

**IN THE MATTER OF:
AND**

The Resource Management Act 1991

IN THE MATTER OF

land use and subdivision consent (RC RC6922-SL0046/15) to:

- undertake a 148 lot subdivision consisting of residential lots, road and reserves to vest and balance lots, which includes contravening permitted activity standards in respect to earthworks, financial contributions, outdoor living area, private ways and driveways, site coverage, vehicle movements and front yard; and
- vary or cancel a consent notice; and
- vary or surrender existing easements; and
- waive esplanade reserve requirements

discharge permits, diversion and land use consents (WGN160028) to:

- divert Duck Creek; and
- discharge sediment and chemical flocculant in treated stormwater runoff; and
- discharge into water; and
- discharge to land; and
- undertake various works in respect to the bed of any river; and
- place a stormwater pipe and a sewage pipe; and
- construct temporary bridges, three permanent bridges, place stormwater inlet and outlet structures, and construct an outlet pipe to Duck Creek, a forebay in a pond system and an outlet channel from the pond to land where it will enter Duck Creek; and
- undertake bank stabilisation works; and
- reclaim the bed of Duck Creek

APPLICANT

Jagger NZ Limited

**DECISION OF THE HEARING COMMISSIONERS APPOINTED BY
GREATER WELLINGTON REGIONAL COUNCIL AND PORIRUA CITY COUNCIL
PURSUANT TO SECTION 34A OF
THE RESOURCE MANAGEMENT ACT 1991**

Commissioners:
Gina Sweetman
Nigel Mark-Brown
Glenice Paine
Kate McArthur

24 May 2016

PORIRUA CITY COUNCIL AND GREATER WELLINGTON REGIONAL COUNCIL

DECISION OF HEARINGS PANEL

1 Appointments

- 1.1 Pursuant to section 34A of the Resource Management Act 1991 (the RMA), commissioners Gina Sweetman, Nigel Mark-Brown, Glenice Paine and Kate McArthur were jointly appointed by the Greater Wellington Regional Council (GWRC) and Porirua City Council (PCC) to hear and determine the application lodged by Jagger NZ Ltd (Jagger, the applicant).

2 Procedural Matters

Directions

- 2.1 The Hearings Panel issued Direction 1 on 3 February 2016 requesting the pre-circulation of Council's s42A report, the applicant's evidence and submitter's expert evidence and setting out a timeframe within which that should occur. We also directed that all parties calling expert witnesses undertake expert conferencing in advance of the hearing and set out specific matters that we wished to be addressed during that conferencing.
- 2.2 On 5 February 2016, Jagger issued a memorandum stating that it wished to suspend the application pursuant to s91A of the RMA and proposing a new timetable for the commencement of the hearing and the exchange of evidence.
- 2.3 On 11 February 2016, we issued Direction 2 setting out the new timetable.
- 2.4 We note that all matters that formed part of the directions were complied with and the material was distributed to all parties prior to the hearing.
- 2.5 Following the adjournment of the hearing on 7 April 2016, on 12 April 2016 we provided the GWRC, PCC and Jagger planners with specific queries on some of the recommended conditions of consent. We received a response from the planners by way of a joint statement and updated conditions on 19 April 2016. Prior to adjourning the hearing, we also requested that the applicant's engineer provide information on storage attenuation and the impacts of sea level rise, and for the Council's engineer to provide advice on this information.
- 2.6 We issued Direction 3 on 20 April 2016. In this direction, we requested that the planners respond to specific questions on the updated draft recommended conditions of consent that they had provided us on 19 April 2016. We also sought the provision of the engineers' further advice sought at the adjournment of the hearing. Finally, we set directions for a five working day period for the circulation of the updated recommended conditions to those submitters who were heard at the hearing for their review and comment and for the applicant to provide a final right of reply, if they so wished, no later than two working days after the submitters' comments were received.
- 2.7 We note that some of the submitters took the opportunity to comment on matters relating to the merit of the application and to further set out their wider position in respect to the application. As our direction was only for comment on the draft

conditions of consent, we have not considered any additional information or comment provided that is not directly related to the amended draft conditions of consent. The submissions and appearance at the hearing provided the opportunity for submitters to comment on the merits of the application and the outcome that they sought. We have considered the feedback provided from the submitters on the amended draft conditions of consent.

- 2.8 We also note that at the hearing Mr Roberts raised concern regarding the timeframes that the submitters had:
- To review and respond to the s42A and applicant's evidence prior to the hearing; and
 - To respond to the planners' amended recommended conditions of consent.
- 2.9 After the release of the conditions for comment, Mr Roberts, Mr Wyatt and Mr Johnstone subsequently sought a longer time period. In respect to the first matter; this is a statutory time period set under the RMA. We carefully considered the time period for submitters to respond and agreed that five working days which ran over two weekends due to statutory public holidays was a fair and reasonable length of time given that the RMA as it now stands sets very prescriptive timeframes for the processing of notified resource consent applications, including an obligation to complete a hearing within 75 working days following the close of the hearing.
- 2.10 The applicant provided the final right of reply on Tuesday 3 May 2016. On the basis that we considered we had sufficient information to make a decision on the application, we closed the hearing on Tuesday 3 May 2016 and issued Direction 4 accordingly.

Late Submissions

- 2.11 The first matter we considered at the commencement of the hearing was whether to accept under s37 of the RMA late submissions from:
1. Mr Wee Win Lau; and
 2. Mr Mark Macfarlane.
- 2.12 We were only required to consider whether to accept these two late submissions on behalf of PCC, as GWRC had already determined to accept them under their s34A delegations.
- 2.13 Having considered the advice of the Council reporting officer and the applicant's counsel, we determined to accept these two late submissions on the basis that:
- There were no additional matters raised that were not already raised by other submitters;
 - There would be no unreasonable delay incurred in accepting the submissions;
 - There would be no disadvantage to the application accepting the submissions.

Addendum to the GWRC s42A report

- 2.14 At the commencement of the hearing, Ms Conland, planner for GWRC, tabled an addendum to the GWRC s42A. The explanation given was that it provided an update on matters that were outstanding in the s42A report, as well as provide a more robust assessment against the policy framework. Mr Gardner-Hopkins for the applicant advised that he had in principle no issues with it being tabled at this

point, subject to understanding what was in it. We reviewed the addendum and determined that its tabling would not raise any procedural issues. We therefore accepted it and requested that it be circulated to all parties at the hearing.

Site Visit

- 2.15 We undertook a site visit on Monday 4th April 2016 to familiarise ourselves with the subject site and surrounding environment. For health and safety reasons, we were accompanied by Ms Sonia Baker, Team Leader Environmental Regulation, of Greater Wellington Regional Council.

Decision Format

- 2.16 We have had regard to the requirements of section 113 of the RMA when preparing this decision. In particular, we note that we have acted in accordance with section 113(3) which states:
“A decision prepared under subsection (1) may, -
(a) instead of repeating material, cross-refer to all or a part of -
(i) the assessment of environmental effects provided by the applicant concerned:
(ii) any report prepared under section 41 C, 42A, or 92; or
(b) adopt all or a part of the assessment or report, and cross-refer to the material accordingly.”

3 The Application Process

- 3.1 The application was lodged on 24 July 2015 and jointly publicly notified on 29 September 2015. The submission period closed on 28 October 2015.
- 3.2 The Councils received eighteen submissions within the prescribed submission period. A further two submissions were received following the close of submissions. We addressed these submissions in 2.8 - 2.10 above.
- 3.3 Of these twenty submissions, thirteen were opposed to all or part of the application; six submissions were neutral and one supported the proposal, subject to conditions.
- 3.4 A summary of the submissions was detailed in the s42A RMA report prepared by Mr Doug Fletcher for GWRC.
- 3.5 We record that we have read the submissions in full and that we have had regard to them as part of our evaluation of the application.
- 3.6 Following Direction 1, conferencing was conducted between the Councils' and applicant's experts, as well as with the New Zealand Transport Agency. The results of this conferencing informed the Councils' s42A reports. On receipt of the s42A reports, there remained a number of outstanding issues that had not been resolved through conferencing, which were identified in those reports.
- 3.7 We note that the planners' expert conferencing statement was not available until after the hearing was adjourned. For this reason, we circulated the caucusing statement including all recommended amendments to the conditions of consent to all parties.
- 3.8 As noted above all expert evidence was pre-circulated in accordance with section 130B of the RMA. We record that we read all of the evidence and have taken it into account as part of our evaluation of the application.

4 The Hearing and Attendances

4.1 The hearing was held at the Porirua City Council chambers on Tuesday 5th and Wednesday 6th April 2016 and at Pataka, Porirua on Thursday 7th April 2016.

4.2 The following parties and witnesses appeared.

For the Applicant:

- Mr James Gardner-Hopkins, Counsel
- Mr Peter Cooney, Director of Classic Builders, Jagger NZ Limited
- Mr Bob Turner, Owner and Director, Jagger NZ Limited (Mr Turner did not give evidence)
- Mr Ray O'Callaghan, Engineering
- Mr Kyle Christensen, Flooding and Erosion
- Mr Dean Miller, Ecology
- Mr Bryce Holmes, Planning

For Greater Wellington Regional Council

- Ms Michelle Conland¹, Planning
- Mr Gregor McLean, Earthworks and Sedimentation
- Mr Thomas Joseph², Flooding and Erosion
- Mr Damian Young³, Ecology
- Ms Kirsty van Reenen⁴, Planning

For Porirua City Council

- Mr Andrew Jones, Planning
- Mr Phil Rhodes, Land Use and Development Engineering
- Mr Geoff Marshall, Traffic Engineering
- Mr Andrew Gray, Landscape Architecture
- Ms Julia Bates, Senior Resource Planner, Parks
- Mr Matt Trlin, Policy Manager

Submitters:

- Ms Carolyn Amos
- Mr Roy and Mrs Jacqueline Noble
- Mr Tony Shaw (Chairperson) and Mr Lindsay Gow for the Guardians of the Pauatahanui Inlet
- Ms Angela Penfold and Ms Caron Greenhough (safety expert) for the New Zealand Transport Agency
- Mr David Wyatt
- Mr Peter Anderson (General Counsel) and Ms Amelia Geary (Lower North Island Regional Manager) for Forest and Bird
- Mr Trevor Roberts
- Mr Ash Johnstone
- Ms Leana Barriball for Te Runanga o Toa Rangatira

¹ We note that the GWRC s42A report was prepared by Doug Fletcher, who was not available for the hearing.

² Mr Joseph also provided input into the PCC S42A report.

³ We note that Mr Young provided some coverage for Mr Mark Lowe who was not available for the hearing.

⁴ Ms Van Reenen attended in a support role for Ms Conland and did not provide any evidence.

- 4.3 We were assisted in an administrative capacity by Ms Sonia Baker, Team Leader Environmental Regulation, GWRC. We were also assisted by Ms Amber Carter, an independent planner, who took notes for us through the hearing. We also took our own notes through the hearing.
- 4.4 At the commencement of the hearing, Counsel for the applicant advised us that Mr Tim Kelly, traffic engineer, was not available to attend the first day of the hearing, but could be made available subsequently in person or by telephone.
- 4.5 We also received written statements from Mr Mark Lowe (ecologist) and Dr Megan Oliver (coastal scientist) who were not available to attend the hearing. We were advised that Dr Oliver was available by phone if so required. Mr Young, a colleague of Mr Lowe, attended the hearing in Mr Lowe's stead.
- 4.6 All of the material presented by the above parties is held on file at the Council. For the sake of brevity, we do not repeat all the material put before us in the decision. We do, however, refer to relevant matters raised in the material in the decision.

5 Description of the proposal

- 5.1 In summary, the applicant proposes to undertake a 148 residential lot subdivision⁵ over four stages, involving:
- Six new roads to vest in PCC
 - Four reserves to vest in PCC, including a new "Brookside Park" with some seating provided
 - Three walkway reserves to vest in PCC
 - Reduced front yards of three metres for all front lots, except that garages would still be set back to five metres
 - Up to 45% site coverage on particular identified lots⁶
 - Car parking to be provided for in front yards
 - A reduced outdoor living area for Lot 6
 - Underwidth roads and access lots
 - Construction access over an existing metalled track (a paper road) from State Highway 58 for approximately two months
 - The waiver of the esplanade reserve provisions of the PCC District Plan
 - The variation or cancellation of existing consent notices
 - The permanent diversion of two sections of Duck Creek
 - Reclamation of the diverted sections of Duck Creek
 - Bulk earthworks over an approximate area of 105,200m², including 143,440m³ of fill. The maximum depth of cuts would be 4.5 metres and the maximum height of fill would be 3.5 metres
 - Vegetation clearance
 - The discharge of sediment laden water
 - The installation of pipes

⁵ We note that the AEE refers to a 149 residential lot subdivision. The applicant subsequently reduced the yield to 148 lots prior to the hearing, deleting proposed Lot 100.

⁶ Lots 1, 2, 5, 7 – 16, 19, 22 – 24, 43, 44, 46, 48 – 57, 58 – 66, 68, 73, 75 – 79, 82, 92, 95 – 97, 103 – 105, 109 -111, 114, 116 – 122, 125, 126, 129, 130, 132, 134 – 136, 143 – 144

- The installation of three permanent and one temporary bridges
 - Stream bank stabilisation.
- 5.2 The applicant also seeks:
- a ten year lapse period under s125 of the RMA
 - that the recreation and civic development contributions payable on the subdivision be satisfied in accordance with a Development Agreement⁷ between PCC and the applicant.
- 5.3 As part of the proposal, the applicant also proposes to place fill on the properties at 15, 21, 23, 25 and 29 Observatory Close and the PCC pump station at the north-eastern end of the site. At the time of the hearing, the applicant had not obtained any of the landowners' approvals whose property consent is sought for.
- 5.4 The bulk earthworks proposed would provide for the creation of the lots, roads, and services, realignment of the stream, and raising the land above a 2090 High flood event.
- 5.5 There are two permanent diversions proposed for the full flow of Duck Creek. The first permanent diversion would divert flow from a 185 m length of Duck Creek to a 114m long constructed stream channel, resulting in a 71m reduction in stream channel habitat. The second permanent diversion proposed is located at an existing oxbow that has formed on the true left bank of the stream in a location upstream of where the main diversion is to be undertaken and east of Lot 191 DP 48307. The oxbow is approximately 40m in length. Flow within the oxbow would be permanently diverted into a 20m section of newly constructed channel. The removal of the oxbow would result in a 20 lineal metre reduction in stream channel habitat. In total, flow would be permanently diverted from 225 lineal metres of existing stream habitat to 134 lineal metres of constructed stream habitat, resulting in a loss of 91 lineal metres of stream habitat.
- 5.6 The development is proposed to be accessed from James Cook Drive which has the status of a 'Principal Street' in Part H4 of the Porirua City District Plan with one traffic lane in each direction, sealed shoulders and a footpath on the western side only. The applicable speed limit is 50 km/hr. James Cook Drive is accessed off SH58, a Major Arterial Road located at the northern end of the site adjacent to Pauatahanui Inlet.
- 5.7 The applicant's AEE⁸ and both Council planners' section 42A⁹ reports contain more explicit detail of the proposal. We adopt the material contained in the AEE and the two s42A reports and hence do not set it out here.

6 The Site and Background

- 6.1 The applicant's AEE¹⁰ and both Council planners' section 42A¹¹ reports contain detailed descriptions of the site and explanations of its background. We concur

⁷ This is subject to the Council's Development Contributions Policy developed under the Local Government Act.

⁸ Section 5 of the AEE dated 15 September 2015.

⁹ Paragraphs 1.8 – 1.75 of the PCC S42A report and Section 4 of the GWRC S42A report.

¹⁰ Section 4 of the AEE dated 15 September 2015.

¹¹ Section 2 of the PCC S42A report and Sections 2 and 3 of the GWRC S42A report.

with these descriptions and explanations and adopt these for the purpose of this decision. There are some particular matters relating to the application site and background that we consider appropriate to include in the decision, which we do so below.

The Site

- 6.2 The site is approximately 13.4ha in area and is located near the northern extent of Whitby, between James Cook Drive in the east and Discovery Drive to the south. To the east, west and south of the site the land is currently used for residential or recreational purposes. The site is generally relatively flat with a long narrow dimension consisting of the Duck Creek floodplain bounded by small areas of steeper valley slopes. The site lies between 1 and 20 metres above sea level.
- 6.3 Duck Creek at the location of this application is a meandering stream which runs from south to north, and is generally between 1.8 and 2.5 metres wide. The length of stream that runs through the site is 1,070 m. To the north of the site, Duck Creek flows through the Duck Creek Scenic Reserve and out to the Pauatahanui Inlet.
- 6.4 Duck Creek follows a largely natural path albeit with some sections modified by the development of the former golf course. Duck Creek is listed in Appendix Three of the Regional Freshwater Plan as a habitat for national threatened native fish species. No permanently flowing tributaries are present on the site.
- 6.5 The application site is bordered by an unformed legal road at its northern boundary. Duck Creek flows through the unformed legal road into a Scenic Reserve owned by Department of Conservation (DOC) comprising of a saltmarsh and coastal wetlands habitat before discharging to the Pauatahanui Inlet. The Pauatahanui Inlet is identified in Appendix 2 of the Wellington Regional Coastal Plan as an area of Significant Conservation Value. From its headwaters, to south of the site where it joins the Pauatahanui Inlet, Duck Creek is approximately 19.7 km long.
- 6.6 The majority of the site is covered in overgrown grass with patches of exotic and native vegetation growing along the riparian zone of Duck Creek as well as intermittently over the site. Native vegetation is also present along the boundaries of the site with two notable large expanses of forest remnants bordering the site identified as "Ecosites" by Porirua City Council. Ecosite 151, Yardarm Bush, is located to the south west of the subject site whilst Ecosite 16, Duck Creek Bush, partially intrudes into the site but is largely present to the north-west within the adjoining Scenic Reserve of Lot 1 DP 58074.
- 6.7 The *"Inventory of Ecological Sites in Porirua City"* dated July 2001 states that Yardarm Bush has a SES rating of 2, being of greatest ecological significance, but not rare or scarce in Porirua City. Duck Creek Bush has a rating of 3, being highly ecologically significant and rare or scarce in Porirua City. The Duck Creek Scenic Reserve located to the north and a portion of the paper road to the south are also identified as an Ecological Site, being Ecosite 22 known as Duck Creek Salt Marsh. This site has an SES rating of 2, being of greatest ecological significance, but not rare or scarce in Porirua City.

6.8 Mr Jones advised¹² that there are several known archaeological middens and terrace sites located within the application site (Map R27 Midden Numbers - 33, 125, 127, 128 and Terrace Number - 124) and within neighbouring properties. The most northern portion of the application site is a Tapu site known as Wai-o-Hata and is a very old settlement area which also contains a Ngāti Ira Burial Area.

6.9 The application site is a Seismic Hazard Area and a Liquefaction Zone at its most northern end adjacent to James Cook Drive. The site's geology consists of Holocene age alluvium on Permian and Triassic age bedded sandstone and argillite.

Background

6.10 The application site was previously the lower nine holes of the Duck Creek Golf Club which closed in 2004 and is locally referred to as Duck Creek North. Jagger NZ Limited (the applicant) purchased the land comprising the application site in June 2015 from Whitby Coastal Estates Limited (WCEL).

6.11 PCC adopted a Comprehensive Development Plan (CDP) for the site, (including 'Duck Creek South' and 'Duck Creek North' land) on 9 March 2011. The CDP sets out a planned and integrated approach for the development of the former Golf Course land, with emphasis on enhancing the Duck Creek riparian environment and protecting ecological values. It also provides a high level master development plan, including the indicative layout of roads, reserves and residential lots. As we understand it, the CDP was developed with a high level of engagement with the surrounding community and residents. The agreement acknowledges that despite the existence of the CDP, resource consents for the subdivision and development of the land, and for the diversion of Duck Creek and other works still need to be sought and granted.

7 Relevant Planning Provisions

7.1 The proposal requires consent from both the PCC and GWRC. We outline the reasons for consent from the PCC first.

Operative Porirua City District Plan 1999

7.2 The site is zoned Suburban under the PCC District Plan. The proposal requires both subdivision and land use consents under that Plan.

Subdivision consent

7.3 In the Suburban Zone, subdivision is a controlled activity (Rule D3.1.2(ii)) subject to compliance with the provisions within the Rule including provision of Roads, Servicing and Controlled Activity Standards (Rule D3.2.2(i)):

(ii) Subdivision where:

- (a) Public roads are available to serve the subdivision. In respect of public roads, the term "available" means available at a standard not less than the recommended carriageway width shown in Table 3 or Table 4, Part H 'Carparking Vehicle Movements and Roads',*
- (b) Public water supply systems, sanitary drainage systems and stormwater drainage systems are available to serve the subdivision,*

¹² Paragraph 2.9 of the s42A report.

(c) *All the controlled activity standards for subdivision are complied with.*

- 7.4 The application fails to comply with (ii)(a) in respect of the recommended carriageway widths for Roads proposed as follows:
- Roads 2 and 5 (minor access and long cul-de-sac) contain a minimum carriageway width of 6.0m and these do not comply with the carriageway width of 7.0m required by Part H of the District Plan.
 - Roads 4 and 6 (short cul-de-sacs) contain a minimum carriageway width of 5.5m and these do not comply with the carriageway width of 6.0m required by Part H of the District Plan.
- 7.5 The proposal also does not meet (c) above as not all controlled activity standards for subdivision can be complied with as detailed below.

D3.2.1 Controlled Activity Standards

Subdivision

- (i) *For every allotment where there is an existing building/s there shall be no increase in the degree of non-conformity with the permitted activity standards.*
- (ii) *For every allotment where there is no existing dwelling, or for which no existing land use consent for a dwelling has been granted, or is being concurrently granted (in the case of joint land use and subdivision application), it shall be practicable to construct on all allotments, as a permitted activity, a dwelling which does not contravene any permitted activity standard.*
- 7.6 The proposal does not comply with controlled activity standard (ii) above as the permitted activity standards outlined below cannot be complied with.

Land Use Consent

- 7.7 The proposal does not comply with the following permitted activity standards in the Suburban Zone:

(ii) Car Parks

...Every car park shall comply with the technical standards in Part H of this plan.

The applicant seeks consent for parking of cars in the 5m front yard for all residential lots. We note that the applicant proposes to provide double garaging for each proposed dwelling, meeting the requirement of two parking spaces per dwelling. This would mean any non-compliance would arise from a third or fourth vehicle being parked on the site in front of the garage. This is what we consider to be a technical infringement, if an infringement at all.

(iii) Earthworks

The following shall apply to earthworks on a site, except for:

- Earthworks (cut and fill) under a proposed building and building platform which do not extend further than 2 metres beyond the exterior walls of any proposed building when measured in plan view; and
 - Earthworks (cut) for a swimming pool which do not extend further than 2m from the edge of the swimming pool:
- (a) *Earthworks, in a 12 month period, shall not exceed:*
- (i) *25m² in area within a riparian setback, or*

- (ii) 100m² in area elsewhere in the Suburban Zone, or
- (iii) 0.5 metres in height or depth in a riparian setback and 1.5 metres in height or depth elsewhere.

The applicant proposes bulk earthworks over an approximate area of 105,200m², including 143,440m³ of fill. The maximum depth of the cuts will be 4.5 metres and maximum height of fill 3.5 metres. Earthworks are proposed to be undertaken within a riparian setback which does not comply with standards (a) (i) & (iii) above.

7.10 (iv) Financial contributions

The payment of all financial contributions in respect of a permitted activity as provided for in Part E of this plan shall be made before the commencement of that activity.

The applicant seeks that the recreation and civic development contributions payable on the subdivision be satisfied in accordance with a Development Agreement between Porirua City Council and the applicant.

7.11 (xii) Outdoor Living Area

(a) *Except for existing dwellings constructed before 29th September 2009 where no additional dwellings are proposed to be added to the site, each dwelling shall have a contiguous outdoor living area that:*

- (i) *is contained within the site; and*
- (ii) *is at least 50m² in size; and*
- (iii) *can accommodate a 4 metre diameter circle with a maximum gradient of 1:20; and*
- (iv) *is located directly adjacent to and can be accessed directly from the dwelling; and*
- (v) *is oriented to the north, west and/or east side of the dwelling; and*
- (vi) *has at least 25m² of its outdoor living area provided in permeable surfaces. The remainder may include paved surfaces, open pergolas and decks of less than 1 metre in height; and*
- (vii) *does not form part of vehicle accessways, parking or manoeuvring area; and*

The applicant has applied for Lot 6¹³ to not comply with the Outdoor Living Area permitted activity standard stating this lot may not comply with a dwelling with a directly accessible Outdoor Living Area, and/or have a gradient steeper than 1 in 20 and/or no permeable areas but mainly consisting of decking.

7.12 (xiii) Private ways and driveways

The access to any dwelling on any site shall meet the technical standards for private ways and driveways in Part H of the Plan.

H1 CAR PARKING, PRIVATE WAY AND DRIVEWAY TECHNICAL STANDARDS

The Council requires all car parks, private ways and driveways to meet the following standards:

- (vi) *Minimum carriageway widths shall be in accordance with the dimensions specified in Table 4 below.*

¹³ We note that the AEE also refers to Lot 100. Lot 100 was deleted from the proposal prior to the hearing.

Classification	Sub - Classification	Type	Traffic volume (vpd)	Dwellings served or length in metres	Design Speed (kph)	Minimum legal road width (m)	Minimum Carriageway width (m)		
							Parking	Traffic	Total
PRIVATE WAYS & DRIVE WAYS	Residential	Private Way & Drive Way		up to 3		3.5		2.7	2.7
		Private Way & Drive Way		4-6		6		5	5

Access Lot 200 which serves four lots is proposed to have a legal width of 4.0m and carriageway width of 2.7m and therefore does not comply with the legal width of 6.0m and carriageway width 5.0m required by Table 4 of Part H of the District Plan.

Access Lot 203 which serves four lots is proposed to have a legal width of 5.0m and carriageway width of 2.7m and therefore does not comply with a legal width of 6.0m and carriageway width 5.0m required by Table 4 of Part H of the District Plan.

Access Lot 205 which serves six lots is proposed to have a legal width of 4.0m and carriageway width of 2.7m (with passing bay) and therefore does not comply with a legal width of 6.0m and a carriageway width 5.0m required by Table 4 of Part H of the District Plan.

Access Lots 201, 202 and 204 do not comply with the technical requirements of Table 4 of Part H of the District Plan as they all serve more than six lots.

7.13 (xvi) Site Coverage

(a) *The maximum site coverage shall be 35% of the net site area.*

The applicant seeks consent for Lots 1, 2, 5, 7-16, 19, 22-24, 27-29, 43, 44, 46, 48-66, 68, 73, 75-79, 82, 92, 95-97, 103-105, 109-111, 114, 116-121, 122, 125, 126, 129, 130, 132, 134-137 and 141-144 to exceed this standard for up to a maximum of 45% site coverage.

7.14 (xix) Vehicle movements

The maximum number of vehicle movements per day for any non-residential activity shall be 30.

The applicant has confirmed there will be approximately 80 and 110 vehicle movements a day associated with the construction activity.

7.15 (xxii) Yards

The minimum yard requirements for any site shall be:

(a) *Front yard*
Minimum front yard – 5m.

(b) *Riparian setback*

The minimum riparian setback for sites on the west side of Steyne Avenue and adjacent to mean high water springs is 7.5m; elsewhere in the zone the minimum riparian setback is 20m.

The applicant proposes to reduce the front yard requirement from five metres to three metres for all proposed residential allotments. Eaves (of up to 600mm) are proposed to extend into the three metre front yard and any garaging is not proposed to be permitted within the five metre front yard. The applicant also seeks consent for any parts of an allotment which may encroach within the 20 metre riparian setback of Duck Creek.

7.16 The applicant also seeks land use consent for a waiver of the requirement to provide esplanade reserves in accordance with Part E10 Esplanade Reserves of the District Plan. Instead it is proposed for Duck Creek to be contained within Reserve Areas, the purposes being ecological, drainage and recreation. The applicant therefore seeks a waiver of the requirement to provide esplanade reserves.

7.17 The proposal for land use and subdivision is therefore a Discretionary Activity under Rule D3.1.4(i), which states that:

All activities which are not a permitted, controlled, restricted discretionary, or prohibited activity, and are not specified in D3.1.5 (ii), (iii) or (iv) as a non-complying activity and do not contravene any discretionary activity standard.

7.18 The applicant also seeks:

- The variation or cancellation of Consent Notice 9231374.7 from the subject site pursuant to s221 (3) of the RMA.
- The variation or surrender of existing easements on the titles as completion certificates are requested, pursuant to section 243 of the RMA.
- A waiver of esplanade provisions under s230(3) of the RMA.

Proposed Natural Resources Plan

7.19 The Proposed Natural Resources Plan (PNRP) was publicly notified by the Council on 31 July 2015. All rules in the Proposed Natural Resources Plan have immediate legal effect under section 86B (3) of the RMA.

7.20 However, we were advised that under section 88A of the RMA, the activity status is determined, as it was at the date of filing the application. This application was filed on 27 July 2015. Consequently, the operative plans determine the activity status and the application continues to be processed, considered and decided as an application for that type of activity - in this case a discretionary activity. We were advised that the provisions of the PNRP are relevant for the assessment under section 104(1)(b). We received no contrary advice to this position and so proceed on that basis accordingly.

Operative Regional Plans

Diversion of Duck Creek

7.21 Section 14(1)(a) of the RMA states that no person may divert any water unless the diversion is expressly allowed by a rule in a regional plan or a resource consent.

7.22 Under Rule 9 of the Regional Freshwater Plan (RFP) it is a permitted activity to divert less than 1.5m³/sec of water from any intermittently flowing stream. As

Duck Creek is a permanently flowing stream, it does not meet this rule. Accordingly, the proposed temporary and permanent diversions of the stream flow falls for consideration under Rule 16 of the RFP, which provides for diversions of water which cannot meet the requirements of any other rules in the Plan as a discretionary activity.

Discharge of sediment and chemical flocculants in treated stormwater runoff

7.23 Under section 15(1)(a) and 15(1)(b) of the RMA no person may discharge any contaminant or water into water; or contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; unless the discharge is expressly allowed by a rule in a regional plan or a resource consent.

7.24 Rule 2 of the RFP provides for the discharge of stormwater as a permitted activity provided that the listed conditions are met. As the proposed discharge will originate from an area of bulk earthworks greater than 0.3ha, it cannot meet the required conditions of this rule. As such, any proposed discharge directly to water is considered under Rule 5 of the RFP, which provides for all remaining discharges to fresh water, as a discretionary activity.

Discharge to land

7.25 Under Rule 1 of the Regional Plan for Discharges to Land (RPDL) it is a permitted activity to discharge any contaminant onto land provided that the listed requirements are met. As sometimes the discharge will be to land in a manner that may result in that contaminant (namely sediment and chemical flocculant) entering Duck Creek, it cannot meet the requirements of this rule. As such, the proposed discharge is considered under Rule 2 of the RPDL, which provides for discharges not permitted by Rule 1, as a discretionary activity.

Land use consent to undertake various works

7.26 Under section 13 of the RMA no person may, in relation to the bed of any river, place any structure or part of any structure on the bed; or excavate or otherwise disturb the bed; deposit a substance in or on the bed, or reclaim or drain the bed unless expressly allowed by a rule in a regional plan or a resource consent.

To place a stormwater pipe under Duck Creek

7.27 Under Rule 46 of the RFP it is a controlled activity to place any pipeline or duct in or under any river, which is not a permitted activity and disturbs less than 20 cubic metres of sand, shingle, gravel or other natural river bed material, providing the activity can meet the standards, which relate to contaminant release, removal of excess material, and water bodies with trout habitat.

To construct three permanent bridges, two to three temporary bridges, up to eleven stormwater outlet structures and a temporary stormwater pipe

7.28 Rules 22 to 48 of the RFP do not specifically provide for the placing or constructing various structures on, over or within the stream bed, including the associated disturbance and deposition of bed material, and so is considered under Rule 49 of the RFP as a discretionary activity.

To undertake rock rip rap bank stabilisation works

7.29 Rules 22 to 48 of the RFP do not specifically provide for the undertaking of bank stabilisation works including the removal and disturbance of bed material and the

associated deposition of rock rip rap material. It is therefore considered under Rule 49 of the RFP as a discretionary activity.

To reclaim the bed of Duck Creek

- 7.30 Rules 22 to 48 of the RFP do not specifically provide for the reclamation of stream beds. It is therefore considered under Rule 49 of the RFP as a discretionary activity.
- 7.31 The GWRC advised that the following aspects of the proposal are a permitted activity:
- The placement of rock rip rap within sections of constructed stream channel, as this activity will take place on land prior to Duck Creek being diverted into the section of constructed stream channel.
 - The discharge of stormwater from permanent stormwater treatment devices post completion of earthworks is expected to meet the permitted activity conditions of Rule 2 of the RFP.

National Environmental Standards

- 7.32 The applicant has not applied for any consents under any National Environmental Standard. We heard during the hearing that there may be remnants from a sawmill at the northern end of the property near Shoal Place. This may potentially trigger the National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health. If this is the case, then this would need to be addressed separately. We do not consider this to be a reason to not make a determination on the substantive application. The granting of consent to this application would not negate the requirement to obtain any necessary consents under the NES.
- 7.33 In conclusion, given the integrated nature of this application we consider that all consents are appropriately bundled and treated as requiring consent on the basis of the most restrictive activity. We are satisfied that the proposal overall is a discretionary activity.

8 The Resource Management Act 1991

- 8.1 Section 104 of the Resource Management Act 1991 (the RMA) sets out the matters we must have regard to when considering the application, as set out below:

104 Consideration of applications

- (1) *When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to—*
- (a) any actual and potential effects on the environment of allowing the activity; and*
 - (b) any relevant provisions of—*
 - (i) a national environmental standard;*
 - (ii) other regulations;*
 - (iii) a national policy statement;*
 - (iv) a New Zealand coastal policy statement;*
 - (v) a regional policy statement or proposed regional policy statement;*
 - (vi) a plan or proposed plan; and*

- (c) *any other matter the consent authority considers relevant and reasonably necessary to determine the application.*
- (2) *When forming an opinion for the purposes of subsection (1)(a), a consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect.*
- (2A) *When considering an application affected by section 124, the consent authority must have regard to the value of the investment of the existing consent holder.*
- (3) *A consent authority must not,—*
 - (a) *when considering an application, have regard to—*
 - (i) *trade competition or the effects of trade competition; or*
 - (ii) *any effect on a person who has given written approval to the application:*
 - (c) *grant a resource consent contrary to—*
 - (i) *section 107, 107A, 107E, or 217:*
 - (ii) *an Order in Council in force under section 152:*
 - (iii) *any regulations:*
 - (iv) *a Gazette notice referred to in section 26(1), (2), and (5) of the Foreshore and Seabed Act 2004:*
 - (d) *grant a resource consent if the application should have been notified and was not.*
- (4) *A consent authority considering an application must ignore subsection (3)(a)(ii) if the person withdraws the approval in a written notice received by the consent authority before the date of the hearing, if there is one, or, if there is not, before the application is determined.*
- (5) *A consent authority may grant a resource consent on the basis that the activity is a controlled activity, a restricted discretionary activity, a discretionary activity, or a non-complying activity, regardless of what type of activity the application was expressed to be for.*
- (6) *A consent authority may decline an application for a resource consent on the grounds that it has inadequate information to determine the application.*
- (7) *In making an assessment on the adequacy of the information, the consent authority must have regard to whether any request made of the applicant for further information or reports resulted in further information or any report being available.*

- 8.2 Section 104B of the RMA outlines the matters for which the Council can have regard to when considering an application for a discretionary activity.

After considering an application for a resource consent for a discretionary activity or non-complying activity, a consent authority—

- (a) *may grant or refuse the application; and*
- (b) *if it grants the application, may impose conditions under section 108.*

Written Approval

- 8.3 Section 104(3)(a)(ii) states that a consent authority must not have regard to any effect on a person who has given written approval to the application. The applicant did not provide any written approvals with the application.

Subject to Part 2:

- 8.4 We note that section 104 is subject to Part 2 of the RMA.

- 8.5 The following table sets out the matters contained in sections 6 and 7 that the planners considered to be of relevance:

Matter	Mr Holmes	Ms Conland	Mr Jones
6(a)		X	X
6(b)			X
6(c)	X	X	X
6(d)			X
6(e)	X		X
6(f)			X
7(a)			
7(b)	X	X	X
7(c)	X	X	X
7(d)	X	X	
7(e)			X
7(f)	X	X	
7(g)	X	X	
7(i)		X	

- 8.6 All the planners considered section 8 to be relevant.
- 8.7 None of the submissions, except for that of Forest and Bird, raised particular section 6, 7 or 8 matters. In their primary submission, Forest and Bird set out that they consider the impacts of the proposal are more than minor with regard to section 6(a). In their legal submission presented at the hearing¹⁴, Forest and Bird also discuss the King Salmon Supreme Court decision and Part 2.
- 8.8 Mr Jones is of the overall opinion that the proposal is consistent with the s6-8 matters, subject to compliance with conditions of consent. He considers that the proposal is not inconsistent with Part 2 of the RMA. Ms Conland's view is that the relevant s6 matters have been provided for, that with appropriate conditions, the adverse effects in terms of the relevant s7 matters can largely be mitigated through consent conditions, and that the application is not inconsistent with s8. Her overall conclusion is that the proposal will meet the requirements of section 5, subject to certain matters being resolved at the hearing. Mr Holmes provides an assessment against s6 matters in section 11.1 of the AEE. In respect of s7, Mr Holmes concurs with Ms Conland. Mr Holmes provides a discussion of how the applicant is taking the principles of Treaty of Waitangi into account in their proposal. Mr Holmes' overall conclusion is that the proposal is consistent with the purpose of the RMA.
- 8.9 We consider the application against Part 2 later in this decision.
- Permitted effects:**
- 8.10 Section 104(2) provides discretion, when considering the actual and potential effects of the proposal, to disregard any adverse effect of the proposal that the District Plan permits.
- 8.11 Mr Jones advises us in paragraph 6.4 of his s42A report that "due to the scale of this proposal and the significant number of non-compliance with District Plan rules and permitted activity standards it is considered there is no 'permitted baseline' in considering the effects of this proposal."

¹⁴ Paragraphs 15 to 20.

- 8.12 We received no advice from Mr Fletcher or Ms Conland in this regard in respect of the permitted baseline and the Regional Plan rules. We also received no advice from Mr Holmes or Mr Gardner-Hopkins.
- 8.13 We tend to concur with Mr Jones that it would be problematic to make a direct comparison with the permitted baseline in respect of the District Plan rules without being provided a detailed comparison between what is sought and what is proposed. In respect of the regional consents, these generally arise because the proposal does not comply with the permitted standards and a consent is therefore required under the Plans and the RMA.
- 8.14 However, in proceeding, we do bear in mind in terms of the land use and subdivision components of the proposal that the site is zoned Suburban, whereby residential dwellings complying with permitted activity standards are a permitted activity and therefore can occur as of right. To this end, we proceed on the basis that part of the permitted baseline is residential activity and residential buildings on the site.

Existing environment:

- 8.15 Section 9.1 of the GWRC s42A report includes a description of the existing environment for the site, the Duck Creek Scenic Reserve and the Pauatahanui Inlet. We consider this description through our evaluation. The PCC s42A report does not include any specific assessment of the existing environment, beyond the site description and background.
- 8.16 The AEE makes mention of the existing environment in respect of stormwater and monitoring to inform the proposed Environmental Monitoring and Adaptive Management Plan.

Positive effects

- 8.17 Neither the AEE nor two s42A reports include a specific section which sets out the potential positive effects that may arise should consent be granted. Rather the focus of all of these documents seems to rest on adverse effects. As s104(1)(a) specifically requires us to consider all effects, which includes positive and negative effects, as well as temporary, past, present and future, and cumulative effects¹⁵, it is important that we consider the positive effects alongside the adverse effects.
- 8.18 However, to guide us, there is some discussion from the planners in respect to their Part 2 assessment and in respect of some of the adverse effects. We address these through our evaluation of the issues in contention. In summary, we consider the positive effects, as is described in parts of the planners' reports, to be:
- The efficient use of an existing land resource that is currently vacant;
 - Formalised public access to the new reserve land;
 - The linking of the last piece in the Whitby Walkway network;
 - Increased stream bank protection;
 - Restoration and compensation planting will have positive ecological benefits and enhance the Duck Creek riparian margins;

¹⁵ See s3 of the RMA for the full description of effect.

- New infrastructure on the site will benefit the surrounding community and the health of the Pauatahanui Inlet;
- The development would attract residents which would support Whitby's shops, schools and public transport; and
- The development activities would provide opportunities for employment and economic activity.

9 The Issues in Contention

9.1 We have identified the principal issues in contention as being:

- Consistency with the Comprehensive Development Plan
- Construction effects, including dust, noise, hours of work and use of SH58 access
- Amenity effects, including visual, noise, landscape, privacy and lightspill, and impacts on wellbeing
- Effects arising from the pump station
- Traffic and parking effects
- Health and safety effects
- Management of earthworks and its effects
- Liquefaction effects
- Cultural effects
- Heritage and archaeological effects
- Stream reclamation and diversion, including policy direction and offsetting
- Ecological effects, including inanga spawning and terrestrial biodiversity
- Flooding and erosion effects
- Stormwater effects
- Water quality, coastal and freshwater
- Cumulative effects
- Esplanade reserves and walkways
- Reserve / financial contribution
- Property values
- Duration of consent
- Consultation

9.2 We address these matters below.

Consistency with the Comprehensive Development Plan

9.3 As outlined in the background section of this decision, a CDP was prepared for the site and endorsed by PCC in 2011. As outlined earlier, it was developed between the owner of the site at the time, Whitby Coastal Estates, and Porirua City Council, with significant community involvement. This CDP, or master plan, shows a proposed layout for the site, including roads, bridges and lots. We were provided a copy of the CDP. We note the significant work that was put into preparing this document. We also note, and were accordingly advised, that this is a non-statutory document and does not form part of any statutory document prepared under either the RMA or the Local Government Act. In 5.1.5 of the AEE, the applicant notes the support for the CDP and sets out a comparative table of the differences between the CDP and the proposal.

9.4 Several of the submitters raised concerns about the departure of the proposal from the CDP and sought that any consent granted be consistent with the CDP, given the level of comfort the community has with the CDP. Particular matters of

concern relate to the increased yield in lots / increased density / section size, the change of roading widths, and consistency with the reserve lay out.

- 9.5 The PCC s42A report provides little advice as to the weight to be afforded to the CDP. We queried Mr Jones at the hearing, who advised we should give the concept some weight but not a lot of weight. That we should consider the concept of the development as opposed to the finer detail, and that the CDP objectives should be given some weight. He advised that the discussion around the waiving of esplanades led to the CDP. We were given some advice from Mr Trlin for PCC about particular aspects of the CDP, but not regarding the weight that should be afforded to it.
- 9.6 Mr Holmes' statement of evidence sets out that he considers the CDP is relevant as an other matter under s104(1)(c) of the RMA, as a framework for the public open space and connections to the surrounding communities. In his opinion the proposal would give effect to the main open space framework and linkages promoted in the CDP.
- 9.7 Counsel for the applicant advised us that we must consider the application before us, and evaluate its effects on the basis of the evidence before us. His advice is that it is not a comparison against what might have been previously proposed or anticipated under the CDP or any charrette process (although those matters are accepted as being relevant background).
- 9.8 We concur with Mr Jones and Mr Holmes that it is appropriate to give some weight to the CDP; however, this is limited by the fact that it is a non-statutory document prepared by a previous landowner and we are obliged to consider the proposal in front of us. We note that this CDP does not form part of the Porirua City District Plan, including that it is not referenced as an external document.
- 9.9 Comparing the CDP with the proposal, it is clear that there are some differences in the yield of lots and road alignment, the latter which is relatively limited. Otherwise, we consider that the proposed concept is generally consistent between the two. We address the yield of lots and road layout further in this decision. We note that there was some concern about lots being located in the northern part of the site near Shoal Place and James Cook Drive. We note that three lots were shown in this part of the site in the CDP; the proposal shows six; five to the east of the new road, and one to the west.
- 9.10 In respect of the road layout however, we note that there appears to be little difference in road widths, the changes rather being the initial alignment from James Cook Drive to be further along the northern boundary and the alignment being further away from the properties that border the site from Sailmaker Close.
- 9.11 We do consider the CDP relevant as an other matter under s104(1)(c) given the involvement of the previous site owner, PCC and the surrounding community in its development. However, we find that there is no statutory requirement for the proposal to be consistent with the CDP and as such the proposal cannot fail if it is not consistent with it. Rather, we find it provides a useful guide as to what we understand involved parties to have generally felt comfort with.

Construction effects, including dust, noise, hours of work and use of SH58 access

Dust

- 9.12 The construction works and especially the bulk earthworks do have the potential to generate dust. A number of submitters expressed concern about dust from construction activities.
- 9.13 Proposed mitigation measures to manage dust include a maximum of 3ha of earthworks area exposed at any one time and stabilisation and re-grassing of completed earthworked areas.
- 9.14 The principal dust mitigation measure is to ensure bare areas of land that can generate dust are regularly wetted to ensure that dust nuisance is maintained within the site. PCC consent Condition 24 requires this.
- 9.15 Dust nuisance will be managed under the Environmental Management Plan for Construction (EMPC) which will set out contractor requirements and a complaints process.
- 9.16 We find that prevention of a dust nuisance off site can be achieved by implementation of good practice including wetting down of earthworks. We have included additional conditions providing more detail regarding dust mitigation and avoidance of adverse effects of dust off site.

Noise

- 9.17 A number of submitters expressed concern about noise from construction activities, particularly if this is to be over the extended ten year lapse period sought by the applicant. While noise effects cannot be avoided, they can be mitigated through the use of muffled machinery and limiting the hours of operation. Noise controls will be managed under the Environmental Management Plan for Construction (EMPC) which will set out contractor requirements and a complaints process.
- 9.18 The applicant has proposed hours to undertake construction works to be Monday to Friday between 7.30am to 6.00pm and Saturday between 8.00am and 4.00pm. In addition, heavy machinery may not operate before 8.00am.
- 9.19 Mr Jones in the s42A report considered the applicant's proposed operating hours to be reasonable and appropriate, being consistent with hours of operation for major subdivision developments elsewhere in the Suburban Zone, including at Duck Creek South and Aotea. He noted that any further restrictions on working hours could potentially delay the overall construction timeframe which potentially could also increase the overall duration of effects felt.
- 9.20 Mr Wyatt in his submission, and reinforced through his feedback on the draft recommended conditions, has requested the above operating hours for heavy vehicles should be reduced, for example to 9am to 4pm Mondays to Fridays excluding Public Holidays, to reduce noise effects on surrounding residents.
- 9.21 We find that the adverse noise construction effects associated with the proposal can be appropriately avoided, remedied or mitigated through the imposition of appropriate consent conditions.

- 9.22 We note the PCC consent conditions limit the hours of construction to Monday to Friday between the hours of 7.30am and 6.00pm and Saturday 8.00am to 4.00pm and that no construction works shall be permitted outside of these times.
- 9.23 There is also a PCC consent condition requiring mufflers to be used on all earthworking machinery to reduce the noise emanating from these machines and thus the effect on residents.
- 9.24 In response to submitter concerns and noting the large number of existing residences adjacent to the proposed subdivision we have included an additional consent condition requiring compliance with the New Zealand Construction Noise Standards and prohibition of tonal reverse alarms.
- 9.25 Mr Johnstone has raised concerns over road noise of vehicles travelling up and down Road 1. Our view concurs with the comments in the PCC s42A report as follows: "Whilst it is understandable submitters are concerned, given the proposal will change the environment from what is currently greenfield land to a residential development, we must remember the land is zoned Suburban and is privately owned. It is therefore expected that the land may be developed for residential purposes and further road noise from vehicles is considered part of a residential and suburban environment. I consider any road noise effects to be acceptable for the density of development proposed."
- 9.26 We find that the adverse noise construction effects associated with the proposal can be appropriately avoided, remedied or mitigated through the imposition of appropriate consent conditions.

Traffic Effects during construction-general

- 9.27 Mr Wyatt expressed concern about traffic congestion on SH58/James Cook Drive restricting undertaking haulage and delivery to the site. Mr Johnstone is concerned there will be adverse traffic safety effects from construction truck and trailers turning at the SH58/James Cook Drive intersection. The submission of Mr and Mrs Johnstone in response to our 3rd minute dated 20 April 2016 asking for feedback on amended draft recommended conditions referred to a 2012 resource consent application by Winstone Aggregates for a new clean fill site which needed access from SH58. They stated this is relevant because of the traffic safety issues that arose of entry to the site from SH 58.
- 9.28 In respect of the above, counsel for the applicant in closing, advises that NZTA is comfortable more generally with the traffic effects on SH58 – and there is the additional safeguard of the review condition agreed between the applicant and NZTA. He also advises that the issues arising from the Winstone Aggregates' application were known to NZTA and do not arise in the same way or to the same extent in respect to this proposal.
- 9.29 We are aware of the previous decision for the Winstone Aggregates clean fill site but find that situation is quite different from the proposal before us for the following reasons:
- The clean fill application was for traffic movement off and onto SH58 for a period of 35 years, rather than temporary use for construction over an eight week period which can be managed appropriately using 'works' speed restrictions under a traffic management plan;
 - The area where the clean fill entrance from SH58 was located was a 100 km/h speed zone at the time of the application, although the area will be

likely to be speed restricted during the construction access phase the surrounding highway is 80 km/h;

- The area where the clean fill entrance from SH58 was proposed was subject to a number of serious harm and fatal crashes in recent years, there is no such serious harm/fatality history for this section of SH58;
- Both the New Zealand Police road safety manager and the NZ Automobile Association submitted in opposition to the clean fill entrance from SH58 due to traffic safety concerns, based on the history of that section of the highway, no such opposition has been raised for the Brookside application.

9.30 Tim Kelly in his Transportation Impact Assessment¹⁶ proposed that once the detailed logistics of the construction activity was known, a Construction Traffic Management plan (CTMP) be prepared with both PCC and NZTA. This document will address such issues as:

- Duration and timing of construction activity
- Use of temporary access from SH 58
- The prevention of the migration of dust and mud onto the public road environment
- A protocol for communication, problem reporting and resolution between the contractor and PCC/NZTA officers.

9.31 A consent condition is included requiring a CTMP, the purpose of which is to outline the proposed procedures, requirements and standards necessary for safely managing the traffic effects of construction.

9.32 NZTA does not object to granting consent provided the conditions agreed by the applicant and NZTA on 17 March 2016 are imposed¹⁷. These conditions are included in the PCC consent traffic management conditions.

9.33 We find that construction traffic effects have been satisfactorily addressed as agreed to by PCC and NZTA experts by imposition of consent conditions.

Use of SH58 access

9.34 The applicants have requested that access to the site for stage 1 construction traffic, prior to the construction of the access from James Cook Drive and an associated bridge over Duck Creek, use the existing metalled sewer pump station track off SH 58.

9.35 Part of the works necessary will be local widening of the intersection area to allow trucks to undertake the left turn in without causing excessive back up with following vehicles in SH58 and create sufficient space in the access track area for two vehicles to pass within 30m of the intersection area. This will require some fill to be placed on the inside of the bend within PCC road reserve and relocation of approximately 10m of the existing Armco barrier. PCC Roading Manager Mr Marshall has inspected the site and has concluded that this work is practical and will provide the required solution to permit a truck and trailer to execute the turn satisfactorily. The fill can be placed on sloping ground that is separate to the flat salt marsh area close by and can be done without affecting the salt marsh vegetation.

¹⁶ Duck Creek North Transportation Assessment, Tim Kelly Transportation Planning Ltd, July 2015

¹⁷ Primary evidence of A. Penfold for NZTA, 29 March 2016

- 9.36 The Tim Kelly Transport Impact Assessment proposes compulsory left turn in and left turn out from the pump station access track onto SH58 for all vehicles. This is acceptable to NZTA¹⁸ together with a reduction of posted speed limit to be controlled using an approved traffic management plan (TMP) to 50 km/h.
- 9.37 The applicant and NZTA have agreed the contents of the TMP¹⁹, which include requirements to maintain safe cyclist access along SH58, signage, and reinstatement of the road to its original form prior to construction. These requirements are included in the PCC consent conditions.
- 9.38 The TMP will require certification by PCC prior to commencement of construction.
- 9.39 We find as this access is acceptable to PCC and NZTA engineers it is appropriate subject to the consent conditions.

Amenity effects

- 9.40 Submitters have raised a number of concerns regarding aspects of amenity associated within the proposed development. These include the visual amenity associated with the density of the development, lightspill, privacy, and landscape. Of particular concern in respect to amenity effects are the proposed infringements to the building coverage and yard permitted activity standards; coupled with the proposed infringements to the road layouts which result in a higher density of development / lot yield than would otherwise occur for a permitted development.
- 9.41 In respect of amenity, Ms Amos raises concerns regarding building too close to boundary fences, high density development and looking down on rooflines and that noise will be amplified in a valley.
- 9.42 Mr Wyatt is also concerned about noise pollution and also raises concerns in respect to:
- the impact on the wellbeing of families in the vicinity
 - that this is a high density development and unsuitable to be built in a medium density suburb
 - the reduction sought to coverage, yards and road widths is to maximise the applicant's profits at the expense of the local community
 - adjacent communities will be left looking down onto a sea of roofs and street lights
- He also sought that the applicant provides elevated drawings from adjacent properties detailing what they would be looking down to, that should be consulted on with impacted homeowners prior to any consents being granted. Mr Wyatt reinforces these concerns in his comments on the planners' amended recommended conditions of consent.
- 9.43 Mr and Mrs Roberts raise concerns regarding the density of development and the standards to be applied for streets. Our interpretation of the Roberts' position is that the development should comply with all permitted activity standards, because to do so would otherwise be contrary to / a significant departure from the District Plan, and any change to the standards should be done by way of a plan review rather than through a resource consent application. Mr and Mrs

¹⁸ Primary evidence of C. Greenough, 29 March 2016 para 24.

¹⁹ Primary evidence of C. Greenough, 29 March 2016 Appendix One

Roberts state their position that “it [the District Plan standards] is not a target that can be varied through the exercise of discretion simply to suit individual applicants”. They believe there is no compelling reason that the standards should be reduced. At the hearing, Mr Roberts acknowledged that this subdivision will not particularly affect his property except for traffic generation and comparatively minor noise and dust. The Roberts also raised concerns in respect to the use of non-reflective roofing material to combat sunlight strike and light pollution.

9.44 In terms of amenity, Mr and Mrs Glennie raise concern around the visual impact of Bridge 1. Mr Saunders raises concern regarding the increase in housing stock above the CDP, and additional light pollution. He seeks that the development has landscaping with rapidly growing substantial trees and bush to establish the area and reduce noise and lighting.

9.45 Mr and Mrs Johnstone raise concerns regarding:

- the size and density of the sections (including associated infringements to coverage, yards, road widths); that this is more intensive than other developments within Whitby; that the size of sites should be comparable with Duck Creek South; that the District Plan should not be varied to accommodate the proposal
- the visual effect of the development on their property
- the loss of views over the site and loss of privacy; in particular, from the street directly in front of their view
- noise effects from a street in proximity to their site.

9.46 Mr and Mrs Johnstone took the opportunity to comment on the planners' recommended conditions of consent. They raise particular concern regarding:

- the proposed deletion of the condition requiring all dwellings to be singled storied, on the basis that the application as notified was for single story dwellings and that there would be significant adverse effects from multi-storied dwellings.
- that there is an implied threat that if 45% coverage is not given, then multi-storied homes at 35% will be built, amplifying the adverse visual effects
- that a density contrast between 35 and 45% would degrade the amenity value of the whole suburb
- that Lot 6 should be declined being built on a steep cliff face.

9.47 Mr and Mrs Wawatai of Observatory Close are concerned about the effects of proposed filling on their property. If filling takes place they would like the filled area to be grassed and a new boundary fence be constructed to replace the existing fence, to keep their grandchildren safe from the road. They also suggest a gate in the fence to allow access to the footpath and walkways and beside the road an avenue of trees. They note that in order to place fill the existing trees will need to be removed and replaced. We address the matter of fill on their property elsewhere in this decision.

9.48 Mr and Mrs Hooper support the matters raised in Mr Johnstone's submission. They also raise concerns regarding proposed Lot 80, considering it would be odd shaped and squeezed. They seek that it not be developed because of the effects it may have on their property. Wee Win Lau raises concern that it is a very high density development and that noise pollution from vehicles would be an ongoing concern. Mr Macfarlane is concerned he will lose his outlook into the reserve.

- 9.49 We address the matters raised by the submitters and the advice given to us by the applicant and the PCC officers in turn.
- 9.50 However, in doing so, it is important that we consider the statutory framework, given that some of the submitters seek that the development strictly comply with the permitted activity standards. We are guided by Rule D3.1.4(i) of the Porirua District Plan which provides for activities that are not a permitted, controlled, restricted discretionary or prohibited activity and not specified as a non-complying activity to be a discretionary activity. That is, an applicant is allowed under both the District Plan and the RMA to apply for a resource consent for an activity that is not a permitted activity, as long as it is not a prohibited activity. We are obliged to consider the merits of an application for a discretionary activity in accordance with s104B of the RMA. That section of the RMA does not state that non-compliance with permitted activity standards means that an application has to be refused consent or that any application must comply with permitted activity standards. Under s104(1) of the RMA we are required to have regard to the effects of the proposal, the relevant provisions of any planning document and any other matter we consider relevant. It is also important that we bear in mind the zoning of the site, as Suburban, and that residential dwellings are a permitted activity in this zone, and therefore an expected outcome. We address the permitted baseline earlier in this decision.
- 9.51 We also consider it relevant to be guided by the objectives and policies of the District Plan when considering amenity effects. Both Mr Jones in his s42A and Mr Holmes in the AEE with the application set out what they consider to be the relevant objectives and policies of the District Plan. We consider the relevant objectives and policies in respect to amenity and the density / intensity of development to be:
- C3.2 Objective - to encourage an environment which continues to sustain Porirua City's Suburban Zone as an attractive, healthy and safe place in which to live.
 - C3.2.1 Policy - To protect and enhance the amenity and character of the residential resource by defining standards for the bulk and location of buildings, the provision of open space, and the nature and scale of activities
 - C3.2.3 Policy - To provide and maintain reserves and open spaces for the purposes of improving the amenity values of the Suburban Zone
 - C6.1 Objective - to promote a pattern of land ownership which enhances the opportunities for the sustainable management of resources.
 - C6.1.7 Policy - To ensure that opportunity is provided in the suburban zone for a wide range of residential allotment sizes without compromising the future development potential of the land.

The density of development, including building heights, coverage and yards

- 9.52 There was dispute between the submitters and the applicant and PCC on the density of development; that is, is it low, medium or high. In the submitters' opinion, it is either medium or high density. Mr Johnstone in particular seeks a site area akin to Duck Creek South at around 770m².
- 9.53 Mr Jones did not address the site area within his s42A report. However, in questioning Mr Jones advised us that the proposal is not high density. In his opinion, high density is apartments with a greater concentration of living. He advised that this application is for single lots with the layouts not relying on comprehensive design. In high density he advised that you may have to have

shared parking. He considers that the proposal is at most medium density or an increase on what is permitted. He advised that he has carefully assessed design of subdivision: onstreet parking, roading and that the sites are still capable of providing onsite parking and amenity. In his opinion, certain parts of the development are on the fringes of "medium density" but the whole development is not "medium density". We take it from this that he considers the whole development to be at the low density end of the spectrum.

- 9.54 Mr Holmes' advice to us in paragraphs 60 and 61 of his statement of evidence is that the Porirua District Plan does not control density of dwellings, rather it includes amenity considerations. That is, there is no minimum lot size and / or a maximum number of house equivalent units per hectare of land. Counsel for the applicant advised us in closing that the proposal is not high density, nor is it medium density. In his opinion, it is now, around "normal" at or less than that provided for in a number of plans around the country. In the AEE, Mr Holmes advised that in terms of overall density the development would not be out of character with the surrounding area, resulting in a yield of approximately 11 dwellings per hectare. He considers this would generally be consistent with low density, which he describes as around 10 dwellings per hectare.
- 9.55 We have considered the objectives and policies and rules of the Porirua District Plan. We accept Mr Holmes' advice that the District Plan does not control lot size or number of dwellings per hectare; rather its focus is on amenity and character. We do not consider that the size of the lots is material given the position taken in the District Plan of there being no minimum lot size; rather we consider our focus needs to be what the amenity and character effects are of single dwellings on single lots, some of which will not comply with the underlying permitted activity standards. We note that the applicant does not seek a blanket 45% site coverage across the whole site.
- 9.56 There was dispute between all parties as to what site coverage should be consented and how high dwellings should be consented to be (single or more).
- Those who submitted on this matter generally seek that site coverage be limited to 35%.
 - The applicant seeks that site coverage be allowed up to 45% on certain identified sites through the development
 - The PCC s42A included a recommended condition that all dwellings on the site be single-storied; this was subsequently recommended to be deleted.
 - PCC officers consider that 45% is acceptable on some internal lots as effects would be internalised but that certain boundary lots should be limited to 40% and single storied, or 35% with no limitation to single storied only.
- 9.57 Following the release of the planners' amended recommended conditions, Mr Johnstone and Mr Wyatt raised concern regarding the deletion of the PCC original proposed condition that all dwellings on the site be single-storied. Mr Johnstone considered in particular that this changed the scope of the application. Mr Johnstone was concerned about the impact of multi-storey development.
- 9.58 Counsel for the applicant's advice to us in this regard was that the application has always proceeded on the basis that it will be "predominantly" single storied. He advised that is quite different to being "entirely" single storied, which is what the submitter appears to seek. We have reviewed the AEE submitted with the application, which refers to dwellings "generally" being single-storied. We do not consider this is a commitment to all dwellings being single-storied so we concur

with the applicant in this regard and we do not consider that the deletion of the condition results in a change of scope of the application.

- 9.59 We questioned Mr Gray on the recommended condition limiting all dwellings on the site to be single-storied. Mr Gray advised us that he had reconsidered this, and that he thought in some ways having every house at same level makes it very uniform. He advised that having a few houses at other levels can break that up [the uniformity] and is the kind of amenity already anticipated under District Plan. Mr Holmes advised us that while it is the intent of the applicant for most dwellings to be single-storied, that in some cases there may be good reason for split level dwellings. He also advised that the District Plan does not have policy direction to control landscape values and that the applicant has not sought to operate outside of the height and height recession plane standards. In his opinion, he does not support a blanket restriction as it does not take into account the topography of the site or the option to retain a diversity in built form. The planners' amended recommended conditions of consent delete this condition, indicating that Mr Jones and Mr Holmes are in agreement in this regard.
- 9.60 In considering the matter of height of the dwellings, we noted from our site visit that the majority of dwellings on surrounding sites that we could observe were two-storied (or more on sloping sites). We also considered Mr Gray's detailed description of the nature of existing dwellings on neighbouring sites in his report contained in the s42A report, which reinforced our observations. As such, two-storied dwellings are part of the character of the area and two storey dwellings on the site would therefore continue this character. The applicant has not sought consent to infringe the height standard of the Plan, which we understand to be eight metres, meaning that any dwelling would not be more than two-stories, meaning Mr Johnstone's concern of multi-storied dwellings would not be realised (if we take multi-storey to be more than two). We do not consider that a blanket restriction across the site of single-storied dwellings is warranted, particularly when the Plan specifically permits dwellings up to eight metres in height, and we accept the planners' and Mr Gray's advice that allowing a mixture of single and two-storied dwellings would result in a diversity of built form. As we note above, we consider this would also be characteristic of the surrounding neighbourhood.
- 9.61 However, we consider that the height of dwellings is relevant in regard to the matter of site coverage. Firstly, in respect to the applicant's request to provide for 81 lots to be built over the 35% permitted activity standard. Mr Gray's advice to us is that a large percentage of these lots are internal to the subdivision and the visual effects would be mainly internalised. He advised that other lots where coverage was proposed up to 45% were located adjacent to existing reserves where there is existing open space and this open space provides a buffer to the nearest residential houses. His primary concern was in respect to seven²⁰ of the 81 lots located directly adjacent to existing houses, which in his opinion would have higher visual effects. He advises that two storied 35% site coverage dwellings would comply with the District Plan requirements for bulk and scale. Having complying new dwellings adjacent to existing dwellings would mean that some of the existing dwellings will lose their view; however, there would remain green space around the new dwellings due to the site coverage which would allow for planting.

²⁰ Lots 27 – 29; Lot 132, Lot 137 and Lots 141 and 142.

- 9.62 Mr Gray's advice is that the single story higher site coverage would usually allow better longer views for existing dwellings; however, having a site coverage of 45% and then allowing for roof overhang and other typical features of residential lots such as driveway, decks and outdoor areas, would leave little room for planting. This would mean that there would not be the typical softening of appearance and the enhancement of privacy, resulting in an accumulative visual effect. As such, the PCC S42A recommended a condition that would limit certain lots on the periphery of the development which the applicant had sought 45% site coverage on to be 40% site coverage and single-storied.
- 9.63 The applicant disagrees with this recommended condition and it remains a point of dispute between Mr Jones and Mr Gray for PCC and Mr Holmes.
- 9.64 Mr Holmes' position is that he considers the effect of dwellings at 45% on adjacent dwellings not to be as dramatic as Mr Gray outlines, considering them to be well separated from the existing dwellings on adjacent land. He suggested a condition that dwellings on these lots be single-storied at 45% or 35% and no limitation on being single-storied.
- 9.65 Neither Mr Jones or Mr Gray appears to have any concerns with the remaining 74 lots within the development being permitted to be built up to 45%. Mr Gray's assessment against the policy framework²¹ is that *"the effects of proposed buildings and the proposed Front Yard setback reductions, Site Coverage exceedances and outdoor living area non-compliance, subject to the imposition of the recommended conditions, will be internalised within the subdivision and will not have or be likely to have adverse effects on the environment that are considered to be unacceptable"*. Mr Gray elaborated on his position at the hearing, advising us that site coverage for the internal houses is less important than the edge houses and also discussed the high amount of open space in the development as being a mitigating factor for allowing coverage up to 45%. Mr Gray advised us that 25% of the site will comprise open space / reserve areas and that this level of green space is significantly higher than the areas of reserves normally required or offered and makes the development unique. He also advises that the site is relatively unique in that it is already surrounding on most sides by existing reserves which means overall there is an extremely high level of open space around the site that helps to mitigate the more intensive level of development. In respect to the visual impact of the dwellings, Mr Gray advises that the view of new houses will be foreshortened due to the elevation and the view will mainly be of a mosaic of roofs, as well as views along the roads and stream corridors which will break up the housing areas.
- 9.66 In 6.25, Mr Jones advises he concurs with Mr Gray, but does not go further and set out why. In 6.26 of his S42A report, Mr Jones also advises that he considers that the extensive street tree plantings and riparian planting when mature will enhance the amenity of the roads and reserves and soften the appearance of buildings.
- 9.67 We queried Mr Rhodes in respect to whether the increased site coverage of 45% had been factored into in respect to stormwater. His advice was that it had been factored into the stormwater design.

²¹ Page 78 of the PCC S42A report.

- 9.68 We received no other expert advice in respect to the matter of site coverage.
- 9.69 In respect to the matter of these edge lots, we prefer and accept the evidence of Mr Gray, and as such we have imposed the condition restricting the seven identified lots to 40% coverage and single-storied, or 35% with no limitation to single-story.
- 9.70 In respect to the matter of the remaining 74 lots on which coverage up to 45% is sought, we find in favour of the evidence presented to us by Mr Gray, Mr Jones and Mr Holmes that any effects will be largely internalised, so that they will be minor overall. This finding is largely on the basis of the unique characteristics of the site as articulated by Mr Gray. We understand the submitters concerns regarding allowing site coverage to exceed the 35% permitted activity standard; however, in this situation given the comprehensive approach taken to this development, the nature and extent of the existing and proposed open space network and the proposed street planting, we consider that the effects will be minor.
- 9.71 Mr Gray's advice in respect of the proposed infringements to the front yard rules for dwellings (but not garages) is that the visual effects would mostly be limited to the fronts of the proposed lots and therefore any adverse visual effects would largely be internal to the site. At the hearing, he advised that good urban design is to allow living areas to come forward of the garage. He advised that other recent developments within the Whitby area have proceeded on the basis of allowing dwellings to be closer than five metres. Mr Jones' advice was that any adverse effects arising from a reduced front yard would be internal to the site. Mr Holmes was of the same view as Mr Gray and Mr Jones and further advised in the AEE that incoming residents will anticipate the intended amenity. We received no other expert advice in respect to the front yards.
- 9.72 We find that any effects arising on amenity and character from the front yard reduction for front lots will be internal to the site and will not compromise the amenity or character of surrounding properties.
- 9.73 Overall, we find that, subject to compliance with the conditions of consent, the density of development, including the building heights, coverage and yards will be consistent with the objectives and policies of the Plan, and in particular, that the amenity and character of the residential resource will be protected, and enhanced within the site.

Loss of privacy

- 9.74 Mr Jones addresses Mr and Mrs Johnstone's concerns regarding loss of privacy in 6.31 and 6.32 of his s42A report. In his view there is not a potential for privacy intrusion given the elevation of the Johnstone's property above the site, that the footpath would be on the other side of the road and that any vehicle use on Road 1 would only have fleeting views into adjacent properties.
- 9.75 Mr Gray addressed the impact on the Johnstone's property at the hearing. His advice to us was that out of all the sites they are probably one of the more sensitive ones due to elevation. He advised that there is a bit of a buffer from the house to the boundary and across the road. There is some softening within the streetscape and narrowing the street probably reduces the impact. Also looking down stream corridor. In his opinion, the biggest visual change for anyone adjoining is going from greenfield to developed site.

9.76 Having visited the site, considered the photos provided by Mr Johnstone and reviewed the plans provided, we prefer Mr Jones' and Mr Gray's advice in respect to privacy effects. We consider that there would likely be less privacy effects being located adjacent to a road rather than adjacent to a residential property. However, even if that was the case, we bear in mind that the site is zoned Suburban where residential activity is a permitted activity. We also bear in mind that the CDP anticipated the development of this part of the site in the form proposed, and at the elevation proposed. We also note that the development of any adjacent site will always result in some loss of privacy, and is an expected effect within a residential area.

Loss of outlook

9.77 We received advice from Mr Gray for PCC that "*The housing planned for the subdivision is predominantly single story which has a lower profile and therefore has less visual impact. The areas that look onto the site are relatively contained due to the topography and those that do usually have a buffer area of vegetation in the foreground. All sites that look onto the area are elevated above the site so will retain longer views across the valley.*" We address the single story issue above. We received no expert evidence otherwise regarding the loss of outlook and views.

9.78 We concur that there will be a loss of outlook. The outlook and views currently enjoyed across a now vacant site will be changed through the proposed development. However, as we have set out earlier, this site is zoned Suburban. It is also in private ownership and as such, it cannot be anticipated that it would stay vacant for ever. We therefore find that the loss of outlook and views, coupled with our finding in respect to density above, will be acceptable in this context.

Noise generated from the development

9.79 Mr Jones addresses Mr and Mrs Johnstone's concern regarding road noise in 6.84 of his s42A. We concur and accept Mr Jones' advice that road noise is considered part of a residential and suburban environment. We consider this same conclusion would apply to noise generated from residential activity occurring on residential lots.

Light and reflectivity effects

9.80 Mr Jones' addresses light spill effects in 6.86 to 6.89 of his s42A report, where he sets out the advice from Mr Rhodes. Mr Rhodes' evidence sets out how the Council manages street lighting. In his opinion, the incidence of light spill will be negligible. Mr Jones' position is that "*It is considered the site is being developed for residential purposes and any increase in night lighting is considered permitted by the District Plan in the Suburban Zone. It is also considered there are sufficient separation distances between roads containing street lights and any surrounding neighbouring dwellings beyond the application site.*" He considers that any adverse light spill effects would be less than minor.

9.81 We did not receive any evidence to the contrary from any other party. We concur that the proposal will result in night time light being introduced where there has been no lighting to date. This will generate a change in effect. However, we return to that the site is zoned Suburban and as pointed out by Mr Jones, night lighting is considered permitted by the District Plan in this zone. We consider that night lighting is an effect that is anticipated to occur on this site, and as long as it

is in accordance with the advice provided by Mr Rhodes, we find there will be less than minor adverse effects.

- 9.82 Mr Jones and Mr Gray also addressed submitter concerns regarding potential light reflectivity from the roofs of dwellings through a recommended condition of consent. We note Mr Holmes was happy with that recommended condition in his statement of evidence. This recommended condition was subsequently amended by Mr Jones to provide further clarity. We received no comment from any submitter or the applicant on this amendment to the recommended condition. We accept and adopt the evidence from Mr Jones and Mr Gray in this regard and adopt the recommended condition of consent.

Outdoor living court

- 9.83 The Porirua District Plan contains specific matters to be consider in respect to any non-compliance with the outlook living court control, which Mr Holmes sets out in page 32 of the AEE. Mr Jones addresses this in 6.6 and 6.7 of his s42A where he advises that the proposed approach to the outdoor living court for Lot 6 is considered achievable with specific house design and commonly occurs under resource consent. Later in the assessment against the objectives and policies, Mr Jones advises that any effects will be internalised.

- 9.84 We do not consider that an infringement of this rule for this Lot is reason to refuse consent to the lot. The Plan specifically provides for a non-compliance with this provision as a restricted discretionary activity. We consider the matters of discretion in the Plan, set out by Mr Holmes, we consider that the outdoor living area provided through decks and retained areas will be useable and accessible, will have access to daylight and sunlight and that there is good access to parks and reserves. Further, it will have an outlook to the Salt Marsh and the Inlet which will provide amenity. We concur with Mr Holmes' and Mr Jones' advice in this regard.

Visual impact of Bridge 1

- 9.85 Mr Jones' addresses the visual impact of Bridge 1 in his s42A report, stating that he had discussed this with Mr Gray, who is of the opinion that while the bridge will have a visual impact, its visual effects are considered acceptable on the surrounding environment.

- 9.86 We did not receive any expert evidence to the contrary. We therefore accept Mr Gray's advice.

Landscape planting

- 9.87 There were no submissions strictly on the landscaping proposed as part of the development; rather concern turned more on the location and landscaping treatment, particularly where it was within the riparian margins and adjacent to Department of Conservation reserve and PCC significant ecological sites. We address landscaping for ecological and riparian purposes elsewhere in this decision.

- 9.88 We concur that the earthworks and landscaping adjacent to the Department of Conservation salt marsh and the PCC significant ecological sites needs to be carefully managed. We have considered the conditions recommended by the PCC and agreed by the applicant and consider that these will ensure that any potential landscaping effects will be appropriately managed.

9.89 As we have outlined earlier, we have found that the landscaping proposed is integral to managing the potential effects of the subdivision and new dwellings on the site, as the landscaping will assist to mitigate its visual impact. As such, it is important that the landscaping is progressed and implemented as described through the application and as recommended through conditions of consent. We adopt these conditions.

Effects arising from the pump station

9.90 The existing wastewater pump station within the development has the potential to cause nuisance effects, particularly odour and noise, for new allotment owners in close vicinity to it.

9.91 Wellington Water have advised that future lot owners within 100 m of the pump station could potentially be affected by its current workings.²² Ms Amos noted in her submission that the pump station smells on hot days.

9.92 Wellington Water have advised PCC that it is proposing to carry out upgrades to improve odour control and reduce noise, which is planned for the 2016/2017 financial year²³. On questioning of the PCC Council officers, we were not convinced that the upgrade would necessarily occur at this time. We therefore find it necessary to consider the potential effects should the upgrade not occur within this timeframe.

9.93 The PCC reporting officer considers that the proposed upgrade works are required to be completed before titles are issued to houses in Stage 1 potentially affected by noise and odour effects from the existing pump station.²⁴

9.94 The applicant has offered a consent condition that if the scheduled noise and odour improvement works have not been completed prior to completion of Stage 1 of the subdivision, then a section 224 certificate will not be issued for lots 7,9 and 10.

9.95 We note that there are a number of lots additional to lots 7, 9 and 10 that are within 100 m of the pump station, which according to the advice from Wellington Water could be adversely affected by its current workings.

9.96 We accordingly consider that the offered condition withholding s224 certificates until the scheduled odour improvement works have been completed should apply to all lots within 100 metres of the pump station. We have adjusted the condition to achieve this. Should the upgrade works proceed in advance of the request for s224C certification, then this condition will not be a hindrance to the consent holder.

9.97 We accordingly find that with this revised condition in place, and based on expert evidence received, the adverse odour and noise effects from the pump station will be avoided or adequately mitigated.

²² PCC s42A Report para 6.200

²³ PCC s42A Report Appendix 1 email from Phil Rhodes 8 March 2016, page 5

²⁴ PCC s42A Report para 6.198

Traffic and parking effects

9.98 A transport impact assessment was prepared by Mr Tim Kelly. The conclusions of this are:

- The internal roading proposed, although not compliant with some aspects of the relevant PCC standards, will nonetheless be compliant with the functional requirements, ensuring safety, convenience and efficiency of use
- The proposal provides for a high degree of permeability by pedestrian and cycle movements, with a shared path running through the development, footpaths and connections to adjoining areas
- A new intersection to be formed with James Cook Drive will operate safely and without any significant delays for vehicle movements
- Additional traffic movements associated with the development may result in deterioration in conditions experienced at the SH58 intersection, but this will not affect the efficiency of through movements and the existing right-turn bay will remain adequate in length
- With full development unlikely to occur prior to the opening of the Transmission Gully project, the effects above are unlikely to materialise as the effects of Transmission Gully will be to significantly reduce traffic volumes on both SH58 and James Cook Drive

9.99 Submitter concerns include impacts on local traffic, permanent increase in traffic, traffic pollution, the widths of the roads provided in the development and congestion.

9.100 Mr Kelly, in his evidence ²⁵ responded to submitter concerns as follows:

- He and PCC are satisfied the additional vehicle movements can be accommodated on the local road network
- Narrower street widths are an acceptable design solution and PCC is in agreement with this
- On street parking is provided in accordance with PCC requirements
- Assessment shows that the James Cook Drive intersection will adequately accommodate additional traffic, consent conditions have been agreed to provide for monitoring of conditions and action if necessary and a right turn bay is to be provided
- The six lots close to the James Cook Drive intersection are sufficiently distant from the intersection to avoid any interference with its operation
- Bridge 3 will have a footpath.

9.101 The PCC s42A report included a comprehensive assessment of road geometry and other traffic issues by the PCC manager of land use and subdivision engineering (MLSE). In summary this assessment found:

- Road dimensions including the use of narrower streets is an acceptable design solution and such roads will be functional and safe
- Proposed parking will provide a satisfactory level of service
- There needs to be a right turn bay for traffic turning right into the subdivision from James Cook Drive on safety grounds
- The road and bridge designs meet the relevant flood risk protection criteria

9.102 We questioned Mr Rhodes and Mr Marshall for PCC at the hearing on the potential traffic and parking effects, both of whom reinforced the assessment

²⁵ Statement of Evidence of Tim Kelly, 18 March 2016, paras 30-33

contained in the s42A report. Mr Rhodes expanded that PCC takes the approach that roads should be fit for purpose, and not wider than is necessary. He advised that narrower roads resulted in traffic calming and slower vehicle speeds and that this same approach to road width has been used in other recent subdivisions with the City (Aotea and Duck Creek South).

- 9.103 Extensive discussion with NZTA has resulted in their concerns being met with proposed consent conditions.
- 9.104 We were not provided with any expert evidence demonstrating any problems with traffic and parking associated with the proposal. We have reviewed the applicant's drawings of the road layout and note that there is adequate provision for on-street parking bays.
- 9.105 We find that traffic and parking has been adequately addressed for the proposed subdivision, with relevant conditions imposed.

Health and Safety Effects

- 9.106 Mr Johnstone, a submitter living at Observatory Close, has raised concerns that the development presents a security risk to them, as the proposed road at their boundary provides a greater means of escape for potential intruders.
- 9.107 Mr Jones, in his s42A report disagreed with Mr Johnstone on this matter and considered the development will provide increased security by providing a community presence to the sections that adjoin the subject site.
- 9.108 Submitters Mr and Mrs Noble of Observatory Close are concerned about people accessing private property and are particularly concerned a sewer pipe that crosses Duck Creek (in Zone D of the Landscape Concept Drawing) will be used for pedestrian access. Mr Rhodes for PCC has commented²⁶ that where the sewer pipes cross the stream they may become part of an informal walkway and it will be necessary to erect a pedestrian barrier on the pipe to prevent this being used by the general public. A consent condition is included requiring the applicant to install barriers preventing pedestrian access over any PCC sewer main crossing Duck Creek.
- 9.109 Mr and Mrs Noble are also concerned that leaving vertical banks of Duck Creek along the proposed informal walkway forms a safety hazard for the young children being attracted to the park. They ask that proposed bank stabilisation works include making the stream banks safe.
- 9.110 The PCC s42A report stated²⁷ "the Duck Creek Stream banks will be subject to erosion protection works which will remove steep banks at those locations. It is also considered necessary that any areas of the creek that are directly adjacent to walkways or public open space areas should be designed to be safe to the public. A condition will be imposed for this to occur."
- 9.111 Because the area in question is part of the identified Inanga spawning habitat (i.e. riparian margin downstream of Bridge 2) any regrading of the bank for erosion and/or health and safety purposes will also need to account for spring tide

²⁶ S42A Report, para 6.34

²⁷ S42A report para 6.140

inundation and be undertaken in keeping with the ecological purpose of the area. Along with appropriate riparian planting to facilitate īnanga spawning (e.g. low growing grasses and sedges), any regrading of the bank profile will need to be planned in conjunction with advice from a suitably qualified ecological expert. Any changes to the bank profile will need to take public safety into account where the banks are easily accessible.

- 9.112 This is addressed in the requirements of the Ecological Remediation and Compensation Plan (EcoRCP) required through the GWRC consent conditions.

Management of earthworks and its effects

- 9.113 Apart from issues of dust, noise and traffic which are addressed elsewhere, submitter concerns included archaeological effects, effects on macrocarpa trees on properties at Observatory Close, and effects of sediment discharges during construction. We address archaeological effects elsewhere in this decision.

Boundary earthworks effects at Observatory Close

- 9.114 In his submission, Mr Johnstone raised concerns over the safety of macrocarpa trees near the boundary between Observatory Close properties and the proposed development. He is concerned that earthworks cut near the trees will take out roots and make the tree unstable. This applies to two trees on his property that are only 1 metre from the boundary. He is also concerned that filling against the trees would kill the trees.
- 9.115 Mr and Mrs Waiwatai were concerned about filling on their land, loss of trees and the need for a new fence.
- 9.116 Mr Jones, in his s42A report addressed this matter as follows. "If during the hearing it is confirmed that filling is not to proceed over the site boundary and on the adjoining properties of 15, 21, 23, 25 & 29 Observatory Close, then I recommend a condition be imposed for the applicant to submit plans for a revised earthworks design prior to earthworks commencing displaying how earthworks will be stabilised and overland flow managed at the site boundary adjoining these properties."
- 9.117 Mr O'Callaghan for the applicant, advised that it is their intention to modify the draft design to contain all earthworks within the applicant's site in the event that a neighbour did not agree to the fill material being placed on their property. He agrees with the suggestion in the s42A report that in the event of fill not proceeding over the site boundary then the modified detailed design should be re-submitted to PCC for approval prior to earthworks being carried out in the area.
- 9.118 We note that the trees in question are not afforded protection under the PCC District Plan. We consider, however, that their stability is a potential health and safety issue and needs to be addressed through a consent condition. We also note that final earthworks design needs to provide for an overland flow path at the downstream edge of the private lots.
- 9.119 We accordingly have included a condition requiring the applicant to submit plans for a revised earthworks design prior to earthworks commencing displaying how earthworks will be stabilised, including with respect to the stability of adjoining trees and provision for managing overland flow. We note the provision for

managing overland flow derives from the requirement from PCC officers incorporated in their suggested condition.

Sediment discharge during construction

- 9.120 The discharge of sediment laden water to Duck Creek and Pauatahanui Inlet is of concern for a number of submitters. Ms Yvonne Fletcher sought clarification of silt and sediment discharge effects and the effects of chemical flocculants in treated stormwater runoff in her written submission. Forest and Bird are opposed to the application and recommend it be declined due to adverse effects from the construction of the subdivision and the discharge of sediment laden water to the surrounding receiving environment. Forest and Bird are seeking a more enhanced Adaptive Management approach than proposed to prevent adverse ecological effects from sediment deposition.
- 9.121 The submission from the Department of Conservation has also raised concern that the piping of sediment laden water over Duck Creek during the Stage 2 construction works could have significant adverse effects if this water was accidentally discharged to the creek.
- 9.122 In its submission, NZTA expressed concern that earthworks associated with the development may cause the build-up of silt within the SH58 culvert reducing its capacity and leading to road closures due to flooding.
- 9.123 Mr and Mrs Glennie and the Guardians of Pauatahanui Inlet expressed concern about discharges of sediment to the stream and into Pauatahanui Inlet.
- 9.124 The applicant proposes a number of erosion and sediment control measures to be implemented during construction. The details for erosion and sediment controls are included in the Earthworks Construction Management Plan which is within the Environmental Management Plan for Construction (EMPC) - Appendix 7 of the application. The EMPC also contains the Bridge Construction Plan (BCP), the Flocculation Management Plan (FMP) and the Stream Diversion and Stream Works Plan (SDSWP).
- 9.125 Mr Rhodes for PCC has reviewed the proposed erosion and control methods and notes²⁸ that many of the methods and materials proposed for this site are and have been used successfully in The Banks subdivision which is generally achieving high levels of treatment efficiency during the earthworks period.
- 9.126 Mr McLean, an experienced environmental consultant was commissioned by GWRC to assess all the earthworks and sedimentation aspects of the application including the EMPC, Earthworks plans and Erosion and Sediment Control Plans.
- 9.127 We consider it relevant to set out Mr McLean's conclusion as detailed in his evidence²⁹:
- "The proposed erosion and sediment controls are considered appropriate to minimise any potential sediment related effects. The oversized sediment retention ponds will include flocculation and baffles to increase sediment treatment. This is industry best practice and is considered appropriate in this regard. Provided the works and mitigation measures are implemented and

²⁸ PCCs42A report, para 6.54

²⁹ Primary brief of evidence for Gregor McLean, 5 April 2016, paras 32 and 33

maintained in accordance with the respective plans and proposed conditions of consent, I am confident they will ensure that any adverse sediment related construction effects are temporary and no more than minor.”

- 9.128 We also note the limited duration as bulk earthworks for each stage is expected to occur over one summer period.³⁰
- 9.129 NZTA, the Councils and the applicant have also agreed to a consent condition to address NZTA’s concern regarding siltation of the SH58 culvert requiring monitoring of silt accumulation within the culvert and removal of it by the consent holder if accumulation occurs as a result of earthworks associated with the development.
- 9.130 We note that there are a number of conditions of consent for erosion and sediment control including procedures for controlling and monitoring to avoid adverse effects downstream from flocculants. We also note that there is a consent condition requiring an Environmental Monitoring and Adaptive Management Plan (EMAMP), which among other things will identify the need to modify erosion and sediment control methods and the maximum open area of earthworks in the event of adverse effects from sedimentation.
- 9.131 Mr O’Callaghan notes in his evidence³¹ that there is some concern within the industry about poor performance of stormwater treatment ponds and/or high maintenance requirements triggered by high sediment discharge during house construction on some sites. In his experience he has managed this by keeping the operation of treatment devices in the hands of the developer for sufficient periods to ensure the developer takes some responsibility to avoid the discharge of sediment to the ponds and raingardens. This has in some cases been for a period of up to approximately 3 years.
- 9.132 We have included a consent condition requiring the applicant to manage and monitor sediment discharges and accumulation within stormwater treatment devices and if necessary remove sediment and reinstate devices, for a period of 3 years from the time that they are fully operational or until at least 80% of all houses have been constructed whichever is the greater.
- 9.133 We find that provided the works and mitigation measures are implemented and maintained in accordance with the respective plans and proposed conditions of consent, including implementation of the EMAMP, any adverse sediment related construction effects can be expected to be temporary and no more than minor. That being said we note that the experts, both in written evidence and through questioning at the hearing acknowledged there is potential for sedimentation effects to occur following large storm events, particularly if storms coincide with strong northerly winds.

Liquefaction effects

- 9.134 In his submission, Mr Wyatt raises concerns that the application inadequately addresses effects relating to cancellation of consent notice 9232374.7 and in particular in relation to ‘*soil limitations and liquefactions*’. Mr Wyatt stated consent should not be granted until specific detail on these matters are provided

³⁰ Statement of Evidence of Bryce Holmes on behalf of the applicant, 18 March 2016, para 51

³¹ Statement of Evidence of R. O’Callaghan, on behalf of the applicant, 8 March 2016, para 46

by the applicant and requested confirmation be provided on any potential effects future lot owners may have in obtaining house insurance.

9.135 In this regard, the PCC s42A report includes Mr Rhodes' comments³² that: "The conclusions and soil treatments outlined in the ABuild report offer solutions to the presence of liquefiable soils that are considered to be relatively standard techniques for remediating soils for building foundation within the design parameters of the Building Code. Council will be reliant on the geotechnical engineer's assessment of the liquefaction potential for each property once the earthworks have been completed and ground testing carried to determine the suitability of each site for building in the Foundation Completion Report required by PCC at the time of 224c certification. In the event that any site is considered to have some potential for liquefaction damage a consent notice should be used to advise the property owner that specific foundation design is required by a suitable qualified engineer to meet acceptable Building Code standards."

9.136 The s42A report³³ includes recommended conditions for appointment of a Chartered Professional Engineer (CPEng.) with competence in geotechnical engineering to monitor and certify the subdivision ground remediation works and bridge construction. The s42A report also considered in para 6.73 that for land identified as potentially liquefiable, a geotechnical completion report shall identify likely requirements for construction of buildings to meet the design requirements as prescribed by the MBIE guidelines, with respect to liquefaction and lateral spread, as well as the other geotechnical requirements as detailed earlier under earthwork's effects.

9.137 Through the hearing process, PCC have consequently recommended the following conditions:

Conditions 29 and 112

Within 6 months of the completion of the works or prior to any application for Section 224 certification for each stage, whichever occurs first, and prior to buildings being constructed on the land, the consent holder shall provide to the satisfaction of the Manager Resource Consents, a geotechnical completion report from a Chartered Professional Engineer with geotechnical & liquefaction experience, stating the suitability of residential lot development, including

- *Confirmation that land consolidation is completed.*
- *Confirmation that earthworks and/or building platforms have been constructed to comply with the New Zealand Building Code requirements, and recommend foundation requirements (in accordance with Ministry of Business, Innovation and Employment's (MBIE) technical guidelines)*
- *Identifying the final position of all building restriction areas where applicable.*
- *Identifying any lots, or parts of lots, that are unsuitable for building development, if any.*

9.138 The applicant considers that the last two bullet points of the above condition should be deleted because they are confident the earthworks will be constructed to such a degree that no building restriction is required.

³² S42A Report para 6.70

³³ S42A Report para 6.72

9.139 We find that given potential liquefaction is an issue that is to be addressed as part of the earthworks and building process we support the PCC position with respect to Condition 29.

Variation or cancellation of consent notice 9231374.7

9.140 Condition 3 of existing consent notice 9231374.7 relates to flooding, soil limitations to the land and liquefaction effects.

9.141 The PCCs42A report notes that “earthworks and liquefaction effects have been addressed specifically for this site. Specific conditions of consent for certification of earthworks liquefaction have been recommended and it therefore is considered appropriate to vary condition 3 of this consent notice.”

9.142 We concur with this recommendation and a consent condition has been included to address cancelling consent notice 9231374.7 at the time of Section 224 approval for Stages 1-4.

Cultural effects

9.143 The site lies within and affects an area of interest to Ngāti Toa Rangatira (Ngāti Toa). In the modern context Ngāti Toa interests are represented by Te Runanga o Toa Rangatira Incorporated³⁴. The Proposal footprint is known by Ngāti Toa as part of Wai-o-Hata or Duck Creek.

9.144 The consultation for Ngāti Toa was carried out by Ms Smeaton³⁵ with Ms Barriball representing Ngāti Toa interests at the hearing.

9.145 The Ngāti Toa submission advised us that they had met with the applicant to discuss the proposal but still believed there were cultural concerns that needed to be addressed. The range of cultural concerns included:

- Impacts on a site of cultural significance
- Recognition of iwi values as part of the application process
- The provision of a cultural impact assessment (CIA)
- The impacts on Te Awarua-o-Porirua and its tributaries³⁶

9.146 The submission did not elaborate on the nature of the impacts on Wai-o-Hata. However, the PCC s42A report referred to a site of cultural significance within the site as being “The most northern portion of the application site is a Tapu site known as Wai-o-Hata and is a very old settlement area which also contains a Ngāti Ira Burial Area.”³⁷ For clarity, the wider Duck Creek area and the wahi tapu site are both referred to as Wai-o-Hata, both being sites of cultural significance.

9.147 Evidence from Mr Jones³⁸ confirmed the map he had referred to in his report is the map attached to Mr Holmes’ evidence at Appendix 1. Mr Jones tells us the map had been sourced from an internal PCC document on Ngāti Toa heritage titled Me Huri Whakamuri Ka Titiro Whakamua. He went on to say he did not know of any further information as to the location of the Ngāti Ira burial area. We accept the map, however, we note that there is uncertainty around its status.

³⁴ Te Runanga o Toa Rangatira Inc. submission

³⁵ Ngati Toa submission; Holmes EIC, Appendix 2 and PCC s42A, Appendix 7

³⁶ Porirua Harbour including contributing streams

³⁷ PCC Officer Report, page 16, para 2.9

³⁸ PCC s42A writer

- 9.148 We heard conflicting evidence on whether or not the site or the environs contained a Ngāti Ira burial area. Mr Holmes said the map “shows a plan of an area with only a very small part of the application site. Most of the pink shading shown on the plan extends over the Observatory Close area and then eastward to the Pauatahanui roundabout.”³⁹ In his view there is nothing in this information to suggest that the Ngāti Ira Burial Area is within the site. In response to questions, Mr Holmes replied he had no further information regarding any burial area.
- 9.149 Ms Barriball⁴⁰, when asked about the location of a burial area or the history of the map replied that she had no knowledge of the burial area or the map.
- 9.150 During pre-hearing consultation Ngāti Toa and the applicant discussed ways in which to recognise iwi values as part of the application process.⁴¹ The summary of this meeting included:
- “Ngāti Toa being included in the adaptive management plans that are being developed as part of the project.
 - Iwi to play an active role in the monitoring of the site and cultural monitoring. We did not speak about how this would be remunerated...
 - Ongoing engagement regarding educational initiatives – Jagger could support some of these initiatives.
 - Promotion of history and iwi association to the area through signage”.
- 9.151 As a consequence of the meeting, the applicant proposed including Ngāti Toa in the condition⁴² that provides GWRC with Environmental Monitoring Reports (EMR). The communication was positive with the last communication from Ngāti Toa on 17 December. As a result, no evidence was presented to the hearing relating to a Ngāti Toa response to the abovementioned EMR proposal. We heard from Mr Holmes that several attempts to meet with the submitter since then, have been unsuccessful.
- 9.152 Evidence from Ms Conland⁴³ confirmed the abovementioned condition referring to Ngāti Toa had been omitted from the suggested conditions of consent and recommended it be included.
- 9.153 Along with the abovementioned condition, provision has been made for Ngāti Toa to receive “a detailed schedule of construction activities, management plans and monitoring plans ... at least 20 days prior to the commencement of works”⁴⁴.
- 9.154 With respect to iwi values, GWRC condition 59 refers to the discovery of artefacts, including koiwi, taonga or other archaeological material during work on the Proposal site. The condition obliges the consent holder to stop work and contact Ngāti Toa Rangatira and others, immediately. Ms Barriball tells us that it is standard practice for Ngāti Toa to request a discovery protocol such as this in all large developments.⁴⁵

³⁹ Holmes EiC, page 8, para 28

⁴⁰ Meeting notes dated 6 April 2016, page 18

⁴¹ Holmes EiC, Appendix 2, email dated 2 December 2015

⁴² GWRC, general condition 55

⁴³ Conland EiC dated 6 April, page 9, para 41

⁴⁴ GWRC, condition 3

⁴⁵ Meeting notes dated 6 April 2016, page 17

- 9.155 In its submission Ngāti Toa requested a CIA be carried out with respect to the Proposal. We saw an email from Ms Smeaton dated 17 November 2015⁴⁶, advising Ngāti Toa had decided not to provide a CIA at this time. It went on to say “Our position would likely remain unchanged given the potential adverse effects that this project will potentially have on the Duck Creek environment and the Pauatahanui Inlet.”⁴⁷ Reference was made to a CIA produced for the Transmission Gully project and that it contained a number of references to the significance of Wai-o-Hata to Ngāti Toa and the need to protect the area. However, this CIA was not made available for the hearing and therefore we must disregard it.
- 9.156 Ms Barriball confirmed Ngāti Toa still opposed the application.⁴⁸ She did not elaborate further as to the reasons for opposing the application.
- 9.157 We heard evidence from Mr Holmes⁴⁹ and in emails from Ms Smeaton⁵⁰ the adverse effects and impacts on the Duck Creek environment and Te Awarua-o-Porirua Harbour and its tributaries were environmental effects on the area and on the health of the mahinga kai. Ms Barriball tells us the effects on mahinga kai was of great concern as there had been no cultural monitoring in the area so the state of health of the resource (mahinga kai) was currently unknown. Having said that, we did not hear any evidence from the submitter on the nature of the impacts or measures to avoid, remedy or mitigate those effects.
- 9.158 Ms Conland’s⁵¹ evidence referred to the PNRP objectives 025 and 026 that “relate to safeguarding ... mahinga kai in fresh water bodies and the coastal marine area” and “to the availability of mahinga kai species to support Maori customary harvest is increased in quantity, quality and diversity”, respectively. It is Ms Conland’s view that ecological monitoring and adaptive management regimes will be in place in order to enable an assessment of whether these objectives are being met.
- 9.159 Ms Conland did advise that no assessment of existing mahinga kai species within the site has been provided by the Applicant⁵². This is consistent with Ms Barriball’s comments that as there had been no cultural monitoring the state of health of the mahinga kai was unknown.
- 9.160 We heard evidence from Ms Conland acknowledging Ngāti Toa interest in undertaking cultural health monitoring in these catchments⁵³. Ms Conland tells us the structure of how this is to happen is about to be undertaken by the GWRC.
- 9.161 Having regard to the abovementioned cultural concerns, in closing legal submissions, counsel for the Applicant, Mr Gardner-Hopkins said “It is unfortunate, but understandable, that the change in personnel at Ngāti Toa has

⁴⁶ PCC s42A report, Appendix 7

⁴⁷ PCC s42A report, Appendix 7

⁴⁸ Meeting notes from Wednesday 6 April 2016, page 16

⁴⁹ Holmes EiC, page 8, para 28 and meeting notes dated 5 April 2015, page 22 from

⁵⁰ Homes EiC, Appendix 2, email dated 2 December 2015

⁵¹ Conland Addendum to EiC, dated 5 April 2016, page 19

⁵² Conland Addendum to EiC, dated 5 April 2016, page 20

⁵³ Conland EiC dated 6 April, page 10, para 41

impacted on the applicant's ability to engage and better understand Ngāti Toa's concerns."⁵⁴

- 9.162 The AEE and evidence presented at the hearing outlined the effects of the development of the site, including the earthworks, silt and sediment run off and stream diversion. Various management plans and conditions have been put in place to manage those effects. These matters are to be further explored within this decision.
- 9.163 We heard evidence and submissions that agreed Wai-o-Hata (Duck Creek) is a site of significance. However, we did not receive any compelling evidence or submissions as to the presence of a burial area within the site. We accept Wai-o-Hata is a site of significance for Ngāti Toa.
- 9.164 In our view, it is unfortunate the engagement between Ngāti Toa and the applicant faltered prior to the hearing. It would have been preferable to see a more comprehensive involvement of Ngāti Toa in the development of the proposal. We agree with Ms Barriball's submission that receiving environmental monitoring reports do not enable Ngāti Toa to practice their kaitiakitanga⁵⁵. Having said that, we heard no evidence or submissions from Ngāti Toa regarding the level of recognition of iwi values in the application. We accept the level of involvement was as a result of the change in personnel at Ngāti Toa.
- 9.165 Having said that, we are encouraged by the applicant's offer to continue engagement with this submitter⁵⁶. We accept those values articulated by the submitter have been adequately addressed.
- 9.166 It is regrettable that a CIA was not provided, as it would have been helpful in providing a modern context to the relationship Ngāti Toa have with the environment and in identifying iwi values. Having said that, we accept that tangata whenua have had the opportunity to provide a CIA and we find the lack of a CIA is not integral to the integrity of this proposal.
- 9.167 Although the nature of the adverse effects on the health of the mahinga kai have not been put forward in great depth by the submitter, we accept there is potential for the stream, Pauatahanui Inlet and Te Awarua-o-Porirua Harbour to be adversely affected by the development of the site. It is clear to us mahinga kai values are of great importance to Ngāti Toa.
- 9.168 In considering the abovementioned adverse effects, the PCC s42A report tells us the "Conditions of consent will ensure the effects of the earthworks, including silt and sediment runoff will be appropriately managed."⁵⁷ A suite of management plans and controls have been put in place to manage the environmental effects of the development, including the ECP which requires all silt and control measures to be in place prior to the commencement of all works.⁵⁸ Having regard to those sections regarding environmental effects discussed elsewhere in this decision, we find the conditions and management plans to be appropriate.

⁵⁴ Gardner-Hopkins, closing legal submissions, para 33

⁵⁵ Barriball, meeting notes dated 6 April, page 16

⁵⁶ Gardner-Hopkins, closing legal submissions, para 32

⁵⁷ PCC s42 report, page 88, para 6.249

⁵⁸ GWRC, discharge permit 33622, general condition 15

Heritage and Archaeology

9.169 We received a submission from Heritage New Zealand Pouhere Taonga (HNZPT) on the effects of the Proposal relating to archaeological matters.

9.170 The HNZPT submission is neutral in respect to the Proposal, nevertheless, several matters were raised for our consideration. We read “there are recorded archaeological sites within the site and the wider vicinity. However, the applicant has not carried out archaeological assessments for the project.”⁵⁹ HNZPT tells us the suggested conditions regarding the discovery of artefacts and the EMPC are not sufficiently clear and could mislead the resource consent holder in relation to their responsibilities under the HNZPT Act (HNZPTA).

9.171 In order to mitigate these concerns HNZPT sought the following⁶⁰:

- Attaching an Advice Note to resource consents for activities involving ground disturbance.
- That the resource consent conditions require the completion and approval of an EMPC
- That the EMPC be required to contain provisions for archaeology, including the need for any archaeological authority under the HNZPTA and the implementation of the terms and conditions of an archaeological authority.

9.172 The PCC s42A report acknowledged there are several known archaeological middens and terrace sites located within the site⁶¹. The report considered the abovementioned mitigation measures were appropriate and recommended these occur.⁶²

9.173 We consider it is unfortunate, given the presence of recorded archaeological sites within the site, the applicant did not carry out archaeological assessments for the proposal. An assessment may have provided certainty as to the presence of any, as yet undiscovered, archaeological site/s. We consider the inclusion of mitigation measures as outlined by HNZPT and recommended by PCC as appropriate. We find that the issues raised are adequately mitigated by the conditions, management plans and advice notes attached to each of the consents.

Duck Creek reclamation and diversion

9.174 Mr Lowe’s Evidence in Chief at paragraph 5.5 provides a useful summary of the effects of the proposal on the aquatic ecosystems of Duck Creek. A number of submitters commented on ecological matters relating to freshwater habitats and the diversion and reclamation, including: The Department of Conservation, Royal Forest and Bird Protection Society Inc., Guardians of the Pauatahanui Inlet, Te Runanga o Toa Rangatira Inc., and Mark Macfarlane. Other submitter concerns about the stream and associated wildlife were more generally related to water quality effects.

9.175 The proposal requires two permanent diversions of the existing Duck Creek stream channel, resulting in the reclamation of 225 lineal metres of existing

⁵⁹ HNZPT submission

⁶⁰ HNZPT submission

⁶¹ PCC s42A, page 16, para 2.9

⁶² PCC s42A, page 58, paras 6.146 to 6.149 inclusive

stream habitat and a net loss of 91 lineal metres of stream⁶³. The applicant proposed to account for the effects of this loss and the changes to habitat through assessing the ecological values of the stream using the Stream Ecological Valuation (SEV) tool⁶⁴ and compensating for the loss of ecological values. The proposed compensation was largely comprised of a quantum of riparian planting on the stream margins. The length of stream for riparian planting was determined via the Ecological Compensation Ratio (ECR) calculation that is part of the SEV tool. The experts agreed through conferencing that compensation was not required for the 40m diversion as this was considered restoration of the stream's original flow path.

- 9.176 The quantum of riparian planting adequate to compensate for the loss of ecological values associated with the proposed larger reclamation and diversion was a matter of disagreement between the ecological experts prior to the hearing. Mr Lowe (on behalf of GWRC) reviewed the use of the SEV tool in the application and provided recommendations on the adequacy of the widths of the riparian corridor, the SEV calculations used to determine the quantum of compensation and on disparities between the proposed landscape management plan, bank erosion control and the riparian compensation⁶⁵. A table outlining the issues raised in the GWRC review and the responses from Mr Miller and further responses from Mr Lowe was provided in a memo from Mr Lowe dated 22 December 2015 and appended to the GWRC s42A report.
- 9.177 Expert conferencing was undertaken between GWRC experts and the experts of the applicant in January 2016. Both Mr Lowe and Mr Miller provided evidence to the hearing, however, Mr Lowe was unable to attend. Mr Young, an environmental engineer attended on behalf of GWRC to answer our questions. However, in terms of ecological evidence, Mr Miller was the only expert available for us to question during the hearing.
The key freshwater issues remaining in contention at the time of the hearing were:
- a) Whether the impacts of land use change on the freshwater ecology should be accounted for and included in compensation; and
 - b) The applicant's ability to physically achieve the required compensation within the site, given the spatial limitations caused by other aspects of the proposal (e.g. erosion control and landscape and amenity plans).
- 9.178 With regards to accounting for the impacts of land use change, although we agree that changes in land use within a catchment, particularly increases in impervious cover associated with urbanisation have known negative ecological impacts on stream ecosystems, we do not share Mr Lowe's view that the SEV and ECR tools need to be applied to compensate for this change.
- 9.179 The key reason we disagree with Mr Lowe stems from the fact that the site is zoned Suburban and available for residential development within the permitted thresholds of the PCC Plan. The zoning of the land in the Duck Creek catchment

⁶³ Including the 40m minor diversion of the oxbow into the original stream flow path and associated loss of 20m of stream length.

⁶⁴ Storey RG, Neale MW, Rowe DK, Collier KJ, Joy MK, Maxted JR, Moore S, Parkyn SM, Phillips N and Quinn JM (2011) Stream Ecological Valuation (SEV): a method for assessing the ecological function of Auckland streams. Auckland Council Technical Report 2011/009.

⁶⁵ Also noted by Andrew Gray on behalf of PCC in his evidence to the hearing.

is beyond our consideration through this consent process and would have been more appropriately addressed between GWRC and PCC at the time the zoning was introduced. We are unable to require the applicant to avoid, remedy or mitigate the effects of the zoning. Additionally, we feel the degree of riparian planting proposed, given the proportion of the site that will ultimately be planted (approximately 25% according to Mr Gray) will significantly lessen the effects of residential development on Duck Creek.

- 9.180 We did, however, share Mr Lowe's concerns around the applicant's ability to physically achieve the width of the riparian corridor initially described by Mr Miller, given the discrepancies between experts in relation to plans for landscape, amenity, erosion protection and ecological compensation.
- 9.181 We questioned Mr Miller extensively around the length of the proposed riparian planting. Mr Miller conceded that errors in the SEV calculations identified by Mr Lowe in his EIC were legitimate and once rock linings, additional stormwater inflows and the presence of roads, bridges and housing lots within the riparian corridor were accounted for in the SEV, the total stream length required for compensation was likely to be approximately equivalent to the 1010m calculated by Mr Lowe. Mr Miller further identified that there is approximately one kilometre of stream length available for riparian mitigation, taking into account the limitations of the site and the plans relating to other aspects of the proposal. He summarises this in paragraphs 18 and 19 of his EIC:

*"In my opinion the stream compensation package for the applicant's proposal should include that required for the main diversion (827 lineal m) and for the placement of rock erosion protection and bridge structures (i.e. the instream works) of 146 lineal m. This comes to a total compensation length of 973 m which is roughly equivalent to the length of stream available for restoration work on site (986 m).
If well designed and managed, the riparian enhancement work recommended compensation work will result in an almost continuous vegetated riparian corridor through the site (excluding 6 crossings) and in my view will achieve no net loss of stream ecological value and function."*

- 9.182 The width of the riparian corridor was another issue we explored extensively with Mr Miller at the hearing. The SEV tool assesses the quality of the riparian margin to a width of 20m either side of the stream channel to determine the existing and proposed ecological values or impacts to a site. According to Mr Miller, the riparian corridor available for planting on either side of the stream channel ranges between 7 and 19 metres depending on the presence of pathways, roads, bridges, existing and proposed lot boundaries, stormwater treatment ponds, open amenity spaces and erosion protection structures⁶⁶.
- 9.183 We are of the view that the riparian planting should be the maximum possible, within the constraints of the site and accounting for the limitations of the features listed above. Given the significance of the ecological values of Duck Creek we are of the opinion that high quality riparian restoration and enhancement of ecological values *within* the site is preferable to any off-site mitigation or compensation. In other words, the maintenance and enhancement of the ecological values of Duck Creek is of a greater concern than ensuring that the

⁶⁶ D. Miller, Supplementary Statement of evidence paragraphs 6 to 13 and Table 1.

compensation is consistent with the exact numbers calculated by the SEV and ECR tools. We accept the evidence of Mr Miller (at paragraph 62 and 63 of his EIC) that the riparian enhancement work, if well managed and maintained and providing an almost continuous corridor of indigenous vegetation, would largely achieve no net loss in ecological values, given that the catchment is zoned for suburban/residential development.

- 9.184 We have required a minimum length of riparian planting of 986m, which includes provisions for planting of īnanga spawning habitat of approximately 340m⁶⁷ as part of the required Ecological Remediation and Compensation Plan (EcoRCP) included in the GWRC consent conditions. We consider planting to enhance īnanga spawning habitat still constitutes an aspect of 'riparian planting' and we have made some adjustments to the relevant consent conditions to reflect the need to minimise the removal of any existing indigenous vegetation within the īnanga spawning habitat, particularly woody indigenous vegetation (i.e. trees). We have also included provision for the planting of larger species in the īnanga spawning habitat outside of the spring tidal inundation footprint, to provide shelter to the spawning habitat and also provide other riparian benefits to Duck Creek in this area such as filtration of sediment, shade and buffering of the stream environment.
- 9.185 Additionally, we note Mr Miller's recommendation for planting of larger growing vegetation on the streamward and landward sides of any buried rip-rap located out of the wetted channel, to ensure the maximum benefits of shading and riparian vegetation are still retained around these structures wherever possible. This has been included in consent conditions relating to mitigating the effects of bank stabilisation structures.
- 9.186 Counsel for the applicant discussed the issue of whether the compensation and riparian planting was an offset of effects, or did in fact constitute remediation of the effects of the proposal. This issue is discussed in more detail below through an examination of the evidence relating to the policy framework for the proposal. īnanga spawning values are also discussed in more detail.

Ecological values of Duck Creek identified in policy

- 9.187 Appendix 1 of the Regional Policy Statement 2013 (RPS) identifies Duck Creek (and tributaries) as a river with a significant indigenous ecosystem because of the habitat for indigenous threatened/at risk fish species, presence of habitat with six or more migratory indigenous species, and for īnanga spawning within tidal reaches of the stream.
- 9.188 Duck Creek is also identified in Appendix 3 of the operative Regional Freshwater Plan (RFP) as a waterbody with nationally threatened indigenous fish recorded in the catchment due to the presence of shortjaw, giant and banded kōkopu.
- 9.189 The species recorded in Schedule F1⁶⁸ of the Proposed Natural Resources Plan (PNRP) for Duck Creek are banded kōkopu, common bully, common smelt, giant kōkopu, īnanga, kōaro, lamprey, longfin eel, redfin bully and shortfin eel. The Duck Creek estuary is also identified as a site with significant indigenous biodiversity values in the coastal marine area (Schedule F4) for a nationally

⁶⁷ This length is taken from Mr Miller's Supplementary statement of evidence, paragraph 13.

⁶⁸ Rivers and lakes with significant indigenous ecosystems

critical species of polychaete worm and seasonal habitat for six species of threatened indigenous fish. Additionally, Duck Creek Scenic Reserve is identified for the salt-marsh habitat, rare plants, wildlife and fragile habitats it contains as well as the presence of estuarine birds. Te Awarua-o-Porirua Harbour (Pauatahanui Inlet) is identified in its entirety as a nationally significant site for indigenous biodiversity in the coastal environment.

Policy setting and biodiversity offset

9.190 The RPS sets out the framework and priorities for resource management in the Wellington region and identifies urban land use as affecting water quality through: 1) stormwater run-off from impervious cover, and 2) creating pressure on freshwater habitat through piping or in-filling of small streams. Ms Conland and Mr Holmes undertook thorough assessments of the regional planning framework in relation to the proposal. We agree with Ms Conland's assessment of the RPS in relation to this application and finds that the proposal is generally consistent with Policies 40, 41, 42 and 43. Policy 43 is particularly relevant and links to the identification of Duck Creek as a river with significant indigenous ecosystems in Appendix 1 of the RPS. Policy 47 provides guidance on whether the effects of an activity are inappropriate. It is our view that using this policy as guidance, the activities proposed are not inappropriate.

9.191 We are of the view that Policies 14 (minimising contamination in stormwater from new developments), 15 (minimising the disturbance of earthworks and vegetation clearance), and 18 (protecting aquatic ecological function) of the RPS are also relevant as they guide the provisions to be included within regional plans, including the PNRP, with respect to managing the effects of activities on aquatic ecosystems.

RPS Policy 18 clauses (a), (c), (e) and (i) are particularly relevant to the proposed diversion and reclamation of Duck Creek.

"Policy 18: Protecting aquatic ecological function of water bodies – regional plans Regional plans shall include policies, rules and/or methods that:

(a) promote the retention of in-stream habitat diversity by retaining natural features – such as pools, runs, riffles, and the river's natural form...

... (c) promote the protection and reinstatement of riparian habitat...

... (e) discourage the reclamation, piping, straightening or concrete lining of rivers...

... (i) maintain fish passage."

9.192 The PNRP was developed under this direction and notified in July 2015, after the lodgement of the application for the Brookside development. At the time of the hearing, submissions had closed on the PNRP but no hearing had been held or decisions reached. As a proposed plan the PNRP has some weight, although it has not been through a full Schedule 1 (RMA) process. Policies and rules of the PNRP relevant to the application deserve some consideration, particularly given the directive nature of the RPS and subsequent PNRP policies for Duck Creek and the continuity of ecological values for Duck Creek identified across the GWRC planning framework.

9.193 Policies P40 and P41 respectively identify ecosystems and habitats with significant indigenous biodiversity values (including Duck Creek, Duck Creek

Estuary, Duck Creek Scenic Reserve and Pauatahanui Inlet) and seek to manage adverse effects of activities.

*“In order to protect the ecosystems and habitats with significant indigenous biodiversity values identified in Policy P40, in the first instance activities, other than activities carried out in accordance with a **restoration management plan**, shall avoid these ecosystems and habitats.*

If the ecosystem or habitat cannot be avoided, the adverse effects of activities shall be managed by:

- (a) avoiding more than minor adverse effects, and*
- (b) where more than minor adverse effects cannot be avoided, remedying them, and*
- (c) where more than minor adverse effects cannot be remedied, mitigating them, and*
- (d) where **residual adverse effects** remain it is appropriate to consider the use of **biodiversity offsets**.*

*Proposals for mitigation and **biodiversity offsets** will be assessed against the principles listed in Schedule G (biodiversity offsetting). A precautionary approach shall be used when assessing the potential for adverse effects on ecosystems and habitats with significant indigenous biodiversity values. Where more than minor adverse effects on ecosystems and habitats with significant indigenous biodiversity values identified in Policy P40 cannot be avoided, remedied, mitigated or redressed through **biodiversity offsets**, the activity is inappropriate.”*

9.194 This is a similar mitigation hierarchy set up through Policies P31 and P32 in relation to aquatic ecosystem health and mahinga kai values, which are also relevant considerations consistent with the National Policy Statement for Freshwater Management. Because the activities themselves cannot be avoided, given the suburban zoning of the site, and the more than minor effects of those activities cannot be avoided if the development is to go ahead, the cascading hierarchy of Policy P41 of the PNRP is a relevant consideration.

9.195 Ms Conland did not provide us with any evidence on which aspects of the mitigation hierarchy outlined by Policy P41 were relevant to the application. Mr Holmes only provided an assessment of the draft Natural Resource Plan. We requested this information of Ms Conland during the hearing and we received a statement of evidence on this matter dated 6 April 2016. According to Ms Conland’s statement the reclamation of Duck Creek and the diversion of the creek into a new flow path is not being avoided by the applicant for a number of reasons, including: amenity, access, flooding, and erosion considerations as well as economic reasons. This is consistent with the applicant’s view that the reclamation is necessary because the economic viability of the development depends on the overall plan for the number and size of lots.

9.196 Ms Conland went on to state that the more than minor effects of the diversion cannot be remedied or mitigated and so clause (d) of Policy P41 is relevant. In her opinion the applicant is seeking to redress the residual adverse effects through biodiversity offsets⁶⁹. Ms Conland then evaluated the proposal against each of the clauses in Schedule G. We questioned a number of witnesses

⁶⁹ Paragraph 10 of Ms Conland’s Statement of Evidence – Planning, dated 6 April 2016.

extensively on the issues raised by Schedule G. Ms Conland referred to the need for an Ecological Compensation Plan be developed, guided by consent conditions, as recommended by Mr Lowe⁷⁰ and Mr Young. The applicant agreed to the inclusion of this plan within the GWRC consents.

- 9.197 According to the closing legal submissions presented by the applicant's Counsel at the end of the hearing⁷¹, the riparian planting should be considered *remediation* of the adverse effects that are more than minor. These effects include the stream reclamation and diversion, discharges of sediment and stormwater, the erosion protection works and the encroachment of the urban environment onto the natural floodplain of the stream.
- 9.198 Mr Gardner-Hopkins, in backing up his statement on the riparian planting being remediation rather than mitigation or offset, relied on the evidence of Mr Miller at his EIC paragraph 63 referring to no net loss of ecological values as a result of the establishment of the riparian corridor throughout the site and the ecological benefits beyond stream function that such a corridor can provide. In his opinion, if the riparian planting and enhancement of īnanga spawning habitat are considered 'remediation' then there are no 'residual adverse effects'⁷², which require an offset or the consideration of Schedule G of the Plan.
- 9.199 We shared the view of Mr Anderson, counsel for Forest and Bird, that the biodiversity offset principles in Schedule G are a 'good practice' approach. Mr Gardner-Hopkins did not share this view. We find these principles lend considerable certainty to what is required under the PNRP for a robust biodiversity offset when offsetting is a relevant consideration.
- 9.200 However, we also find that despite the clarity provided by Schedule G, policy P41 of the PNRP is lacking in definition around what constitutes remediation or mitigation of more than minor effects so that a 'residual adverse effect' can be determined and a biodiversity offset considered. Therefore, all arguments in relation to offsets and consideration of the principles of Schedule G become redundant as we find that the ecological compensation and remediation package offered by the applicant, and improved by the evidence from the Council's experts, does in fact remediate the effects of the stream reclamation and diversion, as well as the other more than minor ecological effects associated with the activities proposed.
- 9.201 We share the view of the experts that the reclamation or diversion should not be considered part of the coastal environment and therefore the avoid aspects of the NZCPS and the reference to the King Salmon decision raised by Mr Anderson are not relevant to our consideration of this issue.

Operative Regional Freshwater Plan

- 9.202 Policy 7.2.15 of the RFP relates specifically to the reclamation or drainage of river or lake beds. The policy allows for reclamation when there are no practicable alternatives, the reclamation provides significant benefits to the

⁷⁰ Although initially Mr Lowe appeared not to be in favour of requiring plans outside of conditions of consent – memo dated 22 December 2015.

⁷¹ Mr Gardner-Hopkins, closing legal submissions, paragraph 16, 7 April 2016.

⁷² Residual adverse effects are described in the PNRP as: *The negative effects on the environment remaining from an activity after avoidance, remediation, and mitigation measures have been taken.*

community, and it is consistent with Policy 4.2.10⁷³. Duck Creek is not covered by Policy 4.2.10 and as such fits the discretionary activity status provisions of the RFP.

- 9.203 Policy 4.2.13 is directly relevant for the protection of nationally threatened freshwater fauna such as those found in Duck Creek⁷⁴. We find that the proposal fulfils all of these provisions with the exception of the final clause:

“promoting landowner and user knowledge of nationally threatened species, the sites where they are present, and how they can be protected.”

- 9.204 We consider that this policy can be met through a suitable consent condition requiring the applicant to provide signage in publicly accessible open spaces adjacent to the stream and including the īnanga spawning habitat, in consultation with an ecological expert. We have therefore included a condition in the PCC land use consent requiring public education through such signage identifying the ecological values of the site, including but not limited to the riparian planting, native fish values and enhancement of īnanga spawning habitat within the reserve areas. We consider that this will assist in engendering environmental stewardship and potentially the formation of stream-care groups within the residents of Brookside and will go some way towards the submission made by Guardians of the Pauatahanui Inlet for a stream care group to be formed.
- 9.205 Maintenance of the signage, as provided for within the condition is also appropriate for continuity of land owner and public knowledge of the ecological values once the riparian reserve is vested in PCC.

Terrestrial ecology and riparian planting

- 9.206 Several areas of significant indigenous vegetation may be affected by the proposed application, including ecological sites and indigenous vegetation adjacent to The Yardarm Bush, Duck Creek Scenic Reserve (saltmarsh), Duck Creek Bush and the native vegetation located within proposed Reserve Area 2. Mr Miller provided a summary assessment of the significance of the vegetation on and adjacent to the Brookside site in Table G1, Appendix G of his EIC, largely taken from ecological reports commissioned by PCC. PCC provided evidence on the effects of the proposal on terrestrial ecology and indigenous vegetation in Mr Gray’s landscape appendix to the s42A report and his written response to the evidence, tabled during the hearing. The issue was also raised by a number of submitters including: the Department of Conservation, Guardians of the Pauatahanui Inlet and Forest and Bird.
- 9.207 Mr Miller stated that the three ecosites adjacent to and within the applicant’s land do constitute Significant Natural Areas with respect to s6(c) of the RMA. Mr Miller went on to describe the significance of the effect on the impacted vegetation within the development area and to calculate the proportion of proposed vegetation clearance relative to the overall ecosite and to similar habitats in the wider area.

⁷³ Policy 4.2.10 seeks to avoid adverse effects on wetlands, lakes, rivers and their margins that are identified to be managed in their natural state and for aquatic ecosystem purposes due to their high degree of natural character and makes reclamation a non-complying activity in these waterbodies.

⁷⁴ Appendix 3 of the Regional Freshwater Plan.

- 9.208 Mr Miller calculates the proportional vegetation losses associated with each ecosite at paragraph 87 of his EIC. The proportional losses were 0.2% of the significant ecological site (SES) at Yardarm Bush, 3.2% of the SES around Duck Creek Bush (although does not directly impact the ecosite at all), and between 5.7 and 6.3% of the SES/ecosite for the Duck Creek Scenic Reserve in the PCC paper road.
- 9.209 The key significance criteria identified by Mr Miller in the vegetation proposed for removal are: 1) the potential presence of the Wellington green gecko (an at-risk species), 2) the function of the vegetation as a habitat buffer protecting the ecosites, and 3) the presence of saltmarsh ribbonwood (rare in Porirua) in the paper road area and the buffering the vegetation on the paper road provides to the saltmarsh wetland habitat (which contains a number of at-risk and threatened fish species in addition to its significant wetland and vegetation values).
- 9.210 Conditions to avoid, remedy or mitigate the effects of the proposal on significant indigenous vegetation and fauna (with respect to lizards) are included in the PCC land use consents. Protection of significant habitats of indigenous fauna (i.e. fish) is provided through the GWRC land use and discharge permits and via the various management plans required by consent conditions, including the riparian mitigation planting plan. Mr Miller considers the connectivity between ecosites provided by the almost continuous corridor of indigenous riparian planting to provide additional ecological benefits to the existing terrestrial ecological values. The panel accept this view and recommends that planting plans include species consistent with the original vegetation types described in Mr Miller's Table G1 for 'Duck Creek Riparian' and in the PCC 2011 report.
- 9.211 Conditions were recommended for insertion following the EIC of Mr Miller⁷⁵ on behalf of the applicant. Mr Miller considers that the effects of vegetation loss on the ecologically significant sites will be no more than minor through adoption of the following recommendations:
- demarcation of the vegetation to be retained,
 - removing only what is necessary for building platforms and fill batters on lots adjacent to the ecosites,
 - in-fill planting and weed control adjacent to the sites, and
 - lizard survey and salvage.
- 9.212 PCC conditions 8 and 9 address requirements to demarcate these sites and vegetation and to ensure a lizard survey and rescue operation is undertaken prior to the commencement of clearance of vegetation adjacent to The Yardarm and Duck Creek Bush. Condition 20 requires that demarcated vegetation is not removed or damaged during the duration of the construction. Condition 36 of the PCC consent addresses the requirement for in-fill planting adjacent to batter slopes and faces adjacent to ecosites to mitigate the potential for edge and erosion effects. Mr Miller also recommends buffer planting and weed control of the paper road area adjacent to the Duck Creek Scenic Reserve at a loss to gain ratio of 1 to 1.5 to mitigate effects on the ecologically significant reserve vegetation. This is addressed by PCC Land use consent condition 35.

⁷⁵ Paragraphs 15, 16, and 92-94.

- 9.213 Conditions 36 and 37 of the PCC Land use consent require completion of the landscape planting for each stage before s224 approval and the maintenance of plants for a three-year period following planting completion respectively.
- 9.214 Condition 72 of the PCC subdivision consent addresses the requirement for ongoing protection of native vegetation on Lots 6, 147, 148 and 149 outside of the building platform of these lots as required under consent notice condition 131.
- 9.215 Soil testing was raised by Mr Miller and is recommended for inclusion in the GWRC conditions for the land use consent by Ms Conland to ensure a viable riparian margin can be established. This is reflected in the Riparian Mitigation Planting Plan. Conditions in the plan also require maintenance of planting as mitigation for the stream reclamation to occur for 5 years from initial planting or until 80% canopy cover is achieved.
- 9.216 There is an inconsistency between the plant maintenance period of 3 years in the PCC consents and 5 years in the GWRC consents. We heard no evidence to suggest these maintenance periods should be aligned and we assume the 5 year period specified in the GWRC planting conditions is to ensure formation of canopy cover within the riparian corridor.

Īnanga spawning and native fish values

- 9.217 We undertook a site visit to the Duck Creek North site on April 4th 2016. The Īnanga and native fish values were clearly apparent during that visit. Large numbers of shoaling Īnanga were seen in the lower reaches of the creek, along with a large galaxid fish (either a giant or banded kōkopu) taking refuge beneath existing indigenous riparian vegetation (planned to be retained as part of the riparian corridor) in proposed Reserve area 2 (Zone B of the landscape concept plan).
- 9.218 We raised the potential for Īnanga spawning habitat to be found within the footprint of the application in our first minute. Mr Lowe's memo appended to the GWRC s42A report addresses this in part. Mr Miller has identified that Īnanga spawning is likely to occur in the existing vegetation within the footprint of tidal inundation at high spring tides and that this is likely to comprise the riparian margins up to proposed Bridge 2. The riparian planting plan did not initially anticipate providing for appropriate Īnanga spawning vegetation and the SEV method is not designed for use within tidal areas, so is not applicable to this value. However, Īnanga spawning is identified in the RPS and regional plans and constitutes an important ecological aspect of the coastal environment as it is a critical life-cycle requirement for an 'at risk or threatened' species.
- 9.219 We questioned Mr Miller extensively about provision of suitable habitat to provide for Īnanga spawning in the lower reach of Duck Creek and we agree, given the policy framework, that provision for Īnanga spawning in this reach is an important ecological value that should be reflected in any riparian management plan. Reference to appropriate riparian planting to enhance Īnanga spawning habitat and riparian values within that habitat is included in GWRC consent conditions requiring the preparation of the Ecological Remediation and Compensation Plan (EcoRCP).
- 9.220 Providing for Īnanga spawning requires avoiding instream works in the spawning areas and avoiding major instream works (such as the diversion) during critical

spawning periods. Mr Miller's evidence suggests water quality effects on īnanga spawning will largely be avoided through implementation of erosion and sediment controls (Miller, EIC paragraph 64 bullet c). He further suggests the avoidance of instream works during high spring tides during the period February to April. Consent conditions relating to timing to avoid īnanga spawning are included in the GWRC consent conditions. Ms Conland recommended (para 34, 6 April statement of evidence) that a restriction on instream works is placed on the relevant consents during spring tides.

9. 221 Policy P33 of the PNRP relates to avoidance of more than minor adverse effects from instream works on spawning habitat at peak times. Schedule F1(a) identifies the peak īnanga spawning period as March to May and the wider spawning range as being February to July.

“Policy P33: protecting indigenous fish habitat – avoidance of more than minor adverse effects of (a) discharges of contaminants, including sediment and (b) disturbance of the bed or banks that would significantly affect spawning habitat at peak times of the year, and (c) damming, diversion or taking of water which leads to significant loss of flow or which makes the river impassable to migrating indigenous fish.”

9. 222 Mr Miller has suggested, following our questioning, a timeframe 1.5 hours either side of high spring tide for avoidance of instream works (except for works relating to the permanent diversion which are not to occur between 1 March and 31 May for protection of peak īnanga spawning). This is less precautionary than the PNRP provisions for the timing of īnanga spawning and the intent of Policy P33. We prefer the original wording of Ms Conland to avoid instream works, other than the permanent diversion or works within īnanga spawning habitat, during high spring tides between 1 March and 31 May as this is a more precautionary approach and better protects indigenous fish habitat and reflects the proposed policy framework.

9. 223 Mr Miller has also suggested enhancement of īnanga spawning habitat could occur through altering the bank profiles to allow for a greater tidal inundation area over suitable vegetation. More detail has been included in the consent conditions for the ecological compensation and remediation plan in relation to enhancement of īnanga spawning habitat. We have added detail requiring site-specific ecological assessment of the appropriateness of changing the bank profile of existing spawning habitat, as īnanga are known to be selective about precisely where (and when) they spawn. Any changes to the bank profile also need to consider public safety where banks may be publicly accessible in this area.

Water quality – freshwater

9. 224 Water quality effects relate to two areas of impact: 1) erosion and sediment control during construction phases, and 2) contaminants in stormwater from the developed residential area. Erosion and sediment control is discussed in more detail above. All erosion and sediment control experts were questioned around the efficacy of the control proposed for Brookside. The experts were unequivocal that the proposal was employing every current measure to control sediment during construction to the highest standard. We accept their evidence on this.
9. 225 The stormwater treatment efficacy was a concern raised in the EIC of Mr Lowe on behalf of GWRC. Mr Miller made an assessment of likely contaminant concentrations in the urban stormwater in his EIC paragraphs 68 to 70. Mr Miller

identifies zinc and copper as the most likely contaminants of concern in stormwater run-off from an urban catchment like the Brookside proposal. Average zinc and copper concentrations for stormwater from new residential areas in the Greater Wellington region⁷⁶ are just below acute thresholds recommended by Mr Miller, sourced from USEPA guidelines. He notes his assessment is conservative as it assumes no treatment or removal of dissolved zinc or copper via the proposed range of treatments.

9. 226 In Appendix 1 (memo dated 3 March 2016) of his EIC Mr Miller looks at sediment quality results for freshwater and coastal sites associated with Duck Creek undertaken for the Transmission Gully project. Maximum values for some sites and some parameters did exceed Auckland Regional Council guidelines but did not exceed ANZECC ISQG-low guidelines to protect benthic ecology.
9. 227 Mr Miller states⁷⁷ that it is unlikely that the concentrations of zinc in stormwater following treatment will result in adverse effects on water quality or aquatic fauna in the freshwater in Duck Creek and even without any further removal of dissolved copper in the treatment ponds, the concentration of copper in stormwater is unlikely to result in adverse effects on water quality or aquatic fauna. We accept this evidence and note that source-control of metal from roofs is to be achieved through consent conditions.
9. 228 Source-control of bare metal used for roofs (including gutters and downpipes) and in building materials and additional requirements for stormwater treatment devices to remove 75% of total suspended solids through consent conditions will provide added certainty to ensure the effects of stormwater runoff to the stream are likely to be no more than minor.

Coastal water quality and ecology

9. 229 In our first minute we identified a number of issues relating to effects in the coastal environment that had not been addressed in the application and requested experts (for the applicant and the Councils) provide further detail on the ecological and planning issues that may arise in the coastal environment as a result of the application, including consideration of the Porirua Harbour and Catchment Strategy and Action Plan and the NZCPS.
9. 230 Dr Oliver, Senior Coastal Scientist for GWRC undertook an initial assessment of the Brookside application and requested the applicant provide a more detailed review of coastal monitoring undertaken for the Duck Creek South and Transmission Gully projects and include consideration of the results of that review within any baseline monitoring report. In her EIC (paragraph 7.4) she encourages the applicant to undertake ongoing review of the Transmission Gully and Duck Creek South marine monitoring information to inform the project reporting throughout the required monitoring period for Brookside.
- 9.231 Dr Oliver recommends changes to the proposed freshwater and coastal monitoring, particularly the inclusion of suspended sediment concentration rather than total suspended sediments for consistency with other monitoring in the area. She asks that the proposed intertidal marine monitoring sites not be

⁷⁶ Mr Miller cites the average figures for Brown's Stream and Duck Creek from the Kingett Mitchell Ltd. report for GWRC (2005) Assessment of Stormwater Quality in the Greater Wellington Region.

⁷⁷ EIC of D Miller on behalf of the applicant, 18 March 2016, paragraph 69.

included for this development as existing monitoring information relating to the Duck Creek catchment is likely to provide adequate data with respect to the potential effects of sedimentation from the Brookside development on the coastal environment. Dr Oliver requests the inclusion of sites DCN-06 and DCN-07 in the twice yearly construction monitoring (although Mr Miller notes the protocol may not be suitable for site DCN-07 as it was developed for use in streams). Dr Oliver's recommendations have been incorporated into the relevant GWRC consent conditions.

- 9.232 Mr Christensen provided advice on potential sediment loads to the Pauatahanui Inlet, relative to other sediment inputs to the Duck Creek catchment upstream of the Brookside development to inform our questions around impacts to the coastal environment⁷⁸. Mr Miller relies on these sediment load estimates to draw his conclusions on the potential for sediment (and other contaminant) effects on the Pauatahanui Inlet. Mr Miller describes and reviews the most recent coastal marine monitoring information for the Inlet in his EIC (paragraphs 26 – 42 and Appendix A - memo dated 3 March). His findings are summarised below.
- 9.233 Mr Miller reports that according to broad scale habitat mapping of the Pauatahanui Inlet in the vicinity of the Duck Creek mouth that excessive fine sediment is the dominant stressor in the sub-tidal estuary. He also notes elevated fine sediment in the intertidal zone of the estuary was found in 2013/14, sourced from the Duck Creek catchment during Transmission Gully and Duck Creek South earthworks. Deposited fine sediment levels were also elevated in the lower reaches of Duck Creek. Fine sediment is currently an issue for freshwater and coastal ecology in the vicinity of Duck Creek as a result of cumulative earthworks in the catchment.
- 9.234 Mr Miller summarises the monitoring results for Transmission Gully with respect to coastal benthic fauna, however he provides no assessment of the health of the monitoring sites relative to the results. He briefly mentions low species diversity at the intertidal monitoring site and relates this to the increasing deposited fine sediment also found at this site, although trends over time are not apparent.
- 9.235 In looking at the estimates of sediment loss from the Transmission Gully project in the Duck Creek catchment, Mr Miller's evidence finds it is unlikely that there will be any additional significant sedimentation effects in the Pauatahanui Inlet as a result of the Brookside development, although there are identified risks of sedimentation if large storm events coincide with northerly winds.
- 9.236 Minimising the potential for sedimentation and contaminants entering the marine environment relies on robust erosion and sediment and stormwater controls and on the adaptive monitoring and management framework. Mr Miller has recommended a more conservative rainfall trigger for event monitoring, consistent with other developments in the area and in keeping with the sensitivity of the receiving environment. This updated rainfall trigger has been included in the GWRC conditions.
- 9.237 Contingent on the erosion, sediment and stormwater controls being as effective as proposed and the riparian planting being successfully established, Dr Oliver

⁷⁸ Letter from Kyle Christensen to Bryce Holmes dated 29 February 2016.

agrees with Mr Miller's assessment that effects on the coastal marine environment from sediment or contaminants are likely to be less than minor.

- 9.238 We rely on the expert evidence of Dr Oliver and Mr Miller regarding the low potential for sedimentation effects on what is a nationally significant coastal wetland (Pauatahanui Inlet). We have included conditions based on all of their recommendations and have heard expert evidence from the applicant and GWRC on the effectiveness of the erosion and sediment controls and stormwater treatments proposed. We note that the Pauatahanui Inlet is a sensitive and significant receiving environment, it is currently subject to cumulative sedimentation stress from activities in the Duck Creek catchment and that the NZCPS requires we take a precautionary approach to protecting the Inlet. We have considered these facts in determining this consent and the conditions we have drafted. However, we note that ultimately the responsibility lies with the consent holder to effectively implement all of the conditions to the best of their ability and to the Council to audit for compliance and undertake enforcement action if necessary.

Flooding effects

- 9.239 A number of submitters were concerned about flooding, and potential flood risk arising from the proposed development. We were shown photos from previous flood events. NZTA were concerned earthworks associated with the development may cause the build-up of silt within the SH58 culvert reducing its capacity and leading to road closures due to flooding. We address this matter earlier in the report.
- 9.240 The applicant commissioned before and after flood modelling by Cardno to assess the proposed earthworks and stream realignment. This modelling has provided information on the required level of fill to provide flood free platforms for new dwellings and to assess the effects of this floodplain filling on existing dwellings. The modelling, which has used a conservatively high rainfall, has shown all of the proposed and existing lots are above 100-year flood levels⁷⁹. It has also shown that the effects of the proposed development on flood levels through the development area and upstream are less than minor⁸⁰.
- 9.241 A peer review of the Cardno flood model and reporting was carried out by Mr T. Joseph, numerical modelling Team Leader at Mott MacDonald. All results are contained within the Brookside Development Stormwater Model Review, Mott MacDonald, February 2016, unless stated otherwise. The key results of this peer review under relevant italicised headings are as follows:
- Consider all new stormwater systems or existing systems modified to accommodate new works can deliver an appropriate level of service.* Not addressed at this time, the developer will undertake detailed design as part of engineering approval.
- Ensure all stormwater can be conveyed in suitable pipes, formed channels or defined water courses to discharge points within the existing catchment.* Recommended that this be considered in the next phase of detailed design.
- Consider that the planned development can provide adequately for secondary overland flow paths to avoid flooding of existing and proposed properties.* It appears that most overland flow paths could potentially be conveyed down

⁷⁹ Evidence of Kyle Christensen, 17 March 2016, para 9

⁸⁰ Ibid, para 10

proposed road reserves without significant effort; it is recommended to further investigate the implication of this in the next phase of work.

Ensure there is minimal interruption of natural drainage or creation of ponding areas within the proposed development. Analysis shows there are three local ponding areas within the road reserve where further drainage may need to be considered to minimise ponding and associated overland flow. It is recommended this is considered in the detailed design phase of the work.

Consider emergency access to and from the proposed development for the 100 year future climate scenario within the context of the matters that are within the control of the applicant. The main road and all bridges appear to be designed above the 100 year future climate 2090 H flood extent.

Verify the additional runoff associated with the change in land use has been accounted for correctly. There is little difference between existing and proposed peak flows, which is expected.

Ensure climate change assumptions are in line with current MFE guidance. The most appropriate guide has been used.

Verify the impact of any loss of storage as a result of proposed fill areas in the existing floodplain. The letter from Thomas Joseph of Mott MacDonald dated 21 April 2016 advises: "Following the initial review of the additional data we are satisfied that the hydraulic model is accounting appropriately for the storage loss introduced by the proposed development".

Verify flows and levels at all proposed and existing structures with special attention to the increases in low/velocities predicted over SH58. This has been done as described in the review report.

Engineering comment of the frequency, depths and velocities of flooding along Duck Creek including within Brookside Park. The proposed walkway at the top of the bank along the entire reserve area is above the 10 year future climate flood level. The combination of frequent flooding and steep side slopes may make recreational use of the proposed Brookside Park difficult especially during storm events.

Comment of the effect of potential structure (culverts and bridges) blockages in the context of the existing catchment and existing structure. Blockage is not considered to be a significant risk.

Verify the number of existing and proposed structures at risk of habitable floor flooding in the 100 year future climate scenario and comment on freeboard provided for the extreme event. There are no existing or proposed properties estimated to be within the 100 year future climate 2090 H predicted flood levels. All of the proposed lots have been designed for a minimum of 300 mm freeboard. This methodology is appropriate.

Comment on the appropriateness of the proposed flood hazard maps for inclusion on proposed property LIMs. If the flood extents do intersect the lower sections of some property boundaries it is recommended to notify the LIM to ensure further development does not occur on the lower flood prone sections.

9.242 The Mott Macdonald Brookside Development Stormwater Model Review also commented, on page 6 that the hydrological and hydraulic methodologies employed in the Cardno modelling are widely accepted across the international industry and are considered appropriate for this analysis. It added that in general the hydrologic and hydraulic models are of high quality and are acceptable for this analysis.

9.243 In reply to question at the hearing regarding his view on the appropriateness of the Mannings n values used in the modelling Mr Joseph replied that they were within typical ranges and he felt they were appropriate.

- 9.244 Mr Christensen in the Cardno letter of 29 February 2016 responded to a number of the matters of the Mott Macdonald peer review for flooding. This response included comment that all overland flow paths will be carefully considered in the detailed design phase and shall be designed to pass the 100-year flood for the 2090-mid range climate scenario. He also agreed that flood hazard information should be included on LIMs. He also noted that the landscape design of Brookside Park has taken into account the regular inundation that will occur. No infrastructure is proposed that would be affected by flooding and the walkway is above the 10-year flood event.
- 9.245 There is a consent condition setting out minimum floor levels for each lot based on the results of the flood modelling.
- 9.246 In his letter to GWRC dated 21 April 2016 Mr Joseph advised that sea level rise should not have a major impact on the development given the current SH58 configuration. However, if future changes to the alignment or elevation of SH58 are undertaken consideration will be required to mitigate any adverse flooding.
- 9.247 We note that in respect to Mr Joseph's comments in his letter of 21 April that if future changes to the alignment or elevation of SH58 are undertaken consideration will be required to mitigate any adverse flooding, which lies outside the scope of this consent. Such matters would need to be addressed by PCC and NZTA.
- 9.248 We note NZTA's concern that earthworks associated with the development may cause the build-up of silt within the SH58 culvert reducing its capacity and leading to road closures due to flooding. This is addressed by a consent condition.
- 9.249 Mr Rhodes advised⁸¹ that overland flow paths are provided for satisfactorily in this proposal. Design of the overland flow paths will be provided in the detailed engineering plans which are and subject to approval by PCC. We also note that placement of flood hazard information on LIMs is a council responsibility and not a requirement of the consent holder.
- 9.250 We received no expert evidence from any of the submitters on flooding. However, we accepted the lay evidence presented to us in terms of previous flood events. We consider that the expert advice provided to us by the applicant and the Councils addresses these matters.
- 9.251 We find, based on the evidence of the applicant's, PCC's and GWRC's experts is that the proposal will minimise the risks and consequences of flooding, will not exacerbate flooding and has satisfactorily taken future climate change into account.

Erosion effects

- 9.252 The flood modelling carried out for the applicant by Cardno included an assessment of flood flow velocities and allowed identification of areas where there is a need for protection against erosion. Cardno identified such areas and whether they needed protection with rock or vegetation based on minimising the

⁸¹ Email from P. Rhodes to Andrew Jones, 8 March 2016

use of rock to where it is absolutely necessary to protect structures and embankment fill.

- 9.253 The initial peer review by Mott MacDonald recommended that significantly longer lengths of rock protection be provided than that recommended by Cardno.
- 9.254 After conferencing between Mr Christensen and Mr Joseph⁸² they both agreed on the extent of rock and vegetation protection work which is shown on Cardno Drawing no. NZ0115065-PL-C251 and needs to be included on any updated landscape plan.
- 9.255 Mr Young's opinion⁸³ is that alternative bio-engineering techniques should be considered wherever feasible to manage erosion of existing and earthworked batters. This is to reduce negative ecological effects of rock lining. In the event that rock protection is used he considers it should not require topping up.
- 9.256 Consent conditions address mitigation of the effects of bank stabilisation structures including minimisation of the extent of rock armouring and wherever feasible alternatives to the use of rock protection should be used such as mass stabilised earth structures.
- 9.257 There are also consent conditions addressing protection against erosion and scour from temporary and permanent stormwater pipes.
- 9.258 We find, based on the evidence of experts engaged by both the applicant and GWRC that erosion effects from the proposed development have been satisfactorily addressed by proposed erosion protection measures to be implemented through consent conditions.

Stormwater effects

- 9.259 Some submitters are concerned about water pollution and environmental effects on fish. Mr Johnstone's submission included the request for wetland ponds to be included as per the CDP.
- 9.260 The applicant described the stormwater quality outline design and stormwater concept in Annex 1 of their letter to Land Matters of 29 February 2016. Stormwater treatment is provided by a variety of methods including first flush basins, raingardens and soil filtration basins. Stormwater experts from PCC and GWRC have agreed the proposed stormwater system will effectively filter sediment particles and as a result the stormwater from the development would be managed appropriately⁸⁴.
- 9.261 Section 9.7 of the GWRC s42A report notes the main stormwater treatment system has been designed as a first flush system to remove the contaminants from stormwater discharges and will mitigate ongoing effects in the receiving environment including Duck Creek, the Duck Creek Scenic Reserve and the Pauatahanui Inlet.

⁸² Joint statement of flood and erosion experts, 6 April 2016

⁸³ Supplementary statement of evidence of Damian Young, undated, tabled at Hearing 7 April 2016

⁸⁴ GWRC s42A Report para 9.2.5

- 9.262 Paragraph 6.204 of the GWRC s42A report explains that the applicant considered wetlands for stormwater treatment but at this location presented a number of problems and consequently are not proposed to be used.
- 9.263 The proposed stormwater treatment devices will be constructed by the applicant and after completion of the subdivision will be handed over to PCC who will be responsible for ongoing operation and maintenance.
- 9.264 With respect to source control of potential stormwater contamination from bare metal roofing and cladding, the PCC condition requires the consent holder to ensure bare galvanised, zinc alum or unpainted metal that would lead to contamination of stormwater runoff upon corrosion shall not be used for roofing or building materials.
- 9.265 We find, based on the evidence of the applicant, GWRC and PCC, that stormwater effects from the proposed development have been satisfactorily addressed by proposed stormwater treatment measures and other measures included in the consent conditions. Further discussion of water quality in relation to stormwater effects is included in the sections below.

Cumulative effects

- 9.266 A number of submitters raised concerns regarding cumulative effects, in particular in respect to potential amenity effects arising from the infringements to the District Plan permitted activity standards and from traffic effects. There were also concerns regarding the cumulative effects arising from discharges into Duck Creek and the Pauatahanui Inlet.
- 9.267 We have addressed all these relevant effects through the matters in contention. In respect of these matters, we find that any potential adverse cumulative effects are able to be satisfactorily managed through the adaptive management approach, the management plan approach and the other conditions of consent imposed on the consent.

Esplanade reserves, reserves and walkways

- 9.268 The applicant seeks to waive esplanade reserve provisions under section 230(3) of the RMA, and provides an explanation for this in section 6.1.4 of the AEE. The AEE sets out that this is on the basis of taking an integrated approach of the reserves agreement (which was contained in the CDP) and that vesting or esplanade reserves or setting aside strips could complicate the intent of the agreement.
- 9.269 Some of the submitters raised concern around the waiver of the esplanade provisions and in respect to particular aspects of the reserves proposed through the development, including the walkways.
- 9.270 In respect of the waiver of the esplanade provisions:
- Mr Johnstone seeks that the land in the northern part of the site be taken out of any reserve assessment and leave it in the hands of the developer.
 - Mr Roberts referred at the hearing to an Environment Court declaration⁸⁵ on Duck Creek in respect of esplanade provisions.

⁸⁵ Whitby Coastal Estates Ltd vs Porirua City Council W61/208.

- Mr Wyatt seeks that the application not be granted until the applicant provides more details regarding the waiver of the esplanade reserves.

9.271 In respect of the reserve areas, including walkways, being provided:

- Ms Gracie of Sailmaker Close seeks that the development should link the existing walkway from Eclipse Lane / Observatory Close to run all the way around the South side / end through to Samuel Marsden College. She would also like more thought given to allowing sufficient recreational space for further development of a play area and potential café/restaurant.
- Mr Wyatt raised concerns at the hearing about no public recreation areas being put aside. In his opinion, walkways along the stream are a requirement and not for the benefit of the community.
- Wee Win Lau raised concern that minimal reserve land was proposed for such high density, no open space amenities such as playgrounds or open areas proposed.
- Mr and Mrs Roberts seek a walkway link to Shackle Lane and that access be provided to the existing walkway at the location of Bridge 3.

9.272 Mr and Mrs Noble raised concern in their submission and at the hearing regarding public safety and the steep banks of Duck Creek. Mr and Mrs Noble reiterated this concern in response to the recommended amended conditions of consent. We address this matter elsewhere in this decision.

9.273 We queried Mr Wyatt at the hearing if there were any parks within walking distance of the site. He replied that he believed there is a park to the south of the development that is quite a long distance for children to walk.

9.274 Council's Parks Planner, Ms Bates, advised us the two connections to existing walkways proposed would allow access through to neighbourhood parks in the area. She advised us that an underpass under James Cook Drive goes to Endeavour Park, meaning that there is a park and playground in close proximity. The shared pathway to Samuel Marsden provides access to another playground. She also advised that Brookside Park will also provide some open space amenity. In respect of the walkway potential opposite Bridge 3 through Reserve Area 3, she advised that she had looked at the feasibility but there was quite a gradient change and no earthworks proposed by the applicant to achieve a suitable gradient.

9.275 Mr Gray for PCC in his statement appended to the s42A report and as reiterated in the hearing, advised us that the new drainage and local purpose reserves proposed by the applicant total 3.3 hectares, and the total site area for Brookside is 13.34 hectares, meaning that almost 25% of the site area will become Council owned "green" open spaces. He advises that the 99,517m² of new housing and associated roading, would be set in the context of 180,487m² of Council reserve land within or adjoining the development.

9.276 Ms Bates for PCC that instead of setting aside esplanade reserves, it is proposed for Duck Creek to be contained within Local Purpose Reserves with a purpose being drainage, ecology and pathways. She advises that Reserve Areas 1, 2 and 4 have a minimum width of 20 metres and up to 45 metres at some points. She further advises that public access will be provided through a shared pathway constructed adjacent to the creek and the stream and its banks will be in public reserve. She advises that the reserves proposed to be vested are

similar in scale to what was proposed and agreed under the CDP. From our review of the CDP, we concur with Ms Bates' opinion in this regard.

- 9.277 In section 5.1.5 of the AEE, Mr Holmes sets out that the proposal would have 3,030m² more reserve area and minor variations in the extent of reserve areas compared to the CDP. This is because the realignment of Duck Creek and flood modelling extents have provided the opportunity to place more land in the stream side reserves.
- 9.278 We have read through the Environment Court declaration Mr Roberts referred us to. Our understanding of that declaration is that it sets out how any river and its bank should be measured to determine whether it would qualify or not as a river for the purposes of taking of an esplanade reserve. It does not declare that Duck Creek is a river for the purposes of taking esplanade reserves under s230(4) of the RMA, rather it provides a method for an assessment of whether reserves are required to be taken. We note counsel in his closing statement advises us that the applicant sought a waiver from the requirement to provide esplanade reserves should they apply. In his submission, the esplanade reserve requirement is not triggered, as the stream is not a "river" as defined in section 230(4). He did not provide us with any measurements to back up this statement.
- 9.279 Neither the application nor the PCC s42A (within whose jurisdiction the taking of reserves applies) provide us with any advice on the width of Duck Creek. However, we note from the GWRC s42A report that the width of Duck Creek is between 1.8 to 2.5 metres. This does not tell us however, what the width of the bed is and whether it comprises a river for the purposes of s230 of the RMA. We received no evidence from the submitters in respect of the width of Duck Creek, beyond the Environment Court declaration which we discuss above and we only find it useful to the extent of a methodology rather than a declaration that it is a river.
- 9.280 We understand that at present the site is privately owned and therefore there is no legal access for any member of the public through it. On our site visit we passed several members of the public using it as access. As such, we consider that one positive effect that would derive from the granting of consent would be to provide lawful public access and connections through the site.
- 9.281 We agree with Ms Bates that a walkway link opposite Bridge 3 would be problematic given the topography involved and could result in adverse safety effects. We noted that the same potential adverse effects could arise from a walkway down from Shackle Lane as was raised by Mr Roberts as an option at the hearing. There are some outstanding issues of how the walkway will link across Samuel Marsden College to Discovery Drive. As this is across a separate privately owned site, this is not a matter we are able to consider. Rather, we consider it a positive effect that there will be an opportunity to provide a public walkway through to Discovery Drive.
- 9.282 We note that the PCC recommended conditions of consent include a condition regarding the fencing of reserves. We have no concerns with the recommended condition.
- 9.283 We find that there will be positive effects associated with the provision of new reserves and walkways through the site. The reserves and walkways proposed will provide public access, assist to maintain and enhance water quality and

aquatic habitats, and will also assist with drainage. As such, we concur with Mr Jones that the intended purposes of esplanade reserves will be provided for.

Financial / Reserve Contribution

9.284 Mr David Wyatt seeks that the consent not be granted as the development agreement on face value appears not to be consistent with the obligations other developers have to abide by in Part E of the District Plan. No other submitters raise concerns regarding the matter of a development agreement or financial contribution.

9.285 As set out in the PCC S42A report, the applicant seeks that the recreation and civic development contributions payable on the subdivision be satisfied in accordance with a development agreement between the applicant and the Council. We find the following advice from Ms Julia Bates also contained in the s42A report useful to provide the context for this matter so repeat it below:

“If the Council and the developer enter into a Development Agreement which includes Parks assets then we will support waiving the cash recreation and civic financial contributions under Part E of the District Plan as an appropriate contribution will be made under the Development Agreement. The Development Agreement will include vesting the walkway and reserve land shown on the Scheme Plans in Council, the construction of the shared pathway from Samuel Marsden to James Cook Drive, walkway connections to existing neighbourhood pathways including the pathway being extended to Shackle Lane, park furniture, landscaping and signage. It is possible that entering into a Development Agreement with the applicant may result in some minor changes to the staging plan for land contained in Reserve Area 4. This matter is still being discussed with the applicant and this may result in an additional reserve allotment being created.

In the absence of the WCEL agreements for Duck Creek North successfully transferring to Jagger with its acquisition of Duck Creek North (Brookside) the development of this land is now subject to the Council’s Development Contributions Policy 2015 (DCP15). This policy came into effect on 1 July 2015.

However the land also remains subject to the Porirua City Council’s District Plan (District Plan) recreation and civic financial contribution provisions, in the absence of a reserves development agreement now applying to this land.

Therefore under the District Plan, unless otherwise varied by a development agreement, each new allotment will also be subject to a recreation and civic financial contribution of \$6535.04 (including GST). It is noted that this contribution is adjusted annually in accordance with changes to CPI and it will be charged on the rate applicable at the time of 224C. Changes take effect from 1 July each year.

9.286 Mr Jones then goes on to advise in 6.124 that development contributions will also be payable under the Development Contributions Policy for roading and recreation and civic developments if a development agreement is not reached. These would cover costs for roading, stormwater, the wastewater treatment plant and water supply.

9.287 We understand from Ms Bates’ and Mr Jones’ advice that the options available are:

- a development agreement prepared in accordance with the Development Contributions Policy or

- a financial contribution for recreation and civic under the District Plan provisions and a contribution for roading and infrastructure under the Development Contributions Policy.

9.288 In respect of the second point, we note that the provision of a financial contribution associated with an activity requiring a resource consent is a discretion available to the Council, rather than being a requirement.

9.289 At the close of the hearing, counsel for the applicant advised that progress continues to be made in respect of the development agreement. The applicant anticipates that it will address the basis on which the Council will take over the relevant land and responsibility for maintenance of the relevant mitigation planting and other measures into the future.

9.290 We note that Mr Wyatt provided comment on the planners' recommended amended condition 53, including the preceding note. My Wyatt's comment was on the substance of the condition, rather than the amendments proposed by the planners. In respect of the matter he raises, we consider that this is addressed in the PCC S42A.

9.291 It is unfortunate that the Council and the applicant were not able to resolve whether the application will proceed on the basis of a Development Agreement or a financial and development contribution prior to the hearing. We can understand the confusion around why there are two different pathways the development could go down in respect of contributions. It does seem unusual that the Council is still using financial contributions under the District Plan for recreation and civic elements, when it has a development contributions policy promulgated under the Local Government Act.

9.292 However, this is the situation that we are faced to consider. We understand that there are incentives both for the Council and the applicant to resolve the development agreement and we trust that this will be resolved in good time. However, as this has not been resolved we must proceed on the basis of considering Part E of the District Plan. As such, we concur with the recommendation of the Council that a financial contribution for recreation and civic shall be required as a condition of consent, unless the Council and consent holder enter into a development agreement prior to that. We are not able to legally require the payment of a development contribution; rather we concur that an advice note is appropriate. The Council has avenues beyond this consent and the RMA to ensure that a development contribution is paid.

Property values

9.293 Several of the submitters raised concerns that the proposed development would result in a loss of value to their properties. We did not receive any expert evidence from any of the submitters as to the basis for this concern.

9.294 Mr Jones in his s42A report advised us that Environment Court case law provides guidance in terms of considering values, and that if all adverse effects are considered, then separate weight should not be given to valuation as that would be a "double weighing" of factors. As noted above, we did not receive any valuation evidence. He states that he does not identify any adverse effects that would give rise to actual loss of property value from the proposed development.

- 9.295 Counsel for the applicant advised us in his closing that potential (and perceived) effects on property values are not a relevant consideration under the RMA, and reminded us that we had no evidence beyond assertion on the matter.
- 9.296 We have found elsewhere that all of the potential adverse effects of the proposal are able to be avoided, remedied or mitigated by the implementation of the suite of conditions of consents. We note that the site has been zoned Suburban since at least 1999 and is available therefore for residential development. Indeed, its development was signalled through the CDP. We find that Mr Jones and Mr Gardner-Hopkins' approach is correct.

Duration of lapse period and term of consents

- 9.297 Two of the submitters raised concern about the effects associated with a 10 year lapse period. Their particular concerns related to the time period over which they would be subjected to construction effects. We note that the default lapse period under the RMA is five years. We address construction effects earlier in this decision.
- 9.298 The applicant states in the AEE that the development would likely take upwards of seven years to complete, and therefore seeks a ten-year duration for the consents. This is with the exception of the placement and maintenance period for structures within Duck Creek which would have a 35 year term of consent.
- 9.299 In respect of the land use components Mr Jones advised that he consider the ten year period to be reasonable, particularly given the size of the development and that it would proceed over four stages.
- 9.300 In section 16 of his s42A report, Mr Fletcher sets out what he considers appropriate duration of consent periods for the regional components.
- 9.301 We appreciate the submitters' concerns about the length of time over which construction work is sought. Up to ten years is a long period of time in which to be adjacent to a construction site. However, this is a site that is zoned Suburban and available for residential development. Any development of the site would involve construction works, and given the size of the site, it is reasonable that this would not be able to comprehensively occur over the standard five-year period. It is likely that there would be a higher level of noise and traffic effects if the development were to occur over a shorter period. The staging of development into four stages will also mean that no one particular area will be subjected to effects for the entire construction period; with the exception of the nearest properties at Shoal Place which are located near to the access from James Cook Drive. These effects on Shoal Place are most likely to be associated with vehicle movements, rather than construction noise, and we have been advised that these vehicle effects are acceptable (see earlier in the decision).
- 9.302 We therefore find that the duration of the lapse period and the duration of consents, as recommended by the Council officers in the s42A report is acceptable.

Consultation

- 9.303 In their submission, Mr and Mrs Johnstone dispute the applicant's claim to have consulted adjoining residents on Observatory Close. This is particularly in regard the potential placement of fill on those properties. The matter of the proposal to

place fill on private owned land is addressed earlier in this decision. We note that this is ultimately a civil matter between the applicant and the landowners as to whether the landowners would agree for this fill to occur.

- 9.304 In respect of wider consultation, the RMA is clear; there is no duty for an applicant to consult⁸⁶ on a resource consent application. When an applicant does choose to consult, they are obliged to set out what consultation was undertaken and any response to the views of any person consulted.⁸⁷ From what is set out in the legislation, an application cannot fail on the basis that an applicant has not undertaken consultation. Section 8 of the AEE sets out the consultation undertaken and the applicant's response to that consultation. We find that this information meets the legal obligations under the RMA.

10 Alignment with the Policy Framework (s104(1)(b))

- 10.1 We have discussed the significance of any actual or potential effects on the environment of allowing the activity in our discussion of the matters in contention. Because of the nature of the matters in contention, this included for some matters an evaluation against the policy framework. For completeness, we now turn to the statutory provisions of section 104(1)(b) and in doing so, reference back as required to the matters in contention.

National Instruments

- 10.2 The GWRC s42A identifies the National Policy Statement on Freshwater Management 2014 (NPSFM) as being relevant to this application. Ms Conland's subsequent addendum submitted at the hearing also identifies the New Zealand Coastal Policy Statement (NZCPS) as being relevant. The PCC s42A also identifies the NZCPS as being relevant, but does not identify the NPSFM. The AEE submitted with the application identifies both the NPSFM and NZCPS as being relevant. Mr Anderson, counsel for Forest and Bird raised concern around the application of the NZCPS to the diversion and reclamation works. This is discussed in the relevant matters in contention. We did not hear any evidence from any other parties in respect to national policy statements.

National Policy Statement on Freshwater Management

- 10.3 In respect to the NPSFM, both Mr Holmes and Ms Conland agree that the intent of the NPSFM is that any more than minor potential adverse effects of activities, in relation to water takes, use, damming and diverting, as well as discharges, are thoroughly considered and actively managed.
- 10.4 Mr Holmes refers to Policy 5.2.10A of the Regional Freshwater Plan as giving effect to Part A4 of the NPSFM. He considers that the proposed activities are consistent with this policy. Ms Conland also refers to Policy 5.2.10A, as well as Policy 4.4.24A of the Regional Plan for Discharges to Land and Policies P66 and P110 of the Proposed Natural Resources Plan. In her opinion, the application is consistent with both the objectives and policies in Section A (Water Quality and Section B (Water Quantity) of the NPSFM⁸⁸.

⁸⁶ Section 36A of the RMA.

⁸⁷ Clause 6 of Schedule 4

⁸⁸ Specific reasons why are set out in section 10.1 of her addendum.

- 10.5 We consider the potential effects on water earlier in this decision, where we find that all effects on water quality, life-supporting capacity and ecosystem and human health that are more than minor have been appropriately avoided, remedied or mitigated through the proposal and the consent conditions. In this regard, we find that subject to compliance with conditions of consent the proposal is consistent with the NPSFM.

New Zealand Coastal Policy Statement

- 10.6 Ms Conland in her addendum identifies Objective 1 (safeguarding the coastal environment and sustaining its ecosystems), Policy 3 (requiring a precautionary approach), Policy 21 (enhancement of water quality), Policy 22 (sedimentation) and Policy 23 (discharges of contaminants) as being the relevant provisions of the NZCPS. In her opinion, the proposal is consistent with the relevant provisions of the NZCPS⁸⁹. Mr Jones in his s42A report, sets out a broader range of what provisions he considers relevant to this application, identifying Objectives 2, 3, 5 and 6 and Policies 11 and 22. In his opinion, the proposal is not inconsistent with the NZCPS⁹⁰.

- 10.7 Mr Holmes in Appendix 12 of the AEE identifies Objectives 1 to 6 and Policies 1 and 2, 4,6, 11, 22 and 23 as being relevant to this application. In his opinion, the proposal is consistent with the NZCPS⁹¹.

- 10.8 None of the planners identified the site as being within the coastal environment; rather they were concerned about potential impacts on the coastal environment and the coastal marine area. We received no evidence that the site was located within the coastal environment. We therefore accept that the site itself is not within the coastal environment. However, we did receive evidence on the area of potential Īnanga spawning habitat extending up to Bridge 2 and that Īnanga spawning is reliant on tidal inundation. Given that Īnanga are an at-risk species there is potential for NZCPS Policy 11(a)(i) to be relevant in this section of the site. We have adopted a precautionary and protective approach to Īnanga spawning and have included conditions throughout the GWRC consents to provide for this aspect of the coastal environment, particularly relating to restrictions on works coinciding with Īnanga spawning.

- 10.9 We consider the potential effects on the coastal environment and coastal management area earlier in this decision, where we find that that all effects on water quality, sedimentation and discharges of contaminants have been appropriately avoided, remedied or mitigated through the proposal and the recommended consent conditions. In this regard, subject to compliance with conditions of consent, we find the proposal is consistent with the NZCPS.

National Environmental Standards

- 10.10 The GWRC and PCC S42As are silent on any national environmental standards (NES). The applicant's AEE includes a discussion in respect of the National Environmental Standard on Sources of Human Drinking Water and states that the proposal would not be inconsistent with this NES. During the hearing, we heard evidence from Mr Roberts of the possibility of contamination from an old sawmill, towards the northern part of the site. Mr Jones advised us that if

⁸⁹ Specific reasons why are set out in section 10.1 of her addendum.

⁹⁰ Specific reasons are set out in paragraphs 6.235 – 6.240 of the S42A report.

⁹¹ Specific reasons are set out on pages 4 and 5 of Appendix 12 to the AEE and Section 10.1 of the AEE.

contamination was found during construction that a consent would be triggered under the NES for Assessing and Managing Contaminants in Soil to Protect Human Health. He advised that it would be appropriate to include an advice note on the consent identifying the potential need for a consent under the NES. Mr Jones did not proffer such an advice note for our consideration. In the circumstances, we consider it is appropriate to include an advice note.

10.11 We heard no other evidence about any other relevant national instrument.

Greater Wellington Regional Policy Statement 2013 (the RPS)

10.12 Mr Holmes, Ms Conland and Mr Jones all identify what they consider to be the relevant provisions of the RPS⁹². There is clear discrepancy between the planners as to the provisions that they consider to be relevant. We understand that the difference between Ms Conland and Mr Jones legitimately reflects the different functions that the two councils have under sections 30 and 31 of the RMA. However, it is unclear why Mr Holmes and Mr Jones did not consider Policy 53 in respect to public access to be relevant given that the consideration of esplanade reserves is a particular function for territorial authorities under Part 10 of the RMA. We also consider that Policies 38, 47 and 48 are relevant to the PCC consents. The following table sets out what the planners consider to be relevant.

Provision	Mr Holmes	Ms Conland	Mr Jones
<i>Policy 6: Recognising the regional significance of Porirua Harbour (including Pauatahanui Inlet and Onepoto Arm) – district and regional plans</i>	X		
<i>Policy 35: Preserving the natural character of the coastal environment – consideration</i>	X		
<i>Policy 36: Managing effects on natural character in the coastal environment - consideration</i>	X		
<i>Policy 37: Safeguarding the life-supporting capacity of coastal ecosystems - consideration</i>	X		
<i>Policy 38: Identifying the landward extent of the coastal environment - consideration</i>	X		
<i>Policy 40 - Safeguarding aquatic ecosystem health in water bodies</i>	X	X	
<i>Policy 41 – Minimising the effects of earthworks and vegetation disturbance</i>	X	X	X
<i>Policy 42 – Minimising contamination in stormwater from development</i>	X	X	X
<i>Policy 43 - Protecting aquatic ecological function of water bodies</i>	X	X	
<i>Policy 47 - Managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values</i>	X	X	
<i>Policy 48: Principles of the Treaty of Waitangi</i>	X	X	
<i>Policy 51 – Minimising the risks and consequences of natural hazards</i>	X	X	X
<i>Policy 52: Minimising adverse effects of hazard mitigation measures</i>	X		
<i>Policy 53: Public access to and along the coastal marine area, lakes and rivers – consideration</i>		X	

⁹² Pages 5 to 9 of Appendix 12 of the AEE; 10.2.1 of the addendum to the GWRC S42A report; paragraphs 6.228 – 6.232 of the PCC S42A report.

<i>Policy 57 – Integrating landuse and transportation</i>			X
<i>Policy 58 – Co-ordinating landuse with development and operation of infrastructure</i>	X		X

- 10.13 Irrespective of the difference between the planners, Ms Conland and Mr Jones consider in summary that the proposal is consistent / not inconsistent with the RPS, subject to certain matters being addressed at the hearing or subject to compliance with conditions of consent. We address these matters in the matters in contention above. Mr Holmes considers that the proposal is consistent with the RPS.
- 10.14 The Department of Conservation submission outlines that Duck Creek is identified as a river with significant indigenous ecosystems in Table 16 of the RPS. One concern of the Department of Conservation is the potential impacts of the proposal on the spawning habitat which is specifically identified in the Table. Forest and Bird identify Policy 47 of the RPS as being of significance, particularly in the interpretation of avoiding cumulative adverse effects of the incremental loss of significant habitat. Forest and Bird set out further in this regard in their legal submission presented at the hearing⁹³. We address these points in the matters in contention above.
- 10.15 We do not consider Policy 6 to be a relevant consideration, as this policy requires regional and district plans to include policies, rules and / or methods in respect to the Harbour. This is not a matter within our jurisdiction in considering this resource consent application. We therefore disregard it.
- 10.16 Overall, we find that the proposal is consistent with the RPS, subject to compliance with the conditions of consent.

Regional Plans

- 10.17 Mr Holmes and Ms Conland set out what they consider to be the relevant provisions of the Operative Regional Plans⁹⁴. Both planners identify the Regional Freshwater Plan (RFP) and Regional Plan for Discharges to Land (RPDL) as being relevant.
- 10.18 Mr Holmes has only considered the provisions of the Draft Natural Resources Plan⁹⁵, as the application was submitted prior to the Plan being publicly notified. Ms Conland has set out and evaluated the provisions of the Proposed Natural Resources Plan (PNRP), as notified⁹⁶.
- 10.19 The following table sets out what the planners consider to be relevant from the Operative Regional Plans.

Provision	Mr Holmes	Ms Conland
<i>Regional Freshwater Plan</i>		
Objectives 4.1.1 to 4.1.3 –		X

⁹³ The Forest and Bird legal submission also refers to Policy 43 but does not state which regional planning document is being referred to in respect to this policy. The wording quoted appears to refer to Policy 43 of the RPS, although the wording is not the same.

⁹⁴ Pages 10 to 14 of Appendix 12 of the AEE; Sections 10.2.2 and 10.2.3 of the Addendum to the GWRC S42A report.

⁹⁵ Pages 10 to 14 of Appendix 12 of the AEE.

⁹⁶ Section 10.2.4 of the Addendum to the GWRC S42A.

relationship of tangata whenua with fresh water		
Policy 4.2.1		X
Policy 4.2.2		X
Policy 4.2.4		X
Policy 4.2.7		X
Objectives 4.1.4 to 4.1.6 - Natural Values	4.1.4 only	X
Policy 4.2.33	X	
Policy 4.2.9		X
Policy 4.2.11		X
Policy 4.2.13	X	X
Objectives 4.1.7 and 4.1.8 Amenity Values and Access		X
Policy 4.2.16		X
Objectives 4.1.9 and 4.1.10		X
Policy 4.2.18		X
Policy 4.2.19	X	
Policy 4.2.22		X
Objectives 4.1.11 to 4.1.17 – Use and development		X
Policy 4.2.23		X
Policy 4.2.27		X
Policies 4.2.35 and 4.2.36		X
Objectives 5.1.1 to 5.1.3 – Water quality and discharges to water		X
Policy 5.2.6		X
Policies 5.2.10 and 5.2.10A		X
Policy 5.2.1		X
Policies 5.2.13 and 5.2.14		X
Objective 6.1.1 – Water quantity and the taking, use, damming or diversion of freshwater	X	X
Policy 6.2.2		
Policy 6.2.4A		X
Policy 6.2.14	X	
Policy 6.2.15	X	X
Policy 6.2.17		
Objective 7.1.1, 7.1.2 and Objective 7.1.4 – Use of beds of rivers and lakes	X	X
Policies 7.2.1 and 7.2.2	X	
Policies 7.2.3 and 7.2.4		X
Policy 7.2.9	X	
Policy 7.2.10		X
Policy 7.2.12	X	
Policies 7.2.13 and 7.2.14	X	
Policy 7.2.15	X	X
Regional Plan for Discharges to Land		
Policy 4.2.19		X

10.20 We note that Ms Conland has taken a wider view to the policies; but there remains a discrepancy between the two planners on which policies are relevant. We have considered the proposal in respect to all the policies referenced by the planners.

10.21 Ms Conland considers the following provisions of the PNRP to be relevant:

- Objectives:
 - O11
 - O15 – 18
 - O20
 - O24 – 29
 - O31
 - O35
 - O44
 - O46 and O47
- Policies:
 - P1
 - P4
 - P17 – P23
 - P26 – 27
 - P29 – 33
 - P37
 - P39 - 42
 - P44
 - P62
 - P66 – 67
 - P70 – 73
 - P79
 - P97 – 98
 - P102
 - P110

10.22 In respect to the weighting to be afforded to the PNRP, Ms Conland advises that the PRNP is in the early stages of the plan development process, and so has less weighting than if hearings had been held or decisions made. She concluded that the proposal generally meets the objectives and policies of the PNRP.

10.23 Overall, both planners consider the proposal to be consistent with the objectives and policies of the relevant regional plans, including the PNRP, subject to compliance with conditions of consent.

10.24 Forest and Bird in particular drew our attention to Policies 39 to 42 of the PNRP. Forest and Bird also discuss Policy 4.1.13, which we assume to be the same policy referred to as Ms Conland in the Regional Freshwater Plan. The Guardians of the Pauatahanui Inlet drew our attention to the status of the Duck Creek Scenic Reserve in the PNRP and the Salt Marsh and Duck Creek in the Regional Freshwater Plan. We discuss these points in the matters in contention.

10.25 We find that overall the proposal is consistent with the RFP, the RPD and the PNRP, subject to compliance with the conditions of consent.

Operative Porirua City District Plan

10.26 Mr Holmes and Mr Jones set out what they consider to be the relevant provisions of the Operative Porirua City District Plan (the District Plan). The following table sets out the provisions the planners consider to be relevant.

Provision	Mr Holmes	Mr Jones
<i>Subdivision</i>		
Objective C6.1	X	X
Policy 6.1.3	X	
Policy 6.1.4	X	X
Policy 6.1.7	X	X
<i>Suburban Zone</i>		
Objective C3.1	X	X
Policy C3.1.2	X	X
Objective C3.2	X	X
Policy C3.2.1	X	X
Policy C3.2.3	X	X
Policy C3.2.5	X	
<i>Treaty of Waitangi</i>		
Objective C5.1	X	
Policy 5.1.1	X	
Policy 5.1.4	X	
Policy 5.1.6	X	
<i>Transport</i>		
Objective C7.1	X	X
Policy C7.1.1	X	
Policy C7.1.2	X	X
Policy C7.1.6	X	X
Policy 7.1.7	X	
Policy 7.1.9	X	X
<i>Landscape and Ecology</i>		
Objective C9.1	X	X
Policy C9.1.1	X	X
Policy C9.1.12	X	
Policy C9.1.13	X	
Policy C9.1.14	X	
Policy C9.1.15	X	X
<i>Coastal</i>		
Objective 10.1	X	X
Policy 10.1.5	X	X
<i>Noise</i>		
Objective C11.1		X
Policy C11.1.1		X
<i>Natural Hazards</i>		
Objective 12.1	X	X
Policy C12.1.1	X	
Policy C12.1.4	X	X
Objective C12.2	X	X
Policy C12.2.1	X	X

10.27 As outlined earlier, Mr and Mrs Roberts' submission raised concern about the Council and us as decision makers, having discretion to grant consent for infringements to the District Plan. We have addressed that earlier. The applicant has a right under the District Plan and the RMA to apply for a resource consent that does not comply with the permitted activity standards and we must assess that as a discretionary activity. The objectives and policies of the District Plan

provide the policy framework against which we must consider a resource consent seeking to not comply with the permitted activity standards.

- 10.28 Mr Johnstone raises concern that if the deviations to the current standards is given on this scale on a large subdivision like this, it will flow into the District Plan codes and standards, if they have been found acceptable through this consent.
- 10.29 In her submission, Ms Yvonne Fletcher asks how the application sits with Policy C10.1.5, which seeks to manage the effects of activities such as earthworks...". Her primary concerns in her submission are focussed on the discharge of sediments and chemical flocculants in treated stormwater runoff to Duck Creek and to land where it may enter Duck Creek, and what the follow on effects on the Inlet may be. We discuss this further under the relevant matters in contention.
- 10.30 No other submitter made specific mention of District Plan provisions.
- 10.31 We note there was some discrepancy between Mr Holmes and Mr Jones in which objectives and policies are relevant. Regardless of this discrepancy, Mr Jones concludes that the proposal is not inconsistent with the relevant District Plan objectives and policies, subject to the imposition of suitable consent conditions. Mr Holmes considers at a broad level that the proposal is wholly consistent with the intent of the District Plan.
- 10.32 We consider the Treaty of Waitangi and noise objectives and policies to be relevant, given the identified interest of Ngāti Toa in the site and the concerns of the submitters. We have addressed all of the matters traversed by the District Plan objectives and policies in our discussion on the matters in contention. Overall, we find that subject to compliance with the conditions of consent, the proposal is consistent with the objectives and policies of the District Plan.

11 Other matters s104(1)(c)

- 11.1 The CDP was raised by several of the submitters, as well as referenced by the two Council officers in their s42A reports and the applicant. We have addressed the CDP earlier, where we found it to be a relevant other matter for consideration, albeit little weight can be afforded to it given its non-statutory status.
- 11.2 The applicant's AEE⁹⁷ sets out that the key strategic document of the Wellington Conservancy of the Department of Conservation is the Conservation Management Strategy (CMS). This CMS identifies Duck Creek Scenic Reserve and Pauatahanui Inlet. The Inlet in particular is identified as a priority site, with identified key threats. We concur the CMS is a relevant other matter. The AEE quotes the relevant objective and policy. As we have outlined earlier, we concur that the proposed mitigation measures and compliance with conditions of consent will assist to protect the Inlet and the Scenic Reserve from adverse effects arising from the proposed development.
- 11.3 The applicant's AEE also identifies the Freshwater Fisheries Regulations as requiring fish passage for indigenous fish. We find that this is a relevant other

⁹⁷ Section 10.7, Page 60 of the AEE

matter. We have addressed fish passage earlier where we found conditions of consent adequately avoid any adverse effects on fish passage in Duck Creek.

- 11.4 In our first direction, we asked the applicant and Council planners to address whether the Porirua Harbour and Catchment Strategy and Action Plan (the Strategy) was a relevant other matter.
- 11.5 Mr Holmes' statement of evidence⁹⁸ sets out that he does consider the Strategy a relevant other matter. In particular, he quotes action plan SA7 which seeks to improve the Duck Creek development environmental design through developer involvement. He considers that the sediment retention, stormwater quality controls and stream bank restoration measures which form part of the proposal, including through conditions of consent, are consistent with the Action Plan and vision for the Harbour.
- 11.6 Mr Jones, Mr Fletcher and Ms Conland do not address the Strategy in their S42A reports as being a relevant other matter, with Mr Jones not referencing any other matters under s104(1)(c) and Mr Fletcher and Ms Conland only referencing the PCC District Plan as an other matter (which we find is a relevant consideration under s104(1)(b)). However, we note the advice from Mr Rhodes in the PCC S42A report that the stormwater treatment has been designed to comply with the intentions of the Strategy⁹⁹.
- 11.7 In its submission, Forest and Bird set out that they were a party to the development of the Strategy, as well as noting that they own a reserve at Pauatahanui and have a long history of conservation action in the Porirua region.
- 11.8 The Department of Conservation also refers to the Strategy in its submission, stating that it is appropriate to include compensation requirements in the event that sediment deposition within the inlet exceeds trigger levels.
- 11.9 We prefer the evidence of the applicant, Forest and Bird and the Department of Conservation to the Council officers in this regard, and do consider that the Strategy is a relevant other matter, insofar as it sets out a vision for the health and wellbeing of the Harbour and an action plan to achieve this vision. However, as a non-statutory document with no regulatory framework, we do not afford it the same weight as we do the planning documents under s104(1)(b).
- 11.10 We heard no evidence in respect of other matters.

12 Conditions s108

- 12.1 We have addressed the provision of the conditions earlier in this decision. As outlined earlier, the final draft recommended conditions were not available until after we had adjourned the hearing following the applicant's right of reply and hence the submitters had not had an opportunity to comment on them.
- 12.2 To ensure a fair process and natural justice, we provided the submitters with an opportunity to comment on the draft recommended conditions of consent contained in the planners' joint statement. We carefully considered the feedback

⁹⁸ Paragraph 81, page 19 of the Statement of Evidence dated 18 March 2016

⁹⁹ Quoted in paragraph 6.204 of Mr Jones S42A report.

obtained from the submitters and we thank them for the time that they took in doing so.

- 12.3 Having reviewed the recommended draft conditions and the feedback from the submitters, we find the conditions to generally be appropriate. As outlined through our evaluation in section 9, we have amended and added to the recommended conditions of consent to ensure that they provide adequate clarity and certainty for all parties.

13 Part 2 Assessment

- 13.1 This application is to be considered under section 104 of the RMA, which sets out the matters that consent authorities shall have regard to when considering resource consent applications, subject to Part 2 of the RMA, as discussed above.
- 13.2 In undertaking an evaluation as to whether the proposal is likely to promote the sustainable management of natural and physical resources, as defined in section 5 of the RMA, we have carefully considered the evidence presented.
- 13.3 With respect to the seven section 6 RMA matters of national importance which must be recognised and provided for in decisions, we find that the following matters are relevant:
- (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:
 - (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 Māori 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:
- 13.4 In respect to matter (a), the preservation of natural character of the coastal environment, wetland, Duck Creek and its margins was critical to our consideration of the proposal. A number of consent conditions have been crafted to protect the natural character and ecological aspects of the Pauatahanui Inlet, the salt marsh estuary and wetland habitat within the DOC scenic reserve and Duck Creek and its margins. Where these values have extended into the applicant's land additional conditions have been proposed specifically to preserve these aspects, including replanting vegetation removed adjacent to the salt marsh, in-fill planting and covenanting of vegetation on lots adjacent to the Yardarm and Duck Creek Bush ecosites and the proposed indigenous riparian planting and protection of existing indigenous riparian vegetation along the margins of Duck Creek.
- 13.5 In respect to matter (c), we heard from Mr Miller that in his opinion the indigenous vegetation associated with the ecosites did constitute a s6(c) matter. This is also a relevant consideration with respect to the habitat provided by Duck Creek for native fish and the īnanga spawning area in the northern end of the site.

- 13.6 In respect of matter (d), we find that the proposed reserve and walkway network proposed by the applicant, and accepted by PCC Parks who will take them over as a Council asset, will enhance public access through the site, and alongside Duck Creek. Importantly, it will provide a walkway link through the site to link in close proximity to Te Awarua-o-Porirua Harbour.
- 13.7 In respect of matter (e), Ngāti Toa is recognised as having a relationship with the Wai-o-Hata area. With this in mind, provision has been made for Ngāti Toa, through conditions, for the continued sharing of information, active engagement and future access to Wai-o-Hata. If koiwi, taonga or other archaeological material is discovered on site, the discovery of artefacts condition requires Ngāti Toa to be advised within 24 hours. Further to this, management plans provide for a regime to determine if an Archaeological Authority is required in the event archaeological and cultural remains are discovered. Having regard to the above, we consider that in terms of s6(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga has been recognised and provided for within the context of the Brookside development site being in private ownership.
- 13.8 With respect to matter (h), we are satisfied that the heritage and archaeological concerns raised by NZHPT are satisfactorily recognised and provided for through the conditions of consent.
- 13.9 With respect to the eleven section 7 RMA other matters to which decision makers must have particular regard, we find that the following sections are relevant:
- (a) kaitiakitanga:
 - (b) the efficient use and development of natural and physical resources:
 - (c) the maintenance and enhancement of amenity values:
 - (d) intrinsic values of ecosystems:
 - (f) maintenance and enhancement of the quality of the environment:
 - (g) the finite characteristics of natural and physical resources:
 - (i) the effects of climate change:
- 13.10 We note that the requirement to “have particular regard to” is a less onerous requirement than that imposed by section 6. Nonetheless these are matters to which decision makers are required to turn their minds in considering the application. While the planners did not consider S7(a) to be a relevant consideration, given the association that Ngāti Toa have with the site, Duck Creek and Te Awarua o Porirua Harbour, we consider that it is relevant.
- 13.11 With respect to matter (a), Ngāti Toa engaged with the applicant prior to the application being lodged but circumstances precluded their further involvement until the hearing. Ngāti Toa objected to the application and do not accept the Brookside development has enabled Ngāti Toa to exercise kaitiakitanga. At the conclusion of the hearing conditions provided for Ngāti Toa involvement throughout the development with GWRC advising that a structure was currently being developed with respect to Ngāti Toa undertaking cultural health monitoring in these catchments. Having regard to the above, we conclude the applicant has had particular regard to kaitiakitanga.
- 13.12 With respect to (b), we concur with the advice of the planners that the proposal will make efficient use of an existing vacant and unused site for the purpose for

which it is zoned. The diversion of the stream will also enable a greater number of sections to be formed.

- 13.13 With respect to matters (c) and (f), we find that the amenity values and quality of the environment will be maintained beyond the site, and enhanced within the site in respect to the riparian and wider landscape planting, as well as the provision of walkways available to the general public. We find that any adverse effects of amenity values beyond the site are adequately mitigated through conditions of consent, so that amenity is maintained.
- 13.14 With respect to (d), the intrinsic values of ecosystems have been considered in depth for the terrestrial vegetation, lizards and the habitat associated with Duck Creek, the salt marsh estuary and the Pauatahanui Inlet. According to the evidence of Mr Miller the effect of the overall proposal (in conjunction with the recommended consent conditions) will result in “no net loss” of ecological values at the site. We concur with Mr Miller’s conclusions in this regard.
- 13.15 With respect to (g), we concur with Ms Conland that the effects arising from the permanent loss of part of the stream are adequately remedied through the additional riparian planting which forms part of this proposal.
- 13.16 With respect to (h), we are satisfied by the evidence presented to us by the applicant and the Councils that the effects of climate change, and in particular sea level rise and flood events, have been had particular regard to and that any potential adverse effects can be appropriately managed through the consent conditions.
- 13.17 We are required to take into account the principles of the Treaty of Waitangi in any decision we make.
- 13.18 We were not advised that any Treaty issues arose in this context. We note consultation occurred with Ngāti Toa and continued through the hearing with commitments being made by the Applicant to continue to engage with Ngāti Toa throughout the development. Accordingly, we accept the applicant has responded appropriately to section 8 issues.
- 13.19 The final task for decision makers is to make an overall evaluation of the application in light of the purpose of the RMA, as stated in section 5. Section 5 Purpose states:
- (1) *The purpose of this Act is to promote the sustainable management of natural and physical resources.*
 - (2) *In this Act, “sustainable management” means 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 wellbeing 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.”*

- 13.20 The RMA requires applicants to demonstrate that their activities promote the sustainable management of natural and physical resources, and that provided the adverse effects generated by such activities fall within “acceptable” bounds – either through being avoided, remedied or mitigated – their activities are enabled.
- 13.21 As discussed within the body of this decision and based on the evidence heard and the submissions received, and the conditions as amended through the course of the hearing, we are satisfied that the proposed development will not result in such significant adverse effects that are unable to be dealt with by way of appropriate conditions. We have carefully considered the concerns raised by the submitters in coming to our conclusion, given the wide breadth of matters raised. We find that with the adaptive management approach proposed by the applicant, the management regime and the other conditions of consent contained within the suite of consents, that the proposal will be of a nature and scale that will not result in any more than minor adverse effects beyond the site. In making our decision, we carefully considered that the site is zoned for residential development and this proposal will enable the use of what is currently a vacant site in a manner that will not be inconsistent or detrimental to the wider neighbourhood.
- 13.22 We are also satisfied that the application for this activity either gives effect to or is consistent with the relevant planning documents when read as a whole. Furthermore, and having considered all relevant requirements, we find that the purpose of the RMA is likely to be better served by granting this aspect of the application with appropriate conditions than by declining it.

14 Conclusion and Decision

- 14.1 Acting under delegated authority pursuant to section 34A, and sections 104, 104B, and 108, S220, S230 and S243 of the Resource Management Act 1991, the application made by Jagger NZ Limited for:
- land use and subdivision consent (RC RC6922-SL0046/15) to:
 - undertake a 148 lot subdivision consisting of residential lots, road and reserves to vest and balance lots, which includes contravening permitted activity standards in respect to earthworks, financial contributions, outdoor living area, private ways and driveways, site coverage, vehicle movements and front yard; and
 - vary or cancel a consent notice; and
 - vary or surrender existing easements; and
 - the waiver of esplanade reserve requirements
 - is granted.

WGN160028 [33621]: Water permit to divert the flow of Duck Creek is granted for a period of 35 years.

WGN160028 [33622]: Discharge permit to discharge sediment and chemical flocculants within treated stormwater runoff to Duck Creek, and to land where it may enter Duck Creek, in association with bulk earthworks for a residential subdivision is granted for a period of 10 years.

WGN160028 [33623]: Land use consent to construct three permanent bridges and place eleven stormwater outlet structures is granted for a period of 35 years.

WGN160028 [33624]: Land use consent to reclaim the bed of Duck Creek in two reaches, being 185 metres and 40 metres in streambed length is granted for an unlimited period.

WGN160028 [33647]: Land use consent to place a stormwater pipe under the bed of Duck Creek is granted for a period of 35 years.

WGN160028 [33648]: Land use consent to construct three temporary bridges and a temporary stormwater pipe is granted for a period of 10 years.

WGN160028 [33649]: Land use consent to undertake bank stabilisation works within Duck Creek is granted for a period of 35 years.

14.2 This decision is made for the reasons discussed throughout and, in summary, because:

- The activity that is **granted** is consistent with the purpose and principles of the Resource Management Act 1991;
- Subject to the imposition of appropriate conditions, the activity that is **granted** is generally consistent with the provisions of the Porirua District Plan, the Regional Freshwater Plan, the Regional Plan for Discharges to Land, the Proposed Natural Resources Plan, the Regional Policy Statement for the Wellington Region, the National Policy Statement for Freshwater Management and the New Zealand Coastal Policy Statement; and
- The activity that is **granted** is unlikely to have any significant adverse effects on the environment provided the conditions imposed are fully implemented.

14.3 The consent conditions attached as *Appendix 1 – Conditions of Consent* are imposed.



Commissioner Gina Sweetman



Commissioner Nigel Mark-Brown



Commissioner Glenice Paine



Commissioner Kate McArthur

Date: 24 May 2016

APPENDIX 1

CONDITIONS OF CONSENT

PCC –Conditions of Consent

The Land Use Consent shall be subject to the conditions listed under A and the Subdivision Consent shall be subject to the conditions listed under B below:

A – Land Use Consent Conditions

1. That the development be in general accordance with the information and plans submitted with the application and held on Council file RC6922 and stamped ‘Approved Plans for Resource Consent RC6922’ except where superseded by further information and plans received on 15 September 2015 and superseded by the following information and plans;
 - *Report titled ‘Site Liquefaction Potential for Proposed Subdivision Duck Creek North, Whitby, Porirua’ by Abuild Consulting Engineers Ltd and dated 17 November 2015.*
 - *Draft Report titled ‘Brookside Development Stormwater Model Review by Mott MacDonald dated February 2016.*
 - *Revised Roading Layout plans Drawing No PL- C312-C314 Rev 3.*
 - *Site Areas and Coverage Provision Plan Drawing No SIZ – 1 Rev 04.*
 - *Traffic Management SH58 – Temporary Access Plan Figure 1 Rev 0 by Tonkin + Taylor Dated Feb 16*
 - *Report titled ‘Brookside Development (GWRC WGN160028 and PCC RC6922-SL0046/15) – Response to Flooding, Erosion and Stormwater Comments’ dated 29 February 2016 & ‘Pond Efficiency Design Brookside Consent’ dated 01 March 2016 by Cardno.*
 - *Stormwater Treatment Concept Plans Drawing No’s PL-SK511r2, SK512 to SK514r1, SK515r2 and SK516 to SK517r110*
 - *Cardno Drawing No NZ0115065-PL-C251 and*
 - *10 Year Flood Event Velocities 2.7 & 4m/s & 100 Year Flood Event Velocities 4m/s Plans by Cardno*

Minor alterations may be approved upon request providing the development is not materially different, the scale and intensity of adverse effects will be no greater, and no approval from affected persons is needed.

Prior to commencement of works

2. The consent holder shall provide a copy of this consent and any documents referred to in this consent to each operator or contractor undertaking works authorised by this consent, before that operator or contractor starts any works.

3. The consent holder shall ensure that a copy of this consent is kept in the office on site at all times and presented to any Porirua City Council officer on request.
4. That the consent holder shall contact the Council's compliance monitoring officer at least 48 hours prior to any physical work commencing on the site and advise the officer of the date upon which such works will commence.
5. Prior to the commencement of any works on the site, the applicant shall provide evidence to the Resource Consent Monitoring and Enforcement Team that a suitably qualified chartered professional engineer experienced in geotechnical matters, including liquefaction, has been appointed to carry out the design, supervision and certification of earthworks.
6. Prior to the commencement of works, the consent holder shall appoint a representative to carry out the design and supervision of construction works, and certification upon completion, as provided by Sections 1.7 and 1.8 of NZS4404:2010. This representative shall carry out the duties described by Sections 1.7 and 1.8 of NZS4404:2010.
7. Prior to commencement of works to construct roads and pathways, the consent holder shall submit to the Manager Resource Consents, Policy, Planning & Regulatory Services, for approval a detailed streetscape planting plans for all hard (pathways and street furniture) and soft (vegetation) landscaping in general accordance with approved "*Landscape Concept plans Sheets 1 to 6 and Urban Design & Landscape Management Plan by Cardno dated 1 September 2015*" and *Cardno Drawing no. NZ0115065-PL-C251* and any updated planting or works with respect to the Ecological Remediation and Compensations Plan required under GWRC consents.
8. Prior to commencement of works, the native vegetation outside of the proposed earthwork areas adjacent to The Yardarm Bush, Duck Creek Saltmarsh and Duck Creek Bush Ecological Sites, and the native vegetation located within proposed Reserve Area 2, shall be clearly demarcated with a high visibility material such as fluorescent netting and waratah fencing.
9. Prior to the commencement of clearance of any vegetation adjacent to The Yardarm Bush and Duck Creek Bush Ecological sites, the consent holder shall ensure that a lizard survey and rescue operation be undertaken. The survey and any rescue operation shall be undertaken by a suitably qualified and experienced herpetologist.
10. Prior to commencement of each stage of earthworks, the consent holder shall submit an Erosion and Sediment Control Plan specific to that stage, to the Manager Resource Consents, Policy, Planning & Regulatory Services for approval.
11. The consent holder shall ensure that prior to the commencement of any works on the site that all silt and sediment control measures are in place in accordance with

the Erosion and Sediment Control Plan approved in accordance with Condition 10 of this resource consent.

12. Prior to any construction vehicles entering the site over the access road to the Duck Creek Pumping Station off State Highway 58, the consent holder shall provide a CCTV record and a condition report of the rising sewer main along the proposed access road to the Duck Creek Pumping Station.
13. Prior to commencement of works the applicant shall provide an updated "*Environmental Management Plan for Construction*" (EMPC) which shall include:
 - a) Statutory, consenting and contractual requirements
 - b) Responsibilities and contact details of all parties involved
 - c) Details of environmental site induction
 - d) Inspections, monitoring and reporting
 - e) Complaints and feedback procedures
 - f) Process for amending the Environmental Management Plan for Construction
 - g) Contingency measures – procedures to be followed in the event of an environmental incident
 - h) Environmental impacts and risk assessment, including the site limitations, main construction activities and potential adverse effects due to the works including noise and dust, both within the site as well as on Duck Creek and the Pauatahanui Inlet
 - i) Details of proposed measures to mitigate adverse effects on the sewer network from construction traffic accessing the site over the access road to the Duck Creek Pumping Station off State Highway 58
 - j) Provisions for archaeology, including whether an archaeological authority is required under the Heritage New Zealand Pouhere Taonga Act 2014 and/or procedures to be followed in the event that archaeological or cultural material is discovered.
14. Prior to the commencement of construction, the consent holder shall construct temporary stabilised entrance crossings to be used by vehicles to enter and exit the construction site.
15. Prior to commencement of the civil works, the consent holder shall submit for approval by the Manager Resource Consents, Policy, Planning & Regulatory Services, the consent holder shall submit design details and a plan of the road markings for right turn bay in James Cook Drive and the intersection the entrance to Road 1, to the satisfaction of Manager Resource Consents, Policy, Planning & Regulatory Services,

During construction

16. The hours of construction shall be limited to Monday to Friday between the hours of 7.30am and 6.00pm and Saturday 8.00am to 4.00pm. These hours include warm-up of machinery. Exceptions include:
 - (i) Heavy machinery or plant may only access/exit the site and operate on the site between 8.00am and 6.00pm Monday to Friday and between 8.00am and 4.00pm Saturday.
 - (ii) No construction works shall be permitted outside of these times or on Sundays or public holidays.
17. Mufflers shall be used on all earthworking machinery to reduce the noise emanating from these machines and thus the effect on residents.
18. All earthworks and other construction activity on the subject site shall comply with the New Zealand Standard 6803:1999 for Acoustics – Construction Noise.
19. For the duration of the construction, the consent holder shall ensure that a person is available to respond to any reasonable requests and/or complaints made by the public and that a phone number at which that person can be contacted will be advised to the Porirua City Council Monitoring and Enforcement Officer prior to any construction commencing
20. For the purpose of compliance with Condition 19, the consent holder shall ensure that a sign, measuring 1m², shall be placed in a prominent position on the boundary of the site. The sign shall contain 24-hour contact details of persons who shall be available to respond to any reasonable requests and/or complaints made and shall be maintained throughout the construction period. A register of all such complaints shall be maintained on site and shall be available for inspection during normal office hours.
21. For the duration of the construction, the native vegetation outside of the fill areas as demarcated in accordance with Condition 8 shall not be damaged or removed.
22. If Taonga (treasure or prized possessions, including a natural resource, having tangible or intangible value and being irreplaceable in a spiritual sense) is discovered in any area or if any skeletal remains or similar material are uncovered, the applicant or the applicant's representative are to contact the Ngati Toa Rangatira (through Te Runanga O Toa Rangatira Incorporated), the New Zealand Historic Places Trust and Porirua City Council. All work in that area is to cease until a site inspection is carried out by Ngati Toa representatives and Council staff and approval to continue is given by the Manager Resource Consents, Policy, Planning & Regulatory Services, Porirua City Council.
23. The consent holder shall follow all recommendations contained within the geotechnical assessments held on resource consent file RC6922 titled "*Geotechnical Assessment For Proposed Subdivision Duck Creek North Whitby, Porirua Ref 10113 Rev B Dated August 2015*" and "*Site Liquefaction Potential*

For Proposed Subdivision Duck Creek North Whitby, Porirua Ref 10113 Dated November 17 2015” by ABuild Consulting Engineers Ltd.

24. All fills, excluding temporary stockpile areas, are to be compacted in accordance with the Code of Practice for Earth Fill for Residential Development, NZS 4431:1989, except as recommended by the engineering assessments detailed under condition 23 above.
25. The consent holder shall follow all recommendations contained within the ‘Environmental Management Plan for Construction’ as approved under Condition 13.
26. The consent holder shall take all practicable steps to ensure that all storm water run-off from the site is treated in accordance with the Erosion and Sediment Control Plan specific to that stage as approved under condition 10, so that sediment is retained on site and the discharge does not cause adverse effects on the environment (after a reasonable mixing zone) by entering either the kerb and channel, the storm water system, or a natural watercourse.
27. The consent holder shall employ appropriate measures to ensure that any discharge of dust is not noxious, dangerous, offensive or objectionable beyond the site boundary. This shall include, but not be limited to, the measures in Condition 28 and 29 which are to be implemented through the EMPC.
28. The consent holder shall take all practicable measures to minimise the discharge of dust from the site. These measures shall include, but not be limited to:
 - a. Training staff and contractors on practices relating to minimising dust emissions, dust control and procedures for reporting and dealing with dust emissions if they arise;
 - b. Minimising the areas of exposed ground;
 - c. Mulching, re-grassing and/or planting of bare areas such as topsoil piles and completed batters as soon as reasonably practicable;
 - d. Using water and/or dust suppressants on all disturbed surfaces including roads when required;
 - e. Applying a speed restriction on all internal roads and not exceeding 30km/hr at all times and erecting a sign at the entrance to the site advising of this;
 - f. When loading materials onto trucks, drop heights from excavators shall be minimised as much as is practicable to limit dust emissions.
 - g. A water tanker will be available on site during dry periods.
29. If earthworked materials are carried onto the surrounding road network, the consent holder shall be responsible for cleaning and repairing the road back to its original condition each evening during the earthworks period. In doing this, the consent holder shall ensure that no materials are washed or swept into any stormwater drains or natural drainage systems.

Following construction

30. Within 6 months of completion of the earthworks or prior to an application of Section 224 certification for each stage, whichever occurs first, plans are to be supplied to the Manager Resource Consents, Policy, Planning & Regulatory Services showing the location of all fill compaction tests, together with a certificate prepared by a chartered engineer appointed under condition 5 above stating the suitability of the earthworks for residential development (Statement of Professional Opinion as to Suitability of Land for Building Construction).

Where the report identifies development limitations, the Manager Resource Consents, Policy, Planning & Regulatory Services may require that a consent notice be imposed on Computer Freehold Register/s giving notice of the limitations or specific development requirements relating thereto. The costs associated with the preparation and registration of any consent notices are to be met by the consent holder.

31. Within 6 months of the completion of the works or prior to any application for Section 224 certification for each stage, whichever occurs first, and prior to buildings being constructed on the land, the consent holder shall provide to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services, a geotechnical completion report from a Chartered Professional Engineer with geotechnical & liquefaction experience, stating the suitability of residential lot development, including:

- a. Confirmation that land consolidation is completed.
- b. Confirmation that earthworks and/or building platforms have been constructed to comply with the New Zealand Building Code requirements, and recommend foundation requirements (in accordance with Ministry of Business, Innovation and Employment's (MBIE) technical guidelines).
- c. Identifying the final position of all building restriction areas, if any.
- d. Identifying any lots, or parts of lots, that are unsuitable for building development, if any.

If the report identifies any significant development limitations, that would be matters of ongoing compliance, the Manager Resource Consents, Policy, Planning & Regulatory Services may require that a consent notice be imposed on Computer Freehold Register/s giving notice of the ongoing limitations or specific development requirements relating thereto. The costs associated with the preparation and registration of any consent notices are to be met by the consent holder.

32. Within 6 months of completion of the earthworks or prior to an application for Section 224 certification of any subsequent subdivision consent stage, whichever occurs first, (or, if deemed necessary by Council, during the earthworks period) the consent holder shall provide to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services, a report from a chartered engineer with geotechnical experience addressing the stability of the constructed

cut batters. This report shall give specific reference to section C2.6 of Porirua City Council's Code of Land Development 2010.

Where the report identifies development limitations, the Manager Resource Consents, Policy, Planning & Regulatory Services may require that a consent notice be imposed on Computer Freehold Register/s giving notice of the limitations or specific development requirements relating thereto. The costs associated with the preparation and registration of any consent notices are to be met by the consent holder.

33. If cuts are stabilised by retaining walls within 6 months of the commencement of earthworks or prior to application for Section 224 certification for each stage, whichever occurs first, then the requirement for a report from a Chartered Professional Engineer shall not apply (as per condition 32). Where retained cuts are over 1.5m in height, a Producer Statement – Construction Review (PS4) for the retaining walls shall be provided to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services.
34. Upon completion of construction or prior to an application for Section 224 certification for each stage, whichever occurs first, the consent holder shall provide to the Manager Resource Consents, Policy, Planning & Regulatory Services, a report from a suitably qualified Chartered Engineer stating the suitability of the retaining walls if required to be constructed (except those walls covered by condition 33) for residential development. This shall be in the form of a Producer Statement – Construction Review (PS4).

Advice note

This condition pertains to any retaining walls that are constructed as part of the earthworks irrespective of their height and/or whether taking surcharge at the time of construction. This will ensure that the walls have been suitably constructed for future potential use of the approved allotments of any subsequent subdivision consent.

35. All areas exposed by earthworks, trenching or building activities are to be re-grassed/hydro-seeded at the earliest possible opportunity following excavation or at the latest within 1 month after completion of earthworks for that stage.
36. All silt and sediment control measures shall be decommissioned upon stabilisation of the earthworked areas. However, the silt and sediment control measures need not be decommissioned where Greater Wellington Regional Council and Porirua City Council require these measures to remain in use for future construction activities, provided they are not located within residential allotments at the time of application for Section 224 certification.
37. Upon completion of earthworks for Stage 1, the consent holder shall submit to the Manager Parks, City and Community Infrastructure, a detailed enhancement planting and weed control plan for the Duck Creek Saltmarsh Ecological Site to mitigate any native vegetation removal in the Ecological Site. The plan shall be in

accordance with the recommendations made at paragraphs 93 and 94 of the Evidence in Chief of Dean Craig Miller dated 18 March 2016.

38. Upon completion of earthworks for Stages 1 and 3, the consent holder shall submit to the Manager Parks, City and Community Infrastructure, a detailed planting and weed control plan for the tops of cut faces adjoining or in Significant Ecological Sites to mitigate edge effects and erosion, for each stage. The plan shall be in accordance with the recommendations made at paragraph 92(a) of the Evidence in Chief of Dean Craig Miller dated 18 March 2016.
39. The consent holder shall undertake the landscape planting as approved in the planting plans required under Conditions 7, 37 & 38, as soon as seasonably practicable or prior to application for Section 224 approval for each stage whichever comes first, unless authorised in writing by the Manager Resource Consents, Policy, Planning & Regulatory Services.
40. Upon completion of the riparian mitigation planting and enhancement of inanga spawning habitat required by GWRC consents, signage shall be erected at the two areas marked 'Zone D' in the Landscape Concept Plan or in another open public spaces adjacent to the stream agreed to with the Manager Resource Consents, Policy, Planning & Regulatory Services.

The purpose of this signage will be to inform the public of the ecological values, including native fish and inanga spawning habitat, found within the Brookside site and to include advice on protection and care of vegetation and the stream. The content of the signage will be developed in consultation with an appropriately qualified freshwater ecologist. The signage will be maintained, and if necessary replaced, by the consent holder for the duration of the maintenance of riparian mitigation planting.

41. Upon completion of landscape planting for each applicable stage, the applicant shall submit a Practical Completion Certificate to the Manager Resource Consents, Policy, Planning & Regulatory Services. The consent holder shall ensure that any dead or dying plants or planting as required under conditions 7, 37 & 38 are replaced for 3-year maintenance period from the date of Practical Completion.

Advice Note:

Council will monitor compliance with this condition every six months for 3 years from the date the planting is first implemented on site.

42. Upon completion of works, the consent holder shall ensure the existing post and wire fence between the application site and Local Purpose Reserve of Lot 1 DP 62004, Lot 2 DP 62004 and Lot 2 DP 60877 is maintained or reinstated.
43. Any dwelling (excluding garage or parking building) that has frontage with a road shall be set back a minimum distance of 3m from the road frontage boundary.

Advice Note:

Eaves (of up to 600mm) are permitted to extend into the 3m front yard.

44. Any garage or carport (either attached to a dwelling or detached) or parking space for a residential dwelling on 1 -5, 15, 32 -34, 50, 58 - 66, 77 – 80, 96 – 99, 101 – 104, 116 – 117, 119 – 122, 125 – 126, 129 -130, 134 – 135, 137 – 143 shall be set back a minimum distance of 5m from the road frontage boundary.
45. All residential lots shall contain a dwelling with a roof cladding painted or coating system in a recessive colour, with the paint having a light reflective value percentage less than or equal to 30%.
46. The consent holder shall ensure bare galvanised, zinc alum or unpainted metal, including copper, that would lead to contamination of stormwater runoff upon corrosion shall not be used for roofing or building materials, including roof gutters and downpipes.
47. Residential lots 27, 28, 29, 132, 137, 141 and 142, that exceed 35% site coverage, shall be restricted to a maximum of 40% site coverage and dwellings/buildings shall be single storey.

Advice Note:

Residential dwellings/buildings with permitted site coverage are not restricted to single storey.

48. Residential lots 1, 2, 5, 7 – 16, 19, 22 – 24, 43, 44, 46, 48 – 57, 58 – 66, 68, 73, 75 – 79, 82, 92, 95 – 97, 103 – 105, 109 -111, 114, 116 – 122, 125, 126, 129, 130, 132, 134 – 136, 143 – 144 shall be restricted to a maximum of 45% site coverage.
49. The consent holder shall ensure no fence is constructed between ROW No 11 and Walkway Reserve 2.
50. Prior to construction of any dwelling in Stage 1 or prior to approval under Section 224 of the Resource Management Act 1991 for Stage 1, whichever occurs first, the consent holder shall install the flush median right turn bay in James Cook Drive at the intersection with Road 1 as per plan submitted under condition 15, to the satisfaction of the Manager Resource Consents.

Duck Creek Wastewater Pump Station Condition

51. If the scheduled noise and odour improvement works (see email attached to the section 42A report for RC 6922 from Sheryl Barker to Phillip Rhodes dated 8 March 2016 3:47pm) have not been completed prior to completion of stage 1 of the subdivision, then a section 224 certificate will not be issued for lots 7 to 17 inclusive and Lots 46 to 56 and those lots will be certified as part of Stage 2. This restriction also applies to the construction of a dwelling on each of the aforementioned lots.

NZTA Traffic Conditions

52. Construction Traffic Management Plan

The consent holder shall submit a Construction Traffic Management Plan (CTMP) to the Manager Resource Consents, Policy, Planning & Regulatory Services for certification, at least 15 working days prior to the commencement of construction on site. The purpose of the CTMP is to outline the proposed procedures, requirements and standards necessary for safely managing the traffic effects of construction. The CTMP shall be consistent with the version of the NZ Transport Agency Code of Practice for Temporary Traffic Management which applies at the time the CTMP is prepared, and include:

- i. Temporary traffic management measures required to manage the impacts on road users during the proposed working hours, including details confirming that the stop/go controls required to establish and remove the temporary access will only operate at night between Sunday and Thursday during the hours of 19.00 - 05.30;
- ii. Confirmation that access into the site off State Highway 58 will be no longer than 12 weeks in duration and only within off peak hours as defined by Capital Journeys for heavy vehicles;
- iii. Measures to maintain safe cyclist access along State Highway 58, including the widening of State Highway 58, and appropriate signage identifying the hazard at each end of the effect section of State Highway 58;
- iv. Any proposed temporary changes in speed limit, the length of which shall comply with the Setting of Speed Limits 2003 Section 5;
- v. Provision for safe and efficient access of construction vehicles to and from the construction site, exclusively the allowance for a left in and left out route only from State Highway 58 using safe hit posts as shown on Plan Traffic Management SH 58 – Temporary Access February 2016 including widening to accommodate the safe hit posts;
- vi. Measures that will be undertaken to communicate traffic management measures to affected road users and stakeholders;
- vii. Measures for any road reinstatement to its original form prior to construction works commencing in the event that there is damage during construction works; and
- viii. Measures for the management of road drainage during construction works; this shall include photographing the drain once the road widening has been constructed and
- ix. Any extension to the 12 week timeframe in (ii) above will need to seek approval from the Manager, including details of consultation with the NZ Transport Agency.

53. Postgate Drive Roundabout and Pauatahanui Roundabout

- a. The consent holder shall submit a survey, jointly prepared with the NZ Transport Agency, of the precondition of Postgate Drive Roundabout and Pauatahanui Roundabout to the Manager Resource Consents, Policy, Planning & Regulatory Services stating the precondition of both roundabouts. The survey shall:
 - i. Be undertaken prior to any construction work being carried out on the temporary access off State Highway 58;

- ii. Include photos of the condition of both Postgate Drive Roundabout and Pauatahanui Roundabout;
 - iii. Include the location of signs in the immediate vicinity of both Postgate Drive Roundabout and Pauatahanui Roundabout; and
 - iv. Include details of the pavement condition of both Postgate Drive Roundabout and Pauatahanui Roundabout.
 - b. Immediately following the 12 week period permitted for access to the site from State Highway 58, the consent holder shall submit a final survey, jointly with the NZ Transport Agency, to the Manager Resource Consents, Policy, Planning & Regulatory Services, of both Postgate Drive Roundabout and Pauatahanui Roundabout. The survey shall include the same data required in the precondition survey.
 - c. Should there be a detrimental change to the condition of the roundabouts attributable to the vehicles operating under the CTMP mentioned in condition 52 above between the precondition survey required by (a) and the final joint survey required by (b), then the consent holder shall reinstate the road and Roundabouts, at their own costs, to its original form within six weeks of report being submitted.
 - d. In the event of any divergence of views between the NZ Transport Agency and the consent holder, Porirua City Council shall have the final say.
54. **Traffic Model Calibration**
The consent holder shall submit to the Manager Resource Consents, Policy, Planning & Regulatory Services, in consultation with the NZ Transport Agency, an update to the SIDRA model for information purposes prior to construction commencing. The purpose of the update is to calibrate the model with actual on-site traffic counts provided by the consent holder.
55. **Review Condition**
- a. Pursuant to section 128 of the Resource Management Act 1991 the consent holder shall submit to the Manager Resource Consents, Policy, Planning & Regulatory Services, in consultation with the NZ Transport Agency, two reviews of the operational safety of the State Highway 58/James Cook Drive intersection. These reviews shall be submitted within three months of 50% of the development being occupied and 75% of the development being occupied. The reviews shall address the following matters:
 - i. Crash history, anecdotal and recorded. In calculating crash rates/history a moving 10 year period shall be analysed and used in the review;
 - ii. Capacity of the intersection, and its performance compared to the SIDRA model calibration required by Condition 54 above. In determining performance of the intersection, other growth in the traffic catchment shall be accounted for and considered in relation to the Brookside development through a record of turning movements associated with Proposed Road 1 at its intersection with James Cook Drive; and
 - iii. The potential for impacts on the safety of the intersection.
 - b. In the event that the Manager Resource Consents, Policy, Planning & Regulatory Services, in consultation with the NZ Transport Agency,

determines that the intersection is no longer operating safely, the following shall occur:

- i. No further dwellings of the Brookside development shall be occupied until the Transmission Gully Expressway is operating; or
- ii. Works to the existing road network to provide for enhanced safety of the SH58/JCD intersection.

Advice note: The consent holder is also required to seek approval from the NZ Transport Agency pursuant to the Government Rounding Powers Act 1989 for any works on the State Highway

Boundary Fill Condition

56. Prior to commencement of earthworks in Stage 2, the consent holder shall submit a revised earthworks plan and cross sections displaying earthworks contained within the application site adjacent to the boundary shared with any of the following properties of 15, 21, 23, 25 and 29 Observatory Close, and how earthworks will be stabilised, including with respect to the stability of adjoining trees and provision for managing overland flow.

Financial Contribution

57. Should a development agreement between the consent holder and the Council not be agreed and signed by both parties prior to the completion of any stage of subdivision then prior to the construction of each dwelling or approval under section 224 of the Resource Management Act for each stage, whichever comes first, the consent holder shall pay a Recreation and Civic Development Contribution for each new allotment being created in the Suburban Zone pursuant to Section E1.3.2 (a)(i) of the Porirua District Plan. The rate payable is the rate at the time 224C certification – the rate from 1 July 2015 to 30 June 2016 is \$6535.04 (incl. GST) per allotment (adjusted in accordance with CPI each year).

Lapse Period

58. Unless given effect to, this consent shall lapse after a period of 10 years. If any of the stages of development proposed have not been given effect to pursuant to the relevant tests under Section 125 of the Resource Management Act 1991 within this 10 year period, the ability of the consent holder to undertake these works in any such stage shall lapse.

B – Subdivision Consent Conditions

59. That the development be in general accordance with the information and plans submitted with the application and held on Council file RC6922 and stamped ‘Approved Plans for Resource Consent RC6922’ except where superseded by further information and plans received on 15 September 2015 and superseded by the following information and plans;

- Report titled 'Site Liquefaction Potential for Proposed Subdivision Duck Creek North, Whitby, Porirua' by Abuild Consulting Engineers Ltd and dated 17 November 2015.
- Draft Report titled 'Brookside Development Stormwater Model Review by Mott MacDonald dated February 2016.
- Revised Roading Layout plans Drawing No PL- C312-C314 Rev 3.
- Site Areas and Coverage Provision Plan Drawing No SIZ – 1 Rev 04.
- Traffic Management SH58 – Temporary Access Plan Figure 1 Rev 0 by Tonkin +Taylor Dated Feb 16
- Report titled 'Brookside Development (GWRC WGN160028 and PCC RC6922-SL0046/15) – Response to Flooding, Erosion and Stormwater Comments' dated 29 February 2016 & 'Pond Efficiency Design Brookside Consent' dated 01 March 2016 by Cardno.
- Stormwater Treatment Concept Plans Drawing No's PL-SK511r2, SK512 to SK514r1, SK515r2 and SK516 to SK517r110 and
- 10 Year Flood Event Velocities 2.7 & 4m/s & 100 Year Flood Event Velocities 4m/s Plans by Cardno

Minor alterations may be approved upon request providing the development is not materially different, the scale and intensity of adverse effects will be no greater, and no approval from affected persons is needed.

60. Individual certifications pursuant to sections 223 and 224(c) of the RMA may be issued for this subdivision in a series of stages, generally in accordance with the staging proposed on approved plan "*Brookside Estate Staging Plan Drawing No STG -1 Re 01 2, Dated 6/7/15*" as follows:

Stage 1 – 56 Lots

- Residential Lots 1-42, 44-57;
- Roads to be vested being part of Road 1, Road 2 and Road 3;
- Access Lots 201 and 202;
- Walkway Reserve 1;
- Balance Lot for Stages 2-4.

Stage 2 – 43 Lots

- Residential Lots 43, 58-99;
- Roads to be vested being part of Road 1, Road 4 and Road 6;
- Access Lot 203;
- Reserve Area 1;
- Walkway Reserve 2;
- Balance Lot for Stages 3-4.

Stage 3 – 28 Lots

- Residential Lots 122-149;
- Roads to be vested being part of Road 1 and Road 5;
- Reserve Areas 2 & 3;
- Access Lot 205;
- Balance Lot for Stage 4;

Stage 4 – 21 Lots

- Residential Lots 1-42, 44-57;
- Roads to be vested being part of Road 1, Road 2 and Road 3;
- Access Lot 204;
- Reserve Area 4;
- Walkway Reserve 3.
- Drainage Reserves to be vested being Lots 302 & 304;

Provided that:

- Each individual allotment must be consistent with the proposal as approved;
- Each residential allotment shown on any survey plan, must be adequately serviced as required by, and in terms of, these conditions and it must be demonstrated that adequate provision has been made to enable the servicing of the balance allotments;
- All conditions pertaining to the specific allotments shown in the particular stage on the survey plan must be satisfied prior to the execution of a certificate pursuant to section 224(c) of the RMA in respect of that stage. Council will retain discretion as to what conditions are applicable to each stage.

Prior to commencement of construction

61. The consent holder shall provide a copy of this consent and any documents referred to in this consent to each operator or contractor undertaking works authorised by this consent, before that operator or contractor starts any works.
62. The consent holder shall ensure that a copy of this consent is kept in the office on site at all times and presented to any Porirua City Council officer on request.
63. That the consent holder shall contact the Council's compliance monitoring officer at least 48 hours prior to any physical work commencing on the site and advise the officer of the date upon which such works will commence.
64. Prior to commencement of works within Council's road reserve, the consent holder shall ensure a Corridor Access Request (CAR) and a Traffic Management Plan (TMP) is submitted for approval to the satisfaction of the Chief Operating Officer, City & Community Infrastructure.

Note: An application for a Corridor Access Request can be made through Porirua City Council's public website.

65. Prior to the commencement of construction of civil works, a Services Plan along with any supporting calculations, showing the layout and position of proposed roading and services (water, storm water and sewer), and any site works and construction (other than residential buildings), shall be submitted for Pre-Engineering Acceptance to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services. All works shall be carried out in accordance with the approved plan. Easements shall be specified on the Services

Plan. The services plan shall include confirmation of the services material specification and connection details for the reticulated service network including for liquefaction prone land. These plans shall include details on the location of vehicle crossings to be constructed over swales.

66. Prior to commencement of the civil works, the consent holder shall submit a Streetscape Planting Plan, at the same time as submitting the Services Plan (in accordance with Condition 65), to the Manager Parks, City and Community Infrastructure. The Streetscape Planting Plan shall display the layout and spacing of street trees, the varieties to be planted and any other planting including gardens within the Road to Vest. The Streetscape Planting Plan shall include the position of street lights and parking bays.
67. Prior to commencement of the civil works for each stage, the consent holder shall submit for approval by the Manager Resource Consents, Policy, Planning & Regulatory Services, detailed engineering design of the filtration basin (dry pond) and stormwater treatment devices, shown on *Stormwater Treatment Concept Plans Drawing No's PL-SK511r2, SK512 to SK514r1, SK515r2 and SK516 to SK517r1*. Stormwater treatment devices shall be designed to remove 75% of total suspended solids in accordance with Auckland Council TP10.
68. Prior to commencement of the civil works, the consent holder shall submit for approval by the Manager Resource Consents, Policy, Planning & Regulatory Services, design details and a plan of the road markings for right turn bay in James Cook Drive and the intersection the entrance to Road 1.
69. All contractors laying water supply or drainage services that are to become public must either hold the National Certificate in Civil Construction Works (Infrastructure Pipelaying) – Level 3, or be working towards that.

Prior to certification under Section 223 of the Resource Management Act

70. Prior to approval under Section 223 of the Resource Management Act 1991 for each stage of the subdivision, the easements specified services plan approved under condition 65 shall be created or reserved for the purposes specified and endorsed in a memorandum on the Land Transfer Plan. Any other easements for conveying water, draining water and sewage and overland flow paths shall also be created or reserved for the purpose specified and endorsed in a memorandum on the Land Transfer Plan.

Easements for public services are to be shown on a plan with a minimum 3m in width centered over the services, and shall be shown in gross with Porirua City Council as grantee.

71. The Land Transfer Plan shall show Road No. 1-6 noted as "Roads to Vest in Porirua City Council" as applicable for each stage of the subdivision.
72. The Land Transfer Plan shall show Reserves 1, 2 & 4 noted as "Local Purpose Reserves (Flood Protection, Ecology and Pathways) to Vest in Porirua City Council"

73. The Land Transfer Plan shall show Reserve 3 noted as "Local Purpose Reserves (Stormwater Detention and Landscape Protection) to Vest in Porirua City Council".
74. The Land Transfer Plan shall show Walkway Reserves 1, 2 & 3 noted as "Local Purpose Reserves (Walkway) to Vest in Porirua City Council"
75. Prior to approval under Section 223 of the Resource Management Act 1991, the Flood Management Areas (subject to a consent notice under conditions 130 and 131) identified as N, O, P, Q, R, and S on the Scheme Plan (Sheets 3 & 4 of 5), shall be identified on the Land Transfer Plan.
76. Prior to approval under Section 223 of the Resource Management Act 1991 for each stage, the consent holder shall identify on The Land Transfer Plan of Lots 6, 147, 148 and 149, native vegetation within significant ecological sites 16 and 151 but outside the building platform areas of these lots, for its ongoing protection (as required under consent notice condition 134).
77. Prior to approval under Section 223 of the Resource Management Act 1991 the consent holder shall identify on The Land Transfer Plan a Memorandum of Easements confirming the servient and dominant tenements for rights of way 5-8 and 10-12.

Prior to certification under Section 223 of the Resource Management Act - Amalgamation Conditions

78. That pursuant to section 220(1)(b)(iv) of the Resource Management Act 1991, Lot 200 hereon (access lot) be held as four undivided one fourth shares by the owners of Lots 9 - 12 as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith (Request 1340983).
79. That pursuant to section 220(1)(b)(iv) of the Resource Management Act 1991, Lot 201 hereon (access lot) be held as eleven undivided one eleventh shares by the owners of Lots 20 - 30 as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith (Request 1340983).
80. That pursuant to section 220(1)(b)(iv) of the Resource Management Act 1991, Lot 202 hereon (access lot) be held as seven undivided one seventh shares by the owners of Lots 39 - 45 as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith (Request 1340983).
81. That pursuant to section 220(1)(b)(iv) of the Resource Management Act 1991, Lot 203 hereon (access lot) be held as four undivided one quarter shares by the owners of Lots 84 - 87 as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith (Request 1340983).
82. That pursuant to section 220(1)(b)(iv) of the Resource Management Act 1991, Lot 204 hereon (access lot) be held as nine undivided one ninth shares by the owners of Lots 105 - 113 as tenants in common in the said shares and that

individual computer freehold registers be issued in accordance therewith (Request 1340983).

83. That pursuant to section 220(1)(b)(iv) of the Resource Management Act 1991, Lot 205 hereon (access lot) be held as six undivided one sixth shares by the owners of Lots 144 -149 as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith (Request 1340983).

Prior to certification under Section 224 of the Resource Management Act

84. Prior to approval under Section 224 of the Resource Management Act 1991, all related works as applicable for each stage shall comply with New Zealand Standard: Land Development and Subdivision Infrastructure NZS 4404:2010, and the PCC Code of Land Development and Subdivision Engineering 2010, except as approved by this resource consent or the engineering construction plans approved under conditions 65 and 67.
85. All materials, testing and workmanship shall be in accordance with the PCC Code of Land Development and Subdivision Engineering 2010 and the Regional Standard for Water Services.
86. Prior to approval under Section 224 of the Resource Management Act, Certification is to be supplied to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services and shall comprise:
- (i) NZS4404:2010 Schedule 1A (Design Certificate – Land Development/Subdivision) signed by a suitably qualified professional;
 - (ii) NZS4404:2010 Schedule 1B (Contractors Certificate upon completion of Land development/Subdivision) signed by the Contractor;
 - (iii) NZS4404:2010 Schedule 1C (Certification upon completion of Land development/Subdivision of Person Responsible for Inspection and Review of Construction) signed by a suitably qualified professional;
 - (iv) NZS4404:2010 Schedule 2A (Statement of Professional Opinion as to Suitability of Land for Building Construction), signed by a Chartered Professional Engineer experienced in geotechnical matters.
87. Prior to approval under Section 224 of the Resource Management Act, all services works as applicable for each stage shall be carried out in accordance with the services plans approved under conditions 65 and 67 as applicable for each stage.
88. Prior to approval under Section 224 of the Resource Management Act 1991 as applicable for each stage, Lots 1-99 and Lots 101-149 shall be supplied with an individual water supply and toby. Council will carry out connections to the Council main after payment of all associated costs. The consent holder shall arrange for all trenches to be opened (including obtaining a trench opening notice if required) and reinstated to a satisfactory condition.

89. Prior to approval under Section 224 of the Resource Management Act 1991 as applicable for each stage, Lots 1-99 and Lots 101-149 shall be supplied with an individual, 100mm diameter, sanitary sewer connection within the lot. Laterals shall be provided by the consent holder, with the final connections to the mains provided by the Council of which the actual cost shall be met by the consent holder.
90. Prior to approval under Section 224 of the Resource Management Act 1991 as applicable for each stage, Lots 1-99 and Lots 101-149 shall be provided with a means of disposing of stormwater, either by an individual 100mm diameter stormwater connection to the kerb and channel or Council main.
91. Prior to the issue of a 224c certificate the applicant shall install marker posts at the termination point of all sewer and stormwater connections within private lots. The marker posts shall be 50mm by 50mm treated timber posts no less than 0.5m high and shall be painted red for sewer and green for stormwater.
92. Prior to approval under Section 224 of the Resource Management Act 1991 as applicable for each stage, all utility services (with the exception of cabinets) shall be installed underground.
93. Prior to approval under Section 224 of the Resource Management Act 1991 as applicable for each stage, it shall be shown that the street lighting network has been installed and is functioning to the requirements of AS/NZ 1158.3.1:1999, to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services.
94. Section 224 certification under the Resource Management Act 1991 for each stage will not be considered until "as built" drawings of the completed subdivision have been submitted for approval to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services by the consent holder or his representative. Positions of all Porirua City Council utility service connections for every proposed lot shall be shown on the "as built" drawings either by a set of coordinates in terms of LINZ Datum NZGD2000, or by at least two measurements from known points e.g. boundary pegs or manholes. In all cases the depth to the connection point, measured from ground level, of all Porirua City Council service connections shall be shown on the "as built" drawings.
95. Prior to approval under Section 224 of the Resource Management Act, the consent holder shall provide Council with a Road Assessment and Maintenance Management (RAMM) inventory of Assets to be handed over to Council ownership. The information shall be provided in an appropriate form to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services and be submitted by a person suitably qualified in RAMM data collection and analysis.

96. Prior to approval under Section 224 of the Resource Management Act the consent holder shall install suitable underground ducting for the national broadband reticulation.
97. Prior to approval under Section 224 of the Resource Management Act for each stage the consent holder shall submit a CCTV record of all constructed sewer mains.
98. Prior to approval under Section 224 of the Resource Management Act for stage 4 the consent holder shall submit a CCTV record and condition report of the existing sewer main at the access road to Duck Creek Pumping Station off SH58 and must make any repairs as required.
99. Prior to approval under Section 224 of the Resource Management Act 1991, all stormwater outlets to Duck Creek shall be constructed in accordance with the approved plans under conditions 65 and 67 so as to prevent long term erosion and scour.
100. Prior to Section 224 certification, the consent holder shall construct new vehicle crossings to 1 -5, 15, 32 -34, 50, 58 - 66, 77 – 80, 96 – 99, 101 – 104, 116 – 117, 119 – 122, 125 – 126, 129 -130, 134 – 135, 137 – 143 in compliance with PCC specification 12b as outlined in PCC's Code of Land Development and Subdivision 2010, and/or in accordance with the roading plans approved under condition 65.
101. Prior to approval under Section 224 of the Resource Management Act 1991, the consent holder shall enter into a legal agreement with Council to continue to maintain the stormwater treatment devices for a period of three years following approval under Section 224 of the Resource Management 1991. All costs associated with the preparation of the agreement shall be met by the consent holder.
102. Prior to Section 224 certification for stage 4, water quality treatment shall be provided within the subdivision in accordance with the services plans approved under condition 65 & 67 which provides a minimum of 75% removal of total suspended solids (TSS). This will be deemed to have been achieved if the average level of suspended solids in the final discharges to Duck Creek does not exceed 100g/m³ (100ppm) in the first flush event and a water quality monitoring report shall be provided demonstrating compliance with this standard. The water quality monitoring report shall include a minimum of two water sampling periods after a significant rainfall event of greater than 20 mm in a 24 hour period, or 4 mm in a one hour period.
103. Prior to approval under Section 224 of the Resource Management Act 1991, the consent holder shall enter into a legal agreement with Council to monitor the streams banks of Duck Creek (including any tributaries) and outlets to Duck Creek for potential scour/erosion for three years following approval under Section 224 of the Resource Management 1991. The agreement shall include the provision that if areas of scour/erosion are found then the consent holder shall take appropriate measures to minimise further scour/erosion of Duck Creek. All

costs associated with the preparation of the agreement shall be met by the consent holder.

104. Prior to Section 224 certification, Proposed Roads 1-6 shall be constructed, sealed and drained, as relevant for each stage, in accordance with the PCC Code of Land Development and Subdivision 2010, Land Development and Subdivision Infrastructure - NZS 4404: 2010, and Part H of the District Plan (except as approved by this resource consent) and approved plans (*Ref; Roading Consent Application Plans 1:500 Series Layout Plan – Sheet 1 Drawing No PL-C311 Rev 1 & Sheets 2-4 Drawing No's PL-C312-314 Rev 3*).
105. Prior to Section 224 certification, proposed Lots 200-205 hereon (legal access) shall be constructed and sealed, as relevant for each stage, in accordance with the PCC Code of Land Development and Subdivision 2010, Land Development and Subdivision Infrastructure - NZS 4404: 2010, and Part H of the District Plan (except as approved by this consent).
106. Prior to the issue of a Section 224(c) certificate, all street berms and lots are to be topsoiled to a minimum depth of 100mm and grassed/planted as soon as practicable after completion of topsoil laying and trimming. All road metal and other foreign material shall be removed from the berms prior to the final topsoil layer being laid. Soil shall be free draining and free of stones rocks or other foreign material and of a quality to ensure good grass growth. All swales are to be topsoiled to a minimum depth of 300mm and grassed/planted as soon as practicable after completion of topsoil laying and trimming.
107. Prior to approval under Section 224 of the Resource Management Act 1991, all areas exposed by earthworks, trenching or subdivision construction activities are to be re-grassed/hydro-seeded.
108. Prior to approval under Section 224 of the Resource Management Act 1991 as applicable for each stage, the consent holder shall have installed and completed all hard (pathways and street furniture) and soft (vegetation) landscaping in accordance with approved detailed landscape plans approved under conditions 7 and 66 and mitigation planting in accordance with approved planting plans in condition 37 and 38.
109. Prior to the issue of a Section 224c certificate Stage 1, the consent holder shall install barriers preventing pedestrian access over any PCC sewer main crossing Duck Creek.
110. Prior to approval under Section 224 of the Resource Management Act 1991 for Stage 4, a structural condition assessment shall be provided by a suitably qualified chartered professional engineer of the existing culvert at Stage 4 Duck Creek. The culvert must meet Grade 2 (Good – Nams Guideline).
111. In the event that application is made to the Council for certification pursuant to Section 224 of the Resource Management Act 1991 before conditions 104, 105 and 108 of this consent have been complied with, then the consent holder shall

pay to Porirua City Council a bond in the form of a refundable cash deposit or a secured bank bond. The purpose of the bond shall be for ensuring compliance with conditions 104, 105 and 108 and shall only be entered into if the Council is satisfied that the amount of the bond is sufficient to achieve this purpose, and that 50% of the estimated cost has been added.

112. All fills, excluding temporary stockpile areas, are to be compacted in accordance with the Code of Practice for Earth Fill for Residential Development, NZS 4431:1989. Within 6 months of completion of the earthworks or prior to section 224 certification as applicable for each stage whichever occurs first, plans are to be supplied to the satisfaction of the Manager Resource Consents, Policy, Planning & Regulatory Services showing the location of all compaction tests, together with a certificate prepared by an inspecting chartered engineer stating the suitability of the earthworks for residential development (Statement of Professional Opinion as to Suitability of Land for Building Construction) as applicable for each stage.

If accordance with NZS 4431:1989 is achieved and limitations need to be raised with future property owners the consent holder shall apply for consent notices at the time of Section 224 certification. The limitations and ability to identify the limitations on consent notices will be considered by Council at the time of Section 224 certification and the Manager Resource Consents, Policy, Planning & Regulatory Services shall retain discretion of whether consent notices are applicable in this regard.

Duck Creek Wastewater Pump Station Condition

111. If the scheduled noise and odour improvement works (see email attached to the section 42A report for RC 6922 from Sheryl Barker to Phillip Rhodes dated 8 March 2016 3:47pm) have not been completed prior to completion of stage 1 of the subdivision, then a section 224 certificate will not be issued for lots 7 to 17 inclusive and Lots 46 to 56 and those lots will be certified as part of Stage 2. This restriction also applies to the construction of a dwelling on each of the aforementioned lots.
112. Within 6 months of completion of the earthworks or prior to section 224 certification as applicable for each stage, whichever occurs first, (or, if deemed necessary by Council, during the earthworks period) the consent holder shall provide to the satisfaction of the Manager Resource Consents Policy, Planning & Regulatory Services, a report from a chartered engineer with geotechnical experience addressing the stability of the constructed cut batters. This report shall give specific reference to NZS4404:2010 Land Development and Subdivision Infrastructure. The report shall also include an NZS 4404:2010 Schedule 2A certificate (Statement of Professional Opinion as to Suitability of the Land for Building Construction) signed by a chartered professional engineer experienced in geotechnical matters.

Where the report identifies development limitations, the Manager Resource Consents Policy, Planning & Regulatory Services may require that a consent

notice be imposed on Computer Freehold Register/s giving notice of the limitations or specific development requirements relating thereto. The costs associated with the preparation and registration of any consent notices are to be met by the consent holder

113. If cuts are stabilised by retaining walls within 6 months of the commencement of earthworks or prior to section 224 certification as applicable for each stage, whichever occurs first, then the requirement for a report from a Chartered Professional Engineer shall not apply (as per condition 112). Where retained cuts are over 1.5m in height, a producer statement – construction review (PS4) for the retaining walls shall be provided to the satisfaction of the Manager Resource Consents Policy, Planning & Regulatory Services.
114. Upon completion of construction or prior to section 224 certification, whichever occurs first as applicable for each stage, the consent holder shall provide to the Manager Resource Consents Policy, Planning & Regulatory Services, a report from a suitably qualified chartered engineer stating the suitability of the constructed retaining walls (except those walls covered by condition 113) for residential development. This shall be in the form of a Producer Statement – Construction Review (PS4).

Advice note

This condition pertains to any retaining walls that are constructed as part of the earthworks irrespective of their height and/or whether taking surcharge at the time of construction. This will ensure that the walls have been suitably constructed for future potential use of the approved allotments.

115. Within 6 months of the completion of the works or prior to any application for Section 224 certification for each stage, whichever occurs first, and prior to buildings being constructed on the land, the consent holder shall provide to the satisfaction of the Manager Resource Consents Policy, Planning & Regulatory Services, a geotechnical completion report from a Chartered Professional Engineer with geotechnical & liquefaction experience, stating the suitability of residential lot development, including
 - Confirmation that consolidation settlement is completed.
 - Confirmation that earthworks and/or building platforms have been constructed to comply with the New Zealand Building Code requirements, and recommend foundation requirements (in accordance with Ministry of Business, Innovation and Employment's (MBIE) technical guidelines)
 - Identifying the final position of all building restriction areas, if any.
 - Identifying any lots, or parts of lots, that are unsuitable for building development, if any.

If the report identifies development limitations that would be matters of ongoing compliance, the Manager Resource Consents Policy, Planning & Regulatory Services may require that a consent notice be imposed on Computer Freehold Register/s giving notice of the ongoing limitations or specific development requirements relating thereto. The costs associated with the preparation and registration of any consent notices are to be met by the consent holder

116. Prior to approval under Section 224 of the Resource Management Act 1991 for stage 1, the consent holder shall install the flush median right turn bay in James Cook Drive at the intersection with Road 1 as per plan submitted under condition 68.
117. Prior to approval under Section 224 of the Resource Management Act, any erosion and sediment control measures including, but not limited to, sediment ponds and decanting earth bunds located within any residential allotments that are the subject of the application for Section 224 approval, shall be decommissioned and all associated 'restorative' ground works shall be completed.
118. The consent holder or future owners of Lot 6 shall comply with the following:
- “As part of the approval of this subdivision consent, land use consent has been issued for any dwelling constructed on Lot 6 to contain an outdoor living area that may not be directly accessible to the dwelling and/or may have a gradient steeper than 1 in 20 and/or no permeable areas.”*
119. Condition 118 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for Lot 6 and shall be prepared by Council at the cost of the consent holder.
120. The consent holder or future owners of Lots 1-99 and 101-149 shall comply with the following:
- “All residential lots shall contain a dwelling with a roof cladding painted or coating system in a recessive colour, with the paint having a light reflective value percentage less than or equal to 30%. Colour confirmation with its relative reflective percentage shall be forwarded to Porirua City Council with a Building Consent Application.”*
- "Bare galvanised, zinc alum or unpainted metal, including copper, that would lead to contamination of stormwater runoff upon corrosion shall not be used for roofing or building materials, including roof gutters and downpipes".*
121. Condition 120 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for Lots 1-99 and 101-149 and shall be prepared by Council at the cost of the consent holder.
122. The consent holder or future owners of Lots 27-29, 132, 137, 141 and 142 shall comply with the following:
- “Residential lots 27, 28, 29, 132, 137, 141 and 142, that exceed 35% site coverage, shall be restricted to a maximum of 40% site coverage and dwellings/buildings shall be single storey.
Note: Residential dwellings/buildings with permitted site coverage are not restricted to single storey.”*

123. Condition 122 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for lots 27-29, 132, 137, 141 and 142 and shall be prepared by Council at the cost of the consent holder.
124. The consent holder or future owners of lots 1, 2, 5, 7 – 16, 19, 22 – 24, 43, 44, 46, 48 – 57, 58 – 66, 68, 73, 75 – 79, 82, 92, 95 – 97, 103 – 105, 109 -111, 114, 116 – 122, 125, 126, 129, 130, 132, 134 – 136, 143 – 144 shall comply with the following:
- “Residential lots 1, 2, 5, 7 – 16, 19, 22 – 24, 43, 44, 46, 48 – 57, 58 – 66, 68, 73, 75 – 79, 82, 92, 95 – 97, 103 – 105, 109 -111, 114, 116 – 122, 125, 126, 129, 130, 132, 134 – 136, 143 – 144 shall be restricted to a maximum of 45% site coverage.”*
125. Condition 124 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for lots 27-29, 132, 137, 141 and 142 and shall be prepared by Council at the cost of the consent holder.
126. The consent holder or future owners of Lots 1 -5, 15, 32 -34, 50, 58 - 66, 77 – 80, 96 – 99, 101 – 104, 116 – 117, 119 – 122, 125 – 126, 129 -130, 134 – 135, 137 – 143 shall comply with the following:
- “Any dwelling (excluding garage or parking building) on Lots 1 -5, 15, 32 -34, 50, 58 - 66, 77 – 80, 96 – 99, 101 – 104, 116 – 117, 119 – 122, 125 – 126, 129 -130, 134 – 135, 137 – 143 shall be set back a minimum distance of 3m from the road frontage boundary.*
- Any garage or carport (either attached to a dwelling or detached) or parking space for a residential dwelling on Lots 1 -5, 15, 32 -34, 50, 58 - 66, 77 – 80, 96 – 99, 101 – 104, 116 – 117, 119 – 122, 125 – 126, 129 -130, 134 – 135, 137 – 143 shall be set back a minimum distance of 5m from the road frontage boundary.”*
127. Condition 126 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for 1 -5, 15, 32 -34, 50, 58 - 66, 77 – 80, 96 – 99, 101 – 104, 116 – 117, 119 – 122, 125 – 126, 129 -130, 134 – 135, 137 – 143 and shall be prepared by Council at the cost of the consent holder.
128. The consent holder or future owners of Lots identified under condition 65 shall comply with the following:
- “This subdivision includes the use of Low Impact Urban Design and Development principles for collection, treatment and disposal of stormwater. In particular, the public road design includes the use of rain gardens and drainage swales beside the road carriageway in front of these lots. In this respect, the developer has constructed a vehicle crossing in a nominated location and in a*

specific manner for each lot that accords with and maintains the functions of the stormwater system. Consequently, the owner of each lot must maintain the vehicle crossing in its existing location. As such the design of any future buildings and parking areas of these lots must only utilise the nominated vehicle crossing or access lot. No additional vehicle crossings shall be constructed for these lots ".

129. Condition 128 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for Lots identified under condition 65 and shall be prepared by Council at the cost of the consent holder.

130. The consent holder or future owners of Lots 70-72, 74, 75 and 149 shall be aware of and comply with the following:

*“The areas shown on the Land Transfer Plans **** as N, O, P, Q, R, and S (flood management areas) [as required to be identified by condition 75] are below the 2090 100 year flood level and the following shall be complied with at all times:*

- (1) No buildings, structures, fences, or earthworks shall be located within the flood management areas.*
- (2) The flood management areas shall be managed so as to allow free passage of floodwaters and to preserve the riparian environment.*
- (3) No person shall:
 - (i) remove, prune or destroy any vegetation, except that minor trimming or pruning may be undertaken for maintenance.*
 - (ii) undertake any activity that may reduce or impede the ability of the area to convey floodwaters.*
 - (iii) dump, pile or store any rubbish or waste materials, including but not limited to grass clippings, prunings, logs and household waste.*
 - (iv) allow animal pests or pest plants to take residence or grow, as identified in the Regional Pest Management Strategy for Wellington Region.*
 - (v) mark, paint, deface, blast or remove any stone or rock in a way that would disturb the ground unless for the purpose of ecological restoration.”**

Advice note

Necessary modifications to the above consent notice may be made by Council in consultation with the consent holder prior to section 224 certification.

131. Condition 130 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for Lots 70-72, 74, 75 and 149 and shall be prepared by Council at the cost of the consent holder.

132. The consent holder or future owners of Lots 1, 3-7, 9-11, 17, 18, 20-25, 35, 36, 42-45, 57, 58, 69-72, 74, 75, 80, 86-89, 94, 95, 96-99, 101-116, 118, 119-124 and 149, shall comply with the following:

"The Porirua City Council shall not be responsible for the cost of erecting or maintaining any fence along a boundary of any land vested in the Council as reserve or any other land owned by the Council."

133. Condition 132 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Registers for Lots 1, 3-7, 9-11, 17, 18, 20-25, 35, 36, 42-45, 57, 58, 69-72, 74, 75, 80, 86-89, 94, 95, 96-99, 101-116, 118, 119-124 and 149 and shall be prepared by Council at the cost of the consent holder.

134. The consent holder or future owners of Lots 6 and 147-149 shall comply with the following:

"The native vegetation identified as areas ... on Land Transfer Plan No.....[as required under condition 76] shall not be damaged or removed by the owner except for such pruning and removal of parts of the protected native plants as is required for their continued health. The owner shall not construct, erect or allow to be erected any new buildings or structures within this area. The owner shall replace any native plants either accidentally or intentionally damaged or removed from the above identified areas with ecosourced native plants."

135. Condition 134 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Registers for Lots 846, 847 & 850-61 and shall be prepared by Council at the cost of the consent holder.

136. The consent holder or future owners of Lots 1-5, 42, 43, 70-75, 80, 109-112, 114-117, 119-121, 134-136, 138-146 and 149 shall comply with the following:

"The following minimum finished floor levels shall apply to any dwelling constructed on Lots 1-5, 42, 43, 70-75, 80, 109-112, 114-117, 119-121, 134-136, 138-146 and 149"

FLOOD MODEL LEVELS AND PROPOSED MINIMUM FLOOR LEVELS							
LOT	GRD LEVEL (UPSTREAM)	2090H (UPSTREAM)	2090E (UPSTREAM)	DELTA TO (2090H)	MIN FFL (m)	FREEBOARD TO 2090H	FREEBOARD TO 2090E
LOT 001	3.45	3.20	3.35	0.25	3.7	0.50	0.35
LOT 002	3.60	3.25	3.45	0.35	3.7	0.45	0.25
LOT 003	3.60	3.25	3.45	0.35	3.7	0.45	0.25
LOT 004	3.50	3.28	3.55	0.22	3.7	0.42	0.15
LOT 005	3.60	3.35	3.58	0.25	3.8	0.45	0.22
LOT 042	6.27	5.16	5.49	1.11	5.7	0.54	0.21
LOT 043	5.58	5.14	5.44	0.44	5.6	0.46	0.16
LOT 070	5.32	5.01	5.28	0.31	5.5	0.49	0.22
LOT 071	5.22	5.06	5.37	0.16	5.4	0.34	0.03
LOT 072	5.40	5.29	5.50	0.11	5.7	0.41	0.20
LOT 073	6.30	6.12	6.33	0.18	6.5	0.38	0.17
LOT 074	6.30	6.19	6.39	0.11	6.5	0.31	0.11
LOT 075	6.72	6.30	6.57	0.42	6.7	0.40	0.13
LOT 080	7.45	6.59	6.87	0.86	7.0	0.41	0.13
LOT 109	10.37	9.75	10.08	0.62	10.2	0.45	0.12
LOT 110	10.22	9.52	9.70	0.70	10.0	0.48	0.30
LOT 111	10.03	9.69	9.97	0.34	10.1	0.41	0.13
LOT 112	9.80	9.06	9.32	0.74	9.5	0.44	0.18
LOT 114	9.47	8.76	8.98	0.71	9.3	0.54	0.32
LOT 115	9.25	8.65	8.87	0.60	9.3	0.60	0.38
LOT 116	9.07	8.46	8.64	0.61	9.0	0.54	0.36
LOT 117	8.88	8.57	8.76	0.31	9.0	0.43	0.24
LOT 119	8.27	7.78	8.12	0.49	8.2	0.42	0.08
LOT 120	8.00	7.81	8.13	0.19	8.2	0.39	0.07
LOT 121	8.03	7.80	8.13	0.23	8.2	0.40	0.07
LOT 134	8.16	7.81	8.29	0.35	8.3	0.49	0.01
LOT 135	8.20	8.02	8.35	0.18	8.4	0.38	0.05
LOT 136	8.30	8.10	8.42	0.20	8.5	0.40	0.08
LOT 138	8.40	8.10	8.45	0.30	8.5	0.40	0.05
LOT 139	8.47	8.15	8.46	0.32	8.6	0.45	0.14
LOT 140	8.50	8.34	8.58	0.16	8.8	0.46	0.22
LOT 141	8.71	8.49	8.70	0.22	8.9	0.41	0.20
LOT 142	8.78	8.56	8.75	0.22	8.9	0.34	0.15
LOT 143	8.64	8.58	8.75	0.06	8.9	0.32	0.15
LOT 144	8.71	8.56	8.72	0.15	8.9	0.34	0.18
LOT 145 (N)	8.70	8.56	8.73	0.14	8.9	0.34	0.17
LOT 145 (S)	9.45	9.44	9.64	0.01	9.8	0.36	0.16
LOT 146 (N)	9.60	9.53	9.73	0.07	9.9	0.37	0.17
LOT 146 (S)	10.81	9.50	9.76	1.31	9.9	0.40	0.14
LOT 149	11.75	11.73	12.11	0.02	12.2	0.47	0.09

137. Condition 136 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for Lots 1-5, 42, 43, 70-75, 80, 109-112, 114-117, 119-121, 134-136, 138-146 and 149 and shall be prepared by Council at the cost of the consent holder.
138. The consent holder or future owners of Lot ... (as identified as Servient Tenement of ROW No 11 under condition 77) shall comply with the following:
The owner of Lot ... shall ensure no fence is constructed between ROW No 11 and Walkway Reserve 2.
139. Condition 138 shall be the subject of a consent notice under Section 221 of the Resource Management Act 1991 registered against the new Computer Freehold Register for Lot as identified as the Servient Tenement of ROW No 11 under condition 77) and shall be prepared by Council at the cost of the consent holder.
140. Pursuant to Section 221(3) of the Resource Management Act 1991, consent notice 9231374.7 shall be cancelled from Computer Freehold Register 599007 (Lot 101 DP 459040), at the time of Section 224 approval for Stages 1-4.

Advice note

Council will issue the appropriate notice under Section 221(5) in association with the Section 224 of the Resource Management Act 1991.

Financial Contribution

141. Should a development agreement between the consent holder and the Council not be agreed and signed by both parties prior to the completion of any stage of subdivision then prior to the construction of each dwelling or approval under section 224 of the Resource Management Act for each stage, whichever comes first, the consent holder shall pay a Recreation and Civic Development Contribution for each new allotment being created in the Suburban Zone pursuant to Section E1.3.2 (a)(i) of the Porirua District Plan. The rate payable is the rate at the time 224C certification – the rate from 1 July 2015 to 30 June 2016 is \$6535.04 (incl. GST) per allotment (adjusted in accordance with CPI each year).

Lapse Period

142. Unless given effect to, this consent shall lapse after a period of 10 years. If any of the stages of development proposed have not been given effect to pursuant to the relevant tests under Section 125 of the Resource Management Act 1991 within this 10 year period, the ability of the consent holder to obtain s223 certification in any such stage shall lapse.

Note: Should a development agreement between the applicant and Council not be agreed and signed by both parties prior to the hearing then the following Advice Note is recommended.

DEVELOPMENT CONTRIBUTIONS ADVICE NOTE

Local Government Act 2002

Pursuant to s.198 and s.208 of the Local Government Act 2002 and the Council's adopted 'Development Contributions Policy' 2015, please be advised that prior to certification under s.224 of the Resource Management Act 1991, Council requires that the consent holder pay a Development Contribution of \$540,621.90 incl. GST or at any other rate for this area that is applicable at the time of payment.

This amount due is made up of the following:

- *Roading (\$1799 per lot)*
\$264,453.00 plus GST (\$304,120.95 incl GST)
 - *Stormwater*
Nil
 - *Wastewater Treatment Plant (\$1129 plus GST per lot)*
\$165,963.00 plus GST (\$190,857.45 incl GST)
 - *Water Supply (\$270 per lot)*
\$39,690.00 plus GST (45,643.50 incl GST)
- Total \$434,106.00 plus GST (\$540,621.90 incl GST)**

HERITAGE ADVICE NOTE

Recorded archaeological sites in the vicinity of the subdivision indicate the possibility of further unrecorded archaeological sites that may be disturbed by soil disturbance associated with development of the new lots. An application for an Archaeological Authority must be made to Heritage New Zealand under the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy any archaeological site or if there is reasonable cause to suspect that an archaeological site may be modified or destroyed. It is an offence to modify or destroy a site for any purpose without an authority and the Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. These provisions apply irrespective of whether the works are permitted under the Resource Management Act 1991 by the provisions of plan or resource consent. Seeking advice from Heritage New Zealand is recommended when planning for any soil disturbances, such as building platforms, fencing and landscaping

THE APPLICANT IS TO NOTE:

Building Act

This is NOT Building Consent. The Building Act 1991 contains provisions relating to the construction, alteration, and demolition of buildings. The Act requires building consents to be obtained where relevant, and for all such work to comply with the building code.

Appeal

The right and procedure for appeal can be found under Sections 120 and 121 of the Resource Management Act 1991(hereafter called the Act) and should be received by the Environment Court, and served on the Council and any other relevant parties identified within Section 120 of the Act within 15 working days of the notice of decision being received in accordance with the Act.

Easements

No structure shall be allowed over any easement.

National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (the NES)

This consent does not give approval under the NES for the management of any contaminants which may be discovered through the construction process. Should any contaminants be discovered, the provisions of the NES will need to be complied with and consent obtained if so required.

GWRC conditions

Water permit [33621]

Water permit to divert the flow of Duck Creek in the following manner:

- The permanent diversion of the full flow of two reaches of Duck Creek into newly constructed stream channels, being approximately 185 metres and 40 metres in length
- The permanent diversion of Duck Creek flood flows via modification of the contours of the existing floodplain in association with bulk earthworks
- The temporary diversion of the full flow of Duck Creek associated with the installation of structures in, under and over the bed of Duck Creek

INTERPRETATION

Wherever used in the conditions below, the following terms shall have the prescribed meaning:

Stabilised means inherently resistant to erosion or rendered resistant, such as by using indurated rock or by the application of basecourse, colluvium, hydroseeding, grassing, mulch, or another method to the reasonable satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and as specified in Wellington Regional Council's Erosion and Sediment Control Guidelines for the Wellington Region, September 2002. Where seeding or grassing is used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once, on reasonable visual inspection by the Manager, Environmental Regulation, Wellington Regional Council, an 80% vegetative cover has been established.

General conditions

1. The location, design, implementation and operation of the activity shall be in general accordance with the consent application and its associated plans and documents, and further information, received by the Wellington Regional Council on:
 - 27 July 2015 (Original application)
 - 28 September 2015 (further information and amendments to the application)
 - 29 February 2016 (Memo from Kyle Christensen on flooding and erosion)
 - 3 March 2016 (Memo from Dean Miller with additional ecology information).

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991.

2. For the purposes of section 125(1) of the Resource Management Act 1991, this consent shall lapse if not given effect to within 10 years after the date of commencement of the consents.
3. The consent holder shall provide a detailed schedule of construction activities, management plans and monitoring plans, to the Manager, Environmental Regulation, Wellington Regional Council, and Ngāti Toa Rangatira, at least **20 working days** prior to the commencement of works. This schedule shall be updated at monthly intervals during the works. The schedule shall include the details of:
 - a) The timing all pre-construction plans to be submitted to the Manager, Environmental Regulation, Wellington Regional Council, in accordance with the conditions of this consent
 - b) The commencement date and expected duration of each stage of the works subject to this consent
 - c) The timing of monitoring reports necessary to fulfil the conditions of this consent.
4. The Manager, Environmental Regulation, Wellington Regional Council, shall be given a minimum of **two working days'** (48 hours) notice prior to the works commencing for each stage of the works.

Note: Notifications must be emailed to notifications@gw.govt.nz. Please include the consent reference (WGN160028) and the name and phone number of a contact person responsible for the proposed works.

5. The consent holder shall provide a copy of this consent and any documents and plans referred to in this consent to each operator or contractor undertaking works authorised by this consent, prior to the works commencing.

Note: It is recommended that the contractors be verbally briefed on the requirements of the conditions of this consent prior to works commencing.

6. The consent holder shall ensure that a copy of this consent and all documents and plans referred to in this consent, are kept on site at all times and presented to any Wellington Regional Council officer on request.

Environmental Management Plan for Construction

7. The consent holder shall prepare and submit an Environmental Management Plan for Construction (EMPC) to the Manager, Environmental Regulation,

Wellington Regional Council, at least **20 working days** prior to the proposed commencement date for the works authorised under this consent.

The EMPC shall include, but not be limited to, the following:

- a) Environmental objectives, including specific reference to avoiding or mitigating adverse effects including sedimentation on the Duck Creek and Pauatahanui Inlet receiving environments.
 - b) Statutory, consenting and contractual requirements
 - c) Responsibilities and contact details of all parties involved
 - d) Details of environmental site induction
 - e) Inspections, monitoring and reporting
 - f) Complaints and feedback procedures
 - g) Process for amending the Environmental Management Plan for Construction
 - h) Contingency measures – procedures to be followed in the event of an environmental incident
 - i) Environmental impacts and risk assessment, including the site limitations, main construction activities and potential adverse effects due to the works and including effects on Duck Creek and the Pauatahanui Inlet
 - j) Provisions for archaeology, including whether an archaeological authority is required under the Heritage New Zealand Pouhere Taonga Act 2014 and/or procedures to be followed in the event that archaeological or cultural material is discovered.
8. No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council has certified in writing that the Environmental Management Plan for Construction is in general accordance with the draft Environmental Management Plan for Construction lodged as part of the application and meets the requirements of this condition.
9. Any amendment proposed to the authorised Environmental Management Plan for Construction shall be submitted in writing by the consent holder and shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of any amendments proposed.

Pre-construction meeting

10. The consent holder shall arrange and conduct a pre-construction site meeting prior to any work authorised by this consent commencing for each stage of the works and must invite, with a minimum of **10 working days'** notice, the Wellington Regional Council and a representative from each key contractor undertaking the works.

Note: In the case that any of the invited parties, other than the representative of the consent holder, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.

Winter works restrictions

11. No works authorised by this consent shall take place on site during the period of 1 June to 30 September unless otherwise approved by the Manager, Environmental Regulation, Wellington Regional Council in writing.

Note: This condition does not restrict any planting works undertaken in accordance with the conditions of this consent.

Temporary diversions

12. The consent holder shall ensure that the construction activities are separated from flowing water by diverting the flow of Duck Creek around or away from the construction works area prior to the commencement of works.
13. Where temporary diversion pipes are used for any section of works, the discharge from the temporary diversions pipes shall be controlled so as to prevent scour at the outlets and shall be subject to erosion and sediment control measures.

Ecological Remediation and Compensation Plan

14. The consent holder shall prepare and submit an Ecological Remediation and Compensation Plan (EcoRCP) to the Manager, Environmental Regulation, Wellington Regional Council, at least **20 working days** for approval prior to the proposed commencement date for the works authorised under this consent.

The EcoRCP shall be prepared by a suitably qualified freshwater ecologist experienced in Stream Ecological Valuation, in consultation with the engineer responsible for erosion control and the landscape designer. The environmental remediation and compensation shall as a minimum provide for 986 metres of riparian mitigation planting, including the provision of approximately 340 metres of planting for enhancement of inanga spawning habitat from the northern site boundary upstream. No existing indigenous woody vegetation shall be removed within the inanga spawning habitat area.

The EcoRCP shall include, but not be limited to, the following:

- a) Updated SEV, including ECR calculations
- b) Details and plans of the location and width of riparian planting, and stream channel design including run, riffle, pool sequencing.
- c) Details and plans of the location of any non-compensative requirements within the identified riparian mitigation planting zone, including but not limited to any stormwater outlets, retention areas and other infrastructure, pathways, and maintenance accessways, as well as bank stabilisation measures in general accordance with those shown in Plan 251, as attached to the Joint Statement of the Flood Erosion experts, dated 6 April 2016.
- d) Details of other non-SEV compensatory measures, including but not limited to inanga spawning habitat enhancement and a whole-of-reach erosion protection approach for the Duck Creek North site using vegetative and ecologically sensitive methods wherever possible.
- e) The compensatory measures for inanga spawning habitat enhancement will be assessed by a specialist ecologist with expertise in inanga spawning and will include but not be limited to:
 - 1. An assessment of the need to alter the bank profile (on both sides of Duck Creek) to enhance tidal inundation and availability of spawning habitat. Any alteration to the bank profile will take public safety into account where there is public access within the inanga spawning habitat;
 - 2. Planting of appropriate indigenous species within the tidal inundation footprint to facilitate inanga spawning;
 - 3. Planting of other indigenous species outside of the tidal inundation footprint to provide shelter to the spawning habitat; and
 - 4. A process to minimise removal of existing topsoil and indigenous vegetation from the potential spawning area.

The EcoRCP shall be the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, **prior** to any works authorised by this consent commencing.

Advice Note:

Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991. The provision of inanga spawning habitat may require further resource consent from Wellington Regional Council.

Permanent Diversions

15. The consent holder shall ensure that the construction of each permanent diversion, and each stage of the permanent diversions, is undertaken with input from a suitably qualified and experienced freshwater ecologist, and in general accordance with the guideline design parameters in the Urban Design and Landscape Plan submitted as Appendix 2 (Volume 2) of the application documents, and the following minimum requirements:

Design Element	Design Parameters
Width of wet bed <i>(between banks & including gravel bars to match as closely as possible with existing, normal flow conditions)</i>	<ul style="list-style-type: none"> • Mean = 2.25 m • Min = 1.8 m • Max = 3.1 m
Water Depth <i>(to match as closely as possible with existing, normal flow conditions)</i>	<ul style="list-style-type: none"> • Mean depth = 15 cm • Maximum depth = 60cm Depth to be determined by flow and type of habitat desired
Velocity <i>(to match as closely as possible with existing, normal flow conditions).</i>	<ul style="list-style-type: none"> • Run / Pool = between 0.2 m/s to 0.4 m/s • Riffles = between 0.4 m/s to 0.6 m/s
Bed Material <i>(to match as closely as possible with existing conditions)</i>	<ul style="list-style-type: none"> • 10% sand • 25% gravel • 35% small cobble • 30% large cobble
Hyporheic Zone	The bed shall have a hyporheic zone to a minimum depth of 1m below final bed level which shall be comprised of coarse material to form a deep gravel/cobble bed and functioning hyporheic zone.
Channel Complexity <i>(3 key habitats to match as closely as possible with existing conditions)</i>	<ul style="list-style-type: none"> • 20% riffle • 20% pool • 60% run
Channel Habitat Diversity <i>(the objective for this element is that channel habitat will increase over time to include all of these types)</i>	<ul style="list-style-type: none"> • Cobble riffle • Run – Pool • Root mat (from riparian vegetation)
Shading <i>(Currently the creek's area is shaded approximately 30% based on overhanging banks, weedlands, and weedy aquatic macrophytes)</i>	<ul style="list-style-type: none"> • To attain a minimum (with re-vegetation) of 80% based on a canopy of native trees and shrub species.

Planting	Planting to achieve the following: <ul style="list-style-type: none"> • Erosion control immediately following earthworks – hydro-seed with inter- planting • Riparian cover and stream shading • Weed control - elimination A minimum of 80% of the riparian margin shall be planted, excluding the area set aside for inanga spawning which will be planted as per the assessment in the EcoRCP.
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16. The constructed permanent diversion sections of Duck Creek shall achieve a total minimum length of 134 metres.

As-built Plans

17. At least 10 working days prior to diverting water through each new section of stream channel, the consent holder shall provide to the Manager, Environmental Regulation, Wellington Regional Council, as-built plans and information to confirm that the new stream channel has been constructed and stabilised in accordance with the conditions of this consent. This information shall include the location and length of the new section of stream channel, and the location and dimensions of structures constructed on the bed or banks of the stream.

Undertaking diversion works

18. The consent holder shall take all practicable steps to minimise sedimentation and increased turbidity of Duck Creek and Pauatahanui Inlet during the works, including:
- a) Avoiding placement of construction material or excavated matter in the flowing channel
 - b) Separating construction activities from flowing water; and
 - c) Installing appropriate erosion control and sediment treatment measures; and
 - d) Stabilisation of the new sections of stream channel prior to diversion.

Inanga spawning

19. No in-stream works relating to the permanent diversion or within the area identified for inanga spawning habitat enhancement in the EcoRCP shall be carried out in the active channel (i.e. flowing water in the stream bed) between 1 March and 31 May, to provide for inanga spawning.
20. No other in-stream works in other locations, including temporary diversions, shall be carried out in the active channel (i.e. flowing water in the stream

bed) during a high spring tide between 1 March and 31 May, to provide for inanga spawning.

Fish passage and relocation

21. No in-stream works shall be carried out in the active channel (i.e. flowing water in the stream bed) during the key recruitment migration period for native fish species of 1 September to 30 November inclusive, unless otherwise approved in writing by the Manager, Environmental Regulation, Wellington Regional Council.
22. During the diversion of water into a temporary channel or new channel, or following diversion of the stream back to its original course, the consent holder shall take all practicable steps to find, capture and relocate fish from the affected reach. This shall include checking the affected stream channel, wetted banks and vegetation during dewatering and then regular checks for a period of 2 hours following diversion of the stream. The consent holder shall ensure that any fish found stranded as a result of the works are collected with a soft meshed net or wet hands, and placed in an oxygenated container for no longer than one hour before being transferred as soon as possible and within one hour at least two hundred metres upstream of the works site into a clear flowing section of Duck Creek

A detailed fish relocation methodology shall be set out in the Environmental Monitoring and Adaptive Management Plan, in general accordance with the draft EMAMP.

23. The consent holder shall undertake the construction works in a manner that ensures that fish passage in Duck Creek, and through any temporary diversions pipes or channels, is maintained at all times. Immediately following formation of the new stream channel and prior to water being diverted into the new stream channel, an inspection of all structures or deposits within the diversion channel shall be undertaken to assess if they will provide fish passage for all native species currently known to occur or reasonably likely to occur within the stream. The consent holder shall submit an advisory note to confirm fish passage, or recommend work to ensure fish passage, to the Manager, Environmental Regulation, Wellington Regional Council, at least 5 working days prior to water being diverted into the new stream channel.

Inspection of Stream Channel

24. Between 12 and 24 months following the diversion of water through each new section of stream channel, the consent holder shall carry out an inspection of the runs, riffles and pools, and meanders and rip rap within the new section of stream channel to determine whether these elements are reducing the velocity of flow as proposed in the application and whether any bed level adjustment and/or stream channel erosion has occurred during flood flows. The inspection shall be carried out by a suitably qualified and experienced environmental engineer.

25. An inspection report shall be provided to the Manager, Environmental Regulation, Wellington Regional Council within one month of completing the inspection required under condition 24. The report shall provide a description of the state of the stream channel and the grade control structures, and any recommendations for improvements or additional works to reduce the flow velocity or likelihood of flooding. The consent holder shall implement any improvements authorised by the Manager, Environmental Regulation, Wellington Regional Council within timeframes to be agreed with the Manager, Environmental Regulation, Wellington Regional Council.

Baseline Monitoring

26. The consent holder shall engage a suitably qualified and experienced person to undertake baseline data measurements of deposited sediment, invertebrates, and surface water quality parameters (pH, turbidity suspended sediment concentration and total suspended solids), at sites DCN-01 to DCN-05 as a minimum. The water quality and deposited sediment sampling shall be undertaken for each of the following scenarios:

- a) following a rainfall event of more than 4mm in one hour and/or 20mm in 24 hours, and
- b) following a minimum of two weeks of no rainfall.

The consent holder shall ensure that the monitoring locations, sample sizes, methodologies, and analysis methods are appropriate for the purpose of the baseline monitoring and wherever available use national protocols or guidelines. **Five working days** prior to undertaking the baseline monitoring, the consent holder shall provide to the Manager, Environmental Regulation, Wellington Regional Council, a Baseline Monitoring Plan which details the number of measurements to be taken, the monitoring locations, approximate sampling dates, and sampling and analysis methodologies to be used.

Note: Data derived for invertebrates should be quantitative, not semi-quantitative.

27. The consent holder shall provide a baseline monitoring report for Duck Creek at least **20 working days** prior to any works commencing under this consent, to the Manager, Environmental Regulation, Wellington Regional Council. The Baseline Monitoring Report shall include:
- a) Historic data measurements of deposited sediment, invertebrates, fish and surface water quality parameters (pH, turbidity suspended sediment concentration and total suspended solids) for Duck Creek; and
 - b) Data measurements taken in accordance with condition 26 for deposited sediment, invertebrates, surface water quality parameters

(pH, turbidity, suspended sediment concentration and total suspended solids)

- c) The number of measurements taken, the monitoring locations, sampling dates, flow conditions prior to sampling, and sampling and analysis methodologies used for the baseline data.

Water quality and sediment monitoring

- 28. The consent holder shall engage a suitably qualified and experienced person to inspect the entire length of each new reach of stream channel, and sample and record the following parameters, at the downstream end of the new section of stream channel each day for a period of three days following the diversion of water through that stage of the stream channel. The first day of sampling shall commence within 24 hours of diverting water through the new channel. In addition, sampling and recording of the following parameters shall be undertaken at the same location, on at least two occasions, within 24 hours of a rainfall event over 4 mm in a one hour period, and/or 20 mm in a 24 hour period:
 - a) pH
 - b) Temperature
 - c) Turbidity (NTU)
 - d) Total suspended solids
 - e) Suspended sediment concentration
- 29. For each monitored event undertaken in accordance with condition 28, photographs of the watercourse at, and up and downstream of the sampling point shall be taken and a monitoring report shall be completed, which shall include the following information:
 - a) Date and time of the monitoring
 - b) Details of the person undertaking the monitoring
 - c) Nature of flow in Duck Creek
 - d) Weather conditions
 - e) Observed length of sediment plume
 - f) Presence of any effects listed in s107(1), (c) to (g) of the Resource Management Act 1991:

- i) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials
 - ii) any conspicuous change in the colour or visual clarity
 - iii) any emission of objectionable odour
 - iv) the rendering of fresh water unsuitable for consumption by farm animals
 - v) any significant adverse effects on aquatic life.
- g) Observations of sediment control devices
 - h) Recommendations for additional water quality investigations and timeframes for undertaking these.
30. The monitoring report required under condition 29 shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council within one month of each sampling event.
31. The recommendations of the monitoring report required by condition 29 shall be implemented by the consent holder to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council within the timeframes agreed to by the Manager, Environmental Regulation, Wellington Regional Council.

Environmental Monitoring and Adaptive Management Plan

32. The consent holder shall submit an **Environmental Monitoring and Adaptive Management Plan (EMAMP)** to the Manager, Environmental Regulation, Wellington Regional Council at least **20 working days** prior to the commencement date of any earthworks.

Each section of the EMAMP shall be prepared by a person suitably qualified and experienced in the subject addressed in that section.

The purpose of the EMAMP is to establish and implement a scientifically robust monitoring plan to monitor the health of Duck Creek and indirectly the Pauatahanui Inlet in terms of water quality, and aquatic habitat and fish passage, as it is realigned and collects treated discharges from the surrounding earthworks activities.

The EMAMP shall detail the methods for monitoring stream water quality, monitoring the health of the aquatic environment, fish relocation, recolonisation of bed material, and monitoring fish passage, and provide an adaptive management framework whereby the results of water quality monitoring trigger appropriate responses. The consent holder shall ensure that the monitoring locations, sample sizes, methodologies, and analysis methods are appropriate

for the purpose of the monitoring and wherever available use national protocols or guidelines.

The EMAMP shall include the following:

- a) The scope and environmental objectives of the monitoring encompassed by the EMAMP
- b) Identification of suitably qualified and experienced person(s) to undertake the monitoring
- c) The adaptive management process
- d) The location of all monitoring sites as shown on the plan attached to the draft EMAMP submitted with the application and contained in Appendix 8 (Volume 2) including a scaled aerial map, NZTM map references, and descriptions of all sites
- e) An overview of the sampling regimes and timing of sampling, for the site
- f) A description of the methodologies to be used for fish relocation, recolonisation of bed material, and each type of monitoring, including sample sizes and analysis methods, where relevant.
- g) Trigger levels for rainfall, pH, temperature, turbidity, suspended sediment concentration, total suspended solids, deposited sediment, and invertebrates
- h) The process to be followed in the event of an exceedence of any of these trigger levels
- i) Details on how each of the following monitoring regimes will be undertaken:
 - i) Rainfall event monitoring – Water quality
 - ii) Event triggered monitoring – Deposited sediment and Invertebrates
 - iii) Diversion monitoring – Design guidelines, Structures and Fish relocation
 - iv) Twice yearly monitoring – Water quality and Deposited sediment
 - v) Annual monitoring – Fish passage, Invertebrates, Marine sediment monitoring data and Riparian restoration (SEV) and inanga spawning habitat monitoring

- j) Reporting requirements
- k) Process for amending the EMAMP.

No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council, has certified in writing that the EMAMP is in general accordance with the draft EMAMP, submitted as Appendix 8 (Volume 2) of the application, and meets the requirements of all conditions of this consent.

- 33. The EMAMP shall be implemented by suitably qualified and experienced persons in accordance with the authorised plan (under condition 32 of this consent). Any amendment proposed by the consent holder to the authorised EMAMP shall be submitted in writing to the Manager, Environmental Regulation, Wellington Regional Council. The consent holder shall not implement any amendment to the EMAMP until that amendment has been authorised in writing by the Manager, Environmental Regulation, Wellington Regional Council.

General Monitoring Conditions

- 34. For each monitored event undertaken in accordance with the authorized EMAMP, a photograph of the watercourse at the sampling point shall be taken and a site record sheet shall be completed, which shall include the following information:
 - a) Date and time of the monitoring
 - b) Details of the person undertaking the monitoring
 - c) Nature of flow in Duck Creek
 - d) Weather conditions
 - e) The presence of:
 - i) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials
 - ii) any conspicuous change in colour or visual clarity
 - iii) any emission of objectionable odour
 - iv) the rendering of fresh water unsuitable for consumption by farm animals
 - v) any significant adverse effects on aquatic life.

- f) Observations of any sediment control devices directly, or indirectly treating discharges to Duck Creek and any recommendations for maintenance or additions to these controls; and
 - g) Recommendations for additional ecological investigations to determine the effects of the diversion and/or discharges on Duck Creek.
35. The consent holder shall ensure that the monitoring locations, sample sizes, methodologies, and analysis methods to be included in the EMAMP, and used for the monitoring undertaken in accordance with the EMAMP, are appropriate for the purpose of the monitoring and wherever available use national protocols or guidelines.

Rainfall Monitoring

36. Rainfall monitoring shall be undertaken using the most appropriately located weather station(s) to determine whether the trigger level of 4 mm in one hour, and/or 20 mm in 24 hours has been reached. The data to support the selection of the weather station shall be provided in the EMAMP.

Water Quality Monitoring

37. Water quality monitoring of Duck Creek shall be undertaken following the exceedance of a rainfall event trigger for the following water quality parameters:
- a) pH
 - b) Temperature
 - c) Dissolved oxygen
 - d) Turbidity
 - e) Total Suspended Solids and
 - f) Suspended Sediment Concentration.

The consent holder shall ensure that all water quality monitoring occurs as soon as practicable once the rainfall trigger level is reached and within a 12 hour time period. Water quality monitoring shall be undertaken at the control site DCN-01 (located at the southern site boundary) and at all monitoring sites (DCN-02 – DCN-07) at or downstream of any areas where works are in progress, including areas where the site has not been stabilised in accordance with the conditions of discharge permit [33622]. Water quality monitoring shall occur at least three times a day while the rainfall event continues, and then 24 hours later.

38. The trigger levels for water quality monitoring shall be as follows:

- a) pH – An exceedance is deemed to have occurred if the pH is less than 5.5 or greater than 7.5
 - b) Turbidity – An exceedance is deemed to have occurred if the difference in NTU levels between the control site and the monitoring location is greater than 20%
 - c) Total Suspended Solids – An exceedance is deemed to have occurred if the difference in TSS concentrations between the control site and the monitoring location is greater than 20%, or a level of more than 150g/m³ is recorded
 - d) Suspended sediment concentration - An exceedance is deemed to have occurred if the difference in suspended sediment concentrations between the control site and the monitoring location is greater than 20%.
39. Each time any water quality trigger level is exceeded at any of the monitoring locations other than the control site, the consent holder shall:
- a) notify the Manager, Environmental Regulation, Wellington Regional Council in writing within 24 hours,
 - b) undertake an audit as set out in condition 40, and
 - c) undertake actions to minimise further exceedances, which may include temporary stabilisation of disturbed surfaces, installation of additional devices and batch dosing with flocculants.

Event triggered monitoring

40. A complete site audit shall be undertaken each time water quality monitoring indicates an exceedance of the water quality trigger levels. The site audit shall be undertaken as soon as practicable and within 24 hours of the trigger being exceeded. The site audit shall be additional to the weekly site audit required by discharge permit [33622]. The audit shall include, but not be limited to, the following information:
- a) Date
 - b) Name of auditor
 - c) Site condition
 - d) Weather conditions
 - e) Sediment management (including identification of problem areas that are not being treated by sediment control measures, and any measures put in place to treat these areas)

- f) Runoff control (check of diversion channels and check sediment retention ponds)
 - g) Condition of sediment control measures, including silt fences, contour drains and sediment retention ponds
 - h) Check of operation of flocculation method; and
 - i) General comments.
41. Deposited sediment monitoring, using the method of visually estimating the percentage cover of fine sediments, shall be undertaken each time water quality monitoring indicates an exceedance of turbidity and/or total suspended solids trigger levels and the source of the exceedance is likely to be due to the on-site construction works. Deposited sediment monitoring will be undertaken at the control site DCN-01 (located at the southern site boundary), and all monitoring sites identified in the EMAMP downstream of any works authorised by this consent.
42. Invertebrate sampling shall be undertaken if:
- a) water quality monitoring; and/or
 - b) deposited sediment monitoring; and/or
 - c) other sources of information,
- indicate a major sediment discharge has occurred that may have resulted in adverse effects on stream ecology. Invertebrate monitoring shall be undertaken following a minimum of two weeks of no rainfall. Invertebrate monitoring shall be undertaken at the control site DCN-01 and all monitoring sites within the section of stream channel where the works authorised by this consent are occurring, with the exception of sites DCN-05, DCN-06 and DCN-07.
- Note: Data derived should be quantitative, not semi-quantitative.*
43. The results of the event triggered monitoring shall be provided in an **Event Triggered Monitoring Report**. In addition to the requirements of condition 56, the report shall include:
- a) The levels of exceedance
 - b) Monitoring results for the duration of the rainfall event until the discharges cease
 - c) The results of the trigger level site audit required by condition 40

- d) Identification of probable causes of the exceedance and any measures that could have been taken to prevent it
- e) Analysis of the performance of the erosion and sediment control device(s)
- f) Immediate actions taken to minimise further exceedances.

Diversion monitoring – Design guidelines, fish passage and fish relocation

44. Prior to the diversion of water into each stage of the new stream channel, and within 5 working days following the diversion of water for each stage, an inspection of the new stream channel shall be undertaken of the design principles set out in condition 15 of this consent for:

- a) Width of wet bed;
- b) Water depth;
- c) Velocity of runs, pools, and riffles;
- d) Bed material; and
- e) Channel complexity.

The consent holder shall provide recommendations, where necessary, on any work to be undertaken to ensure compliance with the design principles set out in condition 15, and timeframes for implementing these recommendations, in the **Diversion Monitoring Report** required under condition 55.

Twice yearly monitoring – Water quality and deposited sediment

45. Water quality and deposited sediment sampling shall be undertaken twice a year, in autumn (1 March – 31 May) and spring (1 September – 30 November), on a mid-ebb tide, following a minimum of two weeks of no rainfall, while the works authorised by this consent are being undertaken, and for two occasions following the completion of the earthworks and stabilisation of the entire site. The monitoring shall be undertaken at the control site DCN-01 (located at the southern site boundary) and downstream of the site (at monitoring locations DCN-02 to DCN-07). The results of this monitoring shall be provided in the **Progress Monitoring Reports** due by 15 July (for the autumn monitoring) and 15 January (for the spring monitoring) following each monitoring occasion, as required by condition 55 of this consent.

Annual monitoring – Fish passage

46. Following the diversion of water through the first new stream channel, fish passage monitoring of all of the sites upstream of, and including, site DCN-05

shall be undertaken once between 1 December and 30 April. The fish passage monitoring shall include but not be limited to:

- a) a survey of the number of all fish species present upstream and downstream of the new channel diversion at monitoring site DCN-03B including specific reference to the location of whitebait, elver, and inanga, and the size class distribution of banded kokopu, koura, and giant kokopu using national protocols for fish monitoring;
- b) identification of any actual or potential impediments to fish passage.

This monitoring shall be undertaken annually for five years following the livening of the stream diversion.

Note: It is recommended that the fish monitoring data be uploaded to the New Zealand Freshwater Fish Database, currently administered by NIWA.

47. The results of the fish passage monitoring shall be provided in the **Progress Monitoring Report**. The results shall assess the performance of the diversion into the new stream channel section, in achieving fish passage. In addition to the requirements of condition 56, the report shall include:

- a) The results of the fish passage monitoring;
- b) Details of any modifications to the channel which may affect fish passage including the location and date of the modifications;
- c) An analysis of the results for all fish species present, including comparison with the baseline fish data, and data from any previous fish passage monitoring under this consent;
- d) Identification of any actual or potential impediments to fish passage;
- e) Recommendations for any remedial measures required to ensure fish passage; and
- f) The timeframe for implementing these recommendations.

Note: Works in the stream bed to enable fish passage may require additional resource consent.

Annual monitoring – Invertebrates

48. Following the diversion of water into new stream channel, invertebrate monitoring shall be undertaken at the control site DCN-01 and all monitoring sites within the section of stream channel where the works authorised by this consent are occurring or have occurred, with the exception of sites DCN-05, DCN-06 and DCN-07. Invertebrate monitoring shall be undertaken between 1 March and 31 May, each year. This monitoring shall be undertaken annually

for five years following the livening of the last stream diversion, unless a shorter time period is agreed, to the satisfaction of the Manager, Environmental Regulation. The results of the invertebrate monitoring shall be provided in the **Progress Monitoring Report**.

Note: Data derived should be quantitative, not semi-quantitative.

Annual monitoring review – Marine sediment monitoring data

49. A review of any available marine sediment monitoring data and deposited sediment data for the Duck Creek Saltmarsh and the Pauatahanui Inlet adjacent to the saltmarsh shall be undertaken once a year including a comparison of the data with the baseline monitoring results. This monitoring review shall be undertaken annually for five years following the livening of the last stream diversion, unless a shorter time period is agreed, to the satisfaction of the Manager, Environmental Regulation. The results of this analysis shall be provided in the **Progress Monitoring Reports** due on the 15 July as required by condition 55 of this consent.

Annual monitoring – Ecological Remediation and Compensation Plan monitoring

50. The consent holder shall record all inanga spawning habitat enhancement works and riparian planting, monitoring and maintenance undertaken and submit this in the **Progress Monitoring Report** due on the 15 July.

The report shall include, but not be limited to, the following:

- a) A map showing the areas which have been planted compared to the agreed mitigation areas, and the areas where inanga spawning habitat enhancement works and planting have occurred
- b) Details of inanga spawning habitat enhancement works undertaken
- c) Details of plants, including species, number and date planted
- d) An assessment of overall plant success rates
- e) An assessment of the quality of the inanga spawning habitat
- f) A representative measure of canopy cover at least every year until 80% canopy cover within and over the planted areas has been reached, excluding the area for inanga spawning habitat enhancement
- g) Photo points of representative planted areas and restored inanga spawning habitat, taken annually
- h) Details of any maintenance work undertaken
- i) Details of any further works required to be undertaken

- j) Recommendations for any on-going maintenance works.
51. The consent holder shall undertake an SEV analysis, between 1 September and 1 December, two years and five years following the permanent diversion of the flow into the new stream channel, or the initial landscaping and planting, whichever occurs later. The SEV analysis shall be carried out at the same sites as the SEV assessment reported in Appendix 3 (Volume 2) of the application including at least two monitoring sites within the new channel section, and at least two monitoring sites within the mitigation planting section of the existing stream channel.
52. The purpose of the SEV monitoring is to determine whether aquatic habitat and stream functions within the diversion and mitigation reaches have improved and either meet or are likely to meet the mitigation requirements established by the ECR analysis (predicted SEV scores in the SEV assessment reported in the Ecological Remediation and Compensation Plan).
53. The consent holder shall provide the results of the SEV analysis in the **Progress Monitoring Report** of the following year. The results shall include the numerical variables and values used to determine the SEV scores for each monitoring location.

Progress Monitoring Reports

54. The results of the monitoring set out in conditions 45-50, and any SEV analysis undertaken in accordance with conditions 51 and 52 during the same period 1 September to 1 December shall be provided in a **Progress Monitoring Report**, of the following year (due either 15 January or 15 July).

Reporting Requirements

55. The consent holder shall engage a suitably qualified and experienced ecologist to prepare and submit to the Manger, Environmental Regulation, Wellington Regional Council and Ngāti Toa Rangatira, **Environmental Monitoring Reports (EMRs)** which detail the results of the monitoring set out in the EMAMP, with the exception of the baseline monitoring. EMRs shall be prepared and submitted within the stated timeframes as follows:

	Type of EMR	Purpose	Timeframe for submission
1	Water Quality Monitoring Report	Water quality results for each rainfall triggered event.	Within 5 working days of sampling.
2	Event Triggered Monitoring Report	Following the exceedence of a water quality trigger level.	Within 5 working days of undertaking the site audit and deposited sediment monitoring, and a final report within 3 months of undertaking any invertebrate sampling.
3	Diversion Monitoring Report	Following the completion of each diversion of Duck Creek.	Within 10 working days of completing the inspection.
4	Progress Monitoring Report	Annual and Twice yearly monitoring.	By 15 July and the 15 January, each year for the timeframe stipulated for each applicable monitoring activity.

56. Each EMR shall include, but not be limited to:
- a) The results of the monitoring undertaken;
 - b) An analysis of the results, as assessed by a suitably qualified and independent ecologist, and including an assessment of the effects that the works authorised under this consent are having on the aquatic ecosystems and ecological values at each monitoring location and on the stream as a whole;
 - c) Recommendations for amendments to the EMAMP, ECP, FMP and/or consent conditions, including, but not limited to:
 - i) Changes to flocculation method, dosing or material
 - ii) Changes in the management or implementation of erosion and sediment control measures or site management, and
 - iii) Adjustment of the water quality trigger levels
 - iv) Changes to the water quality monitoring programme.

The person that the consent holder engages to prepare each EMR shall be suitably qualified and experienced to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

57. The approved recommendations of the EMR under condition 56 of this consent shall be undertaken by the consent holder to the satisfaction of, and within the timeframe specified by, the Manager, Environmental Regulation, Wellington Regional Council.

Note: Any amendments proposed to the approved EMAMP, ESCP and/or FMP must be confirmed in writing by the consent holder and be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of the proposed amendments. Any amendments recommended to the conditions will require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.

Complaints

58. The consent holder shall maintain a permanent record of any complaints received alleging adverse effects from or related to the works. This record shall include:

- a) The name and address of the complainant (if provided)
- b) The date and time that the complaint was received
- c) Details of the alleged event
- d) Weather conditions at the time of the complaint, and
- e) Any measures taken to mitigate/remedy the cause of the complaint

This record shall be made available to the Manager, Environmental Regulation, Wellington Regional Council, on request.

Discovery of artefacts

59. If koiwi, taonga or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall contact Ngāti Toa Rangatira, Heritage New Zealand and Wellington Regional Council within twenty-four hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.

Note 1: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials.

Note 2: Recorded archaeological sites in the vicinity of the subdivision indicate the possibility of further unrecorded archaeological sites that may be disturbed by soil disturbance associated with development of the new lots. An application for an Archaeological Authority must be made to Heritage New Zealand under the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site or if there is reasonable cause to suspect that an archaeological site may be modified or destroyed. It is an offence to modify or destroy a site for any purpose without an authority and the Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. These provisions apply irrespective of whether the works are permitted under the Resource Management Act 1991 by the provisions of a plan or resource consent. Seeking advice from Heritage New Zealand is recommended when planning for any soil disturbances, such as building platforms, fencing or landscaping.

Maintenance of works

60. The works shall remain the responsibility of the consent holder and shall be maintained to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council so that:
- a) 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, and
 - b) Any adverse effects caused by the diversion that limits or restrict fish passage shall be rectified by the consent holder.

Note: Maintenance does not include any works outside of the scope of the application. Any additional works (including structures, reshaping or disturbance to the bed of the watercourse) following completion of the construction works as proposed in the application, may require further resource consents.

Review condition

61. The Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so pursuant to Section 128 of the Resource Management Act 1991, within one month of each anniversary of the commencement of this consent, for the following purposes:
- a) To review the adequacy of any report and/or monitoring requirements, and if necessary, amend these requirements outlined in this consent
 - b) To deal with any adverse effects on the environment that may arise from the exercise of this consent; and which are appropriate to deal with at a later stage

- c) To require the implementation of Best Practicable Options, in respect of new methodologies for the undertaking of the works to avoid, remedy or mitigate any significant adverse effect on the environment arising from the works
- d) To enable consistency with any relevant Regional Plans or any National Environmental Standards or Regulations.

The review of conditions shall allow for the deletion or amendment of conditions of this consent; and the addition of such new conditions as are shown to be necessary to avoid, remedy or mitigate any significant adverse effects on the environment.

Note: For the purposes of this condition the “commencement of the consent” is deemed to be once the works authorised by this consent have commenced.

- 62. The Wellington Regional Council shall be entitled to recover from the consent holder the costs of any review, calculated in accordance with and limited to the Council’s scale of charges in force and applicable at that time pursuant to section 36 of the Resource Management Act 1991.

Discharge permit [33622]

Discharge permit to discharge sediment and chemical flocculants within treated stormwater runoff to Duck Creek, and to land where it may enter Duck Creek, in association with bulk earthworks for a residential subdivision

INTERPRETATION

Wherever used in the conditions below, the following terms shall have the prescribed meaning:

Stabilised means inherently resistant to erosion or rendered resistant, such as by using indurated rock or by the application of basecourse, colluvium, hydroseeding, grassing, mulch, or another method to the reasonable satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and as specified in Wellington Regional Council's Erosion and Sediment Control Guidelines for the Wellington Region, September 2002. Where seeding or grassing is used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once, on reasonable visual inspection by the Manager, Environmental Regulation, Wellington Regional Council, an 80% vegetative cover has been established.

General conditions

1. The location, design, implementation and operation of the activity shall be in general accordance with the consent application and its associated plans and documents, and further information, received by the Wellington Regional Council on:
 - 27 July 2015 (Original application)
 - 28 September 2015 (further information and amendments to the application)
 - 29 February 2016 (Memo from Kyle Christensen on flooding and erosion)
 - 3 March 2016 (Memo from Dean Miller with additional ecology information).

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991.

2. For the purposes of section 125(1) of the Resource Management Act 1991, this consent shall lapse if not given effect to within 10 years after the date of commencement of the consents.

3. The consent holder shall provide a detailed schedule of construction activities, management plans and monitoring plans, to the Manager, Environmental Regulation, Wellington Regional Council, and Ngāti Toa Rangatira at least **20 working days** prior to the commencement of works. This schedule shall be updated at monthly intervals during the works. The schedule shall include the details of:
 - a) The timing all pre-construction plans to be submitted to the Manager, Environmental Regulation, Wellington Regional Council, in accordance with the conditions of this consent
 - b) The commencement date and expected duration of each stage of the works subject to this consent
 - c) The timing of monitoring reports necessary to fulfil the conditions of this consent.

4. The Manager, Environmental Regulation, Wellington Regional Council, shall be given a minimum of **two working days'** (48 hours) notice prior to the works commencing for each stage of the works.

Note: Notifications must be emailed to notifications@gw.govt.nz. Please include the consent reference (WGN160028) and the name and phone number of a contact person responsible for the proposed works.

5. The consent holder shall provide a copy of this consent and any documents and plans referred to in this consent to each operator or contractor undertaking works authorised by this consent, prior to the works commencing.

Note: It is recommended that the contractors be verbally briefed on the requirements of the conditions of this consent prior to works commencing.

6. The consent holder shall ensure that a copy of this consent and all documents and plans referred to in this consent, are kept on site at all times and presented to any Wellington Regional Council officer on request.

Environmental Management Plan for Construction

7. The consent holder shall prepare and submit an Environmental Management Plan for Construction (EMPC) to the Manager, Environmental Regulation, Wellington Regional Council, at least **20 working days** prior to the proposed commencement date for the works authorised under this consent.

The EMPC shall include, but not be limited to, the following:

- a) Environmental objectives, including specific reference to avoiding or mitigating adverse effects including sedimentation on the Duck Creek and Pauatahanui Inlet receiving environments

- b) Statutory, consenting and contractual requirements
 - c) Responsibilities and contact details of all parties involved
 - d) Details of environmental site induction
 - e) Inspections, monitoring and reporting
 - f) Complaints and feedback procedures
 - g) Process for amending the Environmental Management Plan for Construction
 - h) Contingency measures – procedures to be followed in the event of an environmental incident
 - i) Environmental impacts and risk assessment, including the site limitations, main construction activities and potential adverse effects due to the works
 - j) Provisions for archaeology, including whether an archaeological authority is required under the Heritage New Zealand Pouhere Taonga Act 2014 and/or procedures to be followed in the event that archaeological or cultural material is discovered.
8. No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council has certified in writing that the Environmental Management Plan for Construction is in general accordance with the draft Environmental Management Plan for Construction lodged as part of the application and meets the requirements of this condition.
9. Any amendment proposed to the authorised Environmental Management Plan for Construction shall be submitted in writing by the consent holder and shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of any amendments proposed.

Baseline Monitoring

10. The consent holder shall engage a suitably qualified and experienced person to undertake baseline data measurements of deposited sediment, invertebrates, and surface water quality parameters (pH, turbidity, suspended sediment concentration and total suspended solids), at sites DCN-01 to DCN-05 as a minimum. The water quality and deposited sediment sampling shall be undertaken for each of the following scenarios:
- a) following a rainfall event of more than 4mm in one hour and/or 20mm in 24 hours, and
 - b) following a minimum of two weeks of no rainfall.

The consent holder shall ensure that the monitoring locations, sample sizes, methodologies, and analysis methods are appropriate for the purpose of the baseline monitoring and wherever available use national protocols or guidelines. **Five working days** prior to undertaking the baseline monitoring, the consent holder shall provide to the Manager, Environmental Regulation, Wellington Regional Council, a Baseline Monitoring Plan which details the number of measurements to be taken, the monitoring locations, approximate sampling dates, and sampling and analysis methodologies to be used.

Note: Data derived for invertebrates should be quantitative, not semi-quantitative.

11. The consent holder shall provide a baseline monitoring report for Duck Creek at least **20 working days** prior to any works commencing under this consent, to the Manager, Environmental Regulation, Wellington Regional Council. The Baseline Monitoring Report shall include:
 - a) Historic data measurements of deposited sediment, invertebrates, fish and surface water quality parameters (pH, turbidity, suspended sediment concentration and total suspended solids) for Duck Creek; and
 - b) Data measurements taken in accordance with condition 10 for deposited sediment, invertebrates, surface water quality parameters (pH, turbidity, suspended sediment concentration and total suspended solids)
 - c) The number of measurements taken, the monitoring locations, sampling dates, flow conditions prior to sampling, and sampling and analysis methodologies used for the baseline data.

Pre-construction meeting

12. The consent holder shall arrange and conduct a pre-construction site meeting prior to any work authorised by this consent commencing for each stage of the works and must invite, with a minimum of **10 working days'** notice, the Wellington Regional Council and a representative from each key contractor undertaking the works.

Note: In the case that any of the invited parties, other than the representative of the consent holder, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.

Winter works restrictions

13. No works authorised by this consent shall take place on site during the period of 1 June to 30 September unless otherwise approved by the Manager, Environmental Regulation, Wellington Regional Council in writing.

14. All earthworked areas shall be stabilised during the period between 1 June to 30 September inclusive each year unless a later date is approved in writing by the Manager, Environmental Regulation, Wellington Regional Council. The stabilised surface shall be maintained to the satisfaction of the Manager, Environmental Regulation.

Earthworks Construction Plan

15. The consent holder shall prepare, in consultation with the contractor undertaking the works, a final **Earthworks Construction Plan** (incorporating an Erosion and Sediment Control Plan) (ECP). The ECP shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council for approval at least **20 working days** prior to the works commencing.

The final ECP shall as a minimum be prepared in general accordance with the *Erosion and Sediment Control Guidelines for the Wellington Region (2002)*. The ECP shall reflect the measures outlined in the Environmental Management Plan (Construction), and the draft Earthworks Construction Plan - Stage 1 submitted as Appendix 7 of the application, as relevant to the stage of works, and shall include, but not be limited to, the following:

- a) Responsibilities and contact details of all parties responsible for the operation and maintenance of all key erosion and sediment control structures
- b) A detailed description of the works proposed and construction methodology and timetable
- c) Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control and minimise the potential for sediment discharge from the site
- d) The design criteria and dimensions of all key erosion and sediment control measures
- e) Plan(s) of an appropriate scale clearly identifying:
 - i) The location of all existing and proposed stream channels
 - ii) Staging sequence of erosion and sediment control measures
 - iii) Areas and cross sections of cut and fill
 - iv) The extent of soil disturbance and vegetation removal
 - v) Any “no go” and/or buffer areas to be maintained undisturbed
 - vi) Locations of topsoil stockpiles and haul roads

- vii) All key erosion and sediment control measures, including diversion channels
 - viii) The boundaries and area of catchments contributing to all stormwater impoundment structures
 - ix) The locations of all specific points of discharge to the environment
 - x) Civil infrastructure to be constructed in relation to completed bulk earthworks areas, and
 - xi) Any other relevant site information
- f) Timetable and nature of progressive site rehabilitation and re-vegetation proposed, taking into account the requirements of the Ecological Remediation and Compensation Plan.
 - g) Maintenance, monitoring and reporting procedures and frequency
 - h) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures, and measures to ensure overland flow or flood waters are isolated from opened earthworks areas
 - i) Procedures and timing for review and/or amendment to the ECP
 - j) Decommissioning methodology for all erosion and sediment control measures
 - k) Procedures for re-instating erosion and sediment control measures at the end of each working day, where applicable.

The ECP shall be the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, **prior** to any works authorised by this consent commencing.

- 16. Any amendments proposed to the approved ECP shall be confirmed in writing by the consent holder and be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, **prior** to the implementation of any amendments proposed.

Flocculation Management Plan

- 17. The consent holder shall prepare, in consultation with a person suitably qualified and experienced in flocculant use, plan preparation and

implementation a final Flocculation Management Plan (FMP). The FMP shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council for approval at least **10 working days** prior to the use of flocculant.

The FMP shall include, but not be limited to:

- a) Confirmation of the flocculant to be used and the method of flocculation to be used
- b) Alternative flocculant or method of flocculation to be used if the above method is found to be ineffective after use on site, including triggers and timeframes for making the change between methods
- c) Details of how the flocculation dosage will be triggered
- d) Details of optimum dosage rate calculated from the soils in the ponds catchment including details of the calculation including bench testing results
- e) Procedures to be undertaken if pH, turbidity or total suspended solids trigger levels are exceeded
- f) Procedures for the storage of flocculation chemical(s) onsite
- g) A flocculation chemical spill contingency plan
- h) Details of the monitoring programme including frequency of monitoring and reporting of results and testing of the following parameters:
 - i) pH
 - ii) Temperature (°C)
 - iii) Turbidity (NTU)
 - iv) Dissolved aluminium (g/m^3)
 - v) Total suspended solids (g/m^3)
 - vi) Suspended sediment concentration (g/m^3)
- i) Details of the water quality monitoring points for the above parameters.
- j) Details of rainfall event based monitoring
- k) Methods and responsibilities for monitoring and maintenance of the system

- l) Identification of a suitably qualified and experienced person and their specific responsibilities for ensuring the operation, monitoring and maintenance of the chemical flocculation system to ensure that it is operating as outlined in the FMP, and
- m) A plan for the decommissioning of flocculated sediment retention ponds.

Use of flocculant on site shall not commence prior to receiving written confirmation that the FMP is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Certification of the Erosion and Sediment Controls

18. Prior to the works commencing for each stage (as defined in the approved ECP), the consent holder shall provide to the Manager, Environmental Regulation, Wellington Regional Council a certificate signed by an appropriately qualified and experienced engineer to certify that the erosion and sediment controls have been constructed in accordance with the **Earthworks Construction Plan** and **Flocculant Management Plan** approved under conditions 16 and 18 of this consent, and the *Erosion and Sediment Control Guidelines for the Wellington Region (2002)* as a minimum standard.

Certification shall include, but not be limited to, the following:

- a) Confirmation of contributing catchments, dimensions and storage volumes of sediment retention ponds, decanting earth bunds, silt fences and diversion channels/bunds as applicable
- b) As-built plans and photos of the key erosion and sediment controls measures, and
- c) Any other details that will facilitate assessment of compliance with the approved ECP, approved FMP and the current Erosion and Sediment Control Guidelines for the Wellington Region

Certification shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and shall be submitted within **5 working days** of completing the assessment.

Note: The consent holder is advised to complete the sediment control device as-built check sheets available on the Greater Wellington Regional Council's website and to submit these with the certification required under this condition.

Permanent reclamation of Duck Creek

19. Sediment control and treatment measures shall be installed and maintained around the perimeter of the reclaimed area, to prevent the runoff of sediment laden water into the remaining stream channel. These measures shall remain in

place, and shall be maintained until the reclaimed area is stabilised and re-vegetated to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Erosion and sediment control treatment requirements

20. The consent holder shall ensure that all stormwater contaminated with sediment from the site is treated by erosion and sediment control measures as detailed in the approved ECP. The consent holder shall install, operate and maintain all erosion and sediment control measures to ensure that they operate and perform as intended in accordance with the approved ECP and as a minimum the *Erosion and Sediment Control Guidelines for the Wellington Region (2002)*.
21. The consent holder shall ensure that the maximum exposed area within the site is 3 hectares.
22. The consent holder shall ensure that the minimum size of the sediment retention ponds is 3.7% of the contributing catchment area.
23. The consent holder shall manage and monitor sediment discharges and accumulation of sediment within stormwater treatment devices and if necessary remove sediment and reinstate stormwater treatment devices, for a period of 3 years from initial operation of the ponds or until at least 80% of all houses have been constructed, whichever is the greatest.
24. The consent holder shall ensure that prior to the completion of operations each working day that all necessary erosion and sediment control measures are reinstated.
25. All erosion and sediment control measures shall remain the responsibility of the consent holder and no erosion or sediment control measures shall be removed prior to receiving written confirmation that the relevant stage is stabilised to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Site auditing requirements

26. The consent holder shall ensure that the site is audited by a suitably qualified and experienced person on a minimum of
 - a weekly basis, and
 - after a rainfall event of greater than 20 mm in a 24 hour period, or 4 mm in a one hour period, as measured at the rainfall monitoring site identified in the Environmental Monitoring and Adaptive Management Plan, or
 - at a frequency to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council

to ensure that the erosion and sediment control methods, including flocculation, are being maintained in accordance with the approved **Earthworks**

Construction Plan and the **Flocculation Management Plan** required by conditions 16 and 18 of this permit.

The audits shall include, but not be limited to, the following information:

- a) Date
- b) Name of auditor
- c) Site condition
- d) Weather conditions
- e) Sediment management (including identification of problem areas that are not being treated by sediment control measures, and any measures put in place to treat these areas)
- f) Runoff control (check of diversion channels and check sediment retention ponds)
- g) Condition of sediment control measures, including silt fences, contour drains and sediment retention ponds
- h) Check of operation of flocculation method
- i) Maintenance required and the date this will be completed by
- j) Contractor responsible for the maintenance; and
- k) General comments

Note: Audits will be required while any area is being cleared of vegetation and soil, or earthworked. Once an area has been stabilised or if there are no works occurring on site, audits may be undertaken at a lesser frequency.

27. The results of the audits as required by condition 26 shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council, no later than **10 working days following the audit**.

Rainfall and water quality monitoring

28. The consent holder shall sample and record the following parameters within any operative Sediment Retention Ponds (SRP), as soon as practicable within daylight hours after a rainfall event of greater than 4 mm in 1 hour or 20 mm in a 24 hour period as measured at the rainfall monitoring site identified in the EMAMP.

Parameter	Location			
	Inflow	Forebay	Pond	Outlet
pH	✓	✓	✓	✓
Temperature (°C)			✓	
Turbidity (NTU)	✓	✓	✓	✓
Total suspended solids (g/m ³)	✓	✓	✓	✓
Suspended sediment conc (g/m ³)	✓	✓	✓	✓

Note: The consent holder is only required to undertake outlet monitoring if the SRP is discharging.

29. When flocculation of any SRPs is occurring, and the SRP is discharging, in addition to the monitoring undertaken in accordance with condition 28, the consent holder shall arrange for **weekly** site visits to be undertaken by a suitably qualified practitioner who shall sample and record the following parameters for each treated sediment retention ponds at the stated locations:

Parameter	Location			
	Inflow	Forebay	Pond	Outlet
pH		✓	✓	✓
Temperature (°C)			✓	
Turbidity (NTU)	✓			✓
Total suspended solids (g/m ³)	✓			✓
Suspended sediment conc (g/m ³)	✓			✓

30. The results of the monitoring undertaken in accordance with condition 28 and 29, except for suspended sediment concentration, shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council, within 2 working days of the date the sampling is undertaken. The results for suspended sediment concentration shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council, within 10 working days of the date the sampling is undertaken.

Batch dosing with Polyaluminium Chloride flocculant

31. If manual batch dosing of Polyaluminium Chloride flocculant of any SRP occurs, and the SRP is discharging, in addition to the monitoring undertaken in accordance with conditions 28 and 29, the consent holder shall obtain a water quality sample and analyse it for dissolved aluminium at the following monitoring sites:

- a) DCN-01 (control site)

- b) within the Sediment Retention Pond (SRP), and
- c) water quality monitoring sites downstream of the discharging SRP.

Note: If flocculation using a different type of flocculant or method is proposed to be used which differs from that described in the application, this may require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.

- 32. The results of the dissolved aluminium monitoring undertaken in accordance with condition 31 shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council, within 15 working days of the date the sampling is undertaken.

Cease dosing with Polyaluminium Chloride flocculant

- 33. When dosing any SRP with Polyaluminium Chloride flocculant and the monitoring results under condition 28 or 29 indicate that the pH of any chemically-treated sediment retention pond outflow is at or below 5.5, and/or NTU values increase above 170, the dosing of that pond with Polyaluminium Chloride flocculant shall cease immediately. In this event the Manager, Environmental Regulation, Wellington Regional Council shall be notified immediately.

The consent holder shall liaise with the Manager, Environmental Regulation, Wellington Regional Council on an appropriate course of action.

Analysis and report on the effects of flocculation and Polyaluminium Chloride

- 34. Following 10 occurrences of dissolved aluminium water quality sampling, the consent holder shall undertake an analysis of the water quality results and the effect that the batch dosing of Polyaluminium Chloride flocculant is having on the aquatic ecosystems as assessed by a suitably qualified and independent flocculation specialist, with input from a suitably qualified and independent aquatic ecologist. The assessment shall include:
 - a) The frequency of batch dosing with Polyaluminium Chloride flocculant, and the reasons for the frequency
 - b) The results of all water quality testing while using Polyaluminium Chloride flocculant
 - c) The effects of using Polyaluminium Chloride flocculant on the water quality and aquatic ecosystem of Duck Creek
 - d) Any recommendations for changes to the process or procedures of flocculation of the SRPs; and

- e) Any recommended changes to the water quality monitoring regime (including monitoring locations, parameters) for batch dosing with Polyaluminium Chloride flocculant

A report of the assessment shall be provided to the Manager, Environmental Regulation, Wellington Regional Council within three months of receiving the results of the 10th occurrence of dissolved aluminium water quality sampling.

Implementation of any amendments to the flocculation processes or procedures or water quality monitoring regime shall be to the satisfaction of, and within the timeframe specified by the Manager, Environmental Regulation, Wellington Regional Council.

Note: Any changes to the flocculation processes or procedures or water quality monitoring regime may also require the Earthworks Construction Plan and/or the Flocculation Management Plan to be updated, and may require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.

Ceasing dosing with flocculant

- 35. The consent holder's requirements under condition 28 to 32 shall cease when the site has been completely stabilised and the pond(s) decommissioned or with the written authorisation of the Manager, Environmental Regulation, Wellington Regional Council.

Progressive stabilisation

- 36. The consent holder shall progressively stabilise any disturbed areas as they complete each earthworks stage to minimise sediment runoff. Road surfaces shall be covered with rotor millings or road metal. The progressive stabilisation shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
- 37. The consent holder shall ensure that a method of stabilisation (eg, hydroseeding) is applied to each open area at least within 2 weeks of completion of the cut or fill works for the stage. All stabilisation methods shall be effective within **two months** of being applied or after a longer period if approved in writing by the Manager, Environmental Regulation, Wellington Regional Council.
- 38. Each stage of works shall be stabilised before any further stages are undertaken, unless otherwise authorised in writing by the Manager, Environmental Regulation, Wellington Regional Council.

Environmental Monitoring and Adaptive Management Plan

- 39. The consent holder shall submit an **Environmental Monitoring and Adaptive Management Plan (EMAMP)** to the Manager, Environmental Regulation,

Wellington Regional Council at least 20 working days prior to the commencement date of any earthworks.

Each section of the EMAMP shall be prepared by a person suitably qualified and experienced in the subject addressed in that section.

The purpose of the EMAMP is to establish and implement a scientifically robust monitoring plan to monitor the health of Duck Creek and indirectly the Pauatahanui Inlet in terms of water quality, and aquatic habitat and fish passage, as it is realigned and collects treated discharges from the surrounding earthworks activities.

The EMAMP shall detail the methods for monitoring stream water quality, monitoring the health of the aquatic environment, fish relocation, recolonisation of bed material, and monitoring fish passage, and provide an adaptive management framework whereby the results of water quality monitoring trigger appropriate responses. The consent holder shall ensure that the monitoring locations, sample sizes, methodologies and analysis methods are appropriate for the purpose of the monitoring and wherever available use national protocols or guidelines.

The EMAMP shall include the following:

- a) The scope and environmental objectives of the monitoring encompassed by the EMAMP;
- b) Identification of suitably qualified and experienced person(s) to undertake the monitoring;
- c) The adaptive management process;
- d) The location of all monitoring sites as shown on the plan attached to the draft EMAMP submitted with the application and contained in Appendix 8 (Volume 2) including a scaled aerial map, NZTM map references, and descriptions of all sites;
- e) An overview of the sampling regimes and timing of sampling, for the site;
- f) A description of the methodologies to be used for fish relocation, recolonisation of bed material, and each type of monitoring, including sample sizes and analysis methods, where relevant;
- g) Trigger levels for rainfall, pH, temperature, turbidity, suspended sediment concentration, total suspended solids, deposited sediment, and invertebrates;
- h) The process to be followed in the event of an exceedence of any of these trigger levels;

- i) Details on how each of the following monitoring regimes will be undertaken:
 - i) Rainfall event monitoring – Water quality;
 - ii) Event triggered monitoring – Deposited sediment and Invertebrates;
 - iii) Diversion monitoring – Design guidelines, Structures and Fish relocation;
 - iv) Twice yearly monitoring – Water quality and Deposited sediment;
 - v) Annual monitoring – Fish passage, Invertebrates, Marine sediment monitoring data and Riparian restoration (SEV) and inanga spawning habitat monitoring
- j) Reporting requirements;
- k) Process for amending the EMAMP; and
- l) All available results of the Baseline Monitoring.

No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council, has certified in writing that the EMAMP is in general accordance with the draft EMAMP, submitted as Appendix 8 (Volume 2) of the application, and meets the requirements of all conditions of this consent.

- 40. The EMAMP shall be implemented by suitably qualified and experienced persons in accordance with the authorised plan (under condition 40 of this consent). Any amendment proposed by the consent holder to the authorised EMAMP shall be submitted in writing to the Manager, Environmental Regulation, Wellington Regional Council. The consent holder shall not implement any amendment to the EMAMP until that amendment has been authorised in writing by the Manager, Environmental Regulation, Wellington Regional Council.

General Monitoring Conditions

- 41. For each monitored event undertaken in accordance with the authorised EMAMP, a photograph of the watercourse at the sampling point shall be taken and a site record sheet shall be completed, which shall include the following information:
 - a) Date and time of the monitoring;

- b) Details of the person undertaking the monitoring;
- c) flow in Duck Creek;
- d) Weather conditions;
- e) The presence of:
 - i) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - ii) any conspicuous change in colour or visual clarity;
 - iii) any emission of objectionable odour;
 - iv) the rendering of fresh water unsuitable for consumption by farm animals
 - v) any significant adverse effects on aquatic life.
- f) Observations of any sediment control devices directly, or indirectly treating discharges to Duck Creek and any recommendations for maintenance or additions to these controls; and
- g) Recommendations for additional ecological investigations to determine the effects of the diversion and/or discharges on Duck Creek.

42. The consent holder shall ensure that the monitoring locations, sample sizes, methodologies, and analysis methods to be included in the EMAMP, and used for the monitoring undertaken in accordance with the EMAMP, are appropriate for the purpose of the monitoring and wherever available use national protocols or guidelines.

Rainfall Monitoring

43. Rainfall monitoring shall be undertaken using the most appropriately located weather station(s) to determine whether the trigger level of 4 mm in one hour, and/or 20 mm in 24 hours has been reached. The data to support the selection of the weather station shall be provided in the EMAMP.

Water quality monitoring

44. Water quality monitoring of Duck Creek shall be undertaken following the exceedence of a rainfall event trigger for the following water quality parameters:

- a) pH;
- b) Temperature;

- c) Dissolved oxygen;
- d) Turbidity;
- e) Total Suspended Solids
- f) .Suspended solid concentration

The consent holder shall ensure that all water quality monitoring occurs as soon as practicable once the rainfall trigger level is reached and within a 12 hour time period. Water quality monitoring will be undertaken at the control site DCN-01 (located at the southern site boundary), and all monitoring sites (DCN-02 - DCN-07) at or downstream of any areas where works are in progress, including areas where the site has not been stabilised in accordance with the conditions 36 to 38 of this consent. Water quality monitoring shall occur at least three times a day while the rainfall event continues, and then 24 hours after.

45. The trigger levels for water quality monitoring shall be as follows:

- a) pH – An exceedance is deemed to have occurred if the pH is less than 5.5 or greater than 7.5
- b) Turbidity – An exceedance is deemed to have occurred if the difference in NTU levels between the control site and the monitoring location is greater than 20%
- c) Total Suspended Solids – An exceedance is deemed to have occurred if the difference in TSS concentrations between the control site and the monitoring location is greater than 20%, or a level of more than 150g/m³ is recorded
- d) Suspended sediment concentration – An exceedance is deemed to have occurred if the difference in suspended sediment concentrations between the control site and the monitoring location is greater than 20%.

46. Each time any water quality trigger level is exceeded at any of the monitoring locations other than the control site, the consent holder shall:

- a) notify the Manager, Environmental Regulation, Wellington Regional Council in writing within 24 hours,
- b) undertake an audit as set out in condition 47, and
- c) undertake actions to minimise further exceedances, which may include temporary stabilisation of disturbed surfaces, installation of additional devices and batch dosing with flocculants.

Event triggered monitoring

47. A complete site audit shall be undertaken each time water quality monitoring indicates an exceedence of the water quality trigger levels. The site audit shall be undertaken as soon as practicable and within 24 hours of the trigger being exceeded. The site audit shall be additional to the weekly site audit required by condition 26 of this consent. The audit shall include, but not be limited to, the following information:
- a) Date
 - b) Name of auditor
 - c) Site condition
 - d) Weather conditions
 - e) Sediment management (including identification of problem areas that are not being treated by sediment control measures, and any measures put in place to treat these areas)
 - f) Runoff control (check of diversion channels and check sediment retention ponds)
 - g) Condition of sediment control measures, including silt fences, contour drains and sediment retention ponds
 - h) Check of operation of flocculation method; and
 - i) General comments.
48. Deposited sediment monitoring, using protocols to visually estimate the percentage cover of fine sediments, shall be undertaken each time water quality monitoring indicates an exceedence of turbidity and/or total suspended solids trigger levels and the source of the exceedence is likely to be due to the on-site construction works. Deposited sediment monitoring will be undertaken at the control site DCN-01 (located at the southern site boundary), and all monitoring sites identified in the EMAMP downstream of any works authorised by this consent.
49. Invertebrate sampling shall be undertaken if:
- a) water quality monitoring; and/or
 - b) deposited sediment monitoring; and/or
 - c) other sources of information,

indicate a major sediment discharge has occurred that may have resulted in adverse effects on stream ecology. Invertebrate monitoring shall be undertaken following a minimum of two weeks of no rainfall. Invertebrate monitoring shall be undertaken at the control site DCN-01 and all monitoring sites within the section of stream channel where the works authorised by this consent are occurring, with the exception of sites DCN-05, DCN-06 and DCN-07.

Note: Data derived should be quantitative, not semi-quantitative.

50. The results of the event triggered monitoring shall be provided in an **Event Triggered Monitoring Report**. In addition to the requirements of condition 63, the report shall include:
- a) The levels of exceedance
 - b) Monitoring results for the duration of the rainfall event until the discharges cease
 - c) The results of the trigger level site audit required by condition 47
 - d) Identification of probable causes of the exceedance and any measures that could have been taken to prevent it
 - e) Analysis of the performance of the erosion and sediment control device(s)
 - f) Immediate actions taken to minimise further exceedances.

Diversion monitoring – Design guidelines, fish passage and fish relocation

51. Prior to the diversion of water into each stage of the new stream channel, and within 5 working days following the diversion of water for each stage, an inspection of the new stream channel shall be undertaken of the design principles set out in condition 15 of Water Permit [33621] for:
- a) Width of wet bed;
 - b) Water depth;
 - c) Velocity of runs, pools, and riffles;
 - d) Bed material; and
 - e) Channel complexity.

The consent holder shall provide recommendations, where necessary, on any work to be undertaken to ensure compliance with the design principles set out in condition 15, and timeframes for implementing these recommendations, in the **Diversion Monitoring Report** required under condition 62.

Twice yearly monitoring – Water quality and deposited sediment

52. Water quality and deposited sediment sampling shall be undertaken twice a year, in autumn (1 March – 31 May) and spring (1 September – 30 November), on a mid-ebb tide, following a minimum of two weeks of no rainfall, while the works authorised by this consent are being undertaken, and for two occasions following the completion of the earthworks and stabilisation of the entire site. The monitoring shall be undertaken at the control site DCN-01 (located at the southern site boundary) and downstream of the site at monitoring locations DCN-02 to DCN-07. The results of this monitoring shall be provided in the **Progress Monitoring Reports** due by 15 July (for the autumn monitoring) and 15 January (for the spring monitoring) following each monitoring occasion, as required by condition 62 of this consent.

Annual Monitoring – Fish passage

53. Following the diversion of water through the new stream channel, fish passage monitoring of all of the sites upstream of, and including, site DCN-05 shall be undertaken once between 1 December and 30 April. The fish passage monitoring shall include but not be limited to:
- a) a survey of the number of all fish species present upstream and downstream of the new channel diversion at monitoring site DCN-03B including specific reference to the location of whitebait, elver, and inanga, and the size class distribution of banded kokopu, koura, and giant kokopu using national protocols for fish monitoring;
 - b) identification of any actual or potential impediments to fish passage.

This monitoring shall be undertaken annually for five years following the livening of the stream diversion.

Note: It is recommended that the fish monitoring data be uploaded to the New Zealand Freshwater Fish Database, currently administered by NIWA.

54. The results of the fish passage monitoring shall be provided in the **Progress Monitoring Report**. The results shall assess the performance of the diversion into the new stream channel section, in achieving fish passage. In addition to the requirements of condition 63, the report shall include:
- a) The results of the fish passage monitoring;
 - b) Details of any modifications to the channel which may affect fish passage including the location and date of the modifications;
 - c) An analysis of the results for all fish species present, including comparison with the baseline fish data, and data from any previous fish passage monitoring under this consent;

- d) Identification of any actual or potential impediments to fish passage;
- e) Recommendations for any remedial measures required to ensure fish passage; and
- f) The timeframe for implementing these recommendations.

Note: Works in the stream bed to enable fish passage may require additional resource consent.

Annual Monitoring – Invertebrates

55. Following the diversion of water into new stream channel, invertebrate monitoring shall be undertaken at the control site DCN-01 and all monitoring sites within the section of stream channel where the works authorised by this consent are occurring or have occurred, with the exception of sites DCN-05, DCN-06 and DCN-07. Invertebrate monitoring shall be undertaken between 1 March and 31 May, each year. This monitoring shall be undertaken annually for five years following the livening of the last stream diversion, unless a shorter time period is agreed, to the satisfaction of the Manager, Environmental Regulation. The results of the invertebrate monitoring shall be provided in the **Progress Monitoring Report**.

Annual Monitoring review - Marine sediment monitoring data

56. A review of any available marine sediment monitoring data and deposited sediment data for the Duck Creek Saltmarsh and the Pauatahanui Inlet adjacent to the saltmarsh shall be undertaken once a year including a comparison of the data with the baseline monitoring results. This monitoring review shall be undertaken annually for five years following the livening of the last stream diversion, unless a shorter time period is agreed, to the satisfaction of the Manager, Environmental Regulation. The results of this analysis shall be provided in the **Progress Monitoring Report** due on the 15 July as required by condition 62 of this consent.

Annual monitoring – Ecological Remediation and Compensation Plan

57. The consent holder shall record all inanga spawning habitat enhancement works, riparian planting, monitoring and maintenance undertaken and submit this in the **Progress Monitoring Report** due on the 15 July.

The report shall include, but not be limited to, the following:

- a) A map showing the areas which have been planted compared to the agreed riparian planting areas, and the areas where inanga spawning habitat enhancement works and planting have occurred
- b) Details of inanga spawning habitat enhancement works undertaken

- c) Details of plants, including species, number and date planted
 - d) An assessment of overall plant success rates
 - e) An assessment of the quality of the inanga spawning habitat
 - f) A representative measure of canopy cover at least every year until 80% canopy cover has been reached, excluding the area for inanga spawning habitat enhancement
 - g) Photo points of representative planted areas and restored inanga spawning habitat, taken annually
 - h) Details of any maintenance work undertaken
 - i) Details of any further works required to be undertaken
 - j) Recommendations for any on-going maintenance works.
58. The consent holder shall undertake an **SEV analysis**, between 1 September and 1 December, two years and five years following the permanent diversion of the flow into the new stream channel, or the initial landscaping and planting, whichever occurs later. The SEV analysis shall be carried out at the same sites as the SEV assessment reported in Appendix 3 (Volume 2) of the application including at least two monitoring sites within the new channel section, and at least two monitoring sites within the riparian planting of the existing stream channel.
59. The purpose of the SEV monitoring is to determine whether aquatic habitat and stream functions within the diversion and mitigation reaches have improved and either meet or are likely to meet the mitigation requirements established by the ECR analysis (predicted SEV scores in the SEV assessment reported in the Ecological Remediation and Compensation Plan).
60. The consent holder shall provide the results of the SEV analysis in the **Progress Monitoring Report** of the following year. The results shall include the numerical variables and values used to determine the SEV scores for each monitoring location.

Progress Monitoring Reports

61. The results of the monitoring set out in conditions 52-57, and any SEV analysis undertaken in accordance with conditions 58 and 59 during the same period 1 September to 1 December shall be provided in a **Progress Monitoring Report**, of the following year (due either 15 January or 15 July).

Reporting Requirements

62. The consent holder shall engage a suitably qualified and experienced ecologist to prepare and submit to the Manger, Environmental Regulation, Wellington Regional Council and Ngāti Toa Rangatira, **Environmental Monitoring Reports (EMRs)** which detail the results of the monitoring set out in the EMAMP, with the exception of the baseline monitoring. EMRs shall be prepared and submitted within the stated timeframes as follows:

	Type of EMR	Purpose	Timeframe for submission
1	Water Quality Monitoring Report	Water quality results for each rainfall triggered event.	Within 5 working days of sampling.
2	Event Triggered Monitoring Report	Following the exceedence of a water quality trigger level.	Within 5 working days of undertaking the site audit and deposited sediment monitoring, and a final report within 3 months of undertaking any invertebrate sampling.
3	Diversion Monitoring Report	Following the completion of the diversion of Duck Creek.	Within 10 working days of completing the inspection.
4	Progress Monitoring Report	Annual and Twice yearly monitoring.	By 15 July and the 15 January, each year for the timeframe stipulated for each applicable monitoring activity.

63. Each EMR shall include, but not be limited to:
- a) The results of the monitoring undertaken;
 - b) An analysis of the results, as assessed by a suitably qualified and independent ecologist, and including an assessment of the effects that the works authorised under this consent are having on the aquatic ecosystems and ecological values at each monitoring location and on the stream as a whole;
 - c) Recommendations for amendments to the EMAMP, ECP, FMP and/or consent conditions, including, but not limited to:

- i) Changes to flocculation method, dosing or material
- ii) Changes in the management or implementation of erosion and sediment control measures or site management,
- iii) Adjustment of the water quality trigger levels, and
- iv) Changes to the water quality monitoring programme.

The person that the consent holder engages to prepare each EMR shall be suitably qualified and experienced to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

64. The approved recommendations of the EMR under condition 63 of this consent shall be undertaken by the consent holder to the satisfaction of, and within the timeframe specified by, the Manager, Environmental Regulation, Wellington Regional Council.

Note: Any amendments proposed to the approved EMAMP, ESCP and/or FMP must be confirmed in writing by the consent holder and be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of the proposed amendments. Any amendments recommended to the conditions will require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.

Culvert Management

65. a) Prior to any construction commencing, the consent holder shall inspect the culvert beneath State Highway 58 (culvert 119 - Duck Creek Culvert) and provide a **Culvert Silting Report** within 48 hours of the inspection being undertaken to the Manager, Environmental Regulation, Wellington Regional Council for certification, in consultation with the NZ Transport Agency, containing the following information:
- i) Date of inspection;
 - ii) Photographs of the culvert and any silt build-up;
 - iii) Existing silt levels taken as a current cross section measurement of the culvert capacity which are to be maintained by a comparable measurement, in the same locations for every inspection;
- b) The inspections shall be carried out by a suitably qualified person during the following times:

- i) Prior to the commencement of construction to set baseline silt levels;
 - ii) Within 24 hours of every significant rainfall event during the construction period (a significant rainfall event means any rainfall event that is predicted to meet or exceed 20mm in one 24 hour period); and
 - iii) A final inspection within 1 month following the construction works being completed.
- c) If the depth of silt within culvert 119 increases over and above the levels established as a result of the pre-construction baseline inspection, and is attributable to the activities authorised by this consent, then the consent holder shall be responsible for removing the build-up of silt from within the culvert to provide the same baseline performance as reported in the Culvert Silting Report within 48 hours of the report being submitted to the Manager, Environmental Regulation, Wellington Regional Council, except that if the report is submitted during the period 1 March to 31 May, the works shall be undertaken between 1 and 3 April inclusive.

Reasonable mixing zone

66. Notwithstanding the requirements of any other conditions of this consent the discharge shall not give rise to any of the following effects in Duck Creek after a reasonable mixing zone of 30 m from any discharge point to the stream:

- a) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
- b) Any conspicuous change in the colour or visual clarity; or
- c) Any emission of objectionable odour; or
- d) The rendering of fresh water unsuitable for consumption by farm animals; or
- e) Any significant adverse effects on aquatic life.

Fill material

67. All fill material used on site shall:

- a) Be restricted to natural material, such as clay, soil and rock and other inert materials as detailed in the definition of cleanfill material in section 2.2 of the Ministry for the Environment publication 'A guide to the Management of Cleanfills, 2002'; and

- b) Be restricted to those materials listed as acceptable in table 4.1 of the Ministry for the Environment publication 'A guide to the Management of Cleanfills, 2002'
68. All fill material shall be placed and compacted so as to avoid erosion and instability. Any erosion of soil including failure of cut and fill batters that is attributable to the works shall be contained, remedied and mitigated by the consent holder to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
69. The consent holder shall notify the Manager, Environmental Regulation, Wellington Regional Council within 24 hours or the next working day if any contaminants (including sediment) are released from the site and enter any watercourse, due to any of the following:
- a) Discharges from unstabilised areas that are not treated by sediment control measures required under this consent
 - b) Failure of any erosion and sediment control measure; or
 - c) Any other incident which either directly or indirectly causes or is likely to cause adverse ecological effects in Duck Creek and/or Pauatahanui Inlet.

Complaints

70. The consent holder shall maintain a written record of any complaints received alleging adverse effects from or related to the exercise of this consent, for the duration of works authorised by this consent. This record shall include:
- a) The name and address of the complainant
 - b) The date and time that the complaint was received
 - c) Details of the alleged event
 - d) Weather conditions at the time of the complaint; and
 - e) Any measures taken to mitigate the complaint. Complaints received shall be forwarded to the Manager, Environmental Regulation, Wellington Regional Council within 24 hours of receiving the complaint.

Discovery of artefacts

71. If koiwi, taonga or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall contact Ngāti Toa Rangatira, Heritage New Zealand and Wellington Regional

Council within twenty-four hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.

Note 1: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials.

Note 2: Recorded archaeological sites in the vicinity of the subdivision indicate the possibility of further unrecorded archaeological sites that may be disturbed by soil disturbance associated with development of the new lots. An application for an Archaeological Authority must be made to Heritage New Zealand under the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site or if there is reasonable cause to suspect that an archaeological site may be modified or destroyed. It is an offence to modify or destroy a site for any purpose without an authority and the Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. These provisions apply irrespective of whether the works are permitted under the Resource Management Act 1991 by the provisions of a plan or resource consent. Seeking advice from Heritage New Zealand is recommended when planning for any soil disturbances, such as building platforms, fencing or landscaping.

Review condition

72. Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so pursuant to section 128 of the Resource Management Act 1991, within one month of each anniversary of the commencement of this consent, for any of the following reasons:
- a) To review the adequacy of any plan and/or monitoring requirements, and if necessary, amend these requirements outlined in this consent
 - b) To deal with any adverse effects on the environment that may arise from the exercise of this consent; and which are appropriate to deal with at a later stage
 - c) To require the implementation of Best Practicable Options, in respect to new methodologies for the undertaking of the works to avoid, remedy or mitigate any significant adverse effect on the environment arising from the works
 - d) To enable consistency with any relevant Regional Plans or any National Environmental Standards or Regulations

The review of conditions shall allow for the deletion or amendment of conditions of this consent; and the addition of such new conditions as are

shown to be necessary to avoid, remedy or mitigate any significant adverse effects on the environment.

Note: For the purposes of this condition the “commencement of the consent” is deemed to be once the works authorised by this consent have commenced.

73. The Wellington Regional Council shall be entitled to recover from the consent holder the costs of any review, calculated in accordance with and limited to the Council’s scale of charges in force and applicable at that time pursuant to section 36 of the Resource Management Act 1991.

Land use consent [33623]

To construct three permanent bridges over the bed of Duck Creek, including any associated disturbance, discharge and deposition of material in the bed of that stream, and place eleven stormwater outlet structures and associated erosion protection works in the bed of Duck Creek at various locations, including any associated disturbance, discharge and deposition of material in the bed of that stream.

INTERPRETATION

Wherever used in the conditions below, the following terms shall have the prescribed meaning:

Stabilised means inherently resistant to erosion or rendered resistant, such as by using indurated rock or by the application of basecourse, colluvium, hydroseeding, grassing, mulch, or another method to the reasonable satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and as specified in Wellington Regional Council's Erosion and Sediment Control Guidelines for the Wellington Region, September 2002. Where seeding or grassing is used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once, on reasonable visual inspection by the Manager, Environmental Regulation, Wellington Regional Council, an 80% vegetative cover has been established.

General conditions

1. The location, design, implementation and operation of the structures and associated activities shall be in general accordance with the consent application and its associated plans and documents, and further information, received by the Wellington Regional Council on:
 - 27 July 2015 (Original application)
 - 28 September 2015 (further information and amendments to the application)
 - 29 February 2016 (Memo from Kyle Christensen on flooding and erosion)
 - 3 March 2016 (Memo from Dean Miller with additional ecology information).

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991.

2. For the purposes of section 125(1) of the Resource Management Act 1991, this consent shall lapse if not given effect to within 10 years after the date of commencement of the consents.

3. The consent holder shall provide a detailed schedule of construction activities, management plans and monitoring plans, to the Manager, Environmental Regulation, Wellington Regional Council, and Ngāti Toa Rangatira at least **20 working days** prior to the commencement of works. This schedule shall be updated at monthly intervals during the works. The schedule shall include the details of:
 - a) The timing all pre-construction plans to be submitted to the Manager, Environmental Regulation, Wellington Regional Council, in accordance with the conditions of this consent
 - b) The commencement date and expected duration of each stage of the works subject to this consent
 - c) The timing of monitoring reports necessary to fulfil the conditions of this consent.
4. The Manager, Environmental Regulation, Wellington Regional Council, shall be given a minimum of **two working days'** (48 hours) notice prior to the works commencing for each stage of the works.

Note: Notifications must be emailed to notifications@gw.govt.nz. Please include the consent reference (WGN160028) and the name and phone number of a contact person responsible for the proposed works.

5. The consent holder shall provide a copy of this consent and any documents and plans referred to in this consent to each operator or contractor undertaking works authorised by this consent, prior to the works commencing.

Note: It is recommended that the contractors be verbally briefed on the requirements of the conditions of this consent prior to works commencing.

6. The consent holder shall ensure that a copy of this consent and all documents and plans referred to in this consent, are kept on site at all times and presented to any Wellington Regional Council officer on request.

Environmental Management Plan for Construction

7. The consent holder shall prepare and submit an Environmental Management Plan for Construction (EMPC) to the Manager, Environmental Regulation, Wellington Regional Council, at least **20 working days** prior to the proposed commencement date for the works authorised under this consent.

The EMPC shall include, but not be limited to, the following:

- a) Environmental objectives, including specific reference to avoiding or mitigating adverse effects including sedimentation on the Duck Creek and Pauatahanui Inlet receiving environments

- b) Statutory, consenting and contractual requirements
 - c) Responsibilities and contact details of all parties involved
 - d) Details of environmental site induction
 - e) Inspections, monitoring and reporting
 - f) Complaints and feedback procedures
 - g) Process for amending the Environmental Management Plan for Construction
 - h) Contingency measures – procedures to be followed in the event of an environmental incident
 - i) Environmental impacts and risk assessment, including the site limitations, main construction activities and potential adverse effects due to the works
 - j) Provisions for archaeology, including whether an archaeological authority is required under the Heritage New Zealand Pouhere Taonga Act 2014 and/or procedures to be followed in the event that archaeological or cultural material is discovered.
8. No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council has certified in writing that the Environmental Management Plan for Construction is in general accordance with the draft Environmental Management Plan for Construction lodged as part of the application and meets the requirements of this condition.
9. Any amendment proposed to the authorised Environmental Management Plan for Construction shall be submitted in writing by the consent holder and shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of any amendments proposed.

Pre-construction meeting

10. The consent holder shall arrange and conduct a pre-construction site meeting prior to any work authorised by this consent commencing for each stage of the works and must invite, with a minimum of **10 working days'** notice, the Wellington Regional Council and a representative from each key contractor undertaking the works.

Note: In the case that any of the invited parties, other than the representative of the consent holder, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.

Winter works restrictions

11. No works authorised by this consent shall take place on site during the period of 1 June to 30 September unless otherwise approved by the Manager, Environmental Regulation, Wellington Regional Council in writing.
12. All earthworked areas shall be stabilised during the period between 1 June and 30 September inclusive each year unless a later date is approved in writing by the Manager, Environmental Regulation, Wellington Regional Council. The stabilised surface shall be maintained to the satisfaction of the Manager, Environmental Regulation.

Inanga spawning

13. No in-stream bridge works shall be carried out in the active channel (i.e. flowing water in the stream bed) between 1 March and 31 May to provide for inanga spawning.
14. No other in-stream works shall be carried out in the active channel (i.e. flowing water in the stream bed) during a high spring tide between 1 March and 31 May, to provide for inanga spawning.

Freshwater fish

15. The consent holder shall ensure that fish passage is maintained at all times during and after construction.
16. No in stream works shall be carried out in the active channel (ie, flowing water in the stream bed) during the key recruitment migration period for native fish species between 1 September and 30 November inclusive.

Final Construction Plans (pre-works requirement)

17. Prior to commencing construction of each bridge, the consent holder shall submit a final Construction Plan that has been prepared in consultation with the contractor undertaking the works, which includes, but is not limited to, details of:
 - a) The design and location of the bridge,
 - b) The methodology to be used for the construction of the bridge,
 - c) The specific sediment and erosion controls to be used during the construction of the bridge,
 - d) The methodology to be used to temporarily divert the stream during the construction of the bridge.

18. Prior to placing the stormwater pipes, the consent holder shall submit a final Construction Plan which includes, but is not limited to, details of:
- a) The size, type and location of the stormwater pipes,
 - b) The methodology to be used for the placement of the stormwater pipes,
 - c) The specific sediment and erosion controls to be used during the placement of the stormwater pipes.

The final construction plans for each bridge and the stormwater pipes shall be submitted at least **10 working days** prior to the proposed works commencement date for the bridge or stormwater pipes respectively to the Manager, Environmental Regulation, Wellington Regional Council. No works authorised under this consent shall commence until the final construction plans for the structures is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. All works shall be undertaken in accordance with the approved construction plan.

Reducing effects on water quality

19. The consent holder shall take all steps to minimise sedimentation and increased turbidity of Duck Creek and the Pauatahanui Inlet during the works, including but not limited to:
- a) Completing all works in the minimum time practicable
 - b) Undertaking works in dry weather conditions, as far as practicable
 - c) Avoiding the placement of construction or excavated material in the wetted channel
 - d) Separating all construction activities from flowing water, and
 - e) Installing appropriate sediment control and treatment measures
20. If heavy rain is expected, the consent holder shall:
- a) Clean out behind any silt fences in use and remove excess material; and
 - b) Lay A14 filter cloth over any open areas and pin down securely.
21. Any areas of the stream banks that are cut or disturbed as a result of the works shall be stabilised and grassed/replanted as soon as practicable, following completion of the works, to prevent erosion and scour. The consent holder shall ensure that a method of stabilisation (eg, hydroseeding) is applied within 2 weeks of completion of the works. All stabilisation methods shall be effective within **two months** of being applied or after a longer period if approved in

writing by the Manager, Environmental Regulation, Wellington Regional Council. These works shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

22. The consent holder shall ensure that:
- a) All machinery is thoroughly cleaned of vegetation (eg, weeds), seeds or contaminants at least 10 metres away from any watercourse, water flow channel or stormwater system, prior to entering the site
 - b) All machinery shall be regularly maintained in such a manner to ensure no contaminants (including but not limited to oil, petrol, diesel, hydraulic fluid) shall be released into water, or to land where it may enter water, from equipment being used for the works
 - c) All contaminant storage or re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants to water or to land where it may enter water
 - d) No machinery is cleaned, stored or refuelled within 10 metres of any waterbody, water flow channel or stormwater system
23. The consent holder shall ensure that prior to entering the river that all vehicles, mobile plant, or machinery is inspected for the presence of invasive or pest aquatic plants including 'didymo'. In the event that an invasive or pest aquatic plant or 'didymo' is discovered upon the vehicle, mobile plant, or machinery it shall be cleaned, to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
- Note: The machinery shall be cleaned in accordance with the Ministry for Primary Industries cleaning methods which can be found at <http://www.biosecurity.govt.nz/pests/didymo/cleaning>.*
24. In the event of a spill of fuel, hydraulic fluid, or other potential liquid contaminants, immediate steps shall be taken to contain the spilt contaminant. The spilt contaminants and any material used to contain it shall be removed from the site and disposed of at authorised landfill. The consent holder shall also immediately notify the Manager, Environmental Regulation, Wellington Regional Council of the spill and actions to be taken.
25. The consent holder shall ensure that no dry cement product, unset concrete, concrete wash water or any water contaminated with concrete enters the flowing channel of Duck Creek or any water during, or as a result of, the placement or construction of the structures.
26. Upon completion of the works all unused material from the works shall be immediately removed from the bed and banks of the stream and disposed of in an appropriate manner that is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Discovery of artefacts

27. If koiwi, taonga or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall contact Ngāti Toa Rangatira, Heritage New Zealand and Wellington Regional Council within twenty-four hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.

Note 1: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials.

Note 2: Recorded archaeological sites in the vicinity of the subdivision indicate the possibility of further unrecorded archaeological sites that may be disturbed by soil disturbance associated with development of the new lots. An application for an Archaeological Authority must be made to Heritage New Zealand under the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site or if there is reasonable cause to suspect that an archaeological site may be modified or destroyed. It is an offence to modify or destroy a site for any purpose without an authority and the Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. These provisions apply irrespective of whether the works are permitted under the Resource Management Act 1991 by the provisions of a plan or resource consent. Seeking advice from Heritage New Zealand is recommended when planning for any soil disturbances, such as building platforms, fencing or landscaping.

Maintenance

28. Following a rainfall event up to and including a 1 in 10 year rainfall event, the consent holder shall inspect the bridges to ensure that the integrity of the structures are maintained.
29. The structures authorised by this consent shall remain the responsibility of the consent holder and be maintained so that:
- a) Any erosion or scour of the stream bed or banks that is attributable to the works carried out as part of this consent shall be remedied by the consent holder;
 - b) The structural integrity of the structure remains sound in the opinion of a Chartered Professional Engineer; and
 - c) The structures remain substantively clear of debris.

Note: Maintenance does not include any works outside of the scope of the application. Any additional works (including structures, reshaping or disturbance to the bed of the watercourse) following completion of the construction works as proposed in the application, may require further resource consents.

Land use consent [33624]

To reclaim the bed of Duck Creek in two reaches, being 185 metres and 40 metres in streambed length

INTERPRETATION

Wherever used in the conditions below, the following terms shall have the prescribed meaning:

Stabilised means inherently resistant to erosion or rendered resistant, such as by using indurated rock or by the application of basecourse, colluvium, hydroseeding, grassing, mulch, or another method to the reasonable satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and as specified in Wellington Regional Council's Erosion and Sediment Control Guidelines for the Wellington Region, September 2002. Where seeding or grassing is used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once, on reasonable visual inspection by the Manager, Environmental Regulation, Wellington Regional Council, an 80% vegetative cover has been established.

General conditions

1. The location, design, implementation and operation of the activity shall be in general accordance with the consent application and its associated plans and documents, and further information, received by the Wellington Regional Council on:
 - 27 July 2015 (Original application)
 - 28 September 2015 (further information and amendments to the application)
 - 29 February 2016 (Memo from Kyle Christensen on flooding and erosion)
 - 3 March 2016 (Memo from Dean Miller with additional ecology information).

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991.

2. For the purposes of section 125(1) of the Resource Management Act 1991, this consent shall lapse if not given effect to within 10 years after the date of commencement of the consents.
3. The consent holder shall provide a detailed schedule of construction activities, management plans and monitoring plans, to the Manager, Environmental

Regulation, Wellington Regional Council, and Ngāti Toa Rangatira at least **20 working days** prior to the commencement of works. This schedule shall be updated at monthly intervals during the works. The schedule shall include the details of:

- a) The timing all pre-construction plans to be submitted to the Manager, Environmental Regulation, Wellington Regional Council, in accordance with the conditions of this consent
 - b) The commencement date and expected duration of each stage of the works subject to this consent
 - c) The timing of monitoring reports necessary to fulfil the conditions of this consent.
4. The Manager, Environmental Regulation, Wellington Regional Council, shall be given a minimum of **two working days'** (48 hours) notice prior to the works commencing for each stage of the works.

Note: Notifications must be emailed to notifications@gw.govt.nz. Please include the consent reference (WGN160028) and the name and phone number of a contact person responsible for the proposed works.

5. The consent holder shall provide a copy of this consent and any documents and plans referred to in this consent to each operator or contractor undertaking works authorised by this consent, prior to the works commencing.

Note: It is recommended that the contractors be verbally briefed on the requirements of the conditions of this consent prior to works commencing.

6. The consent holder shall ensure that a copy of this consent and all documents and plans referred to in this consent, are kept on site at all times and presented to any Wellington Regional Council officer on request.

Environmental Management Plan for Construction

7. The consent holder shall prepare and submit an Environmental Management Plan for Construction (EMPC) to the Manager, Environmental Regulation, Wellington Regional Council, at least **20 working days** prior to the proposed commencement date for the works authorised under this consent.

The EMPC shall include, but not be limited to, the following:

- a) Environmental objectives, including specific reference to avoiding or mitigating adverse effects including sedimentation on the Duck Creek and Pauatahanui Inlet receiving environments
- b) Statutory, consenting and contractual requirements

- c) Responsibilities and contact details of all parties involved
 - d) Details of environmental site induction
 - e) Inspections, monitoring and reporting
 - f) Complaints and feedback procedures
 - g) Process for amending the Environmental Management Plan for Construction
 - h) Contingency measures – procedures to be followed in the event of an environmental incident
 - i) Environmental impacts and risk assessment, including the site limitations, main construction activities and potential adverse effects due to the works
 - j) Provisions for archaeology, including whether an archaeological authority is required under the Heritage New Zealand Pouhere Taonga Act 2014 and/or procedures to be followed in the event that archaeological or cultural material is discovered.
8. No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council has certified in writing that the Environmental Management Plan for Construction is in general accordance with the draft Environmental Management Plan for Construction lodged as part of the application and meets the requirements of this condition.
9. Any amendment proposed to the authorised Environmental Management Plan for Construction shall be submitted in writing by the consent holder and shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of any amendments proposed.

Pre-construction meeting

10. The consent holder shall arrange and conduct a pre-construction site meeting prior to any work authorised by this consent commencing for each stage of the works and must invite, with a minimum of **10 working days'** notice, the Wellington Regional Council and a representative from each key contractor undertaking the works.

Note: In the case that any of the invited parties, other than the representative of the consent holder, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.

Winter works restrictions

11. No works authorised by this consent shall take place on site during the period of 1 June to 30 September unless otherwise approved by the Manager, Environmental Regulation, Wellington Regional Council in writing.
12. All earthworked areas shall be stabilised during the period between 1 June and 30 September inclusive each year unless a later date is approved in writing by stabilised surface shall be maintained to the satisfaction of the Manager, Environmental Regulation.

Inanga spawning

13. No in-stream works shall be carried out in the active channel (i.e. flowing water in the stream bed) between 1 March and 31 May, to provide for inanga spawning.

Ecological Remediation and Compensation Plan

14. The consent holder shall prepare and submit an Ecological Remediation and Compensation Plan (EcoRCP) to the Manager, Environmental Regulation, Wellington Regional Council, at least **20 working days** for approval prior to the proposed commencement date for the works authorised under this consent.

The EcoRCP shall be prepared by a suitably qualified freshwater ecologist experienced in Stream Ecological Valuation, in consultation with the engineer responsible for erosion control and the landscape designer. The environmental remediation and compensation shall as a minimum provide for 986 metres of riparian mitigation planting, including the provision of approximately 340 metres of planting for enhancement of inanga spawning habitat from the northern site boundary upstream. No existing indigenous woody vegetation shall be removed within the inanga spawning habitat area.

The EcoRCP shall include, but not be limited to, the following:

- a) Updated SEV, including ECR calculations
- b) Details and plans of the location and width of riparian planting, and stream channel design including run, riffle, pool sequencing.
- c) Details and plans of the location of any non-compensative requirements within the identified riparian mitigation planting zone, including but not limited to any stormwater outlets, retention areas and other infrastructure, pathways, and maintenance accessways, as well as bank stabilisation measures in general accordance with those shown in Plan 251, as attached to the Joint Statement of the Flood Erosion experts, dated 6 April 2016.

- d) Details of other non-SEV compensatory measures, including but not limited to inanga spawning habitat enhancement and a whole-of-reach erosion protection approach for the Duck Creek North site using vegetative and ecologically sensitive methods wherever possible.
- e) The compensatory measures for inanga spawning habitat enhancement will be assessed by a specialist ecologist with expertise in inanga spawning and will include but not be limited to:
 - 1. An assessment of the need to alter the bank profile (on both sides of Duck Creek) to enhance tidal inundation and availability of spawning habitat. Any alteration to the bank profile will take public safety into account where there is public access within the inanga spawning habitat;
 - 2. Planting of appropriate indigenous species within the tidal inundation footprint to facilitate inanga spawning;
 - 3. Planting of other indigenous species outside of the tidal inundation footprint to provide shelter to the spawning habitat; and
 - 4. A process to minimise removal of existing topsoil and indigenous vegetation from the potential spawning area.

The EcoRCP shall be the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, **prior** to any works authorised by this consent commencing.

Advice Note:

Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991. The provision of inanga spawning habitat may require further resource consent from Wellington Regional Council.

Earthworks Construction Plan

- 15. The consent holder shall prepare, in consultation with the contractor undertaking the works, a final **Earthworks Construction Plan** (incorporating an Erosion and Sediment Control Plan) (ECP). The ECP shall be submitted to the Manager, Environmental Regulation, Wellington Regional Council for approval at least **20 working days** prior to the works commencing.

The final ECP shall as a minimum be prepared in general accordance with the *Erosion and Sediment Control Guidelines for the Wellington Region (2002)*. The ECP shall reflect the measures outlined in the Environmental Management Plan (Construction), and the draft Earthworks Construction Plan - Stage 1 submitted as Appendix 7 of the application, as relevant to the stage of works, and shall include, but not be limited to, the following:

- a) Responsibilities and contact details of all parties responsible for the operation and maintenance of all key erosion and sediment control structures
- b) A detailed description of the works proposed and construction methodology and timetable
- c) Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control and minimise the potential for sediment discharge from the site
- d) The design criteria and dimensions of all key erosion and sediment control measures
- e) Plan(s) of an appropriate scale clearly identifying:
 - i) The location of all existing and proposed stream channels
 - ii) Staging sequence of erosion and sediment control measures
 - iii) Areas and cross sections of cut and fill
 - iv) The extent of soil disturbance and vegetation removal
 - v) Any “no go” and/or buffer areas to be maintained undisturbed
 - vi) Locations of topsoil stockpiles and haul roads
 - vii) All key erosion and sediment control measures, including diversion channels
 - viii) The boundaries and area of catchments contributing to all stormwater impoundment structures
 - ix) The locations of all specific points of discharge to the environment
 - x) Civil infrastructure to be constructed in relation to completed bulk earthworks areas, and
 - xi) Any other relevant site information
- f) Timetable and nature of progressive site rehabilitation and re-vegetation proposed, taking into account the requirements of the Ecological Remediation and Compensation Mitigation Plan.
- g) Maintenance, monitoring and reporting procedures and frequency
- h) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures, and measures to ensure overland flow or flood waters are isolated from opened earthworks areas
- i) Procedures and timing for review and/or amendment to the ECP
- j) Decommissioning methodology for all erosion and sediment control measures

- k) Procedures for re-instating erosion and sediment control measures at the end of each working day, where applicable.

The ECP shall be the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, **prior** to any works authorised by this consent commencing.

16. Any amendments proposed to the approved ECP shall be confirmed in writing by the consent holder and be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, **prior** to the implementation of any amendments proposed.

Recolonisation of bed material

17. To provide for the recolonisation of bed material with algae, periphyton and invertebrates in the constructed stream channel, bed material from the original stream bed shall be transferred to the new stream reach. The flow of Duck Creek shall be diverted around the reaches to be reclaimed and constructed using a suitable flexible pipe or similar method for temporarily diverting Duck Creek. The methodology to be used shall be set out in the Environmental Monitoring and Adaptive Management Plan. Following the draining of the existing stream channel and prior to any reclamation, suitable material, as determined by a suitably qualified and experienced ecologist and in accordance with condition 15 of Water Permit [33621] from the original stream bed shall be removed and deposited into at least the upper half of the new reach. Once the material has been deposited into the new reach of stream, the flow can be permanently diverted into this section of stream channel.

Fill material

18. All fill material used on site shall:
 - a) Be restricted to natural material, such as clay, soil and rock and other inert materials as detailed in the definition of cleanfill material in section 2.2 of the Ministry for the Environment publication 'A guide to the Management of Cleanfills, 2002'; and
 - b) Be restricted to those materials listed as acceptable in table 4.1 of the Ministry for the Environment publication 'A guide to the Management of Cleanfills, 2002'
19. All fill material shall be placed and compacted so as to minimise the potential for erosion and instability. Any erosion of soil including failure of cut and fill batters that is attributable to the works shall be contained, remedied and mitigated by the consent holder to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
20. The consent holder shall ensure that water is unable to flow through the 'wall' between the old channel and the new channel.

Riparian Mitigation Planting Plan

- 21 The consent holder shall submit **Planting Plan** to the Manager, Environmental Regulation, Wellington Regional Council for certification at least **20 working days** prior to the works commencing.

The planting plan shall be in accordance with the Ecological Remediation and Compensation Plan and in general accordance with the Urban Design and Landscape Plan submitted as Appendix 2 (Vol 2) of the application and shall include, but not be limited to:

- a) Plan(s) to scale showing the location of all proposed areas to be planted and proposed species mix
 - b) The native species that are proposed to be planted, the size of the plants and the density of planting; all plant species shall be eco-sourced and appropriate to the locality
 - c) A detailed timeline for proposed planting
 - d) The results of soil testing, and the details of any soil conditioning to be implemented
 - e) Details of pre-planting site preparation (clearing, mulching, fertilising)
 - f) Details of the on-going maintenance of the planting including, but not limited to, the replacement of plants, future management, and eradication of pest plants
 - g) Details of enrichment and replacement planting, including timeframes to ensure a plant success rate of at least 80% canopy cover defined in condition 26 is achieved within 5 years
 - h) Details of how plants will be protected from pest animals
 - i) Details of the proposed monitoring regime
22. The Planting Plan shall be developed in accordance with Wellington Regional Council's *Restoration Planting: A guide to restoration planting projects in the Wellington Region, 2004* All planting shall be undertaken in accordance with the approved planting plan.
23. The Planting Plan shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, **prior** to any works authorised by this consent commencing.
24. Any proposed amendments made to the approved Planting Plan shall be submitted in writing and be to the satisfaction of the Manager, Environmental

Regulation, Wellington Regional Council prior to the implementation of those amendments.

25. The consent holder shall complete the planting as required in the approved Planting Plan as soon as practicable, and within 18 months of commencement of the reclamation works approved by this consent, or other timeframe approved by the Manager, Environmental Regulation, Wellington Regional Council.
26. All on-site restoration planting must be maintained for 5 years, or until canopy 80% canopy cover over the entire mitigation area is achieved to the satisfaction of the Manager, Environmental Regulation.

Note: Canopy cover is defined as the percentage of ground area covered by native vegetation as viewed from vertically above the planted area. It includes all plant tiers (that is, it may be a mix of low growing species plus tree and shrub species).

27. The consent holder shall notify the Manager, Environmental Regulation, Wellington Regional Council, when the planting as required by the approved Planting Plan in condition 21 is complete.
28. The consent holder shall provide, within 1 month of completing the planting required by the approved planting plan, the Manager, Environmental Regulation, Wellington Regional Council with the geographic location coordinates of the boundary of the planting areas

Legal protection

29. The consent holder shall ensure that all riparian mitigation planting undertaken in accordance with the approved Planting Plan required by condition 21 of this consent is legally protected in perpetuity.
30. The consent holder shall provide documentation which demonstrates that all areas of mitigation as detailed in the Ecological Remediation and Compensation Plan required by condition 14 of this permit have been legally protected in perpetuity

Environmental Monitoring and Adaptive Management Plan

31. The consent holder shall submit an **Environmental Monitoring and Adaptive Management Plan (EMAMP)** to the Manager, Environmental Regulation, Wellington Regional Council at least 20 working days prior to the commencement date of any earthworks.

Each section of the EMAMP shall be prepared by a person suitably qualified and experienced in the subject addressed in that section.

The purpose of the EMAMP is to establish and implement a scientifically robust monitoring plan to monitor the health of Duck Creek and indirectly the

Pauatahanui Inlet in terms of water quality, and aquatic habitat and fish passage, as it is realigned and collects treated discharges from the surrounding earthworks activities.

The EMAMP shall detail the methods for monitoring stream water quality, monitoring the health of the aquatic environment, fish relocation, relocation of bed material, and monitoring fish passage, and provide an adaptive management framework whereby the results of water quality monitoring trigger appropriate responses. The consent holder shall ensure that the monitoring locations, sample sizes, methodologies, and analysis methods are appropriate for the purpose of the monitoring and wherever available use national protocols or guidelines.

The EMAMP shall include the following:

- a) The scope and environmental objectives of the monitoring encompassed by the EMAMP;
- b) Identification of suitably qualified and experienced person(s) to undertake the monitoring;
- c) The adaptive management process;
- d) The location of all monitoring sites as shown on the plan attached to the draft EMAMP submitted with the application and contained in Appendix 8 (Volume 2) including a scaled aerial map, NZTM map references, and descriptions of all sites;
- e) An overview of the sampling regimes and timing of sampling, for the site;
- f) A description of the methodologies to be used for fish relocation, recolonisation of bed material, and each type of monitoring, including sample sizes and analysis methods, where relevant;
- g) Trigger levels for rainfall, pH, temperature, turbidity, suspended sediment concentration, total suspended solids, deposited sediment, and invertebrates;
- h) The process to be followed in the event of an exceedence of any of these trigger levels;
- i) Details on how each of the following monitoring regimes will be undertaken:
 - i) Rainfall event monitoring – Water quality;
 - ii) Event triggered monitoring – Deposited sediment and Invertebrates;

- iii) Diversion monitoring – Design guidelines, Structures and Fish relocation;
- iv) Twice yearly monitoring – Water quality and deposited sediment;
- v) Annual monitoring – Fish passage, Invertebrates, Marine sediment monitoring data, Riparian Mitigation and Planting and Ecological Remediation and Compensation Plan monitoring;
- j) Reporting requirements;
- k) Process for amending the EMAMP; and
- l) All available results of the Baseline Monitoring.

No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council, has certified in writing that the EMAMP is in general accordance with the draft EMAMP, submitted as Appendix 8 (Volume 2) of the application, and meets the requirements of all conditions of this consent.

32. The EMAMP shall be implemented by suitably qualified and experienced persons in accordance with the authorised plan (under condition 31 of this consent). Any amendment proposed by the consent holder to the authorised EMAMP shall be submitted in writing to the Manager, Environmental Regulation, Wellington Regional Council. The consent holder shall not implement any amendment to the EMAMP until that amendment has been authorised in writing by the Manager, Environmental Regulation, Wellington Regional Council.

General monitoring conditions

33. For each monitored event undertaken in accordance with the authorized EMAMP, a photograph of the watercourse at the sampling point shall be taken and a site record sheet shall be completed, which shall include the following information:
- a) Date and time of the monitoring;
 - b) Details of the person undertaking the monitoring;
 - c) Nature of flow in Duck Creek;
 - d) Weather conditions;
 - e) The presence of:

- i) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - ii) any conspicuous change in colour or visual clarity;
 - iii) any emission of objectionable odour;
 - iv) the rendering of fresh water unsuitable for consumption by farm animals
 - v) any significant adverse effects on aquatic life
- f) Observations of any sediment control devices directly, or indirectly treating discharges to Duck Creek and any recommendations for maintenance or additions to these controls; and
- g) Recommendations for additional ecological investigations to determine the effects of the diversion and/or discharges on Duck Creek.
34. The consent holder shall ensure that the monitoring locations, sample sizes, methodologies, and analysis methods to be included in the EMAMP, and used for the monitoring undertaken in accordance with the EMAMP, are appropriate for the purpose of the monitoring and wherever available use national protocols or guidelines.

Rainfall monitoring

35. Rainfall monitoring shall be undertaken using the most appropriately located weather station(s) to determine whether the trigger level of 4 mm in one hour, and/or 20 mm in 24 hours has been reached. The data to support the selection of the weather station shall be provided in the EMAMP.

Water quality monitoring

36. Water quality monitoring of Duck Creek shall be undertaken following the exceedence of a rainfall event trigger for the following water quality parameters:
- a) pH
 - b) Temperature
 - c) Dissolved oxygen
 - d) Turbidity,
 - e) Total Suspended Solids, and.
 - f) Suspended Sediment Concentration.

The consent holder shall ensure that all water quality monitoring occurs as soon as practicable once the rainfall trigger level is reached and within a 12 hour

time period. Water quality monitoring shall be undertaken at the control site DCN-01 (located at the southern site boundary) and at all monitoring sites (DCN-02 – DCN-07) at or downstream of any areas where works are in progress, including areas where the site has not been stabilised in accordance with the conditions of discharge permit [33622]. Water quality monitoring shall occur at least three times a day while the rainfall event continues, and then 24 hours later.

37. The trigger levels for water quality monitoring shall be as follows:
- a) pH – An exceedance is deemed to have occurred if the pH is less than 5.5 or greater than 7.5
 - b) Turbidity – An exceedance is deemed to have occurred if the difference in NTU levels between the control site and the monitoring location is greater than 20%
 - c) Total Suspended Solids – An exceedance is deemed to have occurred if the difference in TSS concentrations between the control site and the monitoring location is greater than 20%, or a level of more than 150g/m^3 is recorded
 - d) Suspended sediment concentration - An exceedance is deemed to have occurred if the difference in suspended sediment concentrations between the control site and the monitoring location is greater than 20%.
38. Each time any water quality trigger level is exceeded at any of the monitoring locations other than the control site, the consent holder shall:
- a) notify the Manager, Environmental Regulation, Wellington Regional Council in writing within 24 hours,
 - b) undertake an audit as set out in condition 39, and
 - c) undertake actions to minimise further exceedances, which may include temporary stabilisation of disturbed surfaces, installation of additional devices and batch dosing with flocculants.

Event triggered monitoring

39. A complete site audit shall be undertaken each time water quality monitoring indicates an exceedance of the water quality trigger levels. The site audit shall be undertaken as soon as practicable and within 24 hours of the trigger being exceeded. The site audit shall be additional to the weekly site audit required by discharge permit [33622]. The audit shall include, but not be limited to, the following information:
- a) Date

- b) Name of auditor
- c) Site condition
- d) Weather conditions
- e) Sediment management (including identification of problem areas that are not being treated by sediment control measures, and any measures put in place to treat these areas)
- f) Runoff control (check of diversion channels and check sediment retention ponds)
- g) Condition of sediment control measures, including silt fences, contour drains and sediment retention ponds
- h) Check of operation of flocculation method; and
- i) General comments.

40 Deposited sediment monitoring, using the protocols to visually estimate the percentage cover of fine sediments, shall be undertaken each time water quality monitoring indicates an exceedance of turbidity and/or total suspended solids trigger levels and the source of the exceedance is likely to be due to the on-site construction works. Deposited sediment monitoring will be undertaken at the control site DCN-01 (located at the southern site boundary), and all monitoring sites identified in the EMAMP downstream of any works authorised by this consent.

41. Invertebrate sampling shall be undertaken if:

- a) water quality monitoring; and/or
- b) deposited sediment monitoring; and/or
- c) other sources of information,

indicate a major sediment discharge has occurred that may have resulted in adverse effects on stream ecology. Invertebrate monitoring shall be undertaken following a minimum of two weeks of no rainfall. Invertebrate monitoring shall be undertaken at the control site DCN-01 and all monitoring sites within the section of stream channel where the works authorised by this consent are occurring, with the exception of sites DCN-05, DCN-06 and DCN-07.

Note: Data derived should be quantitative, not semi-quantitative.

42. The results of the event triggered monitoring shall be provided in an **Event Triggered Monitoring Report**. In addition to the requirements of condition 55, the report shall include:

- a) The levels of exceedance
- b) Monitoring results for the duration of the rainfall event until the discharges cease
- c) The results of the trigger level site audit required by condition 39
- d) Identification of probable causes of the exceedance and any measures that could have been taken to prevent it
- e) Analysis of the performance of the erosion and sediment control device(s)
- f) Immediate actions taken to minimise further exceedances.

Diversion monitoring – Design guidelines, fish passage and fish relocation

43. Prior to the diversion of water into each stage of the new stream channel, and within 5 working days following the diversion of water for each stage, an inspection of the new stream channel shall be undertaken of the design principles set out in condition 15 of Water Permit [33621] for:
- a) Width of wet bed;
 - b) Water depth;
 - c) Velocity of runs, pools, riffles and cascades;
 - d) Bed material; and
 - e) Channel complexity.

The consent holder shall provide recommendations, where necessary, on any work to be undertaken to ensure compliance with the design principles, and timeframes for implementing these recommendations, in the **Diversion Monitoring Report** required under condition 54.

Twice yearly monitoring – Water quality and deposited sediment

44. Water quality and deposited sediment sampling shall be undertaken twice a year, in autumn (1 March – 31 May) and spring (1 September – 30 November), on a mid-ebb tide, following a minimum of two weeks of no rainfall, while the works authorised by this consent are being undertaken, and for two occasions following the completion of the earthworks and stabilisation of the entire site. The monitoring shall be undertaken at the control site DCN-01 (located at the southern site boundary) and downstream of the site (at monitoring locations DCN-02 to DCN-07). The results of this monitoring shall be provided in the

Progress Monitoring Reports due by 15 July (for the autumn monitoring) and 15 January (for the spring monitoring) following each monitoring occasion, as required by condition 54 of this consent.

Annual monitoring – Fish passage

45. Following the diversion of water through the new stream channel, fish passage monitoring of all of the sites upstream of, and including, site DCN-05 shall be undertaken once between 1 December and 30 April. The fish passage monitoring shall include but not be limited to:

- a) a survey of the number of all fish species present upstream and downstream of the new channel diversion at monitoring sites DCN-03B including specific reference to the location of whitebait, elver, and inanga, and the size class distribution of banded kokopu, koura, and giant kokopu using national protocols for fish monitoring;
- b) identification of any actual or potential impediments to fish passage.

This monitoring shall be undertaken annually for five years following the livening of the stream diversion.

Note: It is recommended that the fish monitoring data be uploaded to the New Zealand Freshwater Fish Database, currently administered by NIWA.

46. The results of the fish passage monitoring shall be provided in the **Progress Monitoring Report**. The results shall assess the performance of the diversion into the new stream channel section, in achieving fish passage. In addition to the requirements of condition 55, the report shall include:

- a) The results of the fish passage monitoring;
- b) Details of any modifications to the channel which may affect fish passage including the location and date of the modifications;
- c) An analysis of the results for all fish species present, including comparison with the baseline fish data, and data from any previous fish passage monitoring under this consent;
- d) Identification of any actual or potential impediments to fish passage;
- e) Recommendations for any remedial measures required to ensure fish passage; and
- f) The timeframe for implementing these recommendations.

Note: Works in the stream bed to enable fish passage may require additional resource consent.

Annual Monitoring – Invertebrates

47. Following the diversion of water into the new stream channel, invertebrate monitoring shall be undertaken at the control site DCN-01 and all monitoring sites within the section of stream channel where the works authorised by this consent are occurring or have occurred, with the exception of sites DCN-05, DCN-06 and DCN-07. Invertebrate monitoring shall be undertaken between 1 March and 31 May, each year. This monitoring shall be undertaken annually for five years following the livening of the last stream diversion, unless a shorter time period is agreed, to the satisfaction of the Manager, Environmental Regulation. The results of the invertebrate monitoring shall be provided in the **Progress Monitoring Report**.

Annual Monitoring review - Marine sediment monitoring data

48. A review of any available marine sediment monitoring data and deposited sediment data for the Duck Creek Saltmarsh and the Pauatahanui Inlet adjacent to the saltmarsh shall be undertaken once a year including a comparison of the data with the baseline monitoring results. This monitoring review shall be undertaken annually for five years following the livening of the last stream diversion, unless a shorter time period is agreed, to the satisfaction of the Manager, Environmental Regulation. The results of this analysis shall be provided in the **Progress Monitoring Reports** due on the 15 July as required by condition 54 of this consent.

Annual monitoring – Ecological Remediation and Compensation Plan monitoring

49. The consent holder shall record all inanga spawning habitat enhancement works and riparian planting, monitoring and maintenance undertaken and submit this in the **Progress Monitoring Report** due on the 15 July.

The report shall include, but not be limited to, the following:

- a) A map showing the areas which have been planted compared to the agreed mitigation areas, and the areas where inanga spawning habitat enhancement works and planting have occurred
- b) Details of inanga spawning habitat restoration works undertaken
- c) Details of plants, including species, number and date planted
- d) An assessment of overall plant success rates
- e) An assessment of the quality of the inanga spawning habitat area
- f) A representative measure of canopy cover at least every year until 80% canopy cover has been reached, excluding the area for inanga spawning habitat enhancement

- g) Photo points of representative planted areas, taken annually
 - h) Details of any maintenance work undertaken
 - i) Details of any further works required to be undertaken
 - j) Recommendations for any on-going maintenance works.
50. The consent holder shall undertake an **SEV analysis**, between 1 September and 1 December, two years and five years following the permanent diversion of the flow into the new stream channel, or the initial landscaping and planting, whichever occurs later. The SEV analysis shall be carried out at the same sites as the SEV assessment reported in Appendix 3 (Volume 2) of the application including at least two monitoring sites within the new channel section, and at least two monitoring sites within the mitigation planting section of the existing stream channel.
51. The purpose of the SEV monitoring is to determine whether aquatic habitat and stream functions within the diversion and mitigation reaches have improved and either meet or are likely to meet the mitigation requirements established by the ECR analysis (predicted SEV scores in the SEV assessment reported in the Ecological Remediation and Compensation Plan).
52. The consent holder shall provide the results of the SEV analysis in the **Progress Monitoring Report** of the following year. The results shall include the numerical variables and values used to determine the SEV scores for each monitoring location.

Progress Monitoring Reports

53. The results of the monitoring set out in conditions 43-49, and any SEV analysis undertaken in accordance with conditions 50 and 51 during the same period 1 September to 1 December shall be provided in a **Progress Monitoring Report**, of the following year (due either 15 January or 15 July).

Reporting Requirements

54. The consent holder shall engage a suitably qualified and experienced ecologist to prepare and submit to the Manager, Environmental Regulation, Wellington Regional Council and Ngāti Toa Rangatira, **Environmental Monitoring Reports (EMRs)** which detail the results of the monitoring set out in the EMAMP, with the exception of the baseline monitoring. EMRs shall be prepared and submitted within the stated timeframes as follows:

	Type of EMR	Purpose	Timeframe for submission
1	Water Quality Monitoring Report	Water quality results for each rainfall triggered event.	Within 5 working days of sampling.
2	Event Triggered Monitoring Report	Following the exceedence of a water quality trigger level.	Within 5 working days of undertaking the site audit and deposited sediment monitoring, and a final report within 3 months of undertaking any invertebrate sampling.
3	Diversion Monitoring Report	Following the completion of the diversion of Duck Creek.	Within 10 working days of completing the inspection.
4	Progress Monitoring Report	Annual and Twice yearly monitoring.	By 15 July and the 15 January, each year for the timeframe stipulated for each applicable monitoring activity

55. Each EMR shall include, but not be limited to:
- a) The results of the monitoring undertaken;
 - b) An analysis of the results, as assessed by a suitably qualified and independent ecologist, and including an assessment of the effects that the works authorised under this consent are having on the aquatic ecosystems and ecological values at each monitoring location and on the stream as a whole;
 - c) Recommendations for amendments to the EMAMP, ECP, FMP and/or consent conditions, including, but not limited to:
 - i) Changes to flocculation method, dosing or material
 - ii) Changes in the management or implementation of erosion and sediment control measures or site management, and
 - iii) Adjustment of the water quality trigger levels
 - iv) Changes to the water quality monitoring programme.

The person that the consent holder engages to prepare each EMR shall be suitably qualified and experienced to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

56. The approved recommendations of the EMR under condition 55 of this consent shall be undertaken by the consent holder to the satisfaction of, and within the

timeframe specified by, the Manager, Environmental Regulation, Wellington Regional Council.

Note: Any amendments proposed to the approved EMAMP, ESCP and/or FMP must be confirmed in writing by the consent holder and be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of the proposed amendments. Any amendments recommended to the conditions will require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.

Complaints

57. The consent holder shall maintain a permanent record of any complaints received alleging adverse effects from or related to the works. This record shall include:

- a) The name and address of the complainant (if provided)
- b) The date and time that the complaint was received
- c) Details of the alleged event
- d) Weather conditions at the time of the complaint, and
- e) Any measures taken to mitigate/remedy the cause of the complaint

This record shall be made available to the Manager, Environmental Regulation, Wellington Regional Council, on request.

Discovery of artefacts

58. If koiwi, taonga or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall contact Ngāti Toa Rangatira, Heritage New Zealand and Wellington Regional Council within twenty-four hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.

Note 1: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials.

Note 2: Recorded archaeological sites in the vicinity of the subdivision indicate the possibility of further unrecorded archaeological sites that may be disturbed by soil disturbance associated with development of the new lots. An application for an Archaeological Authority must be made to Heritage New Zealand under the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an

archaeological site or if there is reasonable cause to suspect that an archaeological site may be modified or destroyed. It is an offence to modify or destroy a site for any purpose without an authority and the Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. These provisions apply irrespective of whether the works are permitted under the Resource Management Act 1991 by the provisions of a plan or resource consent. Seeking advice from Heritage New Zealand is recommended when planning for any soil disturbances, such as building platforms, fencing or landscaping.

Maintenance of works

59. The works shall remain the responsibility of the consent holder and shall be maintained to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council 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.

Note: Maintenance does not include any works outside of the scope of the application. Any additional works (including structures, reshaping or disturbance to the bed of the watercourse) following completion of the construction works as proposed in the application, may require further resource consents.

Review condition

60. The Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so pursuant to Section 128 of the Resource Management Act 1991, within one month of the first, second, fifth, 7th and 10th anniversaries of the commencement of this consent, for the following purposes:
- a) To review the adequacy of any report and/or monitoring requirements, and if necessary, amend these requirements outlined in this consent
 - b) To deal with any adverse effects on the environment that may arise from the exercise of this consent; and which are appropriate to deal with at a later stage
 - c) To require the implementation of Best Practicable Options, in respect of new methodologies for the undertaking of the works to avoid, remedy or mitigate any significant adverse effect on the environment arising from the works
 - d) To enable consistency with any relevant Regional Plans or any National Environmental Standards or Regulations.

The review of conditions shall allow for the deletion or amendment of conditions of this consent; and the addition of such new conditions as are shown to be necessary to avoid, remedy or mitigate any significant adverse effects on the environment.

Note: For the purposes of this condition the “commencement of the consent” is deemed to be once the works authorised by this consent have commenced.

61. The Wellington Regional Council shall be entitled to recover from the consent holder the costs of any review, calculated in accordance with and limited to the Council’s scale of charges in force and applicable at that time pursuant to section 36 of the Resource Management Act 1991.

Land use consent [33647]

To place a stormwater pipe under the bed of Duck Creek including any associated disturbance, discharge and deposition of material in the bed of that stream

Standards from Rule 46 of the Regional Freshwater Plan - Pipelines (controlled activity)

- (1) No contaminants (including but not limited to oil, petrol, diesel, paint, or solvent) shall be released to water from equipment being used for the operation, and no refuelling of equipment shall take place on any area of river or lake bed.
- (2) Any excess material from the construction operation, shall be removed from the river or lake bed and disposed of in an appropriate manner.
- (3) *Not relevant.*

Terms from Rule 46 of the Regional Freshwater Plan - Pipelines (controlled activity)

- (1) The consent holder shall notify the Manager, Consents Management, Wellington, at least two working days before any work commences.
- (2) A charge, set in accordance with section 36(2) of the Act, shall be paid to the Wellington Regional Council for carrying out its functions in relation to the administration, monitoring, and supervision of the activity , and for carrying out its functions under section 35 (duty to gather information, monitor and keep records) of the Act 1991.

INTERPRETATION

Wherever used in the conditions below, the following terms shall have the prescribed meaning:

Stabilised means inherently resistant to erosion or rendered resistant, such as by using indurated rock or by the application of basecourse, colluvium, hydroseeding, grassing, mulch, or another method to the reasonable satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and as specified in Wellington Regional Council's Erosion and Sediment Control Guidelines for the Wellington Region, September 2002. Where seeding or grassing is used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once, on reasonable visual inspection by the Manager, Environmental Regulation, Wellington Regional Council, an 80% vegetative cover has been established.

General conditions

1. The location, design, implementation and operation of the structure and associated activities shall be in general accordance with the consent application and its associated plans and documents, and further information, received by the Wellington Regional Council on:
 - 27 July 2015 (Original application)
 - 28 September 2015 (further information and amendments to the application)
 - 29 February 2016 (Memo from Kyle Christensen on flooding and erosion)
 - 3 March 2016 (Memo from Dean Miller with additional ecology information).

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991.

2. For the purposes of section 125(1) of the Resource Management Act 1991, this consent shall lapse if not given effect to within 10 years after the date of commencement of the consents.
3. The consent holder shall provide a detailed schedule of construction activities, management plans and monitoring plans, to the Manager, Environmental Regulation, Wellington Regional Council, and Ngāti Toa Rangatira at least **20 working days** prior to the commencement of works. This schedule shall be updated at monthly intervals during the works. The schedule shall include the details of:
 - a) The timing all pre-construction plans to be submitted to the Manager, Environmental Regulation, Wellington Regional Council, in accordance with the conditions of this consent.
 - b) The commencement date and expected duration of each stage of the works subject to this consent;
 - c) The timing of monitoring reports necessary to fulfil the conditions of this consent.
4. The Manager, Environmental Regulation, Wellington Regional Council, shall be given a minimum of **two working days'** (48 hours) notice prior to the works commencing for each stage of the works.

Note: Notifications must be emailed to notifications@gw.govt.nz. Please include the consent reference (WGN160028) and the name and phone number of a contact person responsible for the proposed works.

5. The consent holder shall provide a copy of this consent and any documents and plans referred to in this consent to each operator or contractor undertaking works authorised by this consent, prior to the works commencing.

Note: It is recommended that the contractors be verbally briefed on the requirements of the conditions of this consent prior to works commencing.

6. The consent holder shall ensure that a copy of this consent and all documents and plans referred to in this consent, are kept on site at all times and presented to any Wellington Regional Council officer on request.

Environmental Management Plan for Construction

7. The consent holder shall prepare and submit an Environmental Management Plan for Construction (EMPC) to the Manager, Environmental Regulation, Wellington Regional Council, at least **20 working days** prior to the proposed commencement date for the works authorised under this consent.

The EMPC shall include, but not be limited to, the following:

- a) Environmental objectives, including specific reference to avoiding or mitigating adverse effects including sedimentation on the Duck Creek and Pauatahanui Inlet receiving environments
- b) Statutory, consenting and contractual requirements
- c) Responsibilities and contact details of all parties involved
- d) Details of environmental site induction
- e) Inspections, monitoring and reporting
- f) Complaints and feedback procedures
- g) Process for amending the Environmental Management Plan for Construction
- h) Contingency measures – procedures to be followed in the event of an environmental incident
- i) Environmental impacts and risk assessment, including the site limitations, main construction activities and potential adverse effects due to the works

- j) Provisions for archaeology, including whether an archaeological authority is required under the Heritage New Zealand Pouhere Taonga Act 2014 and/or procedures to be followed in the event that archaeological or cultural material is discovered.
- 8. No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council has certified in writing that the Environmental Management Plan for Construction is in general accordance with the draft Environmental Management Plan for Construction lodged as part of the application and meets the requirements of this condition.
- 9. Any amendment proposed to the authorised Environmental Management Plan for Construction shall be submitted in writing by the consent holder and shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of any amendments proposed.

Pre-construction meeting

- 10. The consent holder shall arrange and conduct a pre-construction site meeting prior to any work authorised by this consent commencing for each stage of the works and must invite, with a minimum of **10 working days'** notice, the Wellington Regional Council and a representative from each key contractor undertaking the works.

Note: In the case that any of the invited parties, other than the representative of the consent holder, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.

Winter works restrictions

- 11. No works authorised by this consent shall take place on site during the period of 1 June to 30 September unless otherwise approved by the Manager, Environmental Regulation, Wellington Regional Council in writing.
- 12. All earthworked areas shall be stabilised during the period between 1 June to 30 September inclusive each year unless a later date is approved in writing by the Manager, Environmental Regulation, Wellington Regional Council. The stabilised surface shall be maintained to the satisfaction of the Manager, Environmental Regulation.

Inanga spawning

- 13. No in-stream works shall be carried out in the active channel (i.e. flowing water in the stream bed) during a high spring tide between 1 March and 31 May, to provide for inanga spawning.

Freshwater fish

14. The consent holder shall ensure that fish passage is maintained at all times during and after construction.
15. No in stream works shall be carried out in the active channel (ie, flowing water in the stream bed) during the key recruitment migration period for native fish species between 1 September to 30 November inclusive.

Design details

16. The consent holder shall ensure that the stormwater pipe is installed at least 0.5m below the stream bed level.

Final Construction Plans (pre-works requirement)

17. Prior to commencing placement of the stormwater pipe, the consent holder shall submit a final Construction Plan that has been prepared in consultation with the contractor undertaking the works, which includes, but is not limited to, details of:
 - a) The size, type and location of the stormwater pipe,
 - b) The methodology to be used for the placement of the stormwater pipe,
 - c) The specific sediment and erosion controls to be used during the placement of the stormwater pipe.

The final construction plans for the stormwater pipe shall be submitted at least **10 working days** prior to the proposed works commencement date for the stormwater pipe to the Manager, Environmental Regulation, Wellington Regional Council. No works authorised under this consent shall commence on until the final construction plans for the stormwater pipe is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. All works shall be undertaken in accordance with the approved construction plan.

Reducing effects on water quality

18. The consent holder shall take all steps to minimise sedimentation and increased turbidity of the Duck Creek during the works, including but not limited to:
 - a) Completing all works in the minimum time practicable
 - b) Undertaking works in dry weather conditions, as far as practicable
 - c) Avoiding the placement of construction or excavated material in the wetted channel
 - d) Separating all construction activities from flowing water, and

- e) Installing appropriate sediment control and treatment measures
19. If heavy rain is expected, the consent holder shall:
- a) Clean out behind any silt fences in use and remove excess material; and
 - b) Lay A14 filter cloth over any open areas and pin down securely.
20. Any areas of the stream banks that are cut or disturbed as a result of the works shall be stabilised and grassed/replanted as soon as practicable, following completion of the works, to prevent erosion and scour. . The consent holder shall ensure that a method of stabilisation (eg, hydroseeding) is applied within 2 weeks of completion of the works. All stabilisation methods shall be effective within **two months** of being applied or after a longer period if approved in writing by the Manager, Environmental Regulation, Wellington Regional Council. These works shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
21. The consent holder shall ensure that:
- a) All machinery is thoroughly cleaned of vegetation (eg, weeds), seeds or contaminants at least 10 metres away from any watercourse, water flow channel or stormwater system, prior to entering the site
 - b) All machinery shall be regularly maintained in such a manner to ensure no contaminants (including but not limited to oil, petrol, diesel, hydraulic fluid) shall be released into water, or to land where it may enter water, from equipment being used for the works
 - c) All contaminant storage or re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants to water or to land where it may enter water
 - d) No machinery is cleaned, stored or refuelled within 10 metres of any waterbody, water flow channel or stormwater system
22. The consent holder shall ensure that prior to entering the river that all vehicles, mobile plant, or machinery is inspected for the presence of invasive or pest aquatic plants including ‘didymo’. In the event that an invasive or pest aquatic plant or ‘didymo’ is discovered upon the vehicle, mobile plant, or machinery it shall be cleaned, to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Note: The machinery shall be cleaned in accordance with the Ministry for Primary Industries cleaning methods which can be found at <http://www.biosecurity.govt.nz/pests/didymo/cleaning>.

23. In the event of a spill of fuel, hydraulic fluid, or other potential liquid contaminants, immediate steps shall be taken to contain the spilt contaminant. The spilt contaminants and any material used to contain it shall be removed from the site and disposed of at authorised landfill. The consent holder shall also immediately notify the Manager, Environmental Regulation, Wellington Regional Council of the spill and actions to be taken.
24. The consent holder shall ensure that no dry cement product, unset concrete, concrete wash water or any water contaminated with concrete enters the flowing channel of Duck Creek or any water during, or as a result of, the placement or construction of the structures.
25. Upon completion of the works all unused material from the works shall be immediately removed from the bed and banks of the stream and disposed of in an appropriate manner that is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Discovery of artefacts

26. If koiwi, taonga or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall contact Ngāti Toa Rangatira, Heritage New Zealand and Wellington Regional Council within twenty-four hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.

Note 1: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials.

Note 2: Recorded archaeological sites in the vicinity of the subdivision indicate the possibility of further unrecorded archaeological sites that may be disturbed by soil disturbance associated with development of the new lots. An application for an Archaeological Authority must be made to Heritage New Zealand under the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site or if there is reasonable cause to suspect that an archaeological site may be modified or destroyed. It is an offence to modify or destroy a site for any purpose without an authority and the Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. These provisions apply irrespective of whether the works are permitted under the Resource Management Act 1991 by the provisions of a plan or resource consent. Seeking advice from Heritage New Zealand is recommended when planning for any soil disturbances, such as building platforms, fencing or landscaping.

Maintenance

27. The stormwater pipe authorised by this consent shall remain the responsibility of the consent holder and be maintained so that:
- a) Any erosion or scour of the stream bed or banks that is attributable to the works carried out as part of this consent shall be remedied by the consent holder;
 - b) The structural integrity of the structure remains sound in the opinion of a Chartered Professional Engineer; and
 - c) The structures remain substantively clear of debris.

Note: Maintenance does not include any works outside of the scope of the application. Any additional works (including structures, reshaping or disturbance to the bed of the watercourse) following completion of the construction works as proposed in the application, may require further resource consents.

Land use consent [33648]

Land use consent to construct three temporary bridges and a temporary stormwater pipe over the bed of Duck Creek, including any associated disturbance, discharge and deposition of material in the bed of that stream.

INTERPRETATION

Wherever used in the conditions below, the following terms shall have the prescribed meaning:

Stabilised means inherently resistant to erosion or rendered resistant, such as by using indurated rock or by the application of basecourse, colluvium, hydroseeding, grassing, mulch, or another method to the reasonable satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and as specified in Wellington Regional Council's Erosion and Sediment Control Guidelines for the Wellington Region, September 2002. Where seeding or grassing is used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once, on reasonable visual inspection by the Manager, Environmental Regulation, Wellington Regional Council, an 80% vegetative cover has been established.

General conditions

1. The location, design, implementation and operation of the structures and associated activities shall be in general accordance with the consent application and its associated plans and documents, and further information, received by the Wellington Regional Council on:
 - 27 July 2015 (Original application)
 - 28 September 2015 (further information and amendments to the application)
 - 29 February 2016 (Memo from Kyle Christensen on flooding and erosion)
 - 3 March 2016 (Memo from Dean Miller with additional ecology information).

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991.

2. For the purposes of section 125(1) of the Resource Management Act 1991, this consent shall lapse if not given effect to within 10 years after the date of commencement of the consents.

3. The consent holder shall provide a detailed schedule of construction activities, management plans and monitoring plans, to the Manager, Environmental Regulation, Wellington Regional Council, and Ngāti Toa Rangatira at least **20 working days** prior to the commencement of works. This schedule shall be updated at monthly intervals during the works. The schedule shall include the details of:
 - a) The timing all pre-construction plans to be submitted to the Manager, Environmental Regulation, Wellington Regional Council, in accordance with the conditions of this consent.
 - b) The commencement date and expected duration of each stage of the works subject to this consent;
 - c) The timing of monitoring reports necessary to fulfil the conditions of this consent.

4. The Manager, Environmental Regulation, Wellington Regional Council, shall be given a minimum of **two working days'** (48 hours) notice prior to the works commencing for each stage of the works.

Note: Notifications must be emailed to notifications@gw.govt.nz. Please include the consent reference (WGN160028) and the name and phone number of a contact person responsible for the proposed works.

5. The consent holder shall provide a copy of this consent and any documents and plans referred to in this consent to each operator or contractor undertaking works authorised by this consent, prior to the works commencing.

Note: It is recommended that the contractors be verbally briefed on the requirements of the conditions of this consent prior to works commencing.

6. The consent holder shall ensure that a copy of this consent and all documents and plans referred to in this consent, are kept on site at all times and presented to any Wellington Regional Council officer on request.

Environmental Management Plan for Construction

7. The consent holder shall prepare and submit an Environmental Management Plan for Construction (EMPC) to the Manager, Environmental Regulation, Wellington Regional Council, at least **20 working days** prior to the proposed commencement date for the works authorised under this consent.

The EMPC shall include, but not be limited to, the following:

- a) Environmental objectives, including specific reference to avoiding or mitigating adverse effects including sedimentation on the Duck Creek and Pauatahanui Inlet receiving environments

- b) Statutory, consenting and contractual requirements
 - c) Responsibilities and contact details of all parties involved
 - d) Details of environmental site induction
 - e) Inspections, monitoring and reporting
 - f) Complaints and feedback procedures
 - g) Process for amending the Environmental Management Plan for Construction
 - h) Contingency measures – procedures to be followed in the event of an environmental incident
 - i) Environmental impacts and risk assessment, including the site limitations, main construction activities and potential adverse effects due to the works
 - j) Provisions for archaeology, including whether an archaeological authority is required under the Heritage New Zealand Pouhere Taonga Act 2014 and/or procedures to be followed in the event that archaeological or cultural material is discovered.
8. No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council has certified in writing that the Environmental Management Plan for Construction is in general accordance with the draft Environmental Management Plan for Construction lodged as part of the application and meets the requirements of this condition.
9. Any amendment proposed to the authorised Environmental Management Plan for Construction shall be submitted in writing by the consent holder and shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of any amendments proposed.

Pre-construction meeting

10. The consent holder shall arrange and conduct a pre-construction site meeting prior to any work authorised by this consent commencing for each stage of the works and must invite, with a minimum of **10 working days'** notice, the Wellington Regional Council and a representative from each key contractor undertaking the works.

Note: In the case that any of the invited parties, other than the representative of the consent holder, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.

Winter works restrictions

11. No works authorised by this consent shall take place on site during the period of 1 June to 30 September unless otherwise approved by the Manager, Environmental Regulation, Wellington Regional Council in writing.
12. All earthworked areas shall be stabilised during the period between 1 June to 30 September inclusive each year unless a later date is approved in writing by the Manager, Environmental Regulation, Wellington Regional Council. The stabilised surface shall be maintained to the satisfaction of the Manager, Environmental Regulation.

Inanga spawning

13. No in-stream works shall be carried out in the active channel (i.e. flowing water in the stream bed) during a high spring tide between 1 March and 31 May, to provide for inanga spawning.

Freshwater fish

14. The consent holder shall ensure that fish passage is maintained at all times during and after construction.
15. No in stream works shall be carried out in the active channel (ie, flowing water in the stream bed) during the key recruitment migration period for native fish species between 1 September to 30 November inclusive.

Final Construction Plans (pre-works requirement)

16. Prior to commencing construction of the bridges, the consent holder shall submit a final Construction Plan that has been prepared in consultation with the contractor undertaking the works, which includes, but is not limited to, details of:
 - a) The design and location of the bridges, and
 - b) The methodology to be used for the construction of the bridge.
17. Prior to placing the stormwater pipe, the consent holder shall submit a final Construction Plan which includes, but is not limited to, details of:
 - a) The size, type and location of the stormwater pipe, and
 - b) The methodology to be used for the placement of the stormwater pipe.

The final construction plans for the bridges and the pipe shall be submitted at least **10 working days** prior to the proposed works commencement date for the bridges or pipe to the Manager, Environmental Regulation, Wellington Regional Council. No works authorised under this consent shall commence on until the

final construction plans for the structures is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. All works shall be undertaken in accordance with the approved construction plan.

Reducing effects on water quality

18. The consent holder shall take all steps to minimise sedimentation and increased turbidity of the Duck Creek during the works, including but not limited to:
 - a) Completing all works in the minimum time practicable
 - b) Undertaking works in dry weather conditions, as far as practicable
 - c) Avoiding the placement of construction or excavated material in the wetted channel
 - d) Separating all construction activities from flowing water, and
 - e) Installing appropriate sediment control and treatment measures
19. If heavy rain is expected, the consent holder shall:
 - a) Clean out behind any silt fences in use and remove excess material; and
 - b) Lay A14 filter cloth over any open areas and pin down securely.
20. Any areas of the stream banks that are cut or disturbed as a result of the works shall be stabilised and grassed/replanted as soon as practicable, following completion of the works, to prevent erosion and scour. . The consent holder shall ensure that a method of stabilisation (eg, hydroseeding) is applied within 2 weeks of completion of the works. All stabilisation methods shall be effective within **two months** of being applied or after a longer period if approved in writing by the Manager, Environmental Regulation, Wellington Regional Council. These works shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
21. The consent holder shall ensure that:
 - a) All machinery is thoroughly cleaned of vegetation (eg, weeds), seeds or contaminants at least 10 metres away from any watercourse, water flow channel or stormwater system, prior to entering the site
 - b) All machinery shall be regularly maintained in such a manner to ensure no contaminants (including but not limited to oil, petrol, diesel, hydraulic fluid) shall be released into water, or to land where it may enter water, from equipment being used for the works

- c) All contaminant storage or re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants to water or to land where it may enter water
 - d) No machinery is cleaned, stored or refuelled within 10 metres of any waterbody, water flow channel or stormwater system
22. The consent holder shall ensure that prior to entering the river that all vehicles, mobile plant, or machinery is inspected for the presence of invasive or pest aquatic plants including 'didymo'. In the event that an invasive or pest aquatic plant or 'didymo' is discovered upon the vehicle, mobile plant, or machinery it shall be cleaned, to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
- Note: The machinery shall be cleaned in accordance with the Ministry for Primary Industries cleaning methods which can be found at <http://www.biosecurity.govt.nz/pests/didymo/cleaning>.*
23. In the event of a spill of fuel, hydraulic fluid, or other potential liquid contaminants, immediate steps shall be taken to contain the spilt contaminant. The spilt contaminants and any material used to contain it shall be removed from the site and disposed of at authorised landfill. The consent holder shall also immediately notify the Manager, Environmental Regulation, Wellington Regional Council of the spill and actions to be taken.
24. The consent holder shall ensure that no dry cement product, unset concrete, concrete wash water or any water contaminated with concrete enters the flowing channel of Duck Creek or any water during, or as a result of, the placement or construction of the structures.
25. Upon completion of the works all unused material from the works shall be immediately removed from the bed and banks of the stream and disposed of in an appropriate manner that is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Discovery of artefacts

26. If koiwi, taonga or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall contact Ngāti Toa Rangatira, Heritage New Zealand and Wellington Regional Council within twenty-four hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.

Note 1: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials.

Note 2: Recorded archaeological sites in the vicinity of the subdivision indicate the possibility of further unrecorded archaeological sites that may be disturbed by soil disturbance associated with development of the new lots. An application for an Archaeological Authority must be made to Heritage New Zealand under the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site or if there is reasonable cause to suspect that an archaeological site may be modified or destroyed. It is an offence to modify or destroy a site for any purpose without an authority and the Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. These provisions apply irrespective of whether the works are permitted under the Resource Management Act 1991 by the provisions of a plan or resource consent. Seeking advice from Heritage New Zealand is recommended when planning for any soil disturbances, such as building platforms, fencing or landscaping.

Maintenance

27. The structures authorised by this consent shall remain the responsibility of the consent holder and be maintained so that:
- a) Any erosion or scour of the stream bed or banks that is attributable to the works carried out as part of this consent shall be remedied by the consent holder;
 - b) The structural integrity of the structures remain sound in the opinion of a Chartered Professional Engineer; and
 - c) The structures remain substantively clear of debris.

Note: Maintenance does not include any works outside of the scope of the application. Any additional works (including structures, reshaping or disturbance to the bed of the watercourse) following completion of the construction works as proposed in the application, may require further resource consents.

Land use consent [33649]

Land use consent to undertake bank stabilisation works within Duck Creek, including any associated disturbance, discharge and deposition of material in the bed of that stream

INTERPRETATION

Wherever used in the conditions below, the following terms shall have the prescribed meaning:

Stabilised means inherently resistant to erosion or rendered resistant, such as by using indurated rock or by the application of basecourse, colluvium, hydroseeding, grassing, mulch, or another method to the reasonable satisfaction of the Manager, Environmental Regulation, Wellington Regional Council and as specified in Wellington Regional Council's Erosion and Sediment Control Guidelines for the Wellington Region, September 2002. Where seeding or grassing is used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once, on reasonable visual inspection by the Manager, Environmental Regulation, Wellington Regional Council, an 80% vegetative cover has been established.

General conditions

1. The location, design, implementation and operation of the bank stabilisation works and associated activities shall be in general accordance with the consent application and its associated plans and documents, and further information, received by the Wellington Regional Council on:
 - 27 July 2015 (Original application)
 - 28 September 2015 (further information and amendments to the application)
 - 29 February 2016 (Memo from Kyle Christensen on flooding and erosion)
 - 3 March 2016 (Memo from Dean Miller with additional ecology information)
 - 6 April 2016 (Joint Statement of the Flood and Erosion experts, dated 6 April 2016, including updated Plan 251)

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to Section 127 of the Resource Management Act 1991.

2. For the purposes of section 125(1) of the Resource Management Act 1991, this consent shall lapse if not given effect to within 10 years after the date of commencement of the consents.
3. The consent holder shall provide a detailed schedule of construction activities, management plans and monitoring plans, to the Manager, Environmental

Regulation, Wellington Regional Council, and Ngāti Toa Rangatira at least **20 working days** prior to the commencement of works. This schedule shall be updated at monthly intervals during the works. The schedule shall include the details of:

- a) The timing all pre-construction plans to be submitted to the Manager, Environmental Regulation, Wellington Regional Council, in accordance with the conditions of this consent.
 - b) The commencement date and expected duration of each stage of the works subject to this consent;
 - c) The timing of monitoring reports necessary to fulfil the conditions of this consent.
4. The Manager, Environmental Regulation, Wellington Regional Council, shall be given a minimum of **two working days'** (48 hours) notice prior to the works commencing for each stage of the works.

Note: Notifications must be emailed to notifications@gw.govt.nz. Please include the consent reference (WGN160028) and the name and phone number of a contact person responsible for the proposed works.

5. The consent holder shall provide a copy of this consent and any documents and plans referred to in this consent to each operator or contractor undertaking works authorised by this consent, prior to the works commencing.

Note: It is recommended that the contractors be verbally briefed on the requirements of the conditions of this consent prior to works commencing.

6. The consent holder shall ensure that a copy of this consent and all documents and plans referred to in this consent, are kept on site at all times and presented to any Wellington Regional Council officer on request.

Environmental Management Plan for Construction

7. The consent holder shall prepare and submit an Environmental Management Plan for Construction (EMPC) to the Manager, Environmental Regulation, Wellington Regional Council, at least **20 working days** prior to the proposed commencement date for the works authorised under this consent.

The EMPC shall include, but not be limited to, the following:

- a) Environmental objectives, including specific reference to avoiding or mitigating adverse effects including sedimentation on the Duck Creek and Pauatahanui Inlet receiving environments
- b) Statutory, consenting and contractual requirements

- c) Responsibilities and contact details of all parties involved
 - d) Details of environmental site induction
 - e) Inspections, monitoring and reporting
 - f) Complaints and feedback procedures
 - g) Process for amending the Environmental Management Plan for Construction
 - h) Contingency measures – procedures to be followed in the event of an environmental incident
 - i) Environmental impacts and risk assessment, including the site limitations, main construction activities and potential adverse effects due to the works
 - j) Provisions for archaeology, including whether an archaeological authority is required under the Heritage New Zealand Pouhere Taonga Act 2014 and/or procedures to be followed in the event that archaeological or cultural material is discovered.
8. No works authorised by this consent shall commence until the Manager, Environmental Regulation, Wellington Regional Council has certified in writing that the Environmental Management Plan for Construction is in general accordance with the draft Environmental Management Plan for Construction lodged as part of the application and meets the requirements of this condition.
9. Any amendment proposed to the authorised Environmental Management Plan for Construction shall be submitted in writing by the consent holder and shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council, prior to the implementation of any amendments proposed.

Pre-construction meeting

10. The consent holder shall arrange and conduct a pre-construction site meeting prior to any work authorised by this consent commencing for each stage of the works and must invite, with a minimum of **10 working days'** notice, the Wellington Regional Council and a representative from each key contractor undertaking the works.

Note: In the case that any of the invited parties, other than the representative of the consent holder, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.

Winter works restrictions

11. No works authorised by this consent shall take place on site during the period of 1 June to 30 September unless otherwise approved by the Manager, Environmental Regulation, Wellington Regional Council in writing.
12. All earthworked areas shall be stabilised during the period between 1 June to 30 September inclusive each year unless a later date is approved in writing by the Manager, Environmental Regulation, Wellington Regional Council. The stabilised surface shall be maintained to the satisfaction of the Manager, Environmental Regulation.

Inanga spawning

13. No in-stream works shall be carried out in the active channel (i.e. flowing water in the stream bed) during a high spring tide between 1 March and 31 May, to provide for inanga spawning.

Freshwater fish

14. The consent holder shall ensure that fish passage is maintained at all times during and after construction.
15. No in stream works shall be carried out in the active channel (ie, flowing water in the stream bed) during the key recruitment migration period for native fish species between 1 September and 30 November inclusive.

Final Construction Plans (pre-works requirement)

16. Prior to commencing the works, the consent holder shall submit a final Construction Plan that has been prepared in consultation with the contractor undertaking the works, which includes, but is not limited to, details of:
 - a) The size, type and location of the bank stabilisation measures,
 - b) The methodology to be used for the placement of the bank stabilisation measures,
 - c) The specific sediment and erosion controls to be used during the placement of the bank stabilisation measures.
 - d) The methodology to be used to temporarily divert the stream during the placement of the bank stabilisation measures.

The final construction plans for the bank stabilisation measures shall be submitted at least **10 working days** prior to the proposed works commencement date for the placement of the first section of bank stabilisation measures to the Manager, Environmental Regulation, Wellington Regional Council. No works authorised under this consent shall commence on until the final construction

plans for the bank stabilisation measures is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council. All works shall be undertaken in accordance with the approved construction plan and conditions of this consent.

Mitigation of effects of bank stabilisation structures

17. Rock armouring shall not impact on the proposed in-stream habitat and diversity of longitudinal stream form (i.e. pool/riffle sequences).
18. The extent of rock armouring should be minimised as much as possible and restricted only to particularly high risk localities. Wherever feasible, alternatives to the use of rock protection should be used, such as mass stabilised earth structures.
19. The rocks used for bank stabilisation shall be angular, hard (unweathered) rock and be placed manually to form interlocking matrix without the use of concrete or mortar.
20. Rock shall be placed with soil well packed into voids and suitable riparian species planted within rock matrix during autumn/winter. Manual watering of planting must be undertaken by the consent holder until the plants are established.
21. Where possible the streamward and landward edges of the rock armouring shall be stabilised with appropriate larger riparian species to establish root mass over time and support shading of the stream in accordance with the EcoRCP intent. These plants shall be locally sourced and grown specimens and planted into a quality growing medium.

Reducing effects on water quality

22. The consent holder shall take all steps to minimise sedimentation and increased turbidity of the Duck Creek during the works, including but not limited to:
 - a) Completing all works in the minimum time practicable
 - b) Staging the works so that no more than 50 metres of one bank is having bank stabilisation works installed at any one time.
 - c) Undertaking the works in low flow and dry weather conditions, as far as practicable
 - d) Avoiding the placement of construction or excavated material in the wetted channel
 - e) Separating all construction activities from flowing water, and
 - f) Installing appropriate sediment control and treatment measures

23. If heavy rain is expected, the consent holder shall:
- a) Clean out behind any silt fences in use and remove excess material; and
 - b) Lay A14 filter cloth over any open areas and pin down securely.
24. Any areas of the stream banks that are cut or disturbed as a result of the works shall be stabilised and grassed/replanted as soon as practicable, following completion of the works, to prevent erosion and scour. . The consent holder shall ensure that a method of stabilisation (eg, hydroseeding) is applied within 2 weeks of completion of the works. All stabilisation methods shall be effective within **two months** of being applied or after a longer period if approved in writing by the Manager, Environmental Regulation, Wellington Regional Council. These works shall be to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
25. The consent holder shall ensure that:
- a) All machinery is thoroughly cleaned of vegetation (eg, weeds), seeds or contaminants at least 10 metres away from any watercourse, water flow channel or stormwater system, prior to entering the site
 - c) All machinery shall be regularly maintained in such a manner to ensure no contaminants (including but not limited to oil, petrol, diesel, hydraulic fluid) shall be released into water, or to land where it may enter water, from equipment being used for the works
 - c) All contaminant storage or re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants to water or to land where it may enter water
 - d) No machinery is cleaned, stored or refuelled within 10 metres of any waterbody, water flow channel or stormwater system
26. The consent holder shall ensure that prior to entering the river that all vehicles, mobile plant, or machinery is inspected for the presence of invasive or pest aquatic plants including ‘didymo’. In the event that an invasive or pest aquatic plant or ‘didymo’ is discovered upon the vehicle, mobile plant, or machinery it shall be cleaned, to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.
- Note: The machinery shall be cleaned in accordance with the Ministry for Primary Industries cleaning methods which can be found at <http://www.biosecurity.govt.nz/pests/didymo/cleaning>.*
27. In the event of a spill of fuel, hydraulic fluid, or other potential liquid contaminants, immediate steps shall be taken to contain the spilt contaminant. The spilt contaminants and any material used to contain it shall be removed from the site and disposed of at authorised landfill. The consent holder shall

also immediately notify the Manager, Environmental Regulation, Wellington Regional Council of the spill and actions to be taken.

28. Upon completion of the works all unused material from the works shall be immediately removed from the bed and banks of the stream and disposed of in an appropriate manner that is to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Discovery of artefacts

29. If koiwi, taonga or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall contact Ngāti Toa Rangatira, Heritage New Zealand and Wellington Regional Council within twenty-four hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.

Note 1: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials.

Note 2: Recorded archaeological sites in the vicinity of the subdivision indicate the possibility of further unrecorded archaeological sites that may be disturbed by soil disturbance associated with development of the new lots. An application for an Archaeological Authority must be made to Heritage New Zealand under the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site or if there is reasonable cause to suspect that an archaeological site may be modified or destroyed. It is an offence to modify or destroy a site for any purpose without an authority and the Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. These provisions apply irrespective of whether the works are permitted under the Resource Management Act 1991 by the provisions of a plan or resource consent. Seeking advice from Heritage New Zealand is recommended when planning for any soil disturbances, such as building platforms, fencing or landscaping.

Maintenance

30. The works authorised by this consent shall remain the responsibility of the consent holder and be maintained so that:
 - a) Any erosion or scour of the stream bed or banks that is attributable to the works carried out as part of this consent shall be remedied by the consent holder;
 - b) The structural integrity of the stream banks remains sound in the opinion of a Chartered Professional Engineer; and

d) The bank stabilisation structures remain substantively clear of debris.

Note: Maintenance does not include any works outside of the scope of the application. Any additional works (including structures, reshaping or disturbance to the bed of the watercourse) following completion of the construction works as proposed in the application, may require further resource consents.