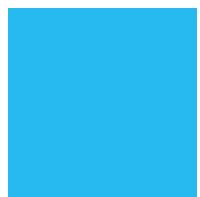




Appendix F

## Preliminary Planning Assessment



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## 1 Introduction

This report is a Preliminary Planning Assessment of the six shortlisted options for the Kapiti Coast Water Supply Project. The shortlisted options are described in detail in the Option Selection Report and in summary are as follows:

Option	Details
Ngatiawa Dam	A dam and reservoir in the Ngatiawa River, near to the confluence with the Waikanae River.
Kapakapanui Dam	A dam and reservoir in an unnamed valley east of the Kapakapanui Stream valley, approximately 6 km upstream of the Waikanae Water Treatment Plant.
Lower Maungakotukutuku Dam	A dam and reservoir in the Maungakotukutuku Stream, approximately 5 km upstream of the Waikanae Water Treatment Plant.
Waikanae Borefield/ Storage and Treatment	An out-of-river storage pond filled from the Waikanae River during times of high river flow using the existing river intake and a new pipeline between the treatment plant and pond. There are two pond options depending on the blend of stored river water and borewater: <ol style="list-style-type: none"><li>1. a pond capacity of 0.86M m<sup>3</sup> (50% pond &amp; 50% bores).</li><li>2. a pond capacity of 0.51M m<sup>3</sup> (30% pond &amp; 70% bores). This option involves connection to Bores TW2, KB7 and K12.</li></ol>
River Recharge with Groundwater	Extending the Waikanae Borefield by constructing new bores and then during periods of low river flow, groundwater from the bores would be discharged to the Waikanae River immediately downstream of the Waikanae Water Treatment Plant intake.
Aquifer Storage and Recovery	Modifications to the existing Waikanae Borefield to develop recharge bores that would be used to inject water from the Waikanae River into the aquifer during winter. River water will be stored in the aquifer until abstraction in the summer when river flows are low and water cannot be abstracted from the river due to residual flow requirements.

### 1.1 Scope of Assessment

This Preliminary Planning Assessment is based on the preliminary design of the options and only covers the major activities associated with each option. The concept designs and location plans are indicative only. Therefore, we have not considered any ancillary activities that may be required at this stage (eg. gravel extraction, upgrades to local roads) that are required for particular options. These activities will need to be assessed once details are available.

Where details of the project are still to be confirmed, we have assumed the maximum limit in regards to that activity for the purpose of identifying consents. (ie. We have taken a conservative approach). For example the volume of earthworks is as yet unknown and therefore we have assumed that the area and volume will not meet the permitted activity standards in the relevant plans. As design progresses, this volume may reduce and therefore a less onerous activity status may apply.

As part of the assessment below we have not considered any subdivision or boundary adjustment that may be required as a result of acquiring land for the project. This assessment will need to be undertaken once these requirements are better defined.

The activities associated with the preferred option will be bundled and therefore, where a number of resource consents are required under the District Plan or relevant Regional Plans, the most onerous consent status will apply.

Therefore, this report provides an early indication of likely planning and consenting issues as which will be refined once a preferred solution is chosen and the details of works and design are fully defined.

## **1.2 Relevant Planning Considerations for all Dam Options**

KCDC is a requiring authority and therefore can designate land for the purpose of water supply. Therefore, Council may decide to give Notice of Requirement to designate land associated with a water supply dam. In that case, the process set out in section 168 of the RMA will apply and the District Plan rules outlined in this report will not apply.

For the purpose of the assessment, we have determined that a dam does not fall within the definition of an ‘Industrial Activity’ under the definitions in Part Q – Definitions of the District Plan. However, a dam would fall within the definition of building which is defined (emphasis added) as “*Building includes any dwelling (see definition for dwelling), structure or part of a structure, whether temporary or permanent, movable or immovable,...)*”. Therefore, all of the dams have been assessed under the structure rules of the relevant zone in the District Plan.

## **1.3 Relevant Planning Considerations for any works at the Waikanae Water Treatment Plant**

All of the shortlisted options will require changes to the Waikanae Water Treatment Plant (WTP) located at Reikorangi Road, Waikanae. This may include additional pipes, pumps, water treatment facilities, buildings and so forth.

The WTP site is designated in the District Plan as D1122: Water Treatment Plant and intake.

Therefore, provided any new buildings or structures occur within the designated area, then the District Plan rules will not apply to the site and the Outline Plan requirements in the Resource Management Act 1991 (RMA) will apply. Therefore, no assessment of the District Plan rules has been undertaken for works at the WTP.

## **1.4 Relevant Planning Considerations for Taking Water from the Waikanae River**

Most of the shortlisted options will involve taking water from the Waikanae River. The following planning considerations are relevant.

### **1.4.1 Water Bodies with a High Degree of Natural Character**

Appendix 2 of the Regional Freshwater Plan lists the Wetlands, Lakes and Rivers and their Margins, with a High Degree of Natural Character. The Waikanae River is not listed under Part A: Surface Water to be Managed in its Natural State or Part B: Surface Water to be Managed for Aquatic Ecosystem Purposes.

### **1.4.2 Minimum Flows, Safe Yields, and Water Allocation**

Table 6.1 of the Regional Freshwater Plan contains the Minimum Flows and Water Allocation for Some Rivers in the Wellington Region. The details for the Waikanae River are as follows:

Column 1	Column 2	Column 3 Policy 6.2.1(1)	Column 4 Policy 6.2.1(2)	Column 5 Policy 6.2.1(3)	Column 6 Policy 6.2.1(4)		Column 7 Policy 6.2.1(4)	
Part of the river/ stream within which allocations in columns 4, 5 6 & 7 apply	The location of recorders where flows in columns 3, 5, 6 & 7 are measured	Minimum Flow (litres/second)	Core Allocation (litres/second)	Flow required for supplementary allocation (litres/second)	Flow below which first stepdown allocation takes effect (litres/second)	First stepdown allocation (litres/second)	Flow below which second stepdown allocation takes effect (litres/second)	Second stepdown allocation (litres/second)

Waikanae River (Option A) from the headwaters to the boundary of the coastal marine area	At the Water Treatment Plant	750	290	2000	900	150	750	120
Waikanae River (Option B) from the headwaters to the boundary of the coastal marine area	At the Water Treatment Plant	750		750				

Two options (Option A and Option B) are given in Table 6.1 for the Waikanae River. When resource consent applications are made for community water supply, the applicant can advise the consent authority on which of the two options the consent authority should have regard to when considering the application.

## 2 Kapiti Water Supply Project - Preliminary Planning Assessment of Shortlisted Options

### 2.1 Key Activities

This option will involve the following activities during construction:

**Table 1A: Activities During Construction**

Activities	Details
Creating access to the site	Access off Ngatiawa Road required for construction and maintenance. This may utilise existing accessways.
Clearance of vegetation	Within the dam impound area and for site access.
Earthworks and site preparation	Site preparation. Earthworks for dam construction. Earthworks for site access.
River diversion	Diverting Ngatiawa River during construction.
Construction of dam structures within the bed of the stream	Constructing a dam face and other structures within the Ngatiawa River.
Water take infrastructure at the Waikanae Treatment Plant	Use existing water intake structures at the Waikanae Water Treatment Plant.

This option will involve the following activities during operation:

**Table 1B: Activities During Operation**

Activities	Details
Taking water	Taking additional water from the Waikanae River at the Waikanae Treatment Plant.
Discharge of contaminants during operation	Discharge of additional contaminants to the Waikanae River – water and backflow from the water treatment process.

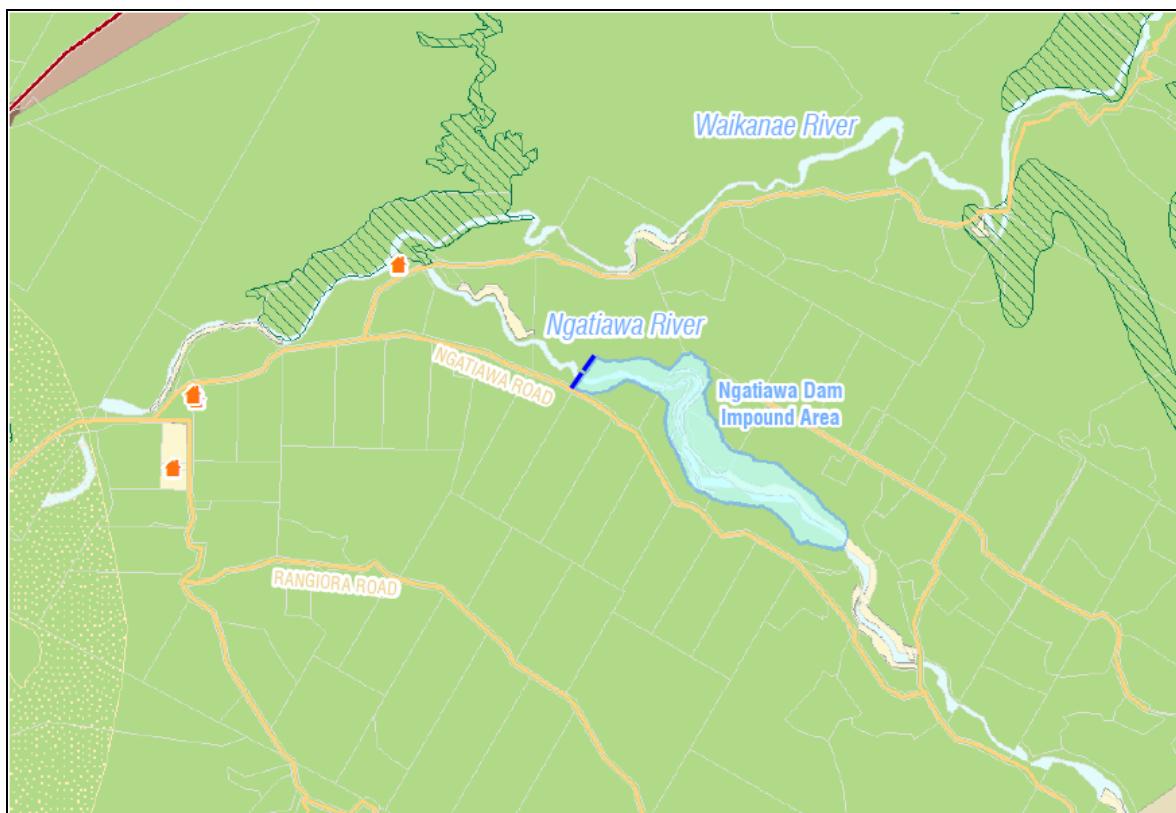
## 2.2 Assessment of the Kapiti Coast District Plan

Based on the activities identified above, the following district plan notations and rules below are relevant to the Ngatiawa Dam site.

### 2.2.1 Planning Notations

The relevant District Plan map for the Ngatiawa Dam site is shown in Figure 1B below.

**Figure 1B: District Plan Map**



The relevant planning notations for the Ngatiawa Dam site are as follows:

**Table 1C: District Plan Notations**

Notation	Detail
Zoning:	Rural and Open Space (for sections of land adjacent to Ngatiawa River).
Historic building:	None
Heritage trees	None
Heritage Wahi Tapu	None
Hazards –Faultline:	Located near Gibbs fault and Ohariu Fault
Hazards – Flooding:	None
Ecological Sites:	Ecological site K080 (Ngatiawa Rd Bush). Ngatiawa Rd, Reikorangi R26 872/318. Kamahi forest, tawa forest, mahoe forest - 8.69ha. District significance. Listed in the District Plan Heritage Schedule but not shown on District Plan Maps.

Outstanding Landscapes:	None
Designation:	None

The above assessment indicates that the majority of the site is zoned rural, with areas of Open Space associated with esplanade reserves running most of the length of land adjacent to the Ngatiawa River within the site. Therefore, assessment needs to be undertaken under both of these zones.

### **2.2.2 Relevant District Plan Rules**

The following table provides an assessment of the project against the relevant Rural and Open Space rules in the District Plan.

**Table 1D: Assessment of Relevant Rural Rules**

Activity	Relevant Rule	Assessment	Activity Status
Earthworks	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards relate to slope, proximity to a waterbody, volume and alteration of the ground surface. The earthworks will not meet a number of these standards given their volume and proximity to the river.	Discretionary Activity
The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation	D.2.1.3B. The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation and the modification that is not provided for as a permitted activity.	The permitted activity standards relate to vegetation height, area and proximity to a waterbody. The dam construction will require the removal of vegetation which will not meet a number of these standards given the area of vegetation to be removed, the height of this and the proximity to the river.	Discretionary Activity
Dam structure	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards require that the maximum height of any building from original ground level is 10 metres. The dam structure will exceed this height.	Discretionary Activity
Access	Standards for access are set out in Part J4.1 of the Plan.	No details are available at this stage, however design of the access should be based on these standards.	N/A
Construction noise	Rule D.2.1.1. All activities which are not listed as controlled, discretionary, non-complying or prohibited and which comply with all the permitted activity standards.	The permitted activity standards require compliance with NZS6803P:1984. Provided the construction noise complies with this then it will be considered a permitted activity.	Permitted Activity (provided it can comply) or Discretionary Activity

**Table 1E: Assessment of Relevant Open Space Rules**

Activity	Relevant Rule	Assessment	Activity Status
Earthworks	Rule D.6.1.4 Earthworks that do not comply with the permitted activity standards.	The permitted activity standards relate to slope, proximity to a waterbody, volume and alteration of the ground surface. The earthworks will not meet a number of these standards given their volume and proximity to the river.	Non-Complying Activity
The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation.	Rule D.6.1.4 The disturbance, removal, damage or destruction, of naturally occurring indigenous vegetation that is not provided for as a permitted activity.	The permitted activity standards relate to vegetation height, area and proximity to a waterbody. The dam construction will require the removal of vegetation which will not meet a number of these standards given the area of vegetation to be removed, the height of this and the proximity to the river.	Non-Complying Activity
Dam structure	Rule D.6.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards require that the maximum height of any building from original ground level is 4 metres. The dam structure will exceed this.	Discretionary Activity
		The permitted activity standards require that buildings are sited a minimum of 10 m from any waterbody with a bed of more than 3 metres wide.	Discretionary Activity
Access	Standards for access are set out in Part J4.1 of the Plan.	No details are available at this stage, however design should be based on these standards.	N/A
Construction noise	Rule D.6.1.1. All activities which are not listed as controlled, discretionary, non-complying or prohibited and which comply with all the permitted activity standards.	The permitted activity standards require compliance with NZS6803P:1984. Provided the construction noise complies with this then it will be considered a permitted activity. If it cannot comply then it will be assessed as a discretionary activity under Rule D.6.1.3.	Permitted Activity (provided it can comply) or Discretionary Activity

## **2.3 Assessment of Regional Plans**

Based on the activities identified above, the following regional plan provisions are relevant to the site.

### **2.3.1 Planning Notations**

The following regional plan notations are relevant:

#### **Water Bodies with Nationally Threatened Indigenous Fish (Appendix 3)**

Part A of Appendix 3 of the Regional Freshwater Plan identifies Water Bodies with Nationally Threatened Indigenous Fish Recorded in the catchment (Species recorded are: Shortjawed Kokopu and Koaro). The Waikanae River, above the coastal marine area boundary at R26 794 349, and the Ngatiawa River above its confluence with the Waikanae River are listed In Appendix 3.

#### **Water bodies with Water Quality to be Managed for Water Supply Purposes (Appendix 6)**

Appendix 6 of the Regional Freshwater Plan identifies water bodies with water quality to be managed for water supply purposes. This includes the Ngatiawa River.

#### **Erosion Prone Land**

The site is located within Area 2 of the Regional Soil Plan. This is defined as that area of land within the Wellington Regional Council's jurisdiction where: The eastern boundary is the Ruamahanga River; and the western boundary is the west coast south of Pukerua Bay and State Highway 1 north of Pukerua Bay.

Within this area, Erosion Prone Land is defined as any land within Area 2 with a slope greater than 28 degrees. For the purpose of this assessment, it has been assumed that part of the site will have a slope greater than 28 degrees and therefore we have treated the whole site as being Erosion Prone Land.

### **2.3.2 Relevant Regional Plan Rules**

The following table provides an assessment of the project against the relevant regional plan rules.

**Table 1F: Assessment of Relevant Rules**

Activity	Relevant Rule	Assessment	Activity Status
Additional discharges of water and minor contaminants from the Waikanae Water Treatment Plant.	Rule 1 (Freshwater Plan). The discharge of contaminants, or water, into surface water is a Permitted Activity provided the discharge complies with the conditions specified.	The conditions accompanying this rule relate to concentrations of contaminants including chlorine, suspended solids, acid-soluble aluminium, fluoride and temperature	Permitted activity
The discharge of any contaminant or water into fresh water from the Waikanae Water Treatment Plant.	Rule 5 (Freshwater Plan). The discharge of any contaminant or water into fresh water: which cannot meet the requirements of Rules 1, 2, 3, and 4;	Discharges associated with the operation of the Water Treatment Plant may not meet the required limits for concentrations of contaminants including chlorine.	Discretionary Activity
Damming and diverting the Ngatiawa River.	Rule 16 (Freshwater Plan). The taking, use, damming, or diversion of any fresh water, or the transfer to another site of any water permit to take or use water	The Ngatiawa River is not identified as a water body with a high degree of natural character and therefore, this rule applies to the damming and diversion of the Ngatiawa River.	Discretionary Activity
Taking water from the Waikanae River (over the existing take consent).	Rule 16 (Freshwater Plan). The taking, use, damming, or diversion of any fresh water, or the transfer to another site of any water permit to take or use water	The Waikanae River is not identified as a water body with a high degree of natural character and therefore, this rule applies to the taking of water.	Discretionary Activity
A dam within the bed of the Ngatiawa river.	Rule 49 (Freshwater Plan). The use, of any river or lake bed which is not specifically provided for in Rules 22 to 48.	Large dams are not provided for in any other rule and therefore will be assessed under Rule 49 of the Plan. Because the Ngatiawa River is not a water body with a high degree of natural character, Rule 50 is not applicable.	Discretionary Activity
Earthworks for construction and maintenance access.	Rule 1 (Soil Plan) Any roading and tracking located in Area 2 and, during any 12 month period, will result in a road or track having a continuous length of new upslope batter extending for greater than 200 metres, with a height of greater than 2 metres measured vertically;	Access for the dam construction and operation has yet to be confirmed but if it does not meet the limits in Rule 1, resource consent will be required.	Restricted Discretionary Activity.
Earthworks for site preparation and dam construction.	Rule 2 (Soil Plan) Soil disturbance on erosion prone land that involves the disturbance of greater than or equal to 1,000 m <sup>3</sup> of soil, within any 10,000 m <sup>2</sup>	Earthworks are likely exceed the limits in Rule 2.	Restricted Discretionary Activity.

Activity	Relevant Rule	Assessment	Activity Status
Vegetation removal for site preparation and dam/access construction.	<p>area and within any continuous 12 month period;</p> <p>Rule 4 (Soil Plan) Vegetation disturbance on erosion prone land which is provided for by Rule 3 but does not comply with any of the conditions in Rule 3 is a Restricted Discretionary Activity.</p>	<p>The Plan provides that where vegetation will be re-established in woody vegetation within 18 months from the start of the vegetation disturbance operation, that the vegetation clearance is a permitted activity. As the vegetation will not be reestablished, Rule 4 applies.</p>	Restricted Discretionary Activity.

## 2.4 Other Relevant Considerations

In addition to the District and Regional Council provision outlined above, the following additional matters are relevant to this site:

- The inundation area extends into a DoC ecological site (Ngatiawa Bush).

### 2.4.1 Reserves Act 1977

The site includes Local Purpose Reserve (Esplanade). This is located adjacent to the Ngatiawa River and is vested in the Council. Local Purpose Reserves are subject to the Reserves Act 1977. The Council is the Administering Body.

The proposed works will result in the inundation of the reserve, and therefore, the reserve could be revoked in accordance with section 24(a) of the Reserves Act. This provides that

*"the local authority within whose district a reserve is situated or the administering body of any reserve notifies the Commissioner in writing that, pursuant to a resolution of the local authority or of the administering body, as the case may be, it considers for any reason, to be stated in the resolution, that the classification or purpose of the whole or part of the reserve should be changed to another classification or purpose, or that the reservation of the whole or part of the land as a reserve should be revoked,—*

*then, subject to the succeeding provisions of this section, the Minister may, in his discretion, by notice in the Gazette, change the classification or purpose of the whole or part of the reserve, which thereafter shall be held and administered for that changed classification or purpose, or revoke the reservation of the whole or part of the land as a reserve"*

In addition to the above, under section 2(b) the Council shall publicly notify the proposed change of classification or purpose or proposed revocation of reservation, as the case may be, specifying the reason or reasons for the proposal.

The approval approach/options for the areas of Local Purpose Reserve (Esplanade). will need to be investigated with Council Parks and Recreation staff in further detail if the Ngatiawa Dam is a preferred option.

## 2.5 Summary of Planning Assessment

In summary our preliminary assessment has highlighted that the following approvals may be required for the construction and operation of the Ngatiawa Dam:

- In the event that resource consent applications are sought from KCDC for the construction, operation and maintenance of the Ngatiawa Dam, the application would be assessed as a **non-complying activity**.
- In the event that a Notice of requirement is given in respect of the land for the Ngatiawa Dam, this will be assessed in accordance with Section 168 of the RMA.
- The applications for resource consent from the GWRC will be assessed as a **discretionary activity**.

The other relevant considerations for this site are:

- Areas of the site are Local Purpose Reserve (Esplanade) and will the provisions of the Reserves Act 1977 apply. KCDC is the administering authority.

The following approvals may be required for works and activities at the Waikanae Water Treatment Plant:

- The site is designated in the District Plan and therefore works within the site will be dealt with via an Outline Plan prepared in accordance with section 176 of the RMA.
- In the event that a new application is sought from GWRC to take water from the Waikanae River, this will be assessed as a **discretionary activity**.
- In the event that a new application is sought from GWRC to discharge contaminant to the Waikanae River associated with operation of the Water Treatment plant, this will be assessed as a **discretionary activity**.

### 3 Preliminary Planning Assessment – Kapakapanui Dam

#### 3.1 Key Activities

This option will involve the following activities during construction:

**Table 2A: Activities During Construction**

Activities	Details
Creating access to the site	Access off Mangoane South Road required for construction and maintenance.
Constructing an access bridge over the Waikanae River	A bridge to gain access across the Waikanae River from Mangoane South Road
Clearance of vegetation	Within the dam impound area and for site access.
Earthworks and site preparation	Site preparation. Earthworks for dam construction. Earthworks for site access.
River diversion	Diverting a tributary of the Kapakapanui Stream during construction.
Construction of dam structures within the bed of the stream	Constructing a dam face and other structures within a tributary of the Kapakapanui Stream.
Water take infrastructure at the Waikanae Treatment Plant	Use existing water intake structures at the Waikanae Water Treatment Plant.

This option will involve the following activities during operation:

**Table 2B: Activities During Operation**

Activities	Details
Taking water	Taking additional water from the Waikanae River at the Waikanae Treatment Plant.
Discharge of contaminants during operation	Discharge of additional contaminants to the Waikanae River – water and backflow from the water treatment process.

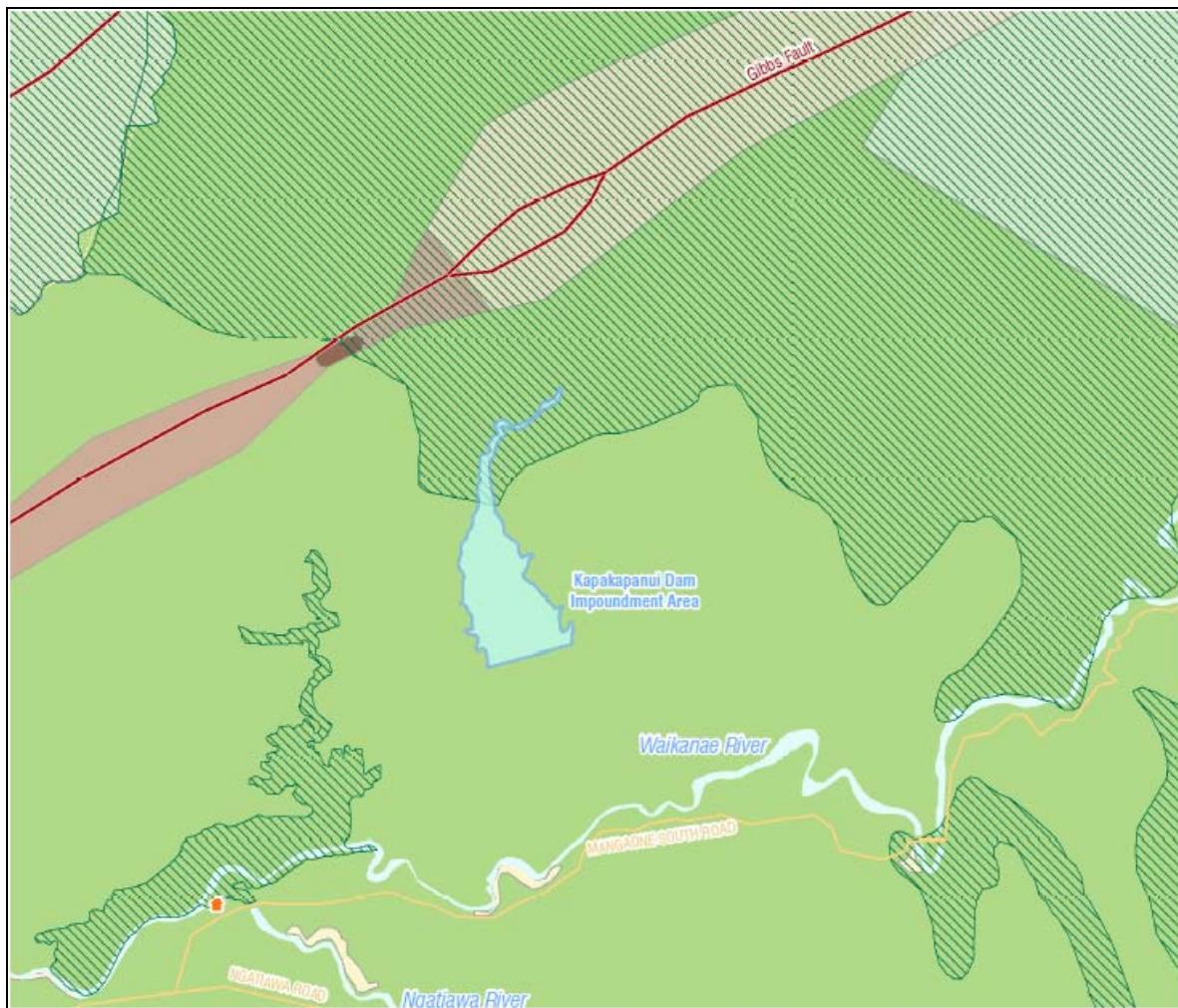
#### 3.2 Assessment of the Kapiti Coast District Plan

Based on the activities identified above, the following district plan notations and rules below are relevant to the Kapakapanui Dam site.

##### 3.2.1 Planning Notations

The relevant District Plan map for the **Kapakapanui** Dam site is shown in Figure 2B below.

**Figure 2B: District Plan Map**



The relevant planning notations for the Kapakapanui Dam site are as follows:

**Table 2C: District Plan Notations**

Notation	Detail
Zoning:	Rural
Historic building:	None
Heritage trees	None
Heritage Wahi Tapu	None
Hazards –Faultline:	Located near Gibbs fault and Ohariu Fault
Hazards – Flooding:	None
Ecological Sites:	E17: DOC (281) – Tararua Ranges. Largest area of native bush/wilderness area on the Coast -42,390ha.
Outstanding Landscapes:	None
Designation:	None

The above assessment indicates that the site is zoned rural and that a portion of the site is located within ecological area 17: Tararua Ranges.

### **3.2.2 Relevant District Plan Rules**

The following table provides an assessment of the project against the relevant Rural rules in the District Plan.

As part of the assessment below we have not considered any subdivision or boundary adjustment that may be required as a result of acquiring land for the project. This assessment will need to be undertaken once these requirements are better defined.

For the purpose of the above assessment, we have determined that a dam does not fall within the definition of an ‘Industrial Activity’ under the definitions in Part Q – Definitions of the District Plan. However, a dam would fall within the definition of building which is defined (emphasis added) as “*Building includes any dwelling (see definition for dwelling), structure or part of a structure, whether temporary or permanent, movable or immovable,...*”.

Where details of the project are still to be confirmed, we have assumed the maximum limit in regards to that activity for the purpose of identifying consents. (ie. We have taken a conservative approach). For example the volume of earthworks is as yet unknown and therefore we have assumed that the area and volume will not meet the permitted activity standards in the Plan. As design progresses, this may reduce and therefore a less onerous activity status may apply.

The activities associated with the construction of the Kapakapanui Dam will be bundled and therefore, the most onerous consent status will apply.

**Table 2D: Assessment of Relevant Rural Rules**

Activity	Relevant Rule	Assessment	Activity Status
Earthworks	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards relate to slope, proximity to a waterbody, volume and alteration of the ground surface. The earthworks will not meet a number of these standards given their volume and proximity to the river.	Discretionary Activity
The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation	D.2.1.3B. The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation and the modification that is not provided for as a permitted activity.	The permitted activity standards relate to vegetation height, area and proximity to a waterbody. The dam construction will require the removal of vegetation which will not meet a number of these standards given the area of vegetation to be removed, the height and removal of vegetation within a listed ecological area and proximity to the river.	Discretionary Activity
Construction noise	Rule D.2.1.1. All activities which are not listed as controlled, discretionary, non-complying or prohibited and which comply with all the permitted activity standards.	The permitted activity standards require compliance with NZS6803P:1984. Provided the construction noise complies with this then it will be considered a permitted activity.	Permitted Activity (provided it can comply) or Discretionary Activity
Dam structure	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards require that the maximum height of any building from original ground level is 10 metres. The dam structure will exceed this.	Discretionary Activity
New access from Mangoane South Road	Standards for access are set out in Part J4.1 of the Plan.	No details are available at this stage, however design should be based on these standards.	N/A

### **3.3 Assessment of Regional Plans**

Based on the activities identified above, the following regional plan provisions are relevant to the site.

#### **3.3.1 Planning Notations**

##### **Water Bodies with a High Degree of Natural Character**

Appendix 2 of the Regional Freshwater Plan lists the Wetlands, Lakes and Rivers and their Margins, with a High Degree of Natural Character. Neither the Kapakapanui River or the Waikanae River are listed under Part A: Surface Water to be Managed in its Natural State or Part B: Surface Water to be Managed for Aquatic Ecosystem Purposes.

##### **Water Bodies with Nationally Threatened Indigenous Fish**

Part A of Appendix 3 of the Regional Freshwater Plan identifies Water Bodies with Nationally Threatened Indigenous Fish Recorded in the catchment (Species recorded are: Shortjawed Kokopu and Koaro):

The Waikanae River, above the coastal marine area boundary at R26 794 349, and the following rivers in the Waikanae River catchment above their confluences with the Waikanae River, as generally shown in Figure 3.1:

- the Ngatiawa River;

##### **Water Bodies with Important Trout Habitat**

Appendix 4 of the Regional Freshwater lists Water Bodies with Important Trout Habitat (including spawning areas) - Water Quality to be Managed for Fishery and Fish Spawning Purposes

- The Waikanae River from R26 899 353 to R26 807 347.

##### **Minimum Flows, Safe Yields, and Water Allocation**

Table 6.1 of the Regional Freshwater Plan contains the Minimum Flows and Water Allocation for Some Rivers in the Wellington Region. The details for the Waikanae River area as follows:

Column 1	Column 2	Column 3 Policy 6.2.1(1)	Column 4 Policy 6.2.1(2)	Column 5 Policy 6.2.1(3)	Column 6 Policy 6.2.1(4)		Column 7 Policy 6.2.1(4)
Part of the river/ stream within which allocations in columns 4, 5 6 & 7 apply	The location of recorders where flows in columns 3, 5, 6 & 7 are measured	Minimum Flow (litres/second)	Core Allocation (litres/second)	Flow required for supplementary allocation (litres/second)	Flow below which first stepdown allocation takes effect (litres/second)	First stepdown allocation (litres/second)	Flow below which second stepdown allocation takes effect (litres/second)
Waikanae River (Option A) from the headwaters to the boundary of the coastal marine area	At the Water Treatment Plant	750	290	2000	900	150	750
Waikanae River (Option B) from the headwaters to the boundary of the coastal marine area	At the Water Treatment Plant	750		750			

Two options (Option A and Option B) are given in Table 6.1 for the Waikanae River. When resource consent applications are made for community water supply, the applicant can advise the consent authority on which of the two options the consent authority should have regard to when considering the application.

## **Erosion Prone Land**

The site is located within Area 2 of the Regional Soil Plan. This is defined as that area of land within the Wellington Regional Council's jurisdiction where: The eastern boundary is the Ruamahanga River; and the western boundary is the west coast south of Pukerua Bay and State Highway 1 north of Pukerua Bay.

Within this area, Erosion Prone Land is defined as any land within Area 2 with a slope greater than 28 degrees. For the purpose of this assessment, it has been assumed that part of the site will have a slope greater than 28 degrees and therefore we have treated the whole site as being Erosion Prone Land.

### **3.3.2 Relevant Regional Plan Rules**

The following table provides an assessment of the project against the relevant regional plan rules.

**Table 2F: Assessment of Relevant Rules**

Activity	Relevant Rule	Assessment	Activity Status
Additional discharges of water and minor contaminants from the Waikanae Water Treatment Plant.	Rule 1 (Freshwater Plan) The discharge of contaminants, or water, into surface water is a Permitted Activity provided the discharge complies with the conditions specified.	The conditions accompanying this rule relate to concentrations of contaminants including chlorine, suspended solids, acid-soluble aluminium, fluoride and temperature	Permitted activity
The discharge of any contaminant or water into fresh water from the Waikanae Water Treatment Plant.	Rule 5 (Freshwater Plan) The discharge of any contaminant or water into fresh water: which cannot meet the requirements of Rules 1, 2, 3, and 4;	Discharges associated with the operation of the Water Treatment Plant may not meet the required limits for concentrations of contaminants including chlorine.	Discretionary Activity
Damming and diverting a tributary of the Kapakapanui Stream.	Rule 16 (Freshwater Plan), The taking, use, damming, or diversion of any fresh water, or the transfer to another site of any water permit to take or use water	The tributary of the Kapakapanui Stream is not identified as a water body with a high degree of natural character and therefore, this rule applies to the damming and diversion of tributary of the Kapakapanui Stream River.	Discretionary Activity
Taking water from the Waikanae River (over the existing take consent).	Rule 16 (Freshwater Plan), The taking, use, damming, or diversion of any fresh water, or the transfer to another site of any water permit to take or use water	The Waikanae River is not identified as a water body with a high degree of natural character and therefore, this rule applies to the taking of water.	Discretionary Activity
A dam within the bed of a tributary of the Kapakapanui Stream.	Rule 49 (Freshwater Plan), The use, of any river or lake bed which is not specifically provided for in Rules 22 to 48.	Large dams are not provided for in any other rule and therefore will be assessed under Rule 49 of the Plan. Because the tributary of the Kapakapanui Stream is not a water body with a high degree of natural character, Rule 50 is not applicable.	Discretionary Activity
Constructing a bridge over the Waikanae River from access from Mangaone South Road.	Rule 49 (Freshwater Plan), The use, of any river or lake bed which cannot meet the requirements of Rules 22 to 48.	The bridge will be more than 6m in length and therefore will not be a permitted activity under Rule 31. Rule	Discretionary Activity

Activity	Relevant Rule	Assessment	Activity Status
		47 provides for river crossings but specifically excludes the Waikanae River.	
Earthworks for construction and maintenance access.	Rule 1 (Soil Plan) Any roading and tracking located in Area 2 and, during any 12 month period, will result in a road or track having a continuous length of new upslope batter extending for greater than 200 metres, with a height of greater than 2 metres measured vertically;	Access for the dam construction and operation has yet to be confirmed but if it does not meet the limits in Rule 1, resource consent will be required.	Restricted Discretionary Activity.
Earthworks for site preparation and dam construction.	Rule 2 (Soil Plan) Soil disturbance on erosion prone land that involves the disturbance of greater than or equal to 1,000 m <sup>3</sup> of soil, within any 10,000 m <sup>2</sup> area and within any continuous 12 month period;	Earthworks are likely exceed the limits in Rule 2.	Restricted Discretionary Activity.
Vegetation removal for site preparation and dam/access construction.	Rule 4 (Soil Plan) Vegetation disturbance on erosion prone land which is provided for by Rule 3 but does not comply with any of the conditions in Rule 3 is a Restricted Discretionary Activity.	The Plan provides that where vegetation will be re-established in woody vegetation within 18 months from the start of the vegetation disturbance operation, that the vegetation clearance is a permitted activity. As the vegetation will not be reestablished, Rule 4 applies.	Restricted Discretionary Activity.

### 3.4 Summary of Planning Assessment

In summary our preliminary assessment has highlighted that the following approvals may be required for the construction and operation of the Kapakapanui Dam:

- In the event that resource consent applications are sought from KCDC for the construction, operation and maintenance of the Kapakapanui Dam, the application would be assessed as a **non-complying activity**.
- In the event that a Notice of requirement is given in respect of the land for the Kapakapanui Dam, this will be assessed in accordance with Section 168 of the RMA.
- The applications for resource consent from the GWRC will be assessed as a **discretionary activity**.

The following approvals may be required for works and activities at the Waikanae Water Treatment Plant:

- The site is designated in the District Plan and therefore works within the site will be dealt with via an Outline Plan prepared in accordance with section 176 of the RMA.
- In the event that a new application is sought from GWRC to take water from the Waikanae River, this will be assessed as a **discretionary activity**.
- In the event that a new application is sought from GWRC to discharge contaminant to the Waikanae River associated with operation of the Water Treatment plant, this will be assessed as a **discretionary activity**.

## 4 Preliminary Planning Assessment – Maungakotukutuku Dam

### 4.1 Key Activities

This option will involve the following activities during construction:

**Table 3A: Activities During Construction**

Activities	Details
Creating access to the site	Access off Mahaki Road (to be confirmed) required for construction and maintenance.
Clearance of vegetation	Within the dam impound area and for site access.
Earthworks and site preparation	Site preparation. Earthworks for dam construction. Earthworks for site access.
River diversion	Diverting the Mangakotukutuku Stream during construction.
Construction of dam structures within the bed of the stream	Constructing a dam face and other structures within the Mangakotukutuku Stream.
Water take infrastructure at the Waikanae Treatment Plant	Use existing water intake structures at the Waikanae Water Treatment Plant.

This option will involve the following activities during operation:

**Table 3B: Activities During Operation**

Activities	Details
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Taking water	Taking additional water from the Waikanae River at the Waikanae Treatment Plant.
Discharge of contaminants during operation	Discharge of additional contaminants to the Waikanae River – water and backflow from the water treatment process.

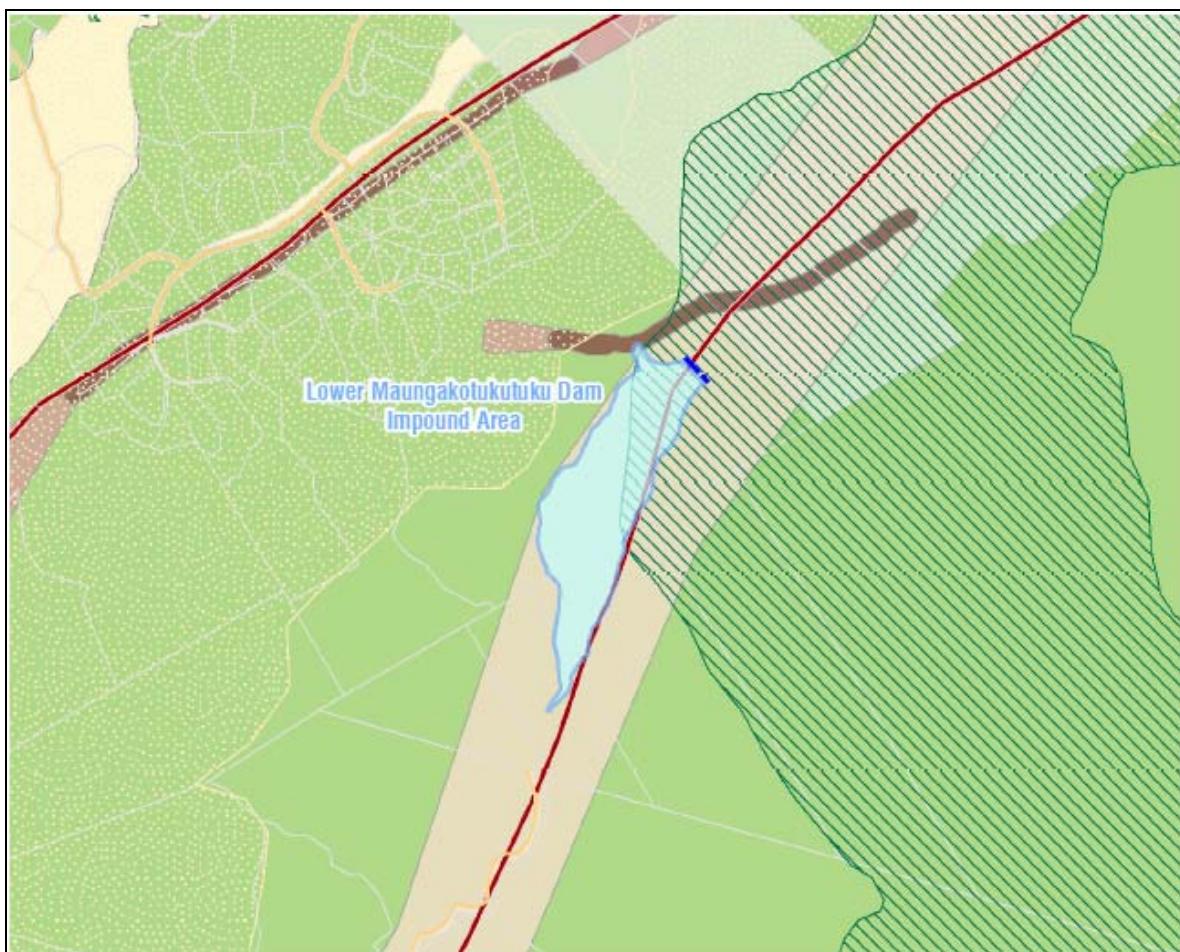
## 4.2 Assessment of the Kapiti Coast District Plan

Based on the activities identified above, the following district plan notations and rules below are relevant to the Mangakotukutuku Dam site.

### 4.2.1 Planning Notations

The relevant District Plan map for the Mangakotukutuku Dam site is shown in Figure 3B below.

**Figure 3B: District Plan Map**



The relevant planning notations for the Mangakotukutuku Dam site are as follows:

**Table 3C: District Plan Notations**

Notation	Detail
Zoning:	Rural
Historic building:	None
Heritage trees	None
Heritage Wahi Tapu	None
Hazards –Faultline:	On an active fault (Gibbs Fault). Within a well defined fault zone. Within an uncertain poorly constrained fault zone.
Hazards – Flooding:	None
Ecological Sites:	Part of site within E17: DOC (281) – Tararua Ranges. Largest area of native bush/wilderness area on the Coast -42,390ha.
Outstanding Landscapes:	Near an Outstanding Landscape, but not within one.
Designation:	None

The above assessment indicates that the site is zoned rural and that a portion of the site is located within ecological area 17: Tararua Ranges. In regards to the Faultline hazards, this notation is relevant to the design of the dam structure but does not affect the planning approvals required for the dam.

#### **4.2.2 Relevant District Plan Rules**

The following table provides an assessment of the project against the relevant Rural rules in the District Plan.

**Table 3D: Assessment of Relevant Rules**

Activity	Relevant Rule	Assessment	Activity Status
Earthworks	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards relate to slope, proximity to a waterbody, volume and alteration of the ground surface. The earthworks will not meet a number of these standards given their volume and proximity to the river.	Discretionary Activity
The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation	D.2.1.3B. The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation and the modification that is not provided for as a permitted activity.	The permitted activity standards relate to vegetation height, area and proximity to a waterbody. The dam construction will require the removal of vegetation which will not meet a number of these standards given the area of vegetation to be removed, the height and removal of vegetation within a listed ecological area (E17) and proximity to the river.	Discretionary Activity
Construction noise	Rule D.2.1.1. All activities which are not listed as controlled, discretionary, non-complying or prohibited and which comply with all the permitted activity standards.	The permitted activity standards require compliance with NZS6803P:1984. Provided the construction noise complies with this then it will be considered a permitted activity.	Permitted Activity (provided it can comply) or Discretionary Activity.
Dam structure	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards require that the maximum height of any building from original ground level is 10 metres. The dam structure will exceed this.	Discretionary Activity
Access from Mahaki Road	Standards for access are set out in Part J4.1 of the Plan.	No details are available at this stage, however design should be based on these standards.	N/A

## **4.3 Assessment of Regional Plans**

Based on the activities identified above, the following regional plan provisions are relevant to the site.

### **4.3.1 Planning Notations**

#### **Water Bodies with a High Degree of Natural Character**

Appendix 2 of the Regional Freshwater Plan lists the Wetlands, Lakes and Rivers and their Margins, with a High Degree of Natural Character. Neither the Mangakotukutuku River or the Waikanae River are listed under Part A: Surface Water to be Managed in its Natural State or Part B: Surface Water to be Managed for Aquatic Ecosystem Purposes.

#### **Water Bodies with Nationally Threatened Indigenous Fish**

Part A of Appendix 3 of the Regional Freshwater Plan identifies Water Bodies with Nationally Threatened Indigenous Fish Recorded in the catchment (Species recorded are: Shortjawed Kokopu and Koaro):

The Waikanae River, above the coastal marine area boundary at R26 794 349, and the following rivers in the Waikanae River catchment above their confluences with the Waikanae River, as generally shown in Figure 3.1:

- the Mangakotukutuku Stream;

#### **Water Bodies with Important Trout Habitat**

Appendix 4 of the Regional Freshwater lists Water Bodies with Important Trout Habitat (including spawning areas) - Water Quality to be Managed for Fishery and Fish Spawning Purposes

- The Maungakotukutuku Stream from R26 794 219 to the confluence with the Waikanae River at R26 845 316.

#### **Minimum Flows, Safe Yields, and Water Allocation**

Table 6.1 of the Regional Freshwater Plan contains the Minimum Flows and Water Allocation for Some Rivers in the Wellington Region. The details for the Waikanae River area as follows:

Column 1	Column 2	Column 3 Policy 6.2.1(1)	Column 4 Policy 6.2.1(2)	Column 5 Policy 6.2.1(3)	Column 6 Policy 6.2.1(4)	Column 7 Policy 6.2.1(4)
Part of the river/ stream within which allocations in columns 4, 5 6 & 7 apply	The location of recorders where flows in columns 3, 5, 6 & 7 are measured	Minimum Flow (litres/second)	Core Allocation (litres/second)	Flow required for supplementary allocation (litres/second)	Flow below which first stepdown allocation takes effect (litres/second)	First stepdown allocation (litres/second)
Waikanae River (Option A) from the headwaters to the boundary of the coastal marine area	At the Water Treatment Plant	750	290	2000	900	150
Waikanae River (Option B) from the headwaters to the boundary of the coastal marine area	At the Water Treatment Plant	750		750		

Two options (Option A and Option B) are given in Table 6.1 for the Waikanae River. When resource consent applications are made for community water supply, the applicant can advise the consent authority on which of the two options the consent authority should have regard to when considering the application.

## **Erosion Prone Land**

The site is located within Area 2 of the Regional Soil Plan. This is defined as that area of land within the Wellington Regional Council's jurisdiction where: The eastern boundary is the Ruamahanga River; and the western boundary is the west coast south of Pukerua Bay and State Highway 1 north of Pukerua Bay.

Within this area, Erosion Prone Land is defined as any land within Area 2 with a slope greater than 28 degrees. For the purpose of this assessment, it has been assumed that part of the site will have a slope greater than 28 degrees and therefore we have treated the whole site as being Erosion Prone Land.

### **4.3.2 Relevant Regional Plan Rules**

The following table provides an assessment of the project against the relevant regional plan rules.

**Table 3F: Assessment of Relevant Rules**

Activity	Relevant Rule	Assessment	Activity Status
Additional discharges of water and minor contaminants from the Waikanae Water Treatment Plant.	Rule 1 (Freshwater Plan) The discharge of contaminants, or water, into surface water is a Permitted Activity provided the discharge complies with the conditions specified.	The conditions accompanying this rule relate to concentrations of contaminants including chlorine, suspended solids, acid-soluble aluminium, fluoride and temperature	Permitted activity
The discharge of any contaminant or water into fresh water from the Waikanae Water Treatment Plant.	Rule 5 (Freshwater Plan) The discharge of any contaminant or water into fresh water: which cannot meet the requirements of Rules 1, 2, 3, and 4;	Discharges associated with the operation of the Water Treatment Plant may not meet the required limits for concentrations of contaminants including chlorine.	Discretionary Activity
Damming and diverting the Mangakotukutuku Stream.	Rule 16 (Freshwater Plan), The taking, use, damming, or diversion of any fresh water, or the transfer to another site of any water permit to take or use water.	The tributary of the Mangakotukutuku Stream is not identified as a water body with a high degree of natural character and therefore, this rule applies to the damming and diversion of the Mangakotukutuku Stream River.	Discretionary Activity
Taking water from the Waikanae River (over the existing take consent).	Rule 16 (Freshwater Plan), The taking, use, damming, or diversion of any fresh water, or the transfer to another site of any water permit to take or use water	The Waikanae River is not identified as a water body with a high degree of natural character and therefore, this rule applies to the taking of water.	Discretionary Activity
A dam within the bed of the Mangakotukutuku Stream.	Rule 49 (Freshwater Plan), The use, of any river or lake bed which is not specifically provided for in Rules 22 to 48.	Large dams are not provided for in any other rule and therefore will be assessed under Rule 49 of the Plan. Because the Mangakotukutuku Stream is not a water body with a high degree of natural character, Rule 50 is not applicable.	Discretionary Activity

Activity	Relevant Rule	Assessment	Activity Status
Earthworks for construction and maintenance access.	Rule 1 (Soil Plan) Any roading and tracking located in Area 2 and, during any 12 month period, will result in a road or track having a continuous length of new upslope batter extending for greater than 200 metres, with a height of greater than 2 metres measured vertically;	Access for the dam construction and operation has yet to be confirmed but if it does not meet the limits in Rule 1, resource consent will be required.	Restricted Discretionary Activity.
Earthworks for site preparation and dam construction.	Rule 2 (Soil Plan) Soil disturbance on erosion prone land that involves the disturbance of greater than or equal to 1,000 m <sup>3</sup> of soil, within any 10,000 m <sup>2</sup> area and within any continuous 12 month period;	Earthworks are likely exceed the limits in Rule 2.	Restricted Discretionary Activity.
Vegetation removal for site preparation and dam/access construction.	Rule 4 (Soil Plan) Vegetation disturbance on erosion prone land which is provided for by Rule 3 but does not comply with any of the conditions in Rule 3 is a Restricted Discretionary Activity.	The Plan provides that where vegetation will be re-established in woody vegetation within 18 months from the start of the vegetation disturbance operation, that the vegetation clearance is a permitted activity. As the vegetation will not be reestablished, Rule 4 applies.	Restricted Discretionary Activity.

## 4.4 Other Relevant Considerations

### 4.4.1 Conservation Act 1987

The land owned by Ikaham Holdings Ltd (Lot 2 DP 360865) has a conservation covenant (6733132.5) registered on the title – subject to a walkway, bridleway, and cycleway right. This covenant states that the land contains reserve values, and includes a number of rules, including that “*the Owner must not carry out or permission or in relation to the Land:*

- *subject to clauses 3.2.1 and 3.2.3, felling, removal or damage of any tree, shrub or other plant;*
- *the erection of any Fence, building structure or other improvement for any purpose;*
- *any cultivation, earth works or other soil disturbances;*
- *the damming, diverting or taking of Natural Water;*
- *any action which will cause deterioration in the natural flow, supply, quantity, or quality of water of any stream, river, lake, pond, marsh, or any other water resource affecting the Land;*
- *any other activity which might have an adverse effect on the Reserve Values.”*

The Conservation Covenant is registered with the Department of Conservation and is subject to the Conservation Act 1987. Discussions are underway with DoC to determine the process that would apply should a dam affect this covenanted area.

There is also a consent notice registered on this title (B4008532.10) which states that the area of native bush that covers part of Lot 2 is not to be felled, cut down or removed and the owner is not to do anything to the land which may jeopardise or affect the preservation of the bush.

And consent notice (B531004.4) states that the “dam within the balance area shall be monitored and maintained by the owners on an ongoing basis.” (this is the area formerly Lot 2 DP 90095).

## 4.5 Summary of Planning Assessment

In summary our preliminary assessment has highlighted that the following approvals may be required for the construction and operation of the Mangakotukutuku Dam:

- In the event that resource consent applications are sought from KCDC for the construction, operation and maintenance of the Mangakotukutuku Dam, the application would be assessed as a **Discretionary Activity**.
- In the event that a Notice of requirement is given in respect of the land for the Mangakotukutuku Dam, this will be assessed in accordance with Section 168 of the RMA.
- The applications for resource consent from the GWRC will be assessed as a **discretionary activity**.

The following approvals may be required for works and activities at the Waikanae Water Treatment Plant:

- The site is designated in the District Plan and therefore works within the site will be dealt with via an Outline Plan prepared in accordance with section 176 of the RMA.
- In the event that a new application is sought from GWRC to take water from the Waikanae River, this will be assessed as a **discretionary activity**.

- In the event that a new application is sought from GWRC to discharge contaminant to the Waikanae River associated with operation of the Water Treatment plant, this will be assessed as a **discretionary activity**.

The following additional approvals may be required for the Maungakotukutuku dam site:

- Approval from the Department of Conservation to remove vegetation which is subject to a Conservation Covenant under the Conservation Act 1987.

## 5 Preliminary Planning Assessment – Waikanae Borefield/Storage/ Treatment

### 5.1 Relevant Existing Resource Consents

KCDC has consent to abstract groundwater from up to 8 production wells and from 2 back up wells within the Waikanae Groundwater Zone (subject to conditions). This expires 4/11/2024.

KCDC also has consent to take 23,000m<sup>3</sup> from the Waikanae River.

### 5.2 Key Activities

This option will involve the following activities during construction:

**Table 4A: Activities During Construction**

Activities	Details
Creating access to the site	Access off SH1 required for construction and maintenance. This may utilise existing accessways.
Clearance of vegetation (mostly grassed areas)	Within the storage pond area and for site access.
Earthworks and site preparation	Site preparation. Earthworks for pond construction. Earthworks for site access.
Construction of storage pond	Constructing pond.
Using existing water take infrastructure at the Waikanae River	Existing intake structures will be used
Construction of new pipeline from the storage pond to the Waikanae Water Treatment Plant.	New pipeline route from the storage pond site, along SH1, down Reikorangi Road and into the water treatment plant.
Existing pipes from the Waikanae borefield.	Using the existing pipe network from the Waikanae Borefield
Additional water extraction bores (potentially required)	Drilling additional bores for taking water from the borefield

This option will involve the following activities during operation:

**Table 4B: Activities During Operation**

Activities	Details
------------	---------

Water abstraction (Aquifer)	Taking water from the aquifer (which is covered by existing consent).
Taking water from the river	Taking water from the Waikanae River (which is covered by existing consent).
Discharge of contaminants during operation	Discharge of contaminants to the Waikanae River – water and backflow from the water treatment process (which is covered by existing consent).

### 5.3 Assessment of the Kapiti Coast District Plan

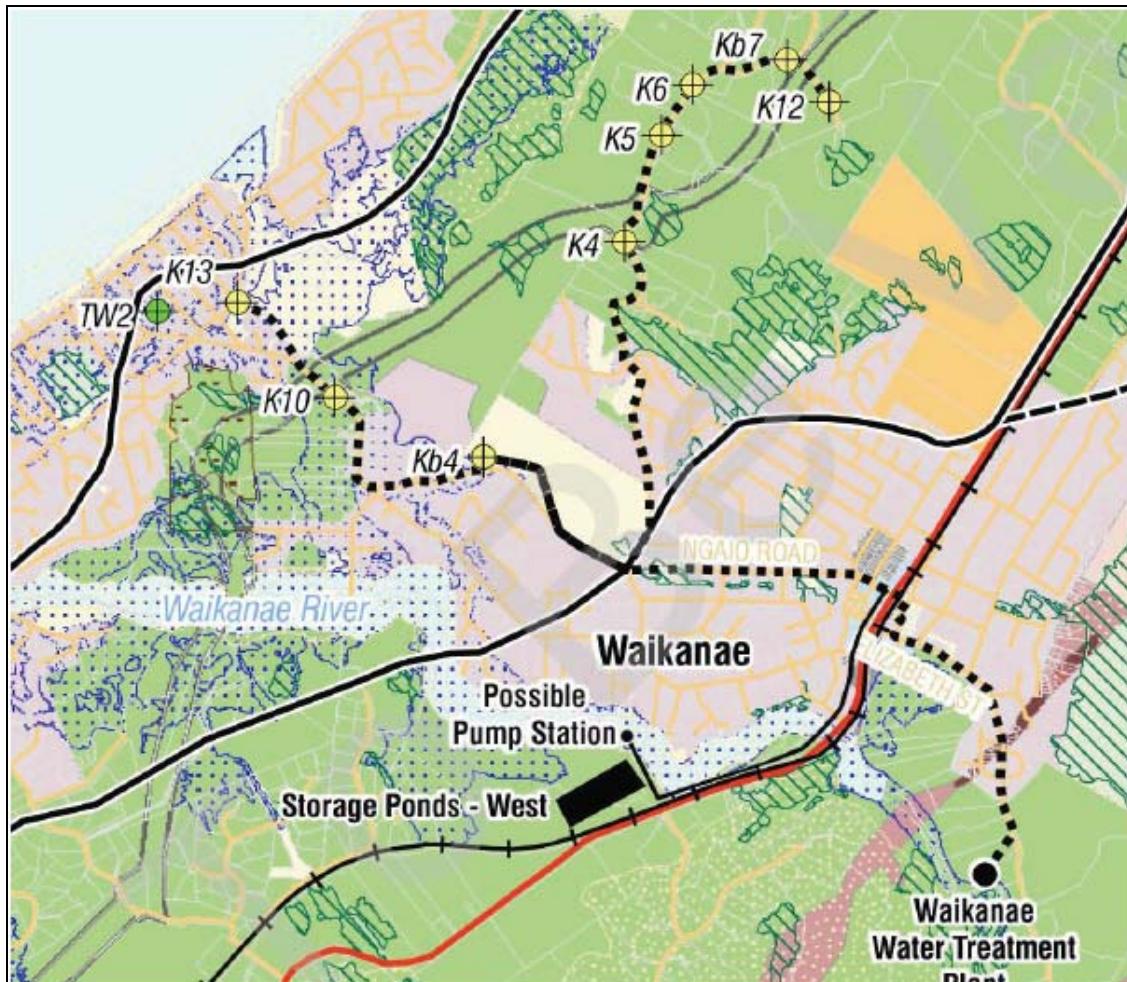
Based on the activities identified above, the following district plan notations and rules below are relevant to the Waikanae Borefield/Storage option. Within this option there are four key components for consenting purposes:

- The storage pond
- The pipeline to the Waikanae Water Treatment Plant
- The extended pipeline for the Waikanae Borefield
- The works at the Waikanae Water Treatment Plant.

#### 5.3.1 Planning Notations

The relevant District Plan map shown in Figure 4B below.

**Figure 4B: District Plan Map**



### **a. Storage Pond Site**

The relevant planning notations for the Storage Pond site are as follows:

**Table 4C: District Plan Notations for Storage Pond**

<b>Notation</b>	<b>Detail</b>
Zoning:	Rural and a small portion of River Corridor
Historic building:	None
Heritage trees	None
Heritage Wahi Tapu	None
Hazards –Faultline:	None
Hazards – Flooding:	None
Ecological Sites:	None
Outstanding Landscapes:	Pond encroaches on an Outstanding Landscape associated with the Waikanae River
Designation:	Pond encroaches on Designation 403 D1133 Waikanae River walkway from State Highway 1 to the sea Except the Blake property (Pt Lot 29 DP 28643) and El Rancho which are privately owned.

The above assessment indicates that the majority of the site is zoned rural, with the current design of the pond encroaching on the River Corridor Zone and outstanding landscape and designation associated with the Waikanae River.

### **b. The pipeline to the Waikanae Water Treatment Plant**

The new pipeline route travels from the storage pond site, along the rail corridor, under SH1, down Reikorangi Road and into the water treatment plant. The relevant District Plan notations are:

- Storage Pond Site – As above but pipe would not encroach on the Waikanae River.
- Rail Corridor – Designation 0301, Railway purposes. Kiwirail are the Requiring Authority.
- SH1 – Designation 0101, State Highway Purposes. The New Zealand Transport Agency is the Requiring Authority.
- Reikorangi Road – All roads in the District are designated as D1135 – Roading. The underlying zoning is River Corridor and Rural. Pipe would be within the road reserve of Reikorangi Road. The road is not designated
- Waikanae Water Treatment Plant – as below.

For the sections of the route that are subject to designations, the written approval of the Requiring Authority will be required in accordance with Section 176(1)(b) to undertake any works within the designated land.

### **c. The extended pipeline for the Waikanae Borefield**

The project primarily utilises the existing pipe rout, but if the borefield is extended then additions pipeline will be required for Bores TW2, KB7 and K12. The majority of the route appears to be located within the road reserve with the exception of the first section of TW2 which crosses private property. The relevant planning notations for these pipe routes are:

- TW2 - All roads in the District are designated as D1135 – Roading. The underlying zone for this route is Residential. A section of the route crosses private properties which are zoned Residential, however this may be avoided through route design.
- KB7 - All roads in the District are designated as D1135 – Roading. The underlying zone for this route is Rural.
- K12 - All roads in the District are designated as D1135 – Roading. The underlying zone for this route is Rural. This route crosses the designation for the Western Ring Route (D0102).

For the sections of the route that are subject to designations, the written approval of the Requiring Authority will be required in accordance with Section 176(1)(b) to undertake any works within the designated land.

### **5.3.2 Relevant District Plan Rules**

The following table provides an assessment of the project against the relevant rules in the District Plan.

As part of the assessment below we have not considered any subdivision or boundary adjustment that may be required as a result of acquiring land for the project. This assessment will need to be undertaken once these requirements are better defined.

For the purpose of the above assessment, we have determined that a dam does not fall within the definition of an ‘Industrial Activity’ under the definitions in Part Q – Definitions of the District Plan. However, a dam would fall within the definition of building which is defined (emphasis added) as “*Building includes any dwelling (see definition for dwelling), structure or part of a structure, whether temporary or permanent, movable or immovable,...*”.

Where details of the project are still to be confirmed, we have assumed the maximum limit in regards to that activity for the purpose of identifying consents. (ie. We have taken a conservative approach). For example the volume of earthworks is as yet unknown and therefore we have assumed that the area and volume will not meet the permitted activity standards in the Plan. As design progresses, this may reduce and therefore a less onerous activity status may apply.

The activities associated with the construction of the Waikanae Borefield/Storage Pond will be bundled and therefore, the most onerous consent status will apply.

**Table 4D: Assessment of Relevant Rules**

Activity	Relevant Rule	Assessment	Activity Status
<b>Rural Zone</b>			
Pipes within Roads	D2.1.1. New network utilities of requiring authorities and their operations and maintenance within roads,	This will apply to all water supply pipes within roads.	Permitted Activity
Upgrading of existing pipes and other infrastructure associated with the borefield.	D2.1.1. The maintenance, operation, repair and upgrading of existing network utilities.	Provided that the character and scale of the visual effects after any upgrading will be the same or less than that existing prior to the upgrading.	Permitted Activity
Pipeline within the storage pond site (ie rural zone)	D2.1.1. The provision and maintenance of all underground network utilities, including fittings and appurtenances which are located above ground and are necessary to the operation of the network utilities and comply with the permitted activity standards.	This would apply to the pipeline and associated above ground fittings. Assumed that this will not encroach on the River Corridor.	Permitted Activity
New access from SH1 (if required)	D.2.1.3 New accesses onto State Highway 1.	In the event that a new access needs to be created to gain access from SH1. Note that SH1 is also a Limited Access Road and therefore NZTA approval will be required.	Discretionary Activity
Earthworks	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards relate to slope, proximity to a waterbody, volume and alteration of the ground surface. The earthworks will not meet a number of these standards given their volume and proximity to the Waikanae River.	Discretionary Activity
The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation.	D.2.1.3B. The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation and the modification that is not provided for as a permitted activity.	The permitted activity standards relate to vegetation height, area and proximity to a waterbody. The pond construction will require the removal of vegetation which will not meet a number of these standards given the area of vegetation to be removed and its height.	Discretionary Activity

Construction noise	Rule D.2.1.1. All activities which are not listed as controlled, discretionary, non-complying or prohibited and which comply with all the permitted activity standards.	The permitted activity standards require compliance with NZS6803P:1984. Provided the construction noise complies with this then it will be considered a permitted activity.	Permitted Activity (provided it can comply) or Discretionary Activity
Pond structure	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The permitted activity standards require that the maximum height of any building from original ground level is 10 metres. The pond structure may be 6-7 meters in height	Discretionary Activity
Encroachment into Separation distance for Waterbodies (streams and rivers)	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The minimum setback of any building or structure from the natural banks of any waterbody greater than 3 metres wide shall be 10 metres and for streams/drains less than 3 metres wide, shall be 5 metres. This applies to the Waikanae River	Discretionary Activity
Encroachment of pond into the height in relation to boundary planes.	Rule D.2.1.3B. All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	All buildings must fit within a height envelope which is made up of "recession planes" which incline inwards and upwards from all the property's boundaries. Each recession plane commences at a point 2.1 metres above the property boundary and inclines inwards at an angle of 45 degrees.	Discretionary Activity
Access	Standards for access are set out in Part J4.1 of the Plan.	No details are available at this stage, however design should be based on these standards.	N/A

**River Corridor Zone (Only where these differ from the Rural provisions above)**

Structures	Structures not provided for.	Not considered necessary at this stage.	
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**Residential Zone (Only where these differ from the provisions above for pipelines)**

Earthworks for new pipeline on private property (ie residential zoned land).	D1.1.3 All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The provision and maintenance of all underground network utilities is a permitted activity provided it meets the performance standards for the zone, The performance standards require that in all other areas no earthworks shall involve the disturbance of more than 50m <sup>3</sup> (volume) of land. This may depend on the construction method.	Discretionary Activity
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## **5.4 Assessment of Regional Plans**

Based on the activities identified above, the following regional plan provisions are relevant to the site.

### **5.4.1 Planning Notations**

#### **Erosion Prone Land**

The site is located within Area 1 of the Regional Soil Plan. This is defined as that area of land within the Wellington Regional Council's jurisdiction that extends: east of the Ruamahanga River to the east coast; and west of State Highway 1 to the west coast, north of Pukerua Bay.

Within this area, Erosion Prone Land is defined as any land within Area 1 (see definition) with a slope greater than 23 degrees. In the case of this site, no areas on the site exceed 23 degrees and therefore we have treated the whole site as not being Erosion Prone Land.

### **5.4.2 Relevant Regional Plan Rules**

The following table provides an assessment of the project against the relevant regional plan rules.

**Table 4F: Assessment of Relevant Regional Rules**

Activity	Relevant Rule	Assessment	Activity Status
Discharges of water and minor contaminants from the Waikanae Water Treatment Plant	Rule 1 (Permitted) Rule 5 (Discretionary)	May be permitted and/or covered by existing consent. (to be confirmed)	Discretionary
Taking water from the Waikanae River.	Rule 16 (Discretionary)	Likely to require additional take over consented yield	Discretionary
Constructing an off-line storage pond	Earthworks/ diversion/damming	Off-line, however likely to be require consent for a range of works and storage activities	Discretionary
Earthworks for site preparation, access and storage pond construction.	N/A  Any use of land that is not described in any of the rules in the Plan can proceed without a resource consent (see Section 5.1 of the Soil Plan).	The earthworks are not on erosion prone land, and therefore no approval is required.	Permitted Activity
Vegetation removal for site preparation and dam/access construction.	N/A  Any use of land that is not described in any of the rules in the Plan can proceed without a resource consent (see Section 5.1 of the Soil Plan).	The earthworks are not on erosion prone land, and therefore no approval is required.	Permitted Activity
Taking groundwater from bores	Rule 16 (Discretionary)	Likely to require additional take over consented yield	Discretionary

## **5.5 Summary of Planning Assessment**

In summary our preliminary assessment has highlighted that the following approvals may be required for the construction and operation of the Waikanae Borefield/Storage Pond:

- In the event that resource consent applications are sought from KCDC for the construction, operation and maintenance of the storage pond and associated pipework, the application would be assessed as a discretionary activity.
- In the event that a Notice of requirement is given in respect of the land for the storage pond, this will be assessed in accordance with Section 168 of the RMA.
- The Council can rely on the existing regional consents for taking water from the Waikanae River and the existing groundwater bores. The remaining activities will be a Permitted Activity.

The following approvals may be required for works and activities at the Waikanae Water Treatment Plant:

- The site is designated in the District Plan and therefore works within the site will be dealt with via an Outline Plan prepared in accordance with section 176 of the RMA.

## **6 Preliminary Planning Assessment – Groundwater River Recharge**

### **6.1 Relevant Existing Resource Consents**

The Council has the following regional resource consents:

- Consent to abstract groundwater from up to 8 production wells and from 2 back up wells within the Waikanae Groundwater Zone (subject to conditions).
- Consent to take 23,000m<sup>3</sup> from the Waikanae River (subject to conditions).

This option will require an increase in the amount of water currently abstracted from the aquifer from 23,000 m<sup>3</sup> (under the current consent) to 32,000 m<sup>3</sup>. The Council would also take more water from the Waikanae River and take below the residual flow level of the river.

### **6.2 Key Activities**

This option will involve the following activities during construction:

**Table 5A: Activities During Construction**

Activities	Details
Construction of new pipeline from additional bore.	New pipeline route from bores to the water treatment plant.
Existing pipes from the Waikanae borefield.	Using the existing pipe network from the Waikanae Borefield. Some minor changes may be required to this.
Construction of three additional water abstraction bores	Drilling three additional abstraction bores for taking water from the borefield.

This option will involve the following activities during operation:

**Table 5B: Activities During Operation**

Activities	Details
Water intake at the Waikanae River	Existing intake structures at the water treatment plant will be used.
Water abstraction (Aquifer)	Taking additional water from the aquifer.
Taking water from the river	Taking additional water from the Waikanae River.
Discharge of contaminants during operation	Discharge of contaminants to the Waikanae River – water and backflow from the water treatment process

### 6.3 Assessment of the Kapiti Coast District Plan

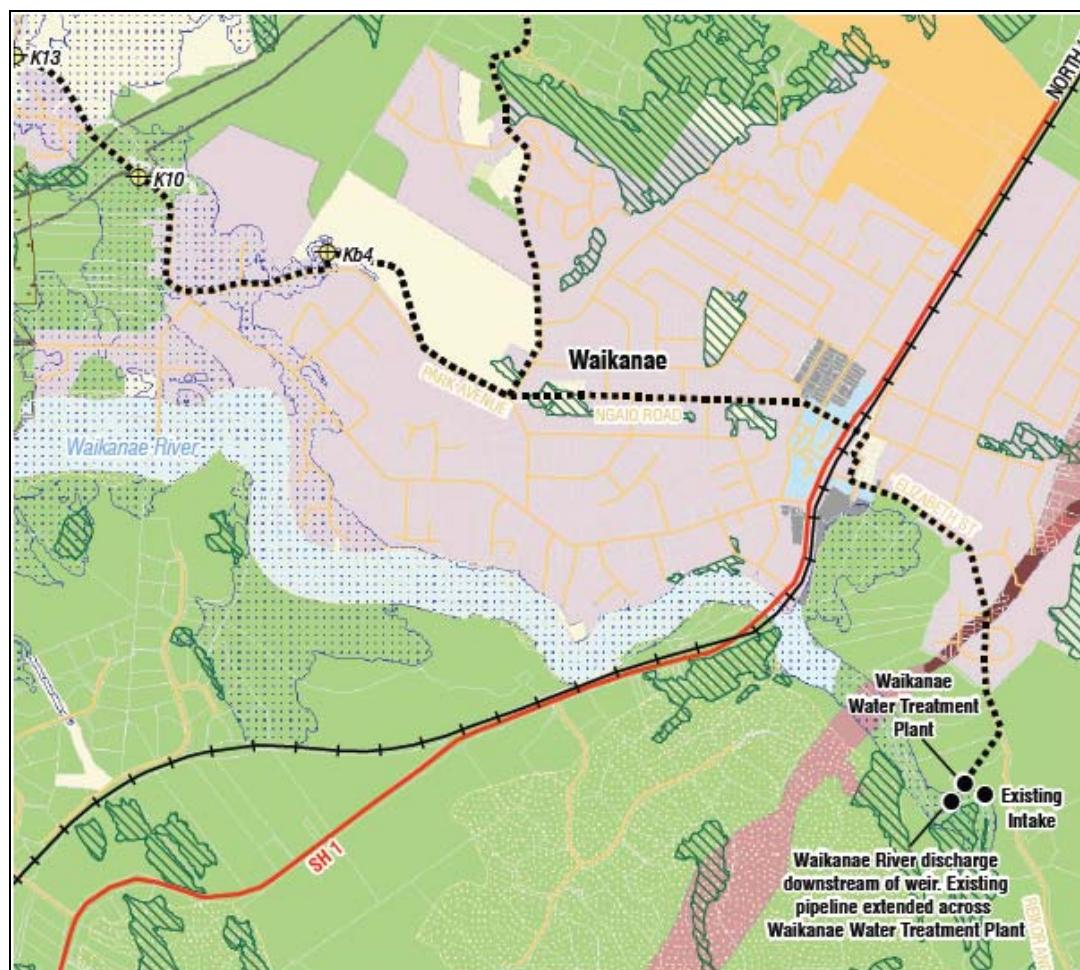
Based on the activities identified above, the following district plan notations and rules below are relevant to the River Recharge with Groundwateroption. Within this option there are two key components for consenting purposes:

- The extended pipeline for the Waikanae Borefield
- The works at the Waikanae Water Treatment Plant.

#### 6.3.1 Planning Notations

The relevant District Plan map shown in Figure 5B below.

**Figure 5B: District Plan Map**



The project primarily utilises the existing pipe network, but additional pipes will be required for bores TW2, KB7 and K12 and the three new abstraction bores. The new pipeline sections are required to connect the new extraction bores to the existing pipe network.

The relevant planning notations for these pipe routes are:

- TW2 - All roads in the District are designated as D1135 – Roading. The underlying zone for this route is Residential. A section of the route currently crosses private properties which are zone Residential, however this area may be avoided through route design.
- KB7 - All roads in the District are designated as D1135 – Roading. The underlying zone for this route is Rural.
- K12 - All roads in the District are designated as D1135 – Roading. The underlying zone for this route is Rural. This route crosses the designation for the Western Ring Route (D0102).
- New abstraction bores - All roads in the District are designated as D1135 – Roading. The route is primarily located within local roads. Some sections may be located in private properties which are in Rural or Residential Zones. The route crosses the rail and SH1 designations.

For the sections of the route that are subject to designations, the written approval of the Requiring Authority will be required in accordance with Section 176(1)(b) to undertake any works within the designated land. This includes the New Zealand Transport Agency, Kiwi Rail and KCDC.

### **6.3.2 Relevant District Plan Rules**

The following table provides an assessment of the project against the relevant rules in the District Plan.

As part of the assessment below we have not considered any subdivision or boundary adjustment that may be required as a result of acquiring land for the project. This assessment will need to be undertaken once these requirements are better defined.

Where details of the project are still to be confirmed, we have assumed the maximum limit in regards to that activity for the purpose of identifying consents. (ie. We have taken a conservative approach). For example the volume of earthworks is as yet unknown and therefore we have assumed that the area and volume will not meet the permitted activity standards in the Plan. As design progresses, this may reduce and therefore a less onerous activity status may apply.

The activities associated with the construction of the River Recharge with Groundwater will be bundled and therefore, the most onerous consent status will apply.

**Table 5D: Assessment of Relevant Rules**

Activity	Relevant Rule	Assessment	Activity Status
<b>Rural Zone</b>			
Pipes within Roads	D2.1.1. New network utilities of requiring authorities and their operations and maintenance within roads,	This will apply to all water supply pipes within roads.	Permitted Activity
Upgrading of existing pipes and other infrastructure associated with the borefield.	D2.1.1. The maintenance, operation, repair and upgrading of existing network utilities.	Provided that the character and scale of the visual effects after any upgrading will be the same or less than that existing prior to the upgrading.	Permitted Activity
Pipeline within rural zoned land	D2.1.1. The provision and maintenance of all underground network utilities, including fittings and appurtenances which are located above ground and are necessary to the operation of the network utilities and comply with the permitted activity standards.	This would apply to the pipeline and associated above ground fittings.	Permitted Activity
Construction noise	Rule D.2.1.1. All activities which are not listed as controlled, discretionary, non-complying or prohibited and which comply with all the permitted activity standards.	The permitted activity standards require compliance with NZS6803P:1984. Provided the construction noise complies with this then it will be considered a permitted activity.	Permitted Activity (provided it can comply) or Discretionary Activity
<b>Residential Zone (Only where these differ from the provisions above for pipelines)</b>			
Earthworks for new pipeline on private property (ie residential zoned land).	D1.1.3 All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or controlled activities standards.	The provision and maintenance of all underground network utilities is a permitted activity provided it meets the performance standards for the zone, The performance standards require that in all other areas no earthworks shall involve the disturbance of more than 50m <sup>3</sup> (volume) of land. This may depend on the construction method.	Discretionary Activity

## **6.4 Assessment of Regional Plans**

Based on the activities identified above, the following regional plan provisions are relevant to the site.

### **6.4.1 Planning Notations**

#### **Water Bodies with a High Degree of Natural Character**

Appendix 2 of the Regional Freshwater Plan lists the Wetlands, Lakes and Rivers and their Margins, with a High Degree of Natural Character. The Waikanae River is not listed under Part A: Surface Water to be Managed in its Natural State or Part B: Surface Water to be Managed for Aquatic Ecosystem Purposes.

#### **Water Bodies with Nationally Threatened Indigenous Fish**

Part A of Appendix 3 of the Regional Freshwater Plan identifies Water Bodies with Nationally Threatened Indigenous Fish Recorded in the catchment (Species recorded are: Shortjawed Kokopu and Koaro):

The Waikanae River, above the coastal marine area boundary at R26 794 349, as generally shown in Figure 3.1

#### **Water Bodies with Important Trout Habitat**

Appendix 4 of the Regional Freshwater lists Water Bodies with Important Trout Habitat (including spawning areas) - Water Quality to be Managed for Fishery and Fish Spawning Purposes

- The Waikanae River from R26 899 353 to R26 807 347.

#### **Minimum Flows, Safe Yields, and Water Allocation**

Table 6.1 of the Regional Freshwater Plan contains the Minimum Flows and Water Allocation for Some Rivers in the Wellington Region. The details for the Waikanae River are as follows:

Column 1	Column 2	Column 3 Policy 6.2.1(1)	Column 4 Policy 6.2.1(2)	Column 5 Policy 6.2.1(3)	Column 6 Policy 6.2.1(4)		Column 7 Policy 6.2.1(4)	
Part of the river/ stream within which allocations in columns 4, 5 6 & 7 apply	The location of recorders where flows in columns 3, 5, 6 & 7 are measured	Minimum Flow (litres/second)	Core Allocation (litres/second)	Flow required for supplementary allocation (litres/second)	Flow below which first stepdown allocation takes effect (litres/second)	First stepdown allocation (litres/second)	Flow below which second stepdown allocation takes effect (litres/second)	Second stepdown allocation (litres/second)

Waikanae River (Option A) from the headwaters to the boundary of the coastal marine area	At the Water Treatment Plant	750	290	2000	900	150	750	120
Waikanae River (Option B) from the headwaters to the boundary of the coastal marine area	At the Water Treatment Plant	750		750				

Two options (Option A and Option B) are given in Table 6.1 for the Waikanae River. When resource consent applications are made for community water supply, the applicant can advise the consent authority on which of the two options the consent authority should have regard to when considering the application.

#### **Groundwater**

Table 6.2 of the Freshwater Plan provides the Aquifer Allocation Limits for the Kapiti Coast

Groundwater Zone	Aquifer Depth (metres)	Safe Yield (m <sup>3</sup> /day)
Waikanae (Sand Aquifer)	0-45	14,450
Waikanae (Gravel Aquifer)	10-17	4,200
	> 40	10,700

The proposal will utilise the Waikanae Gravel Aquifer greater than 40 m in depth.

#### **Erosion Prone Land**

The additional pipe route is located within Area 1 and 2 of the Regional Soil Plan. Within these areas, Erosion Prone Land is defined as any land within Area 1 with a slope greater than 23 degrees and any land within Area 2 with a slope greater than 28 degrees. In the case of the pipe route, no areas are likely to exceed 23 or 28 degrees and therefore we have treated the whole site as not being Erosion Prone Land.

#### **6.4.2 Relevant Regional Plan Rules**

The following table provides an assessment of the project against the relevant regional plan rules.

**Table 5F: Assessment of Relevant Regional Rules**

Activity	Relevant Rule	Assessment	Activity Status
Discharges of water and minor contaminants from the Waikanae Water Treatment Plant	Rule 1 (Permitted) Rule 5 (Discretionary)	May be permitted and/or covered by existing consent. (to be confirmed)	Discretionary
Taking additional water from the Waikanae River over that consented.	Rule 16 (Freshwater Plan). The taking, use, damming, or diversion of any fresh water, or the transfer to another site of any water permit to take or use water	The Waikanae River is not identified as a water body with a high degree of natural character and therefore, this rule applies to the taking of water. Existing consent provides for 23,000 m <sup>3</sup> to be taken from the River.	Discretionary
New abstraction bores	Rule 15 (Freshwater Plan). The construction of any bore is a Discretionary Activity.]	For the new abstraction bores.	Discretionary Activity
Taking groundwater from bores	Rule 16 (Freshwater Plan). Taking, use, damming or diversion of water, or the transfer to another site of any water permit to take or use water	Existing consent provides for 23,000 m <sup>3</sup> to be taken from the aquifer. Consent required for additional abstraction.	Discretionary Activity
Construct and new discharge structure downstream of existing intake at the water treatment plant.	Rule 49 (Freshwater Plan). The use, of any river or lake bed which is not specifically provided for in Rules 22 to 48	For the discharge structure with the bed of the river.	Discretionary Activity
Discharge groundwater to the Waikanae River.	Rule 1 The discharge of contaminants, or water, into surface water is a Permitted Activity provided the discharge complies with the conditions specified.	<p>The conditions include:</p> <ul style="list-style-type: none"> <li>▪ the discharge temperature shall not differ from the ambient temperature of the receiving water by more than 5° Celsius and</li> <li>▪ the discharge does not cause erosion at the point of discharge; and</li> <li>▪ the discharge does not alter the natural course of the river or</li> </ul>	Permitted Activity (provided conditions are met)

Activity	Relevant Rule	Assessment	Activity Status
		stream.	
	Rule 5 All remaining discharges to fresh water The discharge of any contaminant or water into fresh water which cannot meet the requirements of Rules 1, 2, 3, and 4; is a Discretionary Activity.	If the discharge cannot meet the conditions above. Likely to exceed the temperature requirement on some occasions.	Discretionary Activity
Earthworks for pipe construction.	N/A Any use of land that is not described in any of the rules in the Plan can proceed without a resource consent (see Section 5.1 of the Soil Plan).	The earthworks are not on erosion prone land, and therefore no approval is required.	Permitted Activity
Vegetation removal for pipe construction	N/A Any use of land that is not described in any of the rules in the Plan can proceed without a resource consent (see Section 5.1 of the Soil Plan).	The vegetation removal is not on erosion prone land, and therefore no approval is required.	Permitted Activity

## **6.5 Summary of Planning Assessment**

In summary our preliminary assessment has highlighted that the following approvals may be required for the construction and operation of the Groundwater River Recharge:

- Resource consents from KCDC for the construction, operation and maintenance of pipes associated with the borefield which are on privately owned residential zoned land. The application would be assessed as a discretionary activity. The remaining pipe work would be a Permitted Activity.
- The Council has existing regional consents for taking water from the Waikanae River and the aquifer, however consents for taking water above that consented will require consent as a discretionary activity. The new bores, additional water take, discharge of groundwater and new discharge structure will require resource consents and will be assessed as a Discretionary Activity.
- For the sections of the pipe route that are subject to designations, the written approval of the Requiring Authority will be required in accordance with Section 176(1)(b) to undertake any works within the designated land. This includes the New Zealand Transport Agency, Kiwi Rail and KCDC.

The following approvals may be required for works and activities at the Waikanae Water Treatment Plant:

- The site is designated in the District Plan and therefore works within the site will be dealt with via an Outline Plan prepared in accordance with section 176 of the RMA.

## **7 Preliminary Planning Assessment - Aquifer Storage and Recovery**

### **7.1 Relevant Existing Resource Consents**

The Council has resource consent to take 23,000m<sup>3</sup> from the Waikanae River (subject to conditions).

### **7.2 Key Activities**

This option will involve the following activities during construction:

**Table 6A: Activities During Construction**

Activities	Details
Access	Creating access to site - Access to bore locations for construction and maintenance. Access along pipeline route for construction. Existing accessways will be used as much as possible.
Vegetation Clearance	Possibly required within footprint of new bores and pipeline route
New Bore Construction (No. and Location to be confirmed)	Drilling and construction of new bores for groundwater recharge and abstraction
Pump and Pipe work	Construction at Waikanae Water Treatment Plant - new pump station and pipe work modifications at the Waikanae Water Treatment Plant.
Discharge to Stormwater Systems	Discharging groundwater to stormwater system or streams during bore and pipeline commissioning
Taking Water for Aquifer Testing	Taking water from the Waimea Aquifer for aquifer testing and bore commissioning

This option will involve the following activities during operation:

**Table 6B: Activities During Operation**

Activities	Details
Taking of river water (1)	Taking water from the Waikanae River at the Waikanae Treatment Plant
Taking water (2)	Taking water from the Waimea Aquifer at the Waikanae Borefield
Discharging water (1)	Discharging untreated river water into the Waimea Aquifer at the proposed recharge bores
Discharging water (2)	Intermittent discharge of water from the water treatment process or groundwater to the Waikanae River during maintenance of water treatment plant, bores or pipelines
Discharge water (3)	Intermittent discharge of water from pipelines to stormwater system or streams during maintenance of pipelines

### **7.3 Assessment of the Kapiti Coast District Plan**

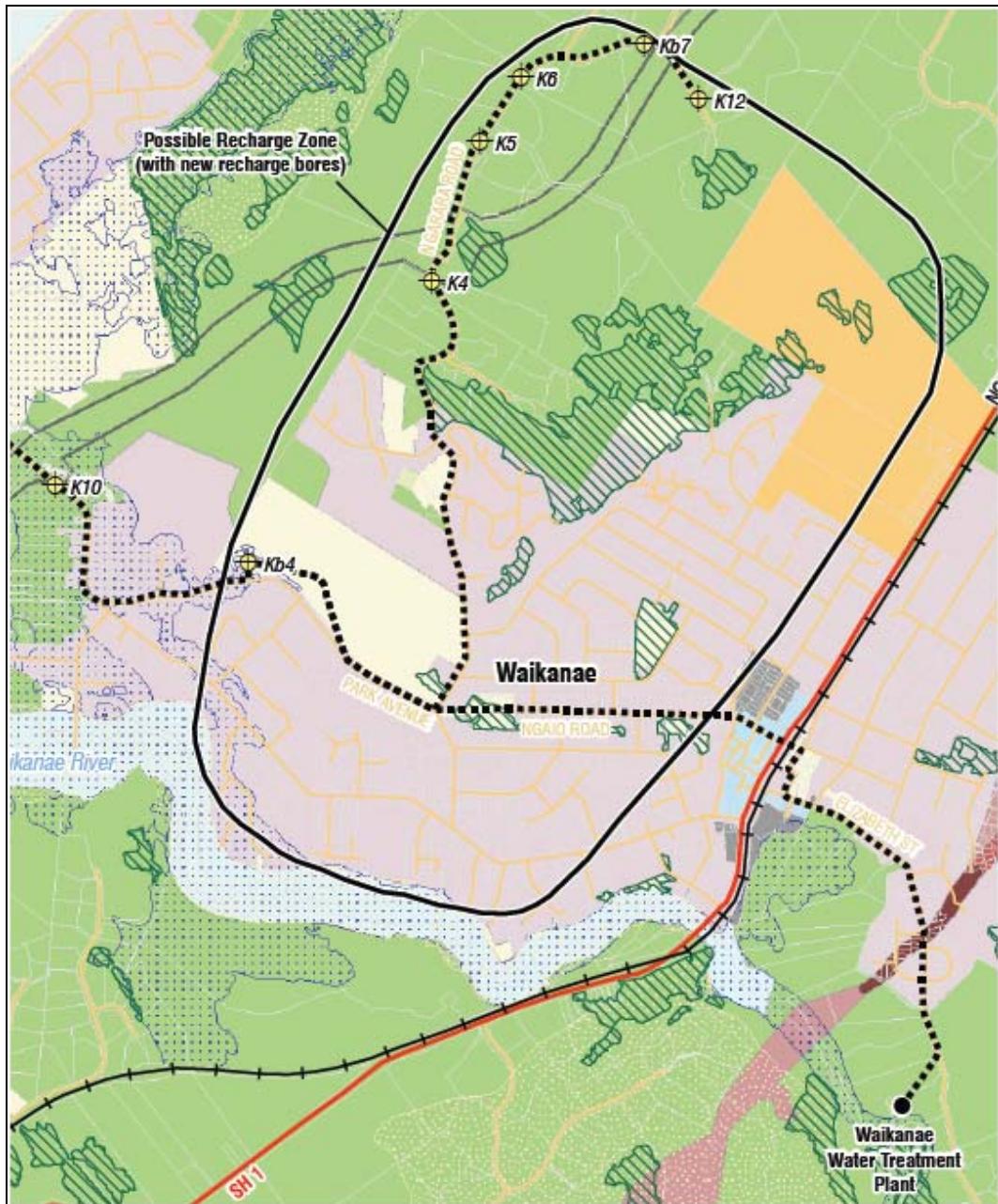
Based on the activities identified above, the following district plan notations and rules below are relevant. Within this option there are two key components for consenting purposes:

- The extended pipeline for the Waikanae Borefield
- The works at the Waikanae Water Treatment Plant.

#### **7.3.1 Planning Notations**

The relevant District Plan map is shown in Figure 6B below.

**Figure 6B: District Plan Map**



The relevant planning notations for the site are as follows:

The project primarily utilises the existing pipe network, but additional pipes will be required for the new recharge bores. The new pipeline sections are required to connect the new recharge bores to the existing pipe network.

The relevant planning notations for these pipe routes are:

- The route is primarily located within local roads. All roads in the District are designated as D1135 – Roading.
- The underlying zone is Rural, Residential, Open Space, Waikanae North Development Zone.
- Crosses the designation for the Western Ring Route (D0102).
- The route crosses the rail and SH1 designations.
- Pipeline passes through Ohariu faultline and “Well Defined Fault Zone”.
- Pipe passes through (or on the outskirts) of one ecological site – K070 Russell Reserve Bush at Ngaio Rd, Waikanae R26 830/347

For the sections of the route that are subject to designations, the written approval of the Requiring Authority will be required in accordance with Section 176(1)(b) to undertake any works within the designated land. This includes the New Zealand Transport Agency, Kiwi Rail and KCDC.

Assessment indicates that the majority of the pipe route will be within local roads, however where they cannot be within the road, they may need to be located within private property (Zoned Open Space and Waikanae North Development Zones will be affected. Therefore, assessment needs to be undertaken in regards to all of these zones.

### **7.3.2 Relevant District Plan Rules**

The following table provides an assessment of the project against the relevant district plan rules.

**Table: Assessment of Relevant Rural Zone Rules**

Activity	Relevant Rule	Assessment	Activity Status
Pipes within Roads	D2.1.1. New network utilities of requiring authorities and their operations and maintenance within roads,	This will apply to all water supply pipes within roads.	Permitted Activity
Upgrading of existing pipes and other infrastructure associated with the borefield.	D2.1.1. The maintenance, operation, repair and upgrading of existing network utilities.	Provided that the character and scale of the visual effects after any upgrading will be the same or less than that existing prior to the upgrading.	Permitted Activity
Pipeline within rural zoned land	D2.1.1. The provision and maintenance of all underground network utilities, including fittings and appurtenances which are located above ground and are necessary to the operation of the network utilities and comply with the permitted activity standards.	This would apply to the pipeline and associated above ground fittings.	Permitted Activity
The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation. Where required for the construction of the pipe.	D.2.1.3B. The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation and the modification that is not provided for as a permitted activity.	Unlikely to trigger this unless a large area of native vegetation requires removal for the pipe.	Discretionary Activity
Construction noise	Rule D.2.1.1. All activities which are not listed as controlled, discretionary, non-complying or prohibited and which comply with all the permitted activity standards.	The permitted activity standards require compliance with NZS6803P:1984. Provided the construction noise complies with this then it will be considered a permitted activity.	Permitted Activity (provided it can comply) or Discretionary Activity
<b>Residential</b>			
Earthworks for new pipeline on private property (ie residential zoned land).	D1.1.3 All activities which are not listed as non complying or prohibited and all other activities which do not comply with one or more of the permitted activity or	The provision and maintenance of all underground network utilities is a permitted activity provided it meets the performance standards for the zone,	Discretionary Activity

	controlled activities standards.	The performance standards require that in all other areas no earthworks shall involve the disturbance of more than 50m <sup>3</sup> (volume) of land. This may depend on the construction method.	
<b>Open Space Zone</b>			
The disturbance, removal, damage or destruction ("modification") of naturally occurring indigenous vegetation in a heritage area.	Rule D.6.1.4 The disturbance, removal, damage or destruction, of naturally occurring indigenous vegetation that is not provided for as a permitted activity.	Pipe line runs through an ecological area KO70 within the Open Space Zone.	Non Complying Activity

## **7.4 Assessment of Regional Plans**

Based on the activities identified above, the following regional plan provisions are relevant to the site.

### **7.4.1 Planning Notations**

#### **Groundwater**

Table 6.2 of the Freshwater Plan provides the Aquifer Allocation Limits for the Kapiti Coast. The proposal will utilise the Waikanae Gravel Aquifer greater than 40 m in depth.

Groundwater Zone	Aquifer Depth (metres)	Safe Yield (m <sup>3</sup> /day)
Waikanae (Sand Aquifer)	0-45	14,450
Waikanae (Gravel Aquifer)	10-17	4,200
	> 40	10,700

Discharges to surface water and to groundwater aquifers can adversely affect groundwater quality.

Threats to groundwater can occur as a result of discharges to land and discharges directly into an aquifer. Most of these threats are addressed in the *Regional Plan for Discharges to Land*. The Regional Freshwater Plan only addresses the discharge of contaminants directly to an aquifer.

### **7.4.2 Relevant Regional Plan Rules**

The following table provides an assessment of the project against the relevant regional plan rules.

**Table 6F: Assessment of Relevant Regional Rules**

Activity	Relevant Rule	Assessment	Activity Status
Additonal discharge of any contaminant or water into fresh water.	Rule 5 (Freshwater Plan) The discharge of any contaminant or water into fresh water: which cannot meet the requirements of Rules 1, 2, 3, and 4.	Where discharges into deep gravel aquifer may contain contaminants (other than heat which is a controlled activity) consent will be required.	Discretionary Activity
Taking water from the Waikanae River (over the existing take consent).	Rule 16 (Freshwater Plan), The taking, use, damming, or diversion of any fresh water, or the transfer to another site of any water permit to take or use water	The Waikanae River is not identified as a water body with a high degree of natural character and therefore, this rule applies to the taking of water. Existing consent to take water may require variation to increase to 32,000 litres.	Existing Consent. If variation is applied for, water take will be assessed as a Discretionary Activity
Construction of Bores	Rule 15 (Freshwater Plan). The construction of any bore is a Discretionary Activity.]	Five additional bores are required for this option into deep gravel aquifer.	Discretionary Activity.
Diversion of Groundwater from Aquifer	Rule 9B. The diversion of groundwater is a permitted activity, provided that it complies with the conditions specified	Conditions are (1) There shall be no adverse effects on water supply other than for a temporary period during construction of no more than 24 hours. (2) There shall be no flooding of land on any neighbouring property. (3) There shall be no lowering of water levels in any river, lake, or wetland. (4) There shall be no lowering of groundwater levels on any neighbouring\ property.	Permitted Activity (assuming conditions are met)

## **7.5 Summary of Planning Assessment**

In summary our preliminary assessment has highlighted that the following approvals may be required for the construction and operation of the Aquifer Storage and Recovery:

- Resource consents from KCDC for the construction, operation and maintenance of pipes associated with the borefield which are on privately land. The application would be assessed as a **discretionary activity**. The remaining pipework would be a **Permitted Activity**.
- The Council has existing regional consents for taking water from the Waikanae River. The new bores, additional water take, discharge of water to ground groundwater will require resource consents and will be assessed as a **Discretionary Activity**.
- For the sections of the pipe route that are subject to designations, the written approval of the Requiring Authority will be required in accordance with Section 176(1)(b) to undertake any works within the designated land. This includes the New Zealand Transport Agency, Kiwi Rail and KCDC.

The following approvals may be required for works and activities at the Waikanae Water Treatment Plant:

- The site is designated in the District Plan and therefore works within the site will be dealt with via an Outline Plan prepared in accordance with section 176 of the RMA.