

IN THE MATTER OF

The Resource Management Act 1991

AND

IN THE MATTER OF

applications by Christchurch City Council to dam, divert and discharge water and undertake land use activities associated with construction and operation of a dam in Cashmere Valley (CRC203551, CRC203552, CRC203553, CRC214759, CRC214760, and CRC214761)

DECISION OF HEARING COMMISSIONER

EMMA CHRISTMAS

28 November 2021

DECISION

1. Under my delegated authority from the Canterbury Regional Council to hear and decide these applications I grant resource consents CRC203551, CRC203552, CRC203553, CRC214759, CRC214760 and CRC214761 to dam, divert and discharge water, undertake earthworks and vegetation clearance, subject to the conditions outlined in this decision. CRC203551 and CRC214759 are granted for a duration of five years; and CRC203552, CRC203553, CRC214760 and CRC214761 are granted for a duration of 35 years.

THE HEARING

2. These applications were heard on 21 October 2021 at the Rydges Latimer Hotel in Christchurch. The following appearances were recorded.

For the applicant:

Mr Brent Pizzey, Legal Counsel

Ms Kelly Bombay, Planner

Mr Steven Woods, Consultant Engineer

Mr Kevin McDonnell, Team Leader Asset Planning – Three Waters and Waste

Ms Katie Noakes, Waterways Ecologist

Mr Nicholas Head, Senior Ecologist

For Canterbury Regional Council:

Ms Helen Caley, Consultant Planner

Ms Tracey Gray, Principal Consents Planner

Mr John Harris, Consultant Engineer

Ms Michelle Stevenson, Senior Scientist

Dr Helen Greenep, Scientist

Submitters

Dr Wilfred Walsh, neighbouring resident

Mr Ken Rouse, Chair of Cashmere Stream Care Group

Ms Annabelle Hasselmann, Chair, Ōpāwaho Heathcote River Network

Mr Malcolm Long, Secretary, Ōpāwaho Heathcote River Network

3. The hearing was closed on 10 November following receipt of an amended set of proposed conditions and closing submissions from the applicant.
4. I undertook a site visit on 20 October accompanied by Ms Alison Cooper, ECan Consents Hearings Officer. I walked over the site of the proposed dam, and viewed the Cashmere Valley Drain and completed planning works upstream.

BACKGROUND

5. Christchurch City Council ('the Council') is undertaking significant flood protection and stormwater management works in the upper Heathcote catchment as part of the Ōpāwaho / Heathcote Floodplain Management Scheme. These works aim to reduce flood risk in the catchment, made worse by the Canterbury Earthquake Sequence and improve water quality. Works are planned or underway in four sub-catchments, including the Cashmere-Worsley Valley.
6. The Cashmere-Worsley Valley works (the 'Cashmere Valley Flood Detention Facility') are considered particularly important by the Council due to the proximity to flood prone houses along the middle and upper reaches of the Ōpāwaho / Heathcote River and high contribution of sediment load from the valley into the river and estuary downstream.
7. The Cashmere Valley Flood Detention Facility comprises a sediment control basin, two storage basins, and an earth dam to retain water in the upper basin. Consents for the lower basin were granted as part of a neighbouring subdivision, and consents for Stage 1 of the upper basin granted in September 2019. Consents for the dam and for Stage 2 of the upper storage basin and sediment control structure were originally lodged together in February 2020. The consents to authorise the dam ('the dam applications') required public notification. To enable works on the upper storage basin to proceed, the applications enabling the sediment control basin and upper basin were unbundled and subsequently granted non-notified¹.
8. Additional water, land-use and discharge permits for works within or adjacent to a wetland were subsequently required under the National Environment Standards for Freshwater 2020 (NES-F) ('the wetland applications'). These are included within the applications being considered at this hearing.

Details of the proposed works

9. The proposed dam is described in Mr Woods' evidence. In brief, it is an earth dam, approximately 4m high (to RL21 m), with a base width of 40-60 metres, located adjacent to the existing roundabout on McVicar's Road. It will have a low permeability core, constructed primarily from soil already stockpiled on site. The shoulders of the dam will be constructed from imported gravel soil. The dam faces will be grassed.
10. The dam will form a storage basin that holds approximately 213,000m² of water at spillway crest level (RL19.9m). Cashmere Valley Drain will be diverted via a culvert through the dam. The basin will normally be empty; however, under high flow conditions a gate at the upstream end of the culvert will shut, causing water to pond in the storage basin. This is anticipated to occur once or twice per year, for up to 36 hours. If the storage capacity of the basin is exceeded, water will flow over a spillway on the dam crest.

¹ CRC212344, CRC212345, CRC2035534 and CRC203555, granted 11 December 2020

11. The construction methodology is outlined in both the application and s42A report. Erosion and sediment control measures will be utilised, including re-vegetating exposed areas, dust control measures, and collecting surface run-off and pumping it to sediment retention ponds for treatment prior to discharge.

Consents sought

12. The following consents are sought:
 - CRC203551: A land use consent to excavate land in a high soil erosion risk area;
 - CRC203552: A land use consent to construct and operate a dam within the bed of a river;
 - CRC203553: A water permit to dam water within and outside the bed of a river, and the diversion of water;
 - CRC214759: A land-use consent for earthworks, land disturbance and vegetation clearance within 10 metres of a wetland;
 - CRC214760: A water permit for the damming and diversion of water in proximity to a wetland; and
 - CRC214761: A discharge permit to discharge water that may affect a wetland, and discharge diverted water.

NOTIFICATION AND SUBMISSIONS

13. The dam applications were publicly notified on 17 February 2021 and submissions were received from:
 - a. Cashmere Stream Care Group (support in principle)
 - b. Robyn and Antony Lee (oppose)
 - c. Ōpāwaho Heathcote River Network (support in principle)
 - d. Orion New Zealand Limited (neutral)
 - e. Dr Wilfred Walsh & Dr Miranda Bien-Lim (oppose)
14. The wetland applications were publicly notified on 7 July 2021 and received one submission, from the Cashmere Stream Care Group.
15. The issues raised in the submissions were:
 - a. sediment run-off and construction management
 - b. dam break effects
 - c. effects on electricity assets
 - d. access, water management, potential flooding and privacy
 - e. biodiversity effects

KEY ISSUES

16. The key issues discussed at the hearing were:

- a. sediment control during construction activities
- b. the potential for, and impact of, dam failure
- c. mitigation and offsetting for the loss of part of the wetland
- d. issues of concern to Dr Walsh and Dr Bien-Lim, including access routes, drainage of water from their property and opportunities for biodiversity enhancement.

APPLICATION STATUS

- 17. Consents are required under the Land and Water Regional Plan (LWRP) and the NES-F, as outlined in the s42A report. There was no dispute between parties that the applications are either restricted discretionary or discretionary, and should be bundled together with an overall activity status of discretionary.

THE EXISTING ENVIRONMENT

- 18. The existing environment is described in both the application and the s42A report. The site was previously used for grazing and horticultural purposes; however, works to construct both the upper and lower basins have begun, including planting and re-grading the banks of Cashmere Valley Drain. The soils in the valley are fine loess soil, susceptible to erosion. Part of the valley, including an area at the northern end of the proposed dam, is identified in the LWRP as having a High Soil Erosion Risk (HSER) overlay.
- 19. The drain is intermittent and has low ecological values, with highly modified banks and minimal shade and over-hanging vegetation. Shortfin eels are the only fish species found to date. It flows into Cashmere Stream, which has high clarity in its upper reaches, with increasingly poorer clarity downstream, as tributaries draining the hillslopes (including Cashmere Valley Drain) carry high sediment loads.
- 20. There is a small wetland area, part of which is within the dam footprint. It was described by Mr Head as a 'poor example' of a wetland, comprising mostly exotic species, with low native species diversity. However, he noted that it supports a core assemblage of native species typical of the remaining wetlands within the Port Hills, and so has ecological significance.
- 21. The site is close to existing and new residential development.

SECTION 104 ASSESSMENT

- 22. Section 104(1) requires that, subject to Part II of the Act, regard must be had to:
 - (a) any actual or potential effects on the environment of allowing the activity; and
 - (b) any relevant provisions of
 - (i) a national policy statement
 - (ii) a New Zealand Coastal Policy Statement;
 - (iii) a regional policy statement or proposed regional policy statement;

- (iv) a plan or proposed plan; and
- (c) any other matter the consent authority considers relevant or reasonably necessary to determine the application.

Section s104(1)(a) - Potential effects on the environment

Effects on water quality and aquatic ecology due to earthworks and construction of the dam

23. A key issue discussed at the hearing was the potential for discharge of sediment to Cashmere Valley Drain and then to Cashmere Stream. Both the Cashmere Stream Care Group and Ōpāwaho Heathcote River Network presented evidence of existing issues with loss of sediment from the Cashmere Valley during rain events, and poor water clarity within the Cashmere Valley Drain and Cashmere Stream. High sediment loads have the potential to affect the instream ecosystem and reduce amenity values. This was not disputed by the applicant, which acknowledged the need for robust erosion and sediment control measures. Both groups advocated for robust ('higher than best practice') erosion and sediment control measures, including use of geotextiles and flocculent, and active compliance monitoring.
24. Works that could result in a sediment entering water fall under applications CRC203551 (land use consent to excavate land in a high soil erosion risk area) and CRC214759 (land use consent for earthworks, land disturbance and vegetation clearance with 100 m of a wetland). However, the discharge of sediment to water that might result from these works (eg, through stormwater run-off) is authorised by existing consent CRC214226, which provides for the discharge of stormwater to land and water from the CCC's stormwater network². This consent covers the discharge of construction phase and developed site stormwater from the site. Therefore, while the land-use activities may generate sediment, the discharge into waterways is already authorised (provided the conditions of CRC214226 are met).
25. The applicant has obtained the written approval³ of CCC (as consent holder) to discharge stormwater at Cashmere Valley Dam via consent CRC214661. The written approval contains conditions applying to the discharge of construction phase stormwater including managing it in accordance with an Erosion and Sediment Control Plan prepared in accordance with ECan's Erosion and Sediment Control Toolbox. It also requires that total suspended solids do not exceed 50 milligrams per litre at the point of discharge to the stormwater network. Where the background concentration of suspended solids exceeds 50 mg/L, the

² The only discharge permit within the suite of applications, CRC214761, is to discharge water diverted as a result of the dam within 100m of a wetland. It does not authorise the discharge of sediment-laden water during construction or stormwater from the developed site

³under clause 30 of the Christchurch City Council Water Supply, Wastewater and Stormwater Bylaw 2014

discharge must not result in a change of visual clarity of more than 35% in the Cashmere Valley Drain after reasonable mixing.

26. There is a need to ensure that the management of the land use activities is such that the conditions of CRC214226 can be met. Following the hearing, planners for the applicant and ECan agreed on a suite of conditions to mitigate sediment loss as a result of the works, and ensure the conditions of CRC214226 can be complied with. These were also discussed with the Cashmere Stream Care Group and Ōpāwaho Heathcote River Network, and Mr Pizzey advised in his closing submissions that he understood that those submitters were comfortable with the proposed conditions and with the rationale for the proposed changes. The applicant provided an opportunity for further comments from the submitters but none were received.
27. In brief, the proposed conditions require that:
 - a. works are undertaken in accordance with an erosion and sediment control plan (ESCP), prepared in accordance with ECan's Erosion and Sediment Control Toolbox or an industry equivalent;
 - b. the ESCP must include:
 - (i) a requirement to direct dirty run-off water to sediment control devices as far as practicable
 - (ii) use of best practice or higher than best practice measures to reduce sediment run-off, which may include use of geotextiles
 - (iii) sampling procedures to demonstrate compliance with the conditions of CRC214226
 - (iv) methods for stabilising the site if it is abandoned, and when works are complete;
 - c. works must be overseen by a suitably qualified and experienced person, who must review the erosion and sediment controls weekly to confirm best practice or higher is being used;
 - d. a review of erosion and sediment controls if rain is forecast;
 - e. erosion and sediment control measures to be inspected at least once per day, and following rainfall;
 - f. all practicable measures are taken to minimise soil disturbance and prevent soil erosion during works.
28. I note that the consents applied for do not include discharge of flocculants, and if these were required, a separate consent application would need to be made.
29. I agree with both the applicant and ECan that these conditions will appropriately manage the risk of erosion and sediment loss that is within the scope of these consents. Sediment management across the site as a whole is authorised by a number of consents and the conditions of those must also be complied with.

Effects on biodiversity and wetland values

Effects on the natural wetland

30. The dam will result in the permanent loss of approximately 0.2 ha of the wetland area, and disturbance and reinstatement of a further 0.2 ha. Significant new wetland planting is proposed, to both enhance the existing remaining area, and connect other small wetland patches to create a larger wetland ecosystem.
31. To give effect to the objective and policies of the NPS-FM, Policy 2A.3⁴ of the LWRP states that:

Loss of extent of natural wetlands is avoided, their values are protected, and their restoration promoted, except where: ...

b. the regional council is satisfied that:

- (i) the activity is necessary for the construction or upgrade of specified infrastructure*
- (ii) the specified infrastructure will provide significant national or regional benefits*
- (iii) there is a functional need for the specified infrastructure in that location*
- (iv) the effects of the activity are managed through applying the effects management hierarchy.*

32. The dam, and the wider Cashmere Flood Detention Facility, meet the definition of specified infrastructure in the NPS-FM. Ms Bombay, Ms Caley and Mr Pizzey all agreed that the facility, rather than simply the dam (which is an integral part of the facility), is the relevant 'specified infrastructure' for considering this policy. I agree with the applicant that the facility will provide significant regional benefits: modelling summarised in the application indicates that in a 1 in 50 year flood, the facility will reduce the number of houses flooded above floor level by 113.
33. In terms of functional need, there is a clear need to locate the dam within the valley to provide the proposed flood protection benefits. In terms of the specific location, the application and supporting documents outline that two alternative alignments for the dam were considered, the upstream of which appears to largely avoid the wetland. Neither alignment provides the desired storage for the scheme, but the downstream alignment provides greater storage. Mr Woods' evidence was that while detailed flood modelling of the upstream alignment was not undertaken, it can be inferred that fewer properties would be protected. A higher crest level (to increase the storage) was also investigated, but this was discounted based on the practicalities of integrating the dam with the adjacent subdivision and local road network. Mr Woods' evidence also outlined other potential issues with constructing the dam further upstream.
34. The functional need to locate the dam as proposed was not disputed by the Reporting Officer. I also agree that given the local constraints and the need to

⁴ As required by the NPS-FM 3.22(1)

maximise flood storage, there is a functional need to locate the dam in the location proposed.

35. Application of the effects management hierarchy is discussed in both the application and the s42A report. In summary, as noted above in relation to the dam alignment, it is not practicable to avoid adverse effects on the wetland. Neither can the works be minimised further. The works will result in a loss of 2,347 m² of wetland (approximately a 28% reduction), and disturbance of a further 2,288 m² (approximately 27% of the wetland)⁵. The disturbed area will be replanted with native wetland species, thus remedying (and in fact enhancing) adverse effects on this part of the wetland.
36. The residual adverse effects (i.e. loss of part of the wetland) will be offset through planting two areas: 12,700 m² upstream of the proposed dam, and 3,176m² downstream of the dam, connecting to another existing wetland area. Locally sourced native wetland species will be used. The resulting total area of wetland, including both newly planted areas and remediated areas, is 21,877m², an increase of over 260% compared to the existing wetland area. There is therefore a clear net gain in terms of both wetland extent and quality.
37. It is noted in the application that construction of the dam will result in the diversion of water from an existing culvert under Shalamar Drive, causing it to flow or pond along the upstream side of the dam. The flow from this culvert is one source of water for the existing wetland area, meaning that the remaining (and expanded) wetland area downstream of the dam may be impacted. The s42A report notes that the extent and effects of this change in hydrology are difficult to quantify, but may result in the need to use wetland species tolerant of drier periods downstream of the dam.
38. Mr Head's view was that the existing wetland is largely associated with temporary ponding during winter, and as the valley would historically have been wetland, he considered it unlikely to disappear. He was confident that the area would continue to function largely as wetland, particularly if wetland species tolerant of a wide range of conditions were planted.
39. I also note Mr McDonnell's evidence that sediment will need to be removed periodically from the storage basins. This is most likely to occur at the head of the upper storage basin, but has the potential to affect the wetland area upstream of the dam. This may require periodic replanting within the storage area; however, Mr Head's evidence was that this was unlikely to affect all the wetland area at one time and significant ecological gains would still eventuate.
40. The proposed conditions of consent require that a planting plan is approved by ECan before planting. In addition, the applicant must maintain the wetland such that it contains predominantly native wetland species and supports native biodiversity for the duration of the consent.

⁵ Figures taken from Ms Bombay's evidence. These differ from figures in the application, but are the most up to date.

41. Dr Walsh raised concerns about the type of planting proposed and the impact on people and dogs on wetland fauna, particularly nesting birds. He was concerned with the number of paths passing through both the upper and lower basins, giving access to planted areas, and submitted that some areas should be fenced or include a pond with an island refuge for nesting birds. The plan provided at the hearing with Ms Bombay's evidence shows only one path passing through a small part of the newly planted area. While the proposal will undoubtedly result in an increase of people and dogs in the area compared to the previous use of the site, I am satisfied that there remains a significant net gain of wetland area, consistent with the NPS-FM provisions and contributing to an overall increase in biodiversity values in the area.

Effects of the diversion of Cashmere Valley Drain on instream values

42. The works include the diversion of the Cashmere Valley Drain through a culvert under the dam. This involves realigning the drain to a new channel to the south of its current location. The drain has low ecological values at present; however, it is possible that these will increase as a result of the channel regrading and plantings in the upper and lower storage basins.
43. The applicant has proposed a design that provides for fish passage through the diversion channel and culvert (apart from when the culvert is closed during high flows to store floodwater), with ecologically suitable design features to provide refuge areas for fish at high flows.
44. I am satisfied that the effects of the diversion works on instream values will be less than minor.

Effects on the community from flooding, including dam failure

45. The purpose of the dam and associated works is to reduce flood risk to downstream properties, so the impact of the scheme on flooding, when operating as intended, will be positive. The reduction in flood risk downstream is covered in detail in the application, Mr McDonnell's evidence and the s42A report, and noted briefly earlier in this decision. There was no dispute in relation to these positive effects and they are not discussed further.
46. Robyn and Anthony Lee opposed the dam applications on the grounds of the effects of a potential dam failure, in particular failure resulting from an earthquake.
47. The applicant assessed the impacts of dam failure as required by the New Zealand Dam Safety Guidelines. The scenario chosen was failure caused by blockage of the spillway and overtopping of the dam during a 1 in 50 year, 27 hour flood event. This flood event was selected as both upper and lower storage basins would be full, but without significant spillover from the lower basin. The impact of the dam break would therefore not be masked by natural flooding from Cashmere Valley. In addition, this is the critical duration event for generating peak water levels in the Heathcote River. The overtopping scenario was chosen as dam failure would occur at the fullest possible storage level (crest level), allowing all stored water to be released. Mr Woods considered that the risk of this scenario occurring was

very small, 'on the borderline of credibility', nonetheless it was considered to be the worst case scenario.

48. The modelling showed flooding above floor level for five additional properties compared to a scenario with the intact dam in place. However all these properties, and an additional nine properties, would be flooded above floor level under the existing situation (ie. the lower valley storage basin in place, but with no dam). For the modelled scenario, therefore, there is a positive effect on flood risk.
49. Modelling was also undertaken for a 100 year flood and showed that fewer properties would be flooded under a dam break scenario than would be flooded under a natural flood with no intervention (ie. without the Cashmere Valley Detention Facility in place).
50. The increase in water level experienced downstream as a result of dam failure would be gradual, with a rise of slightly less than 200mmm over approximately two hours. Given this rate of water level rise, Mr Woods assessed the probability of loss of life to be highly unlikely.
51. The applicant assessed the dam as having a low potential impact classification (PIC), and designed the dam structure to meet the requirements for this classification, including being able to withstand a 1 in 500 year seismic event. This event would likely cause damage, but given the extreme unlikelihood of a major earthquake occurring at the same time as a flood, it would be highly unlikely to release water. As required by the guidelines, the impacts of an earthquake of this magnitude followed by a moderate flood event were assessed. The applicant considered that in this scenario, the gate would remain open until repairs were complete to avoid impounding a significant volume of water. As a result, Mr Woods considered that it is not credible that the dam would fail, even if damaged.
52. The one point of dispute between the applicant and Environment Canterbury officers was whether the conditions should require an emergency action plan (EAP). Mr Harris' view, for ECan, was that the NZSOLD Guidelines require that: *"All dams should have emergency response procedures in place if emergency procedures could reduce the potential for dam failure, if there is a population at risk, or if implementation of emergency procedures could reduce the potential consequences of failure"*. And further, *"Principle 7 in the Parent Document states that: Effective emergency preparedness and response procedures should be in place for dams."* There was no dispute between parties that there is a population at risk for this dam.
53. The applicant's case was that the dam has a low PIC and therefore an emergency action plan is not required by the NZSOLD guidelines. While it accepted that the guidelines require that 'emergency response procedures' should be in place, these may be in a different format to a traditional EAP. Mr Pizzey noted that in a flood event requiring emergency response procedures, the applicant would already be managing risk from the Cashmere Valley Dam *and* other stormwater infrastructure within the Heathcote Valley, and it is therefore more appropriate for the applicant to manage the emergency response for the Cashmere Valley

Dam as part of the overall response. The applicant's preference was for an advice note advising the need for emergency response procedures to be in place (in accordance with the guidelines), rather than a condition requiring an EAP.

54. The point of difference between the parties appears not to be whether emergency response procedures are required, but whether they should be documented as an EAP, and whether that should be a requirement of consent.
55. The NZSOLD guidelines clearly require emergency management procedures to be in place and it is reasonable for ECan to seek certainty on this matter, given the proximity of houses downstream and that there is a population at risk. However, no evidence was provided that the format of these as an EAP was critical. I consider the most appropriate approach is to impose a condition reflecting the requirements of the NZSOLD Guidelines, but allow the applicant flexibility to develop these in whatever format works best considering management of the flood scheme as a whole.

Potential flooding of Shalamar Drive

56. Dr Walsh and Dr Bien-Lim's submission noted concern that the storage area upstream of the dam would result in flooding of their accessway off Shalamar Drive. However, Dr Walsh noted at the hearing that as Shalamar Drive had recently been raised to a level of RL21m, above the maximum level of the storage pond, this was no longer a concern.

Effects on tangata whenua values

57. The site lies within the rohe of Te Ngāi Tūāhuriri Rūnanga. The works have the potential to affect water quality and instream biodiversity and will affect the wetland area. They therefore have the potential to affect the mauri of these areas and intrinsic values of significance to Māori. The applicant consulted the Rūnanga during the application process, and feedback was incorporated into the proposed consent conditions.
58. Conditions protecting water quality and biodiversity, including erosion and sediment control management, requiring planting of indigenous species, wetland rehabilitation and extension, and ensuring fish passage is maintained, will all assist in mitigating effects on values of significance to the Rūnanga. An accidental discovery protocol condition is also proposed, should kōiwi or taonga be found during the works.
59. The s42A report notes that an assessment against the policies of the Mahaanui Iwi Management Plan showed the proposal was generally consistent with, or neutral in regard to, the policies of that document. The proposal was identified as being inconsistent with Policy WM6.20, which is to prohibit any further drainage, destruction or modification of remnant wetlands. However, I note the applicant's proposal to expand and improve the remaining areas of wetland on the site.
60. The Rūnanga did not consider themselves adversely affected by the wetland application, and did not submit on any of the applications. Given the above, and

considering the proposed conditions of consent, I agree with the applicant and s42A report that the effects on cultural values will be minor.

Additional effects of concern to submitters

61. Dr Walsh raised two further concerns in his evidence, both of which I consider to be outside the scope of these applications, but will note briefly for completeness.
62. The first was a request for vehicle access from the end of Shalamar Drive through the upper storage basin area to McVicar Drive. This was to enable emergency egress from his property in the event of Shalamar Drive being impassable, for example in the event of fire.
63. No evidence was provided that the works subject to these consent applications would increase the risk of Shalamar Drive becoming blocked, or remove any existing accessway. There are therefore no relevant effects from these applications that need to be addressed.
64. The second matter was relating to water management on Dr Walsh's property, in particular ponding on his site caused by an under-performing culvert under Shalamar Drive. Water previously flowed over Shalamar Drive at times of high run-off; the recent raising of the road now prevents this. Dr Walsh acknowledged that CCC has agreed to address this issue. As the raising of the road is not part of the suite of applications being considered, no condition can be imposed in relation to this effect.
65. Mr and Mrs Lee's submissions also noted concerns in relation to traffic movements, dust and noise associated with the construction of the dam. The application notes that no consent is needed for discharge of dust to air, as the activities can be undertaken in accordance with permitted activity rules in the Canterbury Air Plan. Dust control measures will be put in place as required in accordance with ECan's Erosion and Sediment Control Toolbox.
66. Noise will be managed in accordance with noise standards in the Christchurch District Plan.
67. The greatest traffic movements are likely to be associated with importing dam construction materials to the site, estimated to involve around 2,500 truck and trailer movements over a three month period. Traffic will use the former Christchurch Activity Park access road or McVicar Drive. While potentially being a nuisance for close neighbours and users of Worsleys Road, the increase in heavy vehicle traffic is necessary to ensure appropriate material is available for the construction of the dam core. Any effects will be temporary in nature and are outweighed by the significant positive benefits of the dam construction.

Section 104(1)(b) - Policy Statements and Plans

68. The relevant planning instruments are identified in the applications documents and s42A report. These are:
 - National Policy Statement for Freshwater Management 2020 (NPS-FM)

- National Environmental Standards for Freshwater (NES-F)
 - Canterbury Regional Policy Statement (RPS)
 - Land and Water Regional Plan (LWRP)
69. The need for consents under the NES-F has been noted earlier. The NES-F does not contain objectives and policies and is not discussed further.

National Policy Statement for Freshwater Management

70. The NPS-FM has a single objective, to ensure that natural and physical resources are managed in a way that prioritises, firstly, the health and wellbeing of water bodies and freshwater ecosystems, secondly the health needs of people, and thirdly the social, economic and cultural wellbeing of people.
71. This reflects the over-arching concept of the NPS-FM, Te Mana o te Wai, which refers to the fundamental importance of water and recognises that protecting the health of the water protects the health and wellbeing of the wider environment. Te Mana o te Wai is relevant to all freshwater management.
72. Both the applicant and the Reporting Officer concluded that the applications will not frustrate the objective of the NPS-FM, and are generally consistent with the policies. The proposal aims to reduce the sediment entering the Cashmere Stream, and so will have positive effects on the health of this waterbody and the Ōpāwaho / Heathcote River downstream, and their associated ecosystems. Fish passage will be maintained. Sediment control measures will be in place to mitigate effects during the construction period. Overall, a positive effect on instream water quality should result.
73. The works will result in the loss of part of an existing natural wetland. However, in accordance with the effects hierarchy in 3.21 of the NPS-FM, adverse effects will be remedied and offset, such that there is net gain in both the quality and extent of the wetland area.
74. I therefore agree that the proposal is consistent with the NPS-FM.

Canterbury Regional Policy Statement (RPS)

75. The applicant and Reporting Officer assessed the application against relevant objectives and policies in the RPS and concluded the proposal is consistent with them. I agree, and note the following key conclusions:
- a. the works, with conditions proposed, are designed to avoid effects on fish passage and the instream ecosystem, and should result in an improvement in water quality, instream habitat and natural character over time (Objectives 7.2.1, 7.2.3 and supporting policies)
 - b. there will be a net gain in wetland quality and extent (Objectives 9.2.1, 9.2.2 and supporting policies)
 - c. the works will reduce flood hazard (Chapter 11)

- d. soil erosion will be minimised (Objective 15.2.2)

Land and Water Regional Plan

76. The LWRP, including proposed Plan Change 7 to the LWRP, contains a suite of objectives and policies concerned with managing water and land use in order to maintain or enhance water quality, the intrinsic values associated with water bodies and their riparian margins, and the ecosystems that they support. There are a number of relevant provisions related to the effects of damming, instream works, and activities affecting wetlands, which are identified in the application and s42A report. The plan also recognises the importance of regionally significant infrastructure. The plan was prepared prior to the most recent version of the NPS-FM taking effect; however, it includes the policies required to be inserted by the NPS-FM. It gives effect to the RPS.
77. The applicant and Reporting Officer both concluded that the proposal was consistent with the provisions of the plan. I agree with their assessment.

Section 104 (1)(c) - any other matters

Iwi management plans

78. There are two relevant iwi management plans, the Mahaanui Iwi Management Plan (MIMP) and the Ngāi Tahu Freshwater Policy Statement.
79. The Ngāi Tahu Freshwater Policy Statement focuses on restoring and protecting the mauri of freshwater resources, maintaining healthy mahinga kai populations and habitats and enabling kaitiakitanga. The MIMP outlines issues and policy in relation to wai Māori, land use activities and restoration of indigenous biodiversity.
80. As discussed earlier, Mahaanui Kurataiao were consulted and advised that the applications were generally consistent with the MIMP. New wetland planting will offset the loss of part of the existing natural wetland. Te Ngāi Tūāhuriri Rūnanga did not consider themselves adversely affected by the proposals.

Sections 105(1) and section 107 – Matters relevant to discharge applications

81. Section 105 requires that when considering an application for a discharge permit, regard must be had to:
 - a. the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
 - b. the applicant's reasons for the proposed choice; and
 - c. any possible alternative methods of discharge, including discharge into any other receiving environment.
82. The discharge permit is to authorise the discharge of water dammed and diverted by the dam, within 100m of the wetland. It does not authorise the discharge of sediment-laden water during construction or stormwater from the developed

site. There should be no adverse effects of the discharge on the receiving environment, and there are no reasonable alternatives to the discharge.

83. Section 107 prevents granting discharge permits if certain effects will arise after reasonable mixing. For the reasons given above, these effects are unlikely to occur.

PART II OF THE RESOURCE MANAGEMENT ACT 1991

84. Consideration of an application under s 104 is 'subject to Part 2' RMA. In *Davidson*⁶ the Court of Appeal determined that:
- a. in contrast to plan change processes, RMA decision-makers should usually consider Part 2 when making decisions on resource consents (that is the implication of the words 'subject to Part 2' in s 104);
 - b. where the relevant plan provisions have clearly given effect to Part 2, there may be no need to do so as it "*would not add anything to the evaluative exercise*". It would be inconsistent with the scheme of the RMA to override those plan provisions through recourse to Part 2;
 - c. use of conditional language ("may") suggests a residual discretion to consider Part 2 RMA.
85. The LWRP was prepared prior to the NPS-FM 2020 taking effect. While the plan appears to be consistent with the NPS-FM, I consider Part 2 for completeness.

Section 6, 7 and 8

86. Sections 6 and 7 identify matters that must be recognised and provided for, and matters to which particular regard should be had. Section 8 requires that the principles of the Treaty of Waitangi are taken into account. Of particular relevance are sections:
- 6(a) – preservation of the natural character of wetlands and rivers
 - 6(c) – the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna
 - 6(e) - the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wahi tapu and other taonga
 - 6(h) – the management of significant risks from natural hazards
 - 7(a) – kaitiakitanga
 - 7(b) - the efficient use and development of natural and physical resources
 - 7(d) - the intrinsic values of ecosystems
 - 7(f) - maintenance and enhancement of the quality of the environment, and
 - Section 8

⁶ RJ Davidson Family Trust v Marlborough District Council [2018] NZCA 316

87. The effects on these matters have been discussed earlier. Adverse effects during construction will be minor, with overall positive long-term effects on biodiversity, water quality, amenity, values of significance to Māori, and flood risk for downstream properties.
88. The purpose of the Act is to promote the sustainable management of natural and physical resources. Sustainable management involves managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety. However, the Act promotes the use and development of natural resources only while:
- (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
 - (b) safeguarding the life-supporting capacity of air, water, soil and ecosystems; and
 - (c) avoiding, remedying or mitigating any adverse effects of activities on the environment.
89. The application allows the community to provide for its health and safety, and as a consequence its wellbeing, while improving the life-supporting capacity of water and its associated ecosystems. In light of my findings on effects and the proposal's consistency with relevant planning documents, I consider that the activity meets the purpose of the Act.

DURATION

90. The applicant requested a duration of 35 years for the consents to dam, divert and discharge water, and the consent to construct and operate the dam and a duration of five years for the consents for earthworks, land disturbance and vegetation clearance, which are required only for the construction of the dam. The Reporting Officer, having considered relevant factors developed through case law on appropriate durations, agreed that these durations were appropriate. I concur.

CONDITIONS

91. Following discussion at the hearing, the applicant provided a revised set of conditions, with which the Reporting Officer generally agreed. The one exception was the need for an emergency action plan. I have discussed this condition earlier. In all other respects, I have adopted on the applicant's proposed conditions, and consider they will appropriately constrain and manage the activity to ensure effects are as anticipated.

DECISION

92. For the reasons given above I grant consents the consents applied for, to dam, divert and discharge water, undertake earthworks, land disturbance and vegetation clearance for the duration requested, subject to the conditions in Annexure A.

DATED the 28 November 2021

Signed: 

E Christmas, Independent Hearing Commissioner