

Before a Board of Inquiry
MacKays to Peka Peka Expressway Proposal

under: the Resource Management Act 1991

in the matter of: Notice of requirement for designation and resource consent applications by the NZ Transport Agency for the MacKays to Peka Peka Expressway Proposal

applicant: **NZ Transport Agency**
Requiring Authority

Statement of rebuttal evidence of **Boyden Evans** (Landscape) for the NZ Transport Agency

Dated: 26 October 2012

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**STATEMENT OF REBUTTAL EVIDENCE OF BOYDEN EVANS FOR
THE NZ TRANSPORT AGENCY**

- 1 My full name is Boyden Henry Evans.
- 2 I have the qualifications and experience set out at paragraphs 2 to 6 of my statement of evidence in chief, dated 7 September 2012 (*EIC*).
- 3 I repeat the confirmation given in my EIC that I have read, and agree to comply with, the Code of Conduct for Expert Witnesses (Consolidated Practice Note 2011)
- 4 In this statement of rebuttal evidence, I respond to certain aspects of the evidence lodged by submitters in relation to landscape and visual effects. Specifically, I respond to the evidence of:
 - 4.1 Brad Coombs on behalf of **Kāpiti** Coast District Council (*KCDC*), submitter number 682,
 - 4.2 Julia Williams on behalf of KCDC, submitter number 682,
 - 4.3 Emily Thomson on behalf of KCDC, submitter number 682,
 - 4.4 Sharyn Westlake on behalf of Greater Wellington Regional Council (*GWRC*), submitter number 684,
 - 4.5 Sacha Walters on behalf of New Zealand Historic Places Trust (*NZHPT*), submitter number 647,
 - 4.6 Sue Smith on behalf of Waikanae On One (*WOO*), submitter number 514,
 - 4.7 James Lunday on behalf of Save Kapiti, submitter number 505,
 - 4.8 Loretta Pomare and John Horne on behalf of Loretta Pomare, submitter number 309,
 - 4.9 Beth Lindsay and Sarah Lindsay on behalf of Highways Occupants Group, submitter number 542,
 - 4.10 Dr Christopher and Monica Dearden, submitter number 261, and
 - 4.11 Neil Saxby and Barbara Mountier, submitter number 327.
- 5 The fact that this rebuttal statement does not respond to every matter raised in the evidence of submitter witnesses within my area of expertise should not be taken as acceptance of the matters

raised. Rather, I rely on my earlier technical report¹ (Technical Report 7), my EIC and this rebuttal statement to set out my opinion on what I consider to be the key landscape and visual matters for this hearing.

- 6 Consistent with my EIC, I have referred to the MacKays to Peka Peka Expressway Project as “the Project” in this rebuttal evidence.

EXECUTIVE SUMMARY

- 7 I have reviewed and commented on landscape and visual related evidence from statutory agencies, interest groups and individuals. The evidence from KCDC, GWRC, NZHPT and WOO is the most comprehensive.
- 8 Three witnesses submitted landscape related evidence on behalf of KCDC. One witness, Mr Brad Coombs, focuses solely on the inland extent of the coastal environment, whereas the evidence of both Ms Williams and Ms Thomson cover a range of matters. Mr Coombs considers that the Project is located within the coastal environment, which is not my opinion. However, notwithstanding our difference in view, Mr Coombs does not dispute my assessment of landscape and visual effects, as set out in Technical Report 7. I have concluded that despite where the line to define the inland extent of the coastal environment is drawn, it is largely irrelevant given the assessment that I have already completed as part of the **Project’s** Assessment of Environmental Effects (**AEE**).
- 9 Ms Williams and Ms Thomson recommend amendments to several of the landscape related designation conditions (DC.54 -59), some of which I support either in full or in part. Witness conferencing will provide an opportunity to further tease out these issues.
- 10 One of the key matters raised by both Ms Williams and Ms Thomson concerns the length of the maintenance periods for the proposed mitigation planting. While it may be desirable for the maintenance periods to be increased, as recommended by Ms Thomson and Ms Williams, I consider that the current maintenance periods which are provided for in the conditions are sufficient.
- 11 Ms Westlake, in her evidence for GWRC, raises various matters relating to the proposed landscape mitigation works at Waikanae River and refers to outcomes of meetings held between members of the Alliance and GWRC’s Flood Protection team. I have appended an updated planting concept plan to this evidence (**Annexure 1**).
- 12 I have provided further detail and explanation to address matters raised by Ms Walters on behalf of NZHPT regarding landscape and visual effects of the Project on the Takamore wāhi tapu area, but

¹ Assessment of Landscape and Visual Effects (Technical Report 7).

have limited my comments to those matters directly related to my qualifications as a landscape architect.

- 13 I have considered closely the revised sketch plan of an alternative Expressway alignment between Waikanae River and Waimeha Stream, which has been submitted by Ms Smith as part of her evidence on behalf of WOO. In doing so, I have transposed her sketch plan on an aerial photograph, and I have added contour details to her sketch plan, in order to be able to compare her alternative with the Project (**Annexure 2 and 3**). While her alternative alignment would result in some reduced landscape and visual effects it would affect other aspects, which are commented on by **Messrs Nancekivell, Levy and Baily** and **Ms O’Keeffe**.
- 14 I regard the suggestion by Ms Sarah Lindsay on behalf of the Highway Occupants Group that the Project should be aligned through a substantial north-eastern portion of Queen Elizabeth Park (*QE Park*) because it is “*unused and undeveloped*” land as **inappropriate, given QE Park’s intrinsic community values**. I note that Ms Sharon Lee (in her evidence for GWRC) also finds this unsuitable.
- 15 Evidence from individuals representing interest groups or themselves have raised various matters, mostly criticising the Project alignment overall and/or specific parts or elements, which I have addressed.

EVIDENCE OF SUBMITTERS

- Brad Coombs, Julia Williams and Emily Thompson - KCDC**
- 16 The evidence of Braddyn (Brad) Coombs, Julia Williams and Emily Thomson for KCDC, deal in whole or in part with landscape and visual matters. There are several common issues and themes raised by all three and some of the points made by one of the three are simply endorsed by the others in their respective briefs of evidence. I will deal with the common issues and points under separate headings.
- Inland Extent of the Coastal Environment***
- 17 Mr Coombs’ evidence focuses exclusively on the inland extent of the “coastal environment” and the investigations that he and his colleagues completed for the Kapiti Coast District Coastal Environment Study and associated report (*Coastal Study*). Mr Coombs describes the methodology used in the Coastal Study and the findings.
- 18 Mr **Coombs’ concludes** that the Project lies within the coastal environment,² which he has defined as east of State highway 1 (*SH1*) and for much of the district up to the first inland ridge or part thereof. Ms Williams endorses Mr Coombs’ view and the findings of

² Paragraph 3.5.

the Coastal Study.³ As noted in my EIC, I do not consider that the Project lies within the coastal environment, in terms of the New Zealand Coastal Policy Statement 2010 (*NZCPS*).⁴

- 19 Mr Coombs maintains that the approach that **Mr Stephen Fuller** and I adopted for defining the inland extent of the coastal environment was too narrow. He also maintains that our approach **focuses "overly narrowly on factor (c) in Policy 1(2) of the NZCPS"**⁵ and at paragraph 5.6 he contends that I "**downplay the rest of the factors**". His assumptions on this particular aspect are incorrect.
- 20 This is not how I approached consideration of the NZCPS in relation to the assessment carried out for the Project, nor the way that **Mr Fuller** and I approached the Natural Character Assessment of the Horowhenua Coastal Environment that we undertook in 2011.⁶ As discussed in my EIC,⁷ Boffa Miskell has also carried out natural character assessments in other regions. Those studies have adopted a similar approach to that taken by **Mr Fuller** and myself in relation to Horowhenua.
- 21 Policy 1(1) of the NZCPS recognises that the extent and characteristics of the coastal environment vary from region to region and locality to locality. Policy 1(2) recognises nine factors that the coastal environment includes and all of these were explicitly taken into account in the coastal natural character assessment studies carried out by Boffa Miskell and referred to above. The methodologies stated in these studies and the criteria listed embrace all of the nine factors in Policy 1(2). Our assessments for the Project have adopted a similar approach.
- 22 In my opinion, factor/item 1(2)(c) is especially important because it refers to "**...areas where coastal processes, influences or qualities are significant...**" (my emphasis).
- 23 In his paragraph 5.7, **Mr Coombs** agrees with me that the "**active coastal processes and dynamic influences of the coast do not continue to shape the inland area where the Project is proposed.**" In my opinion, while coastal processes have been responsible for shaping the **Kāpiti** Coast in the area shown defined in the Coastal Study, these same coastal processes are not active today. Those processes are also not significant in the area identified by Mr Coombs as the inland extent of the coastal environment.
- 24 Mr Coombs, in his paragraph 4.8, refers to Policy 4 of the Proposed Regional Policy Statement (*Proposed RPS*) to support his rationale

³ Paragraph 5.6.

⁴ Paragraphs 41-43.

⁵ Paragraph 3.3.

⁶ EIC, paragraphs 177-178.

⁷ EIC, paragraph 179.

for the delineation of the inland extent of the coastal environment. The four criteria from Policy 4 listed by Mr Coombs are:

- "(a) *any area or landform dominated by coastal vegetation or habitat;*
- (b) *any land form affected by active coastal processes, excluding tsunami;*
- (c) *any landscapes or features, including coastal escarpments, that contribute to natural character, visual quality or amenity value of the coast.*
- (d) *any site, structure, place or area of historic heritage value adjacent to, or connected with, the coastal marine area, which derives its heritage value from a coastal location."*

25 In my opinion the four criteria listed in Policy 4 of the Proposed RPS reinforce the points I make above. The explanation of Policy 4 and **section 3.2 'Coastal Environment' of the Proposed RPS** further supports my position that the inland extent of the coastal environment is far narrower than that claimed by Mr Coombs.

26 I acknowledge that coastal processes may still have some degree of influence and some coastal qualities are still present in the coastal environment (as defined by Mr Coombs), but they are not significant. Major changes and events have occurred that have affected this influence and these qualities. Those include drainage of wetlands, flattening of dunes, removal of native vegetation, planting of exotic forest to curtail sand movement, construction of roads, transmission lines and other infrastructure, and conversion of large areas converted to residential and other development. This is similar to what has occurred in a great many parts of New Zealand.

27 Ms Williams (in her paragraph 5.4) discusses coastal influence extending to the landward backdrop of the inland extent of the coastal environment, often referred to as the 'first ridgeline'. In Policy 1, the NZCPS makes no specific reference to the first ridgeline in identifying the inland extent of the coastal environment. Instead, as I have noted above, it provides a list of nine factors to recognise the coastal environment.

28 Notwithstanding the different approaches Mr Coombs and I take to defining the inland extent of the coastal environment, I think the implications of where the inland line is drawn needs to be considered more broadly.

28.1 First, regardless of where the inland line is drawn, I have **completed an assessment of the Project's effects on natural character**, and that is presented in my EIC and in Technical Report 7. At paragraph 7.6 of her evidence, Ms Thompson

refers to an assessment of the Project against Policy 13 (Preservation of natural character) of the NZCPS contained within the AEE and confirms that she supports that assessment.

28.2 Second, the Coastal Study has no statutory status; it has been prepared to inform a district plan process and has not yet been subject to community scrutiny through a public submission process. I understand that the Coastal Study has not been formally adopted by KCDC, and therefore, does not represent council policy, at this time.

28.3 Third, in a substantive sense, it makes no difference to this assessment where the line is drawn; the Project does not affect any of the areas identified in Mr Coombs' Coastal Study as having high natural character,⁸ and the landscape and other technical reports completed for the Project have explained how effects on natural features and natural landscapes have been avoided, remedied or mitigated as far as practicable. Ms Williams recognises that the fact the Project is in the coastal environment (in her view), does not mean that further mitigation (i.e. beyond what she is seeking) is required.⁹

29 Accordingly, whether or not the Project is in the 'coastal environment' would seem to be of very little real consequence, in the context of this particular case. Neither Mr Coombs, Ms Williams nor Ms Thomson suggest that my assessment is somehow inadequate, or that **the Project's effects** are different to what I have assessed, as a result of the different views on the extent of the 'coastal environment'.

Adequacy of Mitigation

30 Ms Williams supports the intent of the NZTA's proposed design and mitigation measures¹⁰ and considers that they will avoid, remedy and mitigate effects.¹¹ However, Ms Williams also contends that there are areas where the proposed landscape and visual mitigation is inadequate or there is insufficient certainty with regard to outcomes.¹²

31 I consider that the conditions, particularly those in relation to the Landscape Management Plan,¹³ the Ecological Management Plan (**EMP**)¹⁴ and the Urban and Landscape Design Framework (**the**

⁸ As per NZCPS Policy 15 (a) and (b).

⁹ Paragraph 5.7.

¹⁰ Paragraph 3.2.

¹¹ Paragraph 3.4.

¹² Paragraph 3.4.

¹³ DC.54 to 59.

¹⁴ G.34-G.37.

*ULDF*¹⁵ address the matters raised by Ms Williams in relation to mitigation. I am satisfied that the detailed design phase, together with the requirements as set out in the Landscape Management Plan (*LMP*) and the various other management plans, will provide the necessary detail and certainty that Ms Williams is seeking.

- 32 Ms Williams refers to specific areas and issues, which I address under separate headings below.
- 33 Ms Thomson, in her evidence, reiterates some of the recommendations to various conditions raised by Ms Williams, so my comments below equally apply to the points raised by Ms Thomson. I also separately summarise at the end of my comments on the evidence from KCDC, the various amendments to conditions recommended by Ms Thomson.

Waikanae River and Wharemauku Stream works

- 34 Ms Williams recommends that designation condition DC.54 be extended to require NZTA to consult with KCDC prior to detailed design commencing, on the design and mitigation measures for the Waikanae River and Wharemauku Stream.¹⁶
- 35 **I contend that Ms Williams' recommendation is unnecessary.** I note that the conditions already provide a process for the NZTA to consult with KCDC on the design and mitigation measures for these areas.
- 36 The LMP will be the vehicle for finalising these matters. Condition DC.54 requires the NZTA to prepare the LMP, in consultation with KCDC. Comments received from KCDC will have to be documented in the finalised LMP, along with a clear explanation of where any comments have not been incorporated and the reasons why.¹⁷ Therefore, I consider that the conditions already provide a suitable process for ensuring that KCDC will be involved in the design and mitigation measures for these areas.
- 37 I will also address some of the other points raised by Ms Williams in relation to the Waikanae River in my comments on the evidence of Ms Westlake, on behalf of GWRC.

Detailed design of Wharemauku Stream

- 38 Ms Williams is concerned that the Project will have the effect of making it more difficult for KCDC to restore Wharemauku Stream and she maintains that more detailed design is required around the Wharemauku Basin.¹⁸

¹⁵ DC.1(a), DC.55(a)(ii).

¹⁶ Paragraph 6.8(a).

¹⁷ DC.54(c).

¹⁸ Paragraph 6.7.

- 39 There are several points to note here:
- 39.1 I understand that KCDC regularly use a digger to maintain Wharemauku Stream to enable it to function effectively for stormwater management. This practice is not conducive to restoration of riparian margin planting. Until KCDC discontinues this practice, there is no point trying to establish riparian vegetation.
- 39.2 Also, as noted in paragraph 160 of my EIC, KCDC have yet to develop plans for the **Kāpiti** Town Centre, which could involve realignment of Wharemauku Stream. Once again, it would seem unwise and also inappropriate for the NZTA to formulate more detailed design around the Wharemauku Basin, given that maintenance and development of the wider Wharemauku Basin is **KCDC's** responsibility.
- 39.3 Finally, the planting associated with Wharemauku Stream is proposed as mitigation for the Expressway and as such, is directly associated with the effects of the Project. I do not consider that any further mitigation, or additional detailed design, is required at this time.

Landscape Works Design, Implementation and Maintenance

- 40 Ms Williams is concerned about the design, implementation and management of the proposed landscape works and recommends that KCDC be given **a greater 'hands on' role**. She also recommends DC.54 be extended to address these matters.
- 41 As stated earlier in my evidence (paragraph 36), through the conditions, KCDC will not only be consulted during the development of the LMP but the Council will also **be responsible for "certifying"** the final LMP.¹⁹ Thus, in my view, KCDC will be fully involved in the design, implementation and management of the proposed landscape works. I consider that the conditions will allow KCDC to be closely involved in these matters and consider that further extension to DC.54 to be unnecessary.
- 42 Ms Williams recommends a four year maintenance period for all planting, instead of the proposed two maintenance period for terrestrial planting and four years for wetland planting.²⁰ While a longer maintenance period is nearly always desirable, I am satisfied that the two and four year periods both **Mr Matiu Park** and I have recommended are sufficient. In my opinion, what Ms Williams is recommending in relation to these matters²¹ and also in relation to

¹⁹ DC.54 (and DC.7).

²⁰ Paragraph 10.13.(a).

²¹ Paragraph 10.13.

KCDC being **included in the site visits at critical 'hold points'**²² are unnecessary additional controls.

- 43 In accordance with DC.7 (and DC.59), all of the management plans shall be submitted to KCDC for certification prior to commencement of construction. Ms Williams also recommends that KCDC certify the final earthworks shaping and planting at Practical Completion and for the soft landscape works to be certified again at Final Completion.²³ I consider that the existing conditions provide sufficient checks and balances to ensure the works are carried out in accordance with the management plans and there is sufficient opportunity for scrutiny by KCDC given its role as the regulatory enforcement body for the designation.
- 44 Ms Williams also recommends various monitoring and review periods for the planting.²⁴ Monitoring and review of planting for a specified period after completion does have merit but the frequency prescribed by Ms Williams would need to be carefully considered, given that after the Project construction maintenance period lapses the planting will be maintained by the NZTA as part of its normal network maintenance contract.
- 45 Ms Williams (in her paragraph 9.7) notes that the NZTA's Network Maintenance Standards have not been detailed in the proposed designation conditions and that KCDC has developed guidelines for the standard of maintenance expected for its parks, reserves and amenity areas. **Ms Williams' recommends**²⁵ that these KCDC guidelines form the basis for a set of maintenance standards for special sites identified by Council. I have reviewed these guidelines²⁶ and conclude that their content means that they are not really applicable to this Project. However, this matter (and the question of monitoring and review periods) could in my view, be usefully discussed further at conferencing with Ms Williams.

Dealing with 'Hotspots'

- 46 **Several 'hotspots' along the route have been identified by Ms Williams** (paragraphs 8.6 and 9.4) and she has commented that residents of each of the properties in these hotspots will want input into the mitigation measures proposed. She recommends (in paragraph 8.13 (a)) that DC.54 be extended to include a requirement for NZTA to consult with KCDC prior to detailed design commencing on the mitigation measures for these residential hotspots and also for several other, public, areas. She also

²² Paragraph 7.5(a).

²³ Paragraphs 7.5(c), 10.13(g).

²⁴ For example, paragraphs 10.13(c), (d), (f).

²⁵ Paragraph 9.9.

²⁶ Kapiti Coast District Council Parks, Reserves and Amenity Areas Maintenance and Operations: Service Delivery Agreement, Conditions and Specification, Draft Section A, B & C, 17 December 2009.

recommends further consultation with KCDC where effects in these areas cannot be mitigated in a manner consistent with the ULDF.²⁷

- 47 The **LMP's content** (which is specified through conditions) will address these matters. For example, condition DC.54(d)(ii) requires the LMP to describe the mitigation of the visual effects of the Expressway on properties in the immediate vicinity through landscape works, generally within land acquired for the Project, but also including on private properties, where the relevant landowner agrees.
- 48 As discussed above, KCDC will be involved in consultation on the draft LMP. The Council will then have the role of certifying the LMP. If KCDC considers the pre-requisites have not been met for certification, then KCDC will be able to withhold certification.
- 49 Therefore, I consider that **Ms Williams' amendments are unnecessary** as the conditions (in particular condition DC.54(d)) already adequately deal with these matters.

Amendments to Conditions

- 50 As noted in paragraph 33, I have considered each of the recommendations made by Ms Thomson in relation to designation conditions covering landscape and visual matters.²⁸
- 51 Ms Thomson recommends extending the consultation period in DC.54(c) to 60 working days prior to submission of the finalised LMP to KCDC. Given that consultation is required with a range of organisations, which have quite different areas of responsibility and interest, the 12 week (60 day) consultation period recommended is probably a more realistic time frame. Accordingly, I support this change.
- 52 I also support, in part, the recommended changes to DC.54(d)(i), namely the additional underlined wording up to "***...construction yards***", but not the last part of the sentence. The final proposed phrase should be changed to "***and reinstated with an appropriate vegetation type***" or similar, to reflect that not all areas currently have indigenous vegetation growing on them. Some areas are in pasture and/or shelter and amenity planting, and in places this is what will be reinstated as part of the proposed mitigation package.
- 53 The proposed amendment to condition DC.54(d)(v) is in my opinion unrealistic and unachievable for several reasons. First, the mitigation planting proposed involves planting small grade plants at close centres (i.e. 1.0m and 0.75m centres) to achieve canopy closure quickly and to reduce competition from weeds. As these closely spaced plants grow and develop there will be attrition as plants compete for space and light. Consequently, at the end of the

²⁷ Paragraph 8.13(c).

²⁸ See paragraph 9.27 of Ms Thomson's evidence.

maintenance period it is highly unlikely that there will be a 90% survival rate.

54 I do not support the amendment to DC.54(d)(vi) because there is no point in differentiating between landscape and ecological planting and then managing it differently. All landscape planting of indigenous species will provide ecological benefit, and all of the planting for ecological planting will have landscape benefits.

55 Ms Thompson (at paragraph 9.27) and Ms Williams (at paragraph 6.8b) recommend the need for a new condition DC 54(d)(vii),²⁹ which would require the LMP to provide information to:

"demonstrate that the design principles in the ULDF have been adhered to in the development of the design including (but not limited to) principles for noise walls, boundary walls and structures (including bridges, underpasses and associated retaining walls) which are identified in the ULDF as being in highly sensitive locations".

56 **Mr Marc Baily** proposes his in his rebuttal evidence, that Site Specific Urban Design Master Plans (*SSUDMPs*) be developed, *"To provide a process by which detailed design matters for each of the locations where the Project interacts with local road crossings/intersections (including pedestrian bridges)"* (proposed condition DC.59A).

57 I do not support the new condition proposed by Ms Thomson and Ms Williams; instead I consider that the matters raised would most appropriately be addressed as part of the proposed SSUDMP process recommended by **Mr Baily**.

58 I support the first part of the changes to DC.57(f) regarding control of pest animals. However, I do not consider the proposed amendment relating to a 10 year review of the success of the planting to be necessary. As I have noted in paragraph 42 above, I consider that the maintenance periods that have been specified are sufficient. Whilst a longer maintenance period is almost always desirable, it is not a necessity. In addition, it is unclear what the outcome would be if such a review deemed that some areas of planting were not successful.

59 Ms Thompson proposes a new condition at paragraph 9.32 of her evidence:

"The Requiring Authority must submit contract documentation for landscape and urban design finishing works to the Manager for certification at least 60 working days prior to the work being sent out to tender."

²⁹ Ms Thompson, page 22.

- 60 I consider this condition unnecessary and onerous. Condition DC.59 states that KCDC will certify the LMP so it seems unnecessary that KCDC also needs to certify the contract documentation that will implement the design.
- 61 The changes proposed by Ms Thomson in paragraph 9.34 are unclear because if all of the finished earthworks must be inspected by the Manager prior to placement of the planting substrate then the earthworks will not have changed upon completion of planting. I consider these amendments unnecessary.
- 62 Finally, I note that there are a number of other amendments to conditions which have been proposed by Ms Williams, but which do not appear to have been adopted by Ms Thomson in her evidence.³⁰ I am therefore unsure whether Ms Thomson supports those further amendments.
- 63 I have discussed many of these additional amendments above, in **my discussion of Ms Williams' evidence**. I note that, except to the extent I have indicated otherwise, I do not consider that further amendments to the conditions, as proposed by Ms Williams, are required.

Sharon Westlake - GWRC

- 64 In her evidence, Ms Westlake, from the Flood Protection Department of GWRC, refers to discussions that I and other team members from the Alliance had with her and other GWRC Rivers staff regarding mitigation planting associated with the Waikanae River bridge crossing.³¹
- 65 For one of the final meetings held with the Flood Protection Department, Boffa Miskell produced a planting plan for discussion. Ms Westlake attached a copy of that plan to her evidence, which she has annotated with various comments. She states that she accepts that the discussions held in February 2012, which included the planting plan, are a starting point for the LMP discussions.
- 66 To assist with this process, I have attached as **Annexure 1** to this evidence, an updated copy of the plan tabled in February 2012. This plan has been updated to reflect some further details that came out of the discussions with the GWRC staff, including the points around planting which Ms Westlake has annotated on the copy of the plan attached to her evidence. I suggest this plan (subject to any final changes made to it through conferencing) could be of assistance in final LMP discussions.

³⁰ For example, the recommendations at paragraphs 6.8(a), 8.13(a), 8.13(b), **8.13(c), 9.9.(a), 9.9(b) of Ms Williams' evidence**.

³¹ Paragraph 34.

- 67 Ms Westlake also seeks that condition DC.54(c) be amended so that GWRC is consulted on the LMP, where works are within or directly adjacent to Waimeha Stream (in addition to where works are within or directly adjacent to Queen Elizabeth Park or Waikanae River corridor).³² As GWRC maintains the Waimeha Stream, I consider this condition amendment to be appropriate.
- 68 In paragraph 32 of her evidence, Ms Westlake concurs with the four year maintenance period for riparian planting as specified in DC.57(f). I concur with her comments that dead plants should be replaced throughout the four year maintenance period; ongoing replacement of dead plants through the maintenance period is the approach that Boffa Miskell generally adopts with all mitigation planting.
- 69 I note that Ms Westlake considers that the four year maintenance **term should run from the end of the "construction maintenance period"** and seeks that condition DC.57(f) be amended to reflect this. I am not clear what Ms Westlake means by the **"end of the construction maintenance period"**.
- 70 I understand that there will be a six months "defects liability period" following "Practical Completion" of the Project works; the maintenance period will commence at the end of this, so in effect there will be a period of 4.5 years where planting will be looked after and dead plants replaced.
- 71 The term 'Practical Completion' of the Project works is a contractual term and is the stage when the execution of the work under the contract is complete, except for minor omissions.³³ It may be that this is similar to what Ms Westlake is referring to when she uses the phrase **"end of the construction maintenance period"**.
- 72 I would not oppose a condition being included which refers to the relevant maintenance periods commencing at the end of the **"defects liability period."**
- 73 I also concur with Ms Westlake that riparian plants should be of a reasonable size with established roots.³⁴ My colleagues and I have worked on the basis that plants used would be a 1.0 litre and 0.5 litre grades. The detailed planting plans and specifications will nominate plant grades, condition and quality and, while it is probably not necessary to extend DC.57(c) as recommended by Ms Westlake, I do not have any issue if the additional details on plants are included in the condition, **as follows: "Riparian plants to have a well established root structure."** I am reluctant to include the phrase 'reasonable size' and would prefer to see 1.0 litre and 0.5

³² Paragraph 34.

³³ 10.4.1, Conditions of Contract for Building and Civil Engineering Construction, NZS 3910:2003, Standards New Zealand.

³⁴ Paragraph 32.

litre grades or equivalent specified, which in my opinion are appropriate for this type of revegetation planting.

- 74 In my opinion, specifying PB6 grade (as Ms Westlake suggests) would be inappropriate; I have found when smaller grades are planted, they establish far more successfully. These are all matters to be determined at detailed design and through development and refinement of the LMP, where GWRC will have input in accordance with condition DC.54c).

Sacha Walters - NZHPT

- 75 Ms Walters' evidence on behalf of NZHPT raises issues regarding landscape and visual amenity effects in relation to the Takamore wāhi tapu area. I will comment on generic landscape and visual effects of the Project but I do so on the basis that I do not consider myself qualified, nor is it appropriate, for me to comment on the potential effects of the Project on the spiritual attributes of sites, places, features of significance to Te Ati Awa ki Whakarongotai/Takamore Trust.
- 76 In particular, Ms Walters states in her paragraph 65 that she does not believe that *"an accurate measurement and assessment of the effects on the Takamore wahi tapu area has been carried out in relation to effects on the landscape, visual amenity and amenity related to severance."*
- 77 The twelve landscape character area boundaries which I used in my assessment were a way to consider the numerous 'little landscapes' along the 16km Project route. This is regarded as an appropriate and best practice approach when dealing with a large area or long route. Of course these boundaries are generally not apparent on the ground. In my assessment, the Takamore wāhi tapu area lies **within the 'Te Moana Character Area,' which adjoins the 'Waikanae River Character Area' to the south.**
- 78 Ms Walters notes in her paragraph 56, that I have assessed the effects on landscape character as high to extreme in relation to the Te Moana and Waikanae River Character Areas. As can be seen from Table 7 of my EIC (paragraph 48), I have assessed the effects on landscape character as "very high" for both these character areas. This assessment includes the proposed mitigation.
- 79 The degree of effects for each character area has been attributed to the character area as a whole. It is probable that, within any one character area, there will be locations where the effects may be greater or less than the overall effects rating. For example, the effects on landscape character of the locations within a character area with higher sensitivity would be greater than a location with lower sensitivity to change.
- 80 In this case, within the Te Moana Character Area, the effects on landscape character of the higher sensitivity areas (i.e. the Te

Moana Road area and the Takamore wāhi tapu area) are very high, but the remainder of the locations within this Character Area would be ascribed a 'high' ranking. In addition to landscape character, in the Te Moana Character Area, I have assessed the effects on visual amenity to be very high and high for biophysical aspects.

- 81 Generally I concur with Ms Walters that the landscape and visual effects on the Takamore wāhi tapu area, even with mitigation, are very high. However, as a landscape architect I am not qualified and should not make a judgement as to how the Project will affect the spiritual attributes of the Takamore wāhi tapu area for Te Ati Awa ki Whakarongotai/Takamore Trust.
- 82 The close proximity and relative location of the Project at the base of the dunes and the Takamore urupā, which is elevated approximately 16.0m above the Expressway, makes further mitigation extremely difficult (Refer Cross Section 14).³⁵
- 83 Visual screening of the Expressway from the urupā would be possible through judicious planting. However, this would not address the ambient road noise which will affect the overall amenity of the location. Also, given that the urupā is open and there are wide panoramic views across the coastal plain to the Tararua Ranges, I observe that a consequence of tree planting on the flanks of the urupā would be that connections to the broader landscape would be severed.
- 84 Returning to Ms Walters' statement, I am of the view that an accurate measurement and assessment of the effects on the Takamore wāhi tapu area has been carried out in relation to the Project's landscape and visual effects.

Sue Smith – WOO

- 85 Ms Smith's landscape and visual evidence focuses on the area between the Waikanae River and Waimeha Stream. As part of her evidence, Ms Smith includes a discussion on the merits of an alternative design solution from the Waikanae River to Waimeha Stream prepared by WOO. She has attached a sketch plan to her evidence, which illustrates WOO's latest design solution extending from the vicinity of Takamore urupā to Waimeha Stream.
- 86 Ms Smith contends that the Project lies in the coastal environment and discusses the rationale for this;³⁶ my comments in paragraph 17 to 29 above outline my position on this matter.
- 87 Ms Smith's appended sketch plan is a further development of an earlier option that she and other members of WOO tabled at meetings held with members of the Project team in 2011. Ms Smith maintains that her solution would overcome many of the issues that

³⁵ Figure 47 Appendix A, Technical Report 7.

³⁶ Paragraph 34.

WOO have raised in relation to the Project, especially reducing landscape and visual effects and severance of the community. I have considered this plan in relation to landscape and visual effects but I will leave comments on its engineering hydrological and urban design effects to **Messrs Nancekivell, Levy and Baily** respectively. **Ms O’Keeffe** also addresses the WOO plan in terms of effects on the archaeological resource.

88 To be able to fully **consider Ms Smith’s sketch option I have** had it transposed onto an aerial photograph and have also prepared a long section from the contour information used for the Project to help compare the two proposals. In addition, I have also transposed contours and the Project alignment onto a copy of **Ms Smith’s** plan. I have also discussed this material with **Messrs Nancekivell and Levy**. Those plans are now attached to my evidence (**Annexures 2 and 3**).

89 In Ms Smith’s proposal, the Expressway would be on a low level bridge after crossing the Waikanae River, cutting through the dunes in the vicinity of El Rancho. The route runs along the toe of the **urupā** and then cuts through the large crescent shaped dune before crossing west of the flat market garden area and the Waimeha Stream on a second low bridge. Te Moana Road would be realigned south, so that it crosses over the Expressway with an elevated ‘doughnut’ type roundabout arrangement.

90 In simple terms, a lower level bridge over the length shown on the sketch plan would have lesser landscape and visual effects where it crosses the flat market garden area. However, to the south, the **effects are greater because Ms Smith’s** alignment is located further west of the Project alignment and it will require significant cuts to be made through the central part of the 20m high dune. This alignment would cut through the crescent-shaped dune with its stand of regenerating native vegetation (shown as Tuku Rakau forest) and it would also affect the wetland to the south.

91 **Based on the limited amount of analysis possible of Ms Smith’s** sketch proposal, parts of the crescent-shaped dune would be able to be retained on the eastern side of the Expressway. Retention of this remnant section of dune would provide some screening when viewed from the east.

James Lunday- Save Kapiti

92 **Much of Mr Lunday’s evidence on behalf** of Save Kapiti relates to urban design and urban planning matters, which **Mr Baily** addresses in his rebuttal evidence. However, Mr Lunday criticises the urban design and landscape team in relation to the methodology of the ULDF. In his paragraph 22 he contends that the ULDF is fundamentally flawed in its methodology because it is focused only on the proposed alignment and is not the architect of the alignment.

93 A ULDF has a specific purpose for large scale NZTA projects, and is typically used to support the Notice of Requirement for the designation of a route. The NZTA clearly outlines the purpose and process of developing an UDLF,³⁷ which does not include defining the alignment of the route, as Mr Lunday has assumed.

94 Below, I have reproduced the relevant section from the **NZTA's** Urban and Landscape Design Frameworks - Highways and Network Operations Guideline that explains this:³⁸

"Purpose of Urban and Landscape Design Framework-
The integration of large scale and/or complex road infrastructure projects into the surrounding environment involves complex issues that need to be addressed to ensure the 'best fit' and that the best possible project is delivered for the benefit of all users. The purpose of an ULDF is to ensure that the urban and landscape design concepts for these projects are appropriately defined, developed and implemented. It provides a forum to capture and integrate the various elements of a project, and to ensure that the expertise of different members of the project team are working together."

Beth and Sarah Lindsay – Highway Occupants Group

95 My comments on both of these respective briefs are in relation to the southern alignment of the Project, especially in relation to QE Park.

96 The key point made by Ms Beth Lindsay, in her evidence on behalf of the Highway Occupants Group, concerns the effects of the Project through the Raumati residential area north of Poplar Avenue. She considers that the Project should follow the Western Link Road (*WLR*) designation route, in this area. **The evidence of Ms Lindsay's** sister, Sarah Lindsay, an urban designer, addresses the Multi Criteria Assessment (*MCA*) process used to consider the two principal alignment options at the southern end of the Expressway route.

97 **Mr Robert Schofield** and **Dr James Bentley's** respective briefs of rebuttal evidence cover the detail of the MCA process that was carried out to determine the route alignment in this area. All of the disciplines involved in the Alliance contributed to the MCA process; a landscape architect colleague and I contributed landscape expertise.

98 My colleague and I both assessed the landscape and visual effects of this location as part of the Raumati South Character area,

³⁷ Available from: <http://www.nzta.govt.nz/resources/urban-design/highways-network-ops-guideline/docs/uldf-highways-network-ops-guideline.pdf>

³⁸ Available from: <http://www.nzta.govt.nz/resources/urban-design/highways-network-ops-guideline/docs/uldf-highways-network-ops-guideline.pdf>

concluding that the **Project's** effects on visual amenity and landscape character were high, and effects on the biophysical landscape were moderate. That remains my position. I note that the biophysical effects of the WLR in this location would be considered high, and as I discuss below, there would also be effects on the integrity and recreational use of the Park.

- 99 Ms Sarah Lindsay, when discussing an alternative route for the southern entrance, refers to the way the alignment could be **developed in a way "which would utilise unused park land"**.³⁹ In her paragraph 6.21 she **states that "there is no precise reason given as to why the Park should be protected"** and again refers to utilising undeveloped, and unused land.
- 100 QE Park is one of five regional parks. Since its establishment shortly after WWII, various development proposals have been promulgated for different parts of it – a golf course, rowing course, and the alignment of the Sandhills Motorway. The rationale for promoting such activities could well have been similar to Ms **Lindsay's; that such activities would be utilising unused and undeveloped land.**
- 101 The GWRC Park's Network Plan refers to QE Park as **"one of the Kapiti Coast's last areas where the complete dune system (from beach to the inland dunes) is intact and undeveloped."**⁴⁰ Sharon Lee, a GWRC Parks Planner, also makes this point in paragraphs 11 and 12 of her evidence.
- 102 As noted by Ms Lee, the Project does encroach on the corner of the Park and Ms Lee **concludes that "To avoid any incremental loss of open space in this important location, I hold the view that there should be no net loss of land to the Park."**⁴¹
- 103 In my opinion, public parks are set aside for the benefit of everyone and are an integral part of community identity and well being and should not simply be regarded as being unused land lying idle and available for development. I regard Ms Lindsay's suggestion that the Project should be aligned through a substantial north-eastern portion of QE Park **because it is "unused and undeveloped" land** as inappropriate.

Loretta Pomare and John Horne

- 104 Ms Pomare has prepared evidence on behalf of herself. Mr John Horne provides evidence in support of Ms Pomare's **submission**. There are two points made by Ms Pomare in her preamble⁴² that I would like to clarify. First, Ms Pomare states that the Expressway is

³⁹ Page 3, Executive Summary.

⁴⁰ 6.7.2, page 85, Parks Network Plan, Greater Wellington Regional Council, 2011.

⁴¹ Paragraph 12.

⁴² Page 1.

50m from her property at 55 Puriri Road, Waikanae.⁴³ While I agree that her property is relatively close to the Project designation boundary, the closest edge of the Expressway carriageway is approximately 130m from her house, and approximately 115m from the northwest corner of her property boundary.

- 105 Second, Ms Pomare states that the proposed cycle/walkway will be directly beside and behind her property.⁴⁴ However, a neighbouring property to the east, separates **Ms Pomare's** property from the proposed cycle/walkway and consequently the cycle/walkway does not adjoin her property boundary.
- 106 Ms Pomare raises concerns about the cycle/walkway related to privacy, safety, night time lighting and noise. I understand that a final alignment for the CWB has yet to be determined and that this will be managed through the detailed design process.
- 107 In paragraph 57, **Ms Pomare states that views of Kāpiti Island "will be seriously impeded from all angles with the height of this planned concrete structure."** I am unclear exactly what part of the Expressway she is referring to, or if it is a general statement about the Expressway in relation to the whole route. I consider that this overstates the likely **effects of views on Kāpiti Island**. However, I do agree that from some locations east of and close to elevated parts **of the Expressway, views to Kāpiti Island will be reduced or lost**. On the other hand, as I discuss in my EIC, in other locations, views of the Island will be created.⁴⁵
- 108 **Mr Horne's** evidence in support of Ms Pomare relates to the changes that the Project will have on the existing ecological and recreational values currently experienced by walkers along four sections of the Project route. **I have not commented on Mr Horne's ecological observations.**
- 109 The areas Mr Horne specifically refers to are either within or close to the existing WLR designation. That is; land which has retained **elements of 'naturalness' or tranquillity due only to the de facto 'protection' provided by the WLR designation and preceding designations**. In the locations to which Mr Horne refers, any development of a road (which was the purpose of the designation), within the area designated would obviously affect the existing recreational values.
- 110 Notwithstanding this, as I have stated in my assessment (Technical Report 7) and EIC, there will be adverse effects on the localised landscape (i.e. biophysical, visual amenity and landscape character) and these effects will be greatest in close proximity to the

⁴³ Page 1, Preamble.

⁴⁴ Paragraph 118.

⁴⁵ Paragraphs 224-225.

Expressway, which are the areas Mr Horne is concerned about. Also, I note that the Project includes provision for new cycling and walking paths.

Dr Christopher and Monica Dearden

111 **The Dearden's** statement of evidence raises several issues in relation to their property at 39 Puriri Road, Waikanae. They note that the proposed cycleway will be aligned next to their north-western boundary where they have a pond.⁴⁶ They are concerned about the safety of cyclists/pedestrians using the path who may be tempted to investigate the pond and request that a 2.0m high fence be erected to avoid this happening.

112 As I mentioned above, in paragraph 106, I understand that a final alignment for the CWB is subject to the final design process, and that there are other options being explored for the CWB alignment in this area.

Neil Saxby and Barbara Mountier

113 The Mountiers' evidence includes a reference to the height of the Expressway bridges, stating that these structures "*would block the view of Kapiti Island from properties east of the motorway.*"⁴⁷ This may certainly occur from some properties in particular locations where there are currently views to Kāpiti Island. However, Kāpiti Island is not currently visible from many places in the town centres, which are located east of the Expressway and it is also not visible from many residential properties close to the Expressway route because of intervening buildings, structures and trees.

CONDITIONS

114 I have proposed some amendments to conditions, arising from my **review of the submitters' evidence**. I understand that **Mr Schofield** will prepare an updated set of conditions, which reflect the amendments proposed by me and other NZTA witnesses.



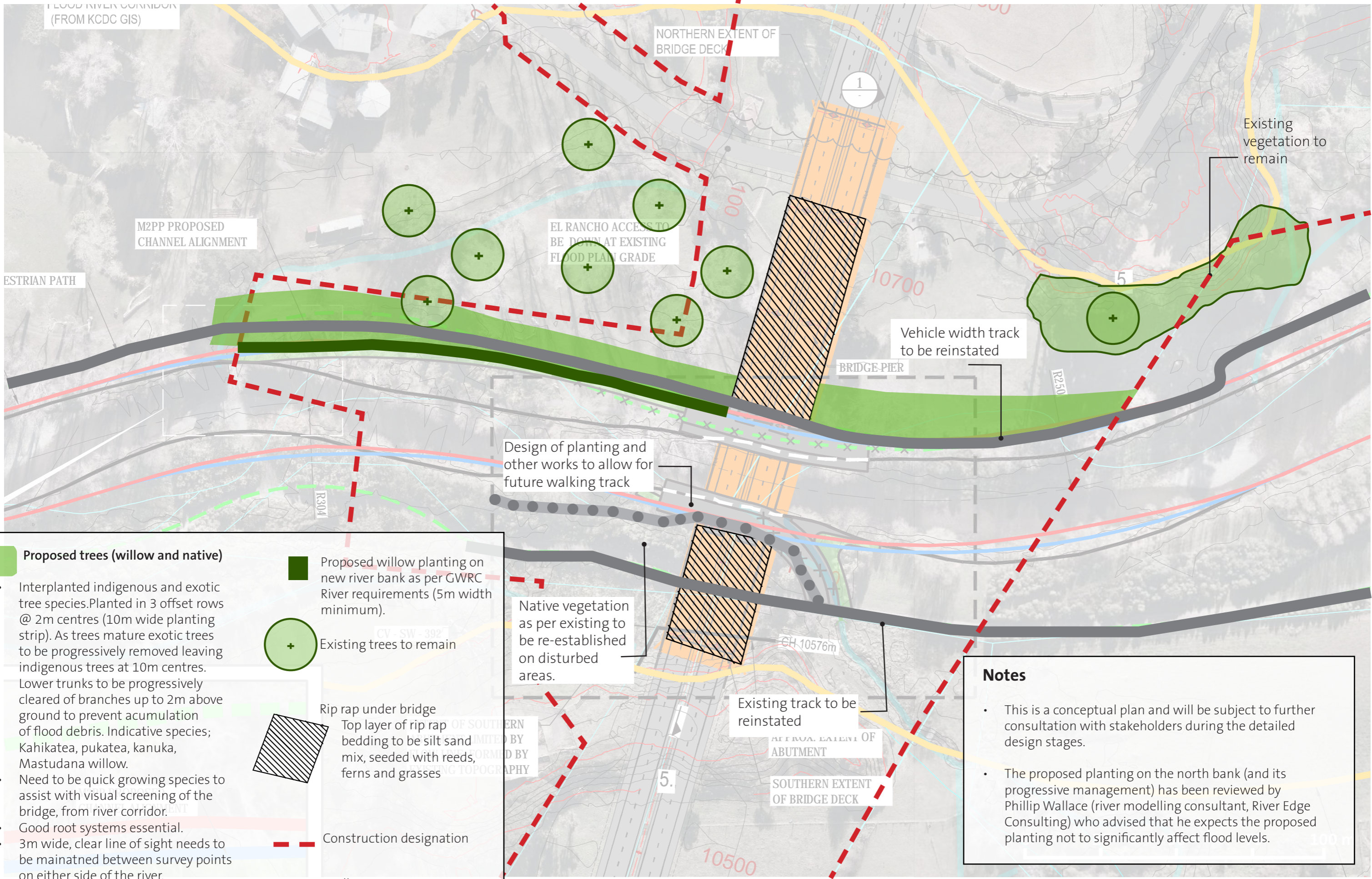
Boyden Evans

26 October 2012

⁴⁶ Paragraph 3.10.

⁴⁷ Fact 2.

ANNEXURE 1 – WAIKANAE RIVER PLANTING CONCEPT PLAN



Proposed trees (willow and native)

- Interplanted indigenous and exotic tree species. Planted in 3 offset rows @ 2m centres (10m wide planting strip). As trees mature exotic trees to be progressively removed leaving indigenous trees at 10m centres. Lower trunks to be progressively cleared of branches up to 2m above ground to prevent accumulation of flood debris. Indicative species; Kahikatea, pukatea, kanuka, Mastudana willow.
- Need to be quick growing species to assist with visual screening of the bridge, from river corridor.
- Good root systems essential.
- 3m wide, clear line of sight needs to be maintained between survey points on either side of the river.

Proposed willow planting on new river bank as per GWRC River requirements (5m width minimum).

Existing trees to remain

Rip rap under bridge
Top layer of rip rap bedding to be silt sand mix, seeded with reeds, ferns and grasses

Construction designation

Walkway

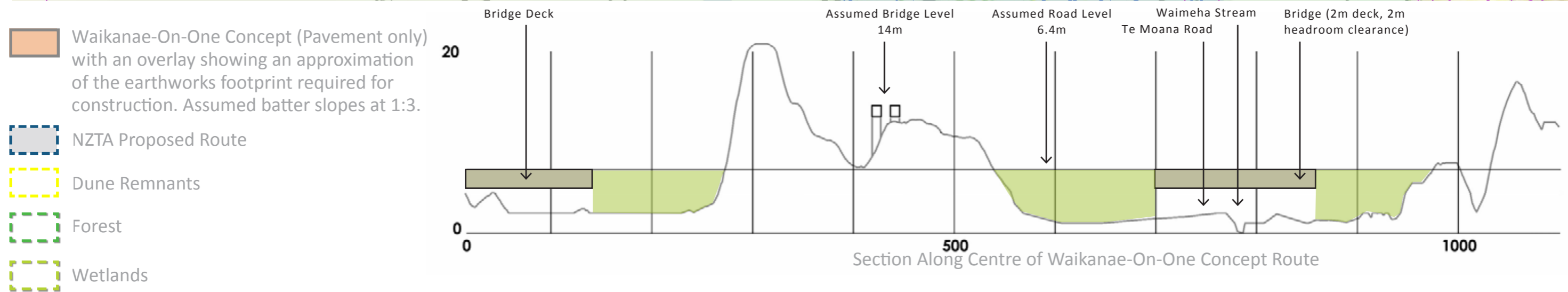
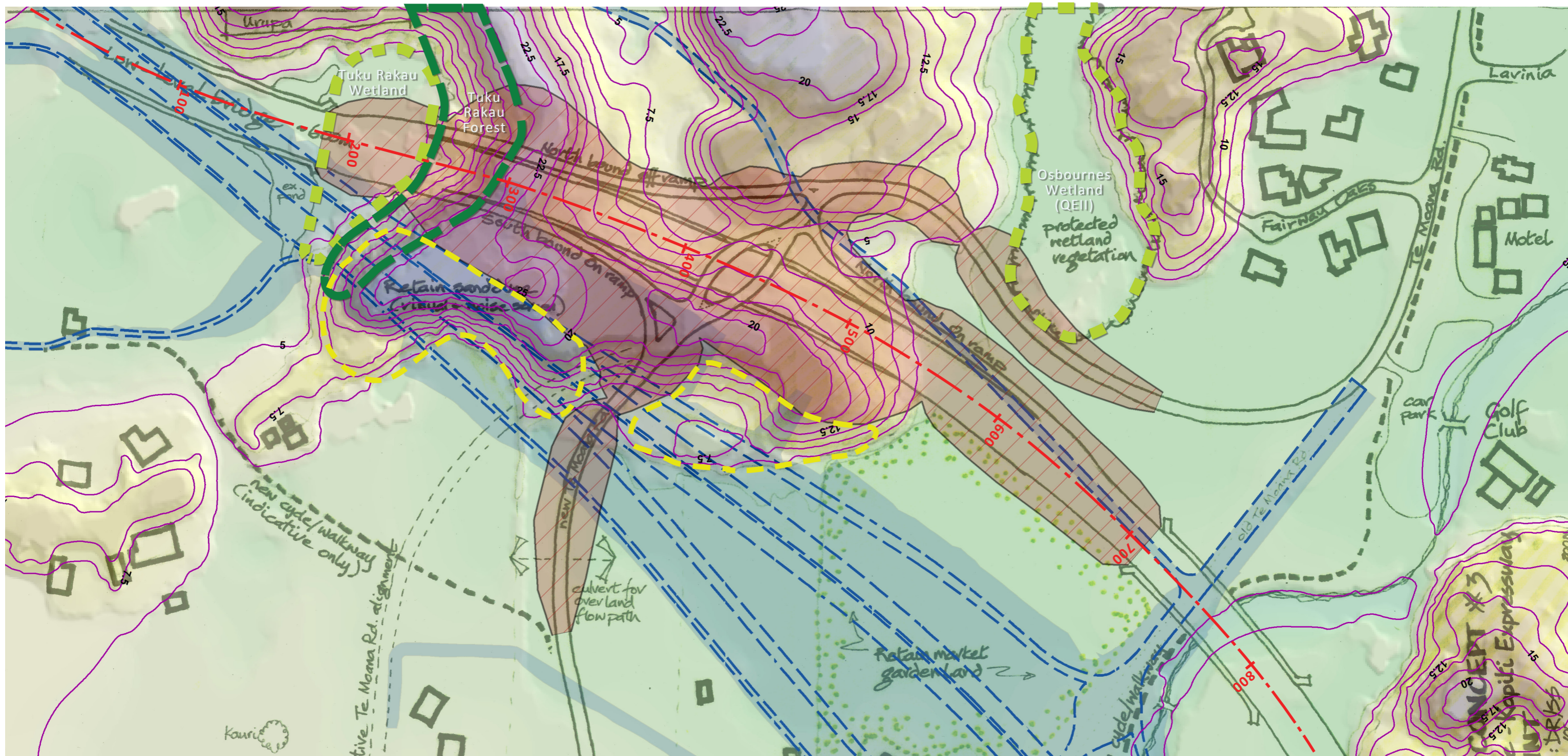
Future walkway

Notes

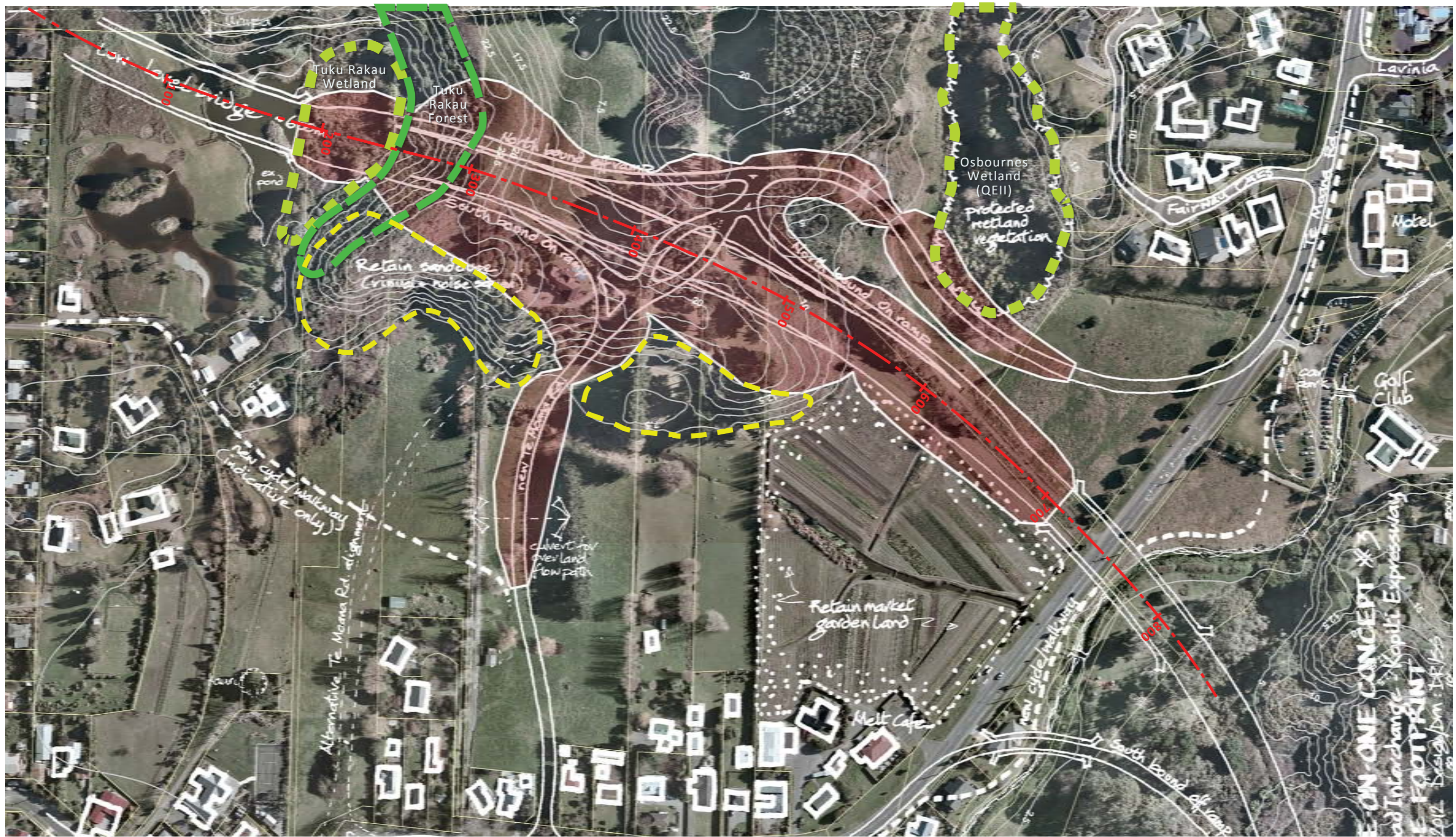
- This is a conceptual plan and will be subject to further consultation with stakeholders during the detailed design stages.
- The proposed planting on the north bank (and its progressive management) has been reviewed by Phillip Wallace (river modelling consultant, River Edge Consulting) who advised that he expects the proposed planting not to significantly affect flood levels.

Conceptual Planting: Waikanae River - 26 November 2012

**ANNEXURE 2 – WOO ALTERNATIVE ALIGNMENT SKETCH
PLAN WITH TOPOGRAPHY AND EARTHWORKS ADDED**



**ANNEXURE 3 – WOO ALTERNATIVE ALIGNMENT TRANSPOSED
ON TO AERIAL PHOTOGRAPH**



- Waikanae-On-One Concept (Pavement only) with an overlay showing an approximation of the earthworks footprint required for construction. Assumed slopes at 1:3.
- Dune Remnants

Wetlands
- Forest