We accept the agreed findings on the proposed offset and compensation quanta on the basis that they have been agreed by all parties. We reiterate our inability to find an explanation as to how the final hectares of offset and compensation were arrived at as the outcome of the modelling. We maintain our view that the very detailed modelling and the level of monitoring for some attributes of the offset may place more confidence in the model outcomes than is warranted or reasonable.

<u>One Plan Policy 13-4 – Terrestrial ecology</u>

[176] Policy 13-4 (b) of the One Plan sets out specific requirements for the granting

of consents in a rare, threatened or at-risk habitat as follows:

> Consent must generally not be granted for resource use activities in a *rare habitat*, *threatened habitat* or *at-risk habitat* assessed to be an area of significant indigenous vegetation or a significant habitat of indigenous fauna under Policy 13-5, unless:
>
> (i) any more than minor adverse *effects* on that habitat's representativeness, rarity and distinctiveness, or ecological context assessed under Policy 13-5 are avoided.
>
> (ii) where any more than minor adverse *effects* cannot reasonably be avoided, they are remedied or mitigated at the point where the adverse *effect* occurs.
>
> (iii) where any more than minor adverse *effects* cannot reasonably be avoided, remedied or mitigated in accordance with (b)(i) and (ii), they are offset to result in a net indigenous *biological diversity* gain.

[177] Policy 13-4 (c) sets out the parameters under which consent may be granted:

> Consent may be granted for resource use activities in an *at-risk habitat** assessed not to be an area of significant indigenous vegetation or a significant habitat of indigenous fauna under Policy 13-5 when:
>
> (i) there will be no significant adverse *effects*^ on that habitat's representativeness, rarity and distinctiveness, or ecological context as assessed in accordance with Policy 13-5, or
>
> (ii) any significant adverse *effects*^ are avoided.
>
> (iii) where any significant adverse *effects*^ cannot reasonably be avoided, they are remedied or mitigated at the point where the adverse effect occurs.
>
> (iv) where significant adverse *effects*^ cannot reasonably be avoided, remedied or mitigated in accordance with (c)(ii) and (iii), they are offset to result in a net indigenous *biological diversity*^ gain.

[178] Policy 13-4 (d) provides that:

> An offset assessed in accordance with b(iii) or (c)(iv), must:
>
> (i) provide for a net indigenous *biological diversity*^ gain within the same habitat type, or where that habitat is not an area of significant indigenous vegetation or a significant habitat of indigenous fauna, provide for that gain in a *rare habitat** or *threatened habitat** type, and
>
> (ii) reasonably demonstrate that a net indigenous *biological diversity*^ gain has been achieved using methodology that is appropriate and commensurate to the scale and intensity of the residual adverse *effect*^, and
>
> (iii) generally be in the same ecologically relevant locality as the affected habitat, and
>
> (iv) not be allowed where inappropriate for the ecosystem or habitat type by reason

of its rarity, vulnerability or irreplaceability, and

(v) have a significant likelihood of being achieved and maintained in the long term and preferably in perpetuity, and

(vi) achieve conservation outcomes above and beyond that which would have been achieved if the offset had not taken place.

[179] Earlier in this section of our decision we included Table 1 which set out the significance of the vegetation / habitat types for the Project related to Policy 13-5 and their threat status under Schedule F (of the Plan).

[180] As can be seen from this table, five habitat types have been classified as threatened and significant and two as rare and significant.

[181] Waka Kotahi's proposed 'mitigation hierarchy' is to "first seek to avoid then mitigate /minimise, then offset or compensate for, effects on all [their emphasis] terrestrial and wetland habitats" noting that compensation is the least preferred of the mitigation hierarchy steps.

[182] Earlier, we traversed the evidence in relation to the development of the proposed offsets through this mitigation hierarchy and agreed with the terrestrial ecologists that the evidence demonstrated that a net indigenous biodiversity gain would be achieved. In the context of the One Plan we accept, based on the agreement of the expert ecologists, that this gain has been calculated using methods "appropriate and commensurate to the scale and intensity of the residual adverse effect" as required by Policy 13-4 (d) (ii).

[183] Acknowledging that Policy 13-4 (d) does not provide for 'compensation', we note that the Project's proposed compensation package follows the same hierarchy as provided for in the Plan and requires that there be a demonstrated and verifiable outcome even if this is not quantifiable in the strict terms of an offset package.

[184] While Mr Markham took the view that the net gain outcome from the BCM can be verified as an offset post monitoring, this view was not shared by Ms Ongley (counsel for Forest and Bird). She said the difference between an offset and compensation is that an offset must be explored before compensation is considered and requires an objective accounting framework and that compensation provides for an expected gain but not a verified net gain. This is consistent with our own view that

for compensation, the pre-effects values cannot be quantified and losses and gains cannot be verified.

[185] Notwithstanding, having advised her view on this matter Ms Ongley went on to say she agreed with the submissions from Ms Johnston (counsel for MWRC) and Mr Randal (counsel for Waka Kotahi) that Waka Kotahi's proposal to include compensation for replacing lost biodiversity would meet the intent of Policy 13-4.

Findings on One Plan Policy and Terrestrial Ecology

[186] The definitions of 'offset' and 'compensation' are terms which have become integral with biodiversity offsetting as the science around this has evolved over the past decade or so.

[187] We find that even though 'compensation' is not provided for in Policy 13-4(d) of the One Plan as a step in the offsetting hierarchy, its absence there does not affect the validity of its inclusion in the overall mitigation package proposed for the Project. The proposed compensation will contribute to replacing biodiversity that cannot be offset (in terms of the definition of that word) and will be verified after the fact as required by the conditions of consent.

[188] The findings we have made are consistent with those advanced in submissions by counsel for Waka Kotahi, MWRC and Forest and Bird which we accept.

[189] Accordingly, we accept the package of agreed conditions on terrestrial ecology but observe that in our view they go considerably further than what the Court might have required on the basis of the information before it.

Freshwater Ecology

[190] Evidence on freshwater ecology was provided by Ms J L Quinn for Waka Kotahi, Mr Brown for MWRC and Mr N P Goldwater for DOC.

[191] The Project will cross nine catchments of the Manawatū River. A new bridge will be constructed across the Manawatū River, an Eco Bridge across the raupō

wetland, a new bridge across the Mangamanaia Stream and a series of culverts in the locations where the new highway crosses each of the catchments.

[192] Ms Quinn described the freshwater environment of the nine catchments in the following terms:[44]

> Most of the stream catchments are short and steep, with unvegetated headwaters, modified through agricultural land use. The lower reaches of these catchments are within the Manawatū Gorge Scenic Reserve ("MGSR") (outside the Project footprint) and of markedly higher quality. QEII Trust open space covenants over areas of bush within catchments 7, 6 and 4 are also of high quality and effects are, for the most part, avoided. Many of the stream systems are hard-bottom, however fine sediment deposition is present and is expected to influence the fauna present.
>
> Macroinvertebrate indices varied across the alignment, with stream length through areas of agricultural land use indicative of 'poor' to 'fair' water and habitat quality. Parts of upper catchment 2C and 5 are of surprisingly good quality with macroinvertebrate communities typical of good water and habitat quality despite the surrounding land use.
>
> Fish communities were more diverse in the lowland areas of Mangamanaia Stream and Manawatū River. Existing natural and artificial barriers are expected to have contributed to a reduced diversity in the upper reaches of headwater catchments. Many of the headwater streams affected by the Project have narrow, intermittent channels offering temporary habitat.

[193] Field surveys were undertaken in 2018 in advance of the NoR process and again in August and November 2019 once the Northern Alignment had been selected. The 2018 surveys involved fishing, stream ecological valuations (SEVs) and macroinvertebrate sampling at eight sites across six catchments. In 2019 SEVs and macroinvertebrate sampling were conducted at 26 sites. Fish surveys were undertaken at six sites. Stream classifications and basic descriptions were undertaken for almost all stream lengths under the Project footprint.

[194] Ms Quinn described the Project's potential adverse effects as including fish injury or mortality, temporary fish passage restriction and water quality effects resulting from sedimentation, hazardous substances and the storage of cut

[44] Quinn EIC at [14] – [16].

vegetation. She advised that these effects could be minimised through fish salvage, appropriate handling of vegetation clearance and storage (via protocols) and good practice sediment and erosion control.

[195] In the longer term, potential effects could include reduced fish passage, water quality effects, changes to hydrology and loss of stream ecological function and habitat area. Measures proposed to avoid, minimise and mitigate such effects include the provision of fish passages, stormwater management in relation to sediment and erosion control, and the use of stream diversions rather than pipes, the majority of which will be designed and constructed to mimic existing natural situations.

[196] In addition, conditions agreed to minimise or mitigate adverse effects, include:

- Fish, koura and kākahi (freshwater mussels) being salvaged and relocated prior to the commencement of works in streams;
- Fish passage being provided through temporary culverts and diversion and for all permanent culverts where there is suitable habitat upstream;
- Baseline, routine, event-based and post-construction monitoring being carried out in streams focussing on sedimentation, turbidity, pH levels and macroinvertebrates and periphyton;
- The identification of trigger levels for implementing remedial action.

[197] Ms Quinn applied the EcIAG method (discussed above in the terrestrial ecology section) to assess the effects of the activities, with the above mitigation measures in place, for all categories of effect and all catchments. From this Ms Quinn assessed the "Level of Effect" to be no greater than 'Low', with two exceptions:

- Sedimentation effects during construction were assessed as being 'Moderate' for catchment 4 and 'High' for catchments 5, 6 and 7;
- The overall effect from stream loss or modification was very low for the Manawatū River but 'Moderate' to Very High' for catchments 1 – 9.

Offsetting and no net loss for impacts on stream habitat

[198] SEV and Ecological Compensation Ratio (ECR) modelling methods were used to quantify enhancement measures which would provide no net loss of ecological function. This modelling included the assessment of ecological 'losses' at impact sites and ecological 'gains' resulting from the creation of new stream habitat

and enhancement of existing degraded headwater catchments.[45]

[199] Ms Quinn summarised the outputs from this initial modelling along the following lines:

- Impacts on the effects of the Project on 13.207 km of intermittent and permanent streams can be offset to achieve no net loss in ecological function through the construction of Type 1, 2 and 3 stream diversions and riparian planting and enhancement of intermittent and permanent streams;[46]
- The final location and precise compositions of the offset package will be determined following further discussions with landowners;
- Prior to lodgement of the application for resource consents two areas were identified at Ratahiwi Farm and Sproull Farm which were modelled to show that sufficient stream length to achieve no net loss in ecological function could be achieved;
- One of the proposed enhancement planting sites on Ratahiwi Farm is within the Mangamanaia Stream catchment and this would involve several headwater gully systems being retired and planted which would contribute catchment scale benefits beyond just the stream reach (and what the SEV method can reasonably capture).

Amendments made since lodgement

[200] After it lodged its application, Waka Kotahi made a number of amendments to the design of the Project with these amendments resulting in changes in the lengths of the culverts and stream diversions and consequently to the originally proposed stream offset package. The amendments included:

- The Eastern Roundabout being modified from five legs to four legs resulting in changes to the length of culverts and stream diversion within catchment 1;
- The removal of spoil site 15 and the modification of the final configuration of spoil site 16, resulting in a reduction in the extent of affected stream(s) by about 60 m;
- Changes to the riparian planting on the Meridian site to avoid the potential for bird strike;

45 Quinn EIC at [17] – [25].
46 Note: Type 1 Lowland Stream, Type 2 Steep Stream and Type 3 Intermittent Stream.

- More precise details about the length of streams available for riparian planting on the Ratahiwi and Sproull Farms.

[201] With these changes the overall stream diversion length available for replanting reduced and was no longer sufficient to achieve no net loss. As a result, two additional offset sites were identified to provide the stream length required for enhancements, these being on the Wharite-Beagley Farm (Beagley Farm) in the upper Mangapapa catchment and the Massey Tuapaka Farm (Tuapaka Farm) along the Manawatū River.

[202] For each of the four sites, the total available stream length was mapped and the extent of stream riparian planting required to achieve no net loss of ecological function recalculated. The stream lengths available or potentially available on each of the farms were assessed as being:

- Ratahiwi Farm – 17.2 km (confirmed);
- Sproull Farm – 6.5 km (potentially available);
- Beagley Farm – 6.9 km (potentially available, with potentially more on that farm);
- Tuapaka Farm – 28 km (potentially available).

[203] For each of the permanent and intermittent streams on these farms, SEV scores and offset calculations were ground-truthed and the data collected used to update the indicative proposed offset package including the calculations of ECRs based on stream lengths in the order of certainty of their availability.

[204] From this analysis, the offset proposed to achieve no net loss of ecological function was a total of 34.3 km of stream riparian planting and a streambed area of 17,386 m^2 made up as follows:

- Ratahiwi Farm: 17.2 km stream planted to 20 m margins;
- Sproull Farm: 6.5 km stream planted to 10 m or 20 m margins;
- Beagley Farm: 6.9 km stream planted to 20 m margins; and
- Tuapaka Farm: 3.7 km stream planted to 20 m margins.

[205] Ms Quinn confirmed that the offsets proposed are consistent with the offsetting principles of ecological equivalence, additionality, at an appropriate scale providing benefits beyond the reaches affected, the offset being in proximity to the affected

sites, and with benefits measurable within the impact catchment.

[206] She noted that discussions with the owners of the farms were continuing, to confirm the final extent, location and composition of the riparian planting proposed along with fencing alignments, riparian margin widths and legal agreements for the use of the land. She said that the resource consent conditions on these arrangements would provide certainty that the outcome of no net loss would be achieved.

[207] Ecology Offset and Compensation Site Layout Plans[47] are to be developed for each of the restoration planting areas[48] and the stream creation and riparian planting areas[49] describing the way in which the Residual Effects and Monitoring Management Plan is to be implemented on specific sites. These plans are to be prepared in consultation with the Project Iwi Partners and DOC and will be subject to certification by MWRC.[50]

[208] In addition to these mitigation measures identified by the freshwater ecologists, at-source mitigation of the risk of sediment releases on water quality and aquatic life are discussed in the erosion and sediment control section of this decision.

Expert conference and joint witness statement

[209] Freshwater ecology matters were discussed at an expert conference held on 9 July 2020 by Ms Quinn, Mr Brown and Mr Goldwater.

[210] As we did for terrestrial ecology, we summarise the agreements reached among these experts on the assessments and evaluations carried out, the approach to fish salvage and relocation, and the offsets proposed. These were that:

- The effects assessment methodology is transparent and robust;
- The freshwater ecology values and the level of effect on those values is accurately presented in the application (Technical Assessment H of the Application), Waka Kotahi's s 92 response and in Ms Quinn's EIC;
- The effects on freshwater ecology values have been appropriately addressed in the approach to mitigation and offsetting;
- The approach to fish salvage and relocation is robust and sound;

47 Condition EC19.
48 Identified in condition EC12.
49 Identified in condition EC16.
50 Condition EC19.

- The approach to kākahi salvage and relocation is sound;
- The SEV and ECR methodology applied to determine the offset package to address the effects of stream habitat and loss is transparent and robust;
- The proposed offset package is appropriate to address the overall effects of stream habitat loss and modification;
- The conditions (current at that time) should be amended to include:
    - A new condition requiring post-construction monitoring for a minimum of 12 months (to capture longer term /post construction effects and shorter term /during construction effects).
    - For the post-construction monitoring to include a standard of <20% decrease in mean QMCI (Quantitative Macroinvertebrate Community Index) or median %EPT (% Ephemeroptera, Plecoptera and Tricoptera) taxa richness;
    - If this/these trigger point(s) is/are reached, a condition requiring further monitoring, mitigation or offsetting;
    - A decline of >15% QMCI or median %EPT taxa richness to be retained as the trigger for response actions during construction.

Findings on Freshwater Ecology

[211] We accept the conclusions reached by the freshwater ecologists on fish salvage and relocation and the offsets proposed.

[212] For the sake of completeness, to the best of our knowledge all of the condition amendments recommended by the ecologists during their conferencing have been incorporated by the planners into the updated condition set (the Agreed Conditions).

Natural Character and Landscape

[213] Expert evidence on natural character and landscape was provided by Mr B H Evans for Waka Kotahi and Mr J R Hudson for MWRC.

Natural Character

[214] Mr Evans advised that in the AEE prepared for the NoRs, the natural character effects of the Project on the affected rivers, streams and waterways had been assessed by a multi-disciplinary team of Waka Kotahi experts which he led.

[215] In the application for the resource consents, an updated natural character assessment was undertaken based on the modified Northern Alignment. Those involved in this further assessment were Dr McConchie (hydrology and hydraulics), Dr A James and Mr Hamill (water quality), Ms Quinn and Mr Markham (freshwater and terrestrial ecology), Mr Hughes (stormwater) and Mr Evans (experiential).

[216] The effects of the Project on natural character were assessed against Objective 6-2(b) of the One Plan:

> (b) Adverse effects, including cumulative adverse effects, on the natural character of the coastal environment, wetlands, rivers and lakes and their margins, are:
>
> (i) avoided in areas with outstanding natural character, and
>
> (ii) avoided where they would significantly diminish the attributes and qualities of areas that have high natural character, and
>
> (iii) avoided, remedied or mitigated in other areas.

[217] In terms of what constituted an "area" in this objective, a catchment-scale approach was adopted with each of the nine stream catchments being assessed as an "area" underpinned and informed by crossing point assessments within that catchment.

[218] For the Manawatū River, a whole-of-river catchment-scale assessment was considered to be inappropriate and instead the Manawatū River bridge crossing point was considered as an "area" in its own right based on its size, scale, prominence, visibility, accessibility and location at the mouth of the Manawatū Gorge.

[219] The Northern Alignment assessment team reached the following conclusions:

- There were no areas of existing outstanding natural character in any of the catchments (Objective 6-2 (b) (i));
- Only one of the catchments (catchment 9) had existing high natural character (Objective 6-2 (b) (ii));
- Post development there will be a reduced level of natural character in catchments 2, 3, 4, 5 and 7[51] and for catchments 1, 6, 8 and 9 there would be no change;

[51] The catchments are shown on page 138 of the plans (revised Volume III of the Application document).

- Post development, there will be significant diminishment in natural character from the existing level for crossing point 5A (a reduction from high to low); for crossing point 7A (a reduction from high to low); and for the raupō wetland crossing (a reduction from high to moderate);
- When considered in the context of their respective catchments, these crossing point diminishments are attenuated as most of the catchments above and below the crossing points will be unaffected by the Project;
- The rating for the Manawatū River bridge crossing point was moderate-high pre-development and moderate post-development.

[220] The team's overall assessment was that Project did not offend either Objective 6-2 (b) (i) or (ii).

[221] Mr Evans concluded that the reductions in the extent of the stream diversions and riparian planting on Meridian's Te Āpiti Wind Farm from those assessed at the time of the team's resource consent assessment did not alter this assessment because neither of the affected catchments within the wind farm (catchments 4 and 5) had a high level of existing natural character.

[222] MWRC's s 87F natural character assessment for the Project was undertaken by Mr Hudson. While Mr Hudson had some reservations about Waka Kotahi's earlier NoR assessment of the natural character in catchments 6 and 7, on the basis that the alignment of the highway had moved north since this assessment was undertaken and relying on the freshwater and terrestrial ecology assessments from MWRC's experts Mr Brown and Mr Lambie, Mr Hudson said that he accepted Waka Kotahi's updated catchment wide findings on natural character.

[223] Mr Evans and Mr Hudson participated in an expert conference on natural character (and landscape) on 9 July 2020 and recording their findings in their JWS of the same date.

[224] In this JWS, Mr Hudson confirmed his position on the conclusions reached by Waka Kotahi's natural character assessment team:

- The assessment methodology used was comprehensive and fit for purpose;
- The catchment scale adopted for the assessment was appropriate;
- There were no catchments (areas) with outstanding natural character;

- While catchment 9 has an overall high existing natural character rating, post development this will not be significantly diminished;
- Mitigation of the Project's adverse effects on natural character within each catchment should be undertaken within that catchment;
- Post development, there will be a reduced level of natural character at all stream crossing points.

[225] For crossing points 5A, 7A and the raupō wetland[52], Mr Hudson's assessment was that there would be significant diminishments in natural character at these locations and that additional mitigation measures would be required.

[226] For catchment 5, while the JWS records that the two experts agreed that all stream diversions which are to be planted should also be fenced, they could not agree on whether all of the natural waterways in this catchment should also be fenced (no reference to planting) as proposed by Mr Hudson.

[227] Their proposed way forward for resolving this disagreement was to recommend further investigation be undertaken to determine the need for fencing of all natural waterways in catchment 5 and within the designation in all other catchments – as discussed further below.

[228] For catchment 7, both experts supported the mitigation measures proposed by the ecologists in their JWS of 8 July 2020.

[229] For the raupō wetland, the two experts advised that they had relied on the mitigation measures proposed in the ecologists' 8 July 2020 JWS. As recorded in that JWS and discussed in the terrestrial ecology section of this decision, the ecologists agreed that this wetland was a very distinctive complex which was not easily classified. They identified the need for careful consideration of avoidance and mitigation measures and the selection of offset/compensation sites with similar hydrology.

[230] Picking up on the experts' recommendation for determining the extent of fencing required (or not) on the natural waterways in catchment 5 (as well as each of the other catchments) at a subsequent mediation, the parties agreed to a new

[52] The raupō wetland is also in Catchment 7- see Hudson s 87F report at Table 11.

condition NC1. This condition requires that, prior to the highway being opened, a suitably qualified and experienced landscape architect be appointed by the consent holder to undertake an investigation to assess the feasibility and natural character benefits of fencing:

- All of the natural waterways in catchment 5;
- All of the natural waterways in other catchments within the designations for the Project; and that

Subject to landowner approvals, any fencing recommended as a result would be required to be installed within three years of the completion of construction.

[231] At the hearing, the Court requested the parties to confirm the basis on which condition NC1 had been agreed.

[232] In response, in its Reply Submission, Waka Kotahi's position was that both experts had agreed that the requirements of Objective 6-2 had been met and with the extensive range of mitigation measures proposed to mitigate adverse effects on natural character, it was arguable whether condition NC1 was required for mitigation. The condition had not been offered on an *Augier* basis in the sense that agreeing to the condition was required in order for the consents to be granted. Instead, it provided for the investigation to be undertaken and subject to landowner approval, a commitment from Waka Kotahi to implementing the recommendations from that investigation.

[233] The submission concluded by noting that Waka Kotahi reserved its position on this matter.

[234] In its reply submission, MWRC advised that its position was that:

- Condition NC1 had been proffered by Waka Kotahi under s 108AA of the Act to resolve or overcome matters discussed by the experts at their conference;
- Section 108AA preserves the ability to impose conditions on an *Augier* basis;
- This condition had been relied on by MWRC to resolve issues on natural character effects;
- No further evidence or s 87F reporting had been provided by Waka Kotahi to MWRC regarding the effects of fencing on natural character

beyond the two experts agreeing at their conference that further investigation of fencing was warranted.

[235] We are not prepared to impose condition NC1 as a condition of consent. There are a number of reasons for that:

- The first is a fundamental one. Namely that the condition appears to give an unrestricted discretion to the landscape expert appointed by Waka Kotahi to determine the extent of fencing which is to be required and the purposes for which it is to be required. In our view the condition is so widely drafted as to constitute a delegation of the Court's obligation to determine and impose appropriate conditions. Conditions are commonly imposed setting criteria to be achieved in various matters with compliance to be certified by the relevant local authority's officers. This proposed condition sets no objective criteria which the appointed expert is to consider in his/her determination but rather purports to set that person loose to determine what they consider appropriate on whatever basis they see fit. The condition does not enable the Council to determine whether the assessment satisfies any criteria nor to challenge its conclusions. Even if the condition is advanced on an *Augier* basis it must still comply with basic requirements of vires and enforceability;
- Secondly, as we understand it, the condition contemplates the landscape expert entering properties owned by third parties within the catchments in question to undertake their investigations. We are not aware of any power of entry contained in RMA which allows that and we are not prepared to approve a condition which impliedly (even remotely) suggests that such a power might exist by virtue of its inclusion in a condition approved by the Court. The condition makes it clear that any subsequent fencing is subject to landowner approval (which potentially frustrates its purpose in any event) but there is a fundamental access issue before the matter of fencing arises;
- Finally, we are far from satisfied on the basis of the evidence before us that there is any under-mitigation of landscape effects proposed without this condition which make it appropriate for this condition to be imposed (assuming that we are able to do so).The potential extent of fencing which might be required under this condition appears to extend well past mitigation of effects caused by the Project and seems to provide for extensive offset/ compensation the need for which is not apparent to us from the evidence which we considered. Our view is consistent with Waka Kotahi's submissions in that regard.

Landscape

[236] While Waka Kotahi's resource consent application did not include a landscape assessment, following a request from MWRC this was provided in Waka Kotahi's s 92 report of 29 April 2020.

[237] Objective 6-2 (a) in the RPS section of the One Plan requires the characteristics and values of the Region's Outstanding Natural Features and Landscapes (ONFLs) to be protected from inappropriate subdivision, use and development.

[238] Under Policy 6-6, the ONFLs listed in Schedule G (Regionally Outstanding Natural Features and Landscapes) Table G.1 must be recognised as regionally outstanding with the policy requiring that use and development directly affecting any of these ONFLs is to be managed in a manner which:

- Avoids significant adverse cumulative effects on the characteristics and values of those ONFLs (Policy 6-6 (a)); and
- Except as required under Policy 6-6 (a), avoids adverse effects as far as reasonably practicable and, where avoidance is not reasonably practicable, remedies or mitigates adverse effects on the characteristics and values of those ONFLs (Policy 6-6 (b)).

[239] The new highway passes through two of the ONFLs listed in Table G1, the Ruahine Ranges and the Manawatū Gorge.

[240] Waka Kotahi's conclusions on the effects of the Project on the Ruahine Ranges ONFL were that:[53]

> The physical changes resulting from the current design of the Project (i.e. the Northern Alignment) in the vicinity of the Ruahine Ranges ONFL, will be the large cuts as part of the earthworks required... From the location of the main viewing audiences of Ashhurst and Woodville, these earthworks will not alter the visual profile of the skyline because of their particular location and their relatively small scale in relation to the overall topography. ...

[53] Section 92 Letter Report 29 April 2020 at 28, 29.

> The Project does not encroach on any high value ecological areas within this ONFL. The provision of pedestrian/cycle access along the proposed shared path will enable new access and experiences to the community through the ONFL.
>
> ... with the limited adverse effects of the Project within the ONFL, there will not be significant adverse cumulative effects on the characteristics and values of the ONFL.

[241] Waka Kotahi's conclusions on the effects of the Project on the Manawatū Gorge ONFL were that the landscape character effects on the Manawatū Gorge ONFL will be high within the immediate vicinity of the new bridge, and that: [54]

> ... the effects of the Project will be confined to the lower part of the Gorge at the western mouth and the physical impacts will be low or negligible in most of the ONFL. Therefore, when considered in terms of the whole ONFL, the effects on the visual, scenic and ecological characteristics and values would be less than those at the immediate bridge crossing. ... removal of road traffic from SH3 has already reduced the effects associated with road activity along the length of the ONFL.
>
> ... The Project will develop and enhance the recreational facilities and opportunities on both sides of the river and also on the bridge itself with pedestrian and cycle access and a viewing platform.
>
> Given the effects of the Project are limited to a small portion of the ONFL, at a location where there is already considerable modification, the Project will not have significant adverse cumulative effects on the characteristics and values of the ONFL.

[54] Section 92 Letter Report 29 April 2020 at 29.

Findings on Natural Character and Landscape

[242] As can be seen from these conclusions, Waka Kotahi accepts that the Project will result in some adverse effects associated with the highway traversing the two ONFLs. Its evidence is that these adverse effects have been avoided as far as reasonably practicable and avoided, remedied or mitigated though a combination of the proposed design and the various requirements contained in both the confirmed designation conditions and the proposed conditions of resource consent.

[243] Mr Hudson accepts this conclusion, as do we, that from a landscape effects perspective the Project as planned will be consistent with the direction provided in Objective 6-2 and Policy 6-6 of the One Plan RPS.

Cultural Issues

[244] In its legal submission, Waka Kotahi acknowledged that that the Project will traverse a deeply significant cultural landscape and that it will adversely affect intrinsic cultural values in this environment. To this end, Waka Kotahi advised that it had entered into a partnership relationship with four iwi groupings who have identified an interest in the Project, these being Rangitāne o Manawatū (Rangitāne), Rangitāne o Tamaki Nui-ā-Rua (RoTnaR), Ngāti Kahungunu ki Tāmaki Nui-ā-Rua (Ngāti Kahungunu), and Ngāti Raukawa ki Te Tonga / Ngāti Kauwhata (Ngāti Raukawa), (collectively the Iwi Partners).

[245] Mr Dalzell advised that these four groupings are formal partners in the Te Ahu a Turanga Alliance which has been awarded the contract to design and build the Project and that their Iwi Partner roles on the Project include:

- Representation on the Project Governance Board;
- The appointment of Kaimahi to deal with day-to-day demands of the Project;
- The establishment of an Iwi Working Group to provide management-level direction to the Kaimahi and wider Alliance design team;
- Providing cultural monitoring and assistance with geotechnical, ecological and water surveys;
- Undertaking site visits as requested to familiarise themselves with the Project, and

- Creating key project documentation in order to ensure that cultural values are recognised, understood and responded to during the design development.

[246] In its memorandum to the Court dated 12 June 2020, Waka Kotahi advised that the cultural evidence from each of the Iwi Partners had been provided to the Court on behalf of the iwi partner rather than Waka Kotahi, although this had been under the umbrella of Waka Kotahi's evidentiary case. While it acknowledged and respected the various views expressed in this cultural evidence, Waka Kotahi pointed out that these views did not necessarily reflect its own position. Further, Waka Kotahi acknowledged that it did not have any role in determining mana whenua status for the Project area as it was not in any way qualified to do so.

[247] In the following sections, based on the evidence submitted by the witnesses for each of the Iwi Partners, we summarise each of their interests and values in the Project and how these are being addressed through the Agreed Conditions.

Rangitāne

[248] In her evidence on behalf of Rangitāne, Ms S A Karaitiana includes the section of the Rangitāne Cultural Impact Assessment (CIA) which describes the actions taken by Waka Kotahi to provide for Rangitāne interests and values in the development of the Project. In doing so she identified how each of these interests and values had been reflected in condition TW3 which requires the development of a Tangata Whenua Values Monitoring and Management Plan (TWVMMP).

[249] We have copied this section from Ms Karaitiana's evidence into our decision verbatim as it provides a good summary of Rangitāne's interests and values in the Project and how these are to be addressed:

(a) Te Ao Māori is provided for within the Cultural and Environmental Design Framework, which is a requirement of the designation conditions ("**CEDF**") and the requirement under proposed condition TW3 for the TWVMMP to be prepared by a person (or persons) endorsed by the Project Iwi Partners.

(b) Tino rangatiratanga has been recognised by providing for Rangitāne o Manawatū to participate in partnership in directing the high-level design and principles of the Project. This has resulted in many positive outcomes, including the new highway avoiding Te Ahu a Turanga Peak; the Shared Use Path

avoiding wāhi tapū; iwi having the opportunity to work with the ecologist team to develop the ecological restoration package; and the TWVMMP which will require iwi participation in many aspects of Project delivery, including:

(i) monitoring of earthworks, stream diversions, stream retirement, stream and terrestrial mitigation and offset and compensation areas, and the development of a Te Awa o Manawatū Cultural Monitoring Tool and Framework;

(ii) approaches to the collection, harvesting and reuse of taonga vegetation, including the removal of dead fauna and the management of disturbed soil that includes leaf litter;

(iii) opportunities for participation in seed collection, planting, weed and pest control, fencing, fish surveys and/or transfer, species monitoring and translocation; and

(iv) provision for the design and placement of signs for wayfinding and setting out the cultural narrative and values of the confluence of the Manawatū River and Pohangina River, as well as within the Wetland Experience Area (under the Eco Bridge (BR03); the Western Gateway Park, and on the Manawatū River Bridge (BR02) and Eco Bridge (BR03).

(c) Rangitāne o Manawatū have fulfilled their Tāngata Tiaki duties by attending all possible workshops and reviewing all technical material; providing cultural advice during the consideration of spoil sites; providing input into stormwater and wetland treatment design; and ensuring that fish passage has been provided for where appropriate.

(d) Rangitāne-nui-a-rawa (the undertaking of Tiakitanga with a Rangitāne philosophical approach) has been and continues to be exercised through providing Rangitāne mātauranga around plant species and locations to inform the terrestrial planting offset package; and a requirement in the TWVMMP that seed is sourced from within the rohe in which it is to be planted and/or eco-sourced where practicable to do so.

(e) Wairuatanga has been and will continue to be supported by Rangitāne o Manawatū undertaking a pre-start karakia prior to the commencement of works, assisting archaeological site investigations and providing cultural monitors to oversee earthworks. These matters are secured by the proposed conditions and the requirement for a TWVMMP.

(f) Mauri is protected through the implementation of best practice erosion and sediment control measures and appropriate monitoring (reviewed and supported by Rangitāne o Manawatū); ensuring diversion of natural waters away from stormwater within the Project footprint; best practice stormwater design and treatment; and through the ecological offset and compensation package.

(g) Taonga tuku iho is the intergenerational transmission of Mātauranga Māori. Taonga are handed down from generation to generation. The conditions enable the concept of taonga tuku iho by the TWVMMP being required to identify opportunities for future access to provide the Project Iwi Partners with the ability to sustainably harvest resources from their maunga and traditional harvesting grounds. In addition, Rangitāne o Manawatū have requested the retirement and enhancement of Karaka Grove, a historic mahinga kai area. Rangitāne recognise that this area is currently within private ownership and that this must be addressed in order for our request to be considered, however, in the meantime the TWVMMP must include a process for investigating opportunities to retire and/or otherwise enhance this Karaka Grove.

(h) Mātauranga Māori is being provided for by Rangitāne o Manawatū having the opportunity to work with Alliance design experts to incorporate mātauranga into the design of the Manawatū River Bridge (BR02), Viewing Areas, the Wetland Experience, Western Gateway Park, the mahi toi workstream and Shared Use Path. This ongoing involvement in design is further secured by the TWVMMP (as well as the designation conditions' requirement for the CEDF).

(Footnotes omitted.)

[250] Ms Karaitiana notes that between the time that the CIA was finalised and when she finalised her evidence, further negotiations had been undertaken between Rangitāne, Waka Kotahi and the Alliance. These negotiations had included:

- Commencement of drafting of the TWVMMP;
- Agreement being reached for offset/compensation planting at the confluence of the Manawatū and Pohangina Rivers with the full extent of this planting to be finalised;
- Completion of additional environmental monitoring reports and surveys, the firming up of a pest control proposal and progression with the development of the Ecological Management Plan.

[251] Rangitāne's overall position was that it looked forward to continuing to work with the Project Alliance to realise the Treaty articles of partnership and protection in the development of the Project.

Ngāti Kahungunu

[252] Mr J L Kendrick provided evidence on behalf of Ngāti Kahungunu. He advised that the Alliance's Project name Te Ahu a Turanga Manawatū Tararua Highway had been gifted to the Project by tangata whenua.

[253] Like Ms Karaitiana, he referred to the requirement under condition TW3 for a TWVMMP to be developed to provide part of the context for the ongoing involvement of the Iwi Partners in the Project's implementation. As the range of matters he identified for inclusion in the TWVMMP were more or less the same as those identified by Ms Karaitiana, we have not repeated them here.

[254] He said that at the time of preparing his evidence, there were three outstanding matters to be addressed from Ngāti Kahungunu's perspective, these being that:

- Waka Kotahi had applied for consent to take water from the Manawatū River under the enabling works consenting process when the river is below the minimum flow levels required under the One Plan;
- Pre-works surveys of tuna be undertaken in and around the large farm pond located on the J and G Bolton property;
- Waka Kotahi commit to protecting the offset and compensation planting in perpetuity.

[255] We respond to each of these in turn:

<u>Water take from Manawatū River</u>

[256] Under the enabling consents[55], on 19 August 2020 MWRC granted Waka Kotahi consents to take water from the Manawatū River for storage and use during construction and installation of a pump structure and associated vegetation clearance for the construction of this structure.

[257] As Waka Kotahi sought this enabling consent directly from MWRC, it is for MWRC and not the Court to set the river water levels which are to be maintained under the water take consent. We can take this concern no further.

[55] The enabling consents were sought by Waka Kotahi directly from MWRC.

Pre-Works Surveys of Tuna

[258] In our review of the Agreed Conditions, we did not find any specific reference to a requirement for Waka Kotahi to undertake pre-works surveys of tuna on the Bolton property farm pond. We do note however that under condition EC13, prior to the commencement of the works authorised by the consents in any stream or wetlands, fish and freshwater fauna must be salvaged and relocated although there is no specific reference to the Bolton farm pond. We leave it to Ngāti Kahungunu to resolve this matter directly with Waka Kotahi.

In Perpetuity

[259] With respect to Ngāti Kahungunu's request for the offset and compensation planting to be protected in perpetuity, in its legal submission Waka Kotahi confirmed that the planting and requirement sites are to be protected in perpetuity.

Ngāti Raukawa

[260] Mr L J Poutama provided the following summary of Ngāti Raukawa's CIA:

> 8. The purpose of the CIA was to provide the Transport Agency, Te Ahu a Turanga Alliance ("**Alliance**") and relevant statutory agencies with documentation of Ngāti Raukawa's cultural values, interests, and associations with the Project area and its cultural and natural resources, and the potential impacts of the proposed Project activities on these. The CIA also provides recommendations as to how to avoid, remedy or mitigate any potential cultural effects that arise from the Project.
> 9. We approached the CIA as a tool to facilitate meaningful and effective participation of our people regarding impact assessment of the Project and as a process of evaluating the likely impacts of the proposed development on our way of life for our people in regards to both beneficial and adverse effects, including the values, belief systems, customary laws, language, customs, economy, relationships with the local environment and particular species, social organisation and traditions of the affected community.
> 10. This has been a process of evaluating the likely impacts of the proposed development on the community of people that whakapapa to these territories, both beneficial and adverse.
> 11. The current position of the Rūnanga is that the Project is supported. It is understood that cultural and environmental impacts can be mitigated or offset,

on the basis that there is sufficient resourcing and commitment to resolving the matters identified in the CIA.

12. Key concepts for Ngāti Raukawa include the concepts of:
    (a) treading lightly on the whenua;
    (b) leaving a positive and enduring legacy for our mokopuna / tamariki; and
    (c) maintaining and respecting the mana, mauri and tapu of the whenua and awa affected by the Project.

[261] Mr Poutama advised that since its CIA was finalised, Ngāti Raukawa had worked actively with the other iwi partners and the Alliance in developing consent documentation including the TWVMMP and the Partnership Plan. It had also contributed to the production of the cultural induction booklet and the establishment of a cultural health monitoring framework for the Project.

[262] Mr Poutama concluded his evidence by stating that while the iwi partnership for the Project had its challenges, it was characterised by mutual respect and was in his opinion a model of engagement and partnership which he commended as a model for future infrastructure projects.

RoTnaR (Rangitāne o Tamaki Nui-ā-Rua)

[263] Evidence for RoTnaR was provided by Mr M Paewai. Mr Paewai advised that he was the Pou Tikanga for RoTnaR and that he had led RoTnaR's Cultural and Political Services since its inception in 1989. RoTnaR is the iwi with customary interests, rights and relationships on the eastern side of the Manawatū Gorge and Mr Paewai provided detailed historical information confirming RoTnaR's mana whenua for this area.

[264] He said that RoTnaR acknowledged the regional significance and need for a replacement highway for the closed Manawatū Gorge route and supported and continued to support the principle of the development of the Project through the ongoing RMA processes. He added that this support needed to be balanced against equally significant cultural values and the impacts and effects arising through its construction and operational phases.

[265] Mr Paewai said that in its CIA, RoTnaR had identified a number of adverse effects of the Project on its cultural values and their relationship, culture and traditions

with their ancestral lands, water, sites, wāhi tapu and other taonga. The CIA had also included in the 'Whakakapi' section a number of recommendations to be explored to address these effects.

[266] As for the other three iwi, Mr Paewai agreed that an important mechanism to address the recommendations in RoTnaR's CIA was condition TW3 and its related TWVMMP. He said that he looked forward to working with Waka Kotahi on the development and implementation of the management plan to ensure that matters of concern to RoTnaR were appropriately addressed. He added also that RoTnaR's role in the Iwi Partnership was vital to success and gave it confidence that all cultural matters would be appropriately managed through its direct involvement in the partnership.

[267] Overall, his evidence was that RoTnaR supported the Project in its current form and acknowledged the leadership shown by Waka Kotahi in what he said was a genuine attempt to work with RoTnaR as real partners.

[268] In its planning for the Project Waka Kotahi made a very early decision to identify and engage with the iwi groups who would be directly affected by it. The success of this approach including the way it has been managed is clearly evident in the support of the Project by the four Iwi Partners. This support is underpinned by the governance level membership that the Iwi Partners will have in the Project Alliance (as explained above by Mr Dalzell) and through the wide ranging requirements in condition TW3 which have responded to the interests and values identified by each of the four iwi in their CIAs for the Project.

[269] For completeness, we note that the Te Āpiti Ahu Whenua Trust is not a member of the Iwi Partnership and that we have responded to its submission about the potential effects of the Project on Parahaki Island in the submissions section of this decision.

Finding as to Cultural Issues

[270] We accept that the interests and values in the Project of the four iwi groupings have been met and will continue to be met through their ongoing participation as formal partners in the Project's Te Ahu a Turanga Alliance.

The Applications

[271] It was common ground that the applications now before the Court require consent on a "bundling" basis as a non-complying activity. That requires the Court to consider the provisions of ss 104, 104B and 104D RMA.

[272] Section 104 relevantly provides as follows:

> **104 Consideration of applications**
>
> (1) When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to–
>
> (a) any actual and potential effects on the environment of allowing the activity; and
>
> (ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and
>
> (b) any relevant provisions of—
>
> (i) a national environmental standard:
>
> (ii) other regulations:
>
> (iii) a national policy statement:
>
> (iv) a New Zealand coastal policy statement:
>
> (v) a regional policy statement or proposed regional policy statement:
>
> (vi) a plan or proposed plan; and
>
> (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

Section 104 identifies a number of matters and statutory instruments to which the Court is obliged to have regard in determining these applications. Of particular significance in this case are the provisions of s 104(1)(ab) relating to the matters of offset and compensation for adverse effects which were the subject of detailed discussion in the preceding paragraphs of this decision.

[273] Section 104B provides:

> **104B Determination of applications for discretionary or non-complying activities**

> After considering an application for a resource consent for a discretionary activity or non-complying activity, a consent authority—
>
> (a) may grant or refuse the application; and
>
> (b) if it grants the application, may impose conditions under section 108.

This is a "mechanical" provision stating a consent authority's powers to approve (with conditions) or decline applications before it.

[274] Before considering the application of s 104 and exercise of the powers contained in s 104B, the Court is first obliged to be satisfied as to matters identified in s 104D which relevantly provides:

> **104D Particular restrictions for non-complying activities**
>
> (1) Despite any decision made for the purpose of notification in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—
>
> (a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or
>
> (b) the application is for an activity that will not be contrary to the objectives and policies of—
>
> (i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or
>
> (ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or
>
> (iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.
>
> (2) To avoid doubt, section 104(2) applies to the determination of an application for a non-complying activity.

Section 104D contains two "gateway tests", either one of which must be satisfied before consent can be granted to an application for a non-complying activity. In summary, an application may only be granted if the Court/consent authority is satisfied that either:

- The adverse effects on the environment of the activity under consideration will be minor (the effects gateway); or
- The activity will not be contrary to the objectives and policies in relevant plans or proposed plans[56] (the objectives and policies gateway).

[56] The relevant plan in this case being One Plan.

[275] It was common ground between the planning witnesses who provided a JWS to the Court that the Project would result in adverse effects on the environment that are more than minor in respect of:

- The cultural landscape, indigenous biodiversity, the mauri of the Manawatū River and catchment and access to cultural resources;
- The natural character of streams and their margins;
- Terrestrial ecology and the loss of indigenous biodiversity values, including those identified in Schedule F of the One Plan;
- Freshwater ecology, through the loss and modification of stream habitat.

Waka Kotahi accepted that the Project did not pass the effects gateway test.

[276] However, it was also the common view of the planning witnesses that the Project is not contrary to the relevant provisions of One Plan and accordingly passed through the second gateway test.[57] No party before the Court challenged that assessment and Waka Kotahi advanced its case on the basis that the Project met the objectives and policies gateway test. For the sake of efficiency we will consider that issue as part of our discussion of the various relevant planning instruments identified in s 104(1)(b). We consider application of these provisions by summarising our findings on effects and then dealing with the statutory provisions. Before doing so we comment briefly on the issue of Conditions (including management plan conditions) which are relevant to our consideration of the effects of the Project.

Conditions

[277] Management plans routinely contain information and practical management proposals which go beyond evidence given to the Court with these plans requiring detailed consideration by local authority compliance and technical staff in their certification role. They are also "living documents" which require amendment as projects advance. If the form of management plans is approved as part of conditions, amendments potentially require change by way of variation of conditions. This is an unsatisfactory and unnecessary process if the intended outcomes, criteria and standards can be met by appropriate changes to the plans.

57 Planning JWS, para 14(b).

[278] Conditions must therefore set the outcomes, criteria and standards that management plans are to achieve with the appropriate local authority certifying that these plans achieve those outcomes, criteria and standards rather than the plans being approved by the Court.

[279] In its s 87F report, MWRC noted that in its application, Waka Kotahi's proposed conditions did not include specifics of the objectives for each management plan and what matters each plan was to address and that they did not establish the secure bottom lines (whatever that might mean) and standards for each plan.

[280] The parties subsequently agreed that in expert conferencing the experts would be requested to identify, for inclusion in the conditions, the performance outcomes, reporting requirements, and trigger response procedures to be provided for in each of the management plans.

[281] Following the expert conferencing which concluded with conferencing of the planners, a revised set of conditions was prepared. These revised conditions included two schedules (Schedules 1[58] and 2[59]) which specify the details and directions to be followed in the preparation and certification of the management plans[60].

[282] As noted in the background section at the start of this decision, on the final day of mediations held on 3 August 2020, the parties in attendance reached agreement on this revised set of conditions. Subsequently, having made some minor amendments to this condition set, in its Reply Submissions Waka Kotahi attached a further set of conditions dated 8 September 2020. As also noted, in this decision we have referred to these as the Agreed Conditions.

[283] In his Updated s 87F report, MWRC's planner Mr St Clair advised that he was of the view that the 3 August 2020 condition set took into account the matters raised in the submissions and agreements reached at mediation and expert witness conferencing in order to avoid, remedy or mitigate potential adverse effects. His advice was that the conditions were comprehensive, coherent, and enforceable and

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58 Schedule 1: Objectives and Content of the Ecology Management Plan.

59 Schedule 2: Objectives and Content of the Erosion and Sediment Control Plan.

60 The schedules for each management plan set out in tabular format the relevant Plan and Sub-Plans, the Related Conditions and Standards, the Objective and what is to be included in the content of the Plan.

that it was his understanding that they addressed the concerns of all parties. On this basis, he said that he supported the conditions.

[284] While we have not undertaken a detailed review of the accuracy of the wording of each individual condition, from the review which we have undertaken, we are satisfied with the overall content of the Agreed Conditions and that these now incorporate the required outcomes, criteria and standards which the management plans are to achieve. We have assessed the Project on that basis.

[285] The only exception is that condition NC1 is to be deleted for the reasons discussed in the Natural Character and Landscape section of this decision.

Effects Pursuant to Section 104(1)

[286] Sections 104(1) and 104D contain significantly different provisions relating to assessment of effects. The gateway test contained in s 104D(1)(a) is a "pure" assessment as to whether or not adverse effects on the environment of a proposal will be minor. A much wider assessment of effects is undertaken under s 104 whose provisions allow for consideration of the positive effects of a proposal (s 104(1)(a)) and whether or not positive effects on the environment offsetting or compensating adverse effects are achieved by the proposal (s 104(1)(ab)).

[287] We have identified the environmental effects of the Project in the preceding sections of this decision. We simply summarise our findings on effects in these terms:

- *Traffic transportation, economic, social and cultural benefits*

  We have accepted the undisputed evidence of Mr Dunlop for Waka Kotahi and the identification of benefits from the AEE referred to in the submissions of counsel for Waka Kotahi. The Project will have the positive effects identified in the evidence and submissions.[61]

- *Hydrology and hydraulics*

  We note our finding[62] that we accept the findings of Dr McConchie and Mr Bell that the hydrological and hydraulic effects of the Project on the network of

[61] Para [91] above.
[62] Para [100] above.

watercourses crossed by the new highway including the Manawatū River crossing will be less than minor.

- *Erosion, sediment control and freshwater quality*

We note our finding[63] that thorough assessments have been undertaken as to the way in which construction and operation of generated stormwater should be treated and discharged and that acceptable environmental outcomes can be expected from the Project.

- *Air quality*

We have accepted the uncontested evidence of the expert witnesses on this subject that air quality conditions provided for in the agreed conditions mitigate to acceptable levels any adverse effects of dust on terrestrial ecology and sensitive receivers along the route of the new highway.

- *Terrestrial and Freshwater Ecology (jointly)*

We refer to our very detailed discussion on these two topics (including discussions as to the matters of offsetting and compensation) contained in paragraphs [122] – [213] (above). We confirm our acceptance of the conclusions reached by the expert witnesses regarding these topics. We are satisfied that adverse effects on these values have been adequately avoided, mitigated, offset or compensated.

- *Natural Character and Landscape effects*

We have found that there will be adverse effects associated with the highway traversing two ONFLs. These adverse effects have been avoided as far as reasonably practicable and avoided, remedied or mitigated through a combination of design and conditions to the greatest extent practicable.

- *Cultural effects*

We have found that the interests and values in the Project of the four iwi involved have been met and will continue to be met through their ongoing participation as formal partners in the Te Ahu a Turanga Alliance.

[288] We are satisfied from our consideration of the application documents, statements of evidence from witnesses, various JWSs provided by expert witnesses and the submissions which we heard that all potential effects of the Project (positive and adverse) have been accurately identified and adequately considered by Waka

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[63] Para [108] above.

Kotahi. The inclusion of the Northern Alignment in the Project was clearly a significant factor in avoiding a number of adverse effects. We find that Waka Kotahi has avoided, remedied or mitigated adverse effects to the greatest extent practicable and where avoidance, remedy or mitigation could not be achieved, has adequately offset or compensated for those effects.

Policy Provisions

[289] We now consider the various statutory instruments to which we are required to have regard pursuant to s 104(1)(b) RMA. As with effects, this is a wider consideration than that undertaken pursuant to s 104D and requires us to consider a wide range of statutory instruments. With two exceptions, these instruments were identified in the AEE forming part of the Waka Kotahi application[64] (and we will address those exceptions briefly below). It was the unanimous view of the expert planning witnesses that the Project was consistent with the relevant provisions of any national environmental standards, national policy statements, regional policy statement and the regional plan. There was no challenge to that proposition by any party to the proceedings before us.

[290] Notwithstanding unanimity of the witnesses and parties, the statutory instruments are something to which the Court is required to have regard and reach its own determination on, although we must obviously have regard to the evidence and submissions presented to us in reaching that determination. We will consider the following matters under this head:

- Higher order instruments;
- Chapter 3 of One Plan;
- Other relevant One Plan provisions;
- National Policy Statement for Freshwater Management 2020 (NPSFM 2020);
- Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES Freshwater).

[64] Section 8 and Appendix D.

Higher Order Instruments

[291] Section 8 of the AEE contains a comprehensive assessment of the Project against various instruments. We commence with an assessment of our findings against various "National" instruments.

National Policy Statements and National Environmental Standards

[292] With respect to National Policy Statements and National Environmental Standards, Mr McGahan's[65] evidence was that there were three National Policy Statements ("**NPS**") and four National Environmental Standards ("**NES**") that were relevant to the Project[66]. These had been assessed in detail in Section 8 of the AEE and in his opinion the Project was consistent with the policy direction of each of these instruments.

[293] In the first column of the following table we set out the reasons for the conclusions Mr McGahan reached on each of the seven instruments[67]. In the second column we summarise our findings on the effects of the Project in the context of the NPSFM, the NESAQ and the NESCS instruments as well as in the context of the national infrastructure instruments, the NPSREG, the NPSET, the NESETA and the NESTF.

Mr McGahan's Reasons for Conclusions Reached	**Court's Finding in Context of Relevant Instrument**
NPS for Freshwater Management 2014 ("**NPSFM**")[68]	
The Project is consistent with the NPSFM given the proposed mitigation measures, such as stormwater treatment and ESC, as well as the integrated management of freshwater, land use and development, the reflection of tangata whenua values throughout stormwater design, and offsetting measures.	The interests and values in the Project of the four iwi involved have been met and will continue to be met through their ongoing participation as formal partners in the Te Ahu a Turanga Alliance. Thorough assessments have been undertaken as to the way in which construction and operation of generated stormwater should be treated and discharged and acceptable environmental outcomes can be expected.

65 Planning Manager for Waka Kotahi.

66 McGahan EIC at [190].

67 McGahan EIC at [190 (a) to (g)] with slight rearrangement of order in evidence

68 We address **NPFSM 2020** later in this decision.

	Adverse effects on terrestrial ecology and freshwater quality have been adequately avoided, mitigated, compensated or offset.
NES for Air Quality 2004 ("**NESAQ**")	
As the Project will only result in discharge of dust to air which will remain well within the ambient air quality standard, the NESAQ is not relevant to the Project.	The air quality conditions provided for in the agreed conditions mitigate to acceptable levels any adverse effects of dust on terrestrial ecology and sensitive receivers along the route of the new highway.
NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 ("**NESCS**")	
Land use consents will be sought from the territorial authorities in a separate application, pursuant to NESCS	In addition to the required land use consents identified by Mr McGahan, thorough assessments have been undertaken of the way in which both construction and operationally generated stormwater should be treated and discharged, Construction discharges are to be monitored and acceptable environmental outcomes can be expected in practice through the implementation of the requirements contained in conditions ES1 – ES10 and SW1, the related Erosion Sediment Control Plan and the Site Specific Erosion and Sediment Control Plans which are required to be prepared for each individual work area.
NPS for Renewable Electricity Generation 2011 ("**NPSREG**")	
The Project is consistent with the NPSREG given there are no wind turbines impacted by the Project and given the suite of other measures to avoid disruption to Meridian's operations, the Project does not hinder the operation and/or maintenance of renewable electricity generation, particularly at Te Āpiti Wind Farm.	Mr Tapper, counsel for Meridian advised that unlike the earlier alignment of the new highway, the designated alignment would not require any of Meridian's turbines to be removed and submitted that while the Project did not give effect to the National Policy Statement for Renewable Energy Generation equally it was not repugnant to this Statement. Meridian's objections to the Project at the time the s 87F report was written have been resolved through a combination of reducing the areal extent of the wetlands on its land, limiting the width of riparian planting to no more than 10 m on the banks of all streams on the windfarm and limiting the proximity of the Project's earthworks to the nearest turbine, all as provided for in the amended plans and the Agreed Conditions.
NPS on Electricity Transmission 2008 ("**NPSET**")	
The Project potentially requires conductors on the Mangamaire – Woodville A 110kV transmission line to be raised in order to achieve the necessary road surface clearance (both the construction and operational phase). As this action will be	All of the concerns identified in Transpower's submission and its s 274 Notice have been resolved to its satisfaction through the wording of conditions NG1 -NG3 in the Agreed Conditions.

managed through proposed conditions, the Project will not hinder the operation and maintenance of the national electricity transmission activities, the Project is consistent with NPSET.	
NES for Electricity Transmission Activities 2009 (**"NESETA"**)	
As noted above, the Project potentially requires raising the level of the conductors to achieve the necessary clearance from the road. At this stage, the required height change is expected to be within the permitted activity status threshold, and as such, no consent is required.	All of the concerns identified in Transpower's submission and its s 274 Notice have been resolved to its satisfaction through the wording of conditions NG1 -NG3 in the Agreed Conditions.
NES for Telecommunication Facilities 2016 (**"NESTF"**):	
While the Project is not a telecommunication network operator, where work may necessitate the disruption or relocation of telecommunication facilities, consultation with the utility network operator has been undertaken and will continue to occur; the Project will not hinder the operation and maintenance of those telecommunication networks.	The Court did not identify any issues for which findings were required for telecommunication facilities

[294] Subject to the matters identified by Transpower and Meridian (at that time) being addressed, the s87F report generally agreed with the assessment provided in Section 8 of the AEE which concluded that the Project would be consistent with the objectives and policies of the relevant National Policy Statements and National Environmental Standards.

[295] Mr St Clair's view was that additional conditions for discharge standards and offset/compensation (as recommended by Mr Brown, Mr Lambie and Mr Pearce) would be required in order to ensure that the application was consistent with Objective A1 of the NPSFM. As we have noted in our comments in the table above, we are satisfied that these have now been provided for in the agreed conditions.

[296] Insofar as the matters of concern identified in Mr McGahan's evidence are concerned, we note the agreement of the expert planning witnesses as set out in their JWS that the Project is not contrary to the relevant statutory provisions identified in Mr McGahan's evidence. We accept their conclusions in that regard.

Chapter 3 One Plan

[297] Chapter 3 of One Plan deals with a number of topics, including "Infrastructure". The "Scope and Background" section of Chapter 3 records that:

The Regional Council recognises that some infrastructure and other physical resources are regionally or nationally important. The establishment, ***operation****, ***maintenance**** and ***upgrading**** of infrastructure and infrastructure corridors is critical to the economic wellbeing of the Region and the nation. However, infrastructure can have adverse effects on the environment and other activities can have reverse sensitivity adverse effects on infrastructure.

[298] Chapter 3 identifies the following issue:

Issue 3-1: Infrastructure and other physical resources of regional or national importance

There is potential for concerns about local adverse effects to prevail over recognition of the regional and national benefits of establishing infrastructure and other physical resources of regional or national importance. There is also potential for other activities to constrain the ***operation****, ***maintenance**** or ***upgrading**** of infrastructure and other physical resources of regional or national importance.

[299] Chapter 3 contains the following relevant objective:

Objective 3-1: Infrastructure and other physical resources of regional or national importance

Have regard to the benefits of *infrastructure* and other physical resources of regional or national importance by recognising and providing for their establishment, ***operation****, ***maintenance**** and ***upgrading****.**

[300] Chapter 3 contains the following relevant policies:

- **Policy 3-1: Benefits of infrastructure and other physical resources of regional or national importance**
  a. The Regional Council and *Territorial Authorities* must recognise the following *infrastructure* as being physical resources of regional or national importance:
     iv. The *road* … networks as mapped in the Regional Land Transport Strategy.
- **Policy 3-3: Adverse effects of infrastructure and other physical resources of regional or national importance on the environment**
  In managing any adverse environmental effects arising from the establishment, ***operation****, ***maintenance**** and ***upgrading**** of *infrastructure* or other physical resources of regional or national importance, the Regional Council and Territorial Authorities must:
  a. recognise and provide for the ***operation****, ***maintenance**** and *upgrading** of all such activities once they have been established,

b. allow minor adverse *effects* arising from the establishment of new *infrastructure* and physical resources of regional or national importance, and

c. avoid, remedy or mitigate more than minor adverse *effects* arising from the establishment of new *infrastructure* and other physical resources of regional or national importance, taking into account:

i. the need for the *infrastructure* or other physical resources of regional or national importance,

ii. any functional, operational or technical constraints that require *infrastructure* or other physical resources of regional or national importance to be located or designed in the manner proposed,

iii. whether there are any reasonably practicable alternative locations or designs, and

iv. whether any more than minor adverse *effects* that cannot be adequately avoided, remedied or mitigated by services or works can be appropriately offset, including through the use of financial contributions.

[301] Chapter 3 is of particular significance in assessing these applications. Its provisions recognise the importance of and support the establishment and operation of regionally and nationally important infrastructure. More particularly, the issue identification, objective and policies recognise the potential for infrastructure projects to have more than minor adverse effects on the environment and provide not just for avoidance, remedy or mitigation of such effects, but also for their appropriate offsetting, including through the use of financial contributions. Policy 3-3 in particular provides for the "managing" of adverse environmental effects arising from establishment, operation, maintenance, and upgrading of infrastructure and offsetting is clearly part of that process pursuant to Policy 3-3: c. iv.

[302] For the sake of completeness we refer to the various benefits of the Project which we have previously identified and we note the following statement from Mr Dalzell that:

> … the Project is a key priority for the Transport Agency (as reflected in the NLTP) and is described in Horizons Regional Land Transport Plan … as follows:
> *It is critical for regional economic growth that the focus remains on the development of an alternative to the Manawatū Gorge as the principal east-west link between Manawatū and Hawkes Bay. Completion of a new route must ensure an improvement to the resilience and availability of the route as well as realising opportunities for connectivity to land use development, freight hubs and efficiency, and tourism.*

We consider that the provisions contained in Chapter 3 as to the importance of infrastructure and the uncontested evidence as to the benefits of the Project provide significant context for determination of these consent applications.

Other relevant One Plan provisions

[303] In this section of our decision we deal with the remaining policies of the One Plan which are relevant to our decision-making. Mr St Clair's s 87F report identified those provisions of the Regional Plan which required further analysis as part of determination of these proceedings.

[304] We consider that the most significant of these is contained in Chapter 13: Land, which contains Objectives[69] and Policies[70]. We note and concur with Mr St Clair's findings that provided appropriate conditions were imposed to manage sedimentation effects, the Project would be consistent with Objective 13-1 and Policies 13-1 and 13-2.

[305] A matter of particular significance in these proceedings arises pursuant to Objective 13-2 which requires the regulation of ... *"resource use activities to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna or to maintain indigenous biological diversity, including enhancement where appropriate".* The s 87F report noted the permanent loss of areas of significant indigenous vegetation and significant habitats of indigenous fauna, which constituted significant adverse effects of the proposal. The Report stated the following:

> The Applicant has identified a hierarchical approach (avoid, remedy, mitigate, and offset) to managing the biodiversity loss where the effects are more than minor in accordance with Policy 13-4(b) and has adopted that approach in the application and technical assessments. I agree that this policy enables any more than minor effects that cannot be avoided, remedied or mitigated, to be offset to result in a net indigenous gain, subject to the limits on offsetting set out in Policy 13-4(d).
>
> (Footnotes omitted.)

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69 Objectives 13-1: (vegetation clearance, land disturbance) and 13-2: (indigenous biological diversity).

70 Policy 13-1: (vegetation clearance, land disturbance), 13-2: (consent decision- making for vegetation clearance, land disturbance), 13-3: (regional rules for activities affecting indigenous biological diversity), 13-4: (consent decision-making for activities in rare habitats, threatened habitats and at-risk habitats) and 13-5: (criteria).

The s 87F report concluded that subject to recommended amendments to conditions, the Project was consistent with Policy 13-4. That matter was the subject of considerable discussion in the preceding findings of this decision. Our findings in that regard might be summarised as being that even allowing for the distinctions between offsetting and compensation that the "package" of avoidance, mitigation, offsetting and compensation advanced by Waka Kotahi is consistent with Policy 13-4.

[306] In addition to Chapter 13, the s 87F report identified and reached conclusions on objectives and policies contained in the following provisions of One Plan:

- **Chapter 14 – Discharges (Land and Water)**
  The Report did not identify any way in which the Project was contrary to or would compromise any of the matters contained in the relevant objectives and policies of this Chapter;
- **Chapter 15 - Air**
  The Report concluded that the proposed activities would be consistent with the relevant objective in this case;
- **Chapter 16 – Takes, Uses and Diversions of Water, and Bores**
  The Report concluded that subject to recommendations as to conditions being met, the Project is consistent with Chapter 16;
- **Chapter 17 – Artificial Watercourses, Beds of Rivers and Lakes, and Damming**
  The Report concluded that with the imposition of management plans as per conditions, the Project was consistent with Chapter 17.

[307] There was no challenge to any of the conclusions reached in the s 87F report. The planning witnesses concurred that the Project is not contrary to the relevant provisions set out in the s 87F report. We find that the Project is either consistent with or does not offend any of the identified provisions of the One Plan.

NPSFM 2020 and NES Freshwater

[308] In the normal course of events, consideration of the statutory instruments identified in s 104(1)(b) would have been completed by our assessment above. Regrettably, that is not the case in these proceedings due to the coming into force of the NPSFM 2020 on 3 September 2020 (together with the associated NES

Freshwater).[71] Although these documents were not part of the statutory environment at the time Waka Kotahi lodged its applications for resource consents, they are nevertheless extant documents which came into force shortly after conclusion of our hearing and before the issue of our decision. We consider that they are documents to which we are obliged to have regard. We are grateful for the detailed considerations made by Counsel for Waka Kotahi regarding these statutory instruments. In those submissions Counsel acknowledged that NPSFM 2020 is a relevant National Policy Statement that the Court is obliged to consider.

[309] NPSFM has two consequences relevant to our consideration in these proceedings:

- The first is that it contains a series of objectives and policies which must be considered by us pursuant to s 104(1)(b)(iii);
- Secondly, it contains a series of provisions which (pursuant to s 55(2)) must be incorporated into One Plan as soon as practicable and for that reason will form part of the policy framework for our consideration of the One Plan pursuant to s 104D(1)(b). The provisions of the NPSFM 2020 which Counsel identified as requiring to be incorporated were:
  - Clause 3.22(1) – natural inland wetlands;
  - Clause 3.24(1) – rivers;
  - Clause 3.26(1) - fish passage.

[310] At the conclusion of our hearing, counsel for Waka Kotahi were given the opportunity to address the NPSFM 2020 (and the NES Freshwater) and did so in their reply submissions. The assessment undertaken by counsel is comprehensive and difficult to paraphrase as it addresses an objective and 15 policies. The factual matters on which counsel rely in their assessment of the effects of the Project against the NPSFM 2020 are in accordance with either our own findings regarding those matters, the AEE or the information contained in the various JWSs which we considered. We have considered the provisions of the NPSFM and consider that counsels' assessment is accurate.

[311] Accordingly, (and for the sake of efficiency) we set out the relevant portions of Counsel's reply submissions for Waka Kotahi addressing the objective and policies:

> 26. The objective of the NPSFM 2020 is as follows:

[71] The majority of the NES Freshwater came into effect on 3 September 2020.

The objective of this [NPSFM 2020] is to ensure that natural and physical resources are managed in a way that prioritises:

(a) first, the health and well-being of water bodies and freshwater ecosystems

(b) second, the health needs of people (such as drinking water)

(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

27. The NPSFM 2020 includes 15 policies which relate to:

(a) Te Mana o te Wai and involving tangata whenua in freshwater management (policies 1 and 2);

(b) integrated whole-of-catchment management (policy 3);

(c) integration with New Zealand's response to climate change (policy 4);

(d) implementation of a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and for all others is either maintained or improved (policy 5);

(e) protection of wetlands and their values (policy 6);

(f) avoidance of the loss of river extent and values to the extent practicable (policy 7);

(g) protection of significant values of outstanding water bodies (policy 8);

(h) protection of the habitats of indigenous freshwater species (policy 9);

(i) protection of the habitat of trout and salmon (policy 10);

(j) efficient use and allocation of freshwater (policy 11);

(k) achievement of the national target for water quality improvement (policy 12);

(l) monitoring and reporting (policies 13 and 14); and

(m) enabling communities to provide for their social, economic, and cultural well-being (policy 15).

28. The Project is consistent with this objective and policy framework for the following reasons:

In terms of the NPSFM 2020 objective:

(a) The Project has been managed in a way that prioritises the health and well-being of water bodies and freshwater ecosystems. While the Project involves activities that will affect water bodies and freshwater ecosystems, the response to those effects has been thorough and comprehensive, as described in the evidence of Ms Quinn (in respect of streams and freshwater ecology) and Dr Baber and Mr Markham (in respect of wetlands) and summarised in the opening legal submissions for Waka Kotahi. In particular, a suite of mitigation measures is proposed

to minimise and mitigate effects on water bodies and freshwater values. Offset and compensation measures are also proposed, as follows:

(i) The stream habitat loss and modification effects of the Project will be offset to achieve 'no net loss' in ecological function through the construction and planting of stream diversions, and the riparian planting and fencing of existing intermittent and permanent streams located near the Project footprint. This offset package includes 8,087 m^2 of new planted stream channels, and riparian planting of 17,386 m^2 of existing streambed (currently calculated to deliver approximately 98 ha of riparian planting in total).

(ii) The terrestrial and wetland offset and compensation package (to achieve an overall net biodiversity gain) includes the restoration of 6.55 ha of wetland habitat through native revegetation of existing wetlands (coupled with a 10 m wetland margin buffer and stock exclusion fencing). 0.4 ha of existing wetland will also be retired from stock browsing.

(b) The Project prioritises the health needs of people as there will be no effects on drinking water.

(c) The Project provides significant benefits as explained in evidence by Mr Dalzell, and Mr Dunlop, and is supported by the Iwi Partners as recorded in evidence filed on their behalf. The Project therefore provides for the social, economic and cultural well-being of people and communities.

In terms of the NPSFM 2020 policy framework

(d) Iwi Partners have been involved as Project partners, as explained in the evidence of Mr Dalzell and evidence on behalf of the Iwi Partners themselves (policies 1 and 2).

(e) The stormwater design has appropriately considered the integrated management of fresh water and use of land, as described in the evidence of Mr Hughes (policy 3).

(f) The effects of climate change have been considered as part of stormwater design and in assessing the hydrological effects of the Project, as described by Dr McConchie and Mr Hughes (policy 4).

(g) As explained by Mr Hamill, once operational, the Project will improve the overall quality of freshwater through improved stormwater treatment (policy 5). The Project will therefore contribute to achieving the national target for water quality improvement (policy 12).

(h) The Project has avoided the loss of natural inland wetlands as far as practicable; in particular, the Northern Alignment has avoided nearly all effects on the raupō wetland by adjusting the design of the Project to include an Eco Bridge over this area, rather than constructing

embankments. As noted above, wetland restoration is proposed to address residual effects on wetlands (policy 6).

(i) While the Project does involve the permanent loss of sections of streams, a thorough assessment was undertaken to avoid the loss of river extent as far as practicable. In addition, the freshwater offset and compensation package (summarised above at sub-paragraph (a)) will offset the effects of this loss of streams, and protect the habitats of indigenous freshwater species (policies 7 and 9).

(j) The Project does not affect any outstanding water bodies (policy 8).

(k) The Project does not affect the habitat of salmon. The Manawatū River does have trout fishery values, but the proposed erosion and sediment control measures will ensure that the trout fishery values of the River are not impacted by the Project (policy 10).

(l) The Project does not involve the allocation of water (policy 11). Policies 13 and 14 (which relate to monitoring and information sharing) are also not relevant to the Project.

(m) The significant benefits of the Project will enable communities to provide for their social, economic, and cultural well-being (policy 15).

(Footnotes omitted.)

[312] We concur with counsels' submission that the Project is consistent with the objective and policy framework of the NPSFM 2020 for the reasons specified in the preceding submissions.

[313] Turning to the matters to be included in One Plan, we consider the various provisions identified for inclusion in that document.

Clause 3.22(1) – natural inland wetlands

[314] This provision requires that every regional council must include the following policy (or words to the same effect) in its regional plan:

> The loss of extent of natural inland wetlands is avoided, their values are protected, and their restoration is promoted except where:
>
> (a) the loss of extent or values arises from any of the following:
>
> (i) the customary harvest of food or resources undertaken in accordance with tikanga Māori
>
> (ii) restoration activities
>
> (iii) scientific research
>
> (iv) the sustainable harvest of sphagnum moss
>
> (v) the construction or maintenance of wetland utility structures

(vi) the maintenance or operation of specified infrastructure, or other infrastructure

(vii) natural hazard works; or

(b) the regional council is satisfied that:

(i) the activity is necessary for the construction or upgrade of specified infrastructure; and

(ii) the specified infrastructure will provide significant national or regional benefits; and

(iii) there is a functional need for the specified infrastructure in that location; and

(iv) the effects of the activity are managed through applying the effects management hierarchy.

We concur with the submission of counsel that the Project fits within limb (b) of this policy because it is both a lifeline utility in the CDEMA and specified infrastructure providing significant national and regional benefits. There is a functional need for it to occur in this location identified after consideration of options in the route designation process and adverse effects of the activity have been managed through the effects management hierarchy as we have previously identified.

Clause 3.24(1) – rivers

[315] This provision requires that every regional council must include the following policy (or words to the same effect) in its regional plan:

> The loss of river extent and values is avoided, unless the council is satisfied:
>
> (a) that there is a functional need for the activity in that location; and
>
> (b) the effects of the activity are managed by applying the effects management hierarchy.

The Project is consistent with this policy as there is a functional need for it to occur in this location identified after consideration of options in the route designation process. Adverse effects of the activity have been managed through the effects management hierarchy as we have previously identified.

Clause 3.26(1) – fish passage

[316] This provision requires every regional council to include the following fish passage objective (or words to the same effect) in its regional plan:

> 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.

We consider that the Project is consistent with this objective as it provides for fish to pass to areas of habitat upstream and the detailed design of fish passage through permanent culverts will be certified by the Regional Council.

[317] Having regard to our earlier findings, the contents of the AEE, various witness briefs and various JWSs, we accept the submissions made by Counsel for Waka Kotahi. We find that for the purposes of the s 104D(1)(b)(i)-(iii), there is no aspect of the Project that will be inconsistent with any objective and policies of the NPSFM itself nor to any objective and policies which must be incorporated into the One Plan pursuant to s 55(2) RMA.

NES Freshwater

[318] We have also considered the provisions of the NES Freshwater whose relevant provisions also came into force 3 September 2020. We are obliged to have regard to them pursuant to s104(1)(b)(ii). The regulations do not contain any transitional, savings or related provisions addressing applications in the course of consideration at the time of their coming into force. As we have done with the NPSFM 2020 we consider that they are regulations applicable to our consideration.

[319] In its reply submissions, Waka Kotahi identified a number of regulations which it contended were of relevance to the Project. It submitted as follows:[72]

> 48. The NES Freshwater includes the following regulations of relevance to the Project:
>
> (a) *"Specified infrastructure"* within or affecting *"natural wetlands"* is provided for in regulations 45 to 47 as follows:
>
> (i) Construction of specified infrastructure within or within a specified distance from a natural wetland is a discretionary activity (including vegetation clearance, earthworks or land disturbance, or the taking, use, damming or discharge of water).
>
> (ii) Maintenance and operation of specified infrastructure within or within a specified distance from a natural wetland (including vegetation clearance, earthworks or land disturbance, or the taking, use, damming or discharge of water) is a permitted activity

[72] Waka Kotahi reply legal submission.

subject to certain conditions provided for in regulations 46 and 55. If those conditions are not complied with, maintenance and operation becomes a restricted discretionary activity.

(b) *"Reclamation"* of the bed of any river is a discretionary activity (regulation 57). *"Reclamation"* is defined with reference to the National Planning Standards as the manmade formation of permanent dry land by the positioning of material into or onto any part of a river (with certain exclusions). Project activities that involve the loss of streams require a resource consent under this regulation.

(c) The placement and use of culverts is a permitted activity, subject to compliance with conditions (regulation 70). Culverts that do not comply with those conditions have a discretionary activity status (regulation 71). In addition, regulations 62, 63, and 69 create additional requirements that must be provided for by the conditions of consent for culverts as follows:

(i) Regulations 62 and 63 require certain information to be provided to the relevant regional council within 20 working days after any culvert has been constructed as a condition of consent.

(ii) Regulation 69 requires a resource consent granted for the construction of any culvert to impose conditions that require monitoring, and maintenance of the structure in the manner set out in the Regulation.

49. The application before this Court is for all regional resource consents required for the Project, whether explicitly specified or not. The resource consents specifically applied for are for such activities as works within watercourses, dewatering, and stream diversions. Some of these activities have a non-complying activity status under the One Plan; for example, land use consent has been sought as a non-complying activity under Rule 13-9 of the One Plan for earthworks and vegetation clearance within rare or threatened habitat, which includes the wetlands affected by the Project. Therefore, some of the rules under which consent has been sought are more stringent than the NES Freshwater and will prevail over those regulations.

50. However, the description of activities for which consent is required under the One Plan does not perfectly align with the relevant descriptions in the NES Freshwater. As such, Waka Kotahi seeks that the Court confirm that, to the extent necessary, resource consent is granted under the following regulations of the NES Freshwater:

(a) Regulation 45: Construction of specified infrastructure;

(b) Regulation 57: Reclamation of the bed of rivers; and

(c) Regulation 71: Placement and use of culverts.

51. As noted above, regulations 62, 63 and 69 create additional requirements that must be provided for by the conditions of consent for culverts, as follows:
    (a) Regulations 62 and 63 require certain information identified in the Regulations to be provided to the relevant regional council within 20 working days after any culvert has been constructed as a condition of consent.
    (b) Regulation 69 requires a resource consent granted for the construction of any culvert to impose conditions that require monitoring and maintenance of the structure in the manner set out in the Regulation.
52. The proposed condition set has been amended to provide for these requirements, as follows:
    (a) **EC14(a)** has been amended to specifically require that monitoring and maintenance must be carried out in a way that meets the requirements of regulation 69. This requirement is also reflected in Schedule 1 in respect of the Freshwater Ecology Management and Monitoring Plan.
    (b) **WW3** has been amended to replace the requirement to provide as-built plans to Horizons following construction, with a requirement to provide the specific information required by regulations 62 and 63.
53. As the Court will be aware, once an application has been made for activities clearly described, it is for the consent authority to classify those activities by reference to the relevant rules triggering the need for consent, regardless of what type of activity the application was expressed to be for.
54. The Court has the power to grant all necessary consents for the activities described in the application before it, whether they be required by rules of the One Plan (which have the status of regulations) or the NES Freshwater itself.

(Footnotes omitted.)

[320] For the purposes of this discussion, we have accepted that Waka Kotahi's identification of the provisions of that document which are relevant to the Project is correct. We record that there is nothing obviously to the contrary which "leaps out at us" in our perusal of the regulations. We accept the proposition advanced in the *Westfield New Zealand Ltd v Upper Hutt City Council* case that it is for the consent authority to classify activities by reference to relevant rules and we have had regard to the provisions of s 88A.[73] We note the provisions of s 88A RMA (to the extent they are relevant) and note that under the One Plan, the Waka Kotahi applications have been treated as a non-complying activity being the most stringent classification of activity for which consent may be granted in any event.

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73 *Westfield New Zealand Ltd v Upper Hutt City Council* W 55/2000.

[321] We are, however, concerned by the proposition contained in the Waka Kotahi submission that because the description of activities for which consent is required under One Plan does not "perfectly align" with descriptions in the NES Freshwater we should "to the extent necessary" grant consents under the provisions which Waka Kotahi has indicated.[74] We do not agree with that proposition.

[322] The basis for Waka Kotahi's submissions in that regard is found in the following contents of the AEE contained in the application:

- Paragraph 1.2 of the AEE which forms the basis of the resource consent applications contains the following statement:

  > This AEE has been prepared in accordance with s 88 and the Fourth Schedule of the Resource Management Act 1991 (RMA) to support the application by the Transport Agency to Horizons for the resource consents necessary to authorise the construction, operation, use, maintenance of the Project. The resource consents required are detailed in Section 4.

- Paragraph 1.5 of the AEE then identifies "Approvals Required under the One Plan". It states as follows:

  > The Transport Agency is seeking the regional resource consents required for the construction and operation of the Project pursuant to the Horizons Regional Council One Plan (One Plan). These are summarised in Section 4 and a detailed rule assessment is contained in Appendix C.

- Paragraph 1.6 of the AEE then goes on to identify "other approvals" which might be required. This paragraph is referring to other approvals independent of resource consent applications for the Project. They are described as being:
  - Resource consents under the NES for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011;
  - Resource consent under the NES for Electricity Transmission Activities Regulations 2009;
  - Enabling works (regional and district resource consents);
  - Designations to authorise the land use element of the Project;
  - Archaeological Authority;
  - Wildlife Authority.
- Paragraph 4.1 Introduction to the AEE contains the following statement:

[74] Waka Kotahi reply legal submission at [50].

> Other than resource consents necessary for Enabling Works (discussed earlier in this AEE), all regional resource consents required for the Project are being sought as part of this application, whether they are explicitly specified or not.
> The regional rules are contained in Chapters 13 to 18 of the One Plan. Reasons for resource consents being required under these Chapters and under sections 9(2), 13, 14 and 15 of the RMA are set out in Sections 4.2 to 4.8 [of the AEE].

[323] Waka Kotahi seeks to rely on the underlined words as enabling the Court to grant any consents required (assuming there are in fact further consents required) pursuant to the NES Freshwater. We understand the desirability of the Court being able to do that from the point of view of all of the participants in these proceedings (and the Court itself). Regrettably, in our view, there is a jurisdictional issue in purporting to grant consent to an activity for which no consent was required as of the date the resource consent application was filed, notwithstanding the *catch-all* added to paragraph 4.1.

[324] Section 88 RMA relevantly provides that:

> (1) A person may apply to the relevant consent authority for a resource consent.
> (2) An application must –
> (a) be made in the prescribed form and manner; and
> (b) include the information relating to the activity, including an assessment of the activity's effects on the environment, that is required by Schedule 4.

[325] Schedule 4 has the following relevant provisions:

> **Information required in all applications**
> (1) An application for a resource consent for an activity (the **activity**) must include the following:
> (g) an assessment of the activity against any relevant provisions of a document referred to in section 104(1)(b).
> (2) The assessment under subclause (1)(g) must include an assessment of the activity against –
> (c) any other relevant requirements in a document (for example, in a national environmental standard or other regulations).

[326] We conclude (again regrettably) that for there to have been a valid application for the consents required in the NES Freshwater (being "other regulations"), the application documents must have assessed the proposal against the relevant provisions of those other regulations. It has not done so in this case as the NES Freshwater was not in existence at the time the application was filed.

[327] For these reasons, we do not consider that the Court has jurisdiction to grant any further consents (assuming that further consents are in fact needed – we have not undertaken an independent assessment of that) required under the NES Freshwater.

Determination under s 104

[328] We have found that the actual and potential effects on the environment of the Project have been:

- Avoided to the extent practicable, particularly by inclusion of the Northern Alignment in the Project;
- Mitigated to the greatest extent practicable by the substantial suite of conditions presented to us in final form by Waka Kotahi;
- To the extent that actual and potential effects cannot be avoided and mitigated, those effects have been substantially and adequately offset and compensated by Waka Kotahi's proposals.

[329] We have not identified any relevant provisions of the statutory documents identified in s 104(1)(b)(i)-(vi) to which the Project is contrary or with which it is in conflict. The project appears to be consistent with all of the relevant provisions which were drawn to our attention. We have concurred with the finding of the planning witnesses in that regard.

[330] We have considered the provisions of Part 2 RMA. In doing so we acknowledge the substantial transport, traffic, economic, social, and cultural benefits which will accrue from completion of the Project.

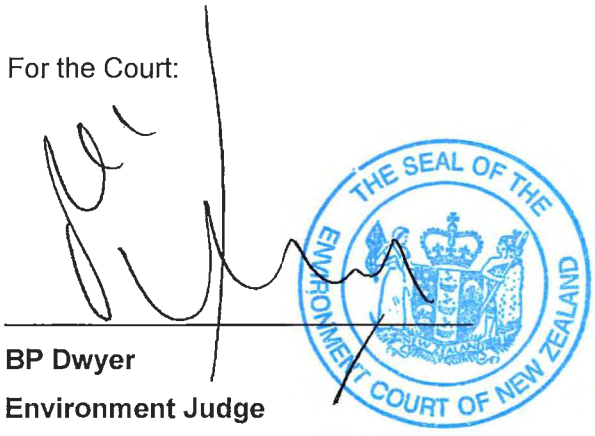
[331] Having regard to all of those matters we are satisfied that granting the consents sought by Waka Kotahi will achieve the sustainable management purpose of RMA.

[332] We have determined to grant all of the consents sought on the conditions appended to this decision. Consent is granted accordingly.

Costs

[333] Costs are to be dealt with in accordance with the relevant provisions of s 285 of the Act. In the event of there being any disagreement between the Applicant and Council as to costs payable pursuant to s 285(7), the Council is to advise the Court by memorandum within 10 working days and directions will issue. Costs are reserved to the Court pursuant to s 285(3) and the Court's Registry will be advised accordingly for issue of notification of costs in due course. There is no reservation of costs inter partes.

For the Court:



BP Dwyer
Environment Judge