

Memorandum



Project Number	p.0474
Project	Mt Welcome
Client	Pukerua Property Group Limited Partnership
Subject	DoC request for information
Date	18 June 2026
Prepared by	Torrey McDonnell

1. The purpose of this memo is to respond to the 3 June 2026 information request from the Department of Conservation as follows:

We are starting to look a bit closer at the CFFAs, and struggling to collate the relevant information that is scattered throughout the various documents. We understand that, according to page 81 (section 7.10) of the Substantive Report that you are applying for: "The construction of five permanent dams is a 'complex freshwater fisheries activity' under (b) of the definition in Section 4 of the FTAA. Plus culverts P-36, P37 and P39". The Substantive report refers to Section 17 for the information required under Clause 2 and 3 of Schedule 9.

*Would it be possible for you to extract, **for each of the structures** being applied for, the information required as per Clause 3 of Schedule 9, (maybe in a table format?). I realise that this will have some duplication, but we assess each structure individually. i.e.:*

Information required in application for complex freshwater fisheries activity approval

For the purpose of [section 43\(3\)\(j\)](#), an application for a complex freshwater fisheries activity approval must include the following information:

(a) in relation to the structure and any fish facility:

(i) a description of the type of structure or fish facility:

(ii) the dimensions of the structure or fish facility:

(iii) the design of the structure or fish facility:

(iv) the placement of the structure or fish facility:

(v) the water flows:

(vi) the operating regime:

(b) the freshwater species and values present (with particular focus on threatened, data-deficient, and at-risk species as defined in the New Zealand Threat Classification System):

(c) the water quality and quantity in the surrounding habitat (at the proposed structure location, upstream and downstream):

(d) how the passage of fish will be provided for or impeded.

2. For context, the five proposed retention wetlands are shown on Figure 9 of the Stormwater Management Plan (SMP) as shown in Figure 1 below:

Table 5. Retention Wetland Storage Summary

Retention Wetland ID	Function	Catchment
A	Attenuation / Retention	T1
B	Attenuation / Retention	T3
C	Attenuation / Retention	T3
D	Attenuation	Muri
E	Attenuation / Retention	K1 / K2



Figure 9. Attenuation & Retention Areas

Figure 1: Location of retention wetlands – extract from Stormwater Management Plan which is Appendix 11 to the Substantive Application

3. Culverts P-36, P37 and P39 are shown in Figure 2 below (highlighted in yellow), this is an extract from sheet 1753-02-SK8440 in Appendix 30 of the Substantive Application. Culverts P-37 and P-36 are outlets from wetlands A and C respectively. Culvert P-39 (upgrade for existing culvert E-18). These culverts have not been designed to provide for fish passage as no fish are present in these sub-catchments.



Figure 2: Proposed culverts - extract from sheet 1753-02-SK8440 in Appendix 30 of the Substantive Application

4. To understand the existing hydrological conditions at the site, PDP has installed water quality and quantity baseline monitoring stations within the wetlands and streams discharging from the site as shown in Figure 3 below:
 - Three surface water monitoring locations to continuously measure stage and turbidity in the streams: SW01, SW02 and SW03.
 - Four wetland monitoring piezometers which continuously measure water levels in key wetland areas: BH01, BH02, BH03 and BH04
5. Additionally, four quarterly site monitoring visits are scheduled to collect water samples at all three surface water monitoring locations for laboratory analysis. Parameters to be analysed include pH, electrical conductivity, anions, cations, heavy metals and nutrients.
6. Monitoring started in August 2025 so a limited amount of site-specific baseline data is available at this stage. Note monitoring is ongoing and that the latest results will be provided when available.



Figure 11: Monitoring Locations

Figure 3: On site monitoring locations - extract from Hydrology Assessment which is Appendix 18 to the Substantive Application (page 13)

Table 1: Further information on complex freshwater fisheries activities

Information required in application for complex freshwater fisheries activity approval	Retention Wetland A and culvert P-37 (Outlet to Wetland A)	Retention Wetland B	Retention Wetland C and culvert P-36 (Outlet to Wetland C)	Retention Wetland D	Retention Wetland E and culvert P-40 (Outlet to Wetland A)	Culvert P-39 (upgrade for existing culvert E-18)
(i) a description of the type of structure or fish facility:	Wetland A and culvert P-37 shown in drainage plans 4000 series in Appendix 30 (see sheet 1753-02-4310 and 4311 as well as SK8430 and SK8440). Design outlined in SMP see: - Section 6.7 - function and storage capacity of wetland - Section 6.12 – description of culvert design (diameter, length, gradient)	Wetland B shown in drainage plans 4000 series in Appendix 30. See sheet 1753-02-4320 and 4321 as well as SK8430 and SK8441. Design outlined in SMP see: Section 6.7 - function and storage capacity of wetland	Wetland C and culvert P-36 shown in drainage plans 4000 series in Appendix 30. See sheet 1753-02-4330 and 4331 as well as SK8430 and SK8440. Design outlined in SMP see: - Section 6.7 - function and storage capacity of wetland - Section 6.12 – description of culvert design (diameter, length, gradient)	Wetland D shown in drainage plans 4000 series in Appendix 30. See sheet 1753-02-4340 and 4341. Design outlined in SMP see: Section 6.7 - function and storage capacity of wetland	Wetland E and culvert P-40 shown in drainage plans 4000 series in Appendix 30. See sheet 1753-02-4350 and 4351 as well as SK8430 and SK8443. Design outlined in SMP see: - Section 6.7 - function and storage capacity of wetland - Section 6.12 – description of culvert design (diameter, length, gradient)	Culvert P-39 shown in drainage plans 4000 series in Appendix 30. See sheet 1753-02- SK8430 and SK8443. Culvert design outlined in SMP see: - Section 6.7 - function and storage capacity of wetland - Section 6.12 – description of culvert design (diameter, length, gradient)
(ii) the dimensions of the structure or fish facility:						
(iii) the design of the structure or fish facility:						
(iv) the placement of the structure or fish facility:						
(v) the water flows:	SMP sets out calculations that informed sizing including: - Appendices 2 and 3 provide post development stormwater calculations - Appendix 4 provides hydrological and hydraulic modelling PDP has undertaken independent hydrological modelling to verify post-development performance at each catchment outlet and can be found in the Hydrological Assessment (Appendix 18 – Section 8.1). Noting that this report concentrates on a summary for the whole catchment, but the variations at separate locations were considered in the modelling.	SMP sets out calculations that informed sizing including: - Appendices 2 and 3 provide post development stormwater calculations - Appendix 4 provides hydrological and hydraulic modelling PDP has undertaken independent hydrological modelling to verify post-development performance at each catchment outlet and can be found in the Hydrological Assessment (Appendix 18 – Section 8.1). Noting that this report concentrates on a summary for the whole catchment, but the variations at separate locations were considered in the modelling.	SMP sets out calculations that informed sizing including: - Appendices 2 and 3 provide post development stormwater calculations - Appendix 4 provides hydrological and hydraulic modelling PDP has undertaken independent hydrological modelling to verify post-development performance at each catchment outlet and can be found in the Hydrological Assessment (Appendix 18 – Section 8.1). Noting that this report concentrates on a summary for the whole catchment, but the variations at separate locations were considered in the modelling.	SMP sets out calculations that informed sizing including: - Appendices 2 and 3 provide post development stormwater calculations - Appendix 4 provides hydrological and hydraulic modelling PDP has undertaken independent hydrological review modelling to verify that the catchment can accommodate the post-development flows estimated by the SMP (Hydrological Assessment, Appendix 18 – 8.4).	SMP sets out calculations that informed sizing including: - Appendices 2 and 3 provide post development stormwater calculations - Appendix 4 provides hydrological and hydraulic modelling PDP has undertaken independent hydrological modelling to verify post-development performance at each catchment outlet and can be found in the Hydrological Assessment (Appendix 18 – Section 8.2). Noting that the values presented here are for the point the stream leaves the site, so include some additional flow that will not be present at the culvert. However, it provides a good proxy.	SMP sets out calculations that informed sizing including: - Appendices 2 and 3 provide post development stormwater calculations - Appendix 4 provides hydrological and hydraulic modelling PDP has undertaken independent hydrological modelling to verify post-development performance at each catchment outlet and can be found in the Hydrological Assessment (Appendix 18 – Section 8.2). The report presents a summary on a catchment scale, but the variations at separate locations were considered in the modelling.
(vi) the operating regime:	Details set out in SMP Section 8 - asset ownership, operation and maintenance	Details set out in SMP Section 8 - asset ownership, operation and maintenance	Details set out in SMP Section 8 - asset ownership, operation and maintenance	Details set out in SMP Section 8 - asset ownership, operation and maintenance	Details set out in SMP Section 8 - asset ownership, operation and maintenance	Details set out in SMP Section 8 - asset ownership, operation and maintenance
(b) the freshwater species and values present (with particular focus on threatened, data-deficient, and at-risk species as defined in the New Zealand Threat Classification System):	No fish are present in this waterway confirmed with eDNA and night spotting (section 3.4.1, 5.3, Appendix 3 of the Ecological Assessment).	Fish values are set out in the Ecological Assessment in Appendix 15, the eDNA indicates the presence of banded kokopu and long and short fin eel in catchment (section 3.4.1).	No fish present. There is no consistent flow at this location, it is ephemeral following rainfall.	No fish present. There is no consistent flow at this location, it is ephemeral following rainfall.	Fish values are set out in the Ecological Assessment in Appendix 15, likely shot and long fin eel, banded kokopu, common bully and redfin bully (section 3.4.2.3 in Table 3).	No fish present. There is no consistent flow at this location, it is ephemeral following rainfall. Recent spot lighting revealed no fish in tributary of P39.
(c) the water quality and quantity in the surrounding habitat (at the proposed structure location, upstream and downstream):	Water Quality Assessment (Appendix 19): Wetland is within Taupo Stream Catchment (see section 4.2)	Water Quality Assessment (Appendix 19): Wetland is within Taupo Stream Catchment (see section 4.2)	Water Quality Assessment (Appendix 19): Wetland is within Taupo Stream Catchment (see section 4.2)	This is located in the headwaters of the Waimapihi Stream Catchment. There is no consistent flow at this location, it is ephemeral following rainfall.	Water Quality Assessment (Appendix 19): Wetland is within Kakaho Stream West Catchment (see section 4.2);	Water Quality Assessment (Appendix 19): - Culvert is in Kakaho Stream West Catchment - Data available for downstream only.

	- Onsite surface water quality results at SW01 (downstream of Wetland A), see Appendix A - Comparison with water quality in Taupo Stream is set out in Appendix B; Hydrology Assessment (Appendix 18 – Section 4): - Onsite wetland level monitoring at BH03 (upstream of Wetland A) - On site flow gauging downstream of Wetland A at SW02.	- Onsite surface water quality results at SW01 (downstream of Wetland A), see Appendix A - Comparison with water quality in Taupo Stream is set out in Appendix B; Hydrology Assessment (Appendix 18 – Section 4): - Onsite wetland level monitoring at BH04 (upstream of Wetland B) - On site flow gauging downstream of Wetland C at SW01	- Onsite surface water quality results at SW01 (downstream of Wetland A), see Appendix A - Comparison with water quality in Taupo Stream is set out in Appendix B; Hydrology Assessment (Appendix 18): - Onsite wetland level monitoring at BH04 (downstream of Wetland C) - Onsite wetland level monitoring at BH02 (upstream of Wetland C)		- Onsite surface water quality results at SW03 (downstream of Wetland E), see Appendix A - No GWRC data available for water quality of this stream, but there is data for Pāuatahanui Inlet (ref section 4.3 and 4.4); Hydrology Assessment (Appendix 18): - Onsite wetland level monitoring at BH01 (upstream of Wetland E) - Onsite flow gauging downstream of Wetland E at SW03.	Hydrology Assessment (Appendix 18): - Onsite wetland level monitoring at BH01 (downstream of culvert) - Onsite flow gauging downstream of culvert at SW03.
(d) how the passage of fish will be provided for or impeded.	Note that Culvert P37 (Retention Wetland A) will not provide for fish passage as there are no fish present in waterway.	Culvert P-35 (Outlet to Wetland B) will provide for fish passage. Design outlined in SMP see: - Section 6.13 for description of fish passage design - Appendix 1 sheet 1753-02-4904 which shows design of outlet with fish passage Specific fish passage design details will be developed and finalised during the detailed design phase through condition of consent (PCC condition 27 and GWRC condition 59).	Culvert P-36 (Outlet to Wetland C) will not provide for fish passage as there are no fish present in waterway.	Retention Wetland D will not provide for fish passage as there are no fish present in waterway.	Culvert P-40 (Outlet to Wetland A) will provide for fish passage. Design is outlined in SMP see: - Section 6.13 for description of fish passage design - Appendix 1 sheet 1753-02-4904 which shows design of outlet with fish passage Specific fish passage design details will be developed and finalised during the detailed design phase through condition of consent (PCC condition 27 and GWRC condition 59).	Culvert P39 will not provide for fish passage as there are no fish present in waterway.