Stantec

Memo

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Project/File:	Ohoka FTAA	Date:	18 June 2026

Reference: Ohoka FTAA aquatic ecology addendum

This addendum has been provided in relation to the Fast Track Application – 531 & 535 Mill Road – Aquatic Ecology Assessment, dated 12 August 2025[1] (referred to as the Aquatic Ecology Assessment). Since this time, I have changed employment, with my current role being Group Leader, Environmental Sciences at Stantec NZ, but have continued my role for this project. This document seeks to provide updated information on the proposed development, minor changes to the expected discharge quality from stormwater management areas (SMAs), and an update to the ecological values assessment of wetlands, as well as clarification of the proposed residual effects of the proposed activity on wetlands within the report.

Changes to the Proposed Development

Since the assessment was written, the following updates have been made to the overall subdivision layout; One 'standard' residential lot has been lost due to the Ohoka Railway Station historic concrete walls on Lot 115). The subdivision will now include:

- 875 residential allotments.
    - 752 'standard' residential size lots.
    - 123 'large lots'.
- 7.5 ha area for a retirement village.
    - Approximately 250 units.
- 1.49 ha area of a commercial centre.
    - Consisting of 11,000m^2 to north of the internal road and 3,900m^2 to south of the internal road.

[1] Instream Consulting Limited. (2025). Fast Track Application – 531 & 535 Mill Road – Aquatic Ecology Assessment. Prepared for the Carter Group Limited.

Expected Discharge Quality from Stormwater Management Areas

The updated Water Quality Assessment[2] produced a small change to the expected discharge quality from proposed treatment systems and raingardens, which were utilised in Table 3 of the Aquatic Ecology Assessment. This was primarily based on the replacement of Jellyfish filters with Stormwater360 StormFilter. An updated Table 3 is provided below (Table 1 within this addendum), with the changes limited to a reduction in the expected discharge quality for metals concentrations. This reduction means that the expected total copper concertation in the proprietary devices and rain gardens now meet the LWRP receiving water standards, prior to mixing.

Table 1: Update to Table 3 in the Aquatic Effects Assessment: Expected Discharge Quality from Proposed Treatment Systems (sourced from Table 5 in PDP 2025e).

Treatment System	TSS mg/L	TN mg/L	TP mg/L	Total Zinc mg/L	Total Copper mg/L	Total Lead mg/L
Swales & detention basin	12.6	0.35	0.07	**0.0192**	**<u>0.0017</u>**	0.0010
First flush basin & wetland	6.3	0.30	0.04	**0.0128**	0.0011	0.0006
Proprietary device & detention basin	2.1	0.31	0.05	**0.012**	0.0011	0.0010
Rain gardens	7.0	0.53	0.05	**0.012**	0.0011	0.0006
LWRP receiving water standards[1]	50	-	-	0.0080	0.0014	0.0034
Acute GVs (95% species protection)[2]				0.024	0.0013	

Notes: [1] LWRP Schedule 5 95% species protection level for 'Spring-Fed – Plains'. TSS limit as per Rule 5.95 Condition 5(a) of the LWRP which applies to the proposed stormwater discharge activity. **Bold** values indicate an exceedance in LWRP limits, <u>Underlined</u> values indicate exceedance of acute GV (prior to mixing). [2] Gadd et al (2024) Interim Tier 1 acute GVs.

Values Assessment

In the Aquatic Ecology Report, the report indicated that the ecological value of the wetlands was classified as Low - see Table 7 from the document[3]. In retrospect, this value assessment requires updating and clarification. When considering the Environmental Institute of Australia and New Zealand (EIANZ) ecological impact assessment (EcIA) guidelines, the values assignment of wetlands within the Site has been updated to Moderate (Table 2). This is a result of wetlands on site ranging from the higher scale of Low to the lower scale of Moderate, and the need to assess against the higher ecological value present. We recognise that while the wetlands within the Site are categorised as degraded, wetlands in New Zealand, and in particular on the Canterbury Plains, have experienced significant habitat loss and require protection and enhancement. This is further outlined in the National

[2] 531 & 535 Mill Road – Water Quality Assessment (PDP 2025)
[3] Page 32 – Table 7.

Policy Statement for Freshwater Management (2020, amended 2025[4], NPFM). Additionally, the change of ecological value to Moderate also requires the level of effect to be increased to High in recognition of this, as the magnitude of effect is Very high (reclamation).

As per the wetland delineation (Appendix 4) within the Aquatic Ecology Report, marsh foxtail, creeping bent, and blue sweetgrass were the dominant species in the wetlands to be lost as a result of land use change. These largely uniform grassland vegetation types are indicative of the degraded state of these wetlands, which are located within active dairy farm paddocks and undergo regular disturbance. It is noted that higher ecological value/locally significant habitat types within the site (i.e. wetlands around spring systems, springs, permanent streams) are proposed to be protected and enhanced where possible and wetland habitat is to be created (as discussed in this addendum).

Table 2: Updated wetland effects summary

Ecological Feature	Ecological Value	Activity	Magnitude of Effect	Level of Effect
Wetlands	Moderate	Land use change (Reclamation of wetlands)	Very high	High

Effects Management Hierarchy Clarification

In addition to the above layout change, further detail is provided in this addendum on the loss of watercourse and natural inland wetland extent within the site. This detail is provided to update the assessment of hierarchy objectives within the Aquatic Ecology Assessment. This update is to clarify that the loss of wetland habitats within the site, which is required to enable subdivision layout, will require compensation through wetland creation, not offsetting through wetland creation alone. Further detail is provided below.

The NPFM establishes a hierarchy of management to minimise the loss of extent of natural inland wetlands where possible, ensure their values are protected and, where possible, their restoration is promoted. The policies overarching objective is to achieve 'No-Net-Loss' of inland natural wetlands. The Effects Management Hierarchy is the mechanism within the policy to manage these effects, and can be defined into the following categories in descending order of preferred application:

1. Avoidance (where possible),
2. Minimise effects (where unavoidable),
3. Remedy effects (where they cannot be minimised),

[4] National Policy Statement for Freshwater Management 2020 | Ministry for the Environment

4. Offset (when residual effects exist after avoiding, minimising and remediating have been applied, through the provision of 'like-for-like' compensatory action on-site, or within close proximity to the impact area), and;

5. Compensation (Providing ecological compensation that cannot be offset following 'no net loss of biodiversity', cannot be ensured or other key principles of a biodiversity offset cannot be met but still result in ecological positive outcomes).

Within the Aquatic Ecology Assessment, the mitigation hierarchy was followed (section 6). A brief summary of the avoid, minimise and remedy steps is provided below.

- Avoid – Impacts to 0.84 ha of key riparian wetland habitat is proposed to be avoided. In particular wetlands in proximity to springheads that were considered to be of higher value in the wetland delineation report, were avoided, with substantial buffers provided (20-30m)[5].

- Minimise or Remedy - Loss of wetland extent is minimised where practicable through the inclusion of substantial spring and waterway margin setbacks (see Figure 4 within the report). To remedy effects of the proposed development on wetlands, the highest value wetland areas are proposed for restoration, with an increase of 0.25 ha in the current extent of wetland proposed. This will include the planting of indigenous wetland vegetation and grading of the surrounding area to increase the extent and value of current wetland habitat. An example of this is at the Northern Springhead, where a 30 m buffer is proposed (current wetland extent is ~1-2 m around the springhead pond).

As noted in the Aquatic Effects Assessment, despite avoidance, minimising and remediation, residual effects remain. It is expected that c. 4.3 ha of degraded wetland habitat, most of which consists of grassland wetlands within active dairy farm paddocks, will be infilled in order for the development to be created, with avoidance deemed impractical due to site hydrology changes. In the original document, the creation of 4.55 ha of wetland habitat on-site was proposed as an offset proposal to achieve 'No-Net-Loss' of wetland habitat on-site. However, it is recognised that this action requires further clarification as it does not accurately reflect the difference between offset wetland habitation creation (like-for-like) and compensatory wetlands.

Proposed On-Site Offset Actions

The updated summary of the proposed wetland offsetting within the site, is provided in Table 3. This includes the restoration of 0.25 ha of wetlands around the site's three spring heads, as well as the proposed creation of fresh plains wetlands within the stream corridors (0.63 ha). This table removes the additional compensatory actions proposed on-site, with those actions discussed in further detail below.

[5] Page 31 - Aquatic Ecology Assessment.

Table 3: Wetland offset summary

Feature	Area (Ha)	
	Current	Proposed
Natural inland wetland area restored within proposed setbacks		0.84
Additional wetland area to be restored around springheads	-	0.25
Fresh plains wetlands	-	0.63
Total wetland area within the proposed site	**4.3**	**1.72**

Proposed On-Site Compensatory Actions

As discussed above, the Aquatic Ecology Assessment did not clearly outline the steps within the hierarchy of effects management to adequately address the residual effects identified on-site. Additional to the 1.72 ha of new wetland habitat proposed to be created through offsetting, the creation of stormwater wetlands and ponds/basin habitat is also proposed. While the wetlands will be planted with extensive native wetland-tolerant vegetation and have standing water habitat, they do not represent 'like for like' offsetting within the site; however, the creation of these wetlands is considered to provide ecological compensation for the loss of the degraded wetlands within the site. The stormwater wetlands will have a high level of native vegetation, that will provide habitat for wetland fauna, as summarised in Table 4. These habitats are considered to provide a better ecological outcome to the creation of ephemeral depressional wetlands within the site.

The linkages between the existing restored natural wetlands, spring head ponds, riparian wetlands, and the wetlands within the stormwater management areas will provide a network of ecological corridors to achieve 'No-Net-Loss' of wetland habitat on-site, as summarised in Table 5. Maintenance and management of these features will be required to achieve this outcome.

Table 4: Wetland compensation summary

Feature	Area (Ha)	
	Current	Proposed
Stormwater wetlands*	-	2.36
Stormwater wet ponds/basins**	-	0.47
Total wetland area within the proposed site	**4.3**	**2.83**

Notes: Stormwater areas calculated from table H1 in the Stormwater Assessment (PDP, 2025c). * Wetland area includes both open water pond (40%) and shallow wetland planting (60%) areas; ** Calculated as 20% of wet basin area (wetland planting). Pers comm. P. Claassens, PDP.

Table 5: Wetland summary

Feature	**Area (Ha)**	
	Current	**Proposed**
Natural inland wetland area restored within proposed setbacks		0.84
Additional wetland area to be restored around springheads	-	0.25
Fresh plains wetlands	-	0.63
Wetland compensation		2.83
Total wetland area within the proposed site	**4.3**	**4.55**

Additionally, further enhancement through compensation is available on-site through the enhancement of the artificial pond area. As the report states: *"It is therefore recommended that the artificial pond area is planted with indigenous vegetation to create a new wetland area. Further hydrological assessment will be required at the detailed design stage to guide the development of a wetland in this location; therefore, it has not been included in offsetting calculation but should be retained as an option for future stages of development. It is recommended that this option is retained as part of adaptive management within the Site's development."*

It is noted that while the existing wetlands within the site are degraded, their removal is not proposed on that basis. The proposal enables retention and enhancement of the higher-value wetlands within the site, together with the creation of new freshwater plains, stormwater treatment and wetland areas that can be appropriately designed, connected, and managed to deliver improved ecological outcomes. At a catchment scale, this approach results in a consolidated and more resilient wetland network, providing a greater overall ecological and water quality benefit than would be achieved by attempting to enhance all existing degraded wetlands in their current location.

Adherence to the National Policy Statement for Freshwater Management Principles

Through the application of avoidance, minimisation and remediation before utilising offsetting and compensation actions on-site to achieve No-Net-Loss to the extent or values of aquatic natural inland wetlands and rivers, this proposal is in alignment with Principle 1 of Appendix 6 and 7 of the NPS-FM.

Additionally, offset and compensation actions proposed are considered appropriate and in alignment with Principle 2 for each appendix section. These actions do not impact irreplaceable wetlands or streams as both habitat types found on-site are considered to be common habitat features for degraded environments within the region. Any significant habitat types (i.e. spring systems, intermittent or permanent streams) are proposed to be protected and enhanced where possible.

No-Net-Loss and scale is demonstrated throughout the document through the strict application of the hierarchy of effects and the proposed offset and compensatory actions achieving a net-increase of habitat on-site and an improvement in existing habitat through the proposed enhancement and offset habitat creation of 1.72 ha of wetland features and the creation of stream habitat and riparian habitat and buffers[6]. Through this, stream habitat is considered to be adequately addressed resulting in a net-positive value of on-site watercourses, however residual wetland loss remains (Table 4). To address the remaining residual wetland loss, a further 2.83 ha of new wetland habitat of equal/better value is proposed to be created to compensate (ecological compensation, not 'like for like') for the remaining 2.58 ha of wetland habitat unaccounted for. We also consider that the proposed actions account for additionality, leakage, long-term outcomes, landscape context, science, transparency and trading up. Stakeholder engagement has occurred with Environment Canterbury and Whitiora, although it is understood that the Aquatic Ecology Assessment has only recently been provided for comment.

[6] Aquatic Ecology Report – Page 28, Table 5.

Conclusions

This addendum to the Aquatic Ecology Assessment is provided to update key assessment assumptions, the outcome of the report still stands, that the proposed development has the opportunity to result in a net improvement in ecological values, if the recommendations provided are incorporated.

Yours sincerely

Stantec New Zealand

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Attachment: Attachment

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