

RESOURCE CONSENT DECISION

Decision of Hearing Commissioner

Hearing held Tuesday 11 May 2021

in the meeting room at the Golden Bay Recreation Park Community Centre, Golden Bay

Adjourned 10 May 2021

Hearing closed 4 pm 16 July 2021

Attendances

Applicant: Mr David Stephenson (Team Leader – Stormwater and

Wastewater Management for TDC)

Mr Damian Vellupillai (Civil Engineer for Tonkin + Taylor)
Mr Patrick Lees (Freshwater Ecologist for Tonkin + Taylor)
Ms Selene Conn (Fluvial Geomorphologist and Ecologist for

Tonkin + Taylor) – by internet

Mr Tim Ensor (Planner for Tonkin + Taylor)

Submitters: Mrs Rosemary Jones and Mr Daniel Te Tau

Mr Hans Stoffregen

Reporting officer: Mr Leif Pigott (Team Leader - Natural Resources for TDC)

Mr Alastair Jewell (Principal Planner – Resource Consents)

as hearing facilitator,

This is the report and decision of independent Hearing Commissioner Sharon McGarry. I was delegated functions and powers¹ by the Tasman District Council (**TDC** or 'the Council') to hear and determine an application lodged by the Tasman District Council ('the Applicant') for resource consents associated with flood mitigation works on watercourses known as Ellis

¹ Under section 34A of the Resource Management Act 1991

Creek and Bartlett Creek, Pōhara. The application, made in accordance with the Resource Management Act 1991 (**RMA** or 'the Act'), was lodged with the Council on 25 July 2019.

1 Summary

[1] Under delegated authority of the Tasman District Council, I **GRANT** the following resource consents:

RM190876	Land use consent to undertake works and disturb the bed of a watercourse for the construction of culverts and erosion protection structures (rock armouring)
RM190877	Land use consent to construct timber flood protection structures and disturb land in proximity to the banks of watercourses;
RM190878	Water permit to dam and divert flood waters
RM190879	Discharge permit to discharge water contaminated with sediment onto land and into water during construction works;
RM190881	Land use consent to construct an earth bund in the Coastal Environment Area; and
RM190880	Water permit to take divert and/or use water from dewatering activities during construction.

2 Background

- [2] A significant rainfall event in December 2011 caused flooding and property damage in Pōhara due to a combination of drain blockages caused by debris flows, low lying land and low floor levels in some building, and increasing residential development. In response the Council engaged Tonkin + Taylor to conduct hydrological and hydraulic modelling of the Pōhara drainage area. This worked enabled the investigation of options for flood mitigation strategies to reduce the impact of flooding on the finished floor levels of existing buildings.
- [3] The design criteria did not included allowances for climate change patterns or sea level rise. Specific engineering solutions recognised that ideal design standards (e.g. wall freeboards) may not be able to be met given the constraints and difficulties of alleviating flooding issues for an area of existing development within the low lying coastal settlement. The investigation of options resulted in a suite of proposed measures to decrease flood risk to properties within the Pōhara west floodplain, west of Kohikiko Place.
- [4] The hearing of the application commenced at 9.30am on Tuesday 11 May 2021 and was adjourned at 4.10 pm the same day.

- [5] I undertook site visits prior to the hearing commencing on Monday 10 May 2021 and after the hearing adjournment.
- [6] Prior to the hearing, a report was produced under section 42A of the RMA ('s 42A Report') by the Council's reporting officers Ms Alice Hill (Consents Planner, Natural Resource, TDC)² and Mr Leif Pigott (Team Leader Natural Resources Consents, TDC).
- [7] The s 42A Report provided an analysis of the matters requiring consideration under the RMA and recommended the application be granted subject to conditions.

 Appended to the s 42A Report was a set of proposed consent conditions (Attachment 2) for consideration.
- [8] The s 42A Report and the Applicant's evidence were pre-circulated prior to the hearing in accordance with section 103B of the RMA. This enabled the application documentation, submissions, s 42A Report and pre-circulated evidence to be pre-read; and I directed that it be 'taken as read' during the hearing³.
- [9] The hearing was adjourned to enable the provision of a revised set of proposed consent conditions to be circulated for further comment from the parties; and for the Applicant to provide a written right of reply and final set of proposed conditions.
- [10] On 8 June 2021, I issued a Minute with directions for the provision of the revised proposed conditions, circulation of these to the parties for written comments and the Applicant's written right of reply within set timeframes.
- [11] The Applicant subsequently requested a week-long extension to the dates set out in the Minute to allow for further discussions with the parties and refinement of the proposed conditions.
- [12] A revised set of proposed conditions was subsequently circulated to the parties. Mrs Jones advised she had read and accepted the revised conditions. Mr Pigott also provided further comments on conditions.
- [13] A written right of reply and final set of proposed conditions on behalf of the Applicant was received on 14 July 2021.
- [14] I closed the hearing on 15 July 2021.
- [15] I acknowledge all the parties' willingness to respond to my questions and to provide further information and comment. I consider the approach taken has greatly assisted me in fully understanding the issues, technical evidence presented and evaluating

² At the commencement of the hearing, I was advised that Ms Hill was no longer employed by TDC and that Mr Pigott had adopted the s 42A Report as the sole author.

³ As provided for by section 41C(1)(b) of the RMA

proposed consent conditions. I thank all the parties for their contributions in this regard. I thank Mr Alastair Jewell, the TDC's Hearings Facilitator, for the assistance that he provided throughout the hearing process and those parties who attended the hearing and presented evidence.

[16] Section 113(3) of the RMA 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.
- [17] Accordingly, in the interests of brevity and economy, I intend to make extensive use of section 113 of the RMA and focus my assessment of the application on the principal matters in contention.

The proposed activities

- [18] The nature of the proposed activities was described in the application documents and the assessment of environmental effects (AEE)⁴. The application also included the following documents:
 - a. Appendix A Consent application;
 - b. Appendix B Record of title;
 - c. Appendix C Planning maps;
 - d. Appendix D Draft Construction Environmental Management Plan;
 - e. Appendix E Preliminary design drawings;
 - f. Appendix F Flood difference modelling maps;
 - g. Appendix G Archaeological assessment; and
 - h. Appendix H Tonkin + Taylor stormwater modelling report.

Resource consent applications RM190876, RM190877, RM190878, RM190879, RM190880, RM190881 by Tasman District Council (Engineering Services)
Decision of Hearing Commissioner dated 2 August 2021. Issued 6 August 2021

⁴ 'Pōhara drainage improvement – Resource Consent Application and Assessment of Effects on the Environment' July 2019. Prepared for TDC by Tonkin + Taylor.

[19] The s 42A Report summarised the proposed activities in terms upstream, middle and downstream clusters as follows:

The upstream cluster refers to measures aimed at improving water flow efficiency under an existing quarry access track and mitigating flood risk to properties at Kohikiko Place. The following measures are proposed: a timber pole flood barrier adjacent to 14B Kohikoko Place approximately 400m high; a small earth fill embankment adjacent to 14B Kohikoko Place; earthworks to construct a raised quarry access track; a culvert upgrade under the quarry access track including local channel widening to provide for twin culvert geometry; and formation of a preferred overland flow path upslope of culvert.

The middle cluster refers to works proposed between Kohikiko Place and 19 Selwyn Street with the aim of preventing Bartlett Creek flood waters from flowing north into the properties on Abel Tasman Drive, or from backing up at the Abel Tasman Drive culvert and flooding Selwyn Street properties. These works include an extensive earthen bund (stopbank) adjacent to Bartlett Creek to the east of Abel Tasman Drive (maximum height 1.38m). To allow for vehicle access, an access ramp is proposed over the Bartlett Creek bund with culverts under the access. To the west of Abel Tasman Drive another earthen bund (stopbank) is proposed adjacent to 3 Selwyn Street (maximum height 0.89m) along with a roadside culvert under the stopbank. The Bartlett Creek culvert under Abel Tasman Drive is proposed to be upgraded to a box culvert within the Council road reserve.

The downstream cluster refers to works west of Lansdowne Street and is focused on a series of timber walls for flood protection and earthworks to improve flow efficiency around the confluence of Clifton and-Ellis Creeks. Proposed flood protection measures include a timber flood pole barrier on 85 Selwyn Street, and an extensive (approximately 250m long) U-shaped timber flood pole barrier on 59B and 59C Selwyn Street built so the top of the wall is at RL3.8m. An earth fill embankment is proposed including provision for vehicle access and a timber retaining wall to support the toe of the fill, and another earth fill embankment to marry into existing ground contours at the western end of the site. Channel improvements for increased flow capacity include reshaping of Lansdowne Street paper road and swales (minor excavation and infill), excavations for extending the base of the stream channel near the confluence of Clifton and Ellis Creeks including rip rap protection, and an upgrading of the Boyle Street culvert.' (pages 4-5).

- [20] The s 42A Report noted that estimates indicate approximately 350 cubic metres (m³) of excavation and 2,500 m³ of fill is required. It stated that much of the proposed works is on private property, in addition to road reserves on Abel Tasman Drive and Lansdowne Street.
- [21] The consents applied for and consent terms sought were summarised in the below table in the s 42A Report:

Number	Туре	Description of activity	Duration sought
RM190876	Land use	Earthworks and structures within the bed of rivers or streams	35 years
RM190877	Land use	Earthworks and structures in residential, Rural 1 and Rural 2 zones	Unlimited
RM190878	Water permit	The damming and diversion of flood waters	Unlimited
RM190879	Discharge permit	Discharge of water containing contaminants	5 years
RM190880	Water permit	To take groundwater associated with dewatering during instream works	5 years
RM190881	Land use	Earthworks and structures in the Coastal Environment Area	Unlimited

3 Description of site

[22] I adopt the description of the application site in the s 42A Report. However, I note that the s 42A Report stated that no works are proposed in the Coastal Marine Area (CMA). It was clarified at the hearing that limited works downstream of the existing culvert are required and that the Boyle Street culvert is the CMA boundary.

4 Relevant rules and activity status

[23] The application (Table 4.2 and 4.3) and s 42A Report (Table 1) outlined the consent activity statuses under the relevant rules of the TRMP and a description of the proposed activities. Table 1 of the s 42A Report is reproduced below:

Consent	Rule	Description	Status
RM190876 Earthworks and structures in	Rule 16.10.2.2	Stopbank construction requires earthworks and structures within the bed of rivers or streams within 10 m of a river bank exceeding 20 m ³ in area, to be open for more than four days, and that may raise or lower the level of the	restricted discretionary
bed of rivers		land.	
	Rule 28.1.5.2	Multiple new culverts and culvert upgrades that will be larger than the existing culvert, and the width of the river bed >3 metres	controlled
	Rule 28.1.8.1	The rock rip-rap at the confluence of Ellis and Clifton Creek will exceed 2 $\ensuremath{\text{m}}^2$	discretionary
	Rule 28.1.8.1	The proposed widening of the confluence of Clifton and Ellis Creek is not associated with maintenance of existing river protection works and does not meet permitted activity status	discretionary

Consent	Rule	Description	Status
RM190877 Earthworks and structures in residential, Rural 1 and Rural 2 zones	Rule 18.5.2.5	Earthworks in residential and Rural 1 & 2 zones don't meet permitted activity status which requires earthworks must not raise the level of land as it may result in damming or diversion of floodwaters. As part of the proposed activity is to construct a bund / stop bank for flood protection, it will dam and divert floodwaters.	restricted discretionary
	Rule 17.1.3.4	The timber flood protection at 14B Kohikiko Street is considered to be a 'building' under the TRMP and thus falls under the construction of a structure in a residential zone. The wall does not meet permitted activity status Rule 17.1.3.1(q) and (v) because it is located within 4.5m of the road boundary, 25 m of a rural zone boundary, and within 8 m of the top of a bank of a river between 1.5-5 m in width.	
	Rule 17.6.3.4	The timber flood protection near 59B & 59C Selwyn Street is considered to be a 'building' under the TRMP and therefore is considered to be construction of structures in the Rural 2 Zone. The timber protection wall does not meet permitted activity status (Rule 17.6.3.1(j)) because it is located within 5 metres of an internal property boundary, and within 8 metres of a river with a bed width of less than 5 metres.	
RM190878 Damming and diversion of flood waters	Rule 31.1.5.2	The proposed bund and timber walls are intended to dam and divert flood waters and will be constructed after 3 November 2001.	restricted discretionary
RM190879 Discharge of water containing contaminants	Rule 36.2.3.1	Construction activities may result in discharge of water containing sediment, contaminants or debris arising from activities in the bed of a river and outside the bed of a river.	discretionary
RM190880 Water take for temporary dewatering	Rule 31.1.2.5	Instream earthworks or earthworks intercepting the groundwater table may require dewatering >5m³/day.	restricted discretionary
RM190881 Earthworks and structures in the CEA	Rule 18.11.3.1	The proposed works include a structure that meets the definition of a building in the TRMP in the CEA.	controlled

[24] I accept the evidence of Mr Pigott that the proposed Boyle Street culvert upgrade works are permitted under the provisions of the Tasman Resource Management Plan (TRMP). I acknowledge the Applicant has volunteered conditions to avoid adverse effects on matters of national importance in the CMA. This is appropriate.

[25] There was agreement that the activities are inextricably linked and should be 'bundled' and considered as a discretionary activity. I agree.

5 Notification and submissions

- [26] The s 42A Report noted that the flood maps generated by Tonkin + Taylor were used to evaluate the potential flooding effects on individual properties. The application was limited notified to the owners of 24 properties that were identified to be at risk of adverse effects resulting from any increase in flood levels on private property.
- [27] Three submissions were received; two in opposition and one in support, with all indicating they wished to be heard. I adopt the summary of submissions in the s 42A Report.

6 Relevant statutory provisions considered

- [28] In accordance with section 104 of the RMA, in making this determination I have had regard to the relevant statutory provisions including the relevant sections of Part 2 and sections 104, 104B, 105, 107 and 108.
- [29] Under section 104(1), and subject to Part 2 of the Act, which contains the Act's purpose and principles, I must have regard to -
 - (a) Any actual and potential effects on the environment of allowing the activity;
 - (ab) Any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will result from allowing the activity;
 - (b) Any relevant provisions of a national environmental standard, other regulations, a national policy statement, a New Zealand coastal policy statement, a regional policy statement or a proposed regional policy statement, a plan or proposed plan; and
 - (c) Any other matters the consent authority considers relevant and reasonably necessary to determine the application.
- [30] Under section 104(2), when forming an opinion for the purposes of section 104(1)(a) regarding actual and potential effects on the environment, I 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. This referred to as consideration of the 'permitted baseline'.
- [31] Table 4.3 of the application outlines the proposed activities which will be undertaken as permitted activities under the TRMP rules. I have disregarded any effects from these proposed activities.

- [32] In terms of section 104(3), in considering the application, I must <u>not</u> have regard to any effect on any person who has given written approval to the application. Copies of written approvals were provided by Graeme Dick on behalf of Richmond Pohara Holdings Limited (82 Richmond Road), Elizabeth and John Lee (59c Selwyn Street) and Brian Win (85 Selwyn Street).
- [33] In accordance with section 104(1)(b) of the RMA, I have had regard to the relevant statutory provisions of the following documents:
 - a. National Environmental Standard Freshwater 2020 (NESF)
 - b. National Policy Statement Freshwater Management 2020 (NPSFM);
 - c. New Zealand Coastal Policy Statement 2010 (NZCPS);
 - d. Tasman Regional Policy Statement (RPS); and
 - e. Tasman Resource Management Plan (TRMP).
- [34] In addition, in terms of any coastal or discharge permit that contravenes section 15 of the RMA, I am also required to have regard to sections 105 and 107 of the RMA.
- [35] In accordance with section 105, when considering section 15 (discharge) matters, I must, in addition to section 104(1), have regard to -
 - (a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
 - (b) The Applicant's reason for the proposed choice; and
 - (c) Any possible alternative methods of discharge, including discharge to any other receiving environment.
- [36] In terms of section 107, I am prevented from granting consent allowing any discharge into a receiving environment which would, after reasonable mixing, give rise to all or any of the following effects, unless certain exceptions apply⁵ -
 - (c) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended material:
 - (d) Any conspicuous change in the colour or visual clarity:
 - (e) Any emission of objectionable odour:
 - (f) The rendering of fresh water unsuitable for consumption by farm animals:
 - (g) Any significant adverse effects on aquatic life.

Section 107(2) - The exceptions being: (a) that exceptional circumstances justify the granting of the permit; (b) that the discharge is of a temporary nature; or (c) that the discharge is associated with necessary maintenance work – and that it is consistent with the purpose of this Act to do so.

- [37] For consideration of discretionary activities under section 104B, I may grant or refuse the applications, and if granted, I may impose conditions under section 108.
- [38] Section 108(2)(e) of the RMA allows me to impose conditions of consent that require the best practicable option (**BPO**) to control any adverse effects caused by a discharge. The BPO for the discharge of contaminants (to both air and water), is defined in section 2 of the RMA as:

Best practicable option, in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to:

- (a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and
- (b) the financial implications, and the effects on the environment, of that option when compared with other options; and
- (c) the current state of technical knowledge and the likelihood that the option can be successfully applied.
- [39] Section 108(8) of the RMA restricts the requirement for BPO to being the 'most efficient and effective means of preventing or minimising any actual or likely adverse effect on the environment'.
- [40] When applying the efficiency and effectiveness test, I acknowledge that I need to consider the efficiency from the consent authority's and community's perspective, as well as the Applicant's viewpoint. I accept that requiring the implementation of the BPO can still provide flexibility to enable change, provided the effects remain the same or decrease.

7 Summary of evidence heard

[41] Copies of all the written material submitted during the consent process are held by the TDC, and a brief record of questions and responses during the hearing was kept by TDC's Hearing Facilitator. In addition, I took my own notes of the verbal statements and verbal evidence presented to me, and any answers to my questions. I have referred to specific elements of the submissions, statements, and evidence in this decision.

7.1 The Applicant

[42] **Mr Tim Ensor**, a Principal Planner for Tonkin + Taylor, conducted the Applicant's case and provided a written statement of evidence describing the site and the proposed activities and addressing the planning context, the resource consents required, submissions, assessment of environmental effects and proposed conditions of consent. He acknowledged there is some uncertainty regarding the interaction

between surface water and groundwater and potential adverse effects on wetlands along Bartlett Creek, but that access is the key constraint given the land is privately owned. He concluded that the proposed works would have significant benefits to the residents of 59 properties in Pōhara, while avoiding significant flooding effects on other properties and any flooding of habitable building floor levels. He highlighted the proposed works are supported by the community and that any submissions in opposition are focused on specific issues. He considered the proposal achieves the purpose of the RMA by enabling the Pōhara community to provide for their social, economic and cultural wellbeing, while safeguarding the life supporting capacity of water and ecosystems by avoiding, remedying and mitigating adverse effects on the environment.

- [43] Mr David Stephenson, Team Leader Stormwater and Wastewater Management for TDC, provided a written statement of evidence addressing the background to the application; the Council's stormwater, drainage and flood protection responsibilities; catchment description; Pohara's flood history and previous flood management; the investigation of flood reduction options; engagement with the community; and benefits of the proposed works. He referred to the Tonkin + Taylor 'Pohara Stormwater Modelling – Drainage Network Improvement Options' Report (November 2016) and the flood level difference maps for the options investigated. He concluded the proposed works are the most practicable, achievable and affordable solution to the flood risk presented to the residential properties in the Pōhara village area. In response to questions, he stated that a significant period of time had been required to consult with the community and gain landowner agreement where the proposed works are to be located on private land. He also acknowledged that the proposed works do not address the effects of climate change or coastal hazards.
- [44] Mr Damien Vellupillai, a Civil Engineer for Tonkin + Taylor, provided a written statement of evidence addressing the site and locality, model development, mitigation options development and design, and comments on submissions and the s 42A Report. He highlighted the site is low lying, with a relatively flat gradient (in the order of 1 in 500) and that natural drainage patterns have been modified through land use practices and residential development. He noted that any recession of floodwaters can be further constrained by tide levels in the estuary and at the outlet. The modelling considered both present day and projected 2090 tidal conditions but focused the design of the flood mitigation works on a present day 1% AEP⁶ rainfall event with present day tidal levels. Based on modelled differences in flood depths, he concluded there will be a significant reduction in the number of flooded floors

⁶ Annual Exceedance Probability

- during extreme rainfall events and an overall positive effect on the wider Pōhara community.
- [45] Mr Patrick Lees, a Freshwater Ecologist for Tonkin + Taylor, provided a written statement of evidence addressing freshwater ecological values (stream habitat and freshwater fauna), potential ecological effects, and matters raised in submissions and the s 42A report. He noted that the affected watercourses currently have limited, or no riparian vegetation and that stock access was apparent (especially on Bartlett Creek). He stated there will be no loss of river extent from the proposed culverts and that fish passage requirements of the NESF will be met. He noted that bed disturbance and sediment release will be minimised, and any loss of habitat avoided or remedied through implementation of a habitat restoration plan post construction. He considered that adverse effects on inanga spawning habitat from hard protection structures such as rip rap armouring will be addressed through habitat restoration and riparian planting. He concluded that any adverse impacts on freshwater ecology and habitats can be avoid and mitigated to ensure any effects are 'minor and transitory' and there is no net loss of extent by the proposed conditions of consent and methodology set out in the Construction Environmental Management Plan (CEMP).
- [46] Ms Selene Conn, a Senior Fluvial Geomorphologist and Ecologist for Tonkin + Taylor provided a written statement of evidence assessing the property at 82 Richmond Road to determine the presence and extent of wetlands using the Wetland Delineation Protocols outlined in the NPSFM; and an assessment of potential effects using the Environmental Institute of Australia and New Zealand Ecological Impact Assessment guidelines. She joined the hearing by internet and answered questions. Ms Conn concluded there were six potential wetlands which were once part of a large dune slack wetland joining the surrounding watercourses to the Motupipi estuary and the coast. She noted that dune slack wetlands are an endangered ecosystem type, with over 70% of active dune land lost since the 1900s. She estimated that only 6% of lowland swamps remain in Golden Bay. She noted that four of the wetlands assessed met the definition of a 'natural wetland' (0.67 ha) and two areas are indeterminate due to the dominance of non-wetland vegetation. She concluded that implementation of a Wetland Management Plan to restore the small direct loss of wetland from the works within the project footprint; and to maintain and enhance the existing wetlands potentially affected by hydrological changes.

7.2 Submitters

[47] **Mrs Rosemary Jones** and her son, Mr Daniel Te Tau, presented a written statement at the hearing in support of the application and provided a series of photographs. They noted that the proposed works did not include clearance of riparian vegetation and built up sediment which caused a 'bottle neck' effect upstream of the

confluence with Clifton Creek. They requested that the Council be supportive and work with the owner of 59A Selwyn Street to address the overgrown vegetation. They supported removal of the willows and replanting with appropriate native species. On the site visit, Mr Te Tau pointed out the riparian vegetation that would need to be removed for the construction of the timber wall.

[48] Mr Hans Stoffregen attended the hearing and spoke to his submission in opposition to the application. He stated that he did not oppose the application, so long as it did not prevent wetland restoration. He noted concern that the earth bund along Bartlett Creek would destroy the identified wetlands present on the property at 82 Richmond Road; and emphasised the rarity of any remaining dune slack wetlands and the need to protect these. He highlighted other opportunities within the catchment for wetland protection and enhancement; and considered the objectives of the Council's proposed works were too narrow. He considered the restricted capacity of the watercourses needed to be recognised and that the aim should be to decrease the speed of floodwaters and to allow them to disperse over a wide area to reduce sediment loads.

7.3 Reporting officer

- [49] Mr Leif Pigott, Reporting Officer for TDC, spoke to the s 42A Report and addressed the key matters raised in the hearing. He re-iterated the conclusions of the s 42A Report and his recommendation that the consents sought should be granted, subject to conditions. He requested the opportunity to consider whether any further consent is required under the rules of the TRMP for diverting water from a wetland. He noted that the application area is within an area identified as subject to coastal hazards (within one metre of sea level rise). He noted that the proposed hard protection structures to protect private asset are located on private land which is consistent with NZCPS policy 27(4). He noted that state of the environment monitoring by the Council showed the subject watercourses have mainly good water quality and consistent water flows. He agreed that the downstream part of the proposed upgrade of the Boyle Street culvert is within the CMA and that it is appropriate that there is no net loss of saltmarsh habitat. Overall, he considered the proposed works posed a 'low' risk to water quality, which could be addressed by the imposition of conditions. He requested the opportunity to comment on the revised conditions.
- [50] Following the adjournment, Mr Pigott provided a memorandum dated 28 May 2021 addressing potential effects on wetland hydrology, TRMP rule 31.1.6.1, wetland mapping, other wetlands downstream, the Council's global stormwater consent and the Boyle Street culvert.

[51] Mr Pigott also provide further comments on the revised conditions in accordance with the directions of my Minute, which were addressed by the Applicant in the final set appended to the reply.

7.4 Applicant's right of reply

[52] Mr Ensor provided a written right of reply on behalf of the Applicant addressing the positive effects, effects on water quality, effects on aquatic habitat for at risk or threatened species and effects on wetlands. Appended to the reply were a revised set of proposed conditions (Appendix A), secondary flow maps (Appendix B), copies of written approvals (Appendix C), and a map showing land owned by the Council (Appendix D).

8 Principal issues in contention

- [53] In assessing the application, I have considered the application documentation and AEE, the s 42A Report and technical reviews, all submissions received, and the evidence provided during and after the hearing. In making my assessment, I am required to consider the actual and potential effects of the application on the existing environment, which includes lawful existing activities, permitted activities and any activities authorised by existing resource consents.
- [54] I consider the concerns raised by the Cloud Dance Trust in relation to increased stormwater runoff from the Special Housing Area (SHA) are not relevant to this consideration. I accept that the resource consent for this activity and other permitted and consent activities are part of the existing environment. I noted that the consent conditions for stormwater from the SHA include requirements to manage stormwater flows to pre-development levels and to not contribute to downstream damage caused by flooding. I accept the proposed flood mitigation works, which are the subject of this decision, have been developed on this basis.
- [55] Mr Stoffregen raised concern relating to the Applicant's use of the esplanade strip along his land and compliance with conditions of subdivision consent RM180659. I agree with Mr Ensor that the proposed works are aligned with the purpose of the esplanade strip by actively contributing to conservation protection through habitat restoration work following construction and will not diminish conservation values. However, it is acknowledged that authorisation for vehicle entry on the esplanade strip for the proposed works at the confluence of Ellis and Clifton Creeks will be required from the landowner. I note that Mr Stoffregen stated that this would be granted with agreement regarding the preparation and implementation of the proposed post construction habitat restoration plan.
- [56] I am satisfied that the conditions volunteered by the Applicant require them to engage a suitably qualified person to prepare a Habitat Restoration Plan to protect

- conservation values and ensure that ecological values are protected and enhanced, including the restoration and enhancement of indigenous fish habitat and the provisions of fish passage.
- [57] I accept the evidence of Ms Conn that the saltmarsh habitat at the site of the proposed Boyle Street culvert works meets the definition of significant habitat of at risk and threatened habitat of indigenous fauna and flora. I am satisfied that the area of saltmarsh directly affected is relatively small and that direct vegetation transfer of disturbed vegetation and post construction enhancement works will avoid any net loss of saltmarsh habitat.
- [58] I am satisfied that the Applicant has addressed potential adverse effects on cultural values and relationships through the imposition of appropriate conditions, including implementation of the CEMP, Habitat Restoration Plan, Wetland Management Plan and use of an iwi monitor during excavation works.
- [59] I adopt the conclusions of the s 42A Report that any effects on water quality can be managed by imposition of conditions and implementation of a CEMP and that significant effects are unlikely given the limited scale and duration of the works.
- [60] On the basis of the evidence, I consider the principal issues in contention relate to:
 - a. Protection of wetlands and freshwater ecosystems;
 - b. Consideration of alternatives; and
 - c. Vegetation clearance and waterway maintenance.

9 Main findings on the principal issues in contention

9.1 Protection of wetlands and freshwater ecosystems

- [61] The receiving environment is quite complex, with significant physical modification of watercourses, fragmented remnants of former dune slack wetlands; and residential development on the foredunes and lower floodplain. Bartlett Creek flows through an existing flood detention dam designed to offset stormwater runoff flows from residential development before discharging to Ellis Creek. Another dam is proposed in the upper catchment to attenuate increased stormwater volumes from residential development in the catchment.
- [62] Water quality is generally good and water flows are relatively consistent.
- [63] Mr Lee's evidence shows that the watercourses support a range of at risk and threatened indigenous species despite their highly modified nature, including limited

- riparian vegetation and shading, direct stock damage to banks and fine sediment cover in the bed.
- The presence of significant species such as the banded kokopu and giant kokopu highlight the importance of avoiding adverse effects and ensuring habitat restoration and enhancement works are undertaken. It also highlights the importance of maintaining and enhancing fish passage and the connection between freshwater and saltwater habitats to enable diadromous fish to complete their lifecycles. New Zealand Freshwater Fish Database (**NZFFD**) confirms the presence of longfin eel (classified as 'At Risk declining' and regionally rare⁸).
- [65] Mr Lee noted that while there is no macroinvertebrate community data available, the community present was likely to be tolerant to low quality instream habitat. However, his evidence noted that the NZFFD confirms the presence of kākahi / freshwater mussel (classified as 'At risk declining'), kōura/freshwater crayfish and freshwater shrimp within the Ellis Creek catchment. These species indicate the presence of high water quality and high biodiversity values.
- [66] Mr Lees noted that the rip rap installation at the confluence of Ellis Creek and Clifton Creek occurs in an area that could be used for īnanga spawning and that habitat restoration after construction must ensure no net loss. He highlighted that any site works in potential īnanga spawning habitat should be completed before the peak spawning period begins (March to July), with replanting using appropriate native species that will establish quickly.
- [67] am satisfied that adverse effects from riverbed disturbance and sediment releases affecting water quality and sediment deposition can be avoid and mitigated to ensure any adverse effects are minor and transitory. Restricting works to be undertaken between October and May during low flow conditions, implementing erosion and sediment control measures and diverting the stream away from work areas, while maintaining fish passage and relocating any strand fish, will be critical in mitigating any temporary adverse effects on ecology. The proposed timing of the works will largely avoid the spawning periods for the three identified species of īnanga, banded kokopu and giant kokopu.
- [68] In reply, the Applicant proposed further conditions restricting the timing of instream works where there is potential for disturbance of īnanga spawning habitat or sediment discharges during spring tides in response to further comments received

⁷ Grainger, N., Harding, J., Drinan, T., Collier, K., Smith, B., Death, R., Makan, T., Rolfe 2018 Conservation Status of New Zealand freshwater invertebrates, 2018. New Zealand Threat Classification Series.

⁸ Tasman District Council (2011). State of the Environment Report: The Health of Freshwater Fish Communities in Tasman District.

- from Mr Pigott. The Applicant also proposed a condition requiring that any dewatering discharges are discharged onto land, where practicable. I am satisfied that these additional conditions further reduce the risk to inanga spawning habitats.
- [69] I consider the requirement to prepare and implement a habitat restoration plan addresses the concerns raised by Mr Stoffregen regarding disturbance or loss of indigenous fish spawning habitat.
- [70] Ms Conn estimated that approximately 0.03 ha of an identified wetland will be lost through the construction of the earthfill bunds along Bartlett Creek; and potentially an additional 0.6 ha of an identified wetland affected by changes in hydrology from the earthfill bund along the true right bank of Bartlett Creek. She noted that the remainder of the site (approximately 2.2 ha) does not meet the definition of identified wetland but is potentially affected through changes in surface water interactions from the earth bund along Bartlett Creek.
- [71] Ms Conn noted that a comparison of the 2011 flood extents and remaining wetland vegetation extents are very similar, which suggests the significant rainfall events contribute to the formation and maintenance of the dune slack wetland. She considered the ecological value of the wetlands to be 'moderate' due to the rarity of the dune slack wetland habitats and a potential 'high' magnitude of effects without mitigation. This was primarily from the disconnection of the wetlands from Bartlett Creek, which could dry out of the existing wet area and result in the loss of indigenous wetland vegetation overtime.
- [72] To avoid any net loss of wetland habitat and biodiversity values Ms Conn recommended implementation of a holistic package of mitigation through a Wetland Management Plan that investigates wetlands throughout the wider project footprint.
- [73] In reply, Mr Ensor acknowledged that there was still some uncertainty as to potential indirect effect on the identified wetlands from the proposed earth bund along Bartlett Creek due to hydrology changes. However, he noted the Applicant had volunteered a condition requiring no net loss to the natural wetland extent. He stated that this would be achieved through an adaptive management framework including baseline assessments, a design allowing a leaky bund, a wetland monitoring regime, the ability to adjust overland flow through the bund to respond to any adverse wetland changes, and the availability of the Council owned land in the catchment for further mitigation, if required. He noted that this would be achieved through implementation of a Wetland Management Plan.
- [74] Following the adjournment, Mr Pigott advised that the identified wetlands are 'unlikely' to be adversely affected by the earth bund and that there may be positive effects from reducing the adverse effects of large-scale silting events. He noted that the proposed works will not directly disturb the identified wetlands. He considered

- there is '...significant scope in the application to get a significant net gain in wetland extent'.
- [75] Mr Pigott provided evidence showing the existing hydrological connection between and outflow from areas in the vicinity of the dune slack wetland, in relation to relatively recent residential subdivision. He noted this had increased ponding in the identified wetland area. He concluded that both shallow groundwater flows (within 0.5 m of ground level) and surface flows contribute to the identified wetlands. On this basis, he considered the proposed bund is unlikely to significantly change the hydrology of the adjacent wetlands at 82 Richmond Road.
- [76] I find the proposed conditions of consent will avoid any loss of extent, form or function of the existing dune slack wetland at 82 Richmond Road. I accept that any risk to the identified wetlands from hydrological changes from construction of the bund along Bartlett Creek is low. I agree that any uncertainty can be addressed by preparation and implementation of a Wetland Management Plan to ensure that potential any adverse effects are monitored and if necessary mitigated and remedied. I accept the Applicant's commitment to take a wider approach to ensuring that wetland restoration and enhancement opportunities within the lower catchment are taken to ensure no further loss of wetland habitat.

9.2 Consideration of alternative options

- [77] Mr Stoffregen submitted additional flood water opportunities are available for flood overflows using the dune slack wetland environment in the downstream catchment, with the potential for ecological and fish spawning habitat restoration. He considered the proposed earth bund along the true right bank of Bartlett Creek should be relocated north directly behind the properties along Abel Tasman Drive to avoid intercepting overland flows to the wetland. He also requested consideration of alternative to hard engineering options such as the use of rip rap at the confluence of Bartlett Creek and Clifton Creek.
- [78] Mr Velluppillai explained that the alternative location suggested along the back of the existing Abel Tasman Drive properties had been considered, but that flood modelling showed a potential increase in flooding on these properties by reducing the floodplain storage available. He noted that this key benefit to the Abel Tasman Drive properties and the agreement of the landowner to the alignment located along the right bank had resulted in this option being selected and refined. He acknowledged that this consideration had not taken into account any potential effects on the wetland from intercepting water flows.
- [79] Mr Ensor also noted that the proposed earth bund along Bartlett Creek is located on private land. He advised that additional work had been undertaken to assess any

- potential adverse effects on the identified wetlands. He considered that any uncertainty regarding potential adverse effects on the wetlands identified since the consent was lodged would be sufficiently addressed by the adaptive management framework proposed.
- [80] Mr Velluppillai noted that using alternatives to hard engineering structures such as rip rap, as suggested by Mr Stoffregen, is essentially the approach taken where floodplain storage to the west is utilised by upgrading the culverts and direct the flood flows away from residential development in the east.
- [81] I am satisfied that the Applicant has considered a range of alternative options within the constraints and limitations of the existing environment, including land ownership, existing locations of consented subdivisions and coastal hazards.
- [82] I accept the evidence that the alignment of the earth bund along the bank of the Bartlett Creek provides for better flood protection of the houses along Abel Tasman Drive and the agreement reached with the landowner, while avoiding adverse effects on the identified wetland.
- [83] I accept that the use of rip rap armouring of the bank at the confluence of Clifton and Ellis Creek is relatively limited and will avoid adverse effects from erosion and scour. I am satisfied that the proposed conditions requiring implementation of a habitat restoration plan and restriction on the timing of instream works address Mr Stoffregen concerns regarding any adverse on inanga spawning habitat.

9.3 Vegetation clearance and waterway maintenance

- [84] Mrs Jones supported the application but sought action from the Applicant to maintain the channel of Ellis Creek to keep it free from vegetation and sediment.
- [85] Mr Stephenson noted that it was the Applicant's view that under the Land Drainage Act 1908 the landowner adjacent to watercourse have a responsibility to maintain the channel free of obstructions. He stated that the Applicant will continue to work with the regulatory section in the Council to ensure that landowners adjacent to watercourses keep them clear of obstructions and meet their obligations.
- [86] Mr Velluppillai noted that vegetation and sediment deposition can cause out of channel flooding at lower flow rates and higher frequency, but that the extreme events (10 % AEP and 1 % AEP) far exceed the capacity of the main channels within the floodplain. He stated that in these events there is significant overland flow and that the degree of vegetation present is not a contributing factor to overall flooding extents and depths.

- [87] Mr Ensor stated that the very limited vegetation clearance is proposed to facilitate the widening of the confluence of Ellis and Clifton Creeks, and the construction of the timber pole wall flood barrier and associate earth bund along Ellis Creek. He considered that the vegetation clearance requested by Mrs Jones was outside of the scope of the proposed flood mitigation works.
- [88] It is clear that the capacity of the existing channels of the watercourses is low and that in significant rainfall events there will be significant overland flows in the lower catchment. I accept that the Applicant's proposed mitigation works are focused on reducing the number of flooded floor levels in significant rainfall events, rather than preventing overland flows from the channel.
- [89] I agree with Mrs Jones and Mr Te Tau that the vegetation along their boundary with Ellis Creek will need to be cleared to construct the timber wall. I agree that the Applicant should take this opportunity to remove all the willows from within the project footprint adjacent to their property.
- [90] I am satisfied that the Applicant has powers to ensure property owners keep waterways clear of vegetation. I accept the evidence that the Applicant will continue to work with landowners to maintain the channels free of obstructions.

10 Sections 105 and 107

- [91] Mr Ensor addressed sections 105 and 107. He concluded the receiving environment was not considered to be particularly sensitive to the discharge of sediment from river bed works; and that the Applicant's reasons for the proposed method of discharge and alternative methods of discharge (including to any other receiving environment) have been adequately considered. He concluded section 107(1) did not prevent the grant of consent given the exceptions provided for under section 107(2).
- [92] Mr Pigott agreed with Mr Ensor's conclusions.
- [93] On the basis of the evidence relating to potential water quality effects, I accept that the Applicant has considered the matters set out in section 105; and agree that there is no barrier to the grant of consent under section 107.

11 Section 108 - best practicable option (BPO)

[94] While I agree with Mr Stoffregen that the objectives of the options are relatively narrow, the Applicant has refined the proposed conditions to ensure that any discharges associated with the proposed works are managed to avoid, remedy and mitigate adverse effects on the environment.

- [95] In considering the nature of the discharge and the sensitivity of the receiving environment, the financial implications of other options, the current state of technical knowledge and the likelihood the option can be successfully applied, I am satisfied the application represents BPO. I accept the evidence of Mr Velluppillai that proposed mitigation works have been developed using a suitably robust options assessment process, and that the preferred mitigation option set has the highest benefit to cost ratio according to the Applicant's scoring system.
- [96] Section 108(8) of the RMA restricts the requirement for BPO to being the 'most efficient and effective means of preventing or minimising any actual or likely adverse effect on the environment'. I accept the Applicant has undertaken a robust assessment of alternative options and has proposed construction methodologies to minimise any discharges of sediment from the construction works.

12 Decision

[97] Under sections 104, 104B, 105 and 107 of the Act, I **GRANT** resource consents RM190876, RM190877, RM190878, RM190879, RM190080 and RM190881 for the consent terms sought, subject to the conditions attached in **Attachment 1** of this decision, the for the reasons outlined below.

13 Reasons for the decision

13.1 Effects on the environment

[98] I find that the adverse effects on the environment can be sufficiently avoided, mitigated and remedied by the imposition of the proposed conditions. I consider that these effects are generally minor and temporary, and that the receiving environment will recover relatively rapidly. I am satisfied that implementation of the Construction Environmental Management Plan will ensure that all works are undertaken in accordance with appropriate sediment and erosion control protocols and with very limited works within the bed of the waterways undertaken in low flow conditions. Conditions are also volunteered restricting works to avoid critical fish recruitment and inanga spawning periods; and requiring no net loss of wetland and the habitat of at risk or endangered species through implementation of a Habitat Restoration Plan and a Wetland Management Plan.

13.2 Positive effects

[99] I accept that the hydrological and hydraulic modelling undertaken by Tonkin + Taylor is technically robust for understanding the effects of the proposed flood mitigation works on flooding within Pōhara and floodplain during extreme events.

- [100] I accept the evidence of Mr Ensor that the primary positive effect of the application is in providing for a practicable, achievable and affordable solution to reduce flooding risk to residential properties in the Pōhara village area. I note the evidence of Mr Pigott that this is challenging, even for present day conditions (not considering future climate change predictions) given the location of the residential development in the low lying and gently sloping lower catchment.
- [101] It is agreed that the proposed activities will have positive effects by reducing the number of buildings affected by flooding in low lying areas. I accept the Applicant's evidence that the proposed works will significantly reduce the flood risk to 59 properties in a 1% AEP rainfall event, as shown in the difference in modelled flood depths maps in the Tonkin + Taylor report appended to the Applicant's AEE.
- [102] The Applicant acknowledges the level of service provided by the mitigation measures will degrade over time as the climates changes and are not sustainable over the long term.
- [103] The Applicant acknowledges that further improvements will be required when the 'global' stormwater discharge consent is granted to address the effects of residential growth, reduce flooding in flood prone areas and improve environmental outcomes; and that these works will need to balance the Applicant's (as the Council) and community's objectives with the ability of the community to pay for these works.
- [104] I have taken into account the positive social, economic and wellbeing effects of protecting residential houses from flooding in significant rainfall events. However, I accept that this benefit will decrease over time, at an unknown rate, given the effects of climate change.

13.3 Relevant planning provisions

- [105] An analysis of the relevant provisions of the NESF, NPSFM, NZCPS, RPS and TRMP was provided in the s 42A Report and the evidence of Mr Ensor. There was a high level of agreement that overall, the application is generally consistent with the outcomes sought by these documents provided there is no net loss in the existing extent of wetlands, saltwater marsh habitat or freshwater habitats of any at risk or threatened indigenous species.
- [106] I note the agreement between Mr Pigott and Mr Ensor that no resource consent is required under the provisions of the TRMP or NESF for works within or in proximity to wetlands. I accept this position.
- [107] I accept the evidence of Mr Ensor that the Applicant will meet the NESF permitted activity standards for culverts and the provision of fish passage; and that these are more stringent that the relevant provisions of the TRMP.

- [108] I have had particular regard to the NPSFM Objective 2.1 and the concept of Te Mana o Te Wai and policies 6, 7, 9 and 15.
- [109] I note the NPSFM protects all wetlands regardless of their existing state because of the extent of their loss and their important function in enhancing water quality. I am satisfied that the conditions proposed will ensure there is no adverse effect on the existing extent, form or function of the identified wetlands. I accept that the earth bund can be designed to ensure the wetlands on 82 Richmond Road continue to receive surface water flows.
- [110] I note the provisions of the RPS and TRMP, which pre-date the NPSFM, highlight that a balance is required between maintenance and enhancement of natural and other values of river and streams, and the maintenance and enhancement of flood mitigation. I consider these provisions must now be read with the clear direction of the NPSFM, with first priority given to the health and wellbeing of waterbodies and freshwater ecosystems.
- [111] I have had particular regard to NZCPS objectives 1-7, and policies 2, 6, 11, 13, 21, 22, 23, 24, 25 and 27.
- [112] I note NZCPS policy 24 requires the Council to identify areas in the coastal environment that are potentially affected by coastal hazards. While this region wide coastal hazard mapping exercise is yet to be completed by the Council, I accept the evidence of Mr Vellupillai and Mr Pigott that the application site is subject to coastal hazards, including the effects of sea level rise and storm surge. I note the evidence of Mr Velluppillai that the design level of the proposed flood wall at the end of Selwyn Street is reduced level (RL) 3.2 m to protect against coastal flooding (i.e. storm-surge rather than catchment related flooding) for the present day 1 % AEP event and MHWS tide level assuming 1.0 m sea level rise above present day. Mr Velluppillai stated that the Applicant (Council) had taken a pragmatic approach to mitigating flooding as an interim measure to allow for increase protection. On this basis, the Applicant acknowledges that over the long-term (100 year planning timeframe) the proposed works are not likely to be sustainable in the face of climate change and sea level rise. However, I accept this an interim step to address flood risk to existing buildings and that it will allow more time for long-term solutions to be implemented.
- [113] NZCPS policy 25 requires that in using and developing areas potentially affected by coastal hazards (over at least 100 years), we must avoid increasing the risk of harm, encourage redevelopment and land use change to reduce the risk (including by managed retreat by relocation or removal of existing structures), and discourage hard protection structures.
- [114] NZCPS policy 27(1) provides clear guidance on strategies for protecting existing development from coastal hazard risk, including recognising and considering the

- environmental and social costs of permitting hard protection structures to protect private property; and identifying and planning for transition mechanisms and timeframes for moving to more sustainable approaches. I accept that the proposed hard protection structures are interim measures to allow time to move to more sustainable approaches.
- [115] NZCPS policy 27(4) directs that hard protection structures, where considered necessary to protect private assets, should <u>not</u> be located on public land if there is no significant public or environmental benefit. I am satisfied that the proposed hard protection structures are not located on public land.
- [116] Overall, I agree with the analyses that the activities, with the imposition of conditions and appropriate limits, are consistent with the policy framework.

13.4 Other matters

- [117] I consider the submissions received to be directly relevant to my task of determining the application, and I have given careful consideration to the matters raised in those submissions in accordance with section 104(1)(c) of the RMA.
- [118] I consider the Applicant's duties and functions as a Catchment Board under the Soil Conservation and Rivers Control Act 1941 (SCRCA) are relevant. I note that the 'objects' of the SCRCA are to promote soil conservation, prevent and mitigate soil damage, prevent damage from floods, and utilise land towards the attainment of these objects. I accept the SCRCA imposes a general responsibly on the Applicant to minimise and prevent damage by floods and erosion within its District. I acknowledge that granting these consents will assist in enabling the Applicant as Council to fulfil its responsibilities.
- [119] I consider the Te Tau Ihu Iwi Statutory Acknowledgement Area and relevant iwi management plans are relevant matters, which I have taken into account.

13.5 Part 2 of the Act

- [120] I accept that the provisions of the NPSFM, NZCPS, RPS and TRMP have been formulated to give effect to the purpose and principles of the Act. I acknowledge that the provisions of the RPS and TRMP pre-date NZCPS 2010 and NPSFM 2020, and therefore do not necessarily *give effect* to these documents. I have had regard to the relevant provisions of these higher order planning documents in making my determination. I do not consider reference to Part 2 would add anything to the evaluative exercise I have undertaken under section 104 of the Act.
- [121] Overall, I find that granting the consents sought will promote the sustainable management of natural and physical resources, as defined in section 5 of the RMA.

14 Conditions of consent

[122] There was a high level of agreement regarding the proposed conditions. I have made minor changes for clarity and consistency. I am satisfied that the conditions are practical and enforceable, and serve valid resource management purposes.

15 Consent duration

- [123] None of the submissions received raised issue with the consent terms proposed.
- [124] There was agreement between Mr Pigott and the Applicant that the consent terms sought were appropriate. I agree.

Commissioner

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