

**ENVIRONMENT COURT OF NEW ZEALAND
WELLINGTON REGISTRY**

**I MUA I TE KOOTI TAIAO O AOTEAROA
TE WHANGANUI-A-TARA**

ENV-2023-WLG-000005

Under the Resource Management Act 1991

In the matter of the direct referral of applications for resource consent and notices of requirement under sections 87G and 198E of the Act for the Ōtaki to North of Levin Project

By Waka Kotahi NZ Transport Agency

**STATEMENT OF EVIDENCE OF GAVIN CRAIG LISTER
ON BEHALF OF WAKA KOTAHI NZ TRANSPORT AGENCY**

LANDSCAPE, VISUAL AND NATURAL CHARACTER

Dated: 4 July 2023

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INTRODUCTION

1. My full name is **Gavin Craig Lister**.
2. I am a landscape architect and urban designer. I am a founder of Isthmus Group, a practice that specialises in landscape architecture, architecture, and urban design.
3. I prepared Technical Assessment D: Landscape, Visual and Natural Characters (**Technical Assessment D**) as part of Volume IV of the Assessment of Environmental Effects (**AEE**), which accompanied the application for resource consents and notices of requirement for designations (**NoRs**) lodged with Manawatū-Whanganui Regional Council (**Horizons**), Greater Wellington Regional Council (**GWRC**), Horowhenua District Council (**HDC**) and Kāpiti Coast District Council (**KCDC**) (together, the **Councils**) in November 2022 in respect of the Ōtaki to north of Levin highway Project (**Ō2NL Project** or **Project**).
4. My qualifications and experience are set out in paragraphs 11 to 17 of Technical Assessment D. My evidence is supplementary to Technical Assessment D.
5. In preparing Technical Assessment D and my evidence:
 - (a) I have provided advice on landscape, visual and natural character matters related to the Project to Waka Kotahi since 2011;
 - (b) I have been involved in providing input to the route selection process and working alongside many of the specialists involved in the Project. I have also provided input to the Cultural and Environmental Design Framework (**CEDF**), the principal author of which is Lisa Rimmer from our practice.
6. Since the consent applications and NoRs were lodged:
 - (a) I took part in a public meeting in Levin (28 January 2023) to provide information about the Project to the community.
 - (b) I assisted with the response to a number of questions in the section 92 further information requests from the Councils related to Technical Assessment D.

- (c) I reviewed relevant submissions and assisted with the Project's response to submitters.
- (d) I have reviewed the relevant section 87F and 198D reports and the section 274 notices of interested parties.
- (e) I have talked with Ms Julia Williams, the landscape, visual and natural character expert for the Councils to discuss Technical Assessment D and her section 87F and 198D reports.

Code of conduct

- 7. I confirm that I have read the Code of Conduct for expert witnesses contained in section 9 of the Environment Court Practice Note 2023. This evidence has been prepared in compliance with that Code. In particular, unless I state otherwise, this evidence is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Purpose and scope of the evidence

- 8. Technical Assessment D assesses the actual and potential environmental effects of the Project on landscape, visual, and natural character values.
- 9. My evidence does not repeat in detail the matters discussed in Technical Assessment D. Rather, in this evidence I:
 - (a) present the key findings of Technical Assessment D in an executive summary, updated to factor in the additional work carried out since lodgement;
 - (b) provide a more detailed description of the additional work carried out, information obtained, and discussions held since lodgement, and the implications for my assessment;
 - (c) comment on issues raised in submissions received in respect of the Project; and
 - (d) comment on the section 87F/198D reports prepared by Horizons, GWRC, HDC and KCDC (**council reports**).

EXECUTIVE SUMMARY

10. A new highway through a landscape such as Horowhenua must unavoidably have some adverse landscape, visual, and natural character effects. I have assessed those effects applying a methodology consistent with '*Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines*', published by Tuia Pito Ora/NZ Institute of Landscape Architects, June 2022. In particular:
 - (a) I assessed landscape and visual effects by reference to the six landscape character areas traversed by the Project, and my estimate of visual effects on individual dwellings across the Project area; and
 - (b) natural character was assessed through workshops that provided specialist input relevant matters.

Landscape character and amenity effects

11. I consider potential significant adverse landscape effects have been avoided and reduced through the selection of an eastern route and the detailed alignment. The proposed designations follow what I consider the best fit from a landscape perspective at a district level. I note that I had input (from a landscape, visual and natural characters effects perspective) into shaping the Ō2NL Project since 2011. This included input to consideration of alternatives with respect to the designation alignment and related matters, and to the proposed urban and landscape design measures.
12. The Ō2NL Project also fits landscape patterns at a finer scale within the constraints of engineering geometry for such a road. Such a fit helps reduce effects on natural and human aspects of landscape character and will contribute to aesthetic coherence between the highway and landscape. Nevertheless, there will be some unavoidable residual adverse effects on landscape character and amenity values, most notably at 'Manakau Downlands'¹ and the area on the north-east outskirts of Levin.
13. Assessing the effects of the Project by landscape character area in turn enabled me to recommend specific mitigation measures. A range of mitigation measures are proposed for each landscape character area. The key measures are various forms of:

¹ Manakau Downlands is one of the 'landscape domains' (landscape character areas) identified in the Horowhenua District Plan. It is the area south and east of Manakau village including Manakau Heights Drive, Mountain View Drive, and Eastern Rise.

- (a) rehabilitation along the highway margins including planting (for screening, 'softening', and integration), and naturalising key Project elements – particularly earthworks and stormwater infrastructure - to provide a more natural landscape fit; and
 - (b) restoration of stream banks and wetlands perpendicular to the highway to 'stitch' the landscape across the highway and restore natural character.
14. Landscape and visual measures are also recommended to integrate the design of the Project and that of the intended future urban development at Tara-Ika to address amenity and connectivity.
15. With the proposed mitigation taken into account, I have assessed the effects of the Project on landscape character and amenity values as ranging from 'low' to 'moderate-high',² depending on the landscape character area.

Visual effects

16. The fit of the Project with landscape character patterns is key to the visual effects on public views, as are the mitigation measures discussed above to soften and further integrate the Ō2NL Project into the landscape.
17. In terms of private views, while minimising adverse visual effects on amenity values from individual properties was a factor in selecting the preferred alignment, the Ō2NL Project will unavoidably require the removal of some dwellings and have significant adverse visual effects on others.
18. Tabulated assessments estimating the likely visual effects from individual properties were prepared, and included as Appendix D.3 Technical Assessment D. The tables record distance of the edge of the concept highway design from each dwelling, an assessment of the nature and degree of visual effect, and the recommended mitigation in those instances where the adverse visual effects for a dwelling are likely to be 'moderate' or greater. Mitigation will be largely provided through the broad scale planting proposed within the designation for landscape, visual, and natural character reasons, but there are instances where additional specific mitigation is required. Proposed Condition DLV2 provides for an offer of further planting mitigation

² I use the following seven-point scale to describe the magnitude of effects. The scale is explained in the methodology section of Technical Report D.

very low	low	low-mod	mod	mod-high	high	very high
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on affected properties (over and above that provided within the designation) to the owners of properties assessed as having residual adverse visual effects of a moderate-high (or greater) degree. Appendix D.3 identifies properties assessed as falling within that category based on the concept design and the mitigation depicted in the Planting Concept Plan. Condition DLV2 requires a revised assessment to be included with the Outline Plan to allow changes in detail design to be considered. The method for the revised assessment is attached as Schedule 6 to the conditions.

19. The concentration of moderate or greater adverse visual effects in the area between the north end of the Project and Queen Street East reflects the clusters of rural residential properties on the outskirts of Levin (especially in Sorensons Road, and Waihou Road), and the fact that the proposed designation's large curve around the north-east corner of Levin cuts across the landscape patterns. Similarly, the concentration of adverse visual effects in the Manakau Heights area reflects the cluster of rural residential properties at that location.
20. The final highway alignment and design within the proposed designation may differ from the concept design, and the visual effects for individual houses may increase or decrease.
21. I note that a large proportion of dwellings with the most significant visual effects have either already been purchased to enable the Project or are within the designation and therefore will ultimately be purchased. There are also affected dwellings on properties that will be subject to partial purchase, but where the dwelling will remain. Those dwellings will still be eligible for reconsideration under condition DLV2.

Natural character effects

22. The selection of an eastern route also substantially avoids and reduces potential adverse natural character effects by avoiding areas with significant natural character values in the western part of the districts.
23. Assessments of the existing natural character values of each stream catchment traversed by the Project, along with effects of the Project on those values, were carried out via expert workshops. Restoration and rehabilitation measures have subsequently been proposed, including planting to restore wetlands and vegetation along stream banks.

24. The river, streams and wetlands crossed by the highway range between low-moderate and moderate-high natural character value. Following the workshop process, I consider the natural character in each of the six main river or stream catchments will be maintained having regard to existing natural character, the modified context, the functional need for the highway to cross the water bodies, the consequentially unavoidable effects of the highway on perceptions of naturalness in the vicinity at such locations, and measures proposed to rehabilitate and restore the natural characteristics and qualities along the streams and wetlands. The proposed measures will continue to increase the natural character of the main streams over time.

The CEDF

25. Mitigation measures are proposed to address specific landscape, visual and natural character effects and are depicted on the Planting Concept Plan.
26. Importantly, potential mitigation measures have been developed and coordinated through the Cultural and Environmental Design Framework (**CEDF**). The purpose of the CEDF is to provide the key principles to ensure continuity of design direction through successive phases of the Project as it develops at increasing level of detail. The CEDF is intended to integrate the mitigation recommended by different disciplines to amplify the benefits of mitigation measures through a coordinated design.
27. The CEDF has been developed in partnership between Waka Kotahi and the Project iwi partners (various hapū of Ngāti Raukawa ki te Tonga and Muaūpoko Tribal Authority). It establishes key principles for the mitigation of the landscape and visual effects of the Project and illustrates potential design and mitigation options across different disciplines including cultural matters, stormwater design, stream diversion design, stream retirement planting, terrestrial ecological planting, earthworks contouring and rehabilitation, landscape restoration, and planting for mitigation of visual amenity. It also follows a whole-of-landscape approach intended to result in an overall landscape outcome that is greater than the sum of the parts.
28. Ultimately, applying the key principles through the development of a final CEDF through the related planting and other measures will 'soften' the Ō2NL Project, help tie it into the landscape, and improve the landscape's biophysical processes and patterns.

Overall

29. I consider the potential adverse landscape, visual, and natural character effects have been avoided to a substantial degree by the selection of the proposed route. Measures proposed to address the unavoidable remaining adverse effects, coordinated into a whole-of-landscape approach through the CEDF, will effectively mitigate such effects and contribute some positive landscape outcomes. I consider this to represent a best practice approach to integrating a new highway into the landscape.

WORK SINCE LODGEMENT

30. Since the application was lodged, I have been involved in further work related to landscape, visual and natural character as set out below.
- (a) response to section 92 requests for further information;
 - (b) engagement with stakeholders; and
 - (c) liaison with other disciplines to integrate responses to submissions, and
 - (d) liaison with Lisa Rimmer to revise the Planting Concept Plans and CEDF in response to matters raised in submissions. The changes are described in relation to individual submissions under the separate heading below. The updated Planting Concept Plans are attached to my evidence (**Appendix A**). The CEDF is in the process of being updated in conjunction with the Project iwi partners.

Effects on houses at 229 Manakau Heights Drive

31. My attention has been drawn to two houses constructed recently close to the designation at 129 Manakau Heights Drive and which are not included in the inventory Appendix D.3 of Technical Report D. There would be a 'high' degree of visual effect on both dwellings considering their proximity (approximately 70m and 140m respectively to the concept highway carriageway), the presence of the overbridge, orientation towards the Project, and open outlook - while also having regard to the concept highway design being approximately 2.7m-3.0m in cut and the subsequent reduced potential height of the overbridge.
32. The planting concept plan depicts tall screen planting adjacent to the highway and on the overbridge ramps which would mitigate the degree of adverse visual effects to 'mod-high'. An offer of additional mitigation would

be required for this property in accordance with Condition DLV2, although in this instance there is the potential for such additional mitigation to be carried out adjacent to the boundary within the designation.

Response to section 92 requests for further information

33. I have assisted with the response to further information requests from the Councils related to Technical Assessment D. My input is incorporated in Waka Kotahi's written responses with respect to landscape, natural character, and urban design matters. In summary, they include:
- (a) the relationship between the highway and Tara-Ika urban development: While I consider such aspects as further overbridges and the interface design between urban development and the highway are important in urban design terms, I understand they are most properly addressed as part of the future planned urban development from a legal and planning perspective;
 - (b) natural character restoration outside the designation: Waka Kotahi undertake to carry out riparian planting depicted outside the designation on the Planting Concept Plans as far as practicable. This will require offering landscape planting to private landowners and entering into private agreements to undertake planting.
 - (c) the provision of a draft Landscape Management Plan: I consider a draft LMP is unnecessary because the Planting Concept Plans, in conjunction with the CEDF, provide an appropriate benchmark and direction for the Outline Plan.
 - (d) planting standards in Condition DLV1: The condition was amended in response to Council's recommendation; and
 - (e) questions about planting plans in the event contaminated land is discovered: Any changes would be addressed as part of the Outline Plan and benchmarked against the nature and extent of planting shown on the Planting Concept Plans.

Engagement with stakeholders

34. I have also been involved in ongoing post-lodgement engagement with the Councils and other stakeholders. Since the consent applications were lodged, this has included:

- (a) public meeting in Levin 28 January 2023 to explain the Project and discuss matters with individuals;
- (b) engagement with Kainga Ora with respect to 76 and 78 Arapaepae Road. The outcome of these discussions is outlined below in response to submission; and
- (c) engagement about the Project's landscape, visual and natural character effects with Ms Julia Williams. I understand there to be no disagreement on the assessment of effects provided to Councils, but some disagreement on process matters relating to mitigation which I address in response to the officer's report below.

COMMENTS ON SUBMISSIONS

Sjann Henry, 82 Waihou Road

- 35. This submission raised concerns with proximity of the house on their property to the Project, including loss of amenity values in conjunction with noise and air quality effects. I assessed that the concept Project design would have 'very high' adverse visual effects on this property without mitigation (Appendix D.3 of Technical Assessment D).
- 36. The mitigation proposed in the Planting Concept Plan³ comprises tall screening planting over a depth of approximately 17m between Waihou Road and the highway, plus an avenue of street trees along Waihou Road (overhead wires would limit this to a single row). I considered the residual adverse visual effects following such mitigation would still be 'mod-high' so that further planting on the affected property would be offered under proposed condition DLV2.

Neil and Sheryl Whyte, 24 Koputaroa Road

- 37. The submission requested a 2m fence and planting along the boundary of their property to address security and noise. The request is with respect to purchase of the adjoining property - a former blueberry farm - by Waka Kotahi and concerns about public access and construction machinery on the property. I understand there are no plans for public access and the site is not an identified construction yard.

³ References to the Planting Concept Plan are to the revised plans attached to my evidence.

38. I understand from Mr Michael Smith that planting is generally not considered effective in reducing noise and that a fence is not warranted to reduce noise in this instance (see Mr Smith's evidence for further information). The submission did not request planting to address the Project's visual effects and I confirm that planting would not be necessary for that purpose - the highway will be more than 200m away (as is the existing SH1) and the highway and realigned Heatherlea East Road will be screened by existing and proposed planting. In other words, the Project's visual effects have been considered and appropriately mitigated.

Wendy McAlister-Miles and Dion Miles, 195 Muhunoa East Road

39. The submission raised concerns with amenity values, specifically their outdoor area being unappealing during construction. They request planting and fencing. I assessed that the Concept Project Design would have moderate adverse visual effects on the dwelling, having considered the prominence of the overbridge south of the property in conjunction with the distance (approximately 220m to the overbridge and main carriageway), apparent orientation of the house to an outdoor area on the north side of the house away from the Project, and the presence of other houses and planting between the property and the Project.
40. The mitigation proposed in the Planting Concept Plan comprises tall screen planting on the fill batters to the highway and overbridge (note, this planting is not depicted in the photo simulations in order to illustrate the bridge and ramps). I considered the residual adverse visual effects following such mitigation would be 'low-mod', so that further planting on the affected property would not be offered under proposed condition DLV2.
41. There will also be temporary adverse visual effects from the construction yard on the opposite side of Muhunoa East Road and during construction of the overbridge. Such effects will be moderated by the house's location back from Muhunoa East Road beyond two neighbouring houses, and the apparent location of the outdoor area on the opposite side of the house. It is also likely the Muhunoa East Road overbridge will be built early in the construction sequence and the planted ramps would then provide a buffer between the property and the construction yard for the balance of the construction period. If additional mitigation was required would depend on the construction plan and be appropriately addressed through an Outline Plan of works.

Gary Williams, 107 South Manakau Road

42. This submission raises three relevant landscape matters:

- (a) Mr Williams supports the Project in its current form and is concerned that subsequent modifications might have adverse effects. A key purpose of the CEDF is to help avoid such occurrences. It is to ensure certain design principles and elements are carried through successive phases of detail design and implementation. It has been developed - and will continue to be refined - by Waka Kotahi and iwi partners, with input from the community and individuals. Proposed Condition DTW5 requires the Project to be consistent with the Design Principles in Chapter 3 of the CEDF, and that specified Design Review Audits (with reference to the design elements in Chapter 4 of the CEDF) are carried out to that end. The CEDF and Design Review Audits will be submitted as part of the Outline Plan.
- (b) Mr Williams raises concern about potential light pollution from highway intensity lighting. As Mr Williams assumes, it is intended to light the four highway interchanges for safety reasons, but otherwise it is not intended to light the main stretches of highway. The planting is also intended to mitigate vehicle lights together with other visual effects. There may be occasional streetlights in other locations for safety reasons such as at intersections with realigned local roads, or where the SUP crosses local roads. In this case the SUP will cross South Manakau Road on the opposite side (western side) of the highway bridge and embankment.
- (c) Mr Williams suggests relocating what he says is a redundant streetlight on Manakau Heights (Drive) in the vicinity of his property (which I presume to be the one opposite 97 Manakau Heights Drive) to the highway overbridge. The removal of the light is a matter for HDC.

Adam and Joanne McCallum, 213a Muhunoa East Road

43. The submission requests curtains/blinds on windows facing the highway, privacy glass on bathroom, and native plantings on Waka Kotahi land. The Planting Concept Plan does provide for approximately 40m depth of tall screen native planting within the designation opposite the property. There is also perimeter planting on the property itself. I consider the planting is sufficient to address privacy taking into account the approximate 130m to the

carriageway of the concept highway design. I assessed the visual effects on this property as 'mod-high', which would reduce to moderate ('mod') with the proposed mitigation planting and therefore would not trigger Condition DLV2.

Louise Miles, Mokena Kohere Street, Manakau

44. The submission raises two landscape matters in relation to family farmland at Mokena Kohere Street, Manakau, to which she intends to eventually retire and build a house.

(a) Ms Miles considers the highway alignment is inconsistent with retaining the unique small village character of Manakau. I acknowledge that there will be some adverse effects on the character of Manakau village from the proximity of the Project - more particularly for properties on the eastern edge of the village and on Eastern Rise. Such potential effects will be reduced by the alignment being in a saddle or small valley behind and below the village: Manakau village is largely on a terrace above the designation and the terrace slopes to the north-west in the opposite direction from the highway. The treed nature of the slopes at the eastern edge of Manakau and the further planting proposed along the highway will also reduce potential effects on the village's character. In summary, I consider the alignment and proposed landscape planting appropriately avoids and mitigates potential effects.

(b) In contrast, the designation is benched on the toe-slope of the hills north of Manakau which is relevant to views across the lower lying farmland from the north edge of Manakau including from Ms Miles' property on Mokena Kohere Street. Ms Miles seeks further information on the extent of screen planting in views from this area. In the nearest views to the highway from this area, the Planting Concept Plan depicts tall screen planting along the western side of a naturalised stormwater pond. The screen planting is approximately 160m from the boundary of Ms Miles' property, and the concept highway carriageway approximately 300m away - the relative proximity will increase the planting's effectiveness as will the slightly elevated sightlines. The screen planting will continue adjacent to the highway in longer views to the north-east, tapering out roughly 700m north-east of Mokena Kohere Street where the concept highway begins to descend into a shallow cut. Riparian planting along a tributary of the Mangahua Stream will add to

the screen planting for part of this distance. I consider this planting collectively mitigates potential adverse visual effects from this area.

- (c) It is also proposed, subject to landowner agreement, to extend (or enrich) the riparian planting along parts of the Mangahuia Stream tributaries beyond the designation. Restoration of some sections of the stream have already been carried out including within Ms Miles' property. The extent of such planting depicted on the Planting Concept Plan could entail 'enrichment' of the planting on Ms Miles' property or be transferred to other sections of the Mangahuia Stream. Such restoration, although primarily intended for natural character reasons, would further contribute to the layering of screening or perspective depth.

Christine Wallis, Kuku East Road

- 45. This submission raises issues about compulsory purchase of lands she has an interest in, and effects on the liveability and associative values of the balance land. Most of the land in which Ms Wallis has an interest falls within the designation. I acknowledge the loss of the land and its associated values, and the unavoidable effects on the adjoining balance land. While it is not possible to mitigate effects on the properties required for the Project, measures taken with respect of the wider area include a buffer of tall screen planting with indigenous species to soften the highway and reduce visual effects, rehabilitation of natural values (including restoration of a 550m section of Kuku Stream, rehabilitation of remnant indigenous forest on the north bank, and a naturalised stormwater pond and wetland planting on the south bank).

Glenys Anderson, 413 Arapaepae Road

- 46. This submission raises concerns with loss of rural lifestyle and privacy, and requests bunding and planting to address these effects. I assessed this property as likely to have 'mod-high' adverse visual effects without mitigation. The mitigation proposed as part of the Project includes planting between the highway and the realigned Arapaepae Road South, plus an avenue of indigenous trees along the local road. While the planting buffer will have good depth to the west of the property where the highway is closest (approximately 150m), the space for planting between the local road and highway is constrained in oblique views along the highway to the north-west. The Planting Concept Plan has been refined to include additional planting

within the designation to the east of the local road to address these views. I consider there will be 'moderate' adverse effects on this property once mitigation is established.

Stephen and Miriam Main, 28 Mountain View Drive

47. The submitters support the Project in principle but raise concerns including effects on rural character and visual effects on their property. They request proposed planting be carried out early so that it is established when the Project is opened. They request fast growing native plants and dialogue with residents with respect to the design and species.
48. I assessed the visual effects as 'mod-high' on this property and considered the proposed planting within designation would reduce the effects to 'mod'. The Planting Concept Plan depicts tall screening on the highway fill batters through this area, and ecological offset riparian planting in the foreground that would also provide a further amenity buffer. It is not possible to plant the batters prior to the highway earthworks being formed. The time in which planting will be established prior to the highway opening will depend on construction sequence which will not be known until completion of detail design and construction programme.
49. The stream ecological offset planting along the Waiauti Stream is proposed to be carried out early in the Project. While it is for ecological reasons and would not screen the highway, it will nevertheless contribute to visual amenity and natural character of the foreground.

Maria Storey, 24 Arapaepae Road North

50. This submission raises two landscape matters:
 - (a) Ms Storey raises concern about potential light pollution. As noted above, it is not intended to light the highway except at the four interchanges. Screen planting along the highway is intended to (amongst other things) mitigate vehicle lights. Streetlights are likely to be provided on the Queen Street East overbridge. These lights will be approximately 170m south of 24 Arapaepae Road North and will be seen together with other streetlights in the context of the Levin urban area - including the planned Tara-Ika development. Tree groupings depicted on the Planting Concept Plan would provide some partial filtering of the lights.

- (b) Ms Storey raises concerns related to the planting and wetlands associated with the Project including propagation of noxious plants and pest animals, and adverse effects of control of same such as spray drift, and poisoned pest animals endangering pets. Managing such matters is inherent in achieving the benefits of the proposed planting. Mr Goldwater addresses these matters in his evidence, by reference to the Environmental Management Plan and Schedule 7 to the Conditions. In addition, the CEDF has policies to identify and provide appropriate management to remove/control pests and weeds, to minimise the need for spraying (through planting design), and to avoid the spread of weeds and pests along the corridor (through designed breaks). The CEDF is intended to integrate and direct environmental works through the Project's successive detail design, construction, and maintenance phases. The Design Audit in section 5.2 of the CEDF sets out plans to develop strategies and management plans to implement the policies. The CEDF has been, and will continue to be, developed through a partnership between Waka Kotahi and iwi partners. Such local active involvement is one way of helping ensure potential issues are seen and addressed. Waka Kotahi also has the same obligations as other landowners to control noxious plants and observe standards relating to herbicide and pesticide use.

Rochelle Murray-Apatu and Matthew Apatu, 73 Wakefield Road

51. The submission raises concerns at the visual effects of the Project on their outlook including the loss of the tranquil look and feel of living in the country. I agree the Project will have such adverse effects. In Appendix D.3 of Technical Assessment D, I estimated there would be 'moderate' adverse visual effects on the dwelling on this property considering the proximity to the highway (260m to the concept highway), orientation of the house toward the designation, and open outlook. The tall screen planting depicted in planting concept plan (particularly in the oblique views to the north) would mitigate the visual effects and soften the Project. I consider it would reduce the degree of adverse effects to 'low-mod'.

Janice Jakeman, 197 Muhunoa East Road

52. The submitter is concerned at loss of views to the Tararua Range and undesirable views of highway traffic. She seeks low to medium planting on the Muhunoa East Road overpass ramps to maintain views to the Tararua

Range and high-density planting to screen the highway and maintain rural character. She also seeks planting around the works compound to reduce perceived noise levels. In response:

- (a) The Planting Concept Plan already comprises tall planting to screen the highway itself which is approximately 160m away at its nearest point and beyond neighbouring properties and houses.
- (b) The Planting Concept Plan has been amended to depict low planting on the lower slopes of the overbridge ramps as requested to maximise views to the Tararua Range along Muhunua East Road in a south-east direction. Tall planting is to be retained on the upper slopes to soften the bridge and local road traffic. (The Project will not interrupt potential views of the Tararua Range to the east and north-east from this property.) The lower planting will also increase openness of the SUP.
- (c) As noted above, it is also likely the Muhunua East Road overbridge will be built early in the construction sequence, and the planted ramps would then provide a buffer between the property and the construction yard. If additional mitigation was required, it would depend on the construction plan and be appropriately addressed through an Outline Plan of works.

Kevin Daly, 257 and 267 Tararua Road

53. The submission supports the Project but requests changes to support the planned Tara-Ika urban development, including a landscaped bund (to address noise, visual, and light effects) and for the East-West Arterial bridge⁴ and cycle overbridges to be constructed at the same time as the Project.
- (a) Tall screen planting typically 10m deep depicted on the Planting Concept Plan is sufficient to screen the highway (including vehicle lights) for both the existing rural setting and the planned urban development. I support integration of the planned urban area and highway (which may include tailoring the planting and SUP alignment to accomplish this) once the Tara-Ika development is progressed and the final alignment and designation boundary of the highway are settled.
 - (b) This was outlined at paragraph 106 of Technical Assessment D – Landscape, Visual and Natural Character.

⁴ Referred to in the submission as the “Liverpool Street Bridge”.

- (c) Highway intensity lighting will be installed at the Tararua Interchange (and other interchanges) for safety reasons, but it is not otherwise proposed to light the highway. Once Tara-Ika is developed, the interchange lighting will be seen in an urban context together with other streetlights from Tara-Ika.
- (d) I agree that the East-West Arterial bridge and cycle overbridges as depicted on the Tara-Ika Structure Plan are important in urban design terms for the development of Tara-Ika, and that it is desirable construction of these structures is coordinated with construction of the Project. However, I understand there is a question as to whether such infrastructure is to be provided as part of the Ō2NL Project or by others as part of the future urban development. It is a legal and planning question. I address this in more detail in response to Mr McIndoe's evidence below.

Stephen and Karen Prouse, 1024 Queen Street East

54. The submission raises four landscape matters:

- (a) Mr and Mrs Prouse raise concerns that the visual assessment has not addressed some changes in the Project since the 2020 assessment but do not specify which changes. I provided input to such matters as the vertical alignment of the highway (i.e., trench, at grade, and elevated alternatives) and the Queen Street East overbridge options. The assessment was updated in 2022 accordingly.
- (b) Mr and Mrs Prouse raise concerns that the screen planting between the highway and 'Ashleigh' (the Prouse Homestead) is insufficient, does not identify screening sought at meetings, has relied on their land to accommodate the screen planting, and that all planting should be within the designation. Earlier versions of the Landscape Planting Plan (which depicted planting for a depth typically between 20m and 35m to the edge of the designation) were redrawn to what I misunderstood to be Mr and Mrs Prouse's request. The Plan has subsequently been revised in response to the submission to what I now understand to be their wishes that planting extend as far as their property boundary (rather than the designation boundary) thereby retaining an open strip of land adjacent to the fence line of the garden. This provides for a planting depth typically between 10m and 20m (the alignment is not square to the boundary) between the SUP and the property boundary

which would effectively screen the highway and provide appropriate mitigation.

- (c) Mr and Mrs Prouse raise concerns about the visual effects of vehicle movements and streetlights on the Queen Street overbridge. I acknowledge such adverse effects, which are an unavoidable consequence of maintaining connectivity over the highway on Queen Street East. The potential effects will be reduced by the offsetting of the Queen Street East re-alignment from the Ashleigh frontage and mitigated by tall planting on the ramp batters. The trees in the Ashleigh garden will also soften views.

Alauta and Frederick Iddekinge, 679A State Highway 1

- 55. The submission requests a planted bund to reduce noise and lighting effects. I assessed the adverse visual effects on this property as 'high' so that additional mitigation would ordinarily be offered to the owners under Condition DLV2, except in this case the designation crosses the property, and such mitigation could therefore be carried out within the designation. I support the request for a planted bund in this instance given the location is identified as a potential spoil disposal site. The Planting Concept Plan has been revised to depict this mitigation. I consider such planting should comprise indigenous species consistent with the rest of the corridor both for screening effectiveness and maintenance reasons. While it is not intended to light the highway, a planted bund would help screen the highway and vehicle lights.

Sarah Hodge, 11 Ihaka Hakuene Street Manakau

- 56. The submitter says that the elevated location of their property and the extent of screening by trees have been misunderstood, and that the highway will be fully visible. This property is not included in the inventory in Appendix D.3 of Technical Assessment D. Rather, the inventory stops at the neighbouring dwellings closer to the Project to the north-east and south-east, which I estimated to have low-moderate adverse visual effects because of distance and trees.
- 57. I did appreciate that the east end of Manakau is on a plateau above the valley (or saddle) behind the village in which the designation is aligned. It does appear there are extensive trees between the dwelling on Ms Hodge's property and the designation, especially to the nearest part of the concept

highway approximately 350m to the south-east and east. The most likely views from the dwelling appear to be longer oblique views across farmland to the north-east of Manakau.

58. The Planting Concept Plan depicts tall screen planting, stormwater wetlands, and riparian planting over a depth between approximately 60m and 120m that will further soften and screen the highway in this area. Based on those observations I estimate the degree of visual effects would be 'low-moderate' (or 'minor'). As noted, the assessment relied on desk-top assessment (aerial photos and contour plans) and roadside observation rather than visiting individual properties. I would be ready to accept an invitation to check the effects from within this property.

James McDonnell Limited (JML)

59. The submission raises urban design matters related to land they intend to develop in the Tara-Ika Growth Area. JML submit that the EWA crossing of Ō2NL and the two 'Strategic Cycleways' (as depicted on the Tara-Ika Structure Plan) should be provided as part of the Ō2NL Project. As with my response to Mr Daly's submission, while I support such connections for the development of Tara-Ika from an urban design perspective, I understand there is a question over whether they should be provided as part of the Ō2NL Project or by others.

Kainga Ora

60. The submission raises concerns with effects on the visual amenity of properties - the residents of which are especially sensitive to changes in their environment - at 242 Muhunua East Road and at 96/98 Arapaepae Road North:
- (a) I assessed the visual effects on 242 Muhunua East Road as very high and noted that mitigation options were limited for this property. I understand Waka Kotahi is to purchase the property which falls within the designation.
 - (b) I assessed the visual effects on houses at 96 and 98 Arapaepae Road North as 'very high', 'high' and 'mod-high'. While the proposed planting adjacent to the highway will reduce visual effects, additional mitigation would be required for the dwellings on these properties and would be offered under Condition DLV2. I have taken part in initial discussions with Kainga Ora representatives, and it appears there are screen

planting opportunities within their site. I understand that discussions are currently continuing between Waka Kotahi and Kainga Ora on a specific mitigation agreement (including screen planting) for the properties.

COMMENTS ON THE COUNCIL REPORTS

Julia Williams (Landscape)

Matters of agreement

61. Ms Julia Williams generally agrees with the methodology, assessment of effects, and the substance of the proposed mitigation measures.

Matters of disagreement

62. I understand that disagreement is limited to the following process matters relating to mitigation:
- (a) Natural character mitigation; including classifying landscape planting as natural character mitigation and extending such planting beyond the designation.
 - (b) The trigger at which visual amenity mitigation will be offered on affected properties, per Condition DLV2.
 - (c) Planting specifications; and
 - (d) Certification of the CEDF and Planting Concept Plan.

Description of natural character planting

63. Ms Williams says that she has not previously come across what is described as 'natural character' planting on plans. She agrees the planting will have benefits for natural character but considers it should be classified as ecological planting to be reviewed by the Regional Councils rather than landscape planting to be reviewed by District Councils.
64. The 'natural character' planting was designed as part of the landscape workstream. 'Natural character' planting is additional to that restoration designed by the ecological workstream to satisfy the specific stream loss offset criteria that is overseen by Regional Councils. It is part of an approach described in the CEDF to integrate the disciplines into a 'whole of landscape' plan so the whole is greater than the sum of the parts. The landscape

workstream 'natural character' planting is designed to complement, connect, and extend the ecological planting, typically along streams perpendicular to the highway, to stitch the Project into broad landscape patterns. Of course, as Ms Williams agrees, such landscape planting will also have ecological benefits, and vice versa. Within the landscape workstream, it is described as 'natural character' planting because it entails riparian planting of wetlands and along streams, and to also distinguish it from the more conventional landscape rehabilitation planting parallel with the highway. That it is novel may be because the CEDF seeks to extend conventional practice.

Planting beyond the designation

65. Ms Williams agrees with the assessment of the Project's effects on natural character and considers the measures proposed will maintain natural character. However, she is concerned with the lack of certainty for proposed riparian planting that extends beyond the designation and that is therefore subject to landowner agreement. Waka Kotahi has undertaken to carry out such planting as far as practicable, which will include seeking to reach agreement with property owners for planting works to be undertaken on their land. Ms Williams considers that, without the riparian planting beyond the designation, the level of natural character would be reduced in each catchment by one level of magnitude.⁵ I do not consider that to be the case for the following reasons:

- (a) My assessment was that the Project would reduce natural character by one level of magnitude without any mitigation at all.
- (b) The planting with the most natural character benefit (especially for perceptual aspects) will be the riparian planting nearest the highway and within the designation. That is, the 56% of the landscape 'natural character' planting that is within the designation plus that part of the ecological offset planting that is within the designation (and which is designed to address stream loss).
- (c) Extending the landscape 'natural character' planting beyond the designation is an additional measure. As described above, it is to reinforce perpendicular patterns and processes to help stitch the Project into the landscape. I understand it is questionable if such areas

⁵ See paragraph 77 of Appendix 2 of Ms Helen Anderson's section 198D report.

could be designated and compulsorily acquired for that purpose as part of the Project.

66. I understand that the policy direction for regionally significant infrastructure is to mitigate such effects as far as practicable. I consider the mitigation proposed is such an approach.

Condition DLV2 trigger

67. Ms Williams considers the trigger at which planting mitigation would be offered outside the designation on affected properties under Condition DLV2 should be 'moderate' rather than 'moderate-high' to be consistent with the approach to mitigation planting within the designation. To explain, my technical report recommends that the in-designation planting (as depicted on the Planting Concept Plan) be designed to mitigate for properties assessed as having 'moderate' or greater adverse visual effects. Condition DLV2 volunteers an additional offer to the owners of properties where the residual adverse effects are 'moderate-high' or greater.
68. The primary mitigation will be within the designation. The Planting Concept Plan comprises extensive planting that will (amongst other outcomes) collectively mitigate effects on properties. All properties where the visual effects were assessed as 'moderate' or greater were considered in designing the landscape plan and is tabulated in Appendix D.3. However, it is not possible to completely remediate all adverse visual effects of a significant infrastructure project such as Ō2NL. Condition DLV2 is volunteered by Waka Kotahi as an extra offer to the owners of those properties most affected. I understand it goes beyond what is commonly provided for in such projects.
69. Ms Williams agrees it is not possible to mitigate all effects but considers that 'moderate' would be a more suitable trigger for the offer because it is 'more than minor'.⁶ The proposed planting within the designation will already mitigate effects for properties assessed as having visual effects moderate or greater which I understand is consistent with the policy direction. I do not understand that 'no more than minor' is the required outcome, nor that it would be feasible with such infrastructure in a closely settled landscape.

⁶ See paragraph 97 of Appendix 2 to Ms Helen Anderson's section 198D report.

Certification of CEDF and planting

70. Ms Williams considers that, while the Design Review Audits required of the CEDF will be provided to Councils under Condition DGA6(c)(ii), there is no formalised scope for questioning, comment, and/or certification. She recommends that Council have a formal role in certifying the CEDF and monitoring the planting.
71. Mr McIndoe raised related matters in his technical reporting.⁷ He is concerned that the CEDF is “somewhat indeterminate” because it will continue to be developed through successive phases of the Project and “that the Consent Version may change following approval being obtained, and without the benefit of wider review.”
72. The internal Design Review Audit provided for in the CEDF and Council’s role in reviewing the Outline Plan have different purposes. It is correct that the CEDF will be a ‘live document’ that will be detailed as the Project progresses (such as through developed and detailed design). However, Condition DTW5 requires that the Project remains consistent with the Design Principles in Chapter 3 of the CEDF as submitted with the NOR and requires an internal three-monthly Design Review Audit (detailed in Chapter 4 of the CEDF) to confirm that is the case. Condition DGA6 then requires that an Outline Plan (or Plans) be submitted to the District Council for review in accordance with section 176A of the RMA and that the Outline Plan is to include (amongst other things) the Design Review Audit. The CEDF therefore provides clearer direction and continuity between the designation and the Outline Plan than a conventional process that did not have the benefits of such a framework. The Councils will retain their formal review role.
73. I agree that it would be good practice for Waka Kotahi and Council to continue to remain engaged during the developed and detail design process as recommended by Ms Williams, in addition to the statutory review role of the Outline Plan. Condition DTW5(d) in fact requires the Design Review Audit be provided to the District Council on request.

Planting specifications

74. Ms Williams considers that Waka Kotahi’s in-house landscape specification (P39) should be referenced in Condition DLV1. The Project’s ‘Minimum

⁷ Mr McIndoe’s report is Appendix 10 to Ms Anderson’s 198D report.

Requirements' for the next stage are currently being developed. The Minimum Requirements will include P39 and other more specific requirements including the principles of the CEDF. These will provide appropriate direction which will be reviewed by Council at the Outline Plan stage.

Graeme McIndoe (Urban Design)

Tara-Ika connections

75. Graeme McIndoe's evidence focuses on the effects of Ō2NL on the planned Tara-Ika urban development.⁸ Mr McIndoe designed the masterplan on which the Tara-Ika Structure Plan is based. In particular, Mr McIndoe concentrates on three overbridges depicted on the Structure Plan that he considers should be provided by the Ō2NL Project: namely the East West Arterial (EWA) bridge and two pedestrian/cycle bridges. I agree with Mr McIndoe that those connections have urban design merits, assuming that development at Tara-Ika proceeds as envisaged in the Structure Plan. However, I understand the question is whether the bridges should be provided by the Ō2NL Project or by other means, which is a legal and planning matter.
76. With respect to the urban design merits of the connections, I consider the EWA connection is fundamental to the Tara-Ika Structure Plan because it is the spine of the Structure Plan and the neighbourhood centre is configured around it. The additional pedestrian/cycle bridges would further improve connectivity, promote active modes, and thereby reduce carbon emissions. However, I consider them desirable rather than essential - and the northern one more desirable than the southern one - for the following reasons:
- (a) The proposed northern pedestrian/cycle bridge is aligned opposite Meadowvale Drive, providing a connection into Levin's street network, including a direct connection between Tara-Ika and Waiopahu College. However, bridges at Queen Street East and EWA - in conjunction with the SUP - would provide adequate connections to Levin in that respect.
 - (b) The southern pedestrian/cycle bridge would have benefits in avoiding the vehicle-dominated Tararua Road Interchange, but its usefulness would be limited by being aligned with the southern edge of Levin and

⁸ With the exception of comments on the configuration of the connection between Ō2NL and the existing road network in the vicinity of Taylors Road which Mr McIndoe acknowledges is largely a traffic planning matter.

not connecting to Levin's street network other than along Arapaepae Road.

77. To put the connectivity in context, proposed bridges at Queen Street East and Tararua Road, and the recommended EWA bridge, would provide three street connections to Arapaepae Road over approximately 2km (acknowledging that the Tararua Road interchange will not include pedestrian/cycling facilities). In comparison, there are currently three street connections to Levin from Arapaepae Road over the same distance.
78. In other words, if Ō2NL were not to be built, Tara-Ika would still have the same three street connections to Levin. Of these, Queen Street East is the most important with respect to urban design connectivity because it is the most central and connected of Levin's east-west streets. It goes to the centre of town and connects to each of Levin's quadrants. Tararua Road is important for regional connectivity because it is the interchange on the southern edge of Levin (including Tara-Ika) and will distribute traffic along Tararua Road (to the southern end of Levin's main street) and Arapaepae Road. The EWA connection is important because it is central to the Tara-Ika Structure Plan, but it relies on Arapaepae Road to connect with Levin's street network. Its connectivity would increase if HDC were able to secure a future connection to Fuller Close and Liverpool Street. Mr Phil Peet addresses these matters and reaches similar conclusions from a transport perspective.
79. Mr McIndoe considers the AEE is inaccurate in its assessment of effects with respect to maintaining connectivity because Ō2NL does not provide the connections depicted on the Tara-Ika Structure Plan. For the same reasons, he considers the Project is contrary:
 - (a) to the NPS-UD with respect to well-functioning urban environments;
 - (b) to policy direction on carbon emission reductions;
 - (c) to the 'avoid-shift-improve' model to reducing transport greenhouse emissions, to achieving community health and wellbeing;
 - (d) to the Waka Kotahi Project Outcomes;
 - (e) to CEDF principles,
 - (f) to Waka Kotahi 'Bridging the Gap' urban design guidelines, and
 - (g) to the New Zealand Urban Design Protocol.

These comments are all predicated on the presumption that the overbridges depicted in the Structure Plan are essential and should be provided by the Ō2NL Project, rather than by other means. Again, whether those connections should be provided by Waka Kotahi as part of the Ō2NL Project is a legal and planning question.

Cultural and Environmental Framework (CEDF)

80. Mr McIndoe raises concerns with the CEDF.⁹ On the one hand, he considers it is comprehensive, has sound cultural and environmental aspirations, provides detailed direction for design, and says he has commented on iterations as the CEDF has been developed. On the other hand, he is concerned with overlapping but different lists of criteria and principles, and that principles relating to the urban environment are not addressed in the overall principles in Chapter 3.
81. In response, the two overarching principles developed with iwi partners in Chapter 3 ('tread lightly with the whenua' and 'create an enduring legacy') are an aspirational framework that encompasses urban environments. The CEDF also includes 10 urban design principles (section 1.2) that Mr McIndoe acknowledges are appropriate. While there will always be different ways of structuring such documents, I consider the CEDF provides the tools to direct design development towards an Outline Plan of Works.

Integrated Design

82. Mr McIndoe describes how Tara-Ika was master-planned in response to the preferred Ō2NL route but characterises Waka Kotahi as not taking a reciprocal integrated approach toward Tara-Ika. His characterisation is not consistent with my experience of the Project. I have been involved with successive phases of Ō2NL since 2011. I took part in MCA processes that considered the alignment with respect to (amongst other things) potential future development east of Levin. I prepared reports comparing route options with respect to plans and strategies for this area. Those plans changed during that time and the assessment responded accordingly. This background is summarised in my evidence to the proposed Plan Change 4 hearing which I append to this evidence as **(Appendix B)**.
83. After the selection of the preferred Ō2NL route, I participated in project shaping through further MCA processes that included Mr McIndoe with

⁹ See paragraphs 22 – 24 of Appendix 10 to Ms Anderson's section 198D report.

respect to the Tara-Ika area and which confirmed (amongst other things) the vertical alignment of Ō2NL and the nature of the connections at Tararua Road and Queen Street East. My preferred options from a landscape and urban design perspective were not selected in each case, but that is the nature of a multi-disciplinary approach.

84. From my perspective, the issue is not lack of engagement on the part of Waka Kotahi, or disagreement on the importance of connectivity between Tara-Ika and Levin, but (as discussed above) whether the connections depicted on the Tara-Ika Structure Plan should be provided by the Ō2NL Project or by other means. I agree it would be efficient to construct overbridges at the same time as Ō2NL. To facilitate this, I prepared an assessment of landscape, visual and natural character effects of the EWA overbridge on behalf of HDC in what I understood to be collaboration between Waka Kotahi and HDC. I also understand from Mr Lonnie Dalzell's evidence that Waka Kotahi has offered to HDC to fund the EWA overbridge.
85. In my evidence on behalf of Waka Kotahi to the proposed PC4 hearing (attached as Appendix B), I recommended that the District Plan include provisions for integrative design between Ō2NL and the future Tara-Ika development. While my recommendations were not adopted, I continue to recommend (at paragraphs 108-109 of Technical Report D) such an approach in practice to address connectivity and amenity values. With respect to amenity values, integrative design would include the configuration of screen planting, detail design of stormwater wetlands, configuration of adjacent streets and properties, orientation of nearest residences, and integration of the SUP with respect to streets. Ms Williams endorses that approach and supports the listed measures. Such matters would be incorporated in the CEDF as it is developed, and subsequently in the Outline Plan of Works.

Gavin Craig Lister

4 July 2023

APPENDIX A:

[Provided as a separate PDF document]

APPENDIX B: EVIDENCE OF MR GAVIN LISTER IN HDC PC4 HEARING

[Provided as a separate PDF document]