Notified resource consent decision (without hearing)

Summary of decision

Activity:	River management activities for flood protection, erosion control and public amenity purposes.
File Reference:	WGN150094
Date Granted:	14 May 2021
Commencement Date:	14 May 2021
Applicant:	Greater Wellington Regional Council, Flood Protection Department
Decision made under:	Section 104B, 105, 107 and 108 of the Resource Management Act 1991 (the Act).
Consents Sought:	**Operative Regional Plans** **[33210]: Discretionary activity** Land use consent to undertake river management activities in the bed and on the banks, berms and stopbanks of the Wainuiomata River for flood protection, erosion control and public amenity purposes including construction, maintenance, repair, replacement, extension, addition, alteration, demolition and removal of structures, planting, maintenance and removal of vegetation, recontouring and mechanical ripping of the river bed, constructing diversion channels, shaping, recontouring and repair of bank edges, berms and stopbanks, clearance of flood debris, operation of machinery in the river bed, entry and passage of the river bed, maintenance of drains dredging, construction of walkways, cycleways and associated structures including stormwater drainage, culverts, and footbridges, and excavation, disturbance and deposition of material.

[34033]: Discretionary activity
Water permit to temporarily and permanently divert the flow of the Wainuiomata River during, and as a result of, river management activities for flood protection, erosion control and public amenity purposes.

[34034]: Discretionary activity
Discharge permit to discharge sediment and sediment laden stormwater into the Wainuiomata River during, and as a result of, river management activities within and outside the river bed for flood protection, erosion control and public amenity purposes.

[34487]: Discretionary activity
Land use consent to extract gravel from the bed and on the banks of the Wainuiomata River using dry methodologies.

Location: This application covers land in the Wainuiomata River corridor, including the river bed and banks, berms and stopbanks from approximately 200m upstream of the footbridge which links the end of Hine Road to Reservoir Road, to approximately 200m downstream of Ngaturi Park.

Map Reference: Wainuiomata River, between approximate map references NZTM:1765251.5428735 (upstream) and NZTM:1763054.5427387 (downstream)

Legal Description: Various, refer to Appendix C of the Assessment of Environmental Effects (March 2016)

Background: The application was publicly notified in the Dominion Post on Saturday 4 February 2017, in the Hutt News on Tuesday 7 February 2017 and in the Upper Hutt Leader on Wednesday 8 February 2017.

Following pre-hearing meetings, the applicant made amendments to the application documents including the Code of Practice for river management activities and draft consent conditions to address the concerns of submitters. By 19 November 2019 all submitters had confirmed in writing that they were happy to withdraw their right to be heard at a hearing.

As a hearing is not required to be held, the Manager, Environmental Regulation, has the delegated authority to grant or decline the application.

Reasons for decision:

1. The proposed activity is consistent with the purpose and principles of the Resource Management Act 1991.

2. The proposed activity is consistent with the Regional Policy Statement (RPS), the Proposed Natural Resources Plan (decisions version), the Regional Freshwater Plan, the Regional Plan for Discharges to Land and the Regional Soil Plan. The relevant provisions of the RPS are:

   - 3.4 Fresh water
   - 3.6 Indigenous ecosystems
   - 3.8 Natural hazards
   - 3.10 Resource management with tangata whenua
   - 3.11 Soils and minerals

   The proposal is consistent with these provisions.

3. The actual or potential adverse effects of the proposed activity on the environment will be no more than minor.

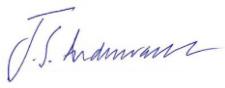
4. Conditions of the consents will ensure that the adverse effects of the activity on the environment will be appropriately avoided, remedied or mitigated.

5. The proposal incorporates appropriate mitigation measures, to ensure the adverse effects are appropriately managed.

Duration of Consents:

[33210]: 35 years
[34033]: 35 years
[34034]: 35 years
[34487]: 35 years

Subject to conditions: Outlined in Appendix 1.

Decision recommended by:	Michelle Conland	Consultant Planner	
Decision peer reviewed by:	Anna McLellan	Senior Resource Advisor, Environmental Regulation	
Decision approved by:	Shaun Andrewartha	Manager, Environmental Regulation	

Contents

Greater Wellington Regional Council, Flood Protection Department, WGN150094 [33210], [34033], [34034] and [34487]

1. Purpose

This report provides an analysis of the resource management issues in respect of a resource consent application made by GWRC, Flood Protection Department (the applicant) to undertake various activities in relation to flood protection, erosion control and public amenity purposes in the Wainuiomata River corridor, from approximately 200m upstream of the footbridge which links the end of Hine Road to Reservoir Road, to approximately 200m downstream of Ngaturi Park.

2. Background

The applicant lodged four separate resource consent applications to renew existing consents for river management activities undertaken for flood protection, erosion control and public amenity purposes in Te Awa Kairangi/Hutt, Otaki, Waikanae and Wainuiomata River catchments. This application for the Wainuiomata River was lodged on 3 November 2014.

The works and maintenance in the Wainuiomata River are undertaken in accordance with the Watercourses Agreement between GWRC and Hutt City Council (HCC). This agreement was developed after significant flooding events in 1976, when local government agencies in the Wellington Region decided to take responsibility for maintaining the capacity of certain critical waterways.

GWRC has a statutory responsibility to minimise and prevent flood and erosion damage under the Soil Conservation and Rivers Control Act 1941, and the avoidance or mitigation of natural hazards, including flooding, under section 30 of the Resource Management Act 1991 (the Act).

This application is to allow continuance of GWRC's river management activities in the Wainuiomata River. It will replace a land use consent and water permit under WGN020143 (01) and (02) which expired on 26 March 2017. As application WGN150094 was lodged six months prior to the expiry date, the existing consents are allowed to continue to be exercised until the current application is decided, under s124 of the Act.

This application (WGN150094) also seeks to allow gravel extraction (from the dry beaches only) which has not previously been undertaken in this river by the applicant. While there are no current plans to extract gravel, the applicant would like to include this ability in its suite of available tools for channel management, in case this is required at some time in the future.

The application does not cover specific large capital works such as the construction of new stopbanks and does not seek consent for the use of herbicides for control or removal of vegetation.

The applicant is seeking a term of 35 years for the new consents.

3. Location

The section of the Wainuiomata River that this application covers is approximately 5km (see Appendix 2 of this report) between Richard Prouse Park and Leonard Wood Park.

As noted in section 2.1 of the AEE, the Wainuiomata River is approximately 22km long and the catchment covers an area of approximately 133km^2. Upstream of the application area the catchment is mostly covered in indigenous forest and is managed for water supply with Wellington's municipal supply taken through run of the river intake galleries at two locations; one on the main stem of the Wainuiomata River and one on Georges Creek. Two decommissioned water supply dams are also located upstream of the application area.

The Wainuiomata River has three main tributaries, the Wainuiomata Stream which joins the main stem at Richard Prouse Park, Black Stream which joins the main stem in the middle of the application area, and Catchpool Stream which joins the main stem several kilometres downstream of the application area.

The section of Wainuiomata River within the application area consists of a narrow channel within a small alluvial floodplain that is comprised of relatively coarse gravels. Upstream of the confluence with Black Stream, the channel is more entrenched with a few gravel beaches that become exposed during low flows. Downstream of Black Stream, the channel is less entrenched, with longer bends and a wider active channel with exposed gravel beaches.

The Wainuiomata River between the lower dam and the golf course is listed in Appendix 4 of the Regional Freshwater Plan (RFP) as being a water body with important trout habitat. It is also listed in Appendix 5 of the RFP as a water body with regionally important amenity and recreational values, with the section between the Coast Road (Main Road) bridge to the coast being identified for angling. It is also listed in Appendix 7 as a water body with water quality identified as needing enhancement for aquatic ecosystem purposes and fishery and fish spawning purposes.

The Proposed Natural Resources Plan (PNRP) sets out in Schedule D that there is a Statutory Acknowledgement of the association of Taranaki Whānui ki Te Upoko o Te Ika with the Wainuiomata Scenic Reserve.

The only mana whenua site of significance listed in Schedule C of the PNRP is the Wainiuiomata River mouth and foreshore which is listed as a significant site for Taranaki Whānui ki te Upoko o te Ika for mahinga kai.

The Wainuiomata River is listed in Schedule F1 of the PNRP as a river with significant indigenous ecosystems:

- High macroinvertebrate community health (the main stem of the river and all tributaries above Black Creek)
- Habitat for indigenous threatened/at risk fish species (the main stem of the river and all tributaries excluding Black Creek).
- Habitat for six or more migratory indigenous fish species (the main stem of the river and all tributaries excluding Black Creek)
- Inanga spawning habitat (only within the reach of tidal influence at the river mouth)

The indigenous fish species recorded in the catchment are *banded kōkopu*, *bluegill bully*, *common bully*, dwarf galaxias, *giant bully*, *giant kōkopu*, *inanga*, *koaro*, ***lamprey***, *longfin eel*, *redfin bully*, *shortfin eel* and ***shortjaw kōkopu***. Migratory species are in italics, and those with conservation status "At Risk" and "Nationally Vulnerable" are underlined and in bold respectively.

The Wainuiomata River is also listed in the PNRP as:

- a significant contact recreation freshwater body in Schedule H1;
- a priority for improvement of fresh water quality for primary contact recreation and Maori customary use in Schedule H2;
- an important trout fishery river and spawning water in Schedule I of the PNRP; and
- a community drinking water supply abstraction point (upstream of the application area) in Schedule M1.

4. Proposal/description of activities

This resource consent application seeks consent to maintain a 5km urban reach (approximately) of the Wainuiomata River in accordance with the Watercourses Agreement.

The main aims of the river management work programme are to:

- maintain the flood capacity of the river channel by removal of obstructions and gravel build-ups as necessary; and
- maintain the integrity and security of the existing flood defences (including stopbanks and bank protection works).

The application states that the range of tools that the applicant currently uses in the Wainuiomata River to achieve these goals is limited, and this is not anticipated to change in the foreseeable future. However, the applicant wishes to be able to use its full 'toolbox' of methods in the consent that is sought to ensure that the most appropriate methods are available throughout the life of the consent, if and when required.

The key aspects of the proposal which require resource consent under GWRC's regional plans are outlined in the assessment of environmental effects (AEE) and the draft Code of Practice (Code) in Annex 1 of the application, and are summarised below.

4.1 Maintenance of channel alignment

The applicant seeks to maintain the channel alignment to protect properties, urban infrastructure, utility services, bridges and floodway assets that are located adjacent to the river.

Channel alignment is maintained using a combination of 'hard edge' protection works such as rock rip-rap linings or groynes, 'soft edge' protection works such as planted, layered or tethered willows, mechanical shaping of the beaches and channel by 'ripping' or recontouring, and channel diversion cuts.

4.1.1 Construction of impermeable structures

Rock and block groynes project out from the bank edge to deflect the flow of water. They can be constructed entirely from rock boulders or have a gravel or concrete block core. Concrete rubble will not be used. Concrete blocks used for groynes are typically 1.6m x 0.8m x 1m, and weigh approximately 3 tonnes. Construction usually involves a hydraulic excavator. Generally less than 100m^2 of river bed is disturbed by rock groyne construction. Currently there are no rock or concrete groynes within the application area. The application states that groynes would only be constructed where it is determined that such structures were the most appropriate and cost effective response to changes in the river morphology and behaviour.

Rock lining which can also be referred to as rockline, rip rap and toe rock, consists of rock boulders placed against a section of river bank to form a longitudinal wall that armours and protects the softer bank material behind it from scouring and erosion. Concrete rubble will not be used to construct these structures. Rock lining is placed using a hydraulic excavator to shape a section of river bank to a specified slope and excavating a trench in the river bed to a design scour depth. A temporary diversion of the river away from the works area may be required in the form of a low bund in front of the work area and then dewatering the working area with a pump. Currently there is one 15m long section of rock lining on the left bank adjacent to Poole Crescent. This was constructed in 2004 and used 200 tonnes of rock.

Gabion baskets are wire mesh baskets, with typical dimensions of 2m x 1m x 1m, filled with either quarry rock or locally sourced riverbed material. They

are generally used to provide isolated protection for banks and services, including stormwater outlets, service crossings, bridge abutments and access tracks. Gabion baskets can be placed on top of each other and laced together or anchored to driven railway irons concealed in the river bank. A temporary diversion of the river away from the works area may be required but generally dewatering of the area with a pump is not needed. Gabions have been used in some locations historically but none since 2002 (under the current consent).

Gabion wall structures are formed using railway irons, wire cables and mesh, and are used to protect and stabilise bank edges. Railway iron piles are driven at spacings of 1m along the inner (river-side) edge of the structure, and typically an iron is also driven 1-1.5m behind these irons at 3m spacings to provide a back anchor. Piles normally extend 1-1.5m above the low flow water level. Longitudinal cables are strung along the piles to create a fence. The mesh is then laid behind the irons and wired to the cables. Willows are normally planted behind the back irons and over time assist with securing and screening the structure. There are currently no gabion wall structures in the Wainuiomata River.

Reno mattresses are wire mesh baskets that have wider and thinner dimensions than gabion baskets. They are generally filled with in-situ bed material but quarry rock may be used. They are used for bank protection and channel linings. Reno mattresses have been used in some locations historically but none since 2002.

Grade control structures are low rock, rock and concrete or concrete block barriers constructed across the width of a watercourse to raise or maintain the river bed level and thereby reduce the channel gradient and flow velocity. They are used to prevent bed scour and encourage gravel deposition, often in areas where there is a need to protect infrastructure such as bridge piles. There is one grade control structure across the river immediately below the Main Road to protect the bridge piles from scour. It is owned and maintained by the Hutt City Council.

4.1.2 Construction of permeable structures

Debris fences are iron and cable fences that extend from the bank into the river channel. They are used to support the creation or re-establishment of a willow buffer zone along the edge of the river channel, to maintain channel alignment. Fences are constructed by driving railway iron posts at 3-5m apart in a series of discrete lines generally at a 45 degree angle from the channel alignment. The posts stand approximately 1.2m above the bed. Three or four steel cables are strung horizontally through the posts to form the fence. The fences are interplanted with willows, and the fences and willows (once established) will trap flood debris, and slow flows and gravel movement. Without the fences the willows are more vulnerable to flood damage and are less likely to establish. Debris fences have been used at a few locations along

the banks including adjacent to Leonard Wood Park. None have been constructed since 2002.

Permeable groynes are similar to debris fences but are more robust and give greater control of flow direction. They use timber (post and rail) or a combination of rail irons and timber. Timber groynes are located in river, including on the true left bank downstream of Richard Prouse Park. None have been constructed since 2002.

Debris arresters are more robust than a debris fence and can be constructed from railway irons, steel beams or pipes that have been driven into the bed and tied together with horizontal irons, or they may consist of discrete concrete or wooden posts that are placed at intervals across the river bed. They are designed to catch flood debris and prevent it from travelling downstream, where it could otherwise damage structures such as bridges. Currently there are no debris arresters in the Wainuiomata River.

Soft edge protection using planted, layered or tethered willows is an important tool for stabilisation and protection of the banks of the Wainuiomata River. This vegetation binds and supports the bank edge to maintain a stable river alignment. Branch growth also slows water velocities at the bank edge reducing erosion. Planting is usually carried out between June and September and either by hand using a crow bar; an excavator or planting tine for large areas, amongst established trees or steep banks; trench planting using a digger; or using a mechanical auger to prepare holes.

Tethering or cabling involves cutting large willow or poplar trees and laying them in a shallow trench excavated along the bank to be protected. The trees are bundled with wire rope and securely fixed to driven railway irons and /or buried concrete block weights. The base of the trees are covered with gravel to encourage root growth, and willow poles are planted behind the tethered layer. Layering is similar except that in-situ willows are felled (or bent and snapped using a digger) obliquely, generally towards the river in a downstream direction. The intent is to allow the willows to sucker from branches on the ground once they are covered in silt and gravel. The tree is wired to a stump to prevent it breaking off in a flood. Layering is normally completed in the August-September period following completion of the planting work.

Approximately 3.5km or 73% of the true right bank and 2.1km or 45% of the true left bank within the application area is willow-lined. The applicant is not proposing to significantly increase these areas over the life of the consent. Ongoing work will largely be focused on maintaining and renewal of these existing areas of planting.

4.1.3 Demolition and removal of existing structures

This application includes the demolition or removal of existing structures. This will usually occur following partial or total failure of the structure, and a

decision being made not to reconstruct the structure. Removal may be necessary to prevent the creation or aggravation of erosion of the adjacent river bank, to remove a danger to river users, or for visual reasons. GWRC records show that this is an infrequent activity undertaken on an as required basis.

4.1.4 Mechanical shaping of the beaches and channel

Beach ripping involves dragging a tine behind a bulldozer or tractor to loosen up the upper surface layer, or armour layer, of the beach. Beach ripping is undertaken on dry beaches to loosen the gravels and encourage mobility during future freshes or floods when the beach is inundated. Ripping helps prevent the formation of channel distortions and reduces lateral bank erosion. Beach ripping downstream of the Black Stream confluence is undertaken approximately once a year.

Beach recontouring involves more extensive movement and redistribution of the gravels. It is also carried out on the dry bed and is used to streamline and shape a beach to avoid any future obstructions to flow. It involves more disturbance than beach ripping but less than bed recontouring or cutting of diversion channels. Beach recontouring is only undertaken occasionally in the Wainuiomata River.

Diversion cuts are a means of realigning the low flow channel where it has moved too far from its design alignment or a means of deflecting the channel where it is creating a bank erosion problem. In braided areas of rivers, diversion cuts may be used to assist with the development of a secondary braid to maintain channel capacity, or to divert a dominant braid that may be eroding the lateral buffer zone. Diversion cuts are less likely to be used in areas of river where there is a single channel. A diversion cut is created through the mechanical excavation of a new channel outside of the flowing channel. Bunds are used at each end of the new channel to minimise silt discharges. Once complete, the downstream end is removed, and then the upstream to allow flow into the new channel. Some bed recontouring, to push excavated material across the old channel alignment may be required, or the old channel may be retained as a backwater habitat area. Diversion cuts would only be undertaken very occasionally in the Wainuiomata River, in response to a major channel distortion due to a flood event.

Bed recontouring was previously referred to as ‘cross-blading’ and is the mechanical shaping or realigning of a section of the active bed. It is used to establish or maintain a design stream alignment and/or reduce erosion. It may involve moving material from a dry beach into the wet channel and/or moving the material from the wet channel onto a dry beach, to achieve a new channel form. It may be used as an alternative to the construction of permanent structures such as groynes or rock lining in the first instance.

GWRC records for bed recontouring in Appendix I of the application show that from 2003 to 2008 a total of 690 lineal metres was undertaken. This equates to an average amount of 138 lineal metres per year, although the actual amount varied between none and 275m per year.

The application states that the channel alignment created by bed recontouring will often remain effective for up to 2 years. However, it also notes that a large flood can reduce its effectiveness at any stage. As such, the amount of bed recontouring is dependent on the occurrence of flood events and the effectiveness of other control measures such as gravel extraction.

The application states that the largest requirement for bed recontouring will be after flood events.

4.2 Maintenance of channel capacity

The tools used by the applicant to maintain channel capacity include:

- Clearance of vegetation from gravel beaches ('scalping');
- Removal of unwanted willows;
- Clearance of flood debris;
- Removal of sediment and gravel deposited on berms; and
- Gravel extraction from aggradation zones.

4.2.1 Beach scalping

Beach scalping involves the mechanical clearance of woody and herbaceous weeds and grasses from gravel beaches. This is done to reduce flood flow velocities which can encourage gravel aggradation and reduce channel capacity. A bulldozer, large excavator or front end loader is used to strip the vegetation and loosen the armouring layer. The vegetation is crushed and left to break down or become light flood debris. This is not a major activity in the Wainuiomata River and is undertaken on an as-required basis, often while other work is being undertaken.

4.2.2 Removal of vegetation from beaches or river banks

Unwanted willows or other species including weeds are removed to minimise the potential for blockages during floods, or to prevent dislodged willows re-growing in the channel. Removal of vegetation from beaches is done throughout the application area every year on an 'as required' basis and usually in conjunction with other works. Typically this would involve the use of a machine for a few days, once or twice a year. In many instances removing vegetation from beaches can be undertaken as a permitted activity under the regional plans.

If existing vegetative structures (cabled willow and tree groynes) start to show signs of failure a decision may be made to remove them to reduce the

potential for them to create a hazard during floods. This would involve excavation using a hydraulic excavator, and removal from the river bed.

HCC generally mows river berms and stopbanks, but the applicant may also carry out this work occasionally. Mowing is undertaken from the river banks.

4.2.3 Removal of flood debris

Removal of flood debris can include removing trees, slip debris, collapsed banks, and remains of structures or car bodies. Flood debris blockages reduce channel capacity and can deflect flood flows into banks causing lateral erosion. However, flood debris in a channel can provide and enhance the variety of available aquatic habitat for macroinvertebrates and fish, so should only be removed where necessary for flood and erosion purposes. This activity is normally undertaken after each significant flood event, and will often be a permitted activity under the regional plans.

4.2.4 Gravel extraction

The applicant does not currently extract gravel from the Wainuiomata River. The dam lying upstream of the application area interrupts the supply of gravel from the upper catchment. As such, bed material moving through the area downstream of the dam is derived mostly of sediments eroded from the river banks.

A possible future area for extraction is the exposed gravel beaches downstream of the confluence with Black Stream and the applicant wishes to have the option of undertaking gravel extraction for channel management. The ability to extract approximately 1,500m^3 per year on average from exposed gravel beaches is sought. It is anticipated that gravel extraction would be undertaken on an intermittent basis according to need. The actual amounts extracted in any one year would be determined in response to movements in bed material through the river system. The application states that this is likely to be driven by the size and frequency of flood events.

Generally gravel extraction would be undertaken during the summer months when river flows are low and exposed areas of beach are at their maximum. Gravel extraction in the Wainuiomata River is only from the dry bed, where gravel is removed from beaches above the normal low flow water level. All works are undertaken out of flowing water except for any river crossings for access or for transport of extracted gravel and minor shaping of the beach at the water's edge to ensure a smooth profile. Hydraulic excavators or front end loaders are used to extract the gravel and load onto trucks. Gravel is extracted in strips parallel to the river channel to a depth no lower than 0.2m above the normal flow level in the adjacent channel. Small stockpiles may be formed but would not normally be left in the floodway for longer than the working day. The amount of gravel to be extracted will be determined in response to the movements in bed material throughout the river system.

The Wellington Regional Council's Code of Practice for river management activities (the Code) states that in any one financial year, the amount of gravel extracted shall not exceed that required to maintain the flood carrying capacity of the channel. This volume must be determined by regular bed level surveys and gravel volume assessments. The amount of gravel extracted must be in accordance with the maintenance of river bed levels within the design envelope. The Code also requires that gravel must only be taken from beaches where it is aggrading or aggrading reaches, and extraction must not target gravel of a particular size range.

4.3 Maintenance and extension of existing erosion protection and other structures within the river corridor

This work includes maintenance and repairs of existing erosion protection structures within the Wainuiomata River as well as repairs and maintenance of existing head walls, wingwalls, culverts, and steel grilles, and flap gates associated with outlet structures, as well as clearing debris from culverts and outlet structures.

Regular maintenance of debris fences, debris arresters or permeable groynes is required for repairs to these structures or to clear flood debris as required.

The applicant also needs to repair and maintain structures within the river corridor that lie outside the river bed, including stopbanks, cycle ways, fences, floodwalls etc. This may include intermittent repairs to structural works (stopbanks, floodwalls, culverts, drainage channels, cycle ways) caused by floods, stormwater runoff or vandalism and enhancements or extensions to such structures. Some of these activities undertaken outside of the bed of the river may be permitted activities under section 9 of the Act.

Maintenance work is not a major activity and is undertaken on an as-required basis.

As noted above, there are no rock or concrete groynes within the application area. While there is no current need to construct any groynes at this time, this application provides for that situation, and as such, there may be a need to maintain rock groynes in the future. Furthermore, this activity would allow the section of rock lining on the left bank adjacent to Poole Crescent to be maintained if needed.

Maintenance of willow plantings on the river edge generally involved removal of unstable trees, replanting with new poles (large cuttings of willows more than 3m long), or layering and tethering mature trees (as described above in section 4.1.2). Maintaining existing layered and tethered trees involves strengthening by cabling-in additional tree material, and inter-planting with additional poles.

4.4 Discharges

The application notes that activities that involve the movement or excavation of river bed material within flowing water such as bed recontouring and construction of new structural works or bank reconstruction, will cause discharges of fine bed sediments into the water column. These discharges, while similar in nature to those which occur during flood events, are likely to occur at times of low flow when the sediment load of the water is also low.

4.5 Diversion of water

Several of the activities noted above may require diversion of part of the Wainuiomata River's flow. This includes permanent diversion of normal low flows as a result of:

- Bed recontouring;
- Gravel extraction; and
- Construction of new structural works or bank reconstruction.

Flows may also be temporarily diverted to allow construction of new works, demolition of obsolete or damaged works and repairs to banks.

4.6 Urgent works

The application notes that works may need to be undertaken in response to the mitigation of immediate risks of flooding to the safety of people, property or the community's existing investment in flood protection works. In the Regional Freshwater Plan, some works of this nature may be a permitted activity under Rule 42: Urgent works. The applicant's consents under WGN980255 provide for 'contingency works', for any occasions where the urgent works are unable to meet the requirements of this permitted activity rule.

Emergency works, which may include preventative and remedial works, are controlled by section 330 of the Act which applies whether or not the adverse effect or sudden event is foreseeable (s330(1A)). However, a declaration[1] and various case law regarding the use of the emergency works provisions note that there are specific interrelating circumstances for the emergency powers of s330 to apply, including that the action must be 'immediately necessary and sufficient' for the relevant purpose (ie, an immediate response is required).

To be more transparent, the applicant is proposing to not rely on the emergency provisions of the Act for when urgent works are needed, and so seeks consent for this activity. In doing so, it is seeking relief from some requirements of the Code in order to carry out the urgent works, if needed.

[1] Auckland City Council v Minister for the Environment and ors [(1999) 5 ELRNZ; [1999] NZRMA 49 (EnvC).]

Section 10.6 of the Code states that urgent works are river management activities undertaken:

- to address an immediate river management issue or problem where erosion or flooding is placing flood protection structures, other infrastructure or property under direct threat of damage; and/or
- in response to a flood or emergency situation that may need to be undertaken outside regular methodologies or operating conditions.

In such circumstances, the Code states the minimum requirements that GWRC staff must adhere to when undertaking the urgent works. This includes, notifying iwi if sites of significance to iwi are affected, using appropriate construction materials, and complying with Section 10.3.4 (Operation of machinery) and 10.3.9 of the Code (Management of safety). It acknowledges that it may not be possible to adhere to all of the good management practices in Section 10 and restrictions in Appendix 7 of the Code.

4.7 Key elements of the overall implementation methodology

The framework for the implementation of the Western Rivers consents is outlined in Figure 1. As noted above, the applicant proposes that a Code of Practice be used to coordinate a consistent implementation of all river management activities that it undertakes. The Code does not state which activities should be undertaken in which location but provides a 'toolbox' of potential river management activities and good practices of how these activities must be undertaken. The Code applies to all river management activities regardless of whether the activity requires resource consent. It is proposed that the Code be updated regularly to provide standards of good management practice. The aim is that the Code and the associated requirements of the consent conditions, provide a mechanism and opportunity to adapt and improve the way that flood management activities are undertaken by Greater Wellington in a more agile and cost effective manner, compared with standard consenting processes under the Act.

Sitting above and outside of this consent process are Floodplain Management Plans (FMP). FMPs set out the high level direction and priorities for flood protection services at a river and reach scale. FMPs are non-statutory documents and as such the policies and flood mitigation methods have no legal standing as regulations. However, a public consultation process is used to prepare the plans, and as such have considerable weight in any decision-making related to flood management.

The Wainuiomata River does not currently have an FMP, although one may be developed during the term of these consents. Priorities for developing FMPs are set by the LTP planning process. The funding and pace of implementation of flood works is also controlled by Council decisions through the LTP process.

Operational Management Plans (OMP) sit under FMPs, and must be consistent with the FMP, if there is one. For the Wainuiomata River, an OMP will be produced in advance of any FMP. The OMP includes details of the characteristics and values of each reach, the management objectives, including any prescribed by an FMP, and any additional management practices to avoid, remedy or mitigate adverse effects on indigenous ecosystems or significant indigenous biodiversity values, and the values of kaitiaki sites as identified by mana whenua. OMPs will also contain five to ten years of upcoming works programmes, including detailed priorities and management approaches for these works.

Annual work plans (AWP) much be prepared by 1 September each calendar year, and will set out which activities will be undertaken in the river and at which times of the year. Section 6 of the Code contains a decision making framework to assist with ensuring that only appropriate activities are included in the AWP. Each AWP must be consistent with the certified OMP, sections 6 and 10 of the Code, and the general activity constraints calendar in Appendix 7 of the Code. The AWP will also identify opportunities for environmental enhancement and will detail proposed activities that may require a Site Specific Environmental Monitoring Plan (SSEMP). The AWP planning process is set out in Figure 1 of the Code.

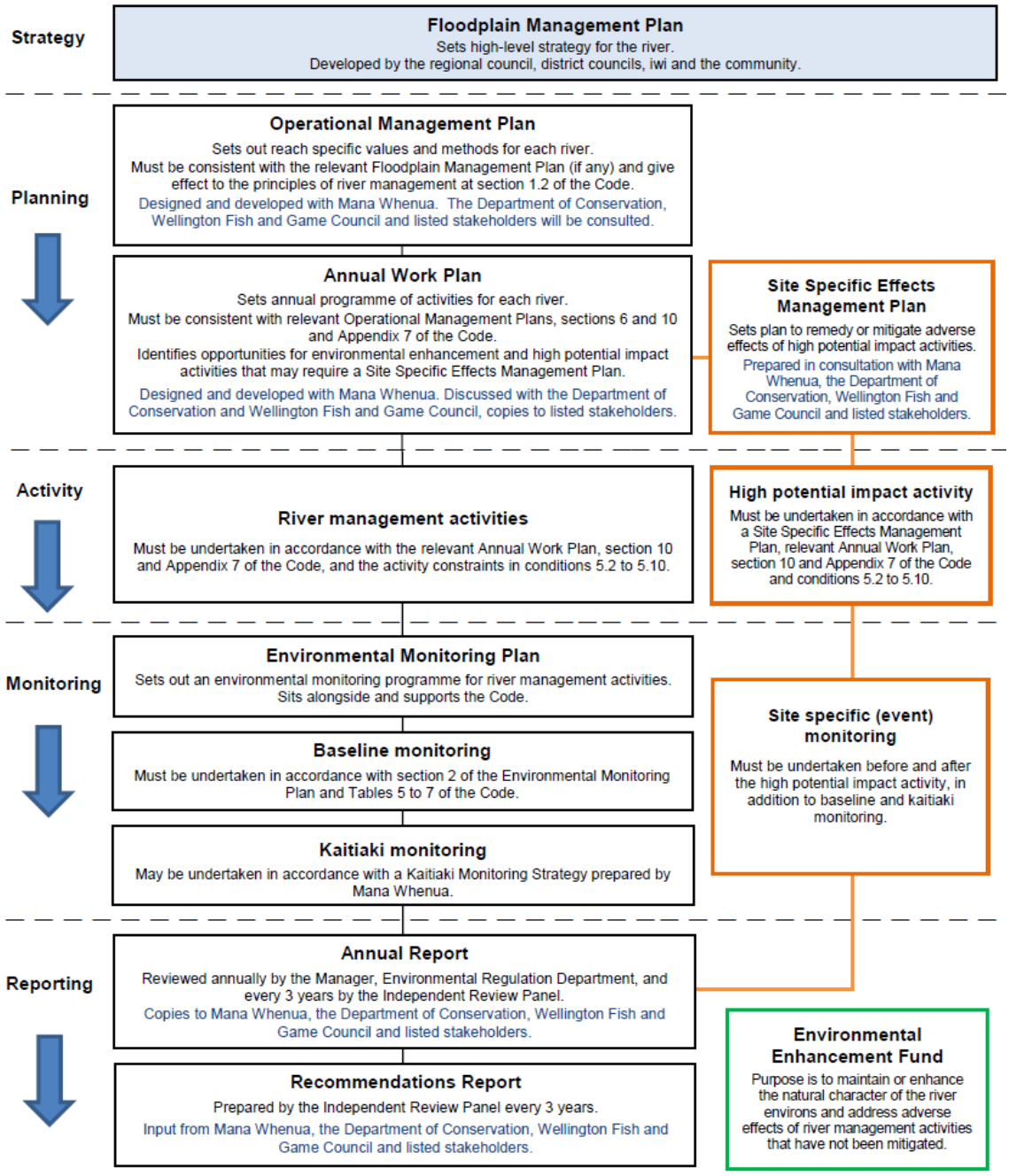


Figure 1: Implementation Framework (sourced from the Code of Practice – Te Awa Kairangi/Wainuiomata Rivers consent version)

An SSEMP is prepared for 'high potential impact activities', and any activities requiring an SSEMP will be identified in the AWP. There are certain activities for which an SSEMP is always required, such as gravel extraction in the wet bed of the river, or the construction of grade control structures. There are other activities which are classified as high potential impact activities if they are undertaken at certain sensitive times of the year (such as during spawning periods), activities undertaken over a large area, or activities that meet the thresholds in Table 4 of the EMP (Appendix 3 of the Code). In addition, certain activities may be identified and classified as high potential impact activities for particular reaches in the OMP, such as beach ripping which has been

identified as an issue for parts of the Ōtaki River. Every SSEMP must include details of consultation undertaken, an assessment of the options and the reasons for undertaking the preferred option, specific measures to remedy or mitigate adverse effects of the activity, describe the monitoring to be undertaken, and how mana whenua values of kaitiaki sites have been taken into account.

Once the river management activity has been undertaken in accordance with the AWP, the Code, and the SSEMP (if relevant), the applicant proposes to undertake monitoring, as set out in the Environmental Monitoring Plan. In addition, a Te Awa Kairangi/Hutt and Wainuiomata Rivers Kaitiaki Monitoring Strategy will also be developed and implemented. For each river, this strategy will identify tohu, mahinga kai, and Māori customary use, and methods to monitor them, as well as identifying tikanga and how it influences cultural monitoring methods, and a reporting structure that enables kaitiaki information to contribute to the applicant's environmental reporting. To assist with this and other matters of importance to mana whenua, a representative of each iwi will be invited to form Rōpū Kaitiaki. Rōpū Kaitiaki will be a sharing and knowledge forum to be formed to facilitate the exchange of information between the Council and mana whenua. For high potential impact activities, site specific event monitoring of the activity will also be undertaken in addition to the other monitoring.

A draft Annual Report will be prepared by 31 August each year by the consent holder, which will include:

- the works undertaken in the previous year as well as works anticipated for the next 12 months,
- the results and recommendations of all monitoring undertaken,
- Ecological Enhancement Fund allocations, requests for funding and the reasons why funding was approved or declined,
- compliance with conditions and any complaints received,
- comments on the Code, the FMP once produced, and OMP, and whether any changes or improvements are needed, and
- the responses to recommendations received over the previous year from independent experts, mana whenua or the Independent Review Panel (IRP).

This draft report will be reviewed by the Manager, Environmental Regulation, who will provide comments and recommendations on the report. Following receipt of the Manager's review document, the Annual Report will be finalised and any relevant plans (the EMP, OMP, AWP and/or the Code) will be amended. The final Annual Report and any amended plans will be provided to

mana whenua and the key stakeholders for the river. This annual reporting process allows both the individual and cumulative effects of the river management activities to be understood and addressed.

Every three years, the consent holder will appoint and establish an Independent Review Panel (IRP) consisting of technical experts to evaluate the annual reports, SSEMPs, the Code, plans and review documents from the preceding three years. The consent holder will assist the IRP to fulfil its objectives by providing administrative support and remunerating reasonable costs. The IRP must consist of three independent experts who, between them, have relevant expertise in ecology, tikanga Māori, river geomorphology and sport fisheries. Once Rōpū Kaitiaki is established, it will make recommendations on the appointment of the technical experts. In the interim, recommendations will be obtained directly from mana whenua.

The IRP will prepare a Recommendations Report that includes a summary of its review of the Annual Reports, SSEMPs, and other relevant documents, and provide comments or recommendations including recommendations about the conditions of the consent or amendments to the EMP, OMP, AWP and/or the Code. The recommendations report will be provided to the consent holder who must, within one month of receiving the report, set out in a document how it proposes to respond to the comments and recommendations contained within it, amend any documents that are recommended to be amended or provide reasons why it has or cannot do so. A copy of the Recommendations Report, the consent holder's response, and any documents amended as a result of the review will be provided to the Manager, Environmental Regulation, and mana whenua and the key stakeholders for the river. If any changes are required to the conditions of the consent as a result of the Recommendations Report, a resource consent application to vary the conditions will need to be made and processed in accordance with s127 of the Act.

5. Statutory reasons for requiring resource consents

Sections 9, 13, 14 and 15 of the Act, places restrictions on the following activities as follows:

- Section 9 – Restrictions on the use of land
- Section 13 – Restriction on certain uses of beds of lakes and rivers
- Section 14 – Restrictions on the taking, using, damming, or diverting any water
- Section 15(1)(a) – Restrictions on the discharge of contaminants to water
- Section 15(1)(b) – Restrictions on the discharge of contaminants 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

The activities for which consent is sought by the applicant are not permitted as of right under these sections of the Act or by the regional plans; therefore, resource consent is required for these activities.

5.1 Operative Regional Plans

5.1.1 Regional Freshwater Plan

RMA section	Rule	Status	Comments/Permitted Baseline
15 Discharge permit	Rule 5 – Discharge of contaminants to water	Discretionary Activity	The discharge of contaminants (silt and sediment) into water associated with all construction, planting, maintenance, repair and demolition works may not meet permitted activity Rule 1, as the discharge may have a concentration of more than 50g/m^3 or contain other not listed contaminants and so is a discretionary activity under Rule 5. The discharge of stormwater into water may not meet the conditions of permitted activity Rule 2 or controlled activity Rule 3 and so is a discretionary activity under Rule 5.
14 Water permit	Rule 16 – Diversion of water	Discretionary Activity	Permanent or temporary diversions of the flow of the river may be required during various activities such as bed recontouring, gravel extraction or bank reconstruction works. The temporary or permanent diversion of surface water is not provided for by any other rule and so is a discretionary activity under Rule 16.
13 Land use consent	Rule 43 – Maintenance, repair, replacement, extension, addition to or alteration of any structure	Controlled Activity	Any maintenance, repair, replacement, extension, addition to or alteration of any structure such as groynes or gabion walls on the river bed that cannot meet the permitted activity provisions of Rule 22 or 23 (relating to the scale of the activity) is a controlled activity under Rule 43.
13 Land use consent	Rule 44 – Removal or demolition of structures	Controlled Activity	Any removal or demolition of any structure on the river bed that cannot meet the permitted activity provisions of Rule 33, which includes requirements for the complete removal of the structure and that

RMA section	Rule	Status	Comments/Permitted Baseline
			it must be for the purposes of a replacement structure under Rule 22, is a controlled activity under Rule 43.
13 Land use consent	Rule 48 – Placement of impermeable erosion protection structures	Controlled Activity	The placement of impermeable erosion protection structures such as rock linings is not provided for by any other rule and so is a controlled activity under Rule 48.
13 Land use consent	Rule 49 – All remaining uses of river and lake beds	Discretionary Activity	The use of any river which is not specifically provided for in Rules 22 to 48, or which cannot meet the provisions of Rules 22 to 48 is a discretionary activity under Rule 49. Activities which fall under these categories include gravel extraction, mechanical ripping, excavation of diversion channels in the river bed, clearance of flood debris, maintenance of drains, removal of vegetation, urgent works and new structures such as footbridges, rock/concrete grade control structures, debris fences, and debris arresters.

5.1.2 Regional Plan for Discharges to Land

RMA section	Rule	Status	Comments/Permitted Baseline
15 Discharge permit	Rule 2 – Discharges into or onto land	Discretionary Activity	The discharge of contaminants (silt and sediment) onto land associated with construction, planting, maintenance, repair and demolition works may not meet permitted activity Rule 1, as the discharge in some cases may enter water in a water body and so is a discretionary activity under Rule 2.

5.1.3 Regional Soil Plan

The Regional Soil Plan controls activities undertaken outside of the bed of the Wainuiomata River, and outside of the coastal marine area. The rules in this plan restrict some uses of land described in section 9 of the Act. Section 9 is permissive, in that any use of land (outside the bed and banks of a river) is allowed to be undertaken as of right unless specifically restricted by a district rule or a regional rule. Consequently, any use of land in relation to section 9 of the Act that is not restricted by a rule in the Regional Soil Plan (or the

Proposed Natural Resources Plan) can be undertaken without resource consent from GWRC.

RMA section	Rule	Status	Comments/Permitted Baseline
9 Land use consent	Rule 1 – Roading and tracking	Permitted or Restricted Discretionary	The construction of walkways or cycleways on river berms is a permitted activity unless during any 12 month period it will result in a road or track having a continuous length of new upslope batter extending for greater than 200m, with a height of more than 2m.
9 Land use consent	Rule 2 – Soil disturbance on erosion prone land	Permitted or Restricted Discretionary	Construction of structures outside of the river bed, excavation, deposition and disturbance of material and repairs of berms is a permitted activity unless it is on land with a slope that is more than 28 degrees, involves the disturbance of more than 1,000m^3 of soil within any 10,000m^3 area, within a 12 month period.
9 Land use consent	Rule 4 – Vegetation disturbance on erosion prone land	Permitted or Restricted Discretionary	Any vegetation disturbance on land with a slope that is more than 28 degrees that cannot meet the permitted activity conditions of Rule 3, is a restricted discretionary activity. The conditions require that the land must be re-established in woody vegetation within 18 months, and/or vegetation or slash is not allowed to remain in any watercourse, or be placed where it could enter a watercourse.

Most activities undertaken by the applicant on land adjacent to the Wainuiomata River will not require resource consent under the Regional Soil Plan due to the topography of the land.

5.2 Proposed Natural Resources Plan

The Proposed Natural Resources Plan (PNRP) was publicly notified by the Council on 31 July 2015. All rules in the Proposed Natural Resources Plan had immediate legal effect under section 86B(3) of the Act. The Council's decision on the PNRP was publicly notified by the Council on 31 July 2019. The provisions of the PNRP as notified on 31 July 2015 have been superseded by the decisions version of the PNRP for assessing this proposal from that date.

However, under section 88A of the Act, the activity status is determined, as it was at the date of filing the application. This application was lodged on 3 November 2014. 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. The provisions of the PNRP (decisions version) will however be relevant for the substantive assessment, specifically consideration of relevant objectives and policies under section 104(1)(b) assessment (see section 9.2.4).

5.3 Permitted activities

The applicant may also undertake works as permitted activities under the regional plans. However, some works permitted under the operative regional plans may now require resource consent under the Proposed Natural Resources Management Plan, and/or the National Environmental Standards for Freshwater (NES-F). Prior to undertaking any works as a permitted activity, the rules of the operative, proposed plan, and NES-F will need to be considered and further resource consent applied for if required.

5.4 Overall activity status

For multiple activities assessed under multiple rules, the most stringent rule is the activity classification. Consequently, overall the activity must be assessed as a ***discretionary activity*** under the operative Regional Plans.

5.5 Other consents and approvals required

No resource consents are required for these activities under the City of Lower Hutt District Plan 2004.

Rule 7A 2.1 (Permitted Activities) of the City of Lower Hutt District Plan states that any works necessary for the management of any river or stream by the Wellington Regional Council is a permitted activity.

6. Notification and submissions

6.1 Notification

The application was publicly notified in the Dominion Post on Saturday 4 February 2017 and in the Hutt News on Tuesday 7 February 2017.

In addition, notice of the application was served on 15 affected/interested parties, including: Port Nicholson Block Settlement Trust, Te Runanga o Toa Rangatira Inc, Department of Conservation, Wellington Fish and Game Council, Royal Forest and Bird Protection Society, KiwiRail, and Hutt City Council.

The applicant has described the consultation which they undertook prior to lodging their application in section 5 of their Assessment of Environmental Effects.

The applicant requested that the submission period be extended by 34 working days to ensure an inclusive process whereby all submitters could have ample time to review the application documents and develop fulsome submissions. This request was granted by GWRC Environmental Regulation under section 37A of the Act.

6.2 Submissions

At the close of submissions at 4.30pm on Monday 1 May 2017, six submissions had been received. A further two submissions were received after the close of submissions.

A total of eight submissions were received. Two submissions were received in support or conditional support of the proposal and six submissions were received in opposition.

A summary of all submissions received and the issues raised is attached as Appendix 2 to this report.

6.3 Late submissions

As identified in Section 6.2 of this report, two late submissions were received.

Under section 37(1)(b) of the Act, a consent authority may waive a requirement to comply with a time limit for the service of documents (eg, submissions). In making such a waiver, the consent authority is required by section 37A(1) of the Act to take into account:

a) The interests of any person who, in its opinion, may be directly affected by the waiver;

b) The interests of the community in achieving adequate assessment of the effects of any proposal, policy statement or plan;

c) Its duty under section 21 to avoid unreasonable delay.

The applicant raised no objection to the late submissions; therefore the late submissions were accepted by GWRC Environmental Regulation.

6.4 Issues raised by submissions

I reviewed all submissions, which highlighted a number of issues as discussed in the sections below.

6.4.1 Issues raised by submissions in support

Issues	No. of times issue raised
Support for river management programme	1
Acknowledgment that hyporheic zone and recreational users may be compromised by river management activities	1

6.4.2 Issues raised by submissions of conditional support or neutral submissions

Issues	No. of times issue raised
Effects on infrastructure	1
Effects on aquatic species / ecosystem health	1
Recognises the need for flood control activities	1

6.4.3 Issues raised by submissions in opposition

Issues	No. of times issue raised
Effects on aquatic species / ecosystem health	4
Contrary to planning/legislative documents	3
Consent term sought	1
Recognises the need for flood control activities	2
Supportive of river advisory committee	1
Effects on mana whenua values	3

Pre-hearing meetings were held on 11 and 24 October 2018. Following these meetings the applicant made amendments to the application documents including the Code and draft consent conditions to address the concerns of submitters.

By 19 November 2019 all submitters had confirmed in writing that they were happy to withdraw their right to be heard at a hearing.

7. Matters for consideration

This section sets out the framework that has been used to assess the application.

7.1 Statutory criteria

The requirements of the Act that relate to the decision making process are contained within sections 104-116. The sections of particular relevance to this application are listed below.

The matters to which a consent authority shall have regard when considering applications for resource consents and submissions are set out in section 104(1) of the Act as follows:

> *When considering an application for 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 policy statement,*
>
> *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; and*
>
> *vi. a plan or proposed plan; and*
>
> *(c) any other matters the consent authority considers relevant and reasonably necessary to determine the application.*

The provisions of s104 are all "subject" to Part 2, which means that the purpose and principles of the Act are paramount.

7.2 Planning instruments and other matters

The following planning instruments and documents are relevant to this application:

National Instruments

- National Policy Statement for Freshwater Management 2020
- National Environmental Standard for Freshwater

Regional Instruments

- Regional Policy Statement for the Wellington Region 2013
- Regional Freshwater Plan for the Wellington Region 1999
- Regional Plan for Discharges to Land for the Wellington Region 1999

- Regional Soil Plan for the Wellington Region 2000
- Proposed Natural Resources Plan 2015 (decisions version)

District Instruments

City of Lower Hutt District Plan 2004

The actual and potential effects on the environment of allowing the activities are addressed in Section 8 of this report. The relevant provisions of the national and regional planning documents are discussed in Section 9 of this report. Other matters relevant to this application are considered in Section 9.3 of this report.

7.3 Matters relating to the grant of discharge permits

Section 105 of the Act lists additional matters that a consent authority must have regard to when considering applications for discharge or coastal permits to do something that would contravene section 15 of the Act. These matters are addressed in Section 8 and 9 of this report.

Section 107(1) of the Act places restrictions on the grant of resource consents for the discharge of contaminants into water if they cause certain adverse effects in receiving waters after reasonable mixing. The effects listed in section 107(1) of the Act are discussed in Sections 8 and 9 of this report.

8. Assessment of actual and potential effects 104(1)(a)

The applicant provided an Assessment of Environmental Effects (AEE) with the application. In addition, the application contained a report (Appendix F) by Mr David Cameron, entitled "Effects of Flood Protection Activities on Aquatic and Riparian Ecology in the Wainuiomata River" December 2016. Information in the assessment below has been drawn from the application and reports provided by the applicant, further information responses under s92 of the Act, technical reports and other information sourced during the processing of the application.

Dr Alex James, EOS, Senior Freshwater Ecology Scientist, reviewed and provided advice on the aquatic ecology aspects of the application for GWRC, and Dr Roger Uys, Senior Terrestrial Ecologist, Environmental Science, GWRC, reviewed and provided advice on the application in relation to the effects on birds and reptiles.

8.1 Water quality effects

As noted in the Cameron (2016) report, GWRC uses a water quality index (WQI) to facilitate inter-site comparisons of the state of water quality in the region's rivers and streams (Morar & Perrie, 2013). The WQI is derived from the median values of the following six key water quality variables: visual clarity (black disc), dissolved oxygen (%sat), dissolved reactive phosphorus, ammoniacal nitrogen, nitrate-nitrite nitrogen and *Escherichia* coli (E. coli). The

WQI enables water quality at each site to be classified into excellent, good, fair and poor gradings.

GWRC maintains two state of the environment river monitoring sites (RSoE) on the Wainuiomata River, one at Manuka Track (RS28) within the forested upper catchment and a second on the lower river, upstream of White Bridge (RS29), approximately 3km upstream of coast. The Manuka Track site is approximately 4.5km upstream of the reach managed by GWRC Flood Protection (the application area), while the lower site is approximately 16km downstream of the application area. The location of the sites is shown in Appendix 2 of this report. At the time that the application was lodged, the water quality at Manuka Track was graded 'excellent' and RS29, upstream of White Bridge was graded 'fair'.

The key effect from the river management activities proposed in the application that disturb the bed are those relating to the release of fine sediment into the water column, resulting in increased levels of suspended sediment and turbidity, reduced water clarity, and increased sediment re-deposition downstream. Other potential water quality effects include the release of nutrients or bacteria into the water column.

Results of turbidity and suspended solids monitoring by the applicant for various river management activities undertaken in Te Awa Kairangi/Hutt River indicated that:

- River crossings by off-road trucks generate relatively low suspended solids concentrations, from 2 to 10 mg/L above background;

- River crossings by bulldozer can increase river suspended solids concentrations by 130 mg/L;

- Channel shaping by bulldozer can increase suspended solids concentrations by nearly 700 mg/L;

- Suspended solids and turbidity levels return close to ambient levels rapidly, typically within 1 hour of the river works activity ceasing.

- Typically major gravel extraction operations have been undertaken for a number of weeks, for up to eight hours a day, five days a week. The presence of elevated suspended solids concentrations have therefore occurred over the same timeframes;

- The discharge plume may also contain elevated levels of total nitrogen and total phosphorus, but monitoring undertaken in Te Awa Kairangi/Hutt River indicates that these nutrients are bound to particulate material and that there is no associated increase in water column concentrations of dissolved nutrients (and therefore little risk of stimulating excessive algae growth);

- Channel shaping may result in a temporary increase in fine sediment deposition on the riverbed downstream of the works;

- A larger flood event (annual and above) in the river can increase river suspended solids by over 700mg/L, but more common smaller events typically increase river concentrations in the range 100 to 400 mg/L.

While the sediment released is the same or similar to that which occurs naturally during flood events, the main difference is that the discharge from works activities is likely to occur at times of low flow when the suspended solid load of the river is also low.

The nature of the sediment discharge will depend on whether the sediment is derived from recently reworked gravels (ie, gravels that have been disturbed and re-deposited by flood events in the channel), or from disturbance of older alluvial bank materials comprising gravels with a silt/clay matrix.

Condition 5.7 relating to sediment release is recommended to avoid or mitigate the effects of sediment on the Wainuiomata River. The condition limits the release of sediment as a result of the river management activities undertaken to no more than 12 hours a day, and for no more than 6 consecutive days. This will allow aquatic biota downstream to have the benefit of normal water quality for approximately half of each 24 hour period. In addition, the condition requires that there is no conspicuous change in the colour, or horizontal visibility of more than 20%, more than 1 hour after the completion of each working day no more than 200m downstream of the work site.

If works are proposed that require an SSEMP to be prepared it may be appropriate for deposited sediment monitoring to be undertaken in the Wainuiomata River depending on the nature of the works.

Other standard requirements to avoid or mitigate adverse effects on water quality, such as requirements relating to machinery operating in or near watercourses, and the use of spill kits on site, are included in the Code.

As such, given the requirements of the Code and the conditions of consent, the effects on water quality should be no more than minor. Any SSEMP monitoring will provide data to assess whether there are any short or long term effects of the works on the water quality and practices adapted accordingly if required.

8.2 Effects on aquatic ecology

GWRC monitors ecosystem health at RSoE sites, including monitoring of periphyton biomass and macroinvertebrate communities. For the period 2010 to 2014, excessive periphyton growth rarely occurred in the Wainuiomata River upstream reference site, but regularly occurs in the lower river. These results are consistent with the downstream increase in urban and agricultural

land use, increased nutrient inputs, including as a result of wastewater overflows, and much reduced riparian vegetation in the lower river. Periphyton stream bed cover was given an overall classification of 'excellent' in the upper catchment site, and 'fair' at the lower site. Mr Cameron considers that this is likely due to an increased concentration of dissolved nutrients in the lower river and reduced shading associated with the loss of forest cover from the middle and lower catchment, resulting in increased algae growth rates.

The application analysed macroinvertebrate data from 2009-2011 at the RSoE sites with site RS28 having an MCI score of 'excellent' and RS29 having a score of 'good', and for QMCI, RS28 also has a score of 'excellent', whereas RS29 has a score of 'fair'.

Mr Cameron notes that high MCI scores have a strong correlation with a lack of intensive agriculture or urban development, and RS28 is largely indigenous forest and scrub, whereas RS29 has a more developed catchment, including exotic forests, pasture and urban areas.

Mr Cameron notes that the Wainuiomata River has a typical assortment of fish species found in moderate sized, low elevation, low gradient, gravel bedded rivers in New Zealand. The fish species most commonly recorded in the New Zealand Freshwater Fish Database for the Wainuiomata River are the longfin eel and brown trout. Most of the fish species are migratory, requiring access to and from the sea to complete their life cycle. The old water supply dam approximately 2km upstream of the application area presents a significant barrier to upstream fish migration. However, koaro and longfin eel have been found above the dam and Mr Cameron presumes that they are able to overcome this barrier.

Increased sediment and turbidity can adversely affect macroinvertebrates and cause the following adverse effects on aquatic ecosystems:

- Smothering of aquatic life by a build-up of sediment in the stream bed causing changes to community structure
- Reduction of habitat quality and diversity due to deposition of sediment on the stream bed
- Disruption of juvenile upstream migration and smothering of eggs
- Avoidance of waters with high suspended solids by invertebrates, fish and aquatic birds
- Clogging of gills and loss of function of fish and invertebrates
- Destroying of spawning grounds by smothering with sediment, and
- Reduced feeding rates and growth rates.

Dr James is satisfied that the environmental effects of the works on fish can be appropriately managed through the consent conditions, the Code and the SSEMPs.

For indigenous species, a key sensitivity period of August to December is proposed for instream works to protect a range of species upstream juvenile migrations and also some of the spring-summer spawning by bullies. Appendix 7 of the Code states that instream works during this time should be avoided and high potential impact activities that disturb large amounts of the wetted channel at these times (as defined in Table 2 of the Code) will require an SSEMP. A key sensitivity period for trout spawning in the actively flowing channel of the Wainuiomata River is proposed from 1 May to 31 October. The Code states that it is preferable to avoid disturbance of the bed at these times, or if unavoidable, then the requirements for an SSEMP as set out in Appendix 2 of the Code need to be followed. Inanga spawning only occurs within the tidal area of the Wainuiomata River which is some kilometres downstream of the river management works area. Trout spawning, however, occurs within the works area.

There is potential for fish and mega-invertebrates to be stranded during works where dewatering the wetted channel, side channel or backwaters is proposed. Conditions 5.4 (b) and 5.5 attached in Appendix 1 state that any fish entrapped by the river management works be relocated as soon as possible, and that during dewatering, any fish that are stranded or at risk of being stranded must be placed back into the flowing channel. The Code notes which activities have the potential to result in the stranding or entrapment of fish or koura (and potentially kakahi in the Ōtaki River) and section 10.3.10 of the Code sets out a rescue and relocation methodology and refers to NIWA's fish passage guidelines.

Section 97(1) of the Fisheries Act 1996 requires a Ministry of Primary Industries special permit for the collection of aquatic biota. This is required to collect exotic or native fish from a relocation site. Section 26ZM(2a) of the Conservation Act 1987 requires approval by the Ministry of Fisheries or the Ministry of Conservation depending on the circumstances to transfer native fish and other aquatic life to appropriate water bodies in the same catchment as the capture site where these species currently exist or to relocate native fish and aquatic life to a different location outside of the fish rescue site. Any persons involved with the rescue or relocation of exotic or native fish need to ensure that they have the appropriate permits and approvals under the above legislation.

Given the requirements of the Code and the conditions of consent, the effects on fish and aquatic habitats should be no more than minor. The baseline and SSEMP monitoring will provide data to assess whether there are any short or long term effects as a result of the works and practices can be adapted accordingly if required.

8.3 Effects on reptiles – lizards and geckos

Mr Cameron undertook a search of lizard and frog records within a 1 km wide corridor extending from the Wainuiomata River channel centreline. There are

no records of herpetofauna with this area, however, this may be due to a lack of surveys rather than an absence of reptiles.

Species likely to be present include the Ngahere gecko, barking gecko, copper skink, northern grass skink and ornate skink. Potential habitat for these species includes screes, boulderfields, rank grassland, scrub, shrubland, and forest areas.

Dr Roger Uys reviewed the information provided in the application in relation to lizards and geckos. Dr Uys noted that bringing experts in to search for and relocate lizards is a good control to mitigate the effects of flood protection works. However, he noted that there could be cumulative effects on reptile populations as a result of successive works along a stretch of river bank. Few translocations have 100 percent success rates and moving animals into areas with existing populations can result in the carrying capacity for that area being exceeded, leading to further mortalities.

To address the cumulative effects on reptile populations (ie, lizards and geckos), the surveys that have been provided in the General Activity Constraints Calendars should establish the spatial extent of the whole population in the area, not just the area of the proposed footprint of works. Dr Uys noted that it is important that the General Activity Constraints Calendars not be limited to conditions based on our current knowledge, as reptiles have not been well surveyed. Furthermore, he notes that all species should be surveyed when contemplating work in listed habitats, not just the known and threatened species. Dr Uys recommended that if more than 10 percent of a contiguous population is being displaced, consideration should be given to finding alternative sites, rather than saturating the population in the remaining habitat with relocated animals. Dr Uys notes that a suitably qualified expert should be used to do these surveys and to determine whether the quality and population density of the receiving habitat that animals are being relocated to are appropriate. Surveys should expand until the entire contiguous population has been captured or the proportion of the contiguous population being displaced is found to be less than 10 percent. Appropriate mitigation might include the replacement of lost habitat on site or in another suitable location as determined by a suitably qualified expert.

Dr Uys notes that a permit is required from the Department of Conservation to handle indigenous reptiles and such a permit will only be issued to a suitably qualified person.

The Code and conditions 5.8 to 5.10 of the consent require a herpetologist to undertake a survey to check for the presence of any lizard or gecko species prior to any works which disturb more than 100m^2 of certain habitat types favoured by reptiles, or disturb any area where reptiles are known to be present. If any reptiles are identified, works must not proceed until the consent holder has obtained permits under the Wildlife Act 1953, and a

detailed plan is in place to avoid or mitigate any adverse effects of the works, including those risks which Dr Uys has highlighted above in relation to relocation.

As such, and based on the advice of Dr Uys, the effects on lizards and geckos as a result of the river management activities should be no more than minor.

8.4 Effects on birds

There are no threatened or vulnerable bird species in this section of the Wainuiomata River. In addition, due to the limited extent of gravel beaches and the narrow river channel, the reach of the Wainuiomata River related to these consent applications does not support breeding populations of river nesting bird species.

As such, Mr Cameron considers that adverse effects on river birds are likely to be relatively minor. Monitoring surveys are proposed in the EMP to ensure that any future change in bird populations can be identified and appropriate mitigation developed. Dr Uys raised no specific concerns in relation to birds in the Wainuiomata River.

8.5 Effects of the construction of impermeable structures

Construction of groynes, rock lining and other structures such as gabion baskets and reno mattresses have short term construction effects as well as long term effects as a result of their placement.

Construction effects include those which result from the excavation and disturbance of the bed material creating a temporary increase in suspended solids concentrations downstream of the works. Mr Cameron suggests that this could be as much as 100mg/L which would cause a sharp reduction in water clarity and would be clearly visible from the bank. The increase in suspended solids is likely to depend on the length or area of bed disturbance, as well as the nature of the bed material. Works undertaken in clay soils or within silty river beds are likely to increase suspended solids, including by more than 100mg/L, and affect water clarity, more than works undertaken within gravel beds. However, as noted above, monitoring of Te Awa Kairangi/Hutt River has shown that turbidity and suspended solids concentrations return near ambient levels once the instream activity ceases.

Mr Cameron also notes that disturbance of the bed would disrupt the macroinvertebrate community and could cause some mortality of smaller fish which seek shelter within the substrate. Trout and other fish are likely to move away from the disturbance so are less likely to be harmed. Other potential short term effects include inconvenience to recreational users and noise.

To reduce these adverse effects on water quality, it may be preferable that the construction methodology involves the temporary diversion of flow around the works site. As such, fish or koura rescue and relocation may be

required from any dewatered areas where the flow is diverted, as set out in section 10.3.10 of the Code.

Condition 4.4 of the consent defines the construction and/or repair of impermeable structures as a high potential impact activity which means that an SSEMP will be required if the works are to be undertaken at times and locations which may affect inanga (although this is unlikely for the Wainuiomata River) and trout spawning, at times that may affect migrating fish, and at all times when the flow in the channel recedes below the minimum flow.

The conditions of consent also place restrictions on the days and hours that the works can be undertaken to minimise the disturbance of recreational users and adversely affecting the amenity of the river as a result of noise from the construction works.

The placing of erosion protection structures also has potential long term effects on the river. Fish habitat beneath undercut banks or overhanging vegetation can be destroyed, and Mr Cameron notes that the finished structure will usually result in some loss of channel complexity.

However, there is potential for the structures to reduce erosion and sediment loss into the stream and provide new habitat for fish, especially if deep pools are created at the toe of the structure. Mr Cameron notes that the combination of fast water, sheltered water, deep pools and large crevices amongst rock groyne boulders or at the toe of rock rip rap can potentially provide a variety of habitat for both native fish and trout. A number of native fish species and brown trout were found in deep water habitat associated with groynes on Te Awa Kairangi/Hutt River near the Kennedy Good Bridge.

Mr Cameron notes that vegetation established among rock lining can provide overhanging cover although it may also generate potential terrestrial weed management issues.

Rock groynes are designed to alter the river flow pattern to protect the river banks from erosion. As such, it is important that the engineering design minimises the risk of erosional end effects or other effects which result in erosion or scour downstream of the structure.

Groynes, rock lining, gabion baskets and other impermeable structures alter the visual appearance and natural character of a river. Mr Cameron notes that this can be mitigated through the use of appropriate rock material which is compatible with the existing river bed material and the establishment of appropriate vegetation behind the rock lines. Condition 5.6 requires that where more than 100m^2 of riparian vegetation is to be removed, the consent holder will replant an equivalent area of riparian vegetation within that river corridor as replacement. Any clearance of areas of high value riparian vegetation will be avoided in the first instance and if this is not possible will be

replaced by appropriate species and maintained in accordance with "*Flood Protection Department Policy - Environmental Enhancement as part of Capital and Operations Projects, 2012"*.

The effects of constructing impermeable structures as proposed is considered to be no more than minor.

8.6 Effects of the construction of permeable structures

Construction of debris fences, debris arresters and timber groynes will also result in short term construction effects as well as long term effects as a result of their placement.

The short term effects are likely to result in the temporary discharge of suspended sediment as a result of stream diversion, river bed shaping and preparation of the site. However, the diversion and works are likely to be completed quickly, with works mostly able to be completed in the dry bed, resulting in only minor effects on water quality. Likewise, any disturbance of macroinvertebrates and smaller fish is likely to be minor. As noted above, any stream diversion or dewatering of a site must be undertaken in such a way that fish are not stranded or harmed during relocation to another part of the watercourse.

These structures are designed to trap flood debris, which Mr Cameron states, may also provide sheltered habitat for juvenile and larger fish. During the periodic maintenance and clearance of these structures, any adverse effects on fish from the removal of this debris need to be minimised, and in particular, care needs to be taken to avoid stranding of fish or inadvertent removal of fish from the watercourse at the same time as the debris. These risks are highlighted in the Code and the conditions of consent require that any fish entrapped are relocated as soon as possible.

As such, the effects of constructing permeable structures as proposed is considered to be no more than minor.

8.7 Effects due to gravel extraction

Dry gravel extraction from the beaches of the Wainuiomata River is likely to have minimal effects on water quality, especially given the small quantities of gravel proposed to be taken. Where trucks are required to cross the river there is potential for a minor discharge of sediment and mobilisation of bed material. Section 10.4.17 of the Code sets out the requirements for gravel extraction from beaches and requires that vehicle crossings should be kept to a minimum and restricted to a single point of entry and exit.

To avoid or mitigate changes in habitat structures, including fish and invertebrate communities, or changes to river morphology, extraction proceeds in uniform strips parallel to the river channel, to a depth no lower than 0.2 m above the normal level of the adjacent flow. At the end of extraction, beaches are to be left with an even surface and profile sloping

down towards the channel, to ensure that there are no major discontinuities that could divert future floodwaters. The next flood will then re-work the bed to a more natural form.

Prior to the commencement of a gravel extraction programme, managers will assess whether the work is necessary, taking into account:

- the results of the most recent bed level surveys and gravel analyses;
- available information on short and long term trends in aggradation and degradation in the river bed;
- any other available information on factors affecting the long term sediment supply; such as changes in catchment hydrology, land cover and slope stability etc; and
- the environmental effects of the work and available alternatives to achieving the desired outcomes.

As noted above, due to the limited extent of gravel beaches and the narrow river channel, the reach of the Wainuiomata River related to these consents does not support breeding populations of river nesting bird species.

Overall, the adverse effects of gravel extraction from the dry beaches in the Wainuiomata River are considered to be no more than minor.

8.8 Effects of channel shaping and realignment

Channel shaping and realignment involves activities that occur on the dry beaches, such as beach ripping and recontouring, and within the wetted channel such as channel diversion cuts, bed ripping in the flowing channel and bed recontouring.

One of the key effects of these types of works on dry beaches relates to the effects on birds, and lizards and geckos. As noted above, the reach of the Wainuiomata River subject to these consents does not support breeding populations of river nesting birds. The effects on lizards and geckos have been discussed in Section 8.3. As noted in the AEE, beach ripping loosens the beach gravels so that in the next flood the bed material is more readily mobilised. This may cause an initial flush of silt and gravel downstream, affecting water quality due to the release of sediment. The effects of this have been discussed in Section 8.1 and 8.2. The effects of this initial flush are likely to be short lived, and similar to, or occurring simultaneously with, a flood event and as such are likely to be no more than minor.

Beach recontouring may have a minor adverse effect on aquatic ecology due to contributing to the straightening of the watercourse which could result in the loss of some channel complexity and aquatic habitat.

Mr Cameron states that channel diversion cuts can potentially disturb or restrict recreational use. There is also likely to be an initial release of suspended sediment to the river from the disturbed gravels when the newly formed channel becomes activated.

In addition, if the old channel is to be filled in and not retained as a backwater, bed recontouring has the potential to affect fish and mega-invertebrates, and measures need to be taken to avoid entrapment or stranding, in particular.

Bed recontouring may also occur in isolation to realign the low flow channel. While Mr Cameron notes that this requires working in the active channel like wet gravel extraction, the effects are less significant due to the activity usually covering a smaller area and only taking days rather than the weeks generally needed for gravel extraction. He does however, cite a study which states that the major biological impact relates to the loss of riffle sections as these are major sites of invertebrate production in rivers. Consequently the loss of large areas of riffles could affect local fish production.

Bed recontouring that is used to straighten a channel is likely to result in the loss of channel complexity and reduce aquatic habitat diversity. Mr Cameron cited a study by Mr Perrie from 2009, where he observed that channel realignment on the Waingawa River resulted in significant straightening of the river channel and had an effect on the diversity of habitat types. In particular, deep runs were reduced in extent and pools were completely removed.

Mr Cameron notes that it is possible to be undertaken in a way that does not result in ongoing loss of habitat complexity provided that measures are in place to ensure that the number of pools and riffles within a specified reach are not reduced below an optimum level. Again, the surveys of pools and riffles for each management reach referred to above in Section 8.7 will be used to determine this.

Provided that the Code and in particular the good management practices, and conditions 5 and 17 of the consents are complied with in relation to these activities, the effects should be no more than minor.

8.9 Effects on Natural Character and Habitat

The river management activities proposed to be undertaken are based on six key principles which are outlined in Section 1.2 of the Code. These principles which will be given effect to in the development and review of Floodplain Management Plans and Operational Management Plans are as follows:

1. **Rivers are dynamic**: They are constantly changing and at any time, are a physical expression of a combination of their physical, climatic and human processes (both past and present) at the catchment and reach level.

2. **Work with rivers and not against them**: Healthy rivers are diverse rivers. Diverse rivers have greater natural character, which provides

for a greater expression of mauri and their inherent aquatic and riparian habitats, which in turn support greater species diversity.

3. **Rivers need room to move**: Rivers naturally meander, and the meander pattern will tend to migrate downstream over time. Central to this process is erosion and deposition of bed and bank material and the re-location of riparian margins.

4. **River management requires knowledge**: Understanding catchment specific river histories and bedload transport capacities is needed to predict reach specific future state, and what is realistically achievable.

5. **Rivers are managed for a range of flood flows**: Both flood and channel carrying capacities are managed to meet the community's expectations for protection, and the avoidance and/or mitigation of flood hazards.

6. **River management requires adaptability**: The unpredictability of dynamic rivers combined with fixed channel capacity constraints, means flexibility of management is important to achieve agreed outcomes.

These principles represent a significant change to how flood management practices have been undertaken in the past, and principles 1 to 3 in particular promote the maintenance and enhancement of the natural character of the river. The Code also notes that a river's inherent requirements, in terms of its ability to express its own character and identity (and in cultural terms, its mauri), should be considered along with the community's needs in floodplain management planning.

The OMP will set out how these principles will be given effect to and identify the river's characteristics and values, and areas of special natural character, significant ecological and mana whenua values, and fish and spawning habitats.

Massey University researchers (Death*, et al*, 2015)[2] for the applicant, have proposed the use of a Natural Character Index or Habitat Quality Index to assess the degree of geomorphological change from individual river engineering activities so that the cumulative effects of the river management activities may be determined and any potential adverse environmental effects from specific engineering activities may be minimised. The researchers note that if hydromorphology must be altered by flood engineering to prevent damage to people and their infrastructure, then quantifying the loss with this index will allow mitigation of that same quanta at a more suitable location, with the aim of no net loss of habitat.

[2] Death, R., Death, A., Fuller, I., Jordan, C., and Cameron, D.. (2015) *A technique (eNCI) for assessing natural character impacts of river management activities.*

Death*, et al* (2015) note that each river comprises a unique assemblage of morphological components (bars, riffles, pools, runs), reflecting the unique flow regime conditioned by runoff from the catchment; unique sediment supply, both in terms of volume and calibre (size); and unique channel boundary conditions, notably bank composition and channel gradient. Death*, et al* (2015) seek to quantify natural character using the NCI as a means to monitor change in river habitat / condition associated with river engineering.

Currently, the methodology involves a series of attributes that are quantified on the reach at some time before and after an activity or time and expressed as a ratio. The attributes are scored in such a way that values lower than 1 indicate degradation of geomorphological state. The closer the value is to 1, the less change has occurred. To allow for possible 'natural' geomorphological change from spats, or floods for example, an upstream or reference reach of similar length and hydromorphology is also assessed, and compared with the engineered reach to allow for any 'natural' change.

Dr James noted that NCI, albeit perhaps in an altered form, would be useful for use in resource consents for river engineering, provided it was not the only metric used. He considers that it provides a standardised method of measuring geomorphological alteration and includes some parameters that are known to influence biodiversity values of aquatic fauna. However, he does not believe that it represents "natural character" and all that such a term encompasses, but rather a subset of features some of which are aspects of the natural character of a river reach. Nor does he believe that NCI should be used as a surrogate for monitoring any ecological impact – and thus ecological monitoring should still be undertaken.

The NCI/HQI methodology is still being refined and as such, condition 6.3 requires that within 12 months of granting this consent that the methodology be developed to monitor the cumulative effects of the river management activities. This methodology will assess the existing morphological state of the river, assess the quality of selected habitat features including pools, instream and riparian cover and bed roughness, and describe the methods and frequency for monitoring the change of these features over time.

While the NCI/HQI methodology is being refined and implemented to assess the effects of geomorphological change over time as a result of the river management activities, there are also other conditions of consent and requirements of the Code which will avoid, mitigate or remedy adverse effects on natural character and habitat. Conditions include those that relate to the management of bed levels, riparian vegetation replanting and SSEMPs may include the requirement to undertake habitat mapping.

Overall, given the requirement of the OMP, the Code, and the conditions of the consent (particularly conditions 2, 5 and 6), the effects on natural character and habitat are considered to be minor or no more than minor.

8.10 Effects on mana whenua values

Appendix J of the application includes a Cultural Values report prepared by Raukura Consultants, on behalf of Port Nicholson Block Settlement Trust (PNBST) and Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui) and a Cultural Impact Assessment produced by Ngāti Toa Rangitira. Iwi representatives were also present at the pre-hearing meetings for the Wainuiomata and Te Awa Kairangi/Hutt Rivers, and the applications for the other western rivers (Waikanae and Ōtaki Rivers) where the potential effects on mana whenua values were highlighted and provided for. As a result, a number of amendments were made to the consent conditions, the Code and other matters related to the implementation of the resource consents, including highlighting the partnership with mana whenua and the development of Rōpū Kaitiaki to facilitate the exchange of information between the applicant and mana whenua.

The development and implementation of a Kaitiaki Monitoring Strategy will identify tohu, mahinga kai, and Māori customary use, and methods to monitor them, as well as identifying tikanga and how it influences cultural monitoring methods, and a reporting structure that enables kaitiaki information to contribute to the applicant's environmental reporting.

The Code includes good management practice guides for the maintenance and protection of mana whenua values (10.3.13) and an accidental discovery for artefacts and koiwi (10.3.14).

I adopt the assessment of effects on mana whenua values of PNBST, Taranaki Whānui and Ngāti Toa Rangitira in Appendix J of the application in accordance with section 42A(1B)(b) of the Act.

8.11 Effects of other activities

The effects of a number of other activities are discussed in section 5 of the AEE, including construction and maintenance of works outside of the river bed, demolition and removal of existing structures, maintenance of existing structures, establishment and maintenance of vegetative bank protection, planting and maintenance of planting, removal of vegetation, flood debris and silt. Many of these activities are now permitted under the PNRP provided that they are undertaken in accordance with the permitted activity conditions. Further, works outside of the bed of the river are generally beyond GWRC's jurisdiction as a regional council. Overall, I concur with the assessment of all of these matters discussed in sections 5.6 to 5.12 of the AEE and adopt these parts of the AEE in accordance with section 42A(1B)(b) of the Act.

I am satisfied that the Code and the conditions of consent will avoid, mitigate or remedy any effects from these activities so that the effects are no more than minor or *de minimus*.

8.12 Environmental Monitoring Plan

Appendix 3 of the Code is the Environmental Monitoring Plan (EMP) which sets out the proposed monitoring for the river management activities for the Western Rivers. For the Wainuiomata River, the conditions require that the OMP sets out management reaches for the Wainuiomata River that will be included in the EMP. Baseline monitoring is to be undertaken for various parameters for the Wainuiomata River including hydrological information, aerial photography, pool and riffle counts, river bed levels, riparian vegetation, and geomorphological characteristics for NCI/HQI monitoring. Section 2.3 of the Code sets out the methodologies to be used to undertake the monitoring to ensure consistency with the data.

Triggers related to the baseline monitoring for the Wainuiomata River are set out in Tables 5 and 7 of the Code. There are triggers for each parameter and a response for when those triggers are activated by survey findings as set out in Table 5. Triggers for further investigative work for pools and riffles are set out in Table 7. If monitoring shows changes of significance in any of the parameters, further investigation must be undertaken to determine if the change can be clearly linked to the effects of river management activities. If so, changes to river management practices may be necessary.

When an SSEMP is required, site specific monitoring will be designed specifically for the event or events in question, taking into account the specific values and issues of relevance to the affected site or reach. Where appropriate, site monitoring associated with an SSEMP would be based on a before/after/control/impact design and will include some or all of the following (depending on the ecological values known, or likely to be present, at the site):

- Water quality monitoring (suspended solids, turbidity, Total-Nitrogen, Total-Phosphorus)
- Deposited sediment monitoring (sediment cover and substrate size)
- Habitat mapping at impact and reference sites
- Macroinvertebrate re-colonisation
- Survey of fish populations
- Fine scale monitoring of physical, chemical and biological indicators in estuarine environments (where applicable)
- NCI/HQI parameters and calculations for upstream and impacted reaches.

The EMP will be supported by development of a GIS mapping tool that includes an activity layer which records the location, extent, timing and duration of all ‘high disturbance’ river management activities. It will also include an ecological values layer that would record information on the

location of sensitive habitats and species, and identify management reaches with high, moderate and low sensitivity to disturbance by river management activities. These layers could be overlayed to produce a map of river reaches with a low to high risk of adverse effects which would be used to guide overall work planning. That assessment would also be used to identify activities that need an SSEMP, and a site-specific monitoring plan

The methods and results of monitoring of the EMP will be included in a technical report prepared by the person or organisation commissioned to undertake the monitoring. A summary of results and any recommendation will be included in the Annual Report prepared by the applicant as described in section 3 of the Code.

8.13 Ecological Enhancement Fund

The applicant proposed conditions relating to the provision of an Ecological Enhancement Fund. The Ecological Enhancement Fund is proposed to apply throughout the Wellington Region, with the purpose of maintaining or enhancing the natural character of the river environs, including:

- the space available for the river (for example, by acquiring adjacent land);
- areas of vegetation with high biodiversity values (including the planting of native species) in the river corridor;
- in-stream values; or
- any other area of important in-river or riparian habitat.

All riparian planting will be undertaken and maintained in accordance with "Flood Protection Department Policy - Environmental Enhancement as part of Capital and Operations Projects, 2012".

It also states that the funds may be allocated in order to implement recommendations contained in the Annual Reports or Recommendations Report from the IRP or a baseline monitoring report.

8.14 Summary

In summary, the various plans, the Code, the Kaitiaki Monitoring Strategy and consent conditions, as well as oversight by Rōpū Kaitiaki, the Independent Review Panel, stakeholders and Environmental Regulation means that the river management works will be carried out in a way that promotes best practice and innovation, and avoids or minimises adverse effects on the environment while also preventing or mitigating flooding and erosion damage in the Wainuiomata River catchment.

The Code, and for high potential impact activities the SSEMPs, set out the methods to be used so that the best option for works can be selected, measures to avoid, remedy or mitigate any adverse effects, and effects of any works are no more than minor. The monitoring will allow cumulative effects

over time to be assessed and for changes to be made to the methodologies to minimise these effects if necessary.

Ultimately, if there are any unforeseen adverse effects as a result of the proposed river management activities, this can be identified in the Annual Reports and Independent Review Panel Reports, or by Rōpū Kaitiaki, stakeholders, members of the public, and the Environmental Regulation team. If required, the Manager, Environmental Regulation may also serve notice on the consent holder of its intention to review the consent conditions to deal with adverse effects or to align the conditions with any operative regional or district plans, iwi management plans, National Environmental Standards, regulation or Acts of Parliament.

As a result, and on the basis of the information provided in the application and further information provided during the processing of the application, the technical assessments undertaken for GWRC, and the proposed mitigation measures, I am satisfied that the effects of the proposal are likely to be no more than minor.

9. Statutory assessment

As noted in Section 7 of this report, Section 104-108AA of the Act provides a statutory framework in which to consider resource consent applications.

9.1 National planning instruments (s104(1)(b)(iii))

The Government's Essential Freshwater package – Wai Māori Matuatua, is part of a new national direction to protect and improve our rivers, streams, lakes and wetlands. The Essential Freshwater package aims to:

- stop further degradation of our freshwater;
- start making immediate improvements so water quality improves within five years; and
- reverse past damage to bring our waterways and ecosystems to a healthy state within a generation.

Essential Freshwater includes the following instruments that have relevance to this application and the management of rivers.

9.1.1 The National Policy Statement for Freshwater Management 2020 (NPS-FM)

This NPS-FM replaces the previous 2014 version that was amended in 2017. The NPS-FM sets out objectives and policies that direct local government to manage fresh water through regional policy statements, regional plans and in the consideration of resource consent applications. Some of the requirements take immediate effect including a new policy in relation to the avoidance of the loss of river extent and values, unless the Council is satisfied that there is a functional need for the activity in that location and the effects of the activity are managed by applying the effects management hierarchy. The requirements in relation to the National Objectives Framework will be implemented over the next few years.

The 2017 amendment to the NPS-FM gave greater prominence to the concept of Te Mana o te Wai (the integrated and holistic well-being of a freshwater body). Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the water and restores and preserves the balance between the water, the wider environment, and the community. The NPS-FM 2020 requires every regional council to give effect to Te Mana o te Wai including through six principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater, and which also inform the NPS-FM and its implementation.

The NPS-FM also sets out a hierarchy that prioritises:

(a) first, the health and well-being of water bodies and freshwater ecosystems

(b) second, the health needs of people (such as drinking water)

(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

The implementation framework of this consent application considers and recognises Te Mana o te Wai as an integral part of freshwater management. Mana whenua involvement occurs throughout all areas of the applicant's flood protection work (strategy, planning, implementation, monitoring and reporting). The principles through which the river management activities are to be undertaken, and principles 1 to 3 in particular, promote the maintenance and enhancement of the mauri of the river, and are consistent with Te Mana o te Wai. The Code also notes that a river's inherent requirements, its character, identity and mauri, should be considered along with the community's needs in floodplain management planning. As such, I consider that the implementation of this consent is consistent with the objectives and policies of the NPS-FM.

9.1.2 The National Environmental Standards for Freshwater (NES-F)

The NES-F introduced a suite of regulations including those in relation to natural hazards in the vicinity of wetlands, and managing structures that may affect fish passage. These regulations have effect from 3 September 2020.

Grade control structures are defined as weirs under the NES-F and so the construction of a new grade control structure will need to meet the permitted activity conditions of section 72 of the NES-F or resource consent will be required under section 73 as a discretionary activity.

The NES-F does not apply to existing structures or any later alterations or extensions of a structure that was placed prior to 2 September 2021. The natural hazard requirements only relate to activities in the vicinity of a natural

wetland. This consent application does not include any areas in the vicinity of natural wetlands.

9.2 Regional planning instruments (s104(1)(b)(v))

The relevant regional planning instruments are the operative Regional Policy Statement (RPS), the operative Regional Plan for Discharges to Land, the Regional Freshwater Plan and the Proposed Natural Resources Plan (PNRP). The applicant's proposal has been assessed against the relevant objectives and policies contained within these plans.

9.2.1 Regional Policy Statement for the Wellington Region 2013

The RPS outlines the resource management issues of significance to the region and provides a framework for managing the natural and physical resources of the region in a sustainable manner. Further to this, the RPS identifies objectives, policies and methods which are designed to achieve integrated management of the natural and physical resources of the whole region.

Section 4.2 of the RPS sets out the policies that are to be considered when processing and deciding upon a resource consent. I consider that, with the application of the recommended conditions of consent, the proposed activity is consistent with the RPS.

Objective/Policy	*Comment*
Policy 40	Policy 40 requires that water quality, flows and water levels, and aquatic habitats of surface water bodies be managed for the purpose of safeguarding aquatic ecosystem health. The Code and conditions set out specific requirements to protect and maintain pools and riffles within the rivers, as well as reduce sedimentation to safeguard aquatic ecosystem health. Given the proposed mitigation and remediation measures set out in the Code and the conditions, the aquatic ecosystem health should be maintained, and in some instances such as where rock groynes are placed on the outside of eroding banks, enhanced. As such, I consider the application to be consistent with this policy.
Policy 41	Policy 41 relates to minimising the effects of earthworks and vegetation disturbance. The conditions set limits on the amount of sediment that can be released while undertaking river management works. The Code highlights those activities which are likely to generate a release of sediment and section 10.3.6 of the Code sets out the sediment and erosion control measures to be used to minimise the release of sediment. As such, I consider the application to be consistent with this policy.

Policy 43	Policy 43 relates to protecting the aquatic ecological function of water bodies. Riparian margins will be maintained or enhanced through the conditions which require an SSEMP to be prepared if a large amount of vegetation is to be cleared, as well as reinstatement of the cleared riparian vegetation. The Ecological Enhancement Fund may also be used to enhance riparian margins. As such, I consider the application to be generally consistent with this policy.
Policy 47	Policy 47 relates to managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values. Wainuiomata River is listed in Schedule F as a river with significant indigenous ecosystems. The OMP will highlight those reaches that contain indigenous ecosystems and habitats and have significant indigenous biodiversity values. The OMP may also state that certain works in these areas will require an SSEMP. Some activities which may have an effect on these matters in Policy 47 will also require an SSEMP to be undertaken prior to the works. The SSEMP will set out the specific measures to avoid, remedy or mitigate adverse effects and monitoring to be undertaken. As such, I consider the application to be consistent with this policy.
Policy 48 and 49	Policy 48 requires that particular regard be given to the principles of the Treaty of Waitangi and Waitangi Tribunal reports and settlement decisions relating to the Wellington Region. Policy 49 relates to recognising and providing for matters of significance to tangata whenua. Iwi representatives from Port Nicholson Block Settlement Trust (PNBST) and Taranaki Whānui ki Te Upoko o Te Ika were part of the Hutt River Flood Management Plan Advisory Committee and meetings were held with representatives of PNBST and Taranaki Whānui. As a result of these meetings a Cultural Values report was prepared by Raukura Consultants and included in Appendix J of the application. This Cultural Values report highlights the areas of highest consideration where particular attention must be paid over cultural and physical effects on the taonga associated with the rivers. The applicant also consulted with Ngāti Toa Rangatira prior to lodging the application and Te Runanga o Toa Rangatira Inc provided a Cultural Impact Assessment which was also included in Appendix J of the application. Nga Hapu o Ōtaki, PNBST on behalf of Taranaki Whānui ki Te Upoko o Te Ika, Ngāti Toa Rangatira and Caleb Royal submitted on the application. Following consultation and pre-hearing meetings, a number of amendments were made to the Code and conditions, including conditions to establish a sharing and knowledge forum known as Rōpū Kaitiaki with representatives from the region's iwi. As a result, all of the submitters listed above withdrew their right to be heard at a

	hearing. Consequently, it appears that the matters of significance to tangata whenua have been recognised and provided for and that regard has been given to the principles of the Treaty of Waitangi and the Waitangi Tribunal reports and settlement decisions.
Policy 51	Policy 51 relates to minimising the risks and consequences of natural hazards on people, communities their property and infrastructure. This resource consent application is to undertake works to minimise the risks and consequences of flooding on people, property and/or infrastructure. The nature of the proposal means that climate change and sea level rise can be taken into account at the time that the works are required and the potential for increased frequency or magnitude of flood events can be appropriately managed. As such, I consider the application to be consistent with this policy.
Policy 52	Policy 52 relates to applications for hazard mitigation measures, and notes that particular regard should be given to the need for structural protection works or hard engineering methods, whether non-structural methods are more appropriate, the cumulative effects of isolated structural protection works and the residual risk. These matters will be set out and considered in the OMP and AWP, as well as in an SSEMP if this is required. Section 6 of the Code contains a decision making framework to assist with ensuring that only appropriate activities are included in the AWP. This proposal and the associated environmental monitoring programme allows the cumulative effects of structural protection works, as well as the residual risk after mitigation works are in place to be assessed over time. As such, I consider the application to be consistent with this policy.
Policy 53	This policy relates to public access to and along water bodies including rivers and streams. Some works may require that public access is restricted or prevented while the works are being undertaken. However, this will only be a temporary measure. Except in the case of urgent or emergency works, no works will be undertaken on Sundays or public holidays, or on Saturdays during summer in the actively flowing channel. No works will occur after 3pm on Saturdays either. As such, I consider the application to be consistent with this policy.

9.2.2 Regional Plan for Discharges to Land

Objective/Policy	*Comment*
Policy 4.2.19	This policy relates to allowing discharges to land which are not likely to have adverse effects on soil, water quality and amenity values. The proposal is unlikely to have adverse effects on soil. Regarding water quality, the key contaminant is likely to be sediment. The conditions set limits on the amount of sediment that can be released while undertaking river management works. The Code highlights those activities which are likely to generate a release of sediment and section 10.3.6 of the Code sets out the sediment and erosion control measures to be used to minimise the release of sediment. Potential effects of discharges on amenity values are provided for through the conditions of consent including requirements for working hours, as well as the Code which requires management of the effects on recreational values and visual amenity. As such, I consider the application to be consistent with this policy.
Policy 4.2.24A	This policy relates to discharges and requires regard to be given to matters relating to the life-supporting capacity of fresh water. Policy 4.2.24A requires that when considering an application, regard is given to a number of matters. To assess the extent to which it is feasible or dependable that more than minor adverse effects be avoided, I consider that the applicant has proposed 'industry best practice' methods for the river management works, as well as the use of appropriate mitigation measures, in order to minimise the effects of the proposed works. The 'toolbox' of measures within the Code as well as the adaptive Environmental Monitoring Plan means that the best method can be selected for the site and undertaken at the appropriate time. Alternative methods will be assessed and any works or methodologies can be updated over time. Furthermore, all discharges related to the river management activities will be temporary in nature. As such, I consider the application to be consistent with this policy.

I consider that, with the application of the recommended conditions of consent, the proposed activity is consistent with the Regional Plan for Discharges to Land.

9.2.3 Regional Freshwater Plan

Objective/Policy	*Comment*
Objectives 4.1.1, 4.1.2 and 4.1.3; Policies 4.2.1, 4.2.2, 4.2.4, 4.2.5, 4.2.7 and 4.2.8	These provisions require the relationship of tangata whenua and their culture and traditions with freshwater to be recognised and provided for, the mauri of water bodies and river beds be protected, and the principles of the Treaty of Waitangi be taken into account. Information has been provided from PNBST and Ngāti Toa cultural impact assessments, and representatives attended the pre-hearing meetings and provided input which included the provisions relating to the formation of Rōpū Kaitiaki. The Kaitiaki Monitoring Strategy will be developed and implemented with Ngāti Toa and PNBST, and the monitoring will be included in the Annual Report. I consider the proposal to be consistent with these provisions.
Objectives 4.1.4 to 4.1.6; Policies 4.2.9 to 4.2.14	These provisions aim to protect the natural character of rivers from inappropriate use and development, to safeguard the life supporting capacity of water and ecosystems, and protect significant habitats of fresh water fauna. The section of the Wainuiomata River subject to this consent application is an urban reach. There are some parts where natural components are evident, and in other parts that are highly modified. The proposed works will maintain or restore where possible the natural character of the Wainuiomata River. In relation to avoiding, mitigating and remedying the adverse effects of the use and development of water bodies and river and lake beds on aquatic habitats and freshwater ecosystems, the Code provides a 'toolbox' of best practice measures to be used to minimise the adverse effects on aquatic habitats and freshwater ecosystems.Significant natural habitats, including pools and riffles, as well as nationally threatened indigenous fish will be protected through the conditions of consent and the requirements for an SSEMP for high potential impact activities. I consider the proposal to be consistent with these provisions.
Objectives 4.1.7 and 4.1.8; Policies 4.2.15 to 4.2.17	These provisions require that amenity and recreational values, and quality of lawful public access to and along rivers is maintained and where appropriate enhanced. The amenity and recreational values identified in Appendix 5 of the RFP will be provided for through a range of measures including limits on working hours and days, and other measures which limit sediment release and time working within the wet bed of the river which may affect the amenity and recreational uses of the Wainuiomata River. Public access to the river where river management activities are being

	undertaken may be restricted for health and safety purposes, but in general public access to the river will be maintained. I consider the application to be consistent with these provisions.
Objective 4.1.9 and 4.1.10; Policies 4.2.18 to 4.2.22	These objectives and policies aim to ensure the risk of flooding to human life, health and safety, and the adverse effects on natural values and physical resources (including people's property) are at an acceptable level; and to allow the maintenance of lawful flood mitigation works within river beds and on floodplains. The proposal is to allow flood mitigation works within Wainuiomata River to reduce the risk of flooding and erosion to an acceptable level. The Code and conditions of consent should avoid, mitigate, or remedy any adverse effects of the activity. I consider that the proposal is consistent with these objectives and policies. There appears to be a good level of community awareness of the flood hazard and acceptance of the ongoing flood mitigation works required for the Wainuiomata River, including as a result of public notification of this consent application. I consider the proposal to be consistent with these provisions.
Objectives 4.1.11 to 4.1.13, 4.1.15 and 4.1.17; Policies 4.2.23, 4.2.24, 4.2.27, 4.2.28 and 4.2.30 to 4.2.37.	These objectives and policies relate to the use and development of water bodies and include having regard to the social, economic and cultural benefits of the proposal. There is also a strong theme of avoiding, remedying or mitigating adverse effects and working with relevant agencies and tangata whenua in order to achieve integrated management of water. I consider that the proposed framework provides a practical way to carry out the works that is consistent with these provisions.
Objective 5.1.1 to 5.1.3; Policies 5.2.3, 5.2.4, 5.2.6, 5.2.8, 5.2.10 and 5.2.11	These provisions relate to managing the quality of water in water bodies. The key contaminant for these proposed works is the discharge of sediment. Condition 5.7 provides limits in relation to the release of sediment including colour and clarity, and the number of consecutive days that works that release sediment may occur. The 'toolbox' of measures within the Code means that the adverse effects of the discharge can be avoided or minimised. The adaptive Environmental Monitoring Plan has also set out the requirements for monitoring the effects of the works, including over time. With respect to the water quality guidelines in Appendix 8 of the RFP, there may be a change in visual clarity of the water and an increase in deposited

	sediment on the streambed, at or potentially beyond the zone of reasonable mixing, especially for certain activities such as gravel extraction from the wetted channel. As the proposed works may not always meet the water quality guidelines in Appendix 8 (required by Policy 5.2.8), Policy 5.2.10 is relevant. This allows for discharges which do not meet the relevant policies in certain situations, and this proposal can meet the requirements of this policy in that the discharge will be temporary in nature, and will be associated with necessary maintenance works, and overall I consider the application is consistent with the purpose of the Act. I also consider the proposal to be consistent with these provisions.
Policy 5.2.10A	This policy relates to discharges and requires regard to be given to matters relating to the life-supporting capacity of fresh water. Policy 5.2.10A requires that when considering an application, regard is given to a number of matters. To assess the extent to which it is feasible or dependable that more than minor adverse effects be avoided, I consider that the applicant has proposed 'industry best practice' methods for the river management works, as well as the use of appropriate mitigation measures, in order to minimise the effects of the proposed works. The 'toolbox' of measures within the Code as well as the adaptive Environmental Monitoring Plan means that the best method can be selected for the site and undertaken at the appropriate time. Alternative methods will be assessed and any works or methodologies can be updated over time. Furthermore, all discharges related to the river management activities will be temporary in nature. As such, I consider the application to be consistent with this policy.
Objective 6.1.1 and Policies 6.2.4A, 6.2.14 and 6.2.15	This objective and these policies relate to the proposed damming or diverting of water. Most damming or diversion will be minor and temporary, undertaken in association with construction works. Occasionally, cutting diversion channels are undertaken as a means of realigning the low flow channel where it has moved too far from its design alignment or to deflect the channel where it is creating a bank erosion problem. However, such diversions remain within the bed of the river and do not alter the flow of the river. As such, the effects on water quantity will be less than minor or *de minimus*. The key consideration of any diversion is to prevent the stranding of fish and macroinvertebrates, and

	maintain fish passage. These matters are provided for in the Code and the conditions of the consent, and as such the effects of any diversion in relation to the river management activities should be no more than minor. I consider the proposal to be consistent with these provisions.
Objectives 7.1.1 – 7.1.4 and Policies 7.2.1 & 7.2.2	These objectives and policies relate to the use and development of the beds of rivers and development of the floodplain, with appropriate uses being allowed while avoiding, remedying or mitigating adverse effects. The proposed activity is considered an appropriate use of the river bed, in that the activities are for flood mitigation and erosion protection purposes, are for the maintenance of existing lawful structures, relate to the removal of vegetation for drainage purposes, are for the extraction of gravel, and diversion of water in association with an activity that is otherwise authorised. In addition, given the purpose of the works they are unlikely to increase the risk of flooding or erosion, and are to be undertaken in a way that is not inconsistent with tangata whenua values. Lawful public access along the river will be maintained other than any temporary restrictions of certain areas for health and safety during works, and the requirements of the Code and the conditions of the consent mean that the works should not have significant adverse effects on natural or amenity values, river bed or bank stability, water quality and hydraulic processes, or the safety of canoeists or rafters. Consequently, the proposed activity fits with the uses of Policy 7.2.1 and does not have significant adverse effects on matters identified in Policy 7.2.2. As such, I consider the application to be consistent with these provisions.
Policies 7.2.4, 7.2.6 and 7.2.8	These policies relate to flood and erosion mitigation in rivers. This proposal is consistent with these policies in that there will be a planned approach to flood and erosion mitigation, rather than ad hoc structures being constructed on the river bed, and will be consistent with the river management scheme for the Wainuiomata River. Policy 7.2.8 relates to recontouring of beds and rivers provided the activity is necessary to avoid or mitigate the effects of the flood hazard, and the assessment of the consent application is subject to Part 2 of the Act. Any bed recontouring under this consent would only be undertaken to avoid or mitigate the effects of the flood hazard, and all consent application assessments are subject to Part 2 of the Act (see section 9.4). I consider the proposal to

	be consistent with these provisions.
Policies 7.2.9, 7.2.10 and 7.2.12 to 7.2.14	These policies relate to the proposed activities to be undertaken including the removal and placement of structures, disturbance of river beds, the removal of vegetation and extraction of gravel. The effects of these activities have been assessed in Section 8 of this report. I consider that the proposal and the conditions of consent which avoid or mitigate any adverse effects of these activities is consistent with these provisions.

I consider that, with the application of the recommended conditions of consent, the proposed activity is consistent with the Regional Freshwater Plan.

9.2.4 Proposed Natural Resources Plan (s104(1)(b)(vi)

Objective/Policy	*Comment*
Objectives O1 – O4	These objectives relate to the holistic management of resources and recognising the intrinsic values of freshwater to the social, economic and cultural wellbeing of the community. I consider that the proposal is consistent with these provisions.
Objectives O9 and O10; Policies P9, P12A, P15 and P16	These objectives and policies relate to beneficial use and development. These provisions require that recreational values and public access to rivers is maintained and enhanced. Whilst recreational values and public access may be disrupted temporarily during any construction or maintenance works, in general, the recreational values and public access to the rivers will be maintained or potentially enhanced through amenity works such as planting. Policy P12A relates to the benefits of mineral resource utilisation. Particular regard has been given to the benefits of using gravel extracted from rivers. In the past gravel has been extracted from rivers on behalf of GWRC for industry use. This in turn reduces GWRC's costs to manage the flood hazard. Policy P15 provides for the use, maintenance and ongoing operation of existing catchment based flood and erosion hazard risk management activities. These proposed works fit into this definition and so meet this policy. Policy P16 requires that the social, cultural, economic and environmental benefits of new catchment based flood and erosion risk management activities are recognised. The proposed new principles, adaptive management regime, and 'toolbox' of river management activities, represent an improved and up to date method for carrying out these types of activities, and provide better

	environmental outcomes for the rivers. I consider the proposal to be consistent with these provisions.
Objectives O14 and O15; Policies P17, P19 to P21	These objectives and policies relate to the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga, and require that these be recognised and provided for. Ngāti Toa Rangatira and Port Nicholson Block Settlement Trust representatives were consulted in relation to this application, and the conditions of consent and Code have incorporated their concerns and comments. The OMP and Annual Work Plans will be developed in conjunction with mana whenua, and section 10.3.13 of the Code sets out how mana whenua values will be maintained and protected. In addition, the Kaitiaki Monitoring Strategy and Rōpū Kaitiaki will provide mana whenua with the opportunity to actively participate in the implementation of these consents. Both Ngāti Toa and PNBST withdrew their right to be heard on receipt of the recommended conditions of consent and draft wording of the Code. I have had regard to the statutory acknowledgement of PNBST in relation to the Wainuiomata Scenic Reserve while assessing this application. I consider the proposal is consistent with the provisions listed above.
Objective O17 and Policy P24	This objective and policy relate to natural character, form and function. This policy requires that adverse effects on areas of natural character are avoided, remedied or mitigated. There are some parts of this section of the Wainuiomata River where natural components are evident, and other parts that are highly modified. The proposed works will maintain or restore where possible the natural character of the Wainuiomata River. The proposed works are not an inappropriate use of the river and its margin. As such, I consider that the river management activities are consistent with these provisions.
Objectives O20 and O21, and Policies P27 to P30	These provisions relate to natural hazards. The purpose of the river management activities is to avoid or mitigate the effects of flooding. As such, the works have a functional need to be located, and operational requirement to be undertaken, within the river. At the time that the works are proposed, the residual risk, adverse effects on riverine processes and climate change, and sea level rise will be taken into account through the Annual Work Plans and SSEMPs if one is required. Any adverse effects as a result of the works will be avoided, mitigated or remedied. The adaptive management nature of the Code means that the best

	solution for the location and river conditions, including any effects of climate change, can be selected at the time that the works are to be undertaken. Any hard engineering works need to be justified in the AWP or SSEMP and undertaken in a manner that any adverse effects are no more than minor and form part of the Wainuiomata River Management Scheme. Consequently, I consider that the proposal is consistent with these provisions.
Objectives O23 and O24	These objectives relate to maintaining or improving water quality in surface water bodies. The Wainuiomata River is a regionally significant primary contact recreation river, and therefore clause (b) of Objective O24 is relevant. The river management activities are unlikely to cause a decline in any of the objectives in Table 3.1 except for temporary adverse effects on water clarity and sediment cover. Such effects are unlikely to cause an overall decline for the river. Mana whenua are likely to investigate whether any of the works will have an adverse effect on Māori customary use through the Kaitiaki Monitoring Strategy, and the Code could be amended to provide for any adverse effects if necessary. As such I consider that the proposal is consistent with these provisions.
Objective O25 and Policy P32	Objective O25 relates to managing water quality, flows, water levels and habitats to maintain biodiversity, aquatic ecosystem health and mahinga kai. Table 3.4 is relevant for the proposed works in the Wainuiomata River. The EMP and KMS will enable the effects, including cumulative effects, on this river to be determined over time. Policy P32 relates to managing adverse effects on biodiversity, aquatic ecosystem health and mahinga kai. The requirements of the conditions of consent and the Code means that any significant adverse effects on these matters will be avoided in the first instance, minimised if this is not possible, and remedied if there remain adverse effects. The Ecological Enhancement Fund may also be used to *'maintain or enhance the natural character of the river environs'* or to implement recommendations contained in the Annual Reports or recommendations from independent experts. However, as there are not expected to be any significant residual adverse effects as a result of the works, this fund is not intended to be used to offset effects as set out in this policy or Schedule G2. Regardless, Schedules G1 and G2 could be useful for determining appropriate activities to undertake in relation to the fund. As such I consider the proposal is consistent with these provisions.

Objective O27 and Policies P31(g) and P101	This objective and these policies relates to establishing, maintaining and restoring vegetated riparian margins to enhance water quality, aquatic ecosystem health, mahinga kai and indigenous biodiversity of rivers. Consent condition 5.6 relates to the replanting of riparian vegetation where the works have removed a significant amount. However, vegetated riparian margins are also likely to be restored through the requirements of SSEMPs, the KMS and from projects undertaken using the Ecological Enhancement Fund. As such, I consider that the proposal is generally consistent with this objective and these policies.
Objective O29, O30 and O35, and Policies P31(e) and (f), P34, P35 and P41A	These objectives and policies relate to the habitat of indigenous fish and trout, maintenance of passage for fish and koura, restoration of fish passage for indigenous fish and koura, and minimising adverse effects on critical life periods. Policy P34 states that new barriers for fish and koura passage shall be avoided, except where required to protect indigenous fish and koura populations, and Policy P35 promotes the restoration of fish passage where this is appropriate for the management and protection of indigenous fish and koura populations. Wainuiomata River is inhabited by migratory indigenous fish, koura and brown trout. While the activities are not intended to prevent fish passage, except temporarily at times while undertaking works, care needs to be taken to ensure that fish passage is not prevented accidentally as a result of structures or activities. The Code highlights that blocked fish passage may prevent fish and koura from breeding and feeding, which can lead to adverse effects on population numbers. It also notes that it is a legal responsibility to provide for fish passage under both the Conservation Act 1987 (Freshwater Fisheries Regulations 1983), the Resource Management Act 1991 (sections 14 and 17) and now the NES-F. Consent condition 5.4 also relates to fish passage and entrapment. Policy P31(e) relates to maintaining or restoring habitats that are critical to the life cycle and survival of indigenous aquatic species. Policy P31(f) relates to minimising adverse effects on aquatic species at times which will affect breeding, spawning and migration. P41A relates to avoiding more than minor adverse effects on indigenous fish species present in waterbodies listed in Schedule F1 during known fish spawning and migration times set out Schedule F1a.

	Riffles and pools are critical habitats which will be monitored and maintained as set out in the conditions, the Code and EMP. If works are to be undertaken during critical periods for fish, then the conditions categorise this as a high potential impact activity and an SSEMP will need to be prepared, which sets out how adverse effects on these species will be avoided or mitigated. I consider that the proposal is generally consistent with these objectives and policies, especially if particular emphasis is placed on avoiding discharges of sediment, disturbance of the bed or banks of a river, and damming or diversion of water that leads to a significant loss of flow or fish passage affecting key migration periods.
Objective O35, and Policies P40, P41, P42	This objective and Policy P40 relate to the protection of ecosystems and habitats with significant indigenous biodiversity values, and where appropriate, that these are restored to a healthy functioning state. The other policies relate to managing adverse effects, and protecting and restoring ecosystems and habitats with significant indigenous biodiversity values. As noted above in relation to fish, koura, birds and their ecosystems and habitats, the Code, and for high potential impact activities the SSEMPs, set out measures to avoid in the first instance, and then mitigate or remedy any residual adverse effects. The effects of any works, if carried out as proposed in the Code, are expected to be minor or no more than minor. Monitoring in the EMP and potentially the KMS will allow cumulative effects over time to be assessed and for changes to be made to the methodologies to minimise these effects if necessary. As such, I consider the proposal to be consistent with these objectives and policies.
Policy P44 and P45	These policies relate to the protection and restoration of, as well as the management of adverse effects, on sites with significant mana whenua values (identified in Schedule C). Policy P44 includes working in partnership with key stakeholders to increase landowner and community understanding of significant values within Schedule C sites, developing and implementing restoration programmes for the sites, and implementing kaupapa Māori monitoring. The OMP will provide an opportunity to increase understanding of the significant values of Schedule C sites. The KMS and Rōpū Kaitiaki will enable restoration programmes for the sites to be developed and implemented and the KMS will implement kaupapa Māori monitoring.

	Policy P45 requires that activities within Schedule C sites be avoided if possible. If this is not practicable, more than minor adverse effects of activities on significant mana whenua values of the site are to be evaluated through a cultural impact assessment. Cultural impact assessments, as defined by the PNRP, have been produced for PNBST on behalf of Taranaki Whānui ki Te Upoko o Te Ika, and Ngāti Toa Rangatira. These highlighted the particular concerns of iwi. Through the development of the Code and conditions of consent, mana whenua have had input into measures to avoid significant adverse effects on the sites, minimise minor adverse effects where these cannot be avoided, and remedy any adverse effects that cannot be avoided or minimised. The OMP which will be designed and developed in conjunction with mana whenua will identify any areas with significant mana whenua values, including kaitiaki sties and will describe the range of management methods which may be implemented to avoid, remedy or mitigate adverse effects on these values. Clause (f) of Policy P45 relates to iwi authorities being considered an affected party under s95E for all activities that require resource consent within a Schedule C site where the adverse effects are minor or more than minor. Affected parties are only relevant for limited notified or non-notified applications. As this application was publicly notified, no affected parties needed to be identified. However, PNBST and Ngāti Toa were directly notified of the application, as they were identified as having a special interest in this application. As such, I consider that this meets the intention of this clause of Policy P45 and therefore, the proposal is consistent with this policy. The application is also consistent with Policy P44.
Objectives O44 and O47, and Policies P67, P63, P71 and P98	These objectives and policies relate to minimising the effects of discharges, including of sediment-laden runoff to water. The key contaminant for these proposed works is the discharge of sediment. Consent condition 5.7 provides limits in relation to the release of sediment such as colour and clarity, and the number of consecutive days of works that release sediment may occur. While Policy P98 relates to vegetation clearance, the likely amount of vegetation cleared in relation to these river management consents is unlikely to generate significant discharges of sediment. The 'toolbox' of measures within the Code means that the adverse effects of the discharge can be avoided or minimised. The adaptive

	Environmental Monitoring Plan has also set out the requirements for monitoring the effects of the works, including over time. Regarding the policies in relation to the objectives for improving water quality for contact recreation and Māori customary use, due to the temporary nature of any discharges, the proposed works are unlikely to contribute to an objective not being met. The adverse effects of all point source discharges will be minimised by the use of measures in the Code, limits in the conditions, and SSEMP monitoring, which will indicate if the discharge is likely to result in a decrease in the QMCI of more than 20%, and a change in water clarity after the zone of reasonable mixing. None of the other parameters in Policy P71 are likely to be affected by the temporary discharge of sediment. I therefore consider the application to be consistent with the objectives and policies.
Policy P66	This policy relates to discharges and requires regard to be given to matters relating to the life-supporting capacity of fresh water. Policy 5.2.10A requires that when considering an application, regard is given to a number of matters. To assess the extent to which it is feasible or dependable that more than minor adverse effects be avoided, I consider that the applicant has proposed 'industry best practice' methods for the river management works, as well as the use of appropriate mitigation measures, in order to minimise the effects of the proposed works. The 'toolbox' of measures within the Code as well as the adaptive Environmental Monitoring Plan means that the best method can be selected for the site and undertaken at the appropriate time. Alternative methods will be assessed and any works or methodologies can be updated over time. Furthermore, all discharges related to the river management activities will be temporary in nature. As such, I consider the application to be consistent with this policy.
Policy P72	This policy relates to the zone of reasonable mixing. For this activity, a zone of 200 metres is recommended, given the nature of the discharge, the river management activities and the size of the Wainuiomata River.
Policy P103	This policy relates to the management of gravel, sand or rock extraction. The extraction of gravel is proposed to be undertaken in such a way that it does not result in flooding or erosion, and the flow of bed material to the coast is not reduced to the extent it

	would contribute to coastal erosion. Monitoring of bed levels is undertaken by the applicant to ensure that an appropriate amount of gravel is taken from any particular reach. The rate of extraction will be carefully monitored and undertaken to manage reaches where aggradation is occurring and could result in adverse effects in terms of flooding or erosion. The FMP, OMP, conditions of consent and the Code provide for the matters in this policy.
Policy P104	This policy relates to avoiding more than minor adverse effects on structures that are part of catchment-based flood and erosion risk management activities, unless those activities are carried out by or on behalf of the owner of the structure. The applicant may remove some structures it owns as part of these river management activities, which is provided for by this policy. There may be other activities in relation to the maintenance of structures that could also fall under this policy. Any such works will be consistent with this policy.
Policy P106	This policy relates to the management of plants in the beds of lake and rivers. This policy provides for the removal of pest plants, the planting of indigenous plants, and the introduction or removal of plants or parts of plants if it does not increase flooding or erosion at the site or in the catchment, or adversely affect significant biodiversity values of the site. The applicant uses willows for strengthening river banks and structural measures such as permeable groynes and debris fences. While native plants can be used to stabilise smaller streams, the use of natives is limited as they are slower to establish, have shallower root systems and higher establishment and maintenance costs. However, native trees are sometimes used behind the 'front line' willow defence plantings. There are no plans to significantly extend the area of willow plantings in the river corridor. As such, the proposed river maintenance works are generally consistent with this policy.

I consider that, with the application of the recommended conditions of consent, the proposed activity is consistent with the Proposed Natural Resources Plan.

9.2.5 Weighting of the Proposed Natural Resources Plan

As the conclusion reached under the operative regional plans assessment is consistent with that reached under the Proposed Natural Resources Plan, there is no need to undertake a weighting exercise between the two plans.

9.3 Any other matter (s104(1)(c))

This section of the Act requires the consent authority to, subject to Part 2, have regard to any other matter the consent authority considers relevant and reasonably necessary to determine the application.

There are no particular other matters which are relevant to this application.

9.4 Part 2 of the Act

Consideration of an application under section 104 of the Act is subject to Part 2. "Subject to" gives primacy to Part 2 and is an overriding guide when applying the provisions of the Act.

Part 2 of the Act sets out the purpose and principles of the Act in section 5, and in sections 6, 7 and 8 sets out matters that consent authorities should consider when exercising their functions under the Act.

9.4.1 Section 5 – Purpose and Principles

Section 5 defines "sustainable management" as:

"managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enable 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."

9.4.2 Section 6 – Matters of National Importance

In exercising its powers and functions under the Act, the Greater Wellington Regional Council (GWRC) is required to recognise and provide for the matters of national importance listed in section 6 of the Act. I have identified the following matters to be of relevance to this application and have addressed the effects of the proposal on that basis.

Section 6 (a) recognises the importance of preserving 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.

The proposed works will maintain, and restore where possible the natural character of the Wainuiomata River, including through riparian planting, the preservation of pools and riffles and the use of the Environmental Enhancement Fund. As such I consider that the importance of preserving the natural character of the rivers and their margins has been recognised and protected.

Section 6 (c) provides for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

The Wainuiomata River has significant indigenous ecosystem values, including providing habitat for indigenous threatened/at risk fish species, and habitat for six or more migratory indigenous fish species. The conditions of consent and the Code state that an SSEMP is required for high potential impact activities that are undertaken during the critical migration and spawning times for native fish. In addition, pools and riffles which provide significant habitat for fish will also be surveyed to ensure there will be no net loss as a result of the works.

The clearance of any areas of high value riparian vegetation will be avoided in the first instance and if this is not possible, any high value riparian vegetation removed as a result of the works will be replaced with at least the same amount.

As such, I consider that the proposal provides for the protection of significant indigenous vegetation and habitats of indigenous fauna.

Section 6(d) recognises the importance of maintaining and enhancing public access to and along the coastal marine area, lakes, and rivers:

The proposal recognises the importance of maintaining and enhancing public access to and along the Wainuiomata River, where public access currently exists.

Section 6(e) recognises the importance of the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

A Cultural Values report prepared by Raukura Consultants, on behalf of Port Nicholson Block Settlement Trust (PNBST) and Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui) which sets out the cultural values for the Wainuiomata River.

A Cultural Impact Assessment was produced by Ngāti Toa Rangitira which sets out the cultural values of Ngāti Toa with particular reference to the resource

consent applications. The CIA discusses the cultural values, traditional relationship and customary practices of the Wainuiomata River, and provides an assessment of the cultural effects of the proposal.

Mitigation or remediation measures to address the issues identified in the reports were recommended by PNBST and Ngāti Toa through the reports and subsequently during the pre-hearing meetings and other discussions, and these measures have been included in the conditions of the consent. The development of the OMP with mana whenua will identify any areas with significant ecological or mana whenua values, including mana whenua values of kaitiaki sites. The development and implementation of a Kaitiaki Monitoring Strategy will identify tohu, mahinga kai, and Māori customary use, and methods to monitor them, as well as identifying tikanga and how it influences cultural monitoring methods, and a reporting structure that enables kaitiaki information to contribute to the applicant's environmental reporting.

As such, I consider that the importance of the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga have been recognised and will continue to be through the implementation of the consents.

Overall, I consider that the above matters in section 6 of the Act have been provided for by the proposal. The other matters identified in section 6 are not considered relevant to this application.

9.4.3 Section 7 – Other Matters

The other matters to which GWRC must have particular regard in relation to managing the use, development, and protection of natural and physical resources are listed in section 7 of the Act.

Section (a) and (aa) kaitiakitanga and the ethic of stewardship

A Kaitiaki Monitoring Strategy, will be developed and implemented along with the formation of Rōpū Kaitiaki to enable the exchange of information between the applicant and mana whenua of Te Awa Kairangi/Hutt River, Wainuiomata, Waikanae and Ōtaki Rivers. I consider particular regard has been had to this matter.

Section 7(b) the efficient use and development of natural and physical resources

The proposal makes efficient use of the available space in the constrained Wainuiomata River catchment to minimise the flood risks. Works will only be undertaken if this is the best option to reduce flooding and erosion to an acceptable level. I consider particular regard has been had to this matter.

Section 7(c) the maintenance and enhancement of amenity values

The conditions of consent and the Code specifically provide for the maintenance and enhancement of amenity values, as detailed above. As such, I consider particular regard has been had to this matter.

Section 7(d) intrinsic values of ecosystems

I have had particular regard to the intrinsic values of ecosystems throughout my assessment, particularly in relation to water quality and effects on aquatic and riparian ecology (see Section 8 above).

Section 7(f) maintenance and enhancement of the quality of the environment

The proposal will reduce the risk of flooding within the Wainuiomata River catchment on the surrounding area, which constitutes an enhancement to the environment (which includes people and communities). The conditions of consent and the Code set out the measures that will be taken to maintain and enhance the quality of the environment, as detailed in Section 8 above. As such, I consider particular regard has been had to this matter.

Section 7(h) the protection of the habitat of trout and salmon

The habitat of trout will be protected through the conditions of the consent and the Code. High potential impact activities proposed to be undertaken during the sensitive times for trout spawning will require an SSEMP to be prepared. As such, I consider particular regard has been had to this matter.

Section 7(i) the effects of climate change

The effect that climate change can have on flooding and sea level rise is acknowledged. The nature of the proposal means that this can be taken into account at the time that the works are required, and the potential for increased frequency or magnitude of flood events can be appropriately managed over the term of the consent. I consider particular regard has been had to this matter**.**

I do not consider that the other matters listed in section 7 of the Act are of relevance to this application.

9.4.4 Section 8 – Principles of the Treaty of Waitangi

Section 8 of the Act requires GWRC to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) when considering applications for resource consent. The Waitangi Tribunal and Courts continue to establish the principles of the Treaty of Waitangi and it is recognised that the principles are continuing to evolve. The two key principles that are of relevance to this application are active protection of Māori interests and consultation.

The principle of active protection has been described as a "guarantee to Maori to continue a relationship with resources that was as much about their use as about their conservation" *NZ Cooperative Dairy Company Limited v Commerce Commission* (1991). In the context of this application, active protection must be taken into account when considering the tangata whenua relationship with their ancestral land, water, wāhi tapu and other taonga.

The general requirements of 'consultation' have been well established by the judiciary and Courts both within and outside the Act. Consultation should facilitate tangata whenua understanding of the effects of a proposal on their relationship with the area in question to a point where the applicant can consider how those effects might be avoided, remedied or mitigated. GWRC requires this kind of information to be able to assess how the Council can meet its statutory responsibilities.

Iwi representatives from PNBST and Taranaki Whānui were part of the Hutt River Flood Management Plan Advisory Committee and meetings were held with the representatives. As a result of these meetings a Cultural Values report was prepared by Raukura Consultants and included in Appendix J of the application. The applicant also consulted with Ngāti Toa Rangatira prior to lodging the application, and Te Runanga o Toa Rangatira Inc provided a Cultural Impact Assessment. Both PNBST and Ngāti Toa were directly notified of the application, and lodged submissions in opposition. Ngā Hapū o Ōtaki also lodged submissions in opposition to support PNBST and Ngāti Toa.

Iwi representatives were present at the pre-hearing meetings for Te Awa Kairangi/Hutt River and Wainuiomata River applications, as well as the applications for the other western rivers (Waikanae and Ōtaki Rivers) where the potential effects on mana whenua values were discussed, along with ways to avoid, mitigate or remedy these effects. As a result, a number of amendments were made to the consent conditions, the Code and other matters related to the implementation of the resource consents, including highlighting the partnership with mana whenua and the development of Rōpū Kaitiaki. Following these amendments, PNBST, Ngāti Toa and Ngā Hapū o Ōtaki were all happy to withdraw their right to be heard at a hearing.

The formation of Rōpū Kaitiaki will continue to strengthen the partnership and exchange of information between the applicant and mana whenua during the implementation of the consents.

I consider that GWRC has taken into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) when considering this application for resource consent.

9.5 Matters relevant to discharge permits (s105)

The nature of the discharge will largely be the discharge of sediment in runoff and of sediment and other bed material as a result of disturbing the bed and banks of the watercourses. I consider the receiving environment to be sensitive due to the significant indigenous biodiversity values.

Due to the nature of the proposed works being within the river corridor, and the constraints of the surrounding environment, a discharge permit is required to be able to undertake the proposed river management works, as discharging to land will not always be practicable or possible, especially for works occurring in the wetted area of the watercourse. While the application states the type of river management activities that may be undertaken and the methods to do this, the nature of the proposed consents means that the applicant's reasons for choosing the proposed works and any other possible alternative methods of discharge, will be detailed in the AWP or SSEMP if one is required.

9.6 Restrictions on grant of certain discharge permits (s107)

Section 107 of the Act places restrictions on the grant of resource consents for the discharge of contaminants into water if they cause certain adverse effects in receiving waters after reasonable mixing.

Providing any machinery used in relation to the works are cleaned and operated as set out in the Code, there should be no conspicuous oil or grease films.

When undertaking works in the bed of the river, good site management practices will be needed to ensure that there is no conspicuous change in the colour or visual clarity of the water beyond the mixing zone due to sediment discharges. Erosion and sediment controls may need to be modified during the works to manage any specific on-site conditions, if visual clarity is affected to a significant degree.

The conditions of consent and the Code mean that there are unlikely to be any significant adverse effects on aquatic life, after reasonable mixing.

None of the other effects set out in section 107(1) are likely to occur as a result of the river management activities proposed in the application.

Section 107(2) of the Act states that a discharge permit may be granted that allows the effects in section 107(1) if it is satisfied that, among other things, that the discharge is of a temporary nature or that the discharge is associated with necessary maintenance work. I consider that any discharge from the river management activities that affects the colour or visual clarity of the water is likely to be temporary. In addition, the discharge will be associated with necessary maintenance work. As such, the discharge will meet the requirements of section 107(2) and can be granted.

10. Conclusions

In making my recommendation on this application I have considered the actual and potential effects on the environment arising as a result of the proposal, the concerns raised by submitters and the mitigation measures proposed by the applicant. I have also considered Part 2 of the Act, sections 104, 105, 107 and 108 of the Act, the NPS-FM and the relevant objectives and policies of the RPS, RFP and PNRP.

Overall, I consider that it is appropriate to grant the consents subject to the recommended conditions of consent that require that the actual and potential adverse effects of the proposal are avoided, remedied or mitigated to an acceptable level.

11. Recommendation

I recommend, pursuant to sections 104B, 105, 107 and 108 of the Act, that the following resource consents be granted subject to the conditions in Appendix 1.

12. Duration of consents

The applicant has requested a term of 35 years.

Section 123(c) of the Act allows a maximum duration of 35 years for land use consent WGN150094 [33210] to carry out river management activities in the bed and on the banks, berms and stopbanks. I consider a duration of 35 years is appropriate given the nature of the consent applications, the adaptive management regime provided for within the conditions, and the flood management purposes for which consent is sought.

Section 123(d) of the Act allows a maximum period of 35 years for water permit WGN150094 [34033] to temporarily and permanently divert the flow of watercourses. I consider a duration of 35 years is appropriate for this permit, as some diversions will be permanent, and others will relate to river management activities that require temporary diversions that may be undertaken at any time over the term of the land use consents.

Section 123(d) of the Act allows a maximum duration of 35 years for discharge permit WGN150094 [34034] to temporarily discharge sediment and sediment laden stormwater during, and as a result of, river management activities. I consider a duration of 35 years is appropriate for this permit, as the discharges will relate to river management activities that may be undertaken at any time over the term of the land use consents.

Section 123(c) of the Act allows a maximum duration of 35 years for land use consent WGN150094 [34487] to extract gravel from the beds and banks of the Wainuiomata River. I consider a duration of 35 years is appropriate given the nature of the consent applications, the adaptive management regime provided for within the conditions and the flood management purposes for which consent is sought.

Report prepared by:

Michelle Conland
Consultant Planner, Environmental Regulation

Recommendation approved by:

Shaun Andrewartha
Manager, Environmental Regulation

Appendix 1: Consent conditions Wainuiomata River

***Advice Note 1**: Resource consent applications to carry out river management activities in and on Te Awa Kairangi/Hutt and **Wainuiomata Rivers** were advanced as part of a consenting package that included the Ōtaki and Waikanae River applications. Despite this, consents for Te Awa Kairangi/Hutt River [WGN130264] and Wainuiomata Rivers [WGN150094] will be granted ahead of the Ōtaki River [WGN140054] and Waikanae River [WGN130303] consent applications.*

The Natural Character Index/Habitat Quality Index developed in accordance with conditions 6.3 and 6.4 and the Ecological Enhancement Fund established in accordance with condition 12.1 will also apply to the Ōtaki and Waikanae Rivers.

These conditions apply to the following resource consents:

a) land use consent to carry out river management activities in the bed and on the banks, berms and stopbanks [33210];

b) water permit to divert water during, and as a result of, river management activities [34033];

c) discharge permit to discharge sediment and sediment laden stormwater during, as a result of, river management activities [34034]; and

d) land use consent to extract gravel from the beds and banks [34487].

Terms in the conditions in bold have their meaning set out in the definitions that follow the consent conditions.

GENERAL CONDITIONS

1. General

***Advice Note 2:** The Code coordinates the consistent implementation of all river management activities undertaken by Wellington Regional Council throughout the Wellington Region and assists the Council to undertake its statutory flood protection, erosion control and hazard risk management functions, while maintaining and enhancing the natural and cultural values associated with the rivers and river margins.*

The conditions support the framework set out in the Code by providing that all river management activities must be undertaken in accordance with the good management practices at section 10, and the general activity constraints calendars at Appendix 7 of the Code.

In addition, the Code provides a programme of environmental data collection and monitoring to inform the on-going understanding and management of the effects of river management activities. Condition 6.1(a)(ii) requires baseline monitoring to be undertaken in accordance with the triggers and responses at Tables 5 to 7 of the Code.

Although all other parts of the Code can be amended from time to time, sections 1.2, 6 and 10, Tables 5 to 7, and Appendices 2 and 6 may only be amended in accordance with condition 11.1.

1.1 The term of these consents is 35 years from the date of their commencement.

1.2 The conditions apply within the areas shown as the 'consent area' in Maps 1 to 7 of the application, and as generally shown in Appendix 2.

1.3 If there are any inconsistencies between the **Code**, an Operational Management Plan, Annual Work Plan, Site Specific Effects Management Plan (**SSEMP**) and the general or specific conditions, the conditions prevail.

2. Operational Management Plans

Advice Note 3*: Operational Management Plans must be prepared for each river. They are key tools that enable river management operators to plan and execute their work in a manner that reflects the high-level direction in relevant floodplain management plans. Operational Management Plans provide for the management of work on a reach-by-reach basis, setting out processes for identifying and managing reach specific values to enable, to the extent practicable, the rivers to follow an active meander pattern.*

2.1 The **consent holder** must, no later than 12 months after the commencement of these consents:

a) invite **mana whenua** to be involved in the design and development of Operational Management Plans for each river in accordance with conditions 2.2 and 2.3;

b) consult the **Department of Conservation** and Wellington Fish and Game Council on the Operational Management Plans; and

c) submit each Operational Management Plan to the **Manager, Environmental Regulation**, for certification under condition 15.1.

2.2 An Operational Management Plan must, in relation to each reach of the river:

a) set out how the Plan gives effect to the principles of river management in section 1.2 of the **Code**;

b) describe the **design standard**;

c) describe reach characteristics, including:

(i) the channel type key morphological characteristics and Natural Character Index/Habitat Quality Index objectives, as appropriate;

(ii) fish and spawning habitats, as recommended by the **Department of Conservation** and Wellington Fish and Game Council as managers of those species; and

d) identify management objectives prescribed by a **floodplain management plan** and other relevant agreements;

e) contain the design channel and buffer zone as appropriate;

f) describe the **bed level envelope** and set minimum **bed** levels;

g) describe recreational values and identify any areas of safety concern;

h) identify any additional **activities** that will require an **SSEMP** (see condition 4.3(g));

i) identify any areas with significant ecological or **mana whenua** values, including:

(i) indigenous ecosystems or significant indigenous biodiversity values; and

(ii) the **mana whenua** values of **kaitiaki sites**; and

j) describe the range of management methods which may be implemented, including any additional management practices to apply to the areas in (i) to avoid, remedy or mitigate adverse effects.

2.3 Each Operational Management Plan must:

a) give effect to the principles of river management at section 1.2 of the **Code**; and

b) be consistent with the relevant **floodplain management plan**, unless a final Annual Report (prepared under condition 9.4(a)) identifies that such a deviation is necessary to achieve the **design standard**.

3. Annual Work Plans

3.1 The **consent holder** must, by 1 September each calendar year:

a) invite **mana whenua** to be involved in the design and development of draft Annual Work Plans for each river in accordance with condition 3.2;

b) invite the **Department of Conservation** and Wellington Fish and Game Council to discuss the draft Annual Work Plans; and

c) finalise and provide each Annual Work Plan to the **Manager, Environmental Regulation**, with copies to **mana whenua**, the **Department of Conservation**, Wellington Fish and Game Council, and Powerco Ltd.

3.2 Each Annual Work Plan must:

a) set out which **activities** will be undertaken in the river and at which times of the year;

b) be consistent with:

(i) certified Operational Management Plans;

(ii) sections 6, 10 and Appendix 7 of the **Code**; and

c) identify opportunities for environmental enhancement, as identified by a suitably qualified ecologist; and

d) identify any proposed **activities** that may require an **SSEMP** (see condition 4.3).

4. Site Specific Effects Management Plans and Monitoring

Advice Note 4*: River management activities have the potential for short-term adverse effects. Conditions 4.1 to 4.6 require the development of SSEMPs prior to undertaking high potential impact activities, and activities in identified sensitive locations and seasons in order to limit, remedy or mitigate potential adverse effects. Further guidance is set out in section 5.6 and Appendix 2 of the Code.*

Advice Note 5*: An existing certified SSEMP may be re-submitted in fulfilment of condition 4.1 if the proposed activities are materially the same as what was previously addressed by that SSEMP.*

4.1 Before the **consent holder** commences one or more of the **activities** listed in condition 4.3, it must:

a) prepare an **SSEMP** in consultation with **mana whenua**, the **Department of Conservation**, Wellington Fish and Game Council and any other party as relevant;

b) submit the **SSEMP** to the **Manager, Environmental Regulation**, for certification under condition 15.1; and

c) receive the certified **SSEMP** from the **Manager, Environmental Regulation**.

4.2 The **consent holder** must comply with a certified **SSEMP**.

4.3 Activities for which an **SSEMP** is required are:

a) the construction of grade control structures;

b) wet gravel extraction;

c) **high potential impact activities**, as set out in condition 4.4, proposed to be undertaken:

(i) between 1 January and 28 February on the **banks** only, or between 1 March and 31 May on the **banks** and **bed**, in the inanga spawning areas identified in Appendix 7 of the **Code**;

(ii) between 1 May and 31 October, in the trout spawning areas identified in Appendix 6 of the **Code**;

(iii) between 1 June and 31 December, in large areas (defined in Table 2, Appendix 2 of the **Code**) of the inanga spawning areas identified in Appendix 7 of the **Code**;

(iv) between 1 August and 31 December, in large areas (defined in Table 2, Appendix 2 of the **Code**) of the wetted channel utilised by migrating fish; and

(v) at all times within the actively flowing channel when the river flow recedes below the **minimum flow**; and

d) the mechanical clearance of bottom rooted plant community in low gradient streams;[3]

e) the clearance of 100m^2 or more of **high value riparian vegetation**;

f) additional **activities** assessed as having a high risk of adverse impact in Table 4, Appendix 2 of the **Code**; and

g) any additional **activities** identified by a certified Operational Management Plan as requiring an **SSEMP**.

4.4 In condition 4.3, **high potential impact activities** means one or more of the following:

a) **bed** recontouring;

b) channel diversion cuts;

[3] This includes activities that disturb the bottom of the stream, but excludes the use of weed boats.

c) construction and/or repair of **impermeable structures**; and

d) ripping in the wet channel.

4.5 The purpose of an **SSEMP** is to set out how the proposed river management activity will be limited in order to remedy or mitigate adverse effects, including effects on water quality, aquatic ecology and the geomorphic **bed** form (as relevant).

4.6 In particular, each **SSEMP** must:

a) describe the works proposed, including methodology and timing;

b) include an assessment of the various options considered and reasons why undertaking the proposed **activities** is preferred;

c) include an assessment as to why the **activities** are to be undertaken during that period and/or within that habitat and specific measures to remedy or mitigate adverse effects;

d) describe the site specific (event) monitoring to be undertaken pursuant to condition 4.7;

e) set out consultation requirements with the relevant parties listed in condition 4.1(a);

f) describe how the design channel and **bed** levels will be maintained;

g) describe how the **mana whenua** values of **kaitiaki sites** have been taken into account; and

h) include a suitably qualified expert's opinion of how appropriate steps will be taken to avoid, remedy or mitigate adverse effects.

Advice Note 6*: Conditions 4.7 to 4.8 provide for the collection of data before and after the activities identified in condition 4.3 to inform the on-going understanding and management of short-term effects.*

4.7 The **consent holder** must, if undertaking one or more of the activities listed in condition 4.3, undertake site specific (event) monitoring to compare the relevant habitat at each work site before and after the activities have occurred.

4.8 The **consent holder** must appoint a suitably qualified expert to determine the site specific (event) monitoring method and process which may include, as relevant:

a) water quality monitoring (suspended solids, turbidity, total nitrogen, total phosphorous);

b) deposited sediment monitoring (sediment cover and substrate size);

c) habitat mapping along the length of the river affected by the works, compared to comparable unaffected sites;

d) macroinvertebrate re-colonisation;

e) survey of fish populations;

f) survey of breeding bird populations, particularly banded dotterels, pied stilts and black-fronted dotterels;

g) survey of lizard and gecko populations, particularly threatened gecko species; or

h) fine scale monitoring of physical chemical and biological indicators in estuarine environments.

4.9 The **consent holder** must include the results of site specific (event) monitoring from the preceding 12 month period in the draft Annual Report.

5. Activity constraints

5.1 All **river management activities** must be undertaken:

a) in accordance with:

(i) the relevant Annual Work Plan;

(ii) section 10 and Appendix 7 of the **Code**, as applicable to the chosen method; and

(iii) the activity constraints in conditions 5.2 to 5.10 below; and

b) in a manner consistent with a relevant certified Operational Management Plan.

***Advice Note 7**: The activity constraints in conditions 5.2 to 5.10 set key bottom lines for relevant matters under Part 2 of the **Act**. They are to be read in conjunction with section 10 and Appendix 7 of the Code.*

***Advice Note 8**: Condition 5.2 seeks to ensure that activities do not cause a reduction in bed levels below the minimum set out in certified Operational Management Plan. It is important to note that this may occur naturally.*

Managing bed levels

5.2 The **consent holder** must not:

a) extract gravel from the **bed** unless necessary for **river management activities**; and

b) extract gravel below the minimum **bed** level in a certified Operational Management Plan.

Minimisation of disturbance of noise and amenity

5.3 Except in the case of **urgent works**, the **consent holder** must avoid works:

a) in the actively flowing channel on Saturdays during December to February;

b) on Sundays or public holidays; and

c) outside of the following hours:

(i) 7am – 7pm Monday to Friday; and

(ii) 8am – 3pm Saturday.

Fish passage

5.4 The **consent holder** must:

a) undertake all **river management activities** in a manner consistent with the fish passage requirements in the Freshwater Fisheries Regulations 1983; and

b) relocate any fish entrapped by **river management activities** upstream into clear water as soon as possible.

5.5 During dewatering, the **consent holder** must check for any fish that are stranded, or are at risk of being stranded and immediately place these fish back into the flowing channel.

Riparian vegetation

5.6 The **consent holder** must, when undertaking works that require the removal of:

a) **high value riparian vegetation** at any works site, replant within that river corridor a minimum of an equivalent area of riparian vegetation with native species that are suitable for the location; or

b) more than 100m^2 of any other riparian vegetation at any works site, replant as a minimum an equivalent area of riparian vegetation within that river corridor as replacement.

Sediment release

5.7 The **consent holder** must ensure that the release of sediment directly associated with any river management activity:

a) does not cause any conspicuous change in the colour of the receiving water, or a change in horizontal visibility of greater than 20%, more than 1 hour after the completion of each **working day**, as measured by a black disc at a suitable location no more than 200m downstream of the works site; and

b) does not continue for more than 6 consecutive days, and for more than 12 hours per day.

Lizards and geckos

5.8 Conditions 5.9 and 5.10 apply if the **consent holder** disturbs:

a) more than 100m^2 of any one or more of the following habitat types at any works site (not including gravel bar or beach habitat within the active channel):

(i) river terrace manuka or kanuka scrubland; or

(ii) native grassland; or

(iii) scree or boulder fields; or

b) any area where lizards and/or geckos are known or likely to be present.

5.9 A suitably qualified herpetologist must undertake a survey prior to the works to check for the presence of lizards within the affected site.

5.10 If any lizard species is identified, works must not proceed until the **consent holder** has obtained permits under the Wildlife Act 1953 and a detailed plan is in place to avoid or mitigate any adverse effects of the works.

6. Baseline monitoring and management responses

Advice Note 9*: Baseline monitoring enables the cumulative effects of river management activities to be taken into account so that actions can be taken to avoid, remedy or mitigate adverse effects on key habitat and populations.*

Advice Note 10*: The Environmental Monitoring Plan is included at Appendix 3 of the Code. It requires the collection of a range of physical parameters to assess the effects of river management activities on selected environmental values.*

6.1 The **consent holder** must:

a) undertake baseline monitoring in accordance with –

(i) section 2 of the **Environmental Monitoring Plan** (at Appendix 3 of the **Code**); and

(ii) the triggers and responses at Tables 5 to 7 of the **Code**; and

b) include the results of baseline monitoring from the preceding 12 month period in the draft Annual Report.

6.2 If applying the triggers in Tables 5 to 7 of the **Code**, baseline monitoring shows that there has been a statistically significant decline in trout abundance, the number of banded dotterel, pied stilt or black-fronted dotterel breeding pairs, or pools and riffles, the following process must be followed:

a) the **consent holder** must appoint an independent suitably qualified expert to carry out a study and report back to the **consent holder** within 3 months identifying the most likely causes of the change;

b) if the independent suitably qualified expert identifies **river management activities** to be the most likely cause of the change:

(i) the report must recommend measures to mitigate or remedy any more than minor adverse effects caused by those **activities**. This may include changes to the **Code**, or applications to the Ecological Enhancement Fund (condition 12); and

(ii) the **consent holder** must implement the recommendation(s) contained in the report or provide reasons in the draft Annual Report why implementation was not practicable or achievable; or

c) if the independent suitably qualified expert identifies **river management activities** as being part of a wider number of causes:

(i) the report may recommend measures to mitigate or remedy any more than minor adverse effects of the **activities** on the remaining population(s). This

may include changes to the **Code**, or applications to the Ecological Enhancement Fund (condition 12);

(ii) the **consent holder** must have regard to any recommendations in (i), taking into account:

(1) the cost of implementing the recommendations; and

(2) whether the **consent holder** considers the recommendations will significantly mitigate or remedy the more than minor adverse effects; and

(iii) if the **consent holder** does not implement the recommendations in (i), provide reasons in the draft Annual Report, including reasons relating to the matters in condition 6.2(c)(ii).

Cumulative effects

Advice Note 11: *The Natural Character Index/Habitat Quality Index developed in accordance with conditions 6.3 and 6.4 will be used to monitor the cumulative effects of river management activities throughout all four rivers: Te Awa Kairangi/Hutt River, Ōtaki River, Waikanae River and* ***Wainuiomata River****.*

6.3 The **consent holder** must, not later than 12 months after the commencement of the consents for the Ōtaki River [WGN1400054] and Waikanae Rivers [WGN130303], establish a working group to develop a Natural Character Index/Habitat Quality Index that will be used to monitor the cumulative effects of **river management activities**.

6.4 The Natural Character Index/Habitat Quality Index must:

a) assess the existing morphological states of the rivers including, but not limited to, meander forms, sinuosity, extent of braiding, percent pools, active channel width, bar location and area;

b) assess the quality of selected habitat features including, but not limited to, pools, instream cover, **bed** roughness and riparian cover within each reach identified in an Operational Management Plan; and

c) describe the methods and frequency for monitoring the change of these features and characteristics over time.

7. Kaitiaki monitoring

Advice Note 12: *Wellington Regional Council recognises the importance of its relationship with mana whenua in relation to river management activities it undertakes in Te Awa Kairangi/Hutt River and* ***Wainuiomata River****. Conditions 7.1 to 7.6 enable mana whenua to work with the Council to develop a Kaitiaki Monitoring Strategy for the rivers that reflects their cultural uses and values, to monitor the effects of river management activities. Monitoring results will be included in the draft Annual Report.*

7.1 The **consent holder** must, not later than six months after the commencement of the consents for Te Awa Kairangi/Hutt River [WGN130264] and **Wainuiomata River** [WGN150094], invite the following iwi to work with the **consent holder** to develop and implement a combined Te Awa Kairangi/Hutt and Wainuiomata Awa Kaitiaki Monitoring Strategy:

a) Ngāti Toa Rangatira represented by Te Rūnanga o Toa Rangatira Inc.; and

b) Te Atiawa Taranaki Whānui represented by the Port Nicholson Block Settlement Trust.

7.2 If an invitation in condition 7.1 is accepted, the **consent holder** must, within 12 months from the commencement of these consents:

a) consult with iwi and prepare the Kaitiaki Monitoring Strategy; and

b) provide the final Kaitiaki Monitoring Strategy to the **Manager, Environmental Regulation**.

7.3 The Kaitiaki Monitoring Strategy must include the following, as applicable to the two rivers:

a) identification of tohu (attributes) and methods to monitor them;

b) identification of mahinga kai and Māori customary use and methods to monitor them;

c) identification of tikanga and how it influences cultural monitoring methods; and

d) a reporting structure that enables kaitiaki information to contribute to the **consent holder**'s environmental reporting.

7.4 The **consent holder** must, in consultation with iwi, undertake a review of a final Kaitiaki Monitoring Strategy every two years and provide the updated Kaitiaki Monitoring Strategy to the **Manager, Environmental Regulation.**

7.5 The **consent holder** must, following receipt of an itemised invoice, pay the reasonable costs of iwi in preparing, reviewing and updating a final Kaitiaki Monitoring Strategy (as it relates to these consents).

7.6 If iwi undertake monitoring in accordance with a final Kaitiaki Monitoring Strategy:

a) iwi must submit a monitoring report (including results and recommendations) and an itemised invoice to the **consent holder**;

b) the **consent holder** must:

(i) by 31 May each calendar year on receipt of the monitoring report and invoice, pay the reasonable costs of the monitoring; and

(ii) include kaitiaki monitoring results and recommendations in the draft Annual Report.

8. Rōpū Kaitiaki

Advice Note 13*: Conditions 8.1 to 8.5 enable the development of a sharing and knowledge forum known as Rōpū Kaitiaki to facilitate the exchange of information between Wellington Regional Council and mana whenua of Te Awa Kairangi/Hutt, Ōtaki, Waikanae and Wainuiomata Rivers.*

8.1 The **consent holder** must, not later than six months after the commencement of the consents for the Ōtaki River [WGN140054] and Waikanae River [WGN130303], invite a representative of each of the following iwi to form Rōpū Kaitiaki:

a) Ngāti Raukawa ki te Tonga represented by Ngā Hapū o Ōtaki;

b) Te Atiawa ki Whakarongotai represented by Ati Awa ki Whakarongotai Charitable Trust;

c) Ngāti Toa Rangatira represented by Te Rūnanga o Toa Rangatira Inc.; and

d) Te Atiawa Taranaki Whānui represented by the Port Nicholson Block Settlement Trust.

8.2 The **consent holder** must:

a) invite Rōpū Kaitiaki to meet once every 12 months; and

b) inform the **Manager, Environmental Regulation**, of any meeting a minimum of 10 **working days** in advance, so that Environmental Regulation Department representatives may attend.

8.3 Rōpū Kaitiaki has the following objectives:

a) to facilitate the exchange of information between the **consent holder** and tangata whenua regarding **river management activities** authorised under these consents;

b) to identify any cultural issues of concern that have arisen during the previous year and discuss appropriate measures to address these;

c) to take into account the results of any kaitiaki monitoring received over the preceding 12 month period and identify potential measures to articulate kaitiakitanga;

d) to identify potential options for the allocation of the Ecological Enhancement Fund;

e) make recommendations relating to the issues in (a) to (d) above for the **consent holder** to consider and report on in its draft Annual Report(s); and

f) make recommendations on the appointment of independent experts under condition 10.3.

8.4 The **consent holder** must assist Rōpū Kaitiaki to fulfil its objectives by:

a) providing administrative support (such as minute keeping) unless mutually agreed;

b) arranging an appropriate venue for meetings and remunerating attendees in accordance with Wellington Regional Council's standing daily meeting fee;

c) ensuring senior flood protection advisor(s) attend the meetings; and

d) providing summary information on final Annual Report findings (including appropriate visual presentation and explanations based on the key information if required).

8.5 Compliance with conditions 8.1 to 8.4 may also be achieved if consultation with the iwi listed in condition 8.1 is undertaken collectively or individually through a different Wellington Regional Council process.

9. Annual Reporting

Advice Note 14: *The reporting process described in conditions 9.1 to 9.5 enables the effects of river management activities to be understood and addressed over time. The process commences with the consent holder preparing a draft Annual Report for each river and providing this to the Manager,*

Environmental Regulation, for review. Following receipt of the Manager's comments, the consent holder must finalise the Annual Report, make agreed amendments and submit all documents to the Manager. This documentation must then be provided to the Independent Review Panel every 3 years for independent review.

9.1 The **consent holder** must, by 31 August each calendar year from the commencement of these consents, prepare a draft Annual Report for each river and provide it to the **Manager, Environmental Regulation**.

9.2 Each Annual Report must contain at least the following information:

a) whether recommendations from the previous years' Annual Report were implemented, together with reasons;

b) the relevance of any **floodplain management plan** or Operational Management Plan completed during the preceding 12 month period and changes required as a result;

c) a work program which outlines completed work from the preceding 12 month period, and work anticipated for the next 12 months in the river;

d) comments on compliance with the conditions of consent and a summary of complaints received over the preceding 12 month period;

e) comments on the performance of the good management practices at section 10 of the **Code** and any **SSEMP**s, including whether improvements are necessary;

f) the results and recommendations of any baseline monitoring, site specific (event) monitoring or kaitiaki monitoring over the preceding 12 month period;

g) details of Ecological Enhancement Fund allocations over the preceding 12 month period, including a summary of requests received under condition 12.5 and the reasons funding was approved or declined;

h) the **consent holder's** responses to recommendations received over the preceding 12 month period from an independent suitably qualified expert under condition 6.2, **mana whenua** or the Independent Review Panel, together with reasons;

i) an update on progress with the Natural Character Index/Habitat Quality Index and its implementation; and

j) an update on progress towards the formation of Rōpū Kaitiaki.

9.3 Following receipt under condition 9.1, the **Manager, Environmental Regulation**, must:

a) review the draft Annual Report; and

b) provide the **consent holder** with a review document that includes comments and recommendations, including whether it agrees with the suggested improvements in condition 9.2(e) and responses to condition 9.2(h).

9.4 Within 15 **working days** following receipt under condition 9.3(b), the **consent holder** must:

a) finalise the Annual Report and amend relevant documents (**Environmental Monitoring Plan**, certified Operational Management Plan, Annual Work Plan and/or the **Code**);

b) set out in a separate document how comments and/or recommendations in the review document in condition 9.3(b) have been addressed; and

c) provide the final Annual Report and any documents prepared or amended under 9.4(a) and 9.4(b) to the **Manager, Environmental Regulation**, with copies to **mana whenua**, the **Department of Conservation**, and Wellington Fish and Game Council.

9.5 The **consent holder** must, by 31 October every third calendar year from the commencement of these consents, provide all Annual Reports, **SSEMPs**, review documents received under condition 9.3(b), and documents prepared or amended under condition 9.4 from the 3 year period to the Independent Review Panel for review.

10. Independent Review Panel

Advice Note 15*: Every 3 years, the consent holder must appoint and establish an Independent Review Panel consisting of technical experts to evaluate the annual review documents from the preceding 3 years and provide recommendations.*

10.1 The **consent holder** must, by 1 October every third calendar year from the commencement of these consents, appoint and establish an Independent Review Panel to review the documents provided under condition 8.5.

10.2 The **consent holder** must have regard to appointment recommendations received from Rōpū Kaitiaki under condition 8.3(f). In the interim period before Rōpū Kaitiaki is established in accordance with condition 8.1, recommendations must be obtained directly from **mana whenua**.

10.3 The Independent Review Panel must consist of three independent experts who each have relevant expertise in one or more of the following:

a) ecology (freshwater and/or terrestrial);

b) tikanga Māori;

c) river geomorphology; or

d) sports fisheries.

10.4 The Independent Review Panel must, within two months of receipt under condition 9.5:

a) prepare a Recommendations Report that includes:

(i) a summary of its review of:

(1) the Annual Reports, **SSEMP**s, review documents and **consent holder's** comments;

(2) any amended documents, including whether it agrees or disagrees with the changes made; and

(ii) comments, suggested changes or recommendations, including to amend the **Environmental Monitoring Plan**, a certified Operational Management Plan, Annual Work Plan and/or the **Code**; and

b) provide an opportunity for **mana whenua**, the **Department of Conservation**, and Wellington Fish and Game Council, to submit information, or make a representation to the Independent Review Panel; and

c) provide the **consent holder** with the Recommendations Report and any report prepared under condition 10.5.

10.5 Where the Independent Review Panel does not have expertise in any of the areas it is required to report on, it may with the prior agreement of the **consent holder**, engage the services of an appropriate expert to report on the relevant matter.

10.6 The **consent holder** must, within one month of receipt under condition 10.4(c):

a) review the Recommendations Report and set out in a separate document how it proposes to respond to the comments and recommendations contained within it;

b) if the Recommendations Report recommends amending any of the documents listed in condition 10.4(a)(ii), amend the document, or provide reasons if they have been rejected; and

c) provide all documents received under condition 10.4(c) and any documents prepared or amended under 10.6(a) or (b) to the **Manager, Environmental Regulation**, with copies to **mana whenua**, the **Department of Conservation**, and Wellington Fish and Game Council.

10.7 The **consent holder** must assist the Independent Review Panel to fulfil its objectives by:

a) providing such administrative support as reasonably requested (such as documenting discussions and decisions reached); and

b) arranging appropriate meeting venues and remunerating members for reasonable costs.

11. Amending the Code

Advice Note 16: *Condition 11.1 sets out processes for amending the Code. The principles of river management at section 1.2, decision making framework at section 6, good management practices at section 10, baseline monitoring triggers at Tables 5 to 7, SSEMP section at Appendix 2 and general activity constraint calendars at Appendix 7 may only be amended in accordance with the processes set out below. All other sections of the Code may be amended from time to time.*

11.1 The **consent holder**:

a) may, from time to time, make amendments to all parts of the **Code** other than sections 1.2, 6 and 10, Tables 5 to 7, and Appendices 2 and 7; but

b) may only make amendments to sections 1.2, 6 and 10, Tables 5 to 7, and Appendices 2 and 7:

(i) if such amendments have been recommended by an independent suitably qualified expert under condition 6.2(b) or (c), the **Manager, Environmental Regulation**, under condition 9.3(b), or the Independent Review Panel under condition 10.4(c); or

(ii) if it has received advice from an expert, deemed by the **Manager, Environmental Regulation**, to be suitably qualified, that the proposed amendment(s) will not result in an increase in the adverse effects of any river management activity; or

(iii) in order to align the **Code** with a new **floodplain management plan**, operative regional plan, district plan, iwi management plan, National Environmental Standard, regulation or Act of Parliament; and

c) must update the affected areas columns in Appendix 7 to include additional affected areas as they are identified.

11.2 Notwithstanding condition 11.1(b), provisions affecting Transpower NZ Limited, KiwiRail Holdings Limited and Powerco Limited (at sections 10.3.1, 10.3.5, 10.3.9 and 10.6 of the **Code**) must not be amended except with the express agreement of the relevant party.

11.3 The **consent holder** must provide amended versions of the **Code** to the **Manager, Environmental Regulation**, with copies to **mana whenua**, the **Department of Conservation**, and Wellington Fish and Game Council.

12. Ecological Enhancement Fund

Advice Note 17*: Wellington Regional Council will allocate a specific budget for areas of work that contribute in a meaningful and long-term way to maintain or enhance the natural character of the river environs.*

12.1 The **consent holder** must:

a) within 20 **working days** of the commencement of this consent, allocate a one-off payment of $150,000 to establish an Ecological Enhancement Fund for Te Awa Kairangi/Hutt River, Wainuiomata, Waikanae and Ōtaki Rivers; and

b) annually thereafter, allocate $50,000 to the Fund for the life of the consents.

12.2 Money in the Ecological Enhancement Fund accrues and does not have to be spent within a specified timeframe.

12.3 The Ecological Enhancement Fund applies throughout the Wellington Region, with the purpose of maintaining or enhancing the natural character of the river environs, including:

a) the space available for the river (for example, by acquiring adjacent land);

b) areas of vegetation with high biodiversity values (including the planting of native species) in the river corridor;

c) in-stream values; or

d) any other area of important in-river or riparian habitat.

12.4 The **consent holder** may allocate funds in order to implement recommendations contained in:

a) final Annual Reports;

b) the Recommendations Report received under condition 10.4(c); or

c) a baseline monitoring report received under condition 6.2(b) or (c).

12.5 In addition to condition 12.4, the following parties may also apply to the **consent holder** for funding:

a) **mana whenua**;

b) **Department of Conservation**;

c) Wellington Fish and Game Council;

d) community groups;

e) landowners; and

f) individuals.

12.6 Each application to the fund must set out the amount of money applied for and how the proposed activities will meet the purposes of the Ecological Enhancement Fund.

12.7 The **consent holder** must, with 20 **working days** of receipt under condition 12.5, provide the applicant to the fund with notice as to whether funding has been approved or declined, including reasons.

12.8 The **consent holder** must include the following information in the draft Annual Report:

a) allocations of the Ecological Enhancement Fund over the preceding 12 month period; and

b) requests received under condition 12.5, including whether funding was approved or declined and the reasons for this.

13. Annual Walkovers

Advice Note 18*: Annual walkovers may be held for the purpose of identifying and discussing issues related to the river management activities undertaken pursuant to these consents.*

13.1 The **consent holder** may undertake an annual walkover of the **Wainuiomata River** where **river management activities** are undertaken pursuant to these consents and invite, at least 10 days before any walkover, the following representatives to attend:

a) **mana whenua**;

b) **Department of Conservation**;

c) Wellington Fish and Game Council;

d) the relevant territorial authority;

e) local residents who have a registered interest (including all submitters);

f) interested groups who registered an interest;

g) a suitably qualified ecologist (to help in the preparation of work programmes and identify opportunities for environmental enhancement);

h) Federated Farmers; and

i) the **Manager, Environmental Regulation**.

13.2 Each annual walkover under condition 13.1 must include, in respect of the relevant river:

a) a discussion of **river management activities** undertaken over the preceding 12 month period;

b) a discussion of **river management activities** proposed for the forthcoming year; and

c) consideration of the success of works, monitoring undertaken, and flood damage over the preceding 12 month period.

14. Complaints record

14.1 The **consent holder** must:

a) keep a record of any complaints received in respect of the **Wainuiomata River**, including the complainant's name (if provided), the date and time of the incident and the works being undertaken at the time of the complaint;

b) ensure the record of any complaint received is made available to the **Manager, Environmental Regulation**, on the same day it is received, or the following day if the complaint is received after hours; and

c) include a summary of complaints received over the preceding 12 month period in the draft Annual Report.

15. Certification

15.1 If the **Manager, Environmental Regulation**, receives an Operational Management Plan or **SSEMP** (Plan) from the **consent holder** for certification, he or she must, no later than 10 **working days** following receipt:

a) certify the Plan and provide the certified Plan to the **consent holder**; or

b) decline to certify the Plan and give notice and reasons to the **consent holder**. If notice is not given, the Plan is deemed to be certified.

15.2 The **consent holder** must, within 10 **working days** following receipt under condition 15.1(a) or deemed under condition 15.1(b), provide copies of the certified Plan to the relevant parties listed in conditions 2.1(a) or 4.1(a).

15.3 If an Operational Management Plan is declined under condition 15.1(b), the **consent holder** may update it and, following consultation with the relevant parties listed in condition 2.1(a), resubmit it for certification under condition 15.1.

15.4 If an **SSEMP** is declined under condition 15.1(b) or an Operational Management Plan is declined following resubmission under condition 15.3, the following process must be followed:

a) the **consent holder** must, within 10 **working days** of receiving notice under condition 15.1(b), appoint, in consultation with the **Manager, Environmental Regulation**, an independent suitably qualified expert to determine whether to certify the Plan and provide him or her with all relevant documentation;

b) the expert must, as soon as possible and within 10 **working days** following receipt:

(i) certify the Plan and provide it to the **consent holder** and the **Manager, Environmental Regulation**; or

(ii) decline to certify the Plan and give notice and reasons to the **consent holder** and the **Manager, Environmental Regulation**. If notice is not given, the Plan is deemed to be certified; and

c) the decision of the expert under 15.4(b), or deemed decision under 15.4(b)(ii) is binding; and

d) if the Plan is certified under 15.4(b)(i), the **consent holder** must, within 10 **working days**, provide copies to the relevant parties listed in condition 2.1(a) or 4.1(a); and

e) if certification of the Plan is declined under 15.4(b)(ii), the **consent holder** may resubmit the Plan to the expert, or withdraw the Plan.

16. Reviews

Review of the Environmental Monitoring Plan and certified Operational Management Plans

16.1 The **consent holder** must undertake a review of:

a) the **Environmental Monitoring Plan** every 2 years from the commencement of these consents; and

b) a certified Operational Management Plan every 2 years from the date of its certification.

16.2 The **consent holder** may, as a part of its review, include recommendations to amend the **Environmental Monitoring Plan** or certified Operational Management Plan in the draft Annual Report, together with reasons.

Review of these conditions

16.3 The **Manager, Environmental Regulation**, may, within 2 months of receipt under condition 9.4(c) or 10.6(c), serve notice on the **consent holder** of its intention to review these conditions for any of the following purposes:

a) to review the effectiveness of the conditions in avoiding, remedying or mitigating any adverse effects of the **consent holder's activities** and, if considered appropriate by Wellington Regional Council, deal with such effects by way of further or amended conditions; or

b) to review the conditions in light of any new **floodplain management plan** or to align the conditions with any operative regional plans, district plans, iwi management plans, National Environmental Standards, regulations or Acts of Parliament.

SPECIFIC CONDITIONS

17. Pool and riffle counts

17.1 The **consent holder** must, no later than six months after the commencement of these consents:

a) determine pool and riffle counts for the **Wainuiomata River**, in consultation with the **Department of Conservation** and Wellington Fish and Game Council; and

b) include these counts at Table 7 of the **Code**.

DEFINITIONS

The following definitions apply to all conditions:

Act means the Resource Management Act 1991;

bank has the same meaning as in the interpretation of 'bed' in the Act;

bed means the spaces of land which the waters of the river cover at its fullest flow without overtopping its banks;

bed level envelope means the minimum and maximum bed levels for each reach of the river;

berm means the area of land between the bed and the inner toe of a stopbank;

Code means Wellington Regional Council's Code of Practice for river management activities, as at the commencement of this consent, or as amended from time to time;

consent holder means Wellington Regional Council;

Department of Conservation means the Operations Manager, Wellington District, Wellington;

design standard means in respect of the Wainuiomata River a 1 in 100 year standard;

Environmental Monitoring Plan means the Environmental Monitoring Plan for river management activities as at the date of commencement of the consents (at Appendix 3 of the Code), or as amended from time to time;

floodplain management plan means any floodplain management plan for the **Wainuiomata River** that may be developed during the term of these consents;

flood protection surveys means the flood protection surveys undertaken for the **Wainuiomata River** by the consent holder every five years;

high potential impact activities means one or more of the following:

(a) bed recontouring;

(b) channel diversion cuts;

(c) construction and/or repair of impermeable structures; and

(d) ripping in the wet channel;

high value riparian vegetation means riparian vegetation within the consent area that is identified in the Operational Management Plan, the Operative Natural Resources Plan, by Wellington Regional Council's Key Native Ecosystems and Wetland Programmes, or by flood protection surveys as having significant indigenous biodiversity values;

kaitiaki sites means any areas or practices of cultural importance within the rivers as specified in Schedule C of the Natural Resources Plan or identified by mana whenua;

impermeable structures includes one or more of the following:

(a) driven rail or mesh gabion walls;

(b) gabion baskets or structures;

(c) groynes constructed of rock, concrete block or gravel;

(d) reno mattresses; and

(e) rock linings (rip-rap and toe rock);

Manager, Environmental Regulation means the Manager, Environmental Regulation Department, Wellington Regional Council;

mana whenua means, in respect of Te Awa Kairangi/Hutt River and the Wainuiomata River, Te Rūnanga o Toa Rangatira Inc. and the Port Nicholson Block Settlement Trust;

minimum flow means, in respect of the Wainuiomata River, 300 L/s minimum flow as measured at the Leonard Wood Park recorder, and/or any minimum flow included within a floodplain management plan;

river management activities and **activities** means any activity or ancillary work undertaken for the purposes of flood protection, erosion control or hazard management to achieve the design standard, including:

(a) construction in and on the bed of the following:

  (i) impermeable structures;

  (ii) permeable structures, including debris arresters, debris fences and groynes constructed of trees or timber; and

(b) construction outside the bed of other works, including:

  (i) cycle ways walkways and associated stormwater drainage, culverts, footbridges and access ways;

  (ii) fences;

  (iii) floodwalls; and

  (iv) shaping of banks and berms; and

(c) demolition and removal of existing structures in and on the bed by mechanical or hand methods, including the removal of demolition material from the bed; and

(d) maintenance of existing structures in and on the bed, including:

  (i) existing impermeable and permeable erosion protection structures; and

  (ii) existing culverts and outlet structures that discharge to rivers (including the clearance of debris); and

(e) structural repairs and maintenance of existing structures outside the bed, including:

  (i) flood and/or retaining walls;

  (ii) footbridges and fences located on the berms;

  (iii) stopbanks and training banks;

(iv) stormwater culverts (including clearance of debris); and

(v) stormwater drainage channels; and

(f) development of vegetative bank protection, including tree planting, willow layering, cabling and tethering; and

(g) maintenance of vegetative works, including:

(i) additional planting;

(ii) new layering of trees;

(iii) re-cabling of tethered willows;

(iv) removal of old trees; and

(v) trimming and mulching of trees; and

(h) mechanical channel shaping and/or realignment, including:

(i) beach recontouring;

(ii) beach ripping;

(iii) bed recontouring;

(iv) channel diversion cuts;

(v) recontouring (shaping or infilling) of bank edges; and

(vi) ripping in the wet channel; and

(i) channel maintenance, including:

(i) beach scalping;

(ii) gravel extraction;

(iii) clearance of flood debris;

(iv) removal of aquatic or terrestrial vegetation;

(v) removal of sediment; and

(vi) removal of silt and debris from drains; and

(j) non-structural maintenance works outside the bed, including:

(i) drain maintenance;

(ii) mowing stopbanks and berms (not involving machinery in beds);

(iii) planting and landscaping;

(iv) trimming and mulching of vegetation; and

(v) water blasting; and

(k) urgent works; and

(l) any works undertaken to remedy or mitigate the adverse effects of the activities in (a) to (k); but

(m) excludes large-scale capital works;

SSEMP means a Site Specific Effects Management Plan;

stopbank means a structure constructed on a floodplain, or alongside a river, designed to contain flood flows and prevent high river flows flooding onto adjacent land;

urgent works means river management activities undertaken:

(a) to address an immediate river management issue or problem where erosion or flooding is placing flood protection structures, other infrastructure or property under direct threat of damage; and/or

(b) in response to a flood or emergency situation that may need to be undertaken outside regular methodologies or operating conditions;

Wainuiomata River means the areas shown as the 'consent area' in Maps 1 to 7 of the application, and as generally shown in the attached Appendix 2;

willow means sterile willow cultivars, but excludes crack willow and grey willow;

working day has the same meaning as in section 2 of the RMA.

Appendix 2: Location of the works