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UPDATED PLANNING ASSESSMENT FOLLOWING FURTHER REFINEMENT OF  
MODELLING UNDERTAKEN BY THE APPLICANT

Date: 14 AUGUST 2018

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1. This planning assessment has been prepared by Stella Morgan, of Sage Planning, as a result of refined modelling and calibration work undertaken by the Applicant and is intended to update the Application for Resource Consent dated June 2017. An explanation of the refined modelling and calibration work undertaken by Craig Goodier of Hawkes Bay Regional Council (HBRC) has been included in Mr Goodier's additional report, which I understand has been provided with the Applicant's package of further information provided to the Consenting Authority. Further analysis has also been provided by the Applicant in particular by Mr Joss Ruifrok in relation to engineering issues and Mr Janic Slupski in relation to natural character and landscape effects. Where I have relied on their conclusions I have highlighted that in this report.
2. In particular, this updated planning assessment will specifically address, from a planning perspective, the issue of scope of the Application in light of the changes that have resulted from the refinement of the modelling. It also responds, where applicable, to the matters raised in a further information request by the Consenting Authority dated 6 June 2018 which requested that the Applicant address the issue of scope when providing its updated modelling results.
3. It is important to note at the outset that this project provides for an upgrade of the existing 64 kilometres of stopbanks and associated flood control infrastructure along the Waipaoa River, known as the Waipaoa Flood Control Scheme ('Scheme'). Constructed between 1950 and 1970's, following a major storm event in 1948, it protects some 10,000 hectares of fertile floodplain land, the urban areas of Gisborne City, Makaraka and Ormond townships, as well as a number of marae and community facilities. Its development has enabled and supported major land-use change in the area since that time, with the Poverty Bay Flats now comprising a wide range of high yield horticultural uses. The Scheme, currently valued at approximately \$41 million, is GDC's single most valuable asset and ensuring its maintenance, function and resilience are matters of significant importance to the Gisborne community. The proposed upgrade is essential to the protection of lives, property and the economy of this area and for this reason is Council's highest priority infrastructure project.
4. Much of the Scheme passes through the highly modified rural landscape of the Poverty Bay Flats, comprising areas of grazing, cropping, orcharding, rural lifestyle and a small amount of rural residential land. It also includes a short section along the contributing Te Arai River and Whakaahu Stream, and the Mahunga Stream near Ormond.
5. As detailed in the report provided by Mr Goodier, the Applicant has undertaken modelling of the river in order to determine an appropriate height for raising the stopbanks in order to achieve a 1% AEP at 2090 (accounting for climate change factors out to that date). Further refinements to the model (and further calibration work) has meant that although the design is still for the same event 1% AEP at 2090, the level of required raising of the stopbanks in some areas has increased (and also decreased). The Applicant has therefore considered the issue of scope of the original Application.

This planning assessment updates or provides further information on the following matters in relation to the Application:

- i. Site Description;
- ii. Analysis of Proposed Works;
- iii. Assessment of Effects;
- iv. Analysis of relevant planning provisions, including activity status;

- v. Record of Consultation;
- vi. Discussion and conclusions regarding scope of the Application; and
- vii. Conclusions.

### ***Site Description***

- 6. The site description as summarised in Section 4.1 of the Application is generally unchanged. The length of the stopbank has not changed, the location is as shown in Figure 1 below, and the general description of location still applies.

*Figure 1 Scheme Location*



- 7. As a result of flood modelling refinements and submissions, a short section of realignment and minor stopbank bypass are proposed. These include a section of stopbank realignment at Mullooly's Bend and a stopbank extension bypass across the Mahunga Stream at Ormond. Details of these works are described in the Further Report from Mr Ruifrok and summarised as follows:

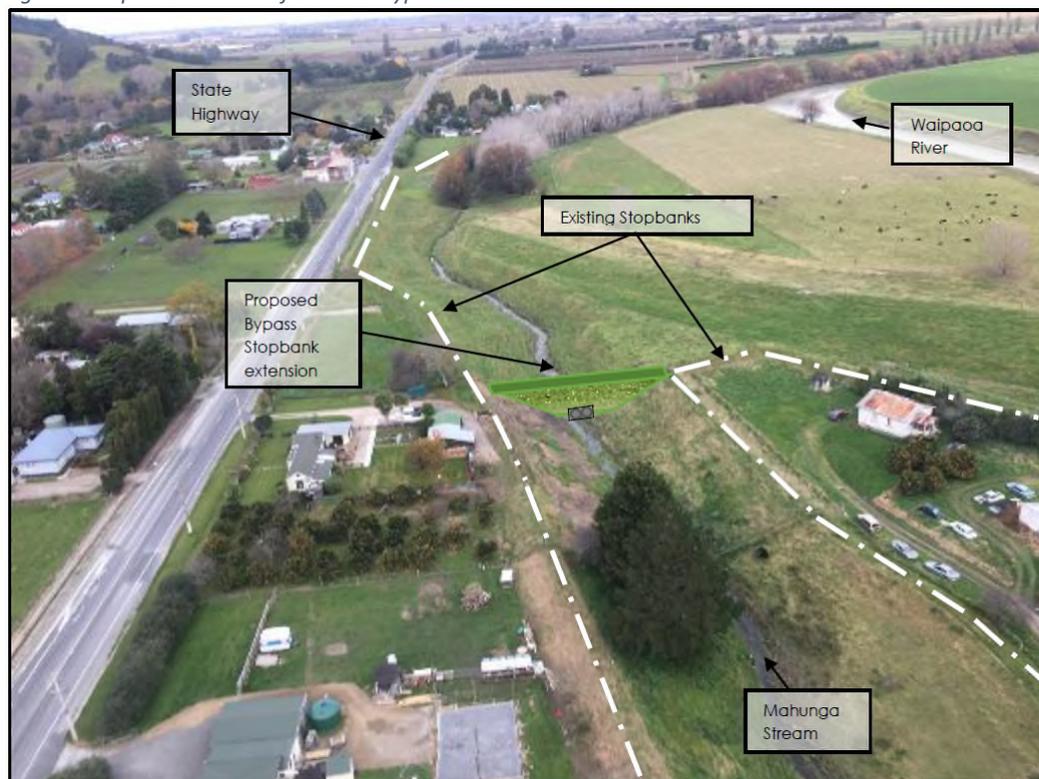
#### ***Ormond Bypass***

- 8. The Ormond bypass involves construction of a new culvert, floodgate and 40 metres of earthen stopbank, seeded and grassed, across Mahunga Stream, in a location approximately behind/southwest of 1183 Matawai Road as shown in Figure 2 below and detailed in paragraphs 80 -105 of the Further Report by Mr Ruifrok for the Applicant. It is proposed in response to Submission #13 (C. Thompson, 1203 Matawai Road, Ormond) that queried the ability to raise the

existing stopbanks along the Mahunga Stream and sought additional detail on what is proposed for that area and the impact on adjacent properties.

9. This refinement will remove the need to upgrade the existing stopbanks along the Mahunga Stream, including outside Mr Thompson's property, and will provide a number of additional benefits as outlined in Mr Ruifrok's report. No properties will be affected by the amendment, and the Applicant's Landscape Architect Mr Slupski, has assessed this part of the proposal as having no adverse visual impacts on the two neighbouring properties (refer Appendix 1 of Mr Ruifrok's report).
10. Construction will be undertaken in accordance with the Project methodology outlined in the Application, subject to the broader consent conditions and provisions of the Draft Construction Environment Management Plan submitted with the Application.

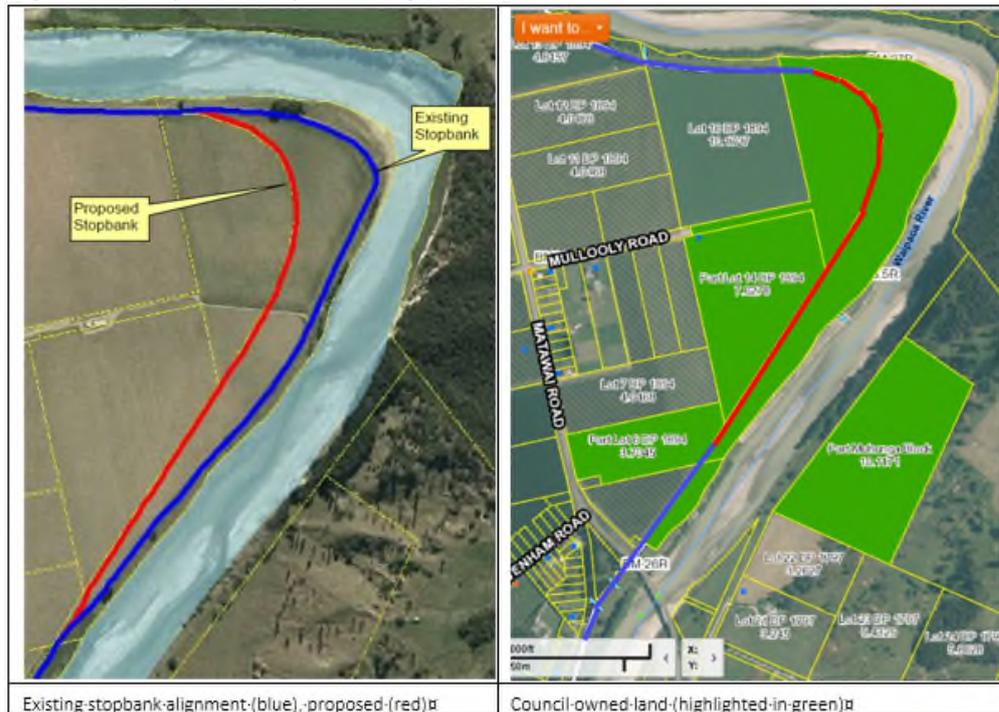
*Figure 2 Proposed location of Ormond Bypass Alternative*



### ***Mullooly's Bend Realignment***

11. A minor realignment of the existing stopbank is proposed at Mullooly's Bend realignment as a result of refinements to the flood modelling and in response to matters raised in Submission#15 (D.Peacock). The realignment involves a landward shift of the stopbank (just under 1 kilometre in length and up to 130m westward shift at its maximum distance) at this bend to enhance flood hydraulics by widening and improving the flood carrying capacity, resulting in a corresponding lowering of flood levels upstream. As pointed out by Mr Peacock, the Council specifically purchased the property for soil, conservation and river control work on the bend in 2002 in order to facilitate this realignment. No other properties, other than Council's land are affected by the proposed realignment.

Figure 3 Mullooly's Bend Proposed Realignment



12. The following assessment takes into account these proposed project variations.
13. This assessment also addresses further, an area on the western side opposite Ormond where there is a break in the stopbank. This flat area forms part of the floodplain, and comprises land owned by Wi Pere Trust who have submitted on the Application. Detailed description of impacts on that site is provided in paragraphs 44-65 below and addressed in the Further Report from Mr Ruifrok, at paragraphs 150-195.

### ***Analysis of Proposed Works***

14. The key components of the proposed upgrade summarised in Section 4.1 of the Application have not changed. In summary, those key components are:
  1. Site preparation works;
  2. Earthworks associated with the stopbank upgrade;
  3. Earthworks associated with the borrow areas;
  4. Bank strengthening works, tree planting and fencing;
  5. Culvert works associated with the stopbank upgrade; and
  6. Reinstatement works.

#### ***Preliminary Schedule of Works and Site Preparation***

15. Similarly, the preliminary schedule of works identifying the staging of the works (Section 4.1.1 of the Application) and site preparation works (Section 4.1.2) have not changed.

#### ***Stopbank Upgrade***

16. The description of the stopbank upgrade (Section 4.1.3) has not changed in the following respects:
  1. The upgrade seeks to achieve a standard design of 4 metre top width, with 2 to 1 batters and a freeboard of 600mm (900mm in critical areas); and

2. The description of works on the stopbank in Section 4.1.3 remain unchanged.
17. However, the details regarding the indicative amount of raising of the stopbanks contained in Appendix 4 to the Application, and in particular, the amount of raising within Sensitive Coastal Areas has been amended as a result of the refinement of the model. Details regarding the amendments can be found in paragraphs 46-59 of Mr Ruifrok's Further Report. An analysis of the effects of those amendments can be found in paragraphs 31-35 below.

#### ***Borrow areas***

18. Again, details regarding borrow excavation as detailed in Section 4.1.4 of the Application remain largely unchanged.
19. Although the estimates of the total amount of borrow required has increased as a result of the further modelling outputs, the Application which relied on preliminary design applied for a generous borrow excavation area and the Applicant has concluded that its borrow needs can still be met within the parameters set out in the Application. As such, no further amendments to borrow area or borrow depth are required.
20. To explain this further, the Applicant applied for a generous borrow excavation area of on average 600mm or less with maximum average depth of 1000mm across the 334 hectares of Council owned land. It included removal of approximately 150mm of topsoil, to be stored and re-used progressively as works are completed. Although some indicative figures of quantum were provided (approximately 750,000m<sup>3</sup> of earth<sup>1</sup> for the stopbank upgrade) the parameters of the Application were set by the above borrow area and depth and assessed on that basis. While the estimated quantity of borrow material required for the stopbank improvement work has now increased (calculated as approximately 1.4 million m<sup>3</sup>), this equates to an average excavation depth of 0.42m across 334 hectares and can be accommodated within the Application. No additional rules are triggered by the increased quantum, and the excavation borrow depth and area remain unchanged and within the parameters of the original application.
21. The Applicant has reconfirmed that due to natural character sensitivities of the coastal area of the Scheme, no borrow material will be taken from the estuary area below the rail bridge.

#### ***Bank Strengthening Works and Fencing; Culvert works, Reinstatement works, Additional Project requirements, Access and Maintenance of the site, (Sections 4.1.5 - 4.1.9)***

22. Proposed methods for bank strengthening works and fencing requirements, culvert works, reinstatement works, additional project requirements, access and maintenance of the site also remain unchanged.

#### ***Affected Land Owners***

23. The method for consulting with affected landowners as detailed in Section 4.1.9 remains largely unchanged. Negotiations regarding land purchase and entry agreements etc. are being undertaken by The Property Group on behalf of the Applicant and individual landowner agreements will be in place prior to works commencing.
24. In terms of the proposed Ormond refinement bypass no additional landowners will be affected by this aspect of the proposal. Works remain within the project area as notified by the Applicant,

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<sup>1</sup> As provided for in Figures 4 & 5 Appendix 4 to the Application

albeit in the stream rather than on private land. Any land entry required for construction purposes will be negotiated by The Property Group in accordance with the process outlined above. It is noted that Mr Ruifrok has also undertaken consultation with landowners in this area as detailed at paragraphs 101-103 of his Further Report.

25. In terms of the proposed Mullooly's Bend realignment, this section of stopbank is located entirely within land owned by Council, that was purchased for the purpose of soil conservation and river control work and no additional landowners are affected. Licence holders will be consulted in a timely manner (as elsewhere throughout the Scheme upgrade). This section is one of the last sections of the stopbanks to be upgraded and timing is 10 -15 years away.

### ***Assessment of Effects***

26. The Assessment of Effects outlined in Section 8.2 of the Application included consideration of a range of effects including:

- i) Construction Effects - Noise, Vibration, Dust, Traffic;
- ii) Natural Character, Amenity and Landscape Effects;
- iii) Cultural and Heritage Effects;
- iv) Natural Hazard Effects;
- v) Effects on Water Quality and Fish Migration;
- vi) Effects on Biodiversity and Significant Habitats of Indigenous Fauna;
- vii) Effects on Productive Quality of the Soils;
- viii) Effects on Services and Infrastructure;
- ix) Effects Associated with the Proposed Cycling/Walking Trail;
  - a. Natural Character and Amenity Effects
  - b. Effects on Public Access and Recreation Use
  - c. Reverse Sensitivity Effects; and
- x) Positive Effects (social, health and wellbeing benefits, economic benefits).

A number of the above elements remain unchanged as a result of the refined modelling, but for completeness this report confirms where there are no additional effects. Further commentary in relation to these is provided below:

#### ***Construction Effects - Noise, Vibration, Dust, Traffic***

27. The methodology outlined in Section 8.2.1 of the Application for construction is generally unchanged. Proposed conditions and provisions of the Draft Construction Environment Management Plan have been refined as a result of discussions with Council processing officers to provide further certainty around mitigation of construction effects. A copy of revised conditions is attached in Attachment 1 to this Assessment.
28. Similar effects are anticipated in relation to the Ormond bypass and Mullooly's Bend realignment, and the conditions offered with the Application and updated as agreed with Gisborne District Council (consent processing officers) in Attachment 1 are considered appropriate to manage any associated adverse effects of these works. In addition, it is noted, that the Ormond bypass will result in a significant reduction in construction effects for surrounding residents in this location.

#### ***Natural Character, Amenity and Landscape Effects***

29. Section 8.2.2 of the Application assessed the effects of the proposal on Natural Character, Amenity and Landscape. Supported by a Landscape Statement prepared by Council Senior Policy

Planner / Landscape Architect, Mr Slupski, it described two distinct landscape areas within the project area: The Poverty Bay Flats Character Area (wider rural landscape); and the Poverty Bay Coastal Margin Area (including the Outstanding Landscape Area Unit 16 (Tuamotu Island). It concluded that once upgrade works were completed any adverse effects on:

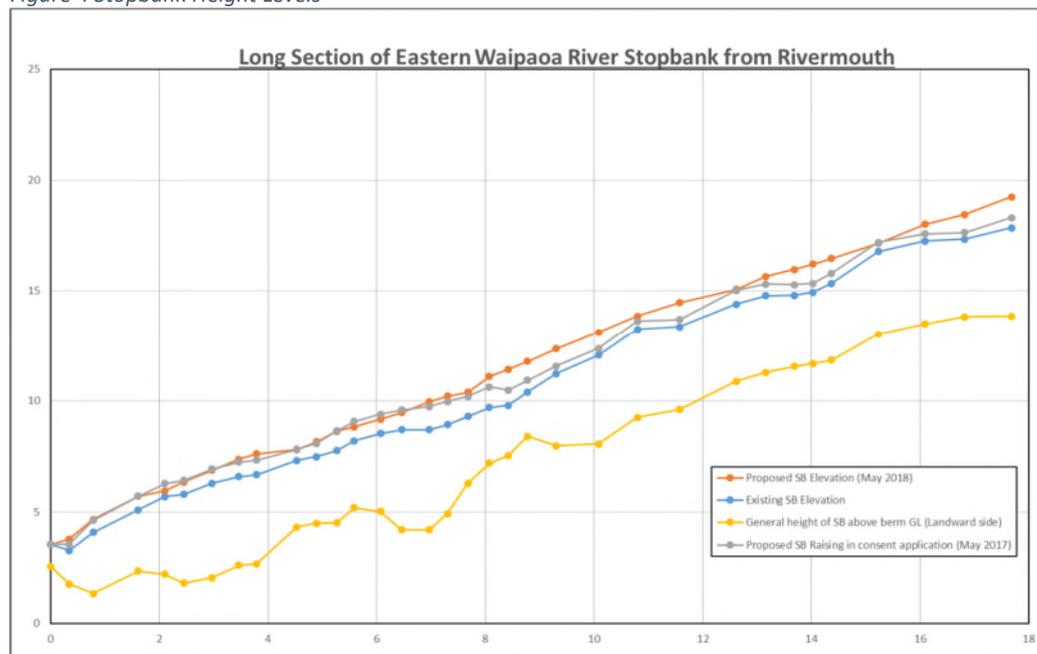
- i. The Poverty Bay Coastal Margin Area including the outstanding landscape of the rivermouth/coastal areas, would be minor, given presence of the existing stopbank structure in the landscape, the low level of change resulting from the upgrade, and its discrete location; and
- ii. Similarly, any effects on the broader rural landscape would also be less than minor.

30. As the refined modelling has in some cases provided for an increase in stopbank heights, the Applicant has engaged Mr Slupski to consider any difference in scale or intensity of the proposed activity and any difference in effects on natural character or landscape. Those matters have been considered in addition to specific consideration of the Ormond bypass and Mullooly’s minor realignment.

Sea Level Rise

31. As described in the Further Report (paragraphs 46-59), refinements to the flood modelling now also includes provision for Sea Level Rise (SLR) in accordance with recently released Ministry for the Environment (MfE) guidelines on climate change, released after the Application was notified. In summary, for the coastal section, (i.e. 18 kilometres upstream from the coast) new design heights remain similar to notified design heights along the stopbank closest to the coast (8 kilometres upstream from the river mouth) with slight increases from the 6 km mark. The proposed design height ‘flattens’ out the stopbank to achieve a more consistent height and uniform protection than what is currently provided.

Figure 4 Stopbank Height Levels



32. Mr Slupski’s updated assessment takes into account the revised design levels for SLR, and he confirms his earlier conclusions that the proposed increase in stopbank height will not adversely affect the attributes that make this Outstanding Natural Landscape (ONL) outstanding. In reaching

this conclusion he specifically addresses the effect of the upgraded stopbank on the key attributes that contribute to the ONL, being:

- i. Te Kuri a Paoa and Sponge Bay / Tuamotu Island; and
- ii. Wherowhero and Waipaoa River mouth estuaries.

33. The Wherowhero and Waipaoa River mouth estuaries, and beach and dune environment north of the Waipaoa River mouth are key contributing landscapes to the natural character of the coastal area that gives it its ONL status. At paragraph 18 of his report he states:

*'it is my opinion that the lower reach of the Waipaoa River and the adjacent stop banks provide a useful transition and buffer zone between one landscape unit and another. While showing greater evidence of landscape modification this area retains a degree of naturalness in both the scale and patterns of land use. The expansive setting, together with the continuity of exotic grass cover, enables the existing stop banks to fit comfortably within the ONL without adversely affecting its key attributes.*

*The focus of the proposal should therefore be to ensure appropriate consideration of any landscape changes is made to ensure the gradual transition from one landscape to another is preserved.'*

34. Mr Slupski also notes that the stopbanks at the rivermouth, were part of the environment when the Boffa Miskell landscape assessment that defined this area as an ONL was prepared in 1995.

35. Thus, it is concluded that the amended stopbank design heights proposed to provide for SLR will not result in any adverse effects on natural character, landscape and amenity at the river mouth and coastal section of the Project Area.

#### Ormond refinement

36. At paragraphs 32-34 of Mr Slupski's report he provides an assessment of landscape and visual effects of the proposed stopbank bypass, Ormond Township. This section of proposed works is located within the landscape area described by Mr Slupski in his report accompanying the Application, as the Poverty Bay Flats Character Area (wider rural landscape). In his evidence Mr Slupski describes the location of the proposed works and concludes that the extension will 'merge with the adjacent stopbanks and the wider pastoral surrounds'. Mr Slupski's overall conclusions that effects of the stopbank proposal on the broader rural landscape will be less than minor, therefore remain unchanged.

#### Mullooly's Bend Realignment

37. The proposed realignment at Mullooly's Bend will create a new stopbank curve for a length of approximately 650 metres slightly landward of the existing stopbank. The realignment will taper into the existing stopbank with a maximum separation distance of approximately 130 metres at its centre. The stopbank in this location passes through rural open pasture land and is an existing part of the environment. The closest residential house is more than 300m distant. Views from the landward side to the realigned stopbank, once works are completed, will remain similar. The development of a cycleway along here will have no greater effect on adjacent properties than it would if it remained on the existing alignment.

38. The Applicant considers that the stopbank realignment construction work and construction related effects (noise, vibration, sediment runoff etc) can all be managed effectively within the proposed conditions and draft CEMP framework.
39. Overall once the stopbank is completed in this location, long term visual effects, will be less than minor, consistent with elsewhere along the stopbank.

### ***Cultural and Heritage Effects***

40. No additional cultural and heritage effects are envisaged as a result of amendments to the Application since it was notified. Proposed conditions will provide appropriate methods of mitigation in the event of cultural or archaeological discovery. An Archaeological Assessment of the true left bank has been completed and prior to works commencing the Applicant intends to apply to Heritage New Zealand for an Archaeological Authority. A similar approach is proposed for the right bank prior to works commencing.
41. The Applicant's Project Manager, Mr Ruifrok has also continued to communicate with the relevant representatives of Rongowhakaata, Te Aitanga Mahaki (including Te Whanau Akai, and Nga Ariki Kaiputahi) and Ngai Tamanuhiri to seek input to a communications plan and processes, and update on progress relating to the Application. A Draft Accidental Discovery Protocol has also been circulated to iwi groups and will be offered as part of the final consent.

### ***Natural Hazard Effects***

42. The Application provided assessment in relation to flood hazard, coastal hazard, seismic hazard and land instability hazard/soil erosion.

#### **Flood Hazard**

43. GDC has a statutory responsibility under the Soil Conservation and Rivers Control Act 1941, to minimize and prevent flood damage and to provide defence against flooding. This proposal to upgrade 64 kilometres of existing stopbank along the Waipaoa River, is therefore of significant importance to the Gisborne community to ensure its ongoing maintenance, function and resilience and enable continued protection to some 10, 000 ha of fertile floodplain and urban land and associated infrastructure and public and private assets.
44. As noted above, the proposal continues to seek consent for the upgrade of the stopbanks within the Scheme as documented in the Application, to provide a consistent level of protection confidently to the 1%AEP event flood level, based on the expected future climate change of 2090, including a 0.6-0.9 m of freeboard.
45. It is thus a significant mitigation measure that will enable ongoing resilience of the Scheme and protection to the economy and communities of Gisborne.
46. Since the Application was lodged, the Applicant has undertaken considerable additional work to better understand the effects of raising the stopbanks on private landowners who are not within the Scheme, in particular the Wi Pere Trust property.

#### **Wi Pere Trust Land**

47. While landowners along the length of the Scheme directly adjacent to the stopbanks were consulted by The Property Group, the Applicant acknowledges that the Wi Pere Trust, as

landowners adjacent to the Waipaoa River but not protected by Scheme stopbanks, were not specifically consulted prior, to the proposal being lodged.

48. The proposal was, however, publicly notified on 8th July 2017 and Wi Pere Trust (“Trust”) made a submission. Since that time the Trust has also lodged evidence, including from Mr Alan Haronga (Chair of the Wi Pere Trust Board), Mr David Peacock (Consultant Engineer), and Mr Gerard Willis (Consultant Planner). That evidence details a number of concerns raised by the Trust, including:

1. The potential for the upgrades to the existing Scheme to exacerbate flooding effects on the Trust’s land;
2. That the Applicant’s Application did not acknowledge or assess the nature and scale of the adverse effects on the Trust’ land;
3. Concerns regarding the modelling undertaken by the Applicant and whether that assessed a ‘better case’ than shorter duration floods or a greater than design flood;
4. That the Applicant had failed to recognise Tangihanga as ancestral land, and failed to acknowledge the Applicant’s (as Council) obligations under the Treaty of Waitangi; and
5. Concerns raised by the Trust’s consultant planner as to whether an assessment against all relevant objectives and policies of the planning documents had been undertaken.

49. Since the closing of submissions, the Applicant (Mr Neil Daykin and Mr Joss Ruifrok) has had communications and met with the Trust to listen to and understand their concerns and has provided results of additional detailed modelling undertaken to better understand the potential for any adverse effects on the Trusts land. The nature of this communication and the additional information provided is outlined in the Further Report prepared by Mr Ruifrok and the Modelling Report prepared by Mr Craig Goodier, HBRC Engineering Consultant.

50. Mr Daykin, Mr Ruifrok and myself, also visited the Wi Pere Trust land, on 14th December 2017, to better understand the existing and potential effects of the proposed stopbank upgrade on this land. This included visiting the seven sites which the Trust has identified as being of significance to it, including:

*Table 1 Wi Pere Trust Specific Sites*

Site #	Site Location Description
1	Papakainga house (1006 Lavenham Road)
1a	Additional location (shed near papakainga house)
2	In planned apple field
3	Near pack house
4	East of pack house
5	Irrigation dam south
6	Irrigation dam east
7	Irrigation dam north
House 1	806 Lavenham Road (Floor height 0.6m)
House 2	Staff house near packhouse (Floor height 0.65m)

51. It is relevant to note that much of the Trust land between Lavenham Road and the river is part of the existing flood plain and is already liable to flooding. For this reason, much of it is designated as

F2 - High Hazard Area, on the relevant planning maps. An extract from the planning maps showing the extent of the notation over the Trust property is included in figure 5 below.

52. The TRMP describes flooding in high hazard area as associated with flow over stopbanks and roads and deep overland flow confined to narrow valleys. Floodwaters could cause structural damage to buildings and in extreme cases light framed houses could be swept away. Heavy silt deposition can occur. These areas are generally unsuitable for permanent habitation. Care needs to be taken not to alter the level of the land in a way which could divert floodwaters and cause adverse effects. Activities which could trap sediment in a flood and build up the river berms should be avoided<sup>2</sup>.
53. Part of the Wi Pere land is also designated as F4- Area liable to flooding. Areas in F4 contain land areas on floodplains that have previously been flooded. For Poverty Bay that is flooding from the 1985 and/or 1988 floods.
54. Based on these Planning Map overlays, in the ordinary course of events (i.e. no upgrade) structural damage and or heavy silt deposition could be expected to occur on or near sites 2 (planned apple field), 4 (east of packhouse including staff house 2), 5, 6 and 7 (irrigation dam vicinity). Sites 1 and 1a (papakainga) and 3 (packhouse) and house 1 (806 Lavenham Road) could be expected to be beyond these types of effects.
55. Papakainga housing at 1006 Lavenham Road and the dwelling at 806 Lavenham Road are not within the identified flood hazard areas, while the large farm shed adjacent to Lavenham Road is beyond the F2 hazard overlay but shown as vulnerable to a 1:100 AEP event under the current stopbank scenario as identified in Figure 5.
56. I understand that for a 1% AEP event under the current Scheme, flooding would go beyond the areas recognised by the Flood overlays in the District Plan. Modelling for this scenario is shown in Figure 6 below. I also understand that the Trust's land has recently (June 2018) been affected by flood events, a matter which is described further in section 155-157 of the Further Report by Mr Ruifrok.

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<sup>2</sup> TRMP – Part C 9C8.1.5 Methods/Regulation 4.c)

Figure 5 F1, F2 & F4 Flood Hazard overlays

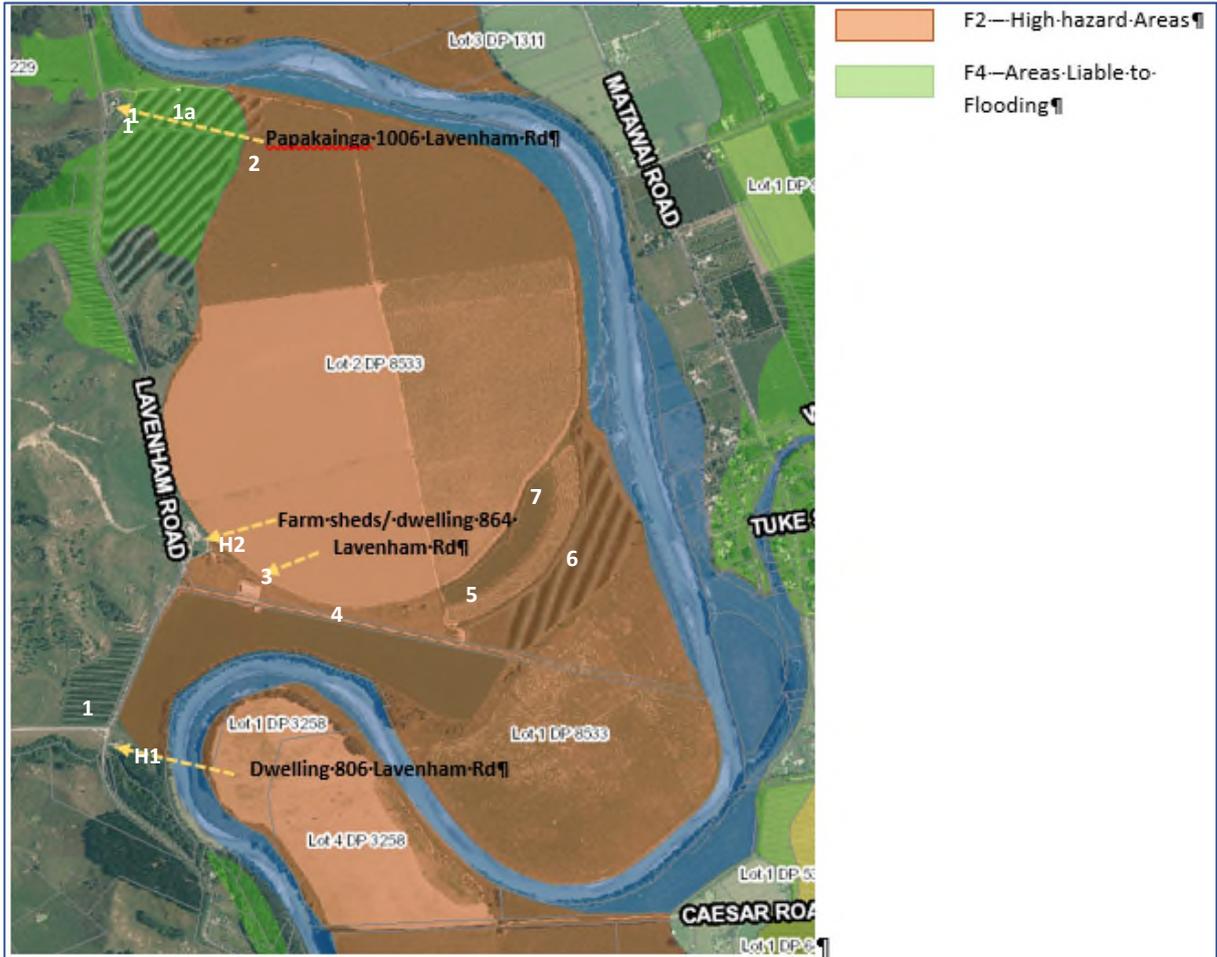
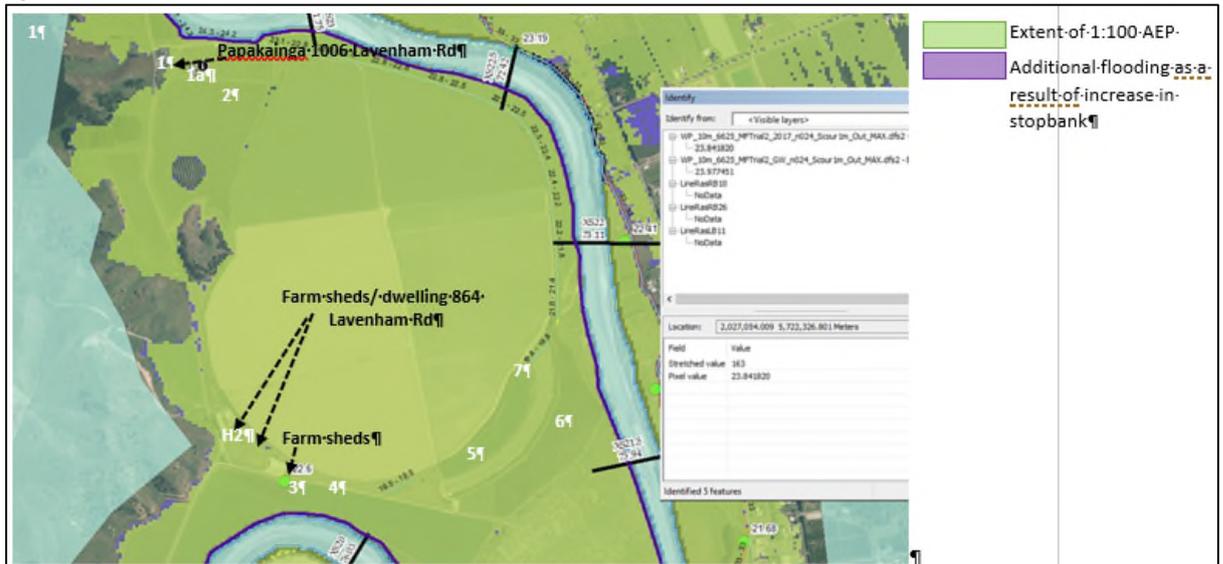


Figure 6 100% AEP Predicted Flood Results<sup>3</sup>



57. It is also relevant to note that the Application is for an upgrade to a legally established existing flood control scheme. From a planning perspective, I consider that what is required therefore, is consideration of the adverse effects of *this* Application, rather than any effects related to the

<sup>3</sup> As per modelling results provided by Craig Goodier, consultant to GDC

existing stopbanks, although any cumulative effects resulting from the Application also need to be considered under the RMA.

58. Refined modelling undertaken by the Applicant demonstrates that under the status quo (no stopbank upgrade) the Tangihanga land will be significantly affected by flood waters in a 1 in 100-year event at 2090; and addresses each of the seven sites under the Scheme upgrade. Consideration of the additional effects on the seven sites in Table 1 above is provided in the Further Report (paragraphs 121 -203) by Mr Ruifrok and the Modelling Report prepared by Mr Goodier. Mr Goodier's report addresses peak water levels, depths and velocities. Conclusions in relation to each of these sites are summarised in table 2 (taken from Mr Ruifrok's Further Report - at paragraph 138):

*Table 2 Modelling Results Summary*

Site #	Site Location Description	Peak Water Level (m)		Peak Water Depth (m)		Water velocities (m/s)		Increase in depth due to proposed upgrade (m)	Ground Level (m)
		Status Quo (no upgrade)	Proposed	Status Quo (no upgrade)	Proposed	Status Quo (no upgrade)	Proposed		
1	Papakainga house*	0	0	0	0	0	0	0	26.8
1a	Additional location	23.97	24.28	1.11	1.42	0.63	0.78	0.31	22.86
2	In planned apple field	23.75	24.03	1.13	1.41	0.43	0.54	0.28	22.62
3	Near pack house	22.82	23.09	0.84	1.11	0.72	0.80	0.27	21.97
4	East of pack house	23.12	23.34	0.75	0.97	0.73	0.88	0.22	22.37
5	Irrigation dam south	23.16	23.38	1.53	1.76	0.22	0.36	0.22	21.63
6	Irrigation dam east	22.21	22.61	0.48	0.88	0.55	0.64	0.40	21.73
7	Irrigation dam north	23.15	23.39	2.57	2.81	0.19	0.34	0.24	20.57
House 1	806 Lavenham Road (Floor height 0.6m)	21.9	22.4	0.9	1.4	0.27	0.28	0.50	21.0
House 2	Staff house near packhouse (Floor height 0.65m)	23.0	23.25	1.0	1.25	0.69	0.76	0.25	22.0

59. It is understood from these reports that that the refined modelling estimates that some parts of Tangihanga land may receive additional floodwater as a result of the upgrade, in an extreme flood event (1% AEP at 2090). However, the effects need to be assessed in the context of the 'status quo' (no upgrade), while having regard to the potential for any cumulative effects resulting from the increased stopbank heights. I note in particular:

- i. Site 1 will not be affected under either scenario (status quo and proposal). That is, there will be no adverse flooding effects as a result of the stopbank upgrade at this site.
- ii. Sites 1a and 2 will be inundated under both scenarios with a slight increase in peak water levels, depth and velocity under the Scheme upgrade. That is, land is already significantly

adversely affected at both these sites and the difference between the current situation and the proposed stopbank upgrade is less than minor.

- iii. At Site 3 the Packhouse (a light structure) will be inundated by more than 0.84 m under the existing (no upgrade) scenario and an additional 270mm under the Scheme upgrade. Preliminary assessment undertaken by the Applicant estimates that this is outside the range that damage to light structures is possible. That is, while there will be a small increase in an existing adverse effect as a result of the stopbank upgrade, this will not result in damage to the structure and therefore this difference in adverse effect is less than minor.
- iv. Sites 4, and 5 - 7 (irrigation dam) will be inundated under both scenarios impacting on access, the dam, horticultural plantings and related infrastructure.
- v. House 1 (806 Lavenham Road) will be inundated under both scenarios. The floor level of the house is about 600mm above ground level and under the status quo flooding is expected to be 300mm above the floor level and 800mm under the Scheme upgrade. At paragraph 207 of Mr Ruifrok's report he provides that:

*'The Applicant's preliminary analysis therefore is that the effects as a result of these two flood events (status quo – no upgrade; and proposed upgrade) are likely to be very similar in that inundation is modelled in both events. i.e. the increase in adverse effects is considered to be minor or less than minor.'*

And at paragraph 214 he states that the:

- vi. *'Applicant's preliminary analysis for both Houses 1 & 2, has identified that effects of inundation under both the status quo (no upgrade) and proposed upgrade scenarios are unlikely to cause structural damage but will involve interior damage.'*
- vii. House 2 (near the packhouse) is shown on District Plan as within Flood Hazard Overlay F2 (High Hazard Area) and while the floor levels of this house are 0.65m above ground level it will still experience some flooding under both scenarios. In addition, access to the house is likely to be impeded for periods of time under both scenarios, however in an extreme event Lavenham Road would already be inundated and impassable in several locations.

Thus, to conclude with regard to House 1 & 2, based on the preliminary analysis as provided, I conclude that the difference in adverse effects between the existing situation and the proposed upgrade is minor or less than minor.

- 60. In conclusion, a 1% AEP (accounting for climate change out to 2090) is a significant event that will have adverse effects for Trust land under both scenarios, albeit slightly more under the Scheme upgrade. It is noted that with respect to the Wi Pere Trust, the Applicant will continue to open to discussions with the Trust in relation to any potential minor additional adverse effects on its property.
- 61. It is also important to remember that the flooding effects included in the modelling relate to storms with a return period of 100 years at 2090 (accounting for climate change). This means that the probability of this event occurring is 1/100 or 1% in any one year (in the year 2090 following a warming climate (by 2.1deg)). The probability of that event occurring today is statistically much less likely. I consider such an event would be categorised as a "low probability" event. As such,

any effects arising from such an event would need to be of 'high potential impact' in order to qualify as an 'effect' requiring consideration under s3 RMA.

62. As noted above, the Planning Maps associated with the TRMP, show a flood hazard overlay to the floodplain area on Wi Pere Trust land that generally covers land eastward of Lavenham Road to the Waipaoa river as shown in figure 2 below. This overlay recognises flood risk in this area noted as a 'F2- high hazard' and 'F-4 – Areas Liable to Flooding'.

63. Land-use activities, located within the F2 overlay, including earthworks which alter the existing ground level (Rule 8.2.3(16)), and the establishment of new permanent horticulture, including any structures to physically support the plants (Rule 8.2.3(17)) require a 'restricted discretionary' resource consent to establish, with matters for discretion restricted to:

- a) Restriction or diversion of the passage of floodwaters;
- b) Aggradation of the bed or berms of the rivers; and
- c) The endangering of lives or property in the event of flooding.<sup>4</sup>

64. I note this rule because I understand that the Trust has expressed its aspirations to develop an apple orchard on the upper terraces with Flood Hazard F2 area, however but I understand that any consent has not at this stage been sought for that activity. Given the restricted discretionary activity status, I do not consider this proposal forms part of the existing environment.

#### Landowners Upstream of the Scheme

65. In addition to the Wi Pere Trust land, the Applicant has also modelled the area of land directly upstream of the Scheme, to understand the potential risks and implications of the proposed stopbank improvement work on these dwellings. The outcome of that modelling is addressed at paragraphs 230-244 of the Further Report. It includes consideration of the following 5 dwellings at locations as shown in Figure 7 below:

*Table 3 Dwelling within Floodplain and Flood Hazard Designation*

Dwg#	Address	Flood Hazard Overlay
A	1984 Matawai Road	F2/F4
B	1984A Matawai Road	F2/F4
C	2028 Matawai Road	F2
D	339 Newman Road	F4
E	354 Newman Road	F2/F4

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<sup>4</sup> TRMP – C8.2.3.2 Matters of discretion, Flood hazard overlays

Figure 7 Additional Dwellings

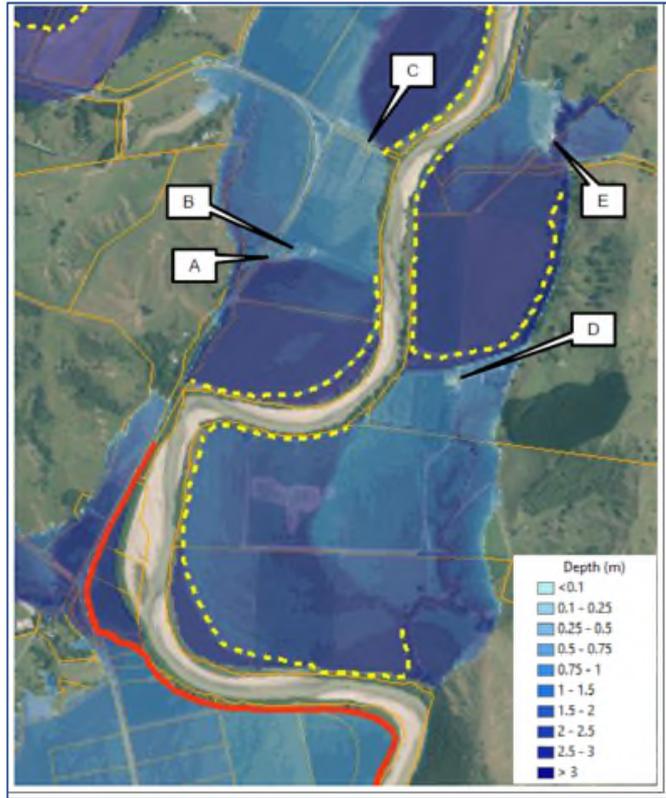
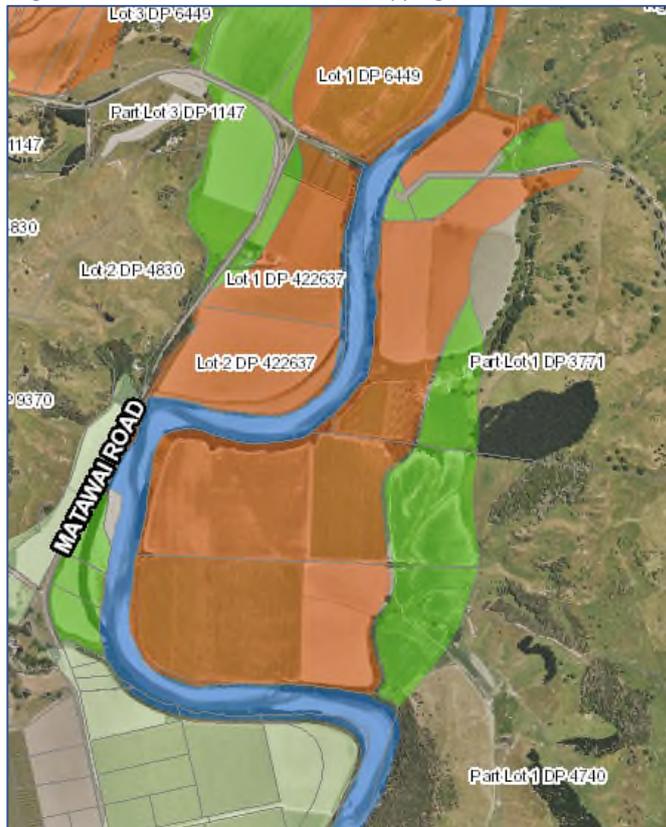


Figure 8 District Plan Flood Hazard Mapping



66. Each of these dwellings are located either within Flood Hazard Overlay F2 (High Hazard Area) or Flood hazard Overlay F4 (Area Liable to Flooding). Each of these sites were inspected and approximate floor heights above general ground level recorded.
67. The outcome of modelling results shows that for each of these sites there is no discernible difference in flood damage between the status quo and the proposed upgrade at these locations in an extreme event (1%AEP). That is, a 1% AEP is a significant event that will have adverse effects for these sites under both scenarios, albeit slightly more under the Scheme upgrade. Such events are anticipated by the Plan for these sites.

#### Ormond Bypass

68. While the proposed Ormond stopbank bypass is a flood mitigation against flooding from the Waipaoa River, it will create a new dam structure across the Mahunga Stream, that will be culverted and similar to other contributing streams within the Scheme.
69. The proposed bypass floodgates will stop Waipaoa flood waters flowing upstream. This will result in lower flood levels in the Mahunga Stream upstream of the flood gates as the stream has a much smaller flood flow compared to the Waipaoa River. In addition, there will be additional storage and attenuation provided within the Mahunga Stream for floodwaters sourced from the Mahunga catchment. There will be insignificant/negligible impacts from the loss of storage up the Mahunga on Waipaoa flood levels. This is primarily due to the relatively small volume of lost storage when compared with the incredibly large Waipaoa flow volumes.
70. It is noted that there is an existing culvert beneath the State Highway (Matawai Road) approximately 650m upstream, and thus the potential for adversely altering any floating debris carrying ability of the stream is minor.
71. Final design details will be provided to Council prior to works commencing in the stream, detailing how this aspect of the proposal will achieve the objectives of the Freshwater Plan including ensuring there is no reduction in flood carrying capacity, increased flood levels, or adverse alteration to rates of aggradation or bank erosion.
72. This approach is consistent with the approach to other culvert extensions on contributing streams as applied for in the Application.
73. In addition, as provided at paragraph 90 of Mr Ruifrok's report, the proposal removes the risks that councils are now more aware of post the recent Edgecumbe flood, around concrete flood walls. It should be noted that although the bypass removes the risks related to flooding from the Waipaoa on these walls, however, there is still some residual risks with the walls from flooding in the Mahunga Stream. The Council is currently instigating investigations in to all its concrete flood walls as a result of the Edgecumbe Inquiry.
74. Overall any adverse effects on flooding as a result of the Ormond bypass will be less than minor.

#### Coastal Hazard

75. The Application as proposed did not take into account Sea Level Rise, and whilst the purpose of the stopbanks is for river flood control, not coastal inundation processes, the RMA requires particular regard to be had to the effects of climate change (s7(i) RMA). This matter was raised by

Mr Brian Kouvelis, who is providing technical assistance to the Reporting Officer, and the refined modelling has included provision for this as outlined in paragraphs 42 – 54 of Mr Ruifrok's Further Report.

76. This additional protection, will not adversely impact on potential risk or consequence of coastal hazard and provides a conservative response to estimated risk associated with Sea Level Rise.

*Seismic Hazard / Land Instability Hazard/Soil Erosion*

77. Section 8.2.2.3 and 8.2.4.4 are unaffected by changes since the Application was lodged.

***Effects on Water Quality and Fish Migration***

78. The Mulooly's bend realignment will be constructed outside of the waterway and will not impact on water quality or impact fish migration. Should any culverts be required within this stopbank they will be provided in accordance with the Draft Construction Environment Management Plan methodology and conditions framework submitted with the proposal and further amendments to those submitted with this report.
79. With respect to the Ormond bypass, it is also considered that the condition framework will sufficiently address potential effects on water quality and fish migration. It is noted that in Mr Ruifrok's Further Report that the existing 'non fish-friendly' floodgates located on the state highway culverts (Matawai Road) will be removed, and new 'fish-friendly' floodgates providing for fish passage will be installed on the new stopbank bypass culverts. This will thus result in an improvement to the current fish passage situation.
80. Therefore, no additional effects on water quality and fish migration are envisaged as a result of changes to the Application since it was notified. As noted, the Applicant has offered amended conditions and an updated Construction Environment Management Plan that further refine the Applicant environmental management responsibilities and mitigation approach.

***Effects on Biodiversity and Significant Habitats of Indigenous Fauna***

81. No additional effects on biodiversity or significant habitats of indigenous fauna are envisaged as a result of changes to the Application since it was notified.

***Effects on Productive Quality of the Soils***

82. While the amount of borrow material required has increased, the method and excavation area for excavation remains unaltered, it will primarily be sought from Council owned land within the stopbanks, with topsoil to be removed, stored on site and then progressively reinstated use at the end of each section of works. Therefore, no adverse effects on the productive qualities of the soils is envisaged.

***Effects on Services and Infrastructure***

83. No additional effects are anticipated beyond those identified in Section 8.2.8 of the Application. Since the Application was lodged, Project Manager Mr Ruifrok has consulted with KiwiRail regarding the Railway Bridge 1.5 kilometres upstream from the river-mouth and with the NZ Transport agency regarding the Kaitaratahi, and Matawhero bridges (State Highway 2. Feedback from that consultation is provided at paragraphs 245-260 of the Further Report.

84. The NZ Transport Agency have also been kept up to date on by the Project Sponsor Neil Daykin, as part of regular GDC - Tairawhiti Roads communications. No submissions were received in relation to any utilities or infrastructure and no specific issues have been raised.
85. In terms of the Ormond bypass across the Mahunga Stream, water will not be impeded and there will be no adverse effects on any services and infrastructure upstream.

#### ***Effects Associated with Proposed Cycling/Walking Trail***

86. No additional effects associated with proposed Cycling/Walking trail are identified.

#### ***Assessment of Effects – Summary***

87. In summary it is concluded that the additional minor works proposed in response to modelling refinements and submissions will not result in any significant adverse effects or effects that are more than minor.
88. With respect to flood hazard, the additional modelling work and preliminary analysis undertaken since submissions has that there is unlikely to be any significant additional adverse effects as a result of the proposal on land not protected by the Scheme.
89. Thus, overall it is concluded that the refinements to the proposal will not result in any adverse effects that are more than minor.

### ***Analysis of Relevant Planning Provisions, including Activity Status***

#### ***Updated Assessment of Activity Status***

##### *Status of Plans*

90. Section 8.4 of the Application provides an assessment against relevant plan provisions. This included assessment against the Regional Policy Statement, the Combined Regional, Land and District Plan (CRLDP), the Proposed Gisborne Regional Freshwater Plan (PGRFP) and the Gisborne Regional Coastal Environment Plan. The Proposed Gisborne Regional Freshwater Plan was notified on 10 October 2015.
91. The Application was lodged on 29<sup>th</sup> June 2017.
92. The Tairawhiti Resource Management Plan (TRMP) was notified on 30 June 2017, pursuant to Cl 16(2) to Schedule 1– alterations of minor effect). This included Part B6 (Freshwater Regional Policy Statement) and Part DF1 (Waipaoa Catchment Plan) of the Freshwater Plan.
93. The decisions on submissions made to the PGFRP were released in August 2017.
94. Section 88A(1) provides for this Application to continue to be processed as a discretionary activity as at the time it was lodged.

#### ***88A Description of type of activity to remain the same***

(1) *Subsection (1A) applies if—*

- (a) *an Application for a resource consent has been made under section 88 or 145; and*
- (b) *the type of activity (being controlled, restricted, discretionary, or non-complying) for which the Application was made, or that the Application was treated as being made under section 87B, is altered after the Application was first lodged as a result of—*

- (i) a proposed plan being notified; or
- (ii) a decision being made under clause 10(1) of Schedule 1; or
- (iii) otherwise.

(1A) The Application continues to be processed, considered, and decided as an Application for the type of activity it was for, or was treated as being for, at the time the Application was first lodged.

(2) Notwithstanding subsection (1), any plan or proposed plan which exists when the Application is considered must be had regard to in accordance with section 104(1)(b).

Ormond Bypass and Mullooly's Bend

95. In addition, as outlined earlier in my report, a minor stopbank bypass (Ormond) and short section of realignment (Mullooly's Bend) are proposed. Zoning and Plan overlays that apply for each location are summarised in Table 4 below:

*Table 4 Zoning & Plan Overlays*

Location	Zone	Flood Hazard	Heritage Alert Overlay	Other Plan notations
Ormond Stopbank Bypass	Rural Residential	F1 and possibly F4/F5	No	No
Mullooly's Bend Realignment	Rural General	F5	Yes	No

96. In all rural zones soil conservation and water management works are permitted activities subject to general standards relating recession plane, setbacks and sight lines, thus no additional zone rules are triggered by works within these two sites.

97. Mullooly's Bend, a minor realignment, is in a similar location to the existing stopbank and involves the same activities applied for in the Application, being earthworks within a flood hazard overlay and deposition of material. It triggers the same Rules identified in the Application for earthworks as well as Rule 5.4.7 (deposition of solids) which also applies to the upgrade works as a whole (refer paragraphs 99 – 107 below). Whilst it is for a length of replacement stopbank, construction methodology is as per the application. the area is within the heritage one overlay and while no archaeological sites are identified in proximity to this location, proposed conditions providing for an archaeological assessment prior to works commencing and a process in the event of accidental discovery are in place.

98. The Ormond bypass, involves placement of a culvert in the bed of a stream within a catchment that exceeds 100 ha and therefore requires consent for a restricted discretionary activity pursuant to Rule 6.3.2(16) of the TRMP (formerly the Freshwater Management Plan, now included in TRMP). Discretion is limited to the following matters:

- a) Size, placement, type and location of crossing;
- b) Timing and duration of activity;
- c) Effects on water flow, capacity of river and ability of the river to carry floating debris;
- d) Effects on bank erosion and destabilisation of the bed;
- e) Effect on fisheries and spawning tributaries; Effects on hazard management, heritage items and natural heritage values.

99. Resource consent is also potentially required for damming and diversion of water within the bed of a stream as a discretionary activity status pursuant to 6.3.13(4).

100. The proposal has overall been assessed as a discretionary activity and the relevant range of effects have been considered, with conditions in place to manage any potential adverse effects associated with works in the bed of a stream.

Wi Pere Trust Submission

101. In their submission, Mr Willis Planning Consultant on behalf of Wi Pere Trust, contends that additional consents may be required under Rule 5.4.7 (fertilisers and solid discharges) and Rule 6.5.4 (damming and diversion of streams rivers and lakes) of the PGRFP. These matters are addressed as follows, although I note that they relate to the original Application rather than (if relevant) being triggered by refinements to the proposal.

Rule 5.4.7

102. This Rule is contained in Chapter 5.4 of the PGRFP that relates to fertilisers and solid discharges. The intent of this rule is not particularly clear, as discussed further below, because the policy direction around rule 5.4.2 relates more specifically to solid contaminants and fertiliser contaminants, rather than the deposition of earthworks onto land. However, on the face of the rule it arguably applies and therefore I have included the rule below. Commentary around the surrounding policies is included in the further sections of this report.

103. Rule 5.4.2 provides for the following as a 'permitted activity':

*'the deposition of any material into or onto land that is:*

- a. Solid; and*
- b. Not a hazardous substance;*
- c. Biologically and chemically inert for the duration of the time that the material is to be in contact with the land into or onto which they are discharged'*

Provided that the following standards are met:

- a. The deposition has a volume of less than 500m<sup>3</sup>;*
- b. No objectionable or offensive odour or dust shall be discernible beyond the boundary of the property as a result of the discharge; the material shall not be located within 20 meters of an Aquatic Ecosystem Waterbody identified in Schedule 1, Regionally Significant Wetland, or Outstanding Waterbody identified in Schedule 4;*
- c. The material does not cause any diversion of overland flows of stormwater or floodwater onto other property;*
- d. The material does not provide an attraction or accommodation for vermin;*
- e. The material is not deposited in any area of significant indigenous vegetation or significant indigenous habitat, or any heritage site identified in a Gisborne District Council Regional or District Plan.*

104. Where a proposal cannot meet the permitted activity standards, it defaults to 'discretionary activity' status pursuant to Rule 5.4.7.

105. This proposal, for the construction of an upgrade to existing WFCS stopbanks, relies on using borrow material taken from within the WFCS. The Application provided that borrow would involve:

- removal of approximately 150mm of topsoil that would be stockpiled for re-spreading at the completion of each stage of works;
- Excavation of 600mm or less with a maximum average depth of 1m; and
- The land area affected for borrow purposes across the length of the Project Area is calculated to be approximately 334 hectares.

106. As noted in the updated analysis of works relating to the borrow area described in paragraph 11 above, the borrow requirement for earthworks has increased from 0.75 million m<sup>3</sup> to 1.4 million m<sup>3</sup> and that this can be taken within the parameters of the Application as lodged. The area of excavation is therefore extensive.

107. The Application clearly sought consent for those activities, and therefore while it may be technically correct to state that the Application did not specifically identify Rules 5.4.2 and 5.4.6, the intent of the Application was clear, and substance should be preferred to form. I also note that the Application did however seek consent overall for a discretionary activity and on this basis considered a broad range of effects.

Rule 6.5.4.

108. This Rule is contained in Chapter 6.5 of the PGRFP that relates to the damming, diversion and drainage of streams, rivers and lakes.

109. Rule 6.5.1 provides for damming and diversion of water by existing flood control structures legally established before the date of notification of this Plan as a 'permitted activity', subject to the following standard '*The authorised maintenance or restoration of any stopbank or other flood control structure is limited to its height and profile as at the date of notification of this Plan.*' Where this standard cannot be met, the default rule 6.5.4 provides for 'Damming, diversion and drainage of water in the bed of a river or stream which does not comply with permitted activity standards, except for Outstanding Waterbodies in Schedule 4' as a 'discretionary activity'.

110. The Application addressed works in the bed of the river in relation to the culvert works that will be required as part of the upgrade, however did not consider the upgrade of the stopbanks themselves to be works in the bed of a river.

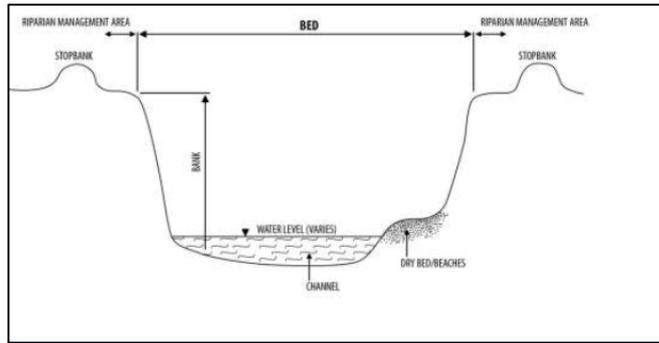
111. The PGRFP defines the 'bed' as follows:

a) *In relation to any river –*

i. ...;

ii. ...'*the space of land which the waters of the river cover at its fullest flow without overtopping its banks; ...*

*The following graphic should be used to interpret this definition:*



112. The explicit mention of stop-banks in the standards for Rule 6.5.1 indicates that stopbanks are anticipated in the bed of a river, however much of the WFCs stopbank runs parallel to but some distance from the river bed and would generally not be considered within the river bed as defined above. Nevertheless, some areas of the stopbank do run close to the edge of the river and could be considered to be within the bed of the river and this rule deemed to apply

113. The Application has applied for, and been assessed overall, as an Application for a 'discretionary' activity, and I am confident that the proposed conditions framework and methods outlined in the Draft Construction Environment Management Plan, can achieve the objectives of the PGRFP that seek sustainable management of the regions land and freshwater resources.

Conclusion - Activity Status

114. In conclusion, the amendments to the Application as a result of the further modelling and calibration work which take into account Sea Level Rise, and a minor realignment at Mullooly's Bend do not require any additional consents.

115. The minor stopbank bypass at Ormond, is damming and diversion of water within the bed of a stream that does not meet the permitted activity status of Rule 6.3.13(2) and therefore requires consent as a discretionary activity pursuant to 6.3.13(4). A number of culverts were proposed as part of the upgrade works and therefore these matters have already been fully assessed as part of the application, which means including this rule is simply a technical matter.

116. The proposal involves deposition of solid materials onto land, and therefore potentially requires consent as a discretionary activity pursuant to Rule 5.4.7, although as noted above it is unclear whether this rule actually applies.

117. In addition, as some of the stopbank upgrade are potentially within the bed of a river, the proposal also requires consent as a discretionary consent pursuant to Rule 6.3.13(4).

118. Thus overall, the proposal remains an application for a discretionary activity as applied for.

Updated Analysis of Relevant Planning Provisions

119. Section 8.4 of the Application provides an assessment against relevant plan provisions. Further commentary as a result of amendments to the proposal and submissions is provided below. This also includes reference to additional policies cited by Mr Willis in the Wi Pere Trust submission. As with the discussion relating to the rules, I note that if relevant, these additional

provisions relate to the original Application rather than being triggered by refinements to the proposal.

### Regional Policy Statement

120. In addition to the Regional Policy Statement (RPS) objectives and policies cited in the Application, additional RPS objectives and policies have been canvassed by the Reporting Officer, Mr Whittaker, in his section 42A report. I comment on these as follows in relation to the project changes since the Application was lodged.

### Tangata Whenua

121. Mr Whittaker assesses the proposal against Objective B1.1.1, Policies B1.2.2; Objective B1.3.1, Policies B1.3.2; Objectives B1.4.2, Policies B1.4.3 and Policy B1.5. As outlined in Mr Whittaker's report these provisions set a strong direction for consultation with iwi and for the recognition and protection of cultural and heritage values.

122. I have read Mr Whittaker's report and while I generally agree with his assessment<sup>5</sup> I note his concern that the lack of submissions for or against the proposal from a cultural perspective leaves some uncertainty regarding cultural matters and the appropriateness of the mitigation measures proposed. With regard to this, as part of the Applicant's ongoing updates and communication with iwi and hapu groups since submissions closed, the relevant iwi groups including Rongowhakaata, Te Aitanga Mahaki (including Te Whanau Akai, and Nga Ariki Kaiputahi) and Ngai Tamanuhiri, have been asked for feedback and to provide input regarding:

- i. A proposed Archaeological Discovery Protocol; and
- ii. Establishing contacts for an iwi communications plan.

123. An additional consent condition is also proposed providing for written protocols for cultural practices to be observed during earthworks and an Archaeological Assessment has been completed for the right bank with one for the left bank required prior to construction commencing.

124. Prior to lodging the Application, the Applicant consulted with iwi groups in the area, to seek their feedback and preferred approach to addressing matters of importance to iwi as relevant to the proposal. In this respect all iwi in the project area were met with and offered the opportunity to have hui to discuss the proposal and listen to concerns. The result of this consultation is reported in section 7.1 of the Application.

125. Mr Willis for Wi Pere Trust also cited a number of additional Plan provisions as relevant to the proposal with respect to the need to consider cultural effects, Maori relationship with their land and the principles of the Treaty of Waitangi.

126. While not all these provisions Mr Willis identified were cited in the Application, it is clear from the proposal, and actions undertaken since submissions were received, that the Applicant has given appropriately addressed cultural concerns and Maori relationship with their land, and in this

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<sup>5</sup> Refer paragraphs 185 – 191 S42A report

respect has adhered to the principles the Treaty of Waitangi in the processes that have been undertaken.

127. I therefore conclude that the Application and amendments to it remain consistent with the RPS provisions relating to Tangata Whenua.

#### Coastal Environment

128. Mr Whittaker cited a number of RPS provision as relevant to this Application (Objective B4.2.1, Policies B4.2.2; Objectives B4.3.1, B4.4.1 and Policies B4.4.2; and concluded<sup>6</sup> that the works in the coastal environment are not significant and are capable of being mitigated by clear and appropriate conditions. I agree with that assessment.

129. As outlined above, since the Application was lodged, additional modelling refinement for the coastal section has resulted in some minor changes to stopbank heights in this location. As outlined in paragraphs 32 -34 above, further assessment by Mr Slupski has concluded that there will be no additional adverse effects on the natural character of the coastal environment.

130. The Applicant has also reconfirmed that there will be no borrow taken from the area below the Railway bridge due to its sensitive nature and has offered proposed conditions and a draft Construction Environment Management Plan that will ensure any works in this area will appropriately mitigate against adverse effects in this sensitive area. It is concluded that with mitigation measures in place via the condition package proposed, these changes will not result in any adverse effects on natural character, outstanding landscape, significant indigenous vegetation or habitats of indigenous fauna in the coastal environment.

131. No changes have been sought in relation to the proposed cycleway along this section of the stopbanks.

132. On this basis I conclude that the Application and amendments to it remain consistent with the RPS provisions for the Coastal Environment.

#### Environmental Risk Including Natural Hazards

133. Mr Whittaker cites RPS Objective 5.1.2 and Policies 5.1.3 relating to natural hazards. I note these provisions are also provided in the TRMP at Chapter C8.1.4.4 (previously Chapter 5 of the Combined Regional, Land and District Plan) and were assessed in the original Application.

134. Policy B5.1.3.2 d) -f) is particularly relevant given the additional modelling that has been undertaken since the Application was lodged in relation to the Wi Pere Trust land, dwellings upstream of the Scheme, the Ormond bypass and Mulooly's bend realignment. It reads:

2. *To recognise the limitation of attempts to control natural processes by physical work and limit such attempts to appropriate situations where they are:*

...

- d) will not cause nor worsen hazards to other lands/water; and*
- e) can be designed with confidence of long term effective performance; and*
- f) are the only practicable alternative.*

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<sup>6</sup> Refer paragraphs 192 – 205 S42A report

135. With relation to Wi Pere Trust Land, the assessment of effects outlined in paragraphs 47 – 65 above has concluded that a 1% AEP at 2090 is a significant event that will have adverse effects for Trust land under both scenarios, albeit slightly more under the Scheme upgrade. It is also important to note Mr Ruifrok’s comments at paragraph 37 of his report that the 1%AEP event at 2090 which has been modelled, has been estimated as being a 0.25% (400yr) AEP event in today’s terms. The Applicant is in discussion with the submitter on this matter, to consider appropriate mitigation that will result in the upgrade not worsening flood hazard to this land. On this basis, the proposal can therefore be seen to be consistent with part a) of this policy.
136. Similarly, with regard to dwellings upstream of the Scheme, the assessment at paragraphs 66 - 68 above concludes that a 1% AEP event at 2090 is a significant event that will have adverse effects for these sites under both scenarios, albeit slightly more under the Scheme upgrade, and that such events are anticipated by the Plan for these sites.
137. Providing for the upgrade is necessary for the long-term effectiveness and resilience of the Scheme and to continue to provide protection for the urban populations of Gisborne City, Makaraka and Ormond Townships, and the significant rural and community infrastructure and economy of the Poverty Bay Flats.
138. Mr Whittaker’s comments at paragraph 203 of his s42A report consider the policy reference to cost/benefit ratio and that works be *the only practical alternative* to be unusual policy direction for a resource management plan, and that are matters outside of the scope of the RMA.
139. Taking all this into account, I conclude that the Application and amendments to it can be consistent with the RPS provisions relating to natural hazards – an in particular flood risk.
140. With regard to the Ormond stopbank bypass, the solution being proposed will result in significant benefits to the landowners upstream as the stopbank will not need to be upgraded to those properties upstream of the bypass across Mahunga Stream and in this respect is entirely consistent with these objectives and policies.

#### Regional and District Plan Provisions

##### Cultural and Historic Heritage

141. The Application assessed the Cultural and Heritage provisions of the CRLDP (now C4 of the TRMP) and since lodgement, has had an archaeological assessment of the left bank completed. A further assessment of the right bank will be undertaken prior to construction commencing. Additional conditions are also proposed relating to Accidental Discovery and a process for agreeing written protocols in relation to any cultural practices to be observed during earthworks.
142. These methods are also considered appropriate to ensure that no adverse effects will result from the additional works proposed at Mulooly’s Bend, and Ormond stopbank extensions, or the amended level that will be constructed at the coast to account for Sea Level Rise.
143. Thus, the Application and amendments to it remain consistent with the regional and district plan provisions for cultural and historic heritage.

##### Regional Plan Provisions - Freshwater

144. As outlined above, since the application was lodged the decision version of the PGRFP (including RPS) was notified. Mr Whittaker, in his s42A report details that these policies set two clear policy directions. Firstly, the need to preserve the natural character of river margins and other waterbodies and secondly the need to maintain and enhance public access along water bodies as a matter of national importance. Mr Whittaker concluded that, once completed, the proposed works will not affect the character and landscape values of the river corridor or wider environment to any material degree and therefore this aspect of the proposal will achieve the objectives and policies in relation to natural character. In addition, he concluded that the development of a cycleway along the existing stopbank is well aligned with the second policy direction with adverse effects able to be avoided by appropriate conditions of consent. I agree with that assessment.

145. At Section 8.4.4, the Application assessed the relevant provisions relating to activities in the bed of rivers in relation to culvert upgrade works (replaced by Section 6 of the PGRFP). With the proposed mitigation in place and conditions relating to fish passage, and sediment management, the freshwater objectives will be achieved, and this assessment is not affected by the refinements to the project since lodgement of the Application.

146. At Section 8.4.5 the Application assessed the relevant provisions relating to works in riparian margins (replaced by Section 7 of the PGRFP). This assessment is not affected by the refinements to the project since lodgement of the Application.

#### Policy 5.4.6 relating to Fertilisers and Solid Discharges (PGRFP)

147. As noted in paragraphs 103-108 above, Section 5.4 relates to the management of fertilisers and solid discharges in order that freshwater objectives are met, and water quality is maintained, and Rule 5.4.7 is also deemed to apply to the Application. On this basis Mr Willis for Wi Pere Trust cites additional policy 5.4.6 as being relevant, although I note that it appears to be in conflict with the Natural Hazard policies which relate specifically to Flooding Hazard risk identified over the Wi Pere site.

148. The wording of the Policy itself is not particularly clear, as arguably it only relates to the particular types of contaminants envisaged (i.e. solid or fertiliser contaminants to land, rather than earthworks). I note that the wording 'or fertiliser' was inserted as a result of decisions on the plan (and in response to submissions) and the policy as notified referred to discharge of 'solid contaminants to land'. The Decisions Version of the policy states

*When considering Applications to discharge solid or fertiliser contaminants to land or water, assessment criteria are:*

- a. The nature of the materials to be discharged;*
- b. The potential for any long-term contamination or other long term cumulative effects arising from the operation;*
- c. Any actions planned or required in order to manage any actual or potential adverse effects of the site when it is no longer used for a solid disposal or discharge;*
- d. any effects of leachate and stormwater on ground water, surface water and coastal water and whether it is maintained within the limits for the receiving waterbody and the objectives for that waterbody are met;*

- e. *Any actual or potential effects of any discharges on human health or amenity and on the health and functioning of plants, animals or ecosystems;*
- f. *The mauri of the waterbody and any values placed on the site by tangata whenua;*
- g. *The values identified in a catchment plan for the receiving waterbody and any other values identified in a schedule of this Plan;*
- h. *The need for, and adequacy of, discharge monitoring systems, including:*
  - i. *Upstream and downstream monitoring of contaminants from any discharge and their effect on aquatic ecosystem indicator species within any freshwater body;*
  - ii. *Landfill leachate monitoring in relation to both groundwater and surface water;*
  - iii. *Landfill gas monitoring;*
  - iv. *Propose measurement of the quantity and types of waste.*
- i. *Any adverse effect on values contained in areas of significant indigenous vegetation and significant habitats of indigenous fauna;*
- j. *Any relevant industry codes of practice, the implementation of which would assist in the avoiding remedying or mitigating of adverse effects on the environment;*
- k. *The need to avoid exacerbation of any flooding risk; and*
- l. *The need for contingency plans to manage accidental or emergency discharges.*

149. In my opinion it is arguable that the Policy does not apply at all, given that it could be interpreted as applying only to 'solid contaminants' and 'fertiliser contaminants' (and not earthworks), particularly as the assessment criteria relate more specifically to contaminants. I note that none of the assessment criteria listed are relevant to this proposal, apart potentially from (k) which relates to flooding risk.

150. As noted in Section 5.2 of the Application, the source of the fill does not give rise to any issues in respect of the NES Contaminated Soils. I also note that the purpose of the Application is to specifically address flooding risk by improving the resilience of the Scheme, which currently protects some 10,000 hectares of highly productive land and associated infrastructure, as well as the urban areas of Gisborne City, and Makaraka and Ormond Townships.

151. The Application is also considered to be generally consistent with criteria k. given it is for an upgrade to an existing flood mitigation measure, for the Poverty Bay Flats.

152. Mr Willis contends that this policy and its criteria, and in particular criteria k. requires that this application must avoid exacerbation of flood risk and that this provision 'trumps' the more directly relevant Flood Hazard provisions of C8.2.2(2) which provide that 'when designing and carrying out earthworks or roadworks any adverse effects resulting from the diversion of floodwater should be avoided, remedied or mitigated' and associated rules (Rules 8.2.3(3),(4),(5),(16),(20) and (27)) as sought by the Application.

153. The Quality Planning website provides an overview of Plan Steps including best practice guidance for writing issues, objectives and policies. This guidance provides that policies are the

course of action intended to implement an objective, and objectives are a statement of what is aimed for in overcoming a clearly identified issue. It states that in writing good policies:

*'policies are the course of action to achieve or implement the objective (i.e. the path to be followed to achieve a certain, specified, environmental outcome). Policies of a directive nature, where little discretion is intended to be exercised include words such as 'shall' or must'. For policies where it is intended to provide some flexibility or discretion, use words like 'should' or may'*<sup>7</sup>

154. This is consistent with the generally accepted position stated by the Court of Appeal in *Powell v Dunedin City Council* that while it is appropriate to seek the plain meaning of rules in a plan from the words themselves, that exercise cannot be undertaken in a vacuum and regard must be had to the immediate context which includes the objectives, policies and methods in the plan. The Court has also stated that where there is any obscurity or ambiguity then you may need to look to other sections of the plan.

155. The PGRFP identifies 7 issues and 12 objectives focussing on freshwater ecosystem health, water quality, quantity and availability, significant waterbodies, understanding the regions freshwater resources, recognising tangata whenua values and integrated management. Flood risk is not identified as an issue, nor are there any objectives directly relating to the management of flood risk. These matters are however fully addressed section C8 – Natural Hazards of the TRMP.

156. Criteria k of policy 5.4.6 is one of several assessment criteria to 'take into account' when considering an Application to discharge solids to land. It is not directly related to an issue or objective and does not use mandatory language of 'should' or must' and I conclude that applying these provisions over and above the Flood Hazard provisions of the TRMP is not appropriate. I further conclude, that even if it did apply, that the Application can satisfy these criteria, as it is for upgrade works to an existing Scheme whose primary purpose is to protect the Poverty Bay flats against flooding up to a 1%AEP event.

157. I also note, that considerable additional modelling work has been undertaken by the Applicant since the Trust's concerns were raised through the submission process, in order to understand the effects of any potential additional floodwater as a result of raising the stopbanks. And that this modelling has identified the increase in adverse effects, when a significant event occurs will be a small increase on an already significant adverse effect. My assessment and conclusions with respect to that have been provided in paragraphs 47 -65 above.

Policy 6.5.2 relating to the damming and diversion of water (PGRFP).

158. As noted in paragraph 109 above, Section 6 relates to Activities in the Beds of Rivers and Lakes. Policy 6.5.2 states:

Provide for the damming, diversion and drainage of streams, rivers and lakes only where:

- a. It is reasonably necessary to provide for the benefits outlined in Policy 6.5.1;
- b. There is a functional need to do so;
- c. There is no practical alternative; and
- d. Significant effects are avoided and other adverse effects are avoided, remedied or mitigated.

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<sup>7</sup> <http://www.qualityplanning.org.nz/index.php/plan-steps/writing-plans/writing-issues-objectives-and-policie>

159. The underlining denotes this in a new amendment inserted as a result of decisions which were issued after the Application was lodged.

160. As already noted, the Application is for an upgrade of existing stopbanks that protect the highly productive Poverty Bay flats including the urban centres of Gisborne City, Makara and Ormond townships and is therefore essential to the protection of lives, property and the economy of the area. It is GDC's single most valuable asset and the upgrade is a matter of significant importance to the Gisborne community to and Councils current top priority project. As such, the Application is more than reasonably necessary to provide for flood control benefits, a matter that is recognised in Policy 6.5.1. Currently the Scheme is identified as at risk due to a number of factors including narrow berm width in some areas and lack of consistent freeboard and stopbank width.

161. The upgrade will improve certainty and security for the community, and for land development and agricultural activities on the Poverty Bay Flats, at a time when land flood events are expected to increase in frequency. There is therefore a functional need to upgrade the stopbanks if they are to continue to provide the protection for which they are intended. As an existing Scheme comprising GDC's single most valuable asset, there is no practical alternative to providing an upgrade. The Application has demonstrated that significant adverse effects can be avoided and has proposed conditions to ensure other potentially adverse effects will be appropriately remedied or avoided.

162. I consider that works proposed as a result of modelling refinements and in response to submissions, do not alter this assessment.

#### Natural Hazards

163. In addition to the objectives and policies cited in the Application relating to Natural Hazards, General Policy C8.1.4 is also relevant given the additional work undertaken in relation to impacts on private land.

##### *C8.1.4 General Policy*

- 1 In extreme hazard areas where the natural hazard cannot be avoided or mitigated new development and any related subdivision should not occur.*
- 2 In all hazard prone areas, any new subdivision, use and development should avoid or minimise any risk of loss of life or injury or other environmental damage due to natural hazard.*
- 3 Any assessment of a resource consent Application within a hazard prone area shall consider, but is not limited to, the following matters:*
  - i. whether minimum floor levels for residential buildings should be set to reduce the susceptibility to danger and damage from flooding;*
  - ii. the desirability of residential buildings being relocatable, so they may be moved if the risk of damage becomes imminent.*

164. As highlighted in the assessment of effects there are a number of sensitive sites within the flood plains including a number of residences. The District Plan accordingly has applied flood hazard overlays to these properties and restricts. The relevant overlays to these properties are

FH2 and FH4. In addition, modelling shows that even in the existing situation, in an extreme event at 2090, areas beyond those hazard overlays will be adversely affected.

165. The proposed stopbanks, which are a mitigation measure in themselves, continue to rely on these areas of floodplain acknowledged by the Plan as high-risk flood areas or areas liable to flooding, and in extreme events, both existing and proposed Scheme upgrade will impact on some additional areas beyond the hazard overlays. In this sense the proposal remains generally consistent with the approach advocated by the objectives and policies of the Plan for Flood Hazard Management.

#### Natural Heritage

166. An assessment of the Natural Heritage provisions of the CRLDP (now C9.1. of the TRMP) is provided at Section 8.4.3.4 of the application. It concluded, that once completed, the stopbank upgrade would result in only minor changes to the Coastal Environment. This has been confirmed by the Landscape Statement and updated statement by Mr Slupski, who assessed the minor changes in stopbank levels along the coastal sections to account for Sea Level Rise, would not have any adverse impacts on natural character or landform characteristics.

167. My conclusions in relation to this assessment therefore remain unchanged.

#### District Plan Provisions

#### Noise and Vibration

168. Mr Whittaker in his S42A Report cites relevant provisions of the District Plan relating to noise. The additional minor works as a result of flood modelling refinements and in response to submissions does not alter this assessment and proposed consent conditions remain appropriate to mitigate construction noise associated with this project.

#### Area Based Provisions

#### Rural Zone /Rural Production Zone / Reserves Zone

169. An assessment of these provisions is provided in Section 8.4.3 of the Application. No new Zone provisions are triggered by the additional minor works as a result of flood modelling refinements and in response to submissions, and this assessment remains unchanged.

#### ***Summary - Relevant Planning Provisions***

170. In summary, I consider that the proposal remains generally consistent with the objectives and policies of the relevant Resource Management Plans for sustainable management. The upgrade of the stopbanks is an envisaged activity and an important flood hazard mitigation for the community of Gisborne and any associated adverse effects resulting from its construction can be appropriately avoided and / or remedied through appropriate construction management methodology. For the properties not protected by the Scheme, the Applicant's preliminary flood risk analysis has demonstrated that any increase in adverse effects to these properties will be minor or less than minor. The Applicant is continuing discussions with Wi Pere Trust and the landowners regarding the preliminary findings of the analysis and is considering options to ensure

flood hazard for these properties will not be significantly worsened. On this basis, the proposal can also be seen as consistent with Plan objectives and policies relating to flood hazard.

171. I also consider that overall, the minor changes to the Application as a result of model refinement and in response to submission (refinements to take into account Sea Level Rise, at Mullooly's bend and Ormond bypass) are consistent with the relevant provisions of the Regional Policy Statement, the TRMP and PGRFP. This includes additional provisions cited by Mr Whittaker in his section 42 A report and provisions cited by Mr Willis in his submission for Wi Pere Trust.

## **PART 2 RMA**

172. The Application satisfies the requirements of Part 2 of the RMA, including sections 6(e), 7(a) and 8 as set out in Section 8.6 of the Application and demonstrated since submissions closed through ongoing consultation with iwi groups, and the significant amount of additional work undertaken to understand impacts of the proposal on Wi Pere Trust land.

### **Section 5**

173. Section 5 of the Act sets out the purpose of the Act and defines sustainable management as *'...managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—*

*(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*

*(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*

*(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.'*

174. The proposed works are for a stopbank upgrade to an existing significant community asset protecting some 10,000 hectares of fertile floodplain land, comprising a wide range of high yield horticultural uses, community infrastructure and people living on the Poverty Bay Flats. The upgrade is essential to address both risks associated with the current scheme, as well as to address forecast increases in rainfall events due to climate change. This will provide certainty and security to the community, and to land development and agricultural activities on the Poverty Bay Flats, at a time when land flood events are expected to increase in frequency and will meet the reasonably foreseeable needs of future generations.

175. The proposed upgrade is a significant mitigation work that is enabling of the people and communities of this area to provide for their social, economic and cultural wellbeing and their health and safety. It will protect lives and the important economy associated with the fertile soils of the Poverty Bay Flats. In addition, the development of a cycling / walking trail provides an opportunity for economic activity and positive health and wellbeing outcomes.

176. The proposed works are also recognised as an important community investment to safeguard the life supporting capacity of the soils of the area through providing robust flood protection, as well as sustain the potential of the area's natural and physical resources to meet the reasonably foreseeable needs of future generations.

177. The main potential for adverse effects resulting from the WFCS upgrade, include those associated with the construction phase and potential flooding effects on properties not protected by and within proximity to the Scheme.
178. Conditions are proposed to ensure construction effects will be managed in a way that avoids or mitigates effects on the environment. This includes requirements to address noise, vibration and dust nuisance, erosion and sediment control measures and limiting work in waterways to periods of short duration during summer months. Similarly, conditions are proposed to mitigate potential adverse effects from the proposed public trails.
179. With regard to potential for flooding effects resulting from the proposed increase in stopbank heights, further modelling and preliminary analysis undertaken since submissions closed, has demonstrated that under a 1% AEP event, land owners not protected by the Scheme (and in within vicinity of the Scheme) will have a minor or less than minor increase in an already substantially adverse effect under the proposed upgrade. Given this is a preliminary analysis, the Applicant will seek ongoing discussion with landowners of Wi Pere Trust in relation to this.
180. Overall, the proposed upgrade and refinements to it, will provide positive effects including increased resilience of the WFCS and future proofing for the community against increased severity and frequency of flood events, as well as additional health, wellbeing and economic benefits to the Gisborne Region from the establishment of public trails and improved access along the Waipaoa River corridor. The proposed upgrade is therefore entirely consistent with section 5 of the Act.

### **Section 6**

181. As outlined in the Application a number of matters of national importance have relevance to this application:
- (a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*
  - (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
  - (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*
  - (d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
  - (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:*
  - (f) the protection of historic heritage from inappropriate subdivision, use, and development:*
182. In addition, section 6(h) *the management of significant risk from natural hazards*,<sup>8</sup> a new provision inserted in April 2017, is of particular relevance to to this proposal.
183. Modelling undertaken since the Application was notified, to take into account the issue of Sea Level Rise has resulted in refinements to the stopbank height at the coastal location. These will not impact on natural character (or the key attributes of this important landscape as confirmed by the landscape assessment provided by Mr Slupski. Construction management methods, as

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<sup>8</sup> added prior to the Application being lodged, as part of the Resource Legislation Amendment Act 2017 (April 2017)

provided for in the updated proposed conditions and draft Construction Environment Management Plan will ensure that the natural character of the Waipaoa River corridor and tributaries, including any sensitive areas is preserved and any adverse effects appropriately avoided remedied or mitigated. Public access along the Waipaoa River will also be enhanced by this Project. (Matters (a) through (d)).

184. Ongoing consultation with iwi groups in the region has continued since the proposal was notified and additional conditions are proposed regarding communication protocols and discovery protocol. In response to the Wi Pere Trust submission the Applicant has undertaken additional modelling to better understand any effects of the upgrade on flooding on their ancestral land and met with them to understand their concerns. The Applicant seeks to further meet with them to discuss the results of the modelling. In this respect, the Applicant has recognised and provided for matter (e) *the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga*:

185. The proposal is itself a significant and important mitigation measure that seeks to manage the significant flooding risk to Poverty Bay flats, through improving the existing Scheme 'at risk' factors and provide for climate change out to 2090. To not provide for these improvements would be contrary to matter (h) *the management of significant risks from natural hazards*.

### ***Section 7***

186. Relevant other matters were addressed in in section 8.6.3 of the Application. The additional changes proposed since the Application was lodged have not resulted in any changes to this assessment.

### ***Section 8***

187. No additional Treaty of Waitangi matters have been raised and the Applicant has demonstrated they have appropriately taken into account the principles of the Treaty through the processes undertaken as outlined both in the Application and this additional assessment. Iwi engagement to understand and address concerns relating to the proposal has been fundamental to the preparation of the Application, and the Applicant has taken considerable time to understand and respond to the concerns raised by Wi Pere Trust in relation to their ancestral land.

## ***UPDATED RECORD OF CONSULTATION***

188. Whilst there is no obligation on applicants to consult any person (refer Clause 6(3) of Schedule 4 to the RMA), there is a requirement to identify the persons affected, any consultation undertaken, and any response to the views of any person consulted, pursuant to Clause 6(1)(f) of Schedule 4 to the RMA.

189. As outlined in the Application, public consultation regarding options for the Scheme upgrade began in 2010, with a decision passed by Council through the LTP process (2015-2025) to pursue the current option (to 1% AEP flood protection and future proof to 2090). As such the community had some familiarity with the upgrade proposal prior to it being notified.

190. The proposal to include cycleways as part of the upgrade however was new for the community and a number of submissions both supporting and opposing this aspect have been received.

191. Council has continued to consult with submitters and affected parties since the close of submissions and a summary of that consultation is provided below:

Summary of further Consultation since Application was notified		
<p>As outlined in paragraph 41 above the Applicant's Project Manager, Mr Ruifrok Council has continued to communicate with the relevant representatives of Rongowhakaata, Te Aitanga Mahaki (including Te Whanau Akai, and Nga Ariki Kaiputahi) and Ngai Tamanuhiri to seek input to a communications plan and processes, and update on progress relating to the Application. A Draft Accidental Discovery Protocol has also been circulated to iwi groups and will be offered as part of the final consent.</p>		
Consultation with Transport and Utilities Providers		
<p>The Applicant has been in contact with both NZTA and KiwRail with regard to the bridges that cross the Waipaoa River. Although NZTA did not submit on the application further discussion has been occurring around stopbank detailed design near the Matawhero Bridge.</p> <p>There has been no further consultation with Utility Providers and communication will be as outlined in section 7.3 of the Application.</p>		
Consultation regarding Modelling and Flooding Issues		
<p>Wi Pere Trust (submitter #12)– additional modelling has been undertaken to understand the potential for flood effects on this property and communication with Wi Pere Trust in relation to potential effects have been ongoing.</p> <p>Mr Peacock (Submitter#15) – as above. In addition, the Project technical team have met with Mr Peacock to discuss the outcomes of the additional modelling and reached agreement on most matters with the exception of the philosophy regarding equal protection through-out the Scheme.</p>		
Consultation with Submitters and landowners in relation to Ormond Bypass		
<p>As detailed at paragraph 101 of Mr Ruifrok's Further Report, the following landowners were consulted with:</p>		
Address	Owners	Consultation Details
1183 Matawai Road	Shelly Marie Walker & Murray	Spoke with Shelley 28.2.18. Site meeting with Shelley & Murray on 01 Mar 2018. Emailed 02.3.18
1187 & 1191 Matawai Road	Jeffrey David Richardson & Esther Richardson	Left message 08.3.18 Spoke with Esther on 09.03.18 Esther got my email forwarded from Jane.
1195 Matawai Road	Jane Mary Fisher	Spoke with Jane 27.2.18. Email sent 27.2.18
1203 & 1207 Matawai Road	Callum Andrew Thompson & Tracey Marie Panton	Several phone calls/emails to date. Submitter on the RC application.
1209 Matawai Road	Rangi George Harrison & Leanne Aroha Harrison	Rang, left message 16.3.18 Spoke with Leanne 20.3.18. Email sent 20.3.18
1223 Matawai Road	David Owen Weave Catherine Anne Houg	Spoke with David 27.2.18. Email sent 27.2.18
10 Whitmore Road	Stephen & Charlie Biddlecombe	Left message 27.2.18 Spoke with Charlie 13.3.18.
7 Whitmore Road	Malcolm Charles Stewart & Wendy	Spoke with Malcolm 16.3.18. Email sent 16.3.18

### Summary of further Consultation since Application was notified

1 Whitmore Road	Wendy Roelien Stoevelaar	Site meeting with Wendy on 5 March 2018 Email sent 05.3.18
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The consultation and discussions with property owners covered the proposed extension, including the effects and benefits (as previously described).

Mr Ruifrok advises that the consensus from property owners adjacent to the Mahunga Stream is support for the proposed stopbank extension project, based on the understanding that the new stopbank would reduce the overall flood risks to both them and the wider community.

### Consultation with Submitters opposed to the cycleway

There have been no more developments on the potential location and / or alignment of potential cycle trail routes and no consultation in this respect has been undertaken.

## DISCUSSION AND CONCLUSIONS REGARDING SCOPE OF THE APPLICATION

192. The issue of scope of the proposal has been raised in relation to:

- i. Amended stopbank levels proposed in some locations along the lower sections (coastal/rivermouth end) of the Scheme to take into account Sea Level Rise;
- ii. Ormond Bypass;
- iii. Mullooly's Bend; and
- iv. Additional fill required

193. I note that Mr Ruifrok's report has outlined the generally accepted legal position from *Darroch v Whangarei District Council*<sup>9</sup> in relation to scope and summarise the tests here for convenience:

- i. Does it increase the scale or intensity of the activity?
- ii. Does it exacerbate or mitigate the impacts of the activity, both in terms of adverse effects and in terms of the plan and other superior documents?
- iii. Whether it is fairly and reasonably contemplatable or plausible that other informed and reasonable persons not before the Court but interested in the area would have still stayed out of the proceeding if they knew of the change to the proposal.

194. These matters are discussed below in relation to the changes outlined above.

### **Amended Stopbank Levels**

195. Since the Application was lodged modelling refinements have included provision for SLR as outlined at paragraphs 44-56 of Mr Ruifrok's report. This has resulted in some minor increases (and decreases) to the height of the stopbanks along the lower sections of the Scheme. However,

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<sup>9</sup> A018/93

it is important to note that the nature of the proposal, i.e. to upgrade the Scheme to a 1% AEP including climate change out to 2090 has not changed, and the project duration and construction methodology have not changed.

196. Further landscape assessment has also been provided by Mr Slupski, who has confirmed his earlier conclusions that the proposed increase in stopbank height, at the coastal section of the upgrade, will not adversely affect the attributes that make this Outstanding Natural Landscape (ONL) outstanding.
197. I therefore conclude that the scale and intensity of the activity has not increased, and that the character and effects of the proposal remain the same. On this basis it is unlikely that any additional persons would have submitted on the basis of these minor clarifications.
198. I therefore conclude that this aspect of the proposal can be considered as within scope.

### ***Ormond Bypass***

199. The Ormond Bypass is described at paragraphs 8-10 above. It requires work in the bed of a river, consistent with the methodology as outlined in section 4.1.6 of the Application. As described in that section, all works will be undertaken in accordance with the site methodology outlined in the Draft Construction Environment Management Plan and Hawke's Bay Waterway Guidelines for Erosion and Sediment Control submitted with the Application. Proposed conditions of consent will also ensure any adverse effects on water quality and habitat can be avoided and as outlined at paragraph 79 above fish passage will be enhanced by removal of floodgates on the culverts upstream and replacement with fish- friendly floodgates at the new culverts.
200. The bypass will result in an improvement for nearby residents who will not be affected by such a long construction period in this vicinity and will address the concerns raised by submitter # 13 (C. Thompson, 1203 Matawai Road, Ormond). Additional landscape assessment by Mr Slupski has confirmed no visual or landscape effects will result, and no other effects have been identified in the Assessment above.
201. Mr Ruifrok has outlined consultation with the neighbouring landowners and no issues have been raised.
202. While I note this aspect of the proposal triggers an additional rule (PGRFP Rule 6.3.2(16) and potentially 6.3.13(4), I note that a number of culvert works were proposed as part of the upgrade works and therefore these matters have already been fully assessed as part of the Application, and addressed through proposed conditions of consent, which means including this rule is simply a technical matter.
203. In conclusion the Applicant considers that there will be clear benefits to amending the proposal in this location, particularly in light of the significant reduction in scale and intensity of work required, and that it is unlikely that any additional persons would have submitted on the basis of this change.
204. I therefore conclude that this aspect of the proposal can be considered as within scope.
- 205.

### ***Mullooly's Bend***

206. The realignment at Mullooly's bend is described in paragraph 11 above. It involves a minor landward alignment of the stopbank in this location. Construction methodology will be consistent with the methodology outlined in the Application and the Assessment of Effects above has concluded that this refinement will not result in any adverse environmental effects. Council are also owners of the land. The scale and intensity of works will remain consistent with that sought by the Application (in terms of earthworks), views from the landward side to the realigned stopbank, once works are completed, will remain similar and the closest residential house is more than 300m distant. It is therefore unlikely that any additional persons would have submitted on the basis of this change.
207. In light of the minor impacts of the realignment, and the benefits including reduction of upstream peak flood levels, as well as the rural nature of the surrounding land and the fact that Council is the only affected landowner, the minor realignment is considered to be within the scope of the existing consent and as such the work has been included within the refined modelling. The Applicant is now proposing to proceed with this realignment.
208. I therefore conclude that this aspect of the proposal can be considered as within scope.

### ***Additional Fill Required***

209. While the amount of fill required as sought by the Application has increased, the parameters of the borrow excavation remain unchanged as described in paragraphs 18-21 above. Borrow excavation will on average be 600mm or less with maximum average depth of 1000mm across the 334 hectares of Council owned land. It includes removal of approximately 150mm of topsoil, to be stored and re-used progressively as works are completed.
210. The Applicant has reconfirmed that due to natural character sensitivities of the coastal area of the Scheme, no borrow material will be taken from the estuary area below the rail bridge.
211. Thus, the increase in volume of earthworks remains within the overall scale and intensity of the borrow works sought by the Application. Effects will be mitigated in accordance with the Application and it is unlikely this change would have resulted in any additional submissions.
212. I therefore consider this aspect of the proposal can be considered as within scope.

## ***CONCLUSIONS***

213. This Application is for the upgrade of the stopbanks within the WFCS, and development and use of the stopbanks for cycling and walking purposes. Upgrading the stopbank is Council's top priority, and necessary for the protection of the community and economy of the Poverty Bay Flats, and developing public trails will provide additional community benefit.
214. The stopbank upgrade has been well signalled to the community through their Long-Term Plan and the resource consent process including public notification of the Application. Concerns raised through submission have been addressed, and ongoing communication is anticipated with respect to project progress and as further detailed modelling and analysis is undertaken.
215. Project refinements as a result of further modelling and submission have not resulted in any adverse effects beyond those anticipated by the Application as notified, and as demonstrated in

the AEE, above can be appropriately avoided, remedied or mitigated through proposed construction methodology and conditions.

216. The assessment against the provisions of the relevant statutory plans also demonstrates that the proposal, including minor amendment is not contrary to the relevant RMA Plans, and is consistent with Part 2 of the Act.

## ATTACHMENT 1 REVISED CONDITIONS

## Proposed Consent Conditions

Gisborne District Council proposes a set of draft conditions to be attached to the resource consents and coastal permit to manage the effects of the Waipaoa Flood Control Scheme (WFCS). These conditions include a number of acronyms and terms as explained in the following table:

Acronyms and Definitions	
AEE	Assessment of Effects on the Environment
CEMP	Construction Environment Management Plan
Consent Holder	Gisborne District Council (Infrastructure, Lifelines)
Council	Gisborne District Council
Cycleway Trail	Shared cycling and walking trail
Erosion & Sediment Control Guidelines	Hawke's Bay Waterway Guidelines for Erosion and Sediment Control <sup>10</sup> or appropriate relevant guidelines as available
Left Bank	Eastern side of Waipaoa River
Manager	The Regulatory Manager of the Gisborne District Council or Councils' Environmental and Science Manager
Minor Works	Works that will take place outside of the main construction season (1 October to 31 June) as approved by Council's Manager.
Project	The upgrading, operation and maintenance of the Waipaoa River Flood Control Scheme to improve the efficiency and robustness of the Scheme and to future proof it against climate change; and development, use and maintenance of cycleways along sections of the stopbanks to provide for associated public access and enjoyment.
Right Bank	Western side of Waipaoa River
RMA	The Resource Management Act 1991
WFCS	Waipaoa Flood Control Scheme
Work	Any activity or activities undertaken in relation to the construction and operation of the WFCS and cycleway.

<sup>10</sup> Note: In the absence of any local guidelines, GDC currently reference the HBRC guidelines.

## **GENERAL CONDITIONS**

### **GENERAL CONDITIONS**

1. *The Consent Holder shall, subject to final design, undertake all operations in accordance with any drawings, specifications, and all other information supplied as part of this resource consent being:  
<to be inserted as appropriate>*
2. *Where a conflict arises between any conditions of this consent and the application, the conditions of this consent will prevail.*
3. *All works and structures relating to this resource consent shall be designed and constructed to conform to the best engineering practices and at all times maintained to a safe and serviceable standard.*
4. *Pursuant to section 125(1) of the RMA, this consent shall lapse 20 years from the date of its commencement (pursuant to section 116(5) of the RMA) unless it has been given effect to at an earlier date.*
5. *NOTE: For clarity, this lapse date refers to both the stopbank upgrade and the development of the cycle way.*

### **CONSTRUCTION SEASON, HOURS OF OPERATION**

6. *The construction season for this work shall be 1 October to 30 June of the following year.*
7. *Minor works beyond the construction season detailed in condition 4 above may be undertaken subject to the approval of the Manager, Gisborne District Council.*
8. *The hours of work for construction activities shall be limited to 6:00 am – 7:00 pm Monday to Friday and 6:00 am to 12:00 pm Saturday. There shall be no work on Sundays and Public Holidays.*

### **CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)**

9. *At least 1 month prior to the first construction season, the Consent Holder shall submit to the Manager, Gisborne District Council, for certification, a final Construction Environmental Management Plan (CEMP) prepared by a suitably qualified and experienced person(s). The CEMP shall outline the environmental management and monitoring measures to be installed prior to and maintained during construction works, demonstrating that construction works can be carried out in such a way to minimize environmental effects, and shall address the following matters:
  - i. *Noise & Vibration Management (to show compliance with conditions 22 and 23);*
  - ii. *Dust Control;*
  - iii. *Water Quality (to show compliance with conditions 24 - 30);*
  - iv. *Erosion & Sediment Control (to show compliance with conditions 39 - 44);*  
*and*
  - v. *Site Remediation (to show compliance with conditions 53 - 55).**
10. *Construction activities shall not commence until the CEMP has been certified by the Manager, Gisborne District Council, and written confirmation from the Manager, Gisborne District Council has been received. If a written response is not received within 20 working days of the Consent Holder submitting the CEMP for certification, the certification shall be deemed to be confirmed.*

11. *The Consent Holder may amend the CEMP provided under condition 7, at any time by submitting the amended plan for approval to the Manager, Gisborne District Council, for certification, following the same process outlined in Condition 8 above. Construction activities subject to the amendment shall not commence until the amendment has been certified by the Manager, Gisborne District Council.*

#### **COMMUNICATIONS PLAN & PUBLIC LIAISON**

12. *At least 1 month prior to the first construction season, the Consent Holder shall submit to the Manager, Gisborne District Council, for certification, a Communications Plan that sets out procedures detailing how the public and stakeholders will be communicated with throughout the 10-year period of the construction works. As a minimum, the Communications Plan shall include:*

- i. Details of a contact person available at all times during the works. Contact details shall be prominently displayed at the site office so that they are clearly visible to the public at all times;*
- ii. Methods to consult with surrounding landowners, occupiers, representatives of Ngai Tamanuhiri, Rongowhakaata and Te Aitangi Mahaki, Te Whanau Akai and Nga Ariki Kaiputahi iwi, the local residential and rural community and utility operators, which may include:*
  - Publications of a newsletter, or similar, and its proposed delivery area;*
  - Newspaper advertising;*
  - Council website;*
  - Notification of the owners and occupiers of properties located adjacent to the stopbank corridor where and when construction activities will take place;*
  - Notification to public utility operators with utilities within the Project Area, where and when construction activities will take place*
- iii. A register for recording any public or stakeholder feedback and any incidents or non-compliance in relation to the construction of the Project, including the outcome of any investigation or remedial action taken (in compliance with conditions 13-15 of this consent).*
- iv. Monitoring and review procedures for the Communications Plan.*

13. *A copy of the register of feedback shall be provided to the Manager, Gisborne District Council, annually at the end of each construction season or as requested by the Manager, Gisborne District Council.*

14. *Construction activities shall not commence until the Communications Plan has been certified by the Manager, Gisborne District Council, and written confirmation from the Manager has been received. If a written response is not received within 10 working days of the Consent Holder submitting the Communications Plan, the certification shall be deemed to be confirmed.*

15. *The Consent Holder may amend the Communications Plan provided under condition 10, at any time by submitting the amended plan for approval to the Manager, Gisborne District Council, for certification, following the same process outlined in Condition 11 above. Construction activities subject to the amendment shall not commence until the amendment has been certified by the Manager, Gisborne District Council.*

## **FEEDBACK & INCIDENTS**

16. At all times during construction works the Consent Holder shall maintain a register of any public or stakeholder feedback received and any incidents or non-compliance noted by the Consent Holder's contractor, in relation to the construction of the Project. The register shall include:
- i. The name and contact details (as far as practicable) of the person providing feedback or contractor observing the incident / non-compliance;
  - ii. Identification of the nature and details of the feedback/ incident; and
  - iii. Location, date and time of the feedback/incident.
17. The Consent Holder shall promptly investigate any adverse feedback, incident or non-compliance. This shall include, (but is not limited to):
- i. Recording weather conditions at the time of the event (as far as is practicable), and including wind direction and approximate wind speed if the adverse feedback or incident relates to dust;
  - ii. Recording any other activities in the area, unrelated to the Project that may have contributed to the adverse feedback/incident/non-compliance, such as non-Project construction, fires, traffic accidents or unusually dusty conditions generally (if applicable);
  - iii. Investigating other circumstances surrounding the incident.
18. In relation to Condition 14 above, the Consent Holder shall:
- i. Record the outcome of the investigation in the register;
  - ii. Record any remedial action or measures undertaken to address or respond to the matter in the register; or
  - iii. Respond to the initiator, in closing the feedback loop, if practicable; and
  - iv. Where the adverse feedback or incident was in relation to non-compliance with a condition of resource consent, the Manager, Gisborne District Council, shall be notified in writing of the matter within 5 working days of the non-compliance, and informed of the remedial actions undertaken.

## **ARCHAEOLOGICAL SURVEY**

19. At least 1 month prior to commencing construction on the left bank, the Consent Holder shall submit to the Manager, Gisborne District Council, a copy of an Archaeological Survey for the left bank, prepared by a suitably qualified and experienced person(s). The survey shall outline the likelihood of damage, modification or destruction of any archaeological site(s), and whether Archaeological Authority from Heritage New Zealand Pouhere Taonga is required.
20. At least 1 months prior to commencing construction on the right bank, the Consent Holder shall submit to the Manager, Gisborne District Council, a copy of an Archaeological Survey for the right bank, prepared by a suitably qualified and experienced person(s). The survey shall outline the likelihood of damage, modification or destruction of any archaeological site(s), and whether Archaeological Authority from Heritage New Zealand Pouhere Taonga is required.
21. In the event of any site, waahi tapu, taonga or koiwi being discovered during the works authorized by this consent, the Consent Holder shall immediately cease work at the affected

site and secure the area. The Consent Holder shall contact the Council to obtain contact details of the relevant hapu and /or marae. The consent holder shall then consult with the appropriate tribal entities and Heritage New Zealand Pouhere Taonga, and shall not recommence works in the area of the discovery until the relevant Heritage New Zealand Pouhere Taonga and appropriate tribal entity approvals (including associated affected party approvals) to damage, destroy or modify such sites have been obtained.

22.

**Advice Note: The proposed works may affect archaeological sites. Work affecting archaeological sites is subject to obtaining an authority under the Heritage New Zealand Pouhere Taonga Act 2014. An authority from Heritage New Zealand – Pouhere Taonga must be obtained for the work prior to commencement of construction. It is an offence to damage or destroy a site for any purpose without an authority. The Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorized site damage.**

**NOISE AND VIBRATION**

23. All noise from construction shall comply with the following criteria for long term construction activities:

i.

Time period	Average Maximum Noise Level (dBA)		
	L <sub>95</sub>	L <sub>10</sub>	L <sub>MAX</sub>
Monday – Saturday 0600 – 1800 hours	60	75	90
Monday - Saturday at all other times	55	45	70

Sound levels shall be measured in accordance with New Zealand Standard NZS6801:1999 “Acoustics: Measurements of Environmental Sound” and assessed in accordance with NZS6802:1991 “Assessment of Environmental Sound”.

ii. Emission of construction noise shall not exceed 168 calendar days per site in any 12 month period.

24. All vibration from construction shall comply with the following vibration criteria:

The maximum weighted vibration level (Wb or Wd) arising from construction, when measured at or within the boundary of any site, or the notional boundary of any adjacent dwelling shall not exceed the following limits:

General vibration	Time Ma	Maximum Weighted Vibration Level (Wb or Wd)
	0600- 1800 hours Monday to Saturday	45mm/s <sup>2</sup>
Construction Vibration	Time Ma	Maximum Weighted Vibration Level (Wb or Wd)
	0600-1800 hrs Monday – Saturday	60mm/s <sup>2</sup>
	At all other times	15mm/s <sup>2</sup>

**WORKS IN THE BED OF A RIVER**

### **Water Quality**

25. *No borrow will be taken from the estuary area below the rail bridge.*
26. *The Consent Holder shall take all practicable measures to limit the amount of sediment and prevent contaminants from entering any water bodies during construction. Such measures shall include (but not be limited to):*
  - i. *Any surplus soil or cleared vegetation or debris shall be removed and deposited at an appropriate disposal site;*
  - ii. *The wash water from containers and tools shall not be discharged into any waterbodies and the washing equipment shall not occur in any waterbodies;*
  - iii. *Fueling and carrying out of machinery maintenance away from water bodies; and*
  - iv. *The installations of erosion and sediment control measures in accordance with the certified Construction and Environmental Management Plan, as required by condition 9.*
27. *The Consent Holder shall take all practicable measures to prevent contaminants such as diesel and oil entering any waterbodies in the event of a spill during construction.*
28. *Where, by any cause, (accidental or otherwise), contaminants associated with the Consent Holder's operations escape to water, the Consent Holder shall:*
  - i. *Immediately take all practicable steps to contain and then remove the contamination from the environment;*
  - ii. *Immediately notify the Council of the escape; and*
  - iii. *Report to Council within 7 working days, describing the manner and cause of the escape, steps taken to control it and prevent its occurrence and steps taken to prevent a reoccurrence.*
29. *The Consent Holder shall ensure that at the completion of the works, any newly established surfaces, grassed slopes and vegetated areas that were cleared or damaged as a result of construction, are revegetated in order to prevent sediment from entering the water.*
30. *No concrete shall be dumped into the bed of any waterbody.*
31. *The Consent Holder shall where practicable construct all structures using methods and materials non-toxic to aquatic life.*
32. *The consent holder shall comply with all notices and guidelines issued by Biosecurity New Zealand (refer to [www.biosecurity.govt.nz/didymo](http://www.biosecurity.govt.nz/didymo)) in relation to avoiding the spread of the pest organism *Didymosphenia Geminata* (known as 'Didymo') and other freshwater pests.*
33. *The consent holder shall notify, as soon as reasonably practicable, the registered drinking-water supply operators concerned and the Manager, Gisborne District Council, if an event such as a spillage of chemicals occurs which may have a significant adverse effect on the quality of the water.*

### **Fish Passage**

34. *Six weeks prior to the first construction season, the Consent Holder shall submit to the Manager, Gisborne District Council, for certification, a fish passage assessment prepared by a suitably qualified and experienced person, identifying those culverts within the WFCS where:*
  - i. *Fish passage improvements will be required;*

- ii. *Fish passage improvements will not be required; and*
- iii. *Further detailed assessment is required to determine whether or not fish passage improvements will be required.*

*For those culverts where further assessment is required, the results of that assessment shall be provided to the Manager, Gisborne District Council, for certification, prior to any works commencing on those culverts.*

- 35. *Six weeks prior to each subsequent construction season, the Consent Holder shall submit to the Manager, Gisborne District Council, a list of culverts requiring fish passage mitigation retrofitting for that construction phase. Fish passage will be provided where it is practical, cost effective and does not interfere with the primary function of flood control.*
- 36. *The consent holder shall confirm the performance of the fish passage treatment within 6 months of treatment.*
- 37. *Each culvert identified by condition 34 as being a barrier to fish passage, shall be upgraded/retrofitted to enable fish passage by the end of the relevant construction season.*

*Note: Guidance is provided in Desktop Analysis of Fish Passage Barriers in the Waipaoa Flood Control Scheme Upgrade' by Harriet Roil, Water Quality Science Officer, Gisborne District Council, dated 30 September 2017.*

- 38. *The Consent Holder shall prepare and submit to the Manager, Gisborne District Council, for certification, a fish passage maintenance and monitoring plan (including annual visual inspections) as part of the long-term maintenance plan for the WFCS.*
- 39. *An annual report shall be provided by the Consent Holder, to the Manager, Gisborne District Council reporting the outcome of its fish passage maintenance and monitoring plan for the duration of the construction of the upgrade to the WFCS.*

**ADVICE NOTES:**

- a) *This consent does not provide for the installation of hard protection structures other than those included in the general construction of the stopbanks.***
- b) *This consent does not provide for the discharge of liquid or solid waste material to land or water. All contaminated material must be disposed of at a facility approved to receive the waste material.***
- c) *Any additional consents for the discharge of contaminants etc will also consider the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007.***

**EARTHWORKS**

- 40. *While borrow excavation is in progress, a vegetated strip of at least two metres wide will be left between the borrow excavation and the top of the riverbank.*

*Note: This will provide a sediment detention barrier that is intended to minimise sediment discharge into the nearby watercourse. In some cases, the vegetated strip will be less than 2 metres when there is insufficient space to enable this. An individual borrow area will typically remain open from two weeks on small jobs, through to 10 or 12 weeks on larger jobs if rain delays work.*

41. *The Consent Holder shall minimise the time the borrow area is exposed by minimising the number of sites exposed at a time, and progressively exposing each borrow site only as needed. Before further stripping of the batters, the newly reconstructed stopbank will be filled, compacted and finished to the final design height. Multiple borrow areas supplying a long length of stopbank upgrade will be similarly be reinstated in a progressive manner as the respective sections of stopbank they provide material for are completed.*
42. *Earthworks activities including the stripping of the existing stopbank batter will not exceed 500m in length at any one time to minimise the possibility of erosion in a flood event*
43. *The Consent Holder shall ensure that at the completion of the works, any newly established surfaces, grassed slopes and vegetated areas that were cleared or damaged as a result of construction, are revegetated in order to prevent sediment from entering the water.*
44. *The Consent Holder shall ensure that, where practicable, the borrow sites are appropriately stabilised by 30 May of each year unless otherwise certified in writing by the Councils' Environmental and Science Manager. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural and including, pavement, metalling, hydro-seeding, re-vegetation and mulching) that will minimise erosion of exposed soil to the extent practical to avoid sediment run off.*
45. *Sediment control measures shall be installed prior to works and shall remain in place until any bare earth associated with the works has re-vegetated sufficiently to avoid sediment runoff.*

#### **PLANTING WORKS**

46. *Where any vegetation is removed that includes exotic plants such as willow and pampas, it must be disposed of in a manner where it will not cause the spread of exotic plants and in a location, that is approved by the Manager, Gisborne District Council.*

#### **PRE- SEASON CONSTRUCTION TEAM MEETING**

47. *At a date in August prior to each construction season, the Consent Holder shall hold a meeting with GDC regulatory team representatives to outline the upcoming season construction works including matters such as (but not limited to):*
  - i. *Stopbank design levels;*
  - ii. *Earthworks and borrow area location and extent;*
  - iii. *Number and location of culverts to be extended;*
  - iv. *Review of the CEMP; and*
  - v. *Review of proposed fish passage enhancements.*
48. *Except that for the first construction season, this shall happen within one month of this consent being granted.*
49. *At least 2 weeks prior to each construction season the Consent Holder shall hold a meeting with GDC regulatory team representatives and the primary Contractor. This meeting shall form the basis for confirming communication channels and the details of the Construction Methodology and proposed earthworks management and associated methodologies, and shall ensure that all Contractors are aware of and familiar with the proposed construction methodologies.*

#### **STAGING DETAILS (detailed works)**

50. Six weeks prior to each construction season, the Consent Holder shall submit to the Manager, Gisborne District Council, for certification, details outlining the location, design, timing and duration, and any mitigation for the following proposed works for that construction season, including (but not limited to):

- i. earthworks;
- ii. revetment work;
- iii. culvert extensions;
- iv. fish passage works;
- v. stopbank edge planting; and
- vi. reinstatement works.

#### **CYCLEWAY TRAIL DEVELOPMENT**

51. Prior to the construction of any cycleway trail within the WFCS, the Consent Holder shall submit for approval of the Manager, Gisborne District Council, a plan outlining development of the trail within the WFCS. The Plan shall include the following details:

- i. Route to be developed.
- ii. Materials to be used for cycleway trails.
- iii. Results of any consultation with adjacent landowners including identification and mitigation of any potential effects on these landowners.

52. Fencing will be provided along property boundaries adjacent to the stopbank where cycleway trails are developed, unless there is a private agreement with the adjacent landowner to waive this requirement. Any private agreement for this purpose shall be kept on the relevant council property files.

53. Signage will be provided at trail entry points outlining cycle trail users' responsibilities. This will include (but is not limited to):

- i. Exclusion of private motor vehicle, motorcycle or moped;
- ii. No dogs unless leashed;
- iii. No littering or leaving of any rubbish;
- iv. No leaving the trail to enter into private land; and
- v. No lighting fires or camping overnight.

#### **POST – CONSTRUCTION**

54. All waste material shall be removed from the site on completion of the works and the shape of the streambed shall be reinstated to the predevelopment streambed profile or to a profile agreed to by the Manager, Gisborne District Council.

55. The works shall remain the responsibility of the Consent Holder and shall be maintained so that any erosion, scour or instability of the stream bed or banks that is attributable to the works carried out as part of this consent is remedied by the Consent Holder within ten (10) working days.

56. The consent holder shall be responsible for the continued maintenance of the culverts, stopbank and associated works and shall replace any parts of the works that may be dislodged through

*naturally occurring events; particularly should this compromise the integrity of the culvert, stopbank or impede access to the river or stream flow.*

#### **MONITORING AND REVIEW**

57. Council may, at any time after granting the consent, initiate a review of the conditions of consent pursuant to section 128 Resource Management Act 1991 to:

- i. Assess the adequacy of, and if necessary changes to, the conditions controlling activities on the site; and*
- ii. Deal with any significant adverse effects on the environment that may arise from the exercise of the consent.*
- iii. Initiate a review of conditions that may allow for new conditions to be applied to the consent.*

#### **ATTACHMENTS**

*Schedule One: Hawke's Bay Waterway Guidelines for Erosion and Sediment Control; and*

*Schedule Two: Gisborne District Culvert Construction Guidelines for Council Administered Drainage Areas.*

#### **GENERAL ADVICE NOTES**

- 1. To avoid doubt; except as otherwise allowed by this resource consent, all activities must comply with all remaining standards and terms of the applicable RMA Plans. The proposal must also comply with the Building Act 2004, and Council's Engineering Code of Practice. All necessary consents and permits shall be obtained prior to construction commencing.**

ATTACHMENT 2 REVISED DRAFT CONSTRUCTION ENVIRONMENT  
MANAGEMENT PLAN

<provided separately>